



The Future <sup>is</sup>  
Already  
the Case

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Annual Report  
2018

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## IDGC of Centre

IDGC of Centre, PJSC (the Company) is a Russian power grid company primarily engaged in providing power transmission and grid connection services.

With the Executive Office sitting in Moscow, the Company's branches operate in Belgorod, Bryansk, Voronezh, Kursk, Kostroma, Lipetsk, Orel, Smolensk, Tambov, Tver, and Yaroslavl.

In September 2017, powers of the sole executive body of PJSC IDGC of Center and Volga Region were delegated to IDGC of Centre. The Decision was approved by the Board of Directors of PJSC ROSSETI and by the Annual General Meeting of Shareholders of IDGC of Center and Volga Region.

## Scope of the Report

The information contained herein, including financials based on the RAS accounting (financial) statements, comprises IDGC of Centre' performance results.

This Annual Report is based on the information available to IDGC of Centre as at the date of this Report. The document contains an overview of the Company's performance in 2018 and its historical evolution since 2016.

Information about the members of the Company's management and supervisory bodies, committees of the Board of Directors, Corporate Secretary, and their remuneration is disclosed herein subject to the Russian laws on personal data.

## Disclaimer

The Annual Report contains forward-looking statements that reflect expectations of the Company's management. The forward-looking statements are not based on actual circumstances and include all statements regarding the intentions, opinions or current expectations of the Company regarding the results of its operations, financial position, liquidity, growth prospects, strategy and industry IDGC of Centre operates in. By their nature, such forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future.

We generally use words such as 'intends', 'aims', 'expects', 'estimates', 'plans', 'believes', 'anticipates', 'may', 'should', 'will', 'continues' and other similar to identify the predictive nature of such looking statements, and assume that the occurrence of specified events is dependent on various factors. Therefore, future

performance may differ from current expectations, and users of the Report should not rely exclusively on the information presented therein.

In addition to official data on IDGC of Centre's performance, this Annual Report contains information received from third parties. Such information has been received from sources the Company believes to be reliable. However, the Company does not warrant that third-party information is accurate, complete or comprehensive.

IDGC of Centre cautions that forward-looking statements are not guarantees of future performance. The Company's actual performance results, financial position, liquidity, and evolution of the industry it operates in may significantly differ from those contained in the forward-looking statements set forth herein. Furthermore, even if the above indicators are consistent with the forward-looking statements contained herein, the said results and developments may not be indicative of similar results or developments in future.

The Company makes no warranties or representations, whether express or implied, and bears no liability for any losses incurred by individuals or entities for any reason, whether directly or indirectly, as a result of using the forward-looking statements contained herein. These individuals and entities should not rely solely on the forward-looking statements contained herein, as they do not represent the only possible scenario.

Save as provided for by the Russian laws, the Company undertakes no obligation to update or confirm its expectations and estimates, or publish updated and revised forward-looking statements contained herein as a result of future events or new information.

# 2018 HIGHLIGHTS

1

**In February, S&P upgraded the long-term credit rating of IDGC of Centre from “BB–” to “BB” with Stable outlook**

Short-term rating was affirmed at “B”. According to S&P, the Company shows solid performance in its core activities.

RAEX Rating Agency (Expert RA) also assigned to IDGC of Centre a “ruAA” long-term national credit rating with Stable outlook.

2

**IDGC of Centre went ahead with the concept of 2030 Digital Transformation of the Power Grid Complex**

The Company’s specialists were involved in the conceptual design of a unified digital communication network for the domestic Power Grid Complex.

The goal of the project is to create a highly automated real-time managed data transmission network supporting self-diagnostics and self-repairing functions.

3

**IDGC of Centre, Rostec, and the Government of the Yaroslavl Region initiated a trilateral cooperation agreement**

The Agreement stipulated the establishment of an intelligent innovation cluster of digital networks in the region and the delivery of a project for the manufacture of smart electricity meters.

Likewise, agreements were signed on the expansion of the Power Grid Complex with the Belgorod and Voronezh Regions.

4

**Igor Makovskiy was appointed as General Director of IDGC of Centre**

Igor Makovskiy, a newcomer from JSC Yantarenergo, will deal with digital transformation of power grids in the Central and Volga Federal Districts.

# STATEMENT BY THE CHAIRMAN OF THE BOARD OF DIRECTORS AND GENERAL DIRECTOR



## Dear shareholders, investors, customers, partners and employees of IDGC of Centre,

Just like previous years, 2018 was not smooth sailing for the Company. Nevertheless, IDGC of Centre managed to provide reliable and high-quality power supply to customers and delivered positive financial and operational results.

To a large extent, this was achieved through the efforts of the Company's team to improve production efficiency and optimize costs. Thus, at the end of 2018, revenues under RAS of IDGC of Centre totalled RUB 93.9 bn, and power transmission services provided amounted to 47 bn kWh.

IDGC of Centre funded more than RUB 14.5 bn into the Investment Programme, RUB 9.2 bn of which were spent on retrofitting and reconstruction, and RUB 5.2 bn - on new construction and expansion of already existing power grid facilities. The Company commissioned over 376 MVA of transformer capacity and 3.6 thousand km of power transmission lines.

Many of the power facilities built and reconstructed by IDGC of Centre are not only of appreciable infrastructural importance, but also contribute to improving the reliability of power supply and exploiting the investment potential of the Company's footprint. For one thing, in the Valuysky district of the Belgorod Region, IDGC of Centre built and commissioned the 110/10 kV Vatutinskaya high-voltage substation. The degree of equipment and instrumentation of this station made it one of the most sophisticated stations in the region. In the Belgorod and Smolensk Regions, IDGC Centre upgraded the 110/10 kV Sheino substation and the 110/35/10 kV Vyazma-1 substations using the most up-to-date and innovative equipment.

Being committed to discharging its duties on power grid connection of various categories of consumers - from large industrial enterprises and production sites to small and medium businesses, households and public amenities, in 2018 the Company satisfied 40 thousand grid connection contracts with the total connected loads amounting to 868 MW. Among other things in this area, the Company deserves special credit for connecting the second extension of the manufacturing complex of JSC HMS Livgidromash, a leading manufacturer of pumping equipment in the Russian Federation, and a new high-tech cardiology centre in Stary Oskol with an annual capacity of up to 8 thousand surgeries.

IDGC of Centre is no less scrupulous about the provision of reliable power supply to consumers, which is especially important during the heating period. By the middle of November 2018, IDGC of Centre obtained a heating season readiness certificate. It is worth mentioning that in 2018 the Ministry of Energy of the Russian Federation for the first time assessed the level of readiness of electric power industry entities by a new methodology setting the estimated index of the actual condition of power grid equipment as a key parameter. Within the prescribed time limits and in full compliance with the requirements specified, the Company made all reasonable arrangements to prepare for the winter period.

In the meantime, IDGC of Centre made a prominent progress in the expansion of additional services and rendered them at a high quality to 160 thousand customers. The revenues received by the Company amounted to RUB 1.1 bn and exceeded the targets by 17%. The Company will keep a focus on this area, since increasing the non-tariff sources of income still remains one of our priorities.

In 2018, unprecedented in scale training drills held by ROSSETI's Group of Companies in the Republic of Dagestan and our in-house drills in the Tver Region were of exceptional importance for power engineers of IDGC of Centre. Efforts of more than 900 employees of the Company were required to successfully restore reliable power supply to the households of 83 thousand residents of the Karabudakhkentysky district of the Republic of Dagestan.

Training drills in the Tver Region turned out to be even more grand-scale. Within three months, the Company's power engineers cleared 12.7 thousand hectares of right-of-ways of power transmission lines, replaced 12 thousand overhead line supports and towers, repaired 327 transformer substations, and eliminated 34 thousand emergency defects at 22 thousand km of power transmission lines. For a range of indicators, the target parameters of tasks issued at the start of the drills were overfulfilled almost by half. Moreover, these drills were the first to utilise unmanned aerial vehicles (UAVs) for quality monitoring and to test various samples of new machinery and equipment. The successful field application of these innovations opened the way to roll them out across all branches of the Company.

In 2018, IDGC of Centre continued its efforts on improving the Corporate Governance System. Thus, for the first time the Company prepared and published a Sustainability Report following the results of 2016-2017, which passed public hearings. This initiative is focused on upgrading investment appeal, strengthening the confidence of stakeholders, and improving the Company's goodwill.

Today, the energy industry stands on the verge of fundamental transformations. The country's top leadership and the management of ROSSETI embarked on the digitalisation of the national economy and the domestic Power Grid Complex. For power grid facilities, this means the revolutionary restructuring of the entire infrastructure,

technological and management processes based on digital technologies and big data analysis, and, ultimately, the transition to new forms of consumers' relationships.

IDGC of Centre cannot remain uninvolved but support this crucial for Russia process. Therefore, as far back as 2018, IDGC of Centre initiated preparations for the digital transformation. The Investment Programme was adjusted for the foreseeable future, subject to a higher share of costs for implementing the Digital Transformation Strategy, the pilot regions of the Programme were identified, including the Belgorod and Voronezh Regions. In other regions of its footprint, the Company picked out sites for the Digital RPG project.

With all the necessary material resources, highly professional staff and management team, the Company faces the future with no fear and looks forward to further fruitful cooperation with its shareholders, investors and all stakeholders in the further evolution of the Company and the achievement of its digital enablement and innovative development plans.

Chairman of the Board of Directors  
of IDGC of Centre

**Alexander Kazakov**

General Director of IDGC of Centre

**Igor Makovskiy**

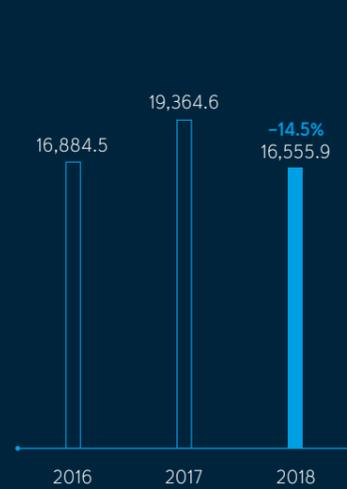
# PERFORMANCE HIGHLIGHTS

## Financial and Operating Highlights

Revenues (RAS), RUB mn



EBITDA' (RAS), RUB mn



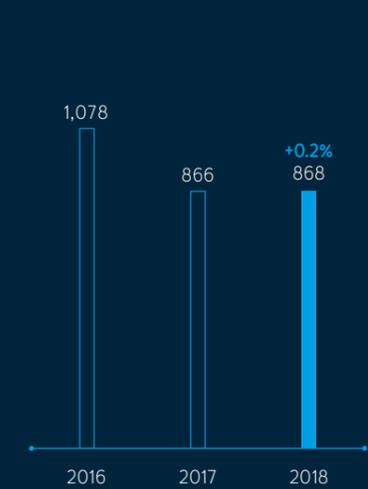
Net profit (RAS), RUB mn



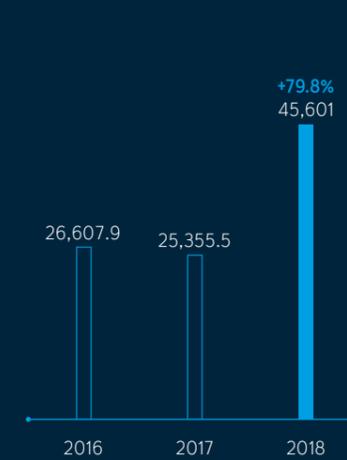
Customers (power transmission services provided), mn kWh



Customers (connected loads), MW



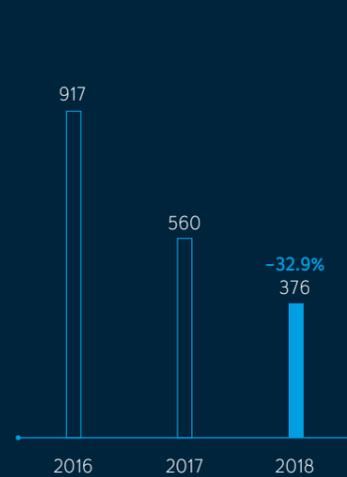
Suppliers (procurement), RUB mn



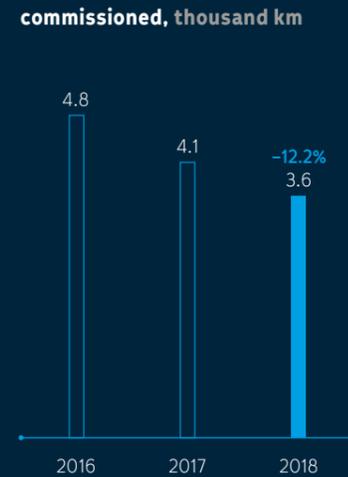
CAPEX, RUB mn (excl.VAT)



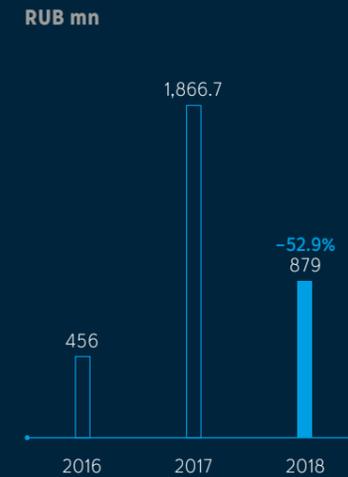
New transformer capacity, MVA



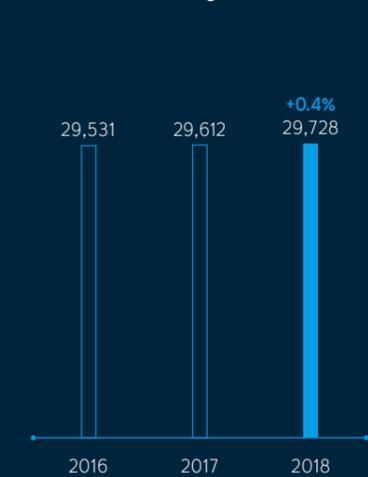
Power transmission lines commissioned, thousand km



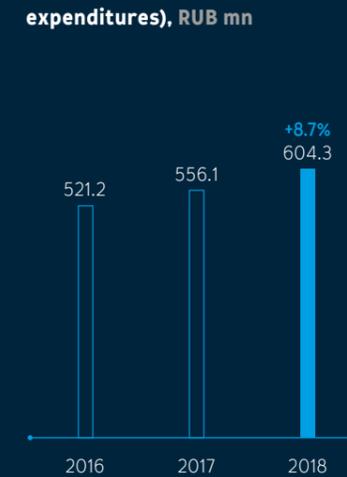
Shareholders (dividend payouts), RUB mn



Employees (average headcount)



Employees (health and safety expenditures), RUB mn



EBITDA was calculated as Profit before tax + Interest payable + Depreciation = Line 2300 (RAS Form No. 2) - Line 2330 (RAS Form No. 2) + Line 6514 (RAS Form No. 2.1) + Line 6554 (RAS Form No. 2.1) + Line 6564 (RAS Form No. 2.1).

## IDGC OF CENTRE'S INVESTMENT CASE

**879 RUB mn**  
allocated to dividend payments

The Company has been paying dividends for eight years in a row. The Dividend Policy is aimed at regular payments, given the need to enhance investment appeal and ensure the reliability and quality of power supply<sup>1</sup>.

**90.5%**  
high information transparency

Based on the Perception Study results, IDGC of Centre's level of disclosures exceeds the level of most peer companies<sup>2</sup>.

### Leader by power grid assets

IDGC of Centre is a leader by the length of power transmission lines and transformer capacities among all IDGCs.

### The status of a key infrastructure company in central Russian regions with a steady demand for services

The Company holds a dominant position in the economically developed regions of European Russia and plays a key infrastructure role<sup>4</sup>.

## NCGR 7+

“Advanced Corporate Governance Practice”:  
High Corporate Governance Rating

IDGC of Centre follows the best practice in corporate governance to continuously improve stakeholder relations<sup>5</sup>.

**34%**  
free-float

The Company's shares are traded on the Moscow Exchange, whose Index Committee has assigned a high rating to the free-float shares<sup>6</sup>.

<sup>1</sup> For more details on the Company's Dividend Policy, see page 147.

<sup>2</sup> Positive image index. Target – 75%.

<sup>3</sup> For more details on the Company's transparency, see the Shareholder and Investor Relations section.

<sup>4</sup> For more details on the Company's performance, see the Development Strategy and Operating Report sections.

<sup>5</sup> For more details on the Company's rating, see the Corporate Governance section.

<sup>6</sup> For more details on the Company's shares, see page 140.

## OUTSTANDING SECURITIES

### Shares

**42,217,941,468**

ordinary shares with a par value of 10 kopecks (RUB 0.1) each

### Listing (shares):

the Second Tier in the Moscow Exchange quotation list

### Stock Indices

#### MCXSM

Index for Mid- and Small-cap Stocks

#### MOEXRCI

Regulated Company Index

### Bonds

Series BO-04, BO-05 and BO-06 exchange-traded bonds with a total par value of

**15 RUB bn**

and a 10-year maturity on the Moscow Exchange

### Listing (bonds):

Series BO-04, BO-05 - the Third Tier  
Series BO-06 – the Second Tier of the Moscow Exchange quotation list

#### MOEXEU

Electric Utilities Index

#### MOEXBMI

Broad Market Index

## CREDIT RATINGS

### Standard & Poor's: “BB/B”, Stable outlook

On 8 February 2018, Standard & Poor's revised upwards the long-term credit rating of IDGC of Centre from “BB-” to “BB” with Stable outlook and affirmed the Company's “B” short-term rating.

### RAEX Rating Agency (Expert RA): “ruAA” with Stable outlook

On 19 February 2018, RAEX (Expert RA) assigned to IDGC of Centre the “ruAA” long-term national credit rating with Stable outlook.

# SHAREHOLDING STRUCTURE

Major shareholders as at 7 May 2018, %



PJSC ROSSETI	50.2
Genhold Limited	15.0
Russian Federation	0.5
Others	34.3

Major shareholders as at 31 December 2018, %



Depository and Corporate Technologies	50.2
National Settlement Depository	44.1
Russian Federation	0.5
Others	5.2

## Capitalisation

In 2018, there were no changes in the list of persons entitled to dispose of at least 5% of the votes corresponding to the Company's voting shares.

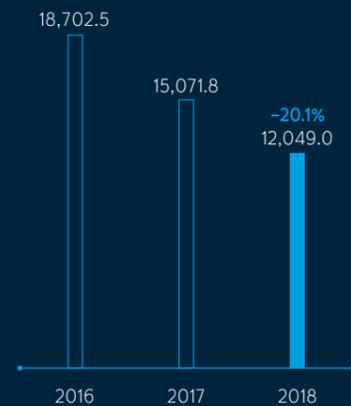
Throughout 2018, capitalisation was trending downwards, the similar pattern was true for Electric Utilities Index. At the end of the year, the Company's capitalisation decreased by 20.1% and amounted to RUB 12,049 mn.

Favourable news on the approval of the revised Dividend Policy, upgrading of the long-term credit rating and returning to the agenda items on resolving the legislative problems of the Power Grid Complex failed to reverse the situation on IDGC of Centre stock market.

The main drivers behind the reduced capitalisation in the reporting year were:

- publication of annual and quarterly financial statements with operating results worse than those in similar periods of previous years;
- market trends under the pressure of news about the imposition of sanctions against Russia.

Capitalisation, RUB mn



# CORPORATE STRUCTURE



# MANAGEMENT SYSTEMS

The Company has adopted and currently has in place the following management systems:

## 1. Quality Management System

The Quality Management System is an integral part of IDGC of Centre's overall management system and is designed to ensure high service

quality in line with the requirements of regulatory documents, meet customers' needs and expectations, and satisfy all stakeholders,

including the Company's employees, shareholders, investors, and partners.

## 2. Energy Management System

The Energy Management System is a tool of IDGC of Centre's overall management system allowing

for continuous investigation to get information on power distribution and consumption level at an enterprise,

and optimal power consumption both for production and non-production needs.

## Key Operating Results of the Management Systems

- Increased reliability and stability of electricity supply.
- Enhancing the energy efficiency.
- Enhancing the quality level of grid connection services.

- In general, Management Systems demonstrated positive operating results in 2018.

The Company's Management Systems comply with the requirements of ISO 9001 (GOST R ISO 9001), ISO 50001 (GOST R ISO 50001) international standards.

### Availability of Certificates

IDGC of Centre	Management System/Certificate validity		Certification authority
	ISO 9001 <sup>1</sup>	ISO 50001 <sup>2</sup>	
Certificates apply to the entire Company	22 May 2020	11 April 2019	"Russian Register" Certification Association

<sup>1</sup> Quality Management System.

<sup>2</sup> Energy Management System

# KEY PERFORMANCE INDICATORS

Key Performance Indicators of the Company's General Director (hereinafter - KPIs) are dictated by the provisions of clause 53 of Article 15.1 of the Company's Articles of Associations and decisions of the Board of Directors on the approval of the list of such KPIs and their targets.

## ANNUAL KPIs

KPIs	Results achieved in 2017	2018 target <sup>3</sup>
Consolidated net cash flow	2,367.7 RUB mn	≥ 85.2 RUB mn
Reduction of unit operating expenses (costs)	6.8%	≥ 2.0%
Increase of utilisation of power supply capacity	Achieved	Achieved
Level of energy losses	9.86%	≤ 10.83%
Reduction in unit investment costs	0.94	≤ 1.00
Increase in labour productivity	3.73%	≥ 2.00%
Efficiency of innovations	104%	≥ 90%
Complying with the commissioning schedule	101%	≥ 90%
Complying with grid connection time-frames	1.0	≤ 1.1
Securing the reliability of services	0.59	≤ 1.00

As of Q1 and Q2 2018, all KPI targets (100%) were achieved. Reports on the achievement of Q3 & Q4 2018 and Y2018 indicators, given the time-limits and procedure for preparing reports, which are the reference for their calculation at the time this Annual Report is drafted, were

not scrutinised by the Company's Board of Directors.

2018 vs 2017 values are given in the Table.

Key Performance Indicators adopted at the Company

are the basis for the variable remuneration of the management – a specific ratio in the amount of paid bonuses is set for each indicator, quarter and annual bonuses are paid subject to the fulfilment of relevant KPIs.

<sup>3</sup> Approved by the decision of the Company's Board of Directors dated 25 December 2018 (Minutes No.44/18 dated 25 December 2018).

# HIGH-TECH POWER GRIDS

We offer a risk-oriented management system based on digital technologies and big data analysis

Already  
the case:

**100%**

substations already have in place systems with different observability levels

## 02.

### DEVELOPMENT STRATEGY



# MARKET OVERVIEW

## Electric Power Industry of Russia

Electric Power Sector in Russia



Electricity generation: about 700 power plants with an aggregate capacity of over 235,305.56 MW

- Management of the Unified National Electricity Grid of Russia
- Electricity transmission over high-voltage (220 kV and above) grids

Electricity transmission and distribution over 0.4-110 kV grids

Sales of electricity and capacity to consumers

### Condition of the Unified Energy System of Russia

According to the Report prepared by JSC SO UPS, electricity consumption at the Unified Energy System (UES) of Russia amounted to 1,055.6 bn kWh in 2018 (+1.5% year-on-year). The total electricity consumption in Russia in 2018 amounted to 1,076.1 bn kWh (+1.6% year-on-year).

maximum on 24 December 2018 and totalled 151,877 MW (+0.5% year-on-year). The consumption increased to 242,565.2 mn kWh across interconnected power systems of Centre (OES of Centre) (+1.7% year-on-year).

factor: in February, March, November, and December 2018 the energy system witnessed a significant drop of monthly average ambient temperature below the 2017 level. In 2018, the growing power consumption was mainly due to the increase of power demand of the metallurgical and woodworking enterprises, oil and gas pipeline and railway transport facilities.

The electric power consumption in UES of Russia reached its

The growth of electricity and capacity consumption in UES of Russia in 2018 was driven by the temperature

### The Macroeconomic Factors Affecting the Industry and the Company

- The volume index of GDP stood at 102.3% vs 101.6% year-on-year.
- In 2018, the production index for the activity "Production and distribution of electricity, gas and water; air conditioning" amounted to 101.6% as compared to 2017.
- In 2018, the consumer price index totalled 104.3% since the beginning of the year vs 102.5% year-on-year.
- As at 31 December 2018, the key rate of the Bank of Russia was 7.75%. The resolution adopted by the Board of Directors of the Bank of Russia as at 14 December 2018 on raising the key rate to the specified level is proactive and aimed at limiting the inflation risks that are remaining high, particularly in the short-term perspective.
- Decree of the Government of the Russian Federation No. 1209-r dated 9 June 2017 "The General Layout Plan for Electricity Generation Facilities until 2035" was published, thus determining the long-term development scenario for the electric power industry till 2035.

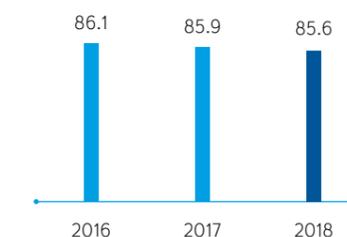
## Position in the Industry

IDGC of Centre is a key infrastructure company in Central Russian regions with stable high demand for Company's services.

**85.6%**  
share in the power transmission market in 2018  
-0.3 p.p.

**88.5%**  
share in the grid connection market  
-0.1 p.p.

Dynamics of the share of IDGC of Centre in the power transmission market, %



### Assets operated by IDGC of Centre

Asset	Unit	2018
0.4 kV-110 kV substation	units	102,472
Installed capacity (total)	MVA	54,010.8
ROW length of 0.4 kV-110 kV overhead lines	km	372,394.6
Length of 0.4 kV-110 kV cable lines	km	20,509.4

The largest territorial grid organisations (TGO) within IDGC of Centre's footprint

### Power Transmission

	Share, %
LLC Bryanskelektro	25.0
MUE Voronezh Municipal Power Grid	7.1
JSC Kursk Power Grid	14.5
JSC Lipetsk City Power Company	16.2
JSC Oreoblenergo	14.8
JSC Tambov Power Grid Company	13.3
MUE Tvergorenergo	4.9

### Grid Connections

JSC Oboronenergo	JSC Tambov Power Grid Company
LLC United Power Grid Company	JSC Tambov Utility Systems
LLC Bryanskelektro	MUE Tvergorenergo
MUE Voronezh Municipal Power Grid	LLC Opora
JSC Kursk Power Grid	JSC Rybinsk Municipal Power Grid
JSC Lipetsk Municipal Energy Company	JSC Oreoblenergo

### Revenue Structure (RAS), RUB mn



Power transmission	90,015.4
Grid connection	1,863.9
Electricity sales	530.0
Other	1,464.2

**1,405.4**  
RUB mn

Net profit (RAS)  
-30.8%

**29,700**  
persons

Average headcount  
+0.4%

## Benchmarking

### Total number of power grids, thousand conventional units

No. 1		Company Name	2018
		<b>IDGC of Centre</b>	<b>2,294.6</b>
		MOESK	1,724.1
		IDGC of Siberia	1,609.3
		IDGC of Center and Volga Region	1,596.5
		IDGC of Volga	1,267.2
		IDGC of North-West	1,151.9
		IDGC of South	1,132.6
		IDGC of Northern Caucasus	672.8
		Kubanenergo	665.8
		Lenenergo	645.9
		IDGC of Urals	611.5
		TDC <sup>1</sup>	112.6

### Length of power transmission lines, thousand km

No. 1		Company Name	2018
		<b>IDGC of Centre</b>	<b>404.3</b>
		IDGC of Siberia	263.9
		IDGC of Center and Volga Region	261.9
		IDGC of Volga	217.9
		IDGC of North-West	176.0
		IDGC of South	162.4
		MOESK	155.8
		IDGC of Northern Caucasus	132.9
		IDGC of Urals	128.0
		Kubanenergo	91.1
		Lenenergo	74.5
		TDC	19.6

### Daily average number of transactions on the Moscow Exchange

No. 4		Company Name	2018
		Lenenergo, preference shares	735
		IDGC of Volga	681
		IDGC of Center and Volga Region	535
		<b>IDGC of Centre</b>	<b>309</b>
		MOESK	183
		IDGC of South	168
		IDGC of Urals	151
		Lenenergo, ordinary shares	141
		IDGC of North-West	121
		IDGC of Siberia	49
		IDGC of Northern Caucasus	41
		Kubanenergo	15
		TDC, preference shares	9
		TDC, ordinary shares	2

### Trading volume on the Moscow Exchange, RUB bn

No. 4		Company Name	2018
		Lenenergo, preference shares	7.81
		IDGC of Center and Volga Region	5.00
		IDGC of Volga	3.59
		<b>IDGC of Centre</b>	<b>1.17</b>
		IDGC of Urals	0.81
		MOESK	0.59
		IDGC of North-West	0.43
		Lenenergo, ordinary shares	0.42
		IDGC of South	0.39
		IDGC of Siberia	0.10
		IDGC of Northern Caucasus	0.03
		TDC, preference shares	0.02
		Kubanenergo	0.01
		TDC, ordinary shares	0.00

### Revenue (RAS), RUB bn

No. 3		Company Name	2018
		MOESK	156.5
		IDGC of Center and Volga Region	93.9
		<b>IDGC of Centre</b>	<b>93.9</b>
		IDGC of Urals	89.6
		Lenenergo	76.4
		IDGC of Volga	63.6
		IDGC of North-West	61.1
		IDGC of Siberia	55.6
		Kubanenergo	46.4
		IDGC of South	36.4
		IDGC of Northern Caucasus	17.0
		TDC	6.7

### EBITDA<sup>2</sup> (RAS), RUB bn

No. 4		Company Name	2018
		MOESK	37.9
		Lenenergo	26.5
		IDGC of Center and Volga Region	21.8
		<b>IDGC of Centre</b>	<b>16.6</b>
		IDGC of Volga	11.3
		IDGC of Siberia	8.7
		IDGC of Urals	7.3
		Kubanenergo	7.2
		IDGC of North-West	6.8
		IDGC of South	6.7
		IDGC of Northern Caucasus	5.0
		TDC	0.6

### Net profit (RAS), RUB bn

No. 5		Company Name	2018
		Lenenergo	10.4
		IDGC of Center and Volga Region	9.3
		IDGC of Volga	4.2
		MOESK	4.0
		<b>IDGC of Centre</b>	<b>1.4</b>
		IDGC of South	1.1
		IDGC of Siberia	0.8
		IDGC of Urals	0.8
		IDGC of North-West	0.6
		Kubanenergo	0.2
		TDC	0.1
		IDGC of Northern Caucasus	-2.3

### Dividend pay-out in 2017 (RAS), RUB mn

No. 6		Company Name	2017
		IDGC of Center and Volga Region	4,535.7
		IDGC of Volga	2,794.8
		Lenenergo	2,420.5
		IDGC of Urals	1,888.5
		MOESK	1,540.6
		<b>IDGC of Centre</b>	<b>879.0</b>
		IDGC of South	377.3
		IDGC of Siberia	369.6
		Kubanenergo	321.6
		TDC	33.0
		IDGC of North-West	0.0
		IDGC of Northern Caucasus	0.0

### Market capitalisation, RUB bn

No. 7		Company Name	28 December 2018
		Lenenergo	53.3
		MOESK	32.1
		IDGC of Center and Volga Region	29.9
		IDGC of Volga	18.4
		IDGC of Urals	16.1
		Kubanenergo	14.8
		<b>IDGC of Centre</b>	<b>12.0</b>
		IDGC of Siberia	9.6
		IDGC of North-West	5.3
		IDGC of South	3.7
		IDGC of Northern Caucasus	2.1
		TDC	1.4

<sup>2</sup> EBITDA was calculated as Profit before tax + Interest payable + Depreciation & Amortisation = Line 2300 (RAS Form No. 2) – Line 2330 (RAS Form No. 2) + Line 6514 (RAS Form No. 2.1) + Line 6554 (RAS Form No. 2.1) + Line 6564 (RAS Form No. 2.1).

<sup>1</sup> Tomsk Distribution Company.

# DEVELOPMENT IN LINE WITH STRATEGIC PRIORITIES

## Mission

Ensuring reliable and stable electricity supply to meet the evolving needs of the economy and society with fair transparent pricing that makes our services affordable to consumers.

## Caring for Stakeholders' Expectations



**1 Investor Community**  
The Company's securities are a reliable investment that is callable, highly liquid and offers attractive yields.

**2 Consumers**  
We deliver services in the shortest time possible, ensuring stable and reliable electricity supply and timely grid connections based on transparent procedures.

**3 Local Authorities**  
We ensure support for local economies by matching electricity demand in the regional markets with our transmission capacity. We are a key partner of executive authorities across the Russian Federation in planning and delivering regional programmes for development of territories and have built a reputation as a responsible taxpayer and employer.

**4 Employees**  
We are a well-structured company, with a transparent and clear corporate governance framework. We provide opportunities for employees to fully realise their personal potential, and offer fair remuneration.

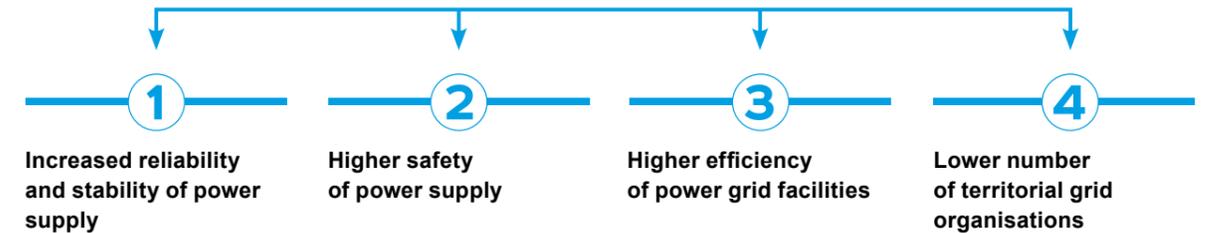
## Strategic Objectives

In line with the expectations of its major stakeholders, the Company focuses on the following principle activities.

## 2030 ENERGY STRATEGY

### Strategy of Retailers

### Strategic objectives of IDGC of Centre



**1 Increased reliability and stability of power supply**  

- pursuing the Uniform Technical Policy;
- reducing the number of faults and failure rates;
- improving investment performance;
- improving procurement performance;
- improving customer service, etc.

**2 Higher safety of power supply**  

- pursuing the programmes to reduce (prevent growth in) occupational injuries and injuries to third parties at the facilities of IDGC of Centre;
- pursuing the Environmental Policy focused on its environmental performance

**3 Higher efficiency of power grid facilities**  

- reducing electricity losses in transmission and distribution grids;
- reducing resource consumption for business needs;
- reducing controllable costs (per unit operating costs);
- pursuing the Innovative Development Programme, etc.

**4 Lower number of territorial grid organisations**  

- consolidating grid assets by lease and acquisition of electrical grid facilities across the Company's geography

## 2030 DIGITAL TRANSFORMATION<sup>1</sup>

Change of process logics and Company transition to risk-oriented management based on digital technologies and big data analysis<sup>2</sup>

<sup>1</sup> The 2030 Digital Transformation Concept was developed pursuant to Decree No. 203 of Russian President, Vladimir Putin, dated 9 May 2017 "On the Strategy for the Development of the Information Society in the Russian Federation for 2017 - 2030" and No. 204 dated 7 May 2018 "On the National Goals and Strategic Tasks of the Development of the Russian Federation for the Period until 2024", as well as Decree No. 1632r of the Government of the Russian Federation dated 28 July 2017 approving the programme "Digital Economy of the Russian Federation".

<sup>2</sup> For more details, see page 24.

## Strategy Progress

Priorities	Progress	2016	2017	2018	2019 (plan)
<b>1</b> <b>Increased reliability and stability of power supply</b>	Programmes to improve reliability, including:				
	prevention of major incidents	0	0	0	0
	Repair and maintenance programmes, including:				
	repair and maintenance of 0.4 kV–110 kV power lines, km	17,026	16,228	15,285	14,007
	Repair of substations and transformer substations, units	5,233	5,111	4,547	4,182
	Investment programme, including:				
	capital investments (excl. VAT), RUB mn	13,421	11,756	12,230	13,946
	investment in retrofitting and reconstruction, RUB mn	5,478	3,933	4,769	6,870
	improvement of investment performance against 2012, %	22.7	31.1	31.7	–
	actual capacity utilisation rate, %	36	27	27	27
	Procurement plan, including:				
	financial effect achieved in procurement, %	5	3	2	5
	share of procurements through a public bidding process (by value), %	98.3	96.5	90.2	At least 96
share of procurements from a single source (vendor/supplier, contractor) in the total value of procurement, %	1.7	3.5	9.8 <sup>1</sup>	Not more than 4	
share of procurements from SMEs, %	92.9	64.9	65.2	At least 18	
<b>2</b> <b>Higher safety of power supply</b>	Programmes to reduce injury risk				
	reduction of occupational injury rates, incidents <sup>2</sup>	2	2	1	Zero growth in the number of people injured
	Programme costs, RUB mn	521.2	405.6	454.79	1,178.2
	Programmes to reduce the risk of injuries to third parties at facilities of IDGC of Centre:				
	reduction of injuries to third parties, incidents <sup>3</sup>	0	0	0	Zero growth in the number of people injured
Programme costs, RUB mn	544.3	533	591.41	123.4	
<b>3</b> <b>Higher efficiency of power grid facilities</b>	Programme to reduce electricity losses, including <sup>4</sup> :				
	Total savings from loss reduction due to organisational measures, including:	154.8 mn kWh RUB 323.2 mn	173.0 mn kWh RUB 413.6 mn	110.6 mn kWh RUB 286.5 mn	103.8 mn kWh RUB 286.3 mn
	– inclusion of unmetered supply in net delivery volume	102.5 mn kWh RUB 213.7 mn	135.3 mn kWh RUB 321.3 mn	74.4 mn kWh RUB 190.3 mn	47.2 mn kWh RUB 128.8 mn
	– payments for electricity abstracted without proper contract	18.4 mn kWh RUB 38.9 mn	15.5 mn kWh RUB 37.3 mn	11.7 mn kWh RUB 31.4 mn	–
	Savings from loss reduction due to technical measures	11.3 mn kWh RUB 24.4 mn	14 mn kWh RUB 36.3 mn	14.1 mn kWh RUB 38.6 mn	7.6 mn kWh RUB 21.7 mn
	Programmes for prospective development of electricity metering systems				
	Wider use of smart commercial and technical electricity meters, thousand units	1.51	4.3	31.3	23.9
	Energy saving and energy efficiency programmes, including:				
	Savings from electricity loss reduction measures, mn kWh	37.38	37.79	51.12	29.54
	Savings from targeted measures to reduce resource consumption for business needs, TFOE	413.6	352.39	326.41	280.61
	Innovative development programmes, including:				
Programme costs, RUB mn	614.4	507.3	851.3		
Innovation performance (KPI <sub>R&amp;D</sub> ), %	0.1	0.14	0.15		
Innovation performance (KPI <sub>Innovations</sub> ), %	4.28	3.8	6.4		
<b>4</b> <b>Lower number of TGOs</b>	Consolidation of Power Grid Assets				
	The size of consolidated grid assets (including previously signed lease agreements), including:				
	size of grid facilities, conventional units	29,069.49	31,391.60	29,610.63	Measures focused on power grid asset consolidation planned primarily for the Voronezh Region, Lipetsk Region, Orel Region, and Tver Region
	length of power transmission lines, km	5,714.06	5,638.80	5,321.42	
installed transformer substation capacity, MVA	834.87	880.59	898.01		

<sup>1</sup> Among them, the share of procurements under contracts with ROSSETI is 6.2%.  
<sup>2</sup> Industrial injuries due to a fault of Company's officials and the victims themselves.

<sup>3</sup> Injuries to third parties due to a fault of the Company.

<sup>4</sup> Savings in rubles are the reduction of unit operating expenses (loss compensation costs) by implementing the loss reduction measures.

# DIGITAL TRANSFORMATION AT THE POWER GRID COMPLEX

The 2030 Digital Transformation concept was approved by the Board of Directors of PJSC ROSSETI on 21 December 2018 in line with the May Decree of the Russian President. The Concept provides for 100% transformation of Russian power infrastructure till 2030 by introducing digital technologies. The total cost of the programme is RUB 1.3 trillion.

Digital transformation primarily involves changing of process logic and transition to risk-oriented management based on digital data. This will reduce the operating expenses and CAPEX, enhance the infrastructure adaptability, reliability, and availability, and as a result will increase the Company's shareholder value to reach the level of foreign analogues. As such, ROSSETI would actually become the country's digital bus, a data portal enabling the creation of an enormous amount of other services. Due to digital transformation, a new ecosystem embracing the innovations will be developed.

Grid digitalisation is not just a one-off event or a modern trend, but rather a present-day reality owing to a worldwide concept of distributed generation, creation of microgrids, development of energy accumulators and renewable energy sources to be installed by consumers who can even act as energy producers. In future, a large grid will be required only for metropolises and large-scale commercial production. To be ready for that, the power grid shall improve its efficiency and meet all the future requirements of consumers.

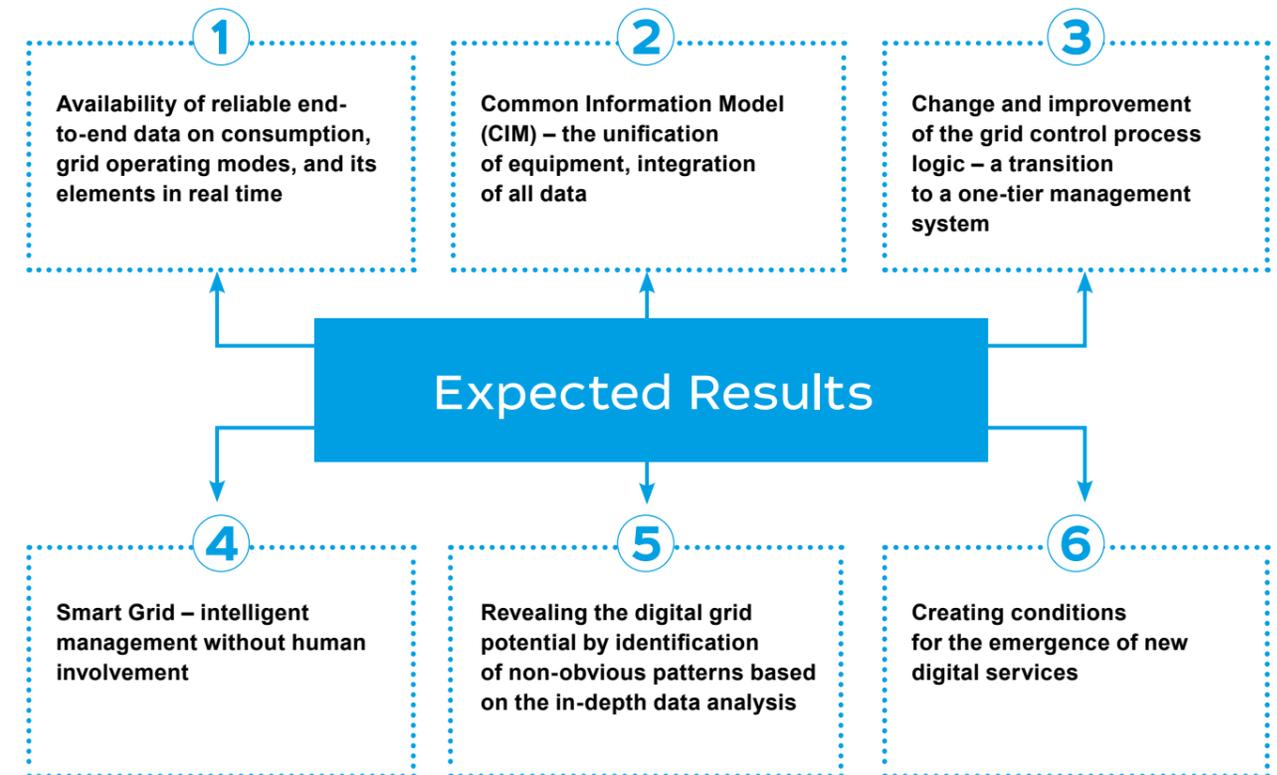
Already the case is a raising consumer demand for the advanced technological development of the grid infrastructure and service quality. The consumers also require additional services they are ready to pay for. At the same time, there is a need for improving grid availability as part of the grid connection process.

Restraining the growth of tariffs is a matter of national concern, as is improving the operating and investment performance of energy companies. The key challenge for the industry is the low efficiency of the Russian electric energy sector that causes rising tariffs and prices for consumers.

The targets under the ROSSETI's Group of Companies digital transformation are ambitious but absolutely achievable.



General Director,  
PJSC ROSSETI  
**Pavel Livinsky**



Digital transformation will enhance the reliability, efficiency, quality, and availability of electricity transmission and grid connection services, establish a new infrastructure for optimal energy transfer between the power industry entities

in the region, and develop competitive markets for related services. This project will introduce new markets and services in the power industry and contribute to the development of advanced equipment and technologies. Due to this project, if

successfully implemented, Russia would become a key stakeholder on the global market of the digital power industry.

**Output expected by 2030**

**-50%**  
SAIDI/SAIFI indices

**+10%**  
asset life

**-30%**  
operating expenses

**+50%**  
grid connection availability

**-15%**  
capital costs

**RUB 1 trillion**  
the Company's market capitalisation growth under EV/EBITDA from the current RUB 153 bn.

## Prerequisites for a Technological Breakthrough

Igor Makovskiy

General Director,  
IDGC of Centre



## The objectives of digital transformation are as follows

- 1 The Company's adaptability to new tasks and challenges
- 2 Improving the reliability performance of electric power supply to consumers
- 3 Improving operational performance
- 4 Expanding the availability of power grid infrastructure
- 5 Developing human resources and new competencies
- 6 Diversifying the Company's business through additional services

**Q: – In May 2018, the Decree “On the National Goals and Strategic Tasks of the Development of the Russian Federation for the Period up to 2024” was signed by Russian President Vladimir Putin, and in December the 2030 Digital Transformation concept of ROSSETI was approved. The situation is rapidly changing, so is the Company ready to such transformations and what are you planning to start with?**

**A: –** Digital transformation is a complicated process. It will demand to develop brand-new interaction patterns for all market participants: from consumers and employees to service organisations and educational institutions. Moreover, the Company's available business processes shall be corrected for implementing the big data processing technologies. Currently, all participants of the Digital Transformation Programme of IDGC of Centre and IDGC of Center and Volga Region for 2019-2030 clearly understand the importance of generating specific

initial conditions at the first stage to achieve the objectives. The first stage is the foundation for all subsequent modifications. We will now concentrate on implementing proven technologies that form the hardware and information basis for further development. We will start selecting algorithms for processing multi-level data arrays. According to our estimates, the technological basis generation will be completed by 2024.

**Q: – Ensuring maximum reliability of electricity supplies is an ongoing priority for any grid company. How will this basic task be addressed in the face of the total digital transformation of the industry?**

**A: –** A fundamentally different level of grid reliability will be provided by the algorithms for processing the initial data from the meters and grid monitoring devices. And this is the second stage of the digital transformation programme. In about two years (by 2026) we are intended to form a single

source of structured data and create the infrastructure for their correct consolidation and processing. Currently, we receive disaggregated data from various systems, so the next step would be the integration of existing systems using a corporate Enterprise Service Bus (ESB). The network stability will be also improved by further development of technology projects implemented during the first stage of digital transformation, with regard to the existing technologies.

**Q: – The introduction of digital technologies will greatly enhance the grid observability, thus enabling remote control over major critical processes by the Company. However, this will inevitably lead to a huge amount of initial and analytical data. How do you expect to use this resource?**

**A: –** The third stage of digital transformation involves studying the Big data work procedures by the Company's employees, implementing the protocols

for employees based on new data sources and grid control process solutions using custom-made software tools. The employee's responsibilities include operations of any complexity implying the analytics of high-level generalisation being currently unavailable even for the management, while the man-hours required for initial data processing will be almost zero. Big data will refocus the human resources to addressing the strategic development and innovation objectives instead of the routine administration of standard processes.

**Q: – What additional resources of the Company will be required for a transition to digital grid control?**

**A: –** To ensure that all remote control capabilities for the network hardware are functioning, it is essential to enhance the overall performance of the Company's computer equipment. But the top-priority and even more ambitious objective is to improve the reliability and safety of power

generating equipment. For example, to prevent any blackouts or collapses, the relay protection terminal shall be active and available 24/7 for a remote operator in all weather conditions. Therefore, introducing remote control technologies significantly raises the requirements for the reliability of basic systems. This involves upgrading the primary and backup protection levels, updating the backup protection set, as well as improving proximity and remote backup protection technologies.

The aim to improve the grid reliability at IDGC of Centre is not new, and many solutions have already been brought into commercial production, but based on a new strategy, this process will be accelerated, also in terms of external interaction - with higher educational institutions, start-ups, and producers.

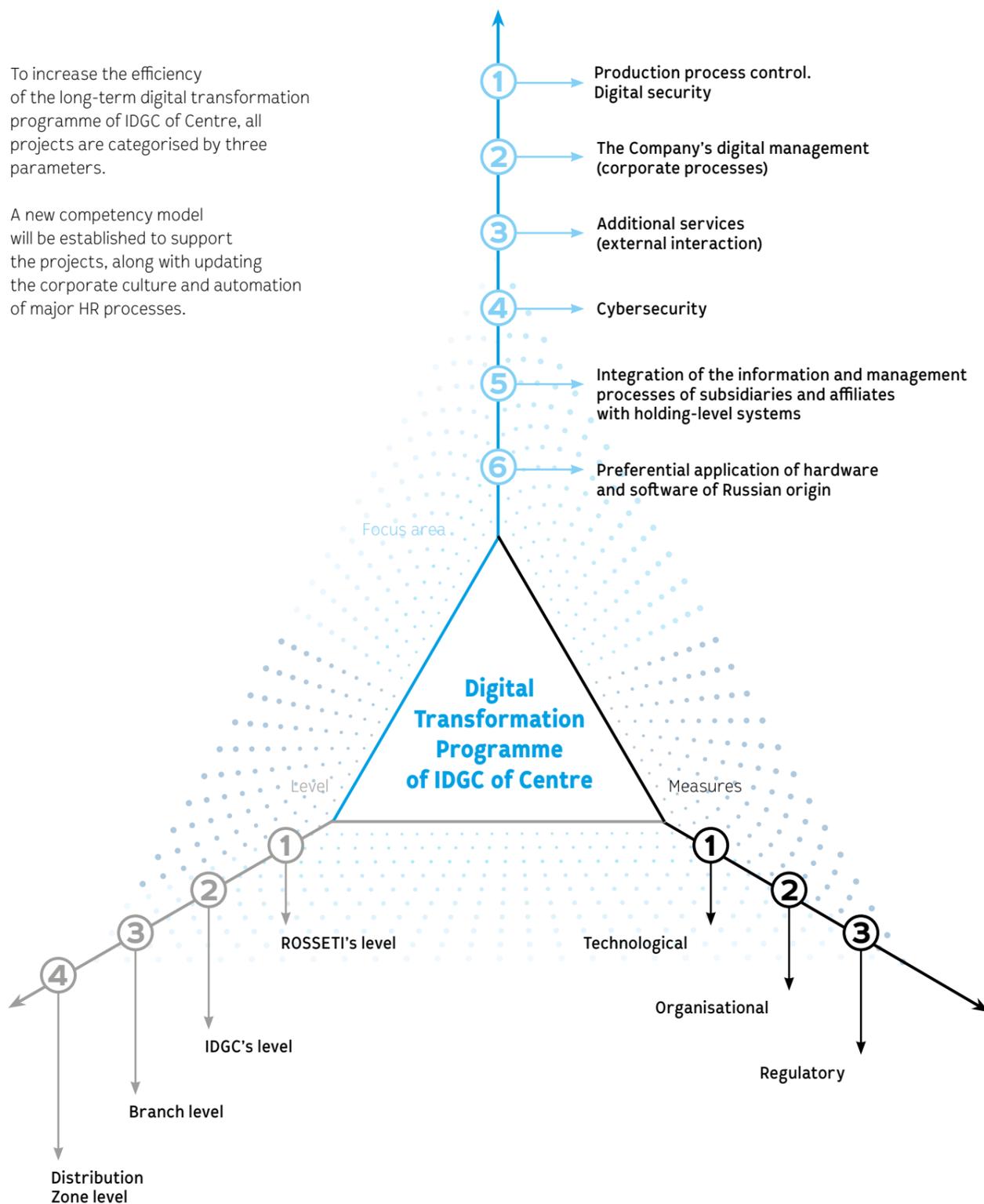
**Q: – What opportunities does the Big data technology offer for the Company?**

**A: –** Within the framework of digital transformation under the Company Digital Control focus area, major changes will concern the intellectualisation of data handling. The manual input of initial data will be decreased or ruled out entirely. The operator will enhance the competencies and analyse the current rates online, while the computer will assist in comparing the retrospective databases and identifying the insights. Moreover, what is very important for operational management, online submission of the report data will be established directly from the database. In this area, the first stage of the Programme will be focused on the intellectualisation of data handling in investment operations, logistics, and material support.

**Categories of Digital Transformation Projects**

To increase the efficiency of the long-term digital transformation programme of IDGC of Centre, all projects are categorised by three parameters.

A new competency model will be established to support the projects, along with updating the corporate culture and automation of major HR processes.



**Q: – How will be the training of IT specialists and analysts organised: by IDGC of Centre's own resources or by attracting specialists in the open market?**

**A: –** The Company comprises ten training centres with new simulators and already updated training programmes, including those on the automated fiscal and technical power supply monitoring and control systems, and maintenance of modern meters. The action plan of "Personnel Competencies Development as related to Digital Transformation" project has been approved. It is aimed at creating a training manual for the power grid employees ("Digital Transformation ABC: Simply about Complex"), designing of presentations and tests for the talent pool training course, as well as training and retraining of the teaching staff.

It is essential that maintenance specialists for the basic modules of the big data processing system, such as SCADA, EMS, DMS shall be trained in ROSSETI's training centres.

**Q: – In 2018, IDGC of Centre has already launched a number of projects under the digital transformation programme. What are the advantages of using digital technologies?**

**A: –** During the preparation stage our task was simply stated as enhancing the grid observability, controllability, and automation due to the integration of sensors into the grid and switchgear upgrading. Now there is an opportunity to install intelligent digital equipment in the grids with a lower voltage level due to cheaper technologies. For example, previously, the cost of a 0.4 kV grid sensor was at the same level as power equipment installation cost, and currently, those sensors have a reasonable price, and their installation considerably improves the grid observability. At the starting point, we tried to take full advantage

of the existing and proven technologies to create a basis for digital transformation.

**Q: – One of the key projects of the digital transformation concept implemented in 2018 in IDGC of Centre is "Digital Substation". How will it be developed?**

**A: –** It is envisaged that digital substations will be functioning in all the Company's branches to test the operation of innovative equipment. A digital substation refers to a substation with high-level process control automation, information technology and control systems: SCADA DATS, AEPFMS, RPA, ECA, emergency registration, fault localisation, etc. All data exchange processes among the substation elements, as well as substation management processes will be implemented in digital form based on IEC protocols. The primary power equipment of the digital substation and the components of the information technology and control systems shall be developed, both in terms of function and design, to support the digital data exchange. A digital substation will be created in IDGC of Centre with a focus on two areas: structural-functional development of substation technological and control systems, and implementation of technologies for ensuring the unity of measurement points of all substation systems by digitalisation of analogue and discrete data in the measurement points and transmission of the received data to the substation secondary systems.

**Q: – What new services and advanced technologies will be introduced for the convenience of the Company's customers and employees?**

**A: –** As part of the client services development, the Company currently has a single Call centre in Belgorod that will be upgraded for operation both in IDGC of Centre and IDGC

of Center and Volga Region. This will enhance customer services. With regard to advanced technologies, the Company is introducing mobile solutions, unmanned aerial vehicles, energy accumulators, occupational health management system.

**Q: – IDGC of Centre has already used controlled drones for network equipment damage assessment. Would this technology be applied in the future?**

**A: –** A multifunctional base station will operate as part of the substation for recharging the unmanned aerial vehicles (UAV), supporting data exchange with the headend server and transmitting data to the Production Asset Management System.

The multifunctional base station will also be equipped with air vehicle life support systems and environment control in the area to be monitored, and perform multiple functions; it can also have alarms, the capability of operating under electrical jamming conditions, etc. It is expected that each UAV will cover at least three overhead lines with a quarterly check flight over the line.

The first stage results were protected by two patents. The technical result of the proposed utility model is the possibility of using UAV at several base stations with reliable data transmission channels and the required availability of communication and navigation signals during the entire flight. Despite the obvious benefits of the power facility diagnostic system using UAV, handling the task of automated control is a complicated process. The scientific research conducted in IDGC of Centre defined the technical project performance criteria in the automatic diagnostics of overhead power lines and generated the project concept. Currently, it is being implemented, thus allowing

to improve efficiency and adopt a new approach to power line status monitoring.

**Q: – The digital transformation programme involves a modification of the data processing system. How exactly would this transition be handled at IDGC of Centre?**

**A: –** Digital technologies allow us to stop using the business processes of operative and technological control at the bottom level, i.e. in the Company's branches. Instead, single centres for flow data collection are created. Two new departments will be functioning based on the updated technical facilities – an analytical competence centre and a cybersecurity centre. Thus, we support a trend of organisational restructuring intended for consolidation by business process optimisation.

It is required to establish Company's business units related to the similar functional departments at ROSSETI for proper operation of the analytical competence centre with regard to all business processes of the Company. The following units of the centralised structures will be developed under the digital transformation programme: The Analytical Competence Centre, the Cybersecurity Centre, and the Research and Development Centre. Coordination with ROSSETI will contribute to establishing a competence centre for ensuring the Company's cybersecurity.

**Q: – Availability of the initial data from the meters along with analytics data theoretically enables to create single centres for electricity grid control. The question is whether such consolidation of management structure is appropriate?**

**A: –** Pure data is the heart of digitalisation. If

we manage to establish and streamline the initial data acquisition, categorisation, and storage, we will have high-quality analytics that is fundamentally different from the current status. This is the result the programme is aimed at, and so far I see no insurmountable obstacles to its achievement.

Single grid control centres have not been established in any country yet. Currently, we do not have an enabling environment for that due to the lack of corresponding cloud solutions, enormous security requirements, etc. Up to this point, the Company's objective in terms of administrative control technology is to create "the brain", centralise the regional OTC functions, and establish the grid control centre. This is the general trend for the next 10 years.

As part of the information security measures, the Company's grid comprising several hundred dispatch control centres is now being optimised down to three dozen, as it is always easier to protect a smaller number of capacities from network attacks. This will also help to optimise the capital costs. Overall, there are more than a dozen cybersecurity activities that are implemented in several phases and have various degrees of readiness.

**Q: – What platforms will be used for developing the Digital Transformation Programme and what are the expected outcomes for the Company after implementing all the first-stage activities?**

**A: –** So far, "an action plan" has been approved and used to select six regions for implementing pilot digitalisation projects for 3 years. By 2022 the specialists of IDGC of Centre shall complete major works including establishing modern high-tech single grid control centres and introducing a single automated complex for operative and technological

process control. Extensive works will be also carried out in the 10-0.4 kV distribution grid.

Following the implementation of the first stage of the Digital Transformation Programme, the expected objectives are to:

- provide 100% coverage of IDGC by digital radiocommunication (DMR);
- create single control centres for 0.4-220 kV grids in each region;
- establish 16 Digital Substations;
- implement the "digital electrician" technology;
- establish 30 Digital Distribution Zones;
- test the technology for the use of energy accumulators;
- update GLONASS system within the entire enterprise fleet;
- implement the ERP, also as part of the activities related to losses and production asset management;
- develop the information security system;
- complete the testing of advanced technologies.

## Expected Results of Implementing Digital Technologies of Industry 4.0<sup>1</sup>

Technology	Possible impact	Results
<b>Business Ontology</b>	Gradual digitalisation (optimisation) of activities in primary business processes of the Company.	Reduction of costs of all business processes of the Company.
<b>Digital Shadows</b>	Creation of mathematical models of grids, facilities, processes, etc. as part of the development of online and offline decision support system.	Reduction of operating expenses and the development of new types of the Company's business.
<b>IoT</b>	A significant drop of CAPEX and OPEX for data collection from remote facilities and devices in the grid, including a qualitative increase of the data amount.	Reduction of operating expenses and the development of new types of the Company's business.
<b>Big Data</b>	Significant improvement of activity transparency, availability of sufficient data for online and offline decision support systems.	Optimality of decision making in relation to the current or prospective situation. Additional results due to general processing of technological and corporate data.
<b>Machine Learning</b>	Automated processing of data arrays within the objectives of online and offline decision support systems if the corresponding mathematical algorithms are available.	Optimality of decision making in relation to the current or prospective business plan.
<b>Blockchain</b>	Exclusion of intermediaries from the chain of electric power supply to the end consumers, transition to automated Smart-contracts, service development for active consumers and distributed power generation.	Development of new services (business) of grid companies for market participants.

<sup>1</sup> Industry 4.0 (the concept was announced in 2011 in Germany) implies large-scale automation of major production and utility processes, the introduction of artificial intelligence in technical equipment. One of the key elements of Industry 4.0 is the data rather than the product. Production digitalisation is associated with big data that shall be read off, collected, analysed, organised, processed, stored, transmitted, and submitted in the required format.

# AFFORDABLE ENERGY

Lower grid connection costs and reduced time of performance of Doing Business contract

Already the case:

**12.5%**

reduction of the average time of grid connection

# 03.

## OPERATING REVIEW



# ASSETS

## Assets operated by IDGC of Centre<sup>1</sup>

Asset	Unit	2016	2017	2018
<b>Substations, 0.4–110 kV</b>	<b>units</b>	<b>101,968</b>	<b>103,005</b>	<b>102,472</b>
<b>Installed capacity (total)</b>	<b>MVA</b>	<b>54,416.1</b>	<b>54,577.0</b>	<b>54,010.8</b>
35–110 kV substations	units	2,370	2,370	2,370
	MVA	34,469.1	34,456.9	34,410.2
6–10 (35)/0.4 kV transformer substations, distribution transformer substations	units	98,734	99,763	99,237
	MVA	19,520.8	19,682.6	19,167.3
6–10 kV distribution points	units	864	872	865
	MVA	426.3	437.5	433.3
<b>ROW length of 0.4–110 kV overhead lines</b>	<b>km</b>	<b>385,016.5</b>	<b>386,327.0</b>	<b>372,394.6</b>
110 kV and above overhead lines	km	21,598.7	21,607.1	21,232.3
35 kV overhead lines	km	30,397.9	30,385.6	29,860.0
6–10 kV overhead lines	km	172,065.1	172,313.9	170,003.6
0.4 kV overhead lines	km	160,954.8	162,020.3	151,298.7
<b>Length of 0.4–110 kV cable lines</b>	<b>km</b>	<b>17,981.3</b>	<b>18,616.5</b>	<b>20,509.4</b>
110 kV and above cable lines	km	36.4	36.4	31.1
35 kV cable lines	km	25.9	46.0	49.0
6–10 kV cable lines	km	9,716.8	10,041.0	10,627.5
0.4 kV cable lines	km	8,202.3	8,470.7	9,801.8

In 2018, the observed decrease in the number of equipment and the length of transmission lines was due to the update of the equipment

parameters in the course of equipment recording under the development of the production asset management system (PAMS), and the results of

the geographical coordinates input into the ROSSETI's Integrated Situation Management Analysis System.

### Reliability of the power grid assets (6 kV and higher)

Indicator	Unit	2016	2017	2018	2018/2017 change	
					abs.	%
Human errors	units	0	1	0	-1	-100
Sustained outages of 35–110 kV transformers	units	105	83	42	41	-49.4
Average interruption time (for 6–110 kV feeders)	hours	2.26	2.34	1.83	-0.51	-21.7

### Failure rate in 2016–2018

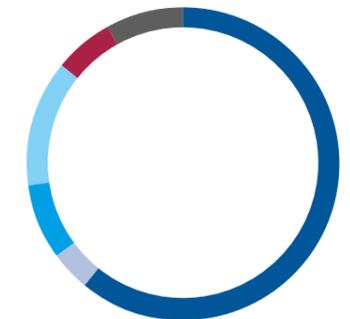
Indicator	Unit	2016	2017	2018	2018/2017 change	
					abs.	%
Number of faults in the 110 kV grid	units	1,344	1,237	1,052	-185	-15
Failure rate over 6 kV and higher grid	failures per 1 thousand equipment units	6.52	5.67	4.87	-0.8	-14

<sup>1</sup> Including finance lease, operating lease, and equipment under maintenance contracts.

The Company implemented the Investment and Repair Programmes to support the reliability of the grid facilities. The failure rate indicators for the 6 kV grid decreased to 4.87 (-14% year-to-year). Reliability indicators have

improved, this demonstrates a lower failure rate and higher reliability of power supply to consumers. All major operational facilities of IDGC of Centre are insured to minimise the impact of potential failures.

### Major failure causes in 2018, %



## The Company assured the required reliability and services quality rate in line with the regulatory acts

IDGC of Centre showed a year-on-year reduction of the system average interruption duration index (SAIDI) by 25% and the system average

interruption frequency index (SAIFI) by 12% through implementation of all the scheduled programmes.

### Repair Programme

The Annual Repair Programme is implemented by IDGC of Centre; it is developed on the basis of perspective (multiyear) repair schedules for the grid facilities.

In 2018, the Repair Programme costs totalled RUB 2,688.5 mn vs the target of RUB 3,921.9 mn (68.6%).

### Progress indicators of the Repair Programme

Indicator	Unit	2017	Target (2018)	Actual (2018)
<b>Overhaul of power transmission lines, including</b>	<b>km</b>	<b>16,227.8</b>	<b>14,365.8</b>	<b>15,284.8</b>
35–110 kV overhead lines	km	4,453.4	4,174.7	4,472.1
0.4–10 kV power transmission lines	km	11,774.4	10,191.1	10,812.7
<b>Clearing the overhead line right-of-ways</b>	<b>Ha</b>	<b>11,708.6</b>	<b>11,338.0</b>	<b>24,224.8</b>
<b>Overhaul of transformers and autotransformers, including</b>	<b>units</b>	<b>1,762</b>	<b>1,285</b>	<b>1,496</b>
35–110 kV power transformers	units	45	43	105
0.4–10 kV power transformers	units	1,717	1,242	1,391
<b>Overhaul of switching devices</b>	<b>units</b>	<b>4,163</b>	<b>3,473</b>	<b>4,014</b>
<b>Repairs to 6/10–0.4 kV TSS (PTSS, CTSS, DSS)</b>	<b>units</b>	<b>4,949</b>	<b>4,047</b>	<b>4,547</b>
<b>Repair Programme costs<sup>2</sup>, including</b>	<b>RUB mn</b>	<b>2,066.9</b>	<b>3,921.9</b>	<b>2,688.5</b>
35–110 kV substations	RUB mn	315.3	497.6	354.8
35–110 kV overhead lines	RUB mn	272.7	200.0	144.0
0.4–20 kV distribution grid	RUB mn	1,038.9	1,609.5	1,183.5

<sup>2</sup> The Repair campaign is understood as costs only for repair activities excluding maintenance.

# PRODUCTION ASSET MANAGEMENT SYSTEM (PAMS)

The key business processes of the Company are now integrated on the Enterprise Resource Planning platform (SAP ERP) and require no conceptual transformations. The ERP has 19 (of 28) automated business processes and other information systems have 9 ones. In the medium term, the Company will develop the ERP intelligent complex of the Production Asset Management System (PAMS).

A set of measures and technologies adopted under the PAMS project will allow:

- Optimising costs for equipment maintenance and for handling their failures
- Transparency and feasibility of the solutions taken and effective

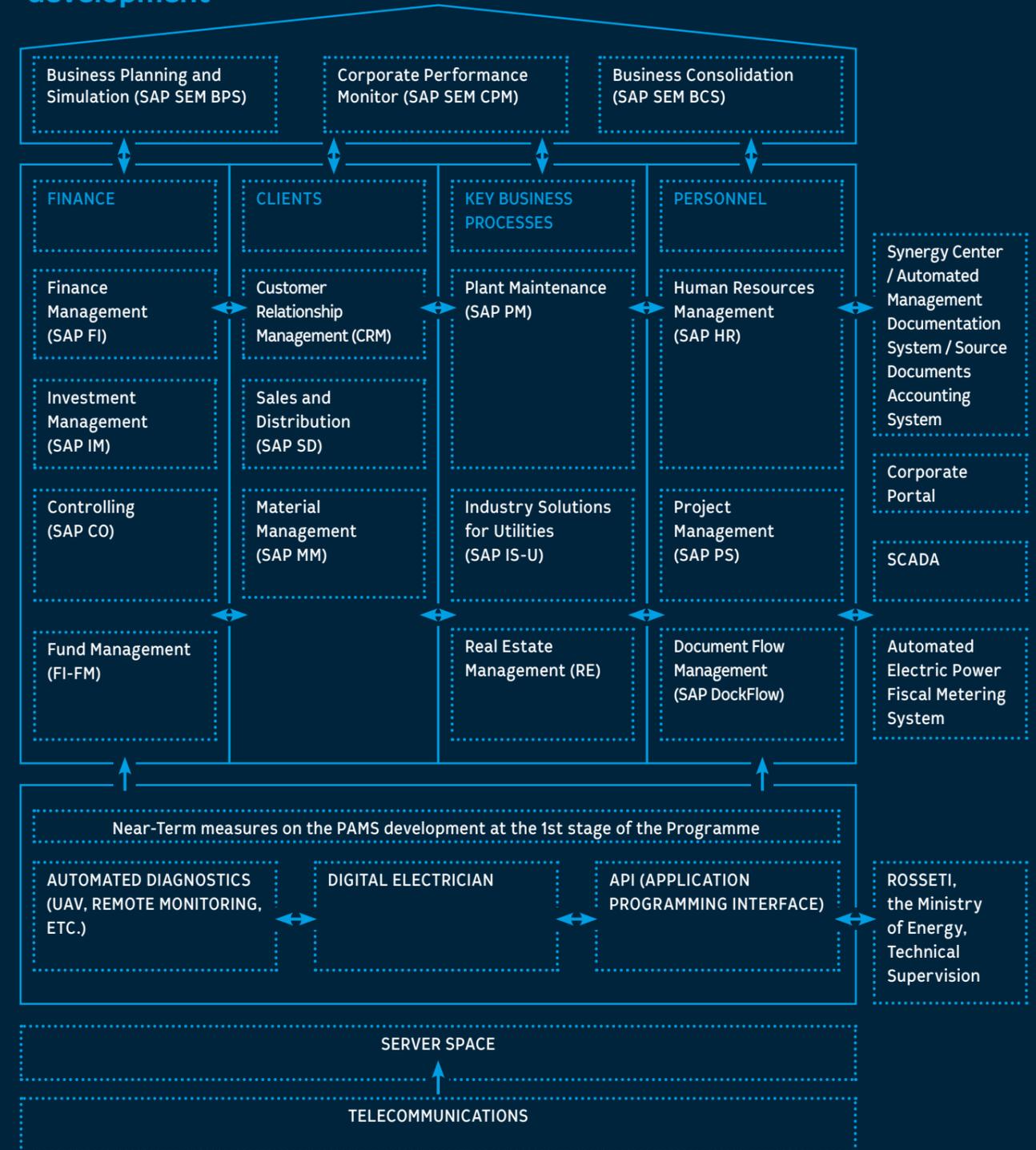
interaction between the divisions, the administration office, shareholders and the government.

- Improving the efficiency of planning and controlling of assets management tasks
- Reducing the lead time of key production tasks. Indicative annual saving will exceed 550 thousand manhour for systematic production operations of different personnel categories.
- Improving consumers power supply reliability.

## Key PAMS functions materialised at the Company

Function	Track record
Production assets database maintenance (recording)	<ul style="list-style-type: none"> <li>• Accurate record of the operating power utilities;</li> <li>• Centralised management accounting;</li> <li>• Storage of the certificate data of the power utilities;</li> <li>• A basis for automation of production functions.</li> </ul>
Reference data recording	<ul style="list-style-type: none"> <li>• Centralised reference data recording;</li> <li>• Timely updating of the guidebooks without involving technical support.</li> </ul>
Grid status recording (failure rate, diagnostics)	<ul style="list-style-type: none"> <li>• Complete recording of emergency and scheduled outages;</li> <li>• Detailed recording of measurement, testing results;</li> <li>• Recording of equipment defects in the defects register.</li> </ul>
Design tasks (ITS, Software, CU, "phase-zero" loop, commercial value, dangerous points, KPI calculation)	<ul style="list-style-type: none"> <li>• Unified rules of production indicators calculation and estimation;</li> <li>• Automatic updating of the information with the required regularity;</li> <li>• Centralised online access to the information;</li> <li>• A basis for automation of planning and accounting of production activities against their actual performance;</li> <li>• Automated KPI calculation.</li> </ul>
Operational management	<ul style="list-style-type: none"> <li>• Automated planning for maintenance and repair of electric equipment using the calculation modules;</li> <li>• Accounting of the item-by-item cost of electric equipment maintenance and repair (job orders, flow charts);</li> <li>• Possibility of the item-by-item resource planning (time, inventories, human resources).</li> </ul>
Automated reporting	<ul style="list-style-type: none"> <li>• Provision of up-to-date information in online mode, without too many requests to branches.</li> </ul>
Mobile solutions	<ul style="list-style-type: none"> <li>• Improving the timeliness of measurement, testing and inspection results recording and reliability;</li> <li>• Optimising the personnel work time;</li> <li>• Online access to the standard technical documents.</li> </ul>

## Integration of the Company's business processes under the PAMS development



# OPERATIONAL HIGHLIGHTS

## Power Transmission

In 2018, net electricity delivery amounted to 48,484.2 mn kWh, down 9.2% year-on-year. The reduction of services provided in 2018 was caused by the termination (on 1 July 2017) of gradual reduction of cross-subsidies for the consumers connected to UNPG grids in the Belgorod, Kursk, Lipetsk, and Tambov Regions, and their transition to direct contracts with FGC UES.

In 2018, the power transmission services showed a minor year-on-year increase (up 0.28%) in comparable terms.

**0.3%**  
net delivery increase in comparable terms

Power transmission services provided in 2016–2018, mn kWh

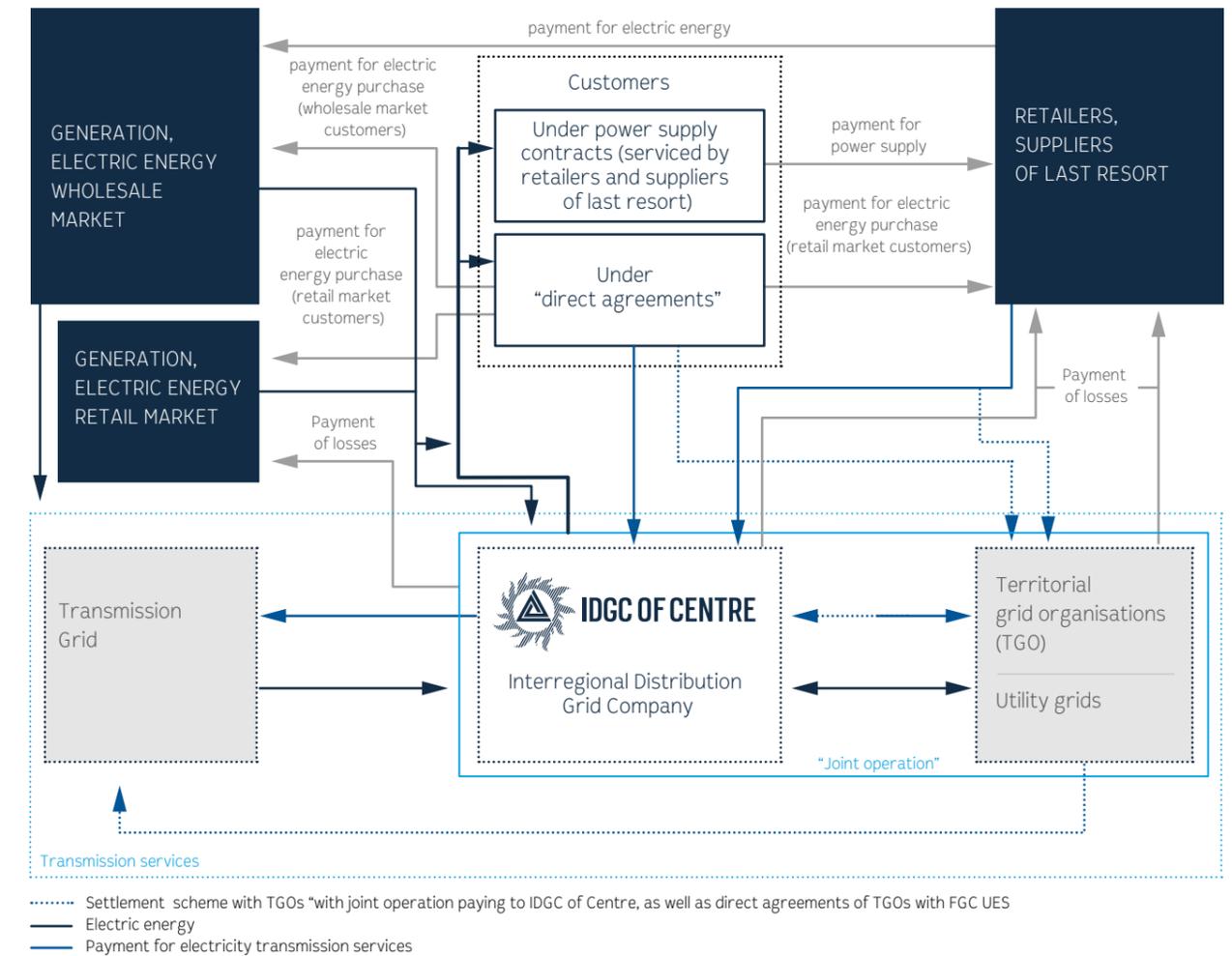
Indicator	2016	2017	2018	2018/2017 change	
				mn kWh	%
Electricity delivered to the grid	64,057.8	59,234.8	54,235.7	-4,999.1	-8.4
Net delivery (within the balance attribution of the Company's branches)	58,063.3	53,392.9	48,484.2	-4,908.7	-9.2
Net delivery by the last mile connections excluded from electricity balance	5,205.0	5,046.0	-	-5,046.0	-100
Net delivery in comparable terms of 2018	52,858.3	48,346.9	48,484.2	137.3	0.3
Electricity losses	5,994.5	5,841.8	5,751.5	-130.3	-2.2
Power transmission services provided <sup>1</sup>	56,177.4	51,718.6	47,019.1	-4,699.5	-9.1

IDGC of Centre is a natural monopoly enterprise, the key business of which is the electricity transmission and distribution from FGC UES grids to territorial grid organisations,

retailers, and large consumers. The key consumers of IDGC of Centre are major regional enterprises.

**2.2%**  
reduction of electricity losses

## Business model on power transmission



The major consumers are agribusiness, municipal utilities and residential consumers by medium and low voltage levels, while there is a reduction of net delivery to large industrial consumers powered via the grids of IDGC of Centre of a minor length from FGC UES or generating facilities.

### Reduction of the net delivery to large consumers, mn kWh/%

LLC Transneft-Baltika	-49.7/-19
JSC Oskolcement	-40.5/-25.1
JSC Oskol Electrometallurgical Plant	-38/-42

<sup>1</sup> Including power transmission services on the territory with functions of a supplier of last resort.

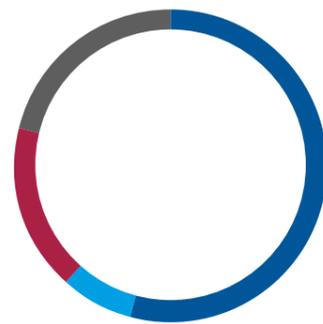
## Power Delivery Structure

The 110 kV grids take up the bulk of the electricity delivered by IDGC of Centre's grids, accounting for 54.2% of total electricity delivered. More than 30% of the net electricity delivered to 110 kV grids is supplied to the industrial consumers.

The following metallurgical companies are the largest consumers of high-voltage power:

- NLMK Group with annual consumption of 0.8 bn kWh (1.74% of total consumption);
- Lebedinsky GOK with annual consumption of over 0.65 bn kWh (1.36%).

Electricity supplies by voltage in 2018, %



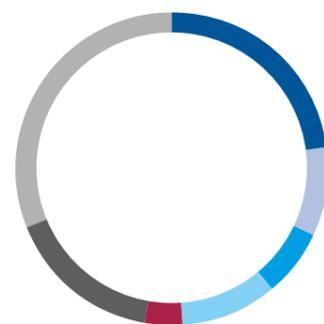
■ High voltage (110 kV)	54.2
■ Medium voltage (35 kV)	7.6
■ Medium voltage (10 kV)	17.3
■ Low voltage (0.4 kV)	20.9

In 2018, TGO (31%) and industrial consumers (23%), residential consumers and equivalent consumer groups (16 %) were the largest consumer categories by delivery volumes. The categories of TGOs and residential consumers grew year-on-year and the category of industrial consumers decreased, driven mostly by the exclusion of the last mile net delivery volumes, which include the large metallurgical enterprises, from the electricity balance.

### The largest electricity consumers from IDGC of Centre's grids

No.	Consumer	Electricity consumption, mn kWh	Share of net electricity delivered, %
<b>Net electricity delivered in 2018 from the grid</b>		<b>48,484.2</b>	<b>100.0</b>
1	JSC Russian Railways	3,299.3	6.8
2	MUE Voronezh Municipal Power Grid	1,678.2	3.5
3	LLC Bryanskoblenergo	1,342.0	2.8
4	JSC Lipetsk City Power Company	1,160.0	2.4
5	JSC Oreoblenergo	851.9	1.8
6	PJSC Novolipetsk Steel	842.6	1.7
7	JSC Kursk Power Grid	813.0	1.7
8	MUE Tvergoenergo	755.7	1.6
9	Lebedinsky GOK	660.0	1.4
10	PJSC Slavneft-YANOS	603.0	1.2
<b>Total for the 10 top consumers</b>		<b>12,005.7</b>	<b>24.9</b>

Electricity supplies by consumer category in 2018, %



■ Industrial consumers	23
■ Transport	9
■ Agriculture and food industry	7
■ Non-industrial consumers	10
■ Public sector consumers	4
■ Residential consumers and equivalent consumer groups	16
■ TGOs	31

## Reduction of Electricity Losses

In relation to electricity supplied to the grid by IDGC of Centre, the losses in 2018 amounted to 10.6% (9.86% in 2017).

Electricity losses in 2018 reduced by 0.35 p.p. against the losses in 2017 in comparable terms. In 2018, measures to reduce electricity losses yielded savings of 167.5 mn kWh (RUB 433.8 mn).

In 2018, the Company upgraded 31.3 thousand metering points (costs amounted to RUB 921.1 mn) and introduced the remote data collection from 29.8 thousand metering points. In its efforts to reduce electricity losses<sup>1</sup>, IDGC of Centre takes measures to detect and deal with unauthorised use of electricity without a proper contract and metering in place. These measures

yielded the following results in 2018:

- 11.7 mn kWh consumed without a proper contract were paid for;
- 74.4 mn kWh of off-the-meter supply were included in the net delivery.

### Dynamics of electricity losses, %

Indicator	2016	2017	2018	2018/2017 variance, p.p.
Losses				
Actual	9.36	9.86	10.60	0.74
Target	9.38	10.21	11.02	
For reference: Electricity losses in terms of electricity balance in 2018	11.26	10.95	10.60	-0.35

### Annual loss reduction through the measures undertaken

Measures	Savings, mn kWh	Savings, RUB mn
Organisational measures	110.6	286.5
Technical measures	14.1	38.6
Measures to improve metering arrangements	42.8	108.8
<b>Total</b>	<b>167.5</b>	<b>433.8</b>

<sup>1</sup> For the data on electricity losses by branches see Appendix 3.1 to the Annual Report on IDGC of Centre's website.

## Grid Connection

Connection of new consumers to electrical grids is fully regulated by the Government:

- connection procedure and timeframe are set by the Rules for the Connection of Consumer Terminals of Electricity Consumers, Generating Facilities and Grid Facilities Owned by Grid Companies and Other Persons to Electrical Grids, approved by Resolution No. 861 of the Government of the Russian Federation dated 24 December 2014;

- connection fees are approved by tariff regulators of constituent entities of the Russian Federation.

Grid connection includes a range of procedures, the terms of which are regulated by the Russian legislation and the Company's internal documents.

# 868 MW

(+0.2%) loads connected in 2018

### Dynamics of grid connection applications discharged in 2016-2018, applications

Indicator	2016	2017	2018	2018/2017 change	
				abs.	%
Number of submitted applications	58,815	54,282	52,526	-1,756	-3.2
Number of signed contracts	48,409	44,619	43,963	-656	-1.5
Number of executed contracts	46,173	42,314	39,984	-2,330	-5.5

### Dynamics of grid connection applications discharged in 2016-2018, MW

Indicator	2016	2017	2018	2018/2017 change	
				abs.	%
Required capacity	2,702	2,527	2,896	369	14.6
Total maximum capacity under signed contracts	968	864	1,048	184	21.3
Connected capacity	1,078	866	868	2	0.2

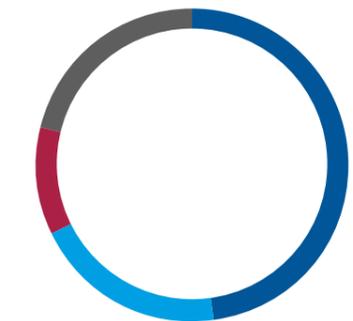
The scope of the grid connections by the grid company depends on the current state and economy development plans for IDGC of Centre's footprint. The demand for grid connection has been on the decline for the last three years. Particularly, in 2018 the number of submitted applications reduced by 3.2% against 2017 and by 10.7% against 2016.

Capacity indicators related to the grid connection show the upward trend: in 2018, the required capacity grew by 14.6% year-on-year. The connected capacity (under the implemented grid connection contracts) remained at the level of 2017.

In 2018, the highest growth was observed in "Over 15 kW and up to 150 kW" applicant category (+72.9%) and the largest decrease – in "Over 670 kW" category (-18.9%).

The capacity improvement in 2018 was due to the transition of a part of applicants from "Up to 15 kW" to "From 15 kW to 150 kW" category resulting from the change of the Russian legislation since 1 October 2017 and the increase in the number of major applicants with general reduction in the grid connection services.

### The structure of connected loads by consumer category in 2018, %



■ Up to 15 kW	48
■ From 15 to 150 kW	20
■ From 150 kW to 670 kW	11
■ 670 kW and above	21

### Structure of connected capacity by sector 2016-2018, MW

Category of applicants	2016	2017	2018	2018/2017 change	
				abs.	%
Individuals	427.2	395.4	386.8	-8.6	-2.2
Agriculture and forestry, fishing	121.4	89.7	76.6	-13.1	-14.6
Manufacturing industry	68.6	50.8	47.3	-3.5	-6.9
Electricity, gas and water utilities	137.4	76.9	32.9	-44.0	-57.2
Construction	92.5	78.5	81.2	2.7	3.4
Trade	40.2	28.5	38.9	10.4	36.5
Transport and telecoms	6.6	7.4	10.7	3.3	44.6
Healthcare, education, social services	7.9	12.4	10.9	-1.5	-12.1
Other	176.1	126.2	182.2	56.0	44.4
<b>Total</b>	<b>1,077.9</b>	<b>865.8</b>	<b>867.5</b>	<b>1.7</b>	<b>0.2</b>

## Implementing the Target Model of Grid Connection by the Constituent Entities of the Russian Federation

In 2018, IDGC of Centre proceeded with its efforts under the Grid Connection target model within its footprint.

- The official website of the Company has a “User account”, which allows submitting an application, concluding a grid connection contract, and monitoring the grid connection progress;

- The grid services official portal also allows for preliminary calculation of payment for grid connection by means of a special calculator;
- Branches of IDGC of Centre on a regular basis carry out consulting and explanatory work with the applicants as related to grid connection activities performed by the Company.

**12.5%**  
reduction of the average time of grid connection

In 2018, average term by “contract-notification” indicator under the Doing Business grid connection contracts, which implies that these works shall be implemented by a grid organisation, reduced by 12.5% and amounted to 84 days (vs 96 days in 2017).

## Improving the Grid Connection Procedure

In 2018, in order to reduce connection costs and execution time of connection contracts, IDGC of Centre increased

(up to 66.8% of total amount) the share of activities carried out using its own resources.

**66.8%**  
of the grid connection contracts implemented by own resources

### Dynamics across existing grid connection contracts

Indicator	2016		2017		2018	
	contracts	%	contracts	%	contracts	%
Existing contracts as of the end of the period	23,533	-	23,269	-	21,354	-
Including:						
ones with the measures taken by the grid organisation	15,840	-	16,022	-	14,718	-
Among them:						
By own resources	9,625	60.8	10,353	64.6	9,836	66.8
By contractors	6,215	39.2	5,669	35.4	4,882	33.2

## Additional Services

### Key Types of Additional Services

- Setting-up outdoor lighting systems;
- Electrical grid and equipment maintenance and repair services;
- Customisation of power grid facilities for customers;
- Providing technical resources;
- Equipment testing and diagnostics;
- Installation and replacement of metering devices;
- Services related to grid connection and typically performed by a customer (“Grid Connection Support”);
- Energy audit and energy services;
- Engineering, design and construction of generating facilities;

Additional services are provided on a commercial basis and are not regulated by the government.

### Demand for additional services in 2016-2018, thousand applications

Indicator	2016	2017	2018	2018/2017 variation	
				Thousand applications	%
Number of applications for additional services	186	181	160	-21	-11.6

### Additional Services Development Plans

- Further automation of preparation of contracts for additional services to reduce the time required to issue contracts to applicants;
- Providing services by telephone via a Call centre;
- Introducing new additional services with legal entities.

**160 thousand**  
applications for additional services in 2018

## Customer Relations

The main goal of IDGC of Centre in customer relations is to build customer loyalty through driving customer

experience and meeting both their short and longer-term needs.

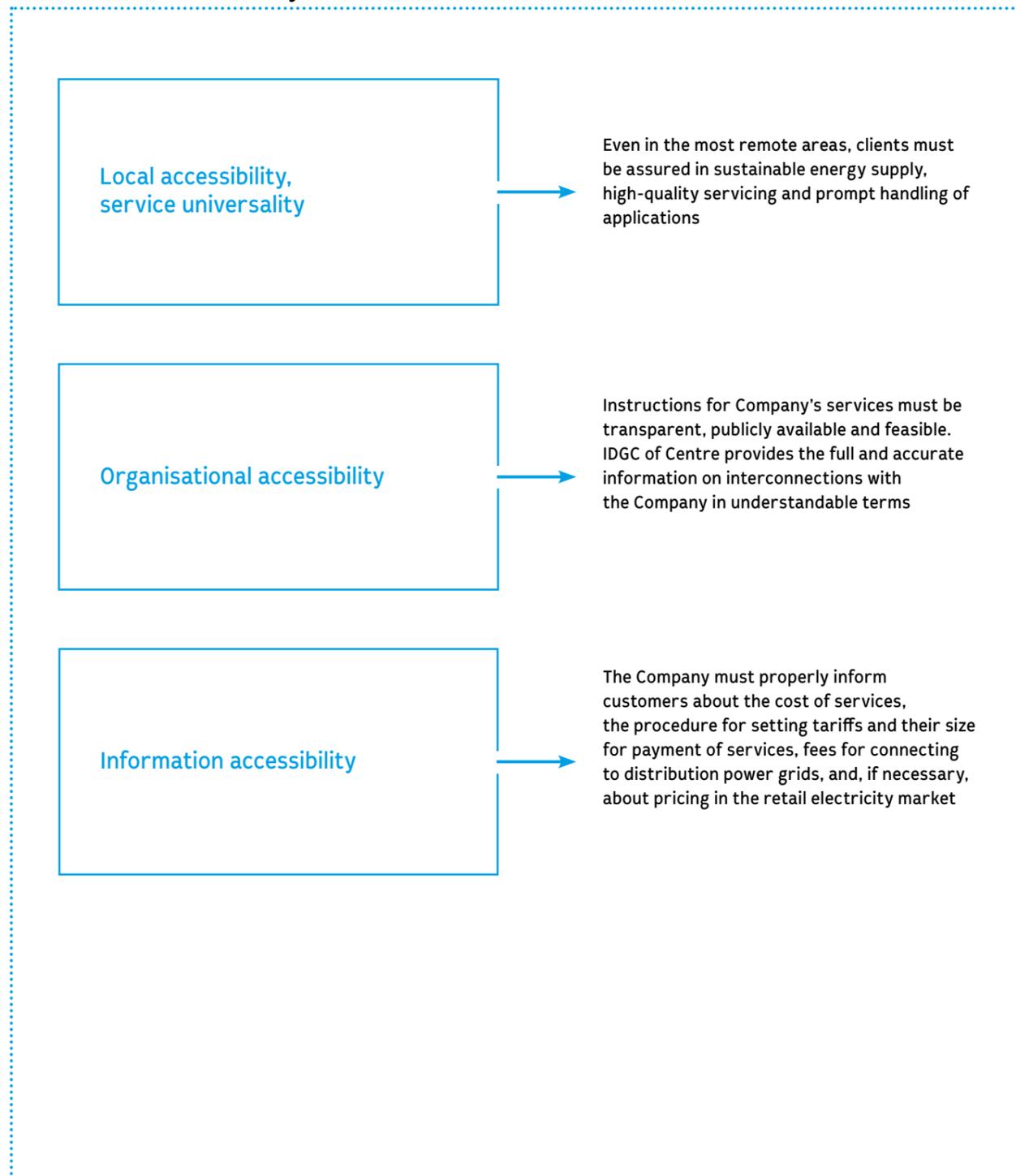
### Customer Services Quality Standard

### Customer Relations Policy

Values and principles of customer relations are aligned with the Company’s mission – identification and satisfaction of reasonable requirements of customers (consumers), continuous monitoring of customer expectations and

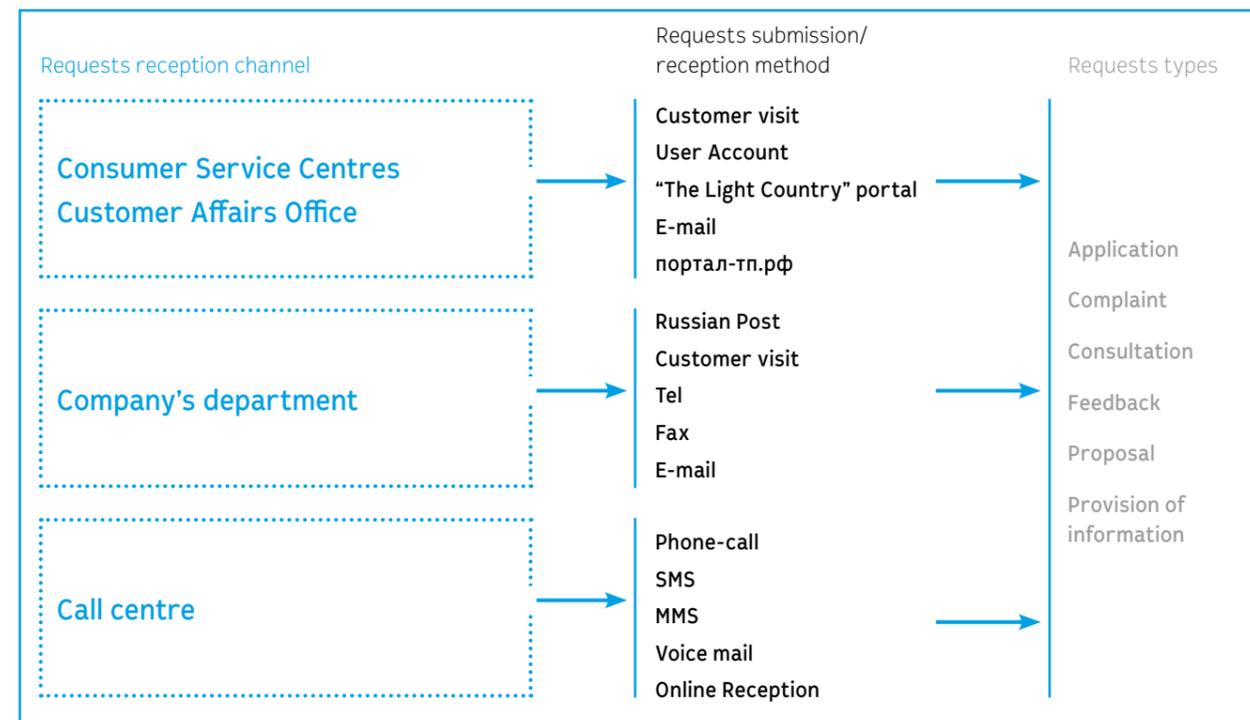
satisfaction, ensuring reliable, uninterrupted power supply to good customers of the Company.

Another important factor for consumers, along with ensuring reliable and uninterrupted power supply, is services availability



Consumer Service Types

The Company offers three types of customer service: in-person service and remote service, which includes interactive service. Data from customers are received via specially dedicated channels.



In 2018, the Company launched "The Light Country" pilot portal. The portal receives messages from consumers of IDGC of Centre's services

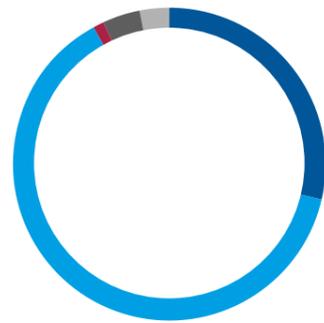
on the following issues: power outage; voltage fluctuation /low voltage; electric equipment defects.

Statistics on Consumer Requests

Numbers of customer requests by communication channel	Number of requests			2018/2017 variation, %
	2016	2017	2018	
In-person requests	334,083	319,484	273,291	-14.5
Remote requests via a call centre	627,702	596,999	595,687	-0.2
Including requests concerning power supply made via hotlines	435,233	428,073	372,019	-13.1
Written requests via documentation offices	5,285	7,077	5,324	-24.8
Remote requests via virtual reception / personal account / online helpdesk / e-mail	9,964	15,777	36,202	129.5
Other <sup>1</sup>	13,602	24,466	26,399	7.9
<b>Total</b>	<b>990,636</b>	<b>963,803</b>	<b>936,903</b>	<b>-2.8</b>

<sup>1</sup> Fax, telephone of branches (Consumer Affairs Offices, Consumer Service Centres), hotline of IDGC of Centre.

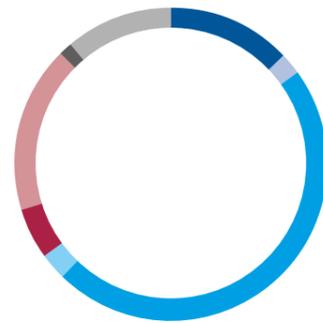
Consumer requests by communication channels in 2018, %



In-person requests	29
Remote requests via a call centre	64
Written requests via documentation offices	1
Remote requests via virtual reception / personal account / online helpdesk / e-mail	4
Other	3

IDGC of Centre is actively promoting the interactive communication channels for consumers. This measure has yielded the significant growth of requests via these communication channels.

Consumer requests by purpose in 2018, %



Grid connection	12.9
Power transmission	2.3
Power outage	47.2
Maintenance of grid facilities	2.6
Electricity billing metering	5.4
Additional Services	17.1
Quality of customer service	1.6
Other	10.9

### Measuring Customer Satisfaction

In 2018, questionnaire survey held by the Company covered 18.7 thousand service consumers of IDGC of Centre. The survey showed that the service quality rendered by branches of IDGC

of Centre remained persistently at the same level. The integral score of customer satisfaction with service quality was 4.38 of 5.

**47.2%**  
of requests relate to power outage

**4.4 of 5**  
customer satisfaction with quality

Customers can also rate the quality of the Company's services by filling a questionnaire on service quality offered by IDGC of Centre

## CONSOLIDATION OF POWER GRID ASSETS

One of the measures for increasing the share of power transmission and distribution market in IDGC of Centre's footprint is the consolidation of the grid assets controlled by the independent territorial grid organisations (TGO). In 2018, 1,198 conventional units (c.u.) of TGOs' grid assets were consolidated.

Consolidation volumes for 2018 were envisaged by the list of projects for the consolidation of power grid assets of IDGC of Centre.

An important area of consolidation is cooperation with regional and local authorities in issues of the municipal property. In 2018, the scope of consolidated power grid assets of municipal entities and other owners not related to TGOs comprised 680 conventional units of the power grid assets.

In 2018, the total consolidation scope totalled 71 MVA, 305 km of PTL, and 1,878 conventional units of the grid assets.

In 2018

**71 MVA**  
of the capacity

**305 km**  
of the power transmission lines (PTL)

**1 878 c.u.**  
of the grid assets were consolidated

Consolidation of grid assets in 2016–2018 (with the existing leasing contracts as of the end of the reporting period, including those signed earlier)

IDGC of Centre	2016			2017			2018		
	MVA	km	c.u.	MVA	km	c.u.	MVA	km	c.u.
<b>Total</b>	<b>834.87</b>	<b>5,714.06</b>	<b>29,069.49</b>	<b>880.59</b>	<b>5,638.80</b>	<b>31,391.60</b>	<b>898.01</b>	<b>5,321.42</b>	<b>29,610.63</b>
Grid facilities acquired	3.32	7.64	75.60	84.27	375.62	2,748.07	2.14	5.45	98.21
Grid facilities leased	752.65	4,870.44	26,413.51	704.75	4,978.96	27,339.77	878.45	5,254.17	29,254.87
Other (permanent rights of ownership and use)	74.34	808.65	2,479.11	30.69	245.15	845.33	0.00	0.00	0.00
Other (temporary rights of ownership and use)	4.56	27.33	101.27	60.88	39.07	458.43	17.42	61.80	257.55

Integrating grid facilities is essential for building an industry-wide, uniform power grid space and a single centre of responsibility for efficient and reliable power supply to consumers. Integration improves the overall operation of the energy system.

In the reporting period, the number of TGOs within the Company's footprint (excluding branches) reduced from 141 to 139 (down 1.4%).

In 2019, it is planned to pursue the consolidation of power grid assets mainly in the Voronezh, Lipetsk, Orel, and Tver Regions.

**1.4%**  
reduction of TGO number within the Company's footprint

See Appendix 3.2 to the Annual Report

# INNOVATIVE DEVELOPMENT PROGRAMME

IDGC of Centre's innovative development is aligned with:

- the Innovative Development, Energy Saving and Energy Efficiency Improvement Policy of ROSSETI

approved by the Board of Directors of IDGC of Centre (Minutes No. 15/14 dated 23 June 2014);

- IDGC of Centre's Innovative Development Programme for the period of 2016–2020 with

an outlook until 2025 approved by the Company's Board of Directors (Minutes No. 07/17 dated 30 March 2017).

## Expenses by key innovative development areas in 2018, RUB mn (excl. VAT)

Innovative development area	Expenses	
	Target	Actual
Transition to digital substations of various voltage class	108.6	88.0
Transition to digital smart grids with a distributed intellectual automation and control system	474.4	438.1
Transition to integrated business processes and automation of control systems	140.1	146.0
Introduction of new technology solutions and materials in power engineering	112.0	117.0
<b>Total</b>	<b>835.0</b>	<b>789.1</b>

Actual vs plan deviations in the first two areas of innovation development are caused by the adjustment to the Investment Programme. A plan to achieve the KPI "Innovations" approved as part of IDGC of Centre's Innovation Development Programme

is 4% of the Investment Programme amount in the reporting period, or RUB 521 mn. The actual achievement of the KPI "Innovations" in 2018 came at RUB 789.13 mn.

**51%**  
above the plan to introduce innovations

## Achievement of targets for KPI "Innovation Performance"

Indicator	Target (2018)		Actual (2018)	
	%	RUB mn	%	RUB mn
KPI <sub>R&amp;D</sub>	0.14	49.00	0.15	52.66
KPI <sub>Innovations</sub>	4.00	521.00	6.40	789.13

## Progress Across the Core Areas of the Innovative Development Programme in 2018

### Transition to digital substations of various voltage class

Programme Activities	Deadlines and costs in 2018 (excl. VAT)	Results attained in 2018
Reconstruction of the 35/10 kV Nikolskoye substation involving the digital components (Belgorodenergo)	2017–2019 RUB 64.9 mn	Implementation of an RPA and ECA decentralised system of a digital substation via IEC 61850 8-1 (GOOSE, MMS messages), IEC 61850 9-2 (SV-streams) protocols: <ul style="list-style-type: none"> <li>purchase of equipment;</li> <li>construction, installation and commissioning for IEC 61850-compliant RPA and ECA cabinets</li> </ul>
Retrofitting of the 110/35/10/6 kV Nerekhta-1 substation involving the digital components (Kostromaenergo)	2018–2023 RUB 6.7 mn	<ul style="list-style-type: none"> <li>There is a plan to design a station busbar using the IEC 61850–8–1 protocol. The station busbar is arranged in two independent optical rings with a redundant connection of equipment to different grids using the seamless redundancy protocol (PRP). RSTP-protocol is used inside the rings.</li> <li>IEC 61850-enabled RPA and telemetry equipment was used: seven discrete signal converters, two single time servers, and 13 FLSWITCH-type switches</li> </ul>
Organisation of in-plant communications of secondary systems using the digital substation technology as part of the reconstruction of the 110/35/10 kV Lebedyan substation (Lipetskenergo)	2018–2023 RUB 13.1 mn	<ul style="list-style-type: none"> <li>There is a plan to use IEC 61850-enabled RPA and telemetry equipment: 27 RPA terminals, an exact time server, managed switches.</li> <li>Local networking from terminals to switches and from switches to the server was made. RPA terminals interact via GOOSE-messages. Upline Information transfer and remote control are via MMS protocol</li> </ul>

# DIGITAL SUBSTATIONS

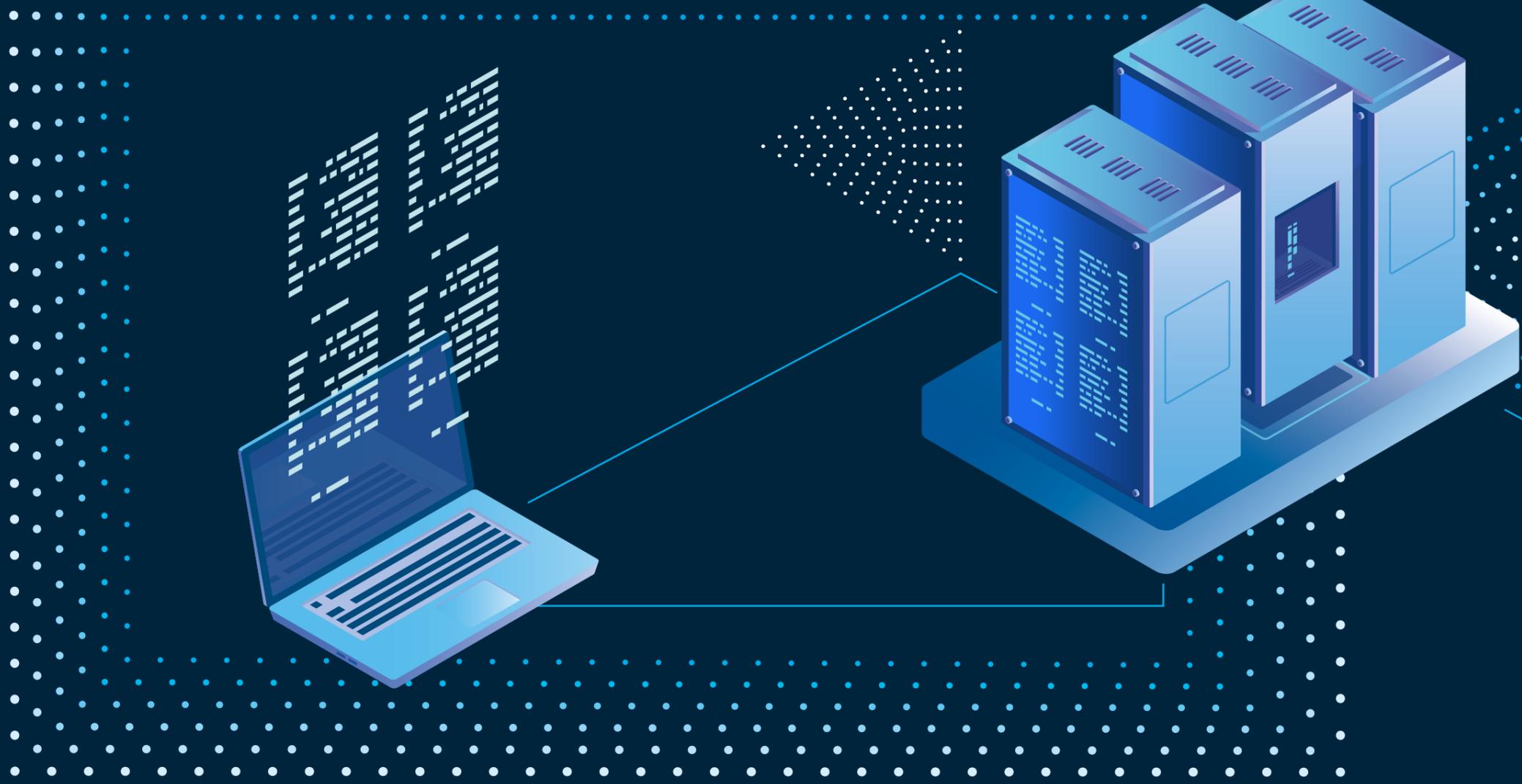
A digital substation is a highly-automated substation, where all information exchange processes between substation elements, information exchange with external systems, and substation operation control are digitalised upon IEC protocols. All while, both the primary power equipment of the digital substation and the components of information technology and controlling systems must functionally and structurally support digital data exchange.

In 2018, IDGC of Centre, following the successful completion of a number of pilot production projects, continued its efforts on the adoption of a digital substation solution.

The technical solution involves primary equipment with digital interfaces, secondary digital protection and control systems, online diagnostics and smart electricity metering systems integrated into a single data bus to transmit data both within a power facility and to the higher level of dispatch control.

Among other things, the Company's specialists finished the design engineering stage and started building digital substations in Belgorodenergo (the 35 kV Nikolskoye substation) and Voronezhenergo (the 110 kV Sputnik Substation), and made a start on designing digital substations for Lipetskenergo and Kostromaenergo, picked out facilities in other branches to roll out the technology.

In 2018, IDGC of Centre finally adopted the systems of various levels of observability at all substations.



## Outcomes of Rolling-out the Digital Substations

1

Improving the operational reliability and efficiency of facilities through the use of digital devices, a unified software, reduced number of cable connections, self-diagnosis of secondary devices and information links.

2

A possibility of interchangeability and compatibility of substation protection and control devices, reducing the time of their operation procedure and horizontal data transfer.

3

Improving the efficiency of project implementation through the unification of devices, the use of computer-aided design systems and electronic configuration files.

# MOBILE SOLUTIONS. DIGITAL ELECTRICIAN

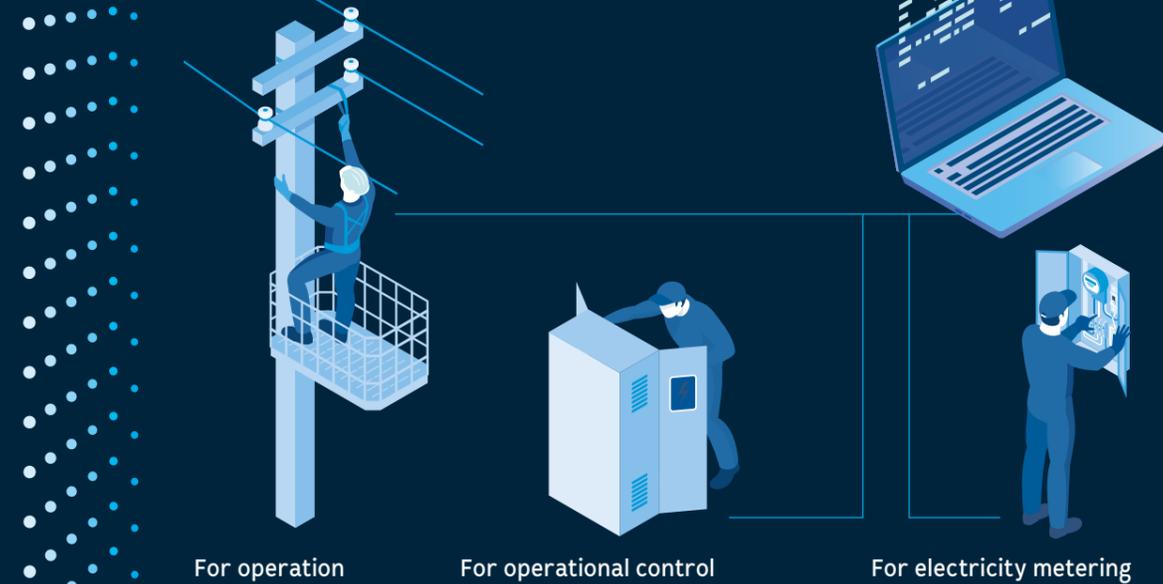
To obtain timely and reliable information on the technical condition of electric grid facilities, IDGC of Centre put in place the Mobile Solutions functionality, which boosted the labour productivity of the units responsible for the technical diagnostics of power facilities.

An important element of mobile solutions is the “Digital electrician” project. It involves equipping emergency response teams with mobile devices with special software. This will give power engineers an opportunity to remotely receive work specifications, electronically formalise the necessary permits and approvals, and record the actual start and end time of work. Using a mobile device, one can take photographs of equipment defects and promptly upload the information in a database to speed up works on their elimination.

This Project includes a total of 500 mobile devices used at branches of IDGC of Centre for technical diagnostics and inspection of power grid facilities.

## EVOLUTION OF THE “DIGITAL ELECTRICIAN” PROJECT IN 2019-2023

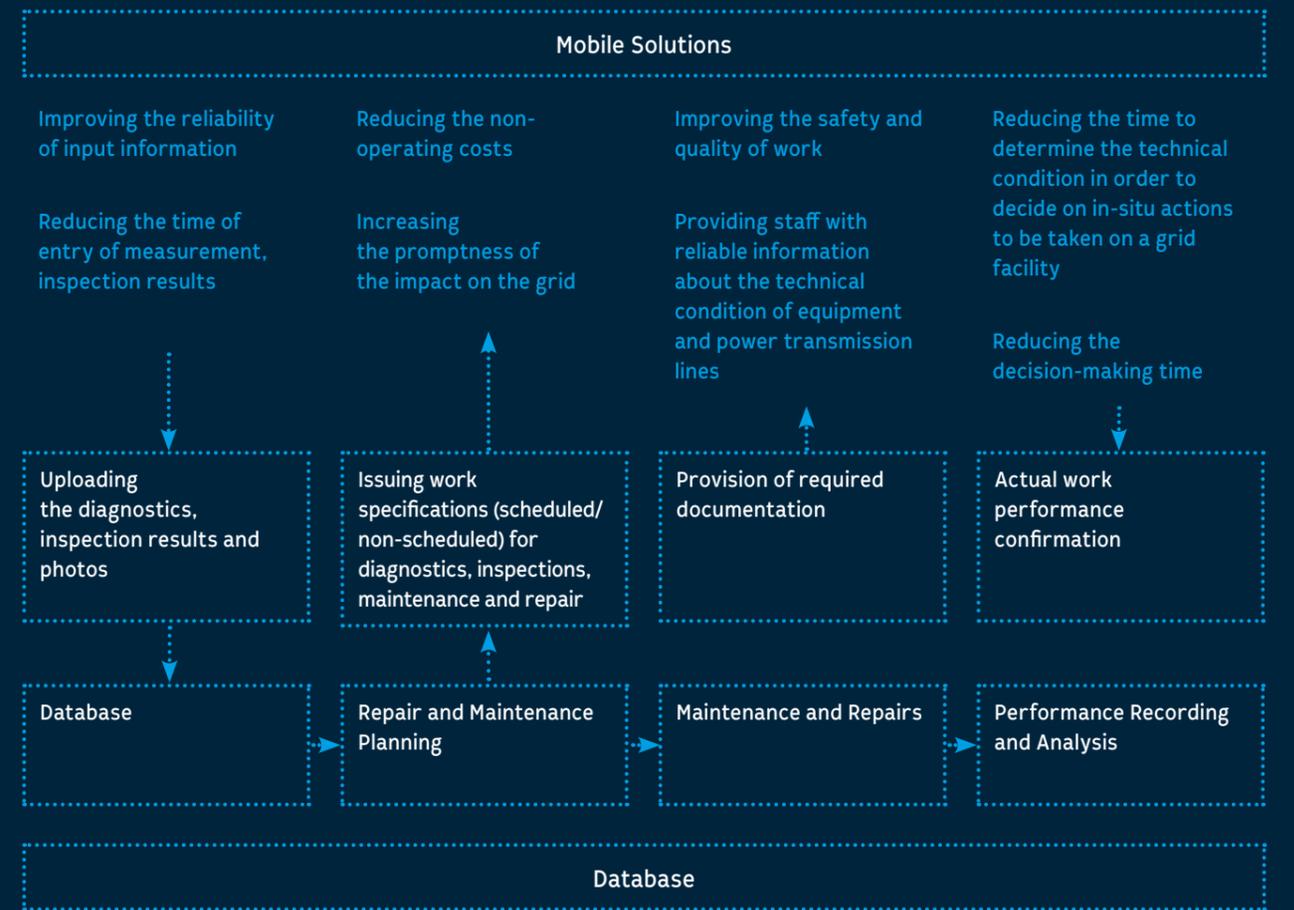
Driven by the development of the feature set, it is planned to furnish equipment maintenance and repair teams, emergency crews, and electricity metering crews with a total of 2,500 devices by 2024.



## The mobile solutions adopted helped to optimise as follows:

- 1 giving the specifications for diagnostics and inspections of power grid facilities and monitoring of their performance
- 2 in-situ entering the measurement, test and inspection results
- 3 confirming the actual performance of work

### Structural diagram of mobile solutions in IDGC of Centre



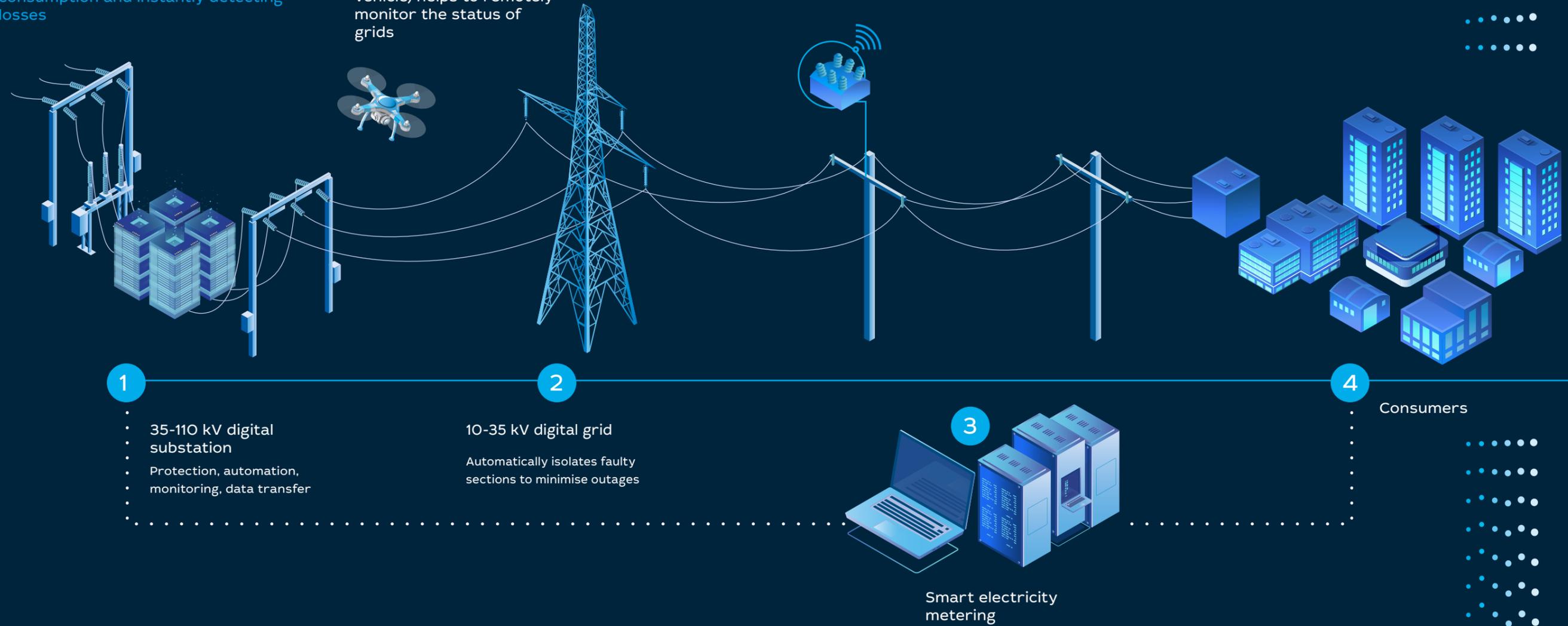
# WHAT ARE THE COMPONENTS OF A DIGITAL RPG<sup>1</sup>?

## Unified Control System

A smart grid model optimising power consumption and instantly detecting losses

UAV (unmanned aerial vehicle) helps to remotely monitor the status of grids

An intelligent switching device that automatically locates faults



<sup>1</sup> RPG - region of power grids (Distribution Zone)

# SMART (ACTIVE-ADAPTIVE) GRIDS

Smart Grid is a power grid that can intelligently control the operation of all elements to effectively provide safe, economical, and reliable power supply.

## The purpose of the Smart Grids:

1. Lower SAIDI/SAIFI indices;
2. Intellectual management of modes and production processes;
3. Preventing and speeding-up the elimination of technological disturbances;
4. Improving the efficiency and operational reliability of electrical installations;
5. Providing the possibility of a detailed retrospective analysis of the operating modes of the main electrical equipment.



Short-circuit indicators



Transmitting devices



Digital communication channels



Digital substations

In 2018, at the first stage of setting-up digital regions of power grids (RRGs), IDGC of Centre carried out the automatization of distribution grid sections and promoted their observability with the transfer of telemetry information to SCADA systems at dispatch control centres.

Combining intelligent devices at the higher level of control allows building the appropriate logic of their operation and streamline the operative and process-enabled control flows.

## IDGC Centre's grids digitalisation projects that are comprehensively implemented

1. Automation of 10 kV grid sections in Nizhnedevitsky, Novousmansky, Verkhnekhavsky RPGs at Voronezhenergo branch with installation of reclosers, motor-driven disconnecting switches, and short-circuit indicators (a total of over 100 intelligent devices installed to automate and improve grid observability)
2. Upgrading of 10 kV overhead lines coming from the Sheino substation at Belgorodenergo branch with building active-adaptive (smart) grids with the use of vacuum reclosers, sulphur hexafluoride (SF) load-break switches
3. Upgrading of the unified information management system (EMS) of Kostromaenergo branch with the integration of data into Dispatcher Operative Information Complex (OIC). The system is capable of remote monitoring of distributed network facilities. The centralised solution is based on a single software-hardware platform, which can be accessed via several possible architectures (for example, client-server, web browser, and a mobile phone).

## Transition to digital smart grids with a distributed intellectual automation and control system

The multi-agent intelligent control technology is one of the key technologies for creating an active-adaptive (smart) electric power system. Innovative intelligent devices installed in distribution grids have their own controllers to process information, organise its transmission via digital communication channels to SCADA-systems, and arrange for the operational logic of each device.

In 2018, the Company utilised several types of intelligent switching devices, which enhanced the flexibility of distribution grids schemes and enabled to selectively identify and localise damaged grid sections only, leaving consumers of intact sections in operation.

In addition to controlling means, it is important to have a distributed

network of intelligent sensors that allow identifying various types of events and transmitting information to the dispatcher for further decision-making.

## Transition to integrated business processes and automation of control systems

### Key projects

Activities	Deadlines and costs in 2018 (excl. VAT)	Project mission	Results attained in 2018
Upgrading of the unified information management system (EMS) of Kostromaenergo branch with the integration of data into Dispatcher Operative Information Complex (OIC).	2018, RUB 13.2 mn	Transition to a higher quality level for solving the following main technological, organisational, and economic problems: <ul style="list-style-type: none"> <li>• upgrading the efficiency of dispatch control;</li> <li>• improving the management of processes and production processes;</li> <li>• preventing and speeding-up the response to disturbances and accidents;</li> <li>• improving the efficiency and operational reliability of electrical installations;</li> <li>• improving the reliability and stability of the power supply system due to the availability of complete and timely information on the equipment operation;</li> <li>• providing the possibility of a detailed retrospective analysis of the operating modes of the main electrical equipment.</li> </ul>	Design and survey, construction and commissioning works were finished. Several 6(10)/0.4 kV transformer substations had installed technical metering devices with the transmission of data on the status of transformer substations and feeders to the branch's OIC, including sporadic signals.
Development of PAMS	2018, RUB 60.69 mn	The project mission is to optimise the distribution of Repair Programme costs so that to minimise the risks of electrical equipment failures, which directly affect the SAIFI indicator.	<ul style="list-style-type: none"> <li>• A software (SAP) was developed as part of the production asset management system (PAMS) development plan to streamline the processes for analytical reporting, accounting, maintenance, and repair of electric grid facilities at the Enterprise Resource Planning System (the ERP) of the Company.</li> <li>• The ERP (SAP software) was automated and integrated with automated power metering systems (APMS), actually used and reserved maximum power of electricity consumers aimed at the fulfilment of the KPIs "Electricity Losses" and "Labour Productivity" were calculated.</li> <li>• The ERP (SAP software) was developed across the areas of management accounting, customer relationship management, grid connection, electricity transmission, electricity accounting management, asset management, maintenance and repairs, accounting and reporting, tax accounting, purchasing control and procurement management, and property management.</li> </ul>

## Introduction of new technology solutions and materials in power engineering

In 2018, IDGC of Centre carried out projects using the following advanced technical solutions.

- 0.4 kV multi-sided steel poles;
- pole-mounted 10 kV transformer substations;
- 10 kV, 35 kV reclosers;
- energy-efficient power transformers;
- high-endurance conductor;
- IEC 61850-8-1-compliant RPA and

- telemetry equipment (GOOSE, MMS);
- capacitor-regulated reactors;
- charging stations for electric vehicles;
- 6–20 kV outdoor vertical-break line disconnectors;
- 10 kV controlled SF load-break switches;
- 6–20 kV outdoor motor-operated line disconnectors;
- 110 kV nitrogen current

- transformers;
- 10 kV and 110 kV composite poles;
- Short-circuit indicators for 6–10 kV power transmission lines.

### Key projects

Activities	Deadlines	Results attained in 2018	Costs in 2018, RUB mn (excl. VAT)
Upgrading of the 110 kV Pravoberezhnaya-Lebedyan overhead line with taps, the 110 kV Don - Sukhaya Lubna overhead line with taps at the Kuiman substation with the use of innovative materials and technologies (composite poles). (Lipetskenergo)	2016–2018	Design and survey, construction and commissioning works were finished	64.2
Upgrading of the water crossing of the 110 kV Donskaya overhead lines across the Don River in order to eliminate inconsistencies with standards, regulations and specifications (using a light-weight wire for setting-up the crossing). (Lipetskenergo)	2017–2018	All construction and installation activities were completed	9.8

## R&D initiatives

### 2018 R&Ds finished

- Development of the automatic control system for an unmanned aerial vehicle (UAV) used to detect failures of overhead power line elements;
- Investigation of gas behaviour in internal insulation of high-voltage oil-filled equipment and preparation of recommendations on the update of results of the Chromatographic
- Analysis of Dissolved Gases;
- Hardware and software complex to ensure grid observability for 6-10 kV and 04 kV facilities fitted with the electricity metering systems.

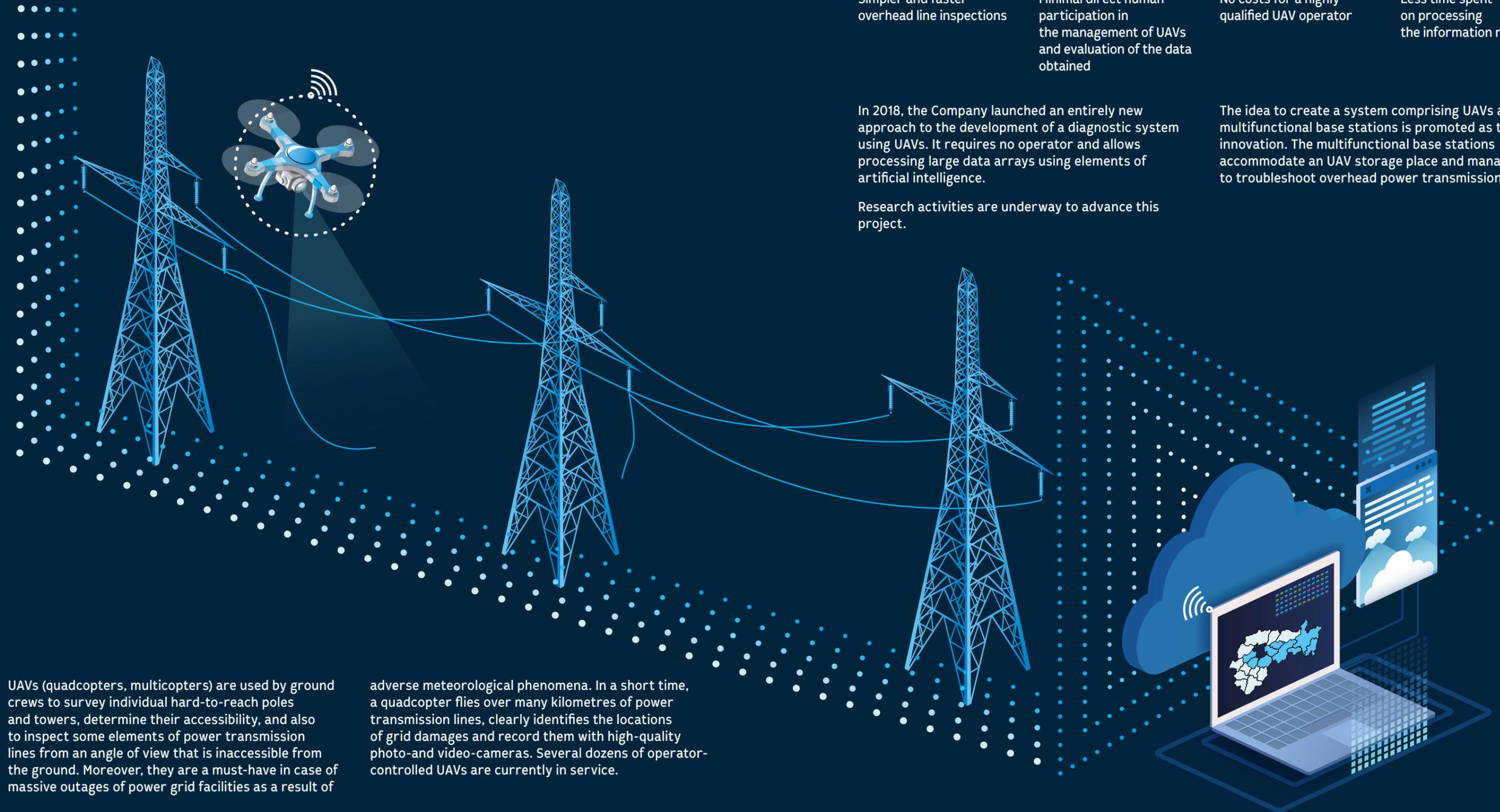
### 2018 R&Ds ongoing

- Designing a control system for a group of UAVs to perform continuous monitoring of overhead power transmission lines in automatic mode, with a network of charging stations as an element of the control system;
- Studying existing 6–35 kV systems for compensation of capacitance short-circuit earth currents
- at Smolenskenergo branch of IDGC of Centre.

A detailed breakdown of these R&D projects is available in Appendix No. 3.3 to the Annual Report.

# UNMANNED AERIAL VEHICLES

Unmanned aerial vehicle UAVs are designed to perform continuous monitoring of overhead power transmission lines in automatic mode, with a network of charging stations as an element of the control system.



UAVs (quadcopters, multicopters) are used by ground crews to survey individual hard-to-reach poles and towers, determine their accessibility, and also to inspect some elements of power transmission lines from an angle of view that is inaccessible from the ground. Moreover, they are a must-have in case of massive outages of power grid facilities as a result of

adverse meteorological phenomena. In a short time, a quadcopter flies over many kilometres of power transmission lines, clearly identifies the locations of grid damages and record them with high-quality photo-and video-cameras. Several dozens of operator-controlled UAVs are currently in service.

## The main effects of UAVs

- 1 Simpler and faster overhead line inspections
- 2 Minimal direct human participation in the management of UAVs and evaluation of the data obtained
- 3 No costs for a highly qualified UAV operator
- 4 Less time spent on processing the information received

In 2018, the Company launched an entirely new approach to the development of a diagnostic system using UAVs. It requires no operator and allows processing large data arrays using elements of artificial intelligence.

Research activities are underway to advance this project.

The idea to create a system comprising UAVs and multifunctional base stations is promoted as the main innovation. The multifunctional base stations accommodate an UAV storage place and manage UAVs to troubleshoot overhead power transmission lines.

# INFORMATION TECHNOLOGIES

**Performance of IDGC of Centre as a modern power grid company is directly contingent on the use of state-of-the-art IT solutions and automation tools.**

## Development of Automated Process Control Systems in 2018

- The Company continued to implement the programmes on upgrading and expanding the data acquisition and transmission systems and the programmes on developing the automated process control systems at nine branches of the Company.
- Seven branches adopted ADCS systems in RPG DDCC.
- IDGC of Centre developed a new programme on upgrading and expansion of the data acquisition and transmission system for eleven branches in line with the Agreement on technological interaction between JSC SO UPS and IDGC of Centre dated 7 July 2017.
- Technical specifications for design and survey works of grid control centres were prepared for eleven branches in line with the Concept of development of operational and process management system in ROSSETI's power grid complex.
- The Company's branches installed the unified metering data computation systems on the basis of Piramida-Seti software.

## Development of Telecommunication and ITT

In 2018, to improve reliability and observability of electric power facilities of the Company's branches, we continued construction and establishment of communication channels on the basis of fibre-optic communication line technology (FOCLs), which transfer the process data to all decision levels, including

implementation of obligations on the programmes on updating and extension of data acquisition and transmission systems to the branch of SO UES of the Operational Dispatch Office of Centre.

The technology is applied for the establishment of main and

backup communication channels, the transmission of telemetric data, voice communication on the Unified Energy System mode control between substation personnel and dispatching services of GCC of the Company and the Operational Dispatch Office of Centre.

## FOCL Communication Channels

Despite the high cost and long period of construction, FOCLs have a number of advantages, which define actuality and preferability of their further widespread use. FOCLs remain the most

reliable solution with the highest throughput capacity as compared to other options.

**221 km**  
of own FOCL were built in 2018

## Satellite Communications

In the reporting year, IDGC of Centre continued installing satellite communications equipment (VSAT) at substations. Satellite channels are mainly used as backup communications and data transmission channels for remote 35 kV and 110 kV substations that are not economically viable to

connect via other communications channels. The advantages of the satellite communication system:

- promptness of communication channel construction;
- up to 2 Mbps data rate;

- processing by the single satellite operator regardless of the distance between facilities.

## Digital Dispatch Radio Communication

IDGC of Centre built and is actively developing a digital radio dispatch system based on advanced digital radio equipment integrated into the Company's existing data transmission infrastructure. The system enables us to fundamentally upgrade and integrate our dispatch control for emergency and maintenance crews into

a single network, thereby providing uninterrupted contact with the crew while on the move.

In 2018, wireless channels based on the cellular data exchange network and wireless broadband networks of own infrastructure were implemented.

With a view to the trends of telecommunication technology development, efforts on backing-up and updating the existing communication channels are being made to improve the transmission capacity and the reliability of information transmission.

## Business Applications and Business Process Automation

In 2018, the Company upgraded its automated management data flow system.

Using ERP, the Company implemented the projects on automation of customer informing processes, automation of power outage applications.

With the audit and supervision automated system adopted, the Company increased the transparency of its performance and controllability.

The Call-Centre Energo-portal automated system was completed and registered in the Russian Federal Service for Intellectual Property.

The Company applies newly developed mechanisms of the mass power outages recording system to automatically record and monitor crew actions during drills in the Republic of Dagestan, within Tverenergo and Lenenergo footprint.

In 2018, the Company launched the automated technical support management system into service.

In cooperation with branches of SO UPS of the RDO of the operation area of SO UPS branch, the Operational Dispatch Office of Centre undertook the IT-related activities stipulated for inspections during preparation for the autumn and winter season and implementation of the programmes on

upgrading and expansion of the data acquisition and transmission system (DATS).

The Company upgraded the shared display system for duty personnel of the Unified IT-Support Situation Management Centre of the Corporate and Technological Automated Control System Office of IDGC of Centre.

Collective tasks functions were adopted in the Company's Automated Management Documentation System.

# DIGITAL RADIO COMMUNICATIONS

## Project Missions

- 1**

Ensuring continuous and sustainable management of production processes under routine conditions and in case of process disturbances, accidents and emergencies;
- 2**

Eliminating the radio communication marginal reception areas;
- 3**

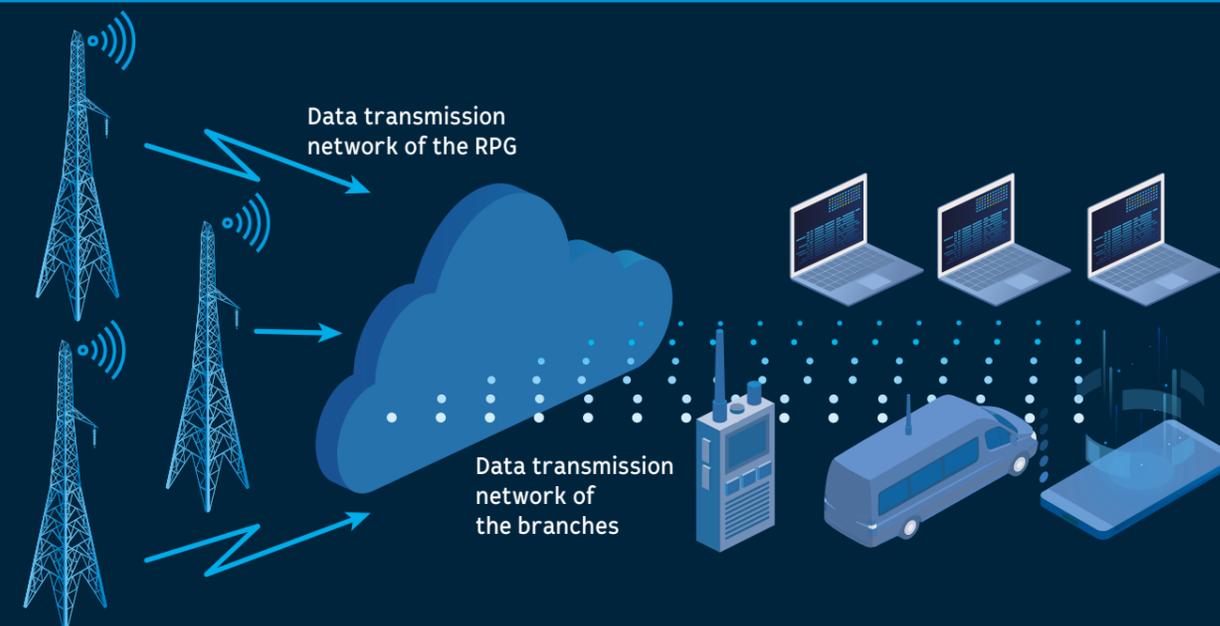
Ensuring reliable communication between GCC and power facilities;
- 4**

Fulfilling remote group and individual commands;
- 5**

Creating the unified digital radio communication network without reference to RPG dispatch points;
- 6**

Fitting business units with digital radio communication means;
- 7**

Reducing the maintenance costs for radio communication equipment.



## Current Status Analysis

Structurally, the dispatch online radio communication system relates to the analogue conventional radio communication - with partial use of repeaters.

The radio communication system is fragmented. It consists of local areas that are not networked.

Most of the used portable and subscription radio stations are of 1995-2008 year of manufacture. 70% of radio stations are not serviceable and require repair. The rest of subscription radio stations are Motorola equipment designed to operate in the digital radio communication mode within 136-174 MHz band, but at the time of examination, it was running in the analogues radio communication mode.

The Company provided 30 to 70 radio networks at the level of RPG, GCC, and operational services of each branch.

At the time of examination, the radio network coverage is over 30% of the entire operating area.

## Key Stages

- **2019**  
Preparing technical requirements to design and survey works
- **2019**  
Conducting design and survey works, process development works, determining installation places for digital repeaters
- **2019-2020**  
Conducting construction and erection works in the pilot regions
- **2020-2022**  
Construction and erection works in other regions
- **2019-2022**  
Regional frequency planning and electromagnetic compatibility
- **2019-2022**  
Fitting business units with digital radio communication subscription means

## Project Description and Missions

1. Installing digital repeaters at existing antenna mast structures in the territory of the RPG and the 35/110 kV substations;
2. Providing digital communication channels and IP-accessibility in data transfer networks of branches, base station being installed and repeaters;
3. Equipping personnel and motor vehicles with portable digital radio communication means;
4. Providing backup digital communication channels to base stations and digital repeaters in order to increase resiliency of the radio network;
5. Installing additional antenna mast structures and repeaters to extend the reliable data exchange zone;
6. Upgrading the software of the dispatch radio communication;
7. Integrating remote telephone control panels into the Single Grid Control Centres of branches provided with the digital radio communication systems;
8. Providing reliable 100% radio coverage;
9. The priority conditions for selection of installation places for repeater are:
  - availability of the operating antenna mast structure at a facility;
  - availability of the operating IP communication channels at a facility;
  - importance of the territorial location of a facility.

## Project Performance

- Upgrading the online dispatch communication;
- Providing 100% radio coverage of the branches territory;
- Fitting the business units and motor vehicles with up-to-date digital radio stations;
- Providing online dispatch control in line with the Concept of operational and technological process system development.

# SMART METERING

Metering points of IDGC of Centre totalled 3.3 mn points, including 251 thousand of metering devices with remote data collection (7.6% of the total number).

The Company plans to adopt smart metering through:

- implementation of the measures under the signed energy services contracts – 149.5 thousand points;
- implementation of the measures under the future energy services contracts – 179 thousand points;
- the 2019–2024 Investment Programme – 202 thousand points;
- additional sources of financing (if available) - annual replacement of more than 247 thousand devices following the end of the calibration interval of metering devices, failure of metering devices, providing new consumers with metering devices.

The project envisages the creation of an innovative scheme for building automated data management systems using SPODES and SPODUS unified data exchange protocols, modular schemes and providing wireless data transmission through telecom operators or radio channels of extended range, using the existing infrastructure, as well as ensuring the possibility of rendering services to consumers through mobile applications.

The existing metering system is a complex multi-stage scheme for collecting and processing data using various software and expensive equipment and has several disadvantages:

- expensive equipment (DATU) and software (the number of software products);
- limited range and data transfer rate;
- strict requirements for lines and wiring quality;
- no modularity of components of the scheme;
- the possibility of malfunctions and difficulties in detecting signal loss in a line.

The project is aimed to optimise the process of data acquisition, processing and transfer and to expand the functionality of metering equipment, thereby improving the system performance indicators, such as:

- increase in speed and radius of data transmission;
- reduction in the cost for implementation and operation of the system by minimising the number of equipment, modularity and unification of the scheme elements;
- impossibility for a consumer to interfere with the operation of meters;
- practically unlimited number of connected devices;
- the possibility for the consumer to control power consumption and other parameters, remotely switch to calculations under tariff options, phase out of consumption;
- possibility to use a smart meter as a multifunction device.

## Key Stages

### 2019

1. Integrating existing and newly installed smart electricity meters into the Piramida-Seti unified software system.
2. Providing technical metering devices in 0.4 kV incoming lines of 6–10/0.4 kV transformer substation with a function of tele-monitoring over the substation.

### 2020

1. Satisfying the requirements of Federal Law 522–FZ dated 27 December 2018.
2. Installing technical metering devices in 0.4 kV incoming lines of 6–10/0.4 kV transformer substation.

### 2021

1. Satisfying the requirements of Federal Law No. 522–FZ dated 27 December 2018.
2. Installing technical metering devices in 0.4 kV incoming lines of 6–10/0.4 kV transformer substation.

### 2022

1. Satisfying the requirements of Federal Law No. 522–FZ dated 27 December 2018.
2. Installing technical metering devices in 0.4 kV incoming lines of 6–10/0.4 kV transformer substation.

## Project Missions

The key objectives of the project are:

- 1 Satisfying the requirements of Federal Law No. 522–FZ dated 27 December 2018;
- 2 Integrating the existing smart electricity metering devices into the Piramida-Seti unified software system;
- 3 Creating the electricity metering and data transmission and processing infrastructure;
- 4 Full automation of electricity metering to obtain metering data online from all delivery points of end consumers and technical metering to generate the electricity balances.

The following requirements shall be met:

- a Using a single SPODES data exchange protocol for electricity metering devices and SPODUS for data acquisition and transmission devices;
- b From 1 July 2020, providing electricity meters to consumers in case of:
  - expiration of the calibration interval;
  - meter failure;
  - unavailability of a meter;
  - new grid connections.
 From 1 January 2022, providing fiscal metering consumers only with smart electricity metering devices;
- c Taking measures to organise/upgrade electricity metering system through non-tariff sources, by concluding energy service contracts for 6-10 kV feeders with the highest level of excess electricity losses, while the payback period for these energy service contracts should not exceed 8 years.



## Project Outcomes

The totality of the technologies introduced under this project will allow achieving the following effects:

Effect	User
Full coverage by the smart metering system in line with Federal Law No. 522 dated 27 December 2018 under the minimum requirements to meters	IDGC of Centre IDGC of Center and Volga Region
Generation of net delivery data	IDGC of Centre IDGC of Center and Volga Region
Consistency check of the amount of services rendered	IDGC of Centre IDGC of Center and Volga Region
Reduction of commercial energy losses	IDGC of Centre IDGC of Center and Volga Region

# STRONG FINANCIAL STANDING

The Company enjoys reasonable independence and financial capabilities

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Already  
the case:

**“BB”**

long-term credit rating,  
outlook Stable (S&P)

## 04.

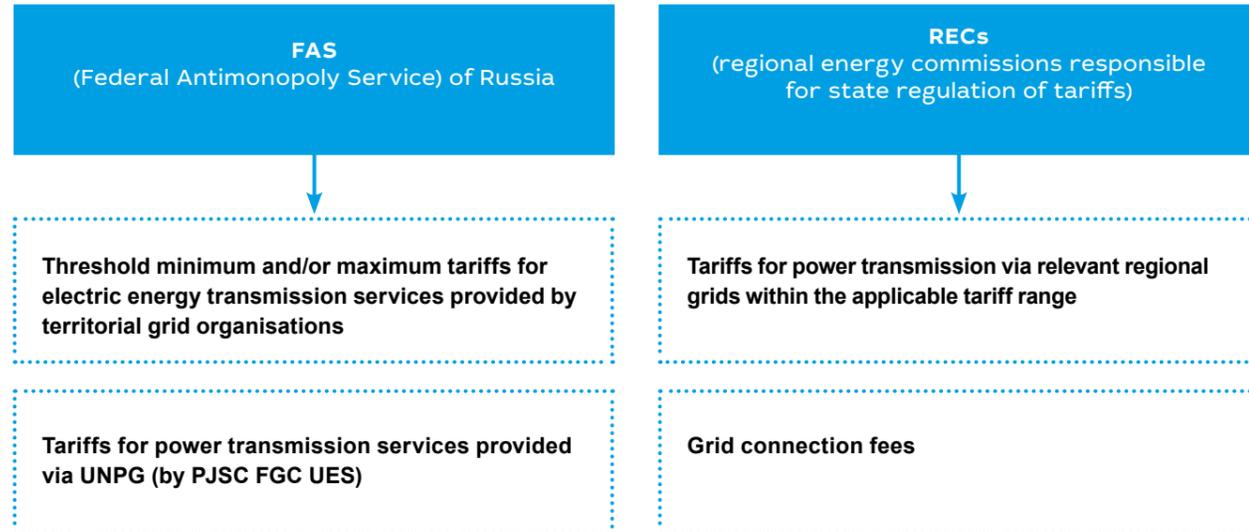
### FINANCIAL REVIEW



# TARIFF POLICY

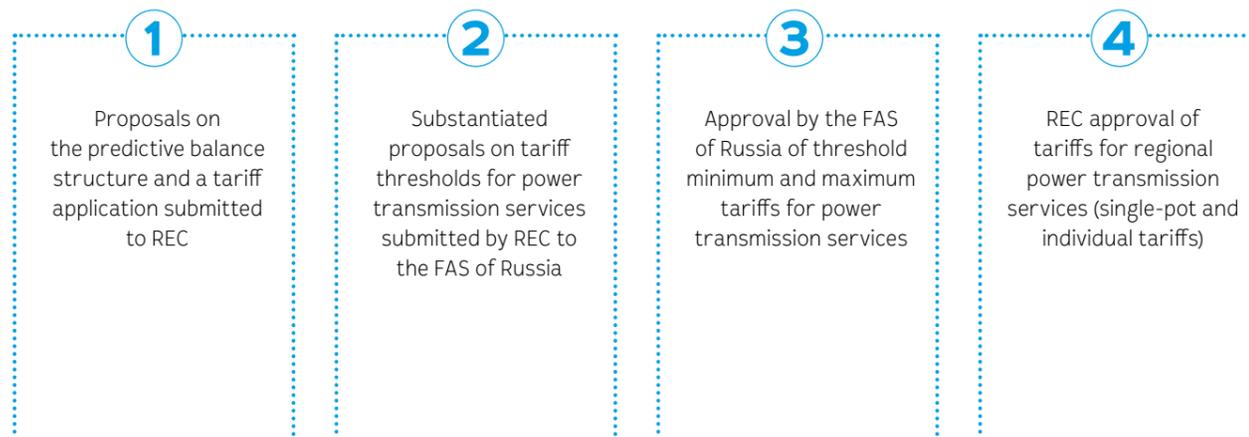
Core operations of IDGC of Centre are regulated by the government through executive authorities responsible for state tariff regulation, which set relevant tariffs (fees).

## Tariff-setting for core operations

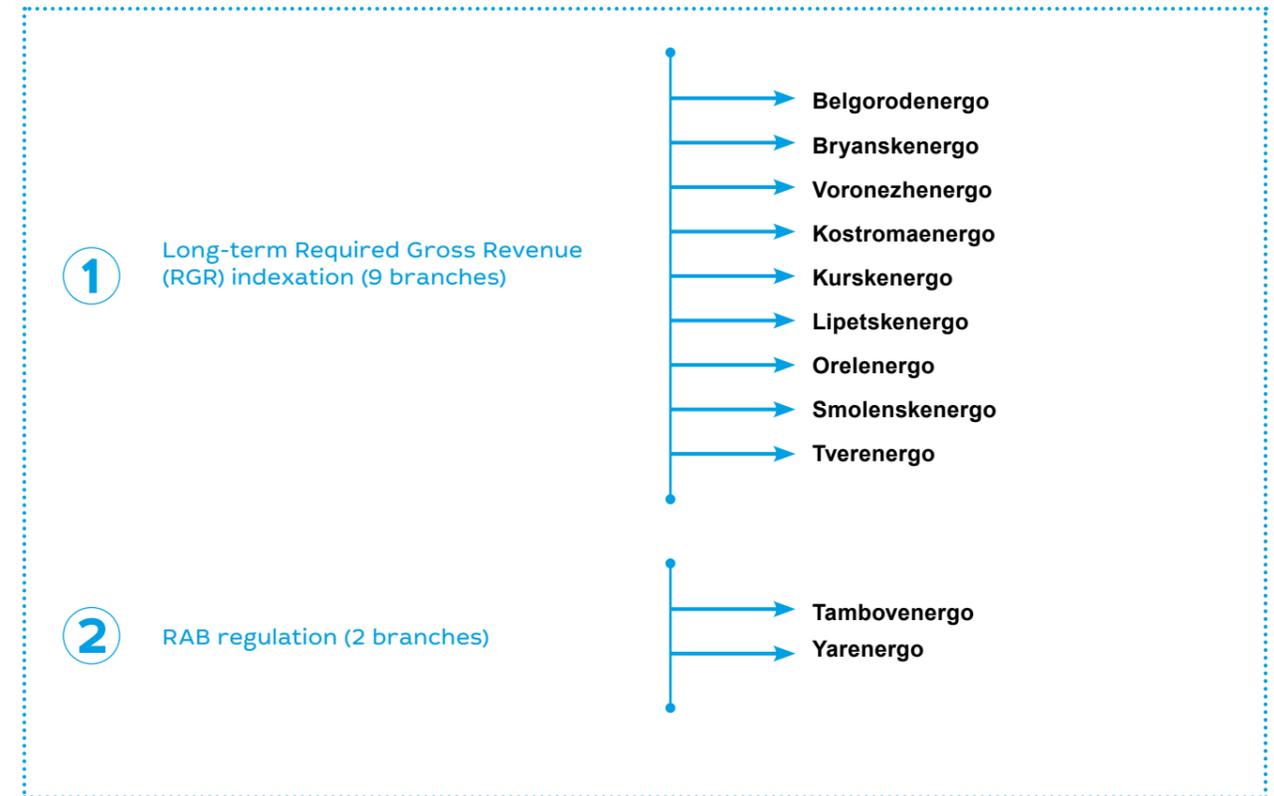


## Power Transmission Tariffs

### Levels of decision-making on tariffs for power transmission services



In 2018, two methods were used to set tariffs for power transmission services applicable across the Company's branches.



The regulation method for each of the Company's branches is chosen by reference to Resolution No. 1178 of the Russian Government dated 29 December 2011 "On Price Formation Regarding Regulated Prices (Tariffs) in the Power Industry".

On 31 December 2017, the long-term regulation period came to the end at all branches of IDGC of Centre, except for Lipetskenergo.

In 2018, long-term regulatory parameters were established by the following methods:

- a new long-term regulation period by the RAB-regulation method (2018–2022) - Yarenergo;
- a new long-term regulation period by long-term indexation method (2018–2022) - Belgorodenergo, Bryanskenergo, Voronezhenergo, Kostromaenergo, Kurskenergo, Orelenergo, Smolenskenergo, and Tverenergo;
- extension of the RAB regulation until 2020 in the Tambovenergo branch (approved by the FAS of Russia dated 21 December 2017 No. 1743/17).

For Lipetskenergo, 2018 is the second year of the next long-term regulation period (2017–2021) regulated by the long-term indexation method.

Long-term regulatory parameters related to baseline costs are set for all branches, where 2018 was the first year of the next long-term regulation period under the existing laws.

## Tariff-Setting Methods Applied

Method	RAB regulation	Long-term RGR indexation
<b>Required Gross Revenue (RGR) is aligned with the following documents:</b>	Guidelines approved by Order No. 228-e of the Federal Tariff Service of Russia dated 30 March 2012	Guidelines approved by Order No. 98-e of the Federal Tariff Service of Russia dated 17 February 2012
<b>RGR structure:</b>	<ul style="list-style-type: none"> <li>Costs related to production and marketing of products (services) for the regulated type of operations (controllable and non-controllable costs);</li> <li>Equity and debt repayment;</li> <li>ROIC;</li> <li>Price-smoothing (revenue carryover from the relevant regulatory period);</li> <li>RGR adjustments.</li> </ul>	<ul style="list-style-type: none"> <li>Controllable costs (OPEX), including costs under collective agreements and other costs paid out of profit;</li> <li>Uncontrollable costs, including depreciation, cost of debt and repayment of principal, and capex paid out of profit;</li> <li>RGR adjustments.</li> </ul>
<b>Long-term regulation components for RGR:</b>	<ul style="list-style-type: none"> <li>Base OPEX;</li> <li>OPEX performance index;</li> <li>Capital invested;</li> <li>Net working capital;</li> <li>Rate of return on invested capital;</li> <li>Payback period;</li> <li>Asset-volume elasticity of controllable costs;</li> <li>Electric power losses during its transmission over electric grids;</li> <li>Reliability and quality of products (services) marketed.</li> </ul>	<ul style="list-style-type: none"> <li>Base controllable costs;</li> <li>Controllable cost performance index;</li> <li>Asset-volume elasticity of controllable costs;</li> <li>Electric power losses during its transmission over electric grids;</li> <li>Reliability and quality of products (services) marketed.</li> </ul>

## Changes in Tariffs over Time

### Average weighted joint operation ("single-pot") tariffs<sup>1</sup> for power transmission in 2016–2018

Indicator	Unit	2016	2017	2018
Average tariff for power transmission services	kopecks/kWh	156.2	176.7	196.2
Growth	%	5.3	13.1	11.1

## Required Gross Revenue (RGR)

In December 2017, the Regional Energy Commission at IDGC of Centre's footprint set up tariffs for power transmission via grids owned, under beneficial title or other legal grounds, by territorial grid organisations as stipulated by the Russian Law.

2018 tariff balance solutions (hereinafter - TBS)<sup>2</sup> for branches affiliated with the Company are established within FAS-approved threshold minimum and maximum rates for power transmission services rendered to consumers not related to households and equivalent consumer categories<sup>3</sup>.

Joint-operation RGR across IDGC of Centre's branches was approved in the amount of RUB 92,686 mn (+4.2% year-on-year), the average tariff is 1,962 RUB/MWh (+11% year-on-year).

RGR for operation of branches affiliated with IDGC of Centre was approved at RUB 46,689 mn (+4.2% year-on-year), among them:

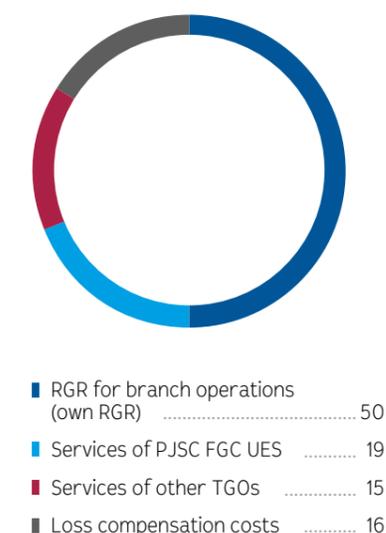
- Voronezhenergo: +9.2%
- Lipetskenergo: +8.4%
- Tambovenergo: +7.7%
- Kurskenergo: +7.2%
- Orelenergo: +6.9%
- Bryanskenergo: +6.3%
- Tverenergo: +3.6%
- Varenergo: +3.5%
- Kostromaenergo: +3.0%
- Smolenskenergo: +1.5%
- Belgorodenergo: -2.3%

The reduction of joint-operation RGR and operation RGR at the Belgorodenergo branch was caused by the single-step transfer of the guaranteeing supplier of the region (JSC Belgorodenergosbyt) to reference-based costing.

Joint-operation RGR in the reporting year experienced no material changes. RGR for IDGC of Centre's branches accounts for the bulk (50%) of RGR, costs for FGC UES services amount to 19%, costs for other TGOs' services - 15%, and costs for compensation of losses in our transmission and distribution grids - 16%.

**4.2%**  
RGR year-on-year growth

IDGC of Centre's RGR mix in 2018, %



Changes in RGR mix in 2016–2018, RUB bn



## Connection Tariffs

In 2018, grid connection tariffs were regulated by methodology guidelines approved by Order No. 1135/17 of the Federal Tariff Service of Russia dated 29 August 2017 (entered into force on 31 October 2017), whereby executive authorities of constituent entities of the Russian Federation responsible for state tariff regulation are mandated to set:

### • for the regulatory period:

Rates per maximum capacity unit (RUB per kW)	Determined on the basis of approved standardised tariff rates and actual averages on the connected maximum capacity for the previous three years
Standardised tariff rates (RUB per one grid connection, RUB/km, RUB/kW)	Calculated on the basis of data provided by grid organisations on actual expenses for the three previous years by the comparative method, given the costs of all grid organisations of a constituent entity, with single rates set for the entire constituent entity
Grid connection fee formula	It is established by the regulatory authority on the basis of standardised tariff rates and the method of grid connection of the grid organisation pursuant to the provisions of clause 30 of Guidelines No. 1135/17 dated 29 August 2017

<sup>1</sup> Average weighted joint operation ("single-pot") tariffs for power transmission in 2016–2018 broken-down by branch are shown in Appendix 3.4 to the Annual Report on the Company's website.  
<sup>2</sup> RGR in 2016–2018 broken down by branch and the estimated share of the Company in regional RGR are shown in Appendix No. 3.4 to the Annual Report.  
<sup>3</sup> Order No. 1747/17 of FAS of Russia dated 19 December 2016.

• upon request by a grid organisation:

- a fee for connection of consumer terminals, with a maximum capacity of at least 8.9 MW and a voltage of at least 35 kV, to territorial transmission and distribution grids;
- a fee for connection of power generation facilities to territorial transmission and distribution grids;
- a fee for grid connection by individual projects.

If the specifications envisage measures, for which there are no approved rates, economically justified costs are determined on the basis of estimates submitted by the territorial grid organisations and prepared against the costing standards.

### Subsidised Grid Connection

The subsidised terms of grid connection are defined in clause 17 of the Rules for grid connection of power consumer terminals<sup>1</sup>.

**Subsidised terms of grid connection apply to:**

- applicants who submitted an application for grid connection of consumer terminals with a maximum capacity of up to and including 15 kW (given the loads already connected at this connection point);
- horticultural, gardening, dacha, and other non-profit associations, religious organisations and citizens who have united their garages and household outbuildings.

more than 300 m in urban areas and no more than 500 m in rural areas to the existing grid facilities of grid organisations;

- when calculating the fee for grid connection of non-profit associations and citizens who united their household outbuildings, the fee of RUB 550 is multiplied by the number of members (citizens) of such associations.

In addition, from 1 October 2017, an investment component (to cover the costs for the construction of electric grid facilities) included in the fee for grid connection of consumer terminals with a maximum capacity of 150 kW is equal to zero.

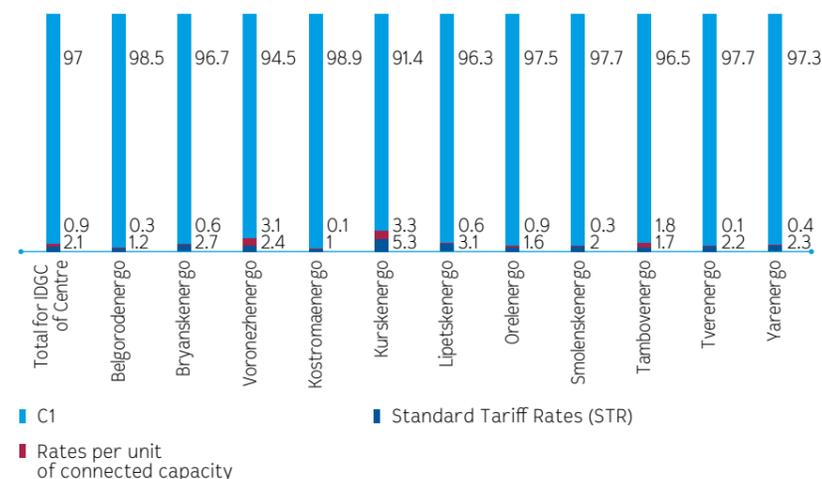
for power transmission services. Shortfalls in income are calculated as stipulated by the methodological guidelines No. 215-e/1 approved by Order of the FTS of Russia dated 11 September 2014.

In 2018, subsidised categories of consumers among “Up to and including 15 kV” category accounted for over 80% of the total grid connection contracts. During the year, other categories of applicants used the following billing options:

**Subsidised terms of grid connection:**

- RUB 550 maximum per connection, assuming the connection of consumer terminals of applicants under the third reliability category, with consumer terminals of such applicants located at a distance of no

Costs associated with the connection of subsidised categories of consumers are defined as “shortfall in income from grid connection” and are included in the expenses of the grid organisation taken into account when setting tariffs



**No more than 80%** share of subsidised grid connection contracts

<sup>1</sup> Approved by Decree No. 861 of the Government of the Russian Federation dated 27 December 2004.

### Shortfalls in income of IDGC of Centre from the grid connection services included in tariffs for power transmission services in 2018

Branch	Shortfall in income RUB '000	Regulations issued by regulatory authorities
Kurskenergo	307,806.19	Resolution No.106 of the Committee on Tariffs and Prices of the Kursk Region dated 22 December 2017
Lipetskenergo	264,246.17	Resolution No.52/2 of the Office of Energy and Tariffs of the Lipetsk Region dated 27 December 2017
Kostromaenergo	248,049.7	Resolution No.17/554 of the Department for State Price and Tariff Regulation of the Kostroma Region dated 27 December 2017
Voronezhenergo	126,179.00	Order No.58/1 of the Office for State Tariff Regulation of the Voronezh Region dated 25 December 2017
Bryanskenergo	81,473.81	Order No.41/2-pe of the Office for State Tariff Regulation of the Bryansk Region dated 26 December 2017
Yarenergo	61,159.79	Order No.360-p/ee of the Department of Energy and Tariff Regulation of the Yaroslavl Region dated 29 December 2017
Smolenskenergo	46,729.40	Resolution No.416 of the Department of Energy, Energy Efficiency, and the Tariff Policy of the Smolensk Region dated 28 December 2017
Tambovenergo	10,391.40	Order No.232-e of the Office for Tariff Regulation of the Tambov Region dated 22 December 2017
Orelenergo	6,809.37	Order No.494-t of the Office of Tariffs and Price Policy of the Orel Region dated 26 December 2017

### Standardised Tariff Rates (STR)<sup>2</sup>

Standardised tariff rates<sup>3</sup> are approved with the following discrimination for all branches of the Company:

- by activities;
- by category of applicants;
- by voltage;
- by connected capacity;

- by cable type and brand for overhead and cable lines;
- by technique of works (piercing method/method of horizontal directional drilling);
- by types and rated power of equipment and transformers of substations.

[Grid connection tariffs are also available on IDGC of Centre's website.](#)

### Rate per Unit of Maximum Capacity

The rates per unit of capacity are discriminated similarly to standardised tariff rates. The approved rates per unit of capacity for 2018 have a rather large variation of values and variety of

trends in year-on-year changes. This is subject to a new approach applied to calculating rates (a comparative method based on comparing the costs of grid connection of consumers

across all TGOs of the region has been introduced) and the large variability of past years data on actual connected loads across individual grid organisations and by types of activities.

### Individual project fees

The fee for connection of individual projects and the fee for grid connection of power generating facilities and individual consumer terminals with a maximum capacity of at least 8.9 kW and a voltage of at least 35 kV is set by the regulating authority on a case-by-case basis.

For 2018, for the above categories of applicants, the regulatory authorities for IDGC of Centre approved 20 grid connection fees, including:

- one fee was approved for the Belgorod, Voronezh, Kostroma, Kursk, Lipetsk, Smolensk, and Tver Regions;
- two fees were approved in the Bryansk and Orel Regions;

- three fees were approved by the regulatory authority of the Tambov Region;
- six fees were approved in the Yaroslavl Region.

<sup>2</sup> Commonly-used average standardised tariff rates across branches are shown in Appendix No. 3.4 to the Annual Report.

<sup>3</sup> Approved by Decree No. 861 of the Government of the Russian Federation dated 27 December 2004.

# FINANCIAL REVIEW

## RAS Financial Results

Proceeds from sales of products (services) in 2018 rose by RUB 2,813.1 mn (up 3.1% year-on-year), among others:

- +2.7% - revenue from the power transmission services, which is mainly due to an increase in the average tariff;

- +17.1% - revenue from grid connection services;
- +12.8% - revenue from the other services.

Meanwhile, revenue from the resale of electricity experienced a slight year-on-year drop of 3.4% and amounted to RUB 530 mn.

**3.1%**  
revenue growth in 2018

### Changes in key financials in 2016–2018, RUB mn<sup>1</sup>:

Indicator	2016	2017	2018		2018/2017 variation		2018 variation	
			Plan	Actual	RUB mn	%	RUB mn	%
<b>Proceeds from product (service) sales, including:</b>	<b>86,110.3</b>	<b>91,060.4</b>	<b>95,594.3</b>	<b>93,873.5</b>	<b>2,813.1</b>	<b>3.1</b>	<b>-1,720.8</b>	<b>-1.8</b>
Electricity transmission	83,590.4	87,622.9	92,818.6	90,015.4	2,392.5	2.7	-2,803.2	-3.0
Grid connection	1,411.3	1,591.2	1,604.0	1,863.9	272.7	17.1	259.9	16.2
Electricity sales	51.6	548.4	0.0	530.0	-18.4	-3.4	530.0	-
Other services	1,057.0	1,297.9	1,171.7	1,464.2	166.3	12.8	292.5	25.0
<b>Cost of sales</b>	<b>73,492.4</b>	<b>79,023.1</b>	<b>83,230.7</b>	<b>83,936.4</b>	<b>4,913.3</b>	<b>6.2</b>	<b>705.7</b>	<b>0.8</b>
Gross profit	12,617.9	12,037.3	12,363.6	9,937.1	-2,100.2	-17.4	-2,426.5	-19.6
Management costs	2,052.7	2,173.3	2,291.1	2,191.3	18.0	0.8	-99.8	4.4
Selling costs	0.6	20.2	0.0	18.8	-1.4	-6.9	18.8	-
Profit (loss) from sales	10,564.6	9,843.8	10,072.5	7,727.0	-2,116.8	-21.5	-2,345.5	-23.3
Interest receivable	250.7	366.8	218.8	53.1	-313.7	-85.5	-165.7	-75.7
Interest payable	4,507.7	4,046.4	3,703.1	3,196.1	-850.3	-21.0	-507.0	-13.7
Income from shareholdings	12.9	21.6	0.0	14.4	-7.2	-33.3	14.4	-
Other revenues	3,690.9	4,338.8	718.2	3,509.9	-828.9	-19.1	2,791.7	388.7
Other expenses	7,502.2	5,947.0	3,099.2	5,900.0	-47.0	-0.8	2,800.8	90.4
<b>Profit (loss) before tax</b>	<b>2,509.2</b>	<b>4,577.6</b>	<b>4,207.2</b>	<b>2,208.3</b>	<b>-2,369.3</b>	<b>-51.8</b>	<b>-1,998.9</b>	<b>-47.5</b>
Income tax and other charges	642.5	2,546.2	1,427.7	802.9	-1,743.3	-68.5	-624.8	-43.8
<b>Net profit (loss)</b>	<b>1,866.7</b>	<b>2,031.4</b>	<b>2,779.5</b>	<b>1,405.4</b>	<b>-626.0</b>	<b>-30.8</b>	<b>-1,374.1</b>	<b>-49.4</b>
<b>EBITDA<sup>2</sup></b>	<b>16,884.5</b>	<b>19,364.6</b>	<b>19,290.6</b>	<b>16,555.9</b>	<b>-2,808.7</b>	<b>-14.5</b>	<b>-2,734.7</b>	<b>-14.2</b>

<sup>1</sup> In line with RAS financial statements.

<sup>2</sup> EBITDA was calculated as Profit before Tax + Interest Payable + Depreciation & Amortisation = Line 2300 (RAS Form No. 2) - Line 2330 (RAS Form No. 2) + Line 6514 (RAS Form No. 2.1) + Line 6554 (RAS Form No. 2.1) + Line 6564 (RAS Form No. 2.1)

The cost of sales grew by RUB 4,913.3 mn (+6.2%) year-on-year. This rise was driven by the increase in uncontrollable costs and additional costs occurred in 2018 and associated with collective drills of IDGC of Centre's branches held in the territory of the Tver Region and aimed at training of emergency response in the context of the power grid complex and elimination of large-scale violations at power grid facilities, as well as collective training between ROSSETTI's subsidiaries and affiliates in emergency response in the power grid complex of IDGC of Northern Caucasus.

Profit from sales in 2018 decreased by 21.5% year-on-year, which is associated with a higher cost growth against revenue growth due to the termination of the last-mile lease agreements from 1 July 2017 in the Belgorod, Kursk, Lipetsk, and the Tambov Regions in 2018 (ex-post).

In 2018, the balance of other revenues and expenses was RUB 5,518.7 mn.

**In 2018, other revenues posted a year-on-year decline by RUB 1,149.8 mn, mainly against the following items:**

- **"Interest income"** - by RUB 313.7 mn. The change is due to a decrease in interest income on deposits;
- **"Income from reversal of provisions"** - by RUB 814.6 mn. The change is due to reversal of a less amount of bad debt provisions in 2018 as a result of debt repaid by one of our debtors and relevant back-bills signed by customers;
- **"Other revenues"** - by RUB 157.1 mn, mainly due to revenues under receivables assignment contracts and revenue from compensation of other incurred losses.

**Additionally, in 2018, other revenues increased year-on-year against the following items:**

- **"Breach of contract penalties recognised as income"** - by RUB 163.9 mn, mainly represented by penalties for delay in making payments awarded by courts;
- **"Revenues from insurance claims"** - by RUB 51.6 mn.

**Other expenses posted a year-on-year decline by RUB 897.3 mn, mainly against the following items:**

- **"Interest expenses"** - by RUB 850.3 mn. The decrease is due to a decrease in the volume of attracted long-term loans and borrowings and a decrease in the weighted average borrowing rate;
- **"Write-off of overdue bad receivables"** - by RUB 175.2 mn. In 2017, a large amount of time-barred debts was written-off, including for individuals, for the period of acting as the guaranteeing (last resort) supplier;
- **"Prior period losses carried forward"** - by RUB 193.2 mn, due to an increase in back-billed power transmission services recognised in 2017.

**Additionally, in 2018, other expenses increased year-on-year against the following items:**

- **"Expenses for labour remuneration of production workers from profits"** - by RUB 238 mn. This is mainly due to the remuneration of workers sent to the Republic of Dagestan and the Tverenergo branch to participate in collective drills;
- **"Allocations to valuation provisions"** - by RUB 96.4 mn, due to increase in accrual of lawsuit provisions in 2018.

Profit before tax in 2018 decreased by RUB 2,369.3 mn. Income tax and other similar obligatory payments in 2018 (ex-post) amounted to RUB 802.9 mn.

By the end of 2018, the financial result came with a year-on-year drop of RUB 626 mn. The main driver behind the year-on-year change in the financial result, in addition to the above mentioned, is the lower growth rate of the Company's revenues.

**The main financials against the 2018 target were as follows:**

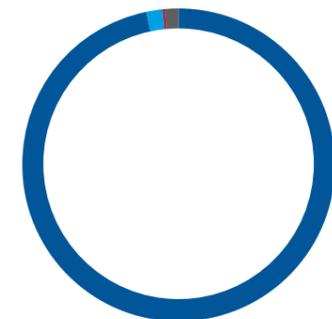
- Proceeds from sales of products (services) are RUB 1,720.8 mn (1.8%) below the target, including the drop in revenue from power transmission by RUB 2,803.2 mn, due to a decrease in the sales of power transmission services and a change in the average tariff;
- cost of sales is RUB 705.7 mn (0.8%) above the target. The higher costs are attributable to the drills held in the Tver Region;
- financial effect is RUB 1,374.1 mn below the target. The main drivers behind the variation: 2018 actual financial result vs the targets - is the increase in the cost of sales on the back of revenue decline.

## Revenue Mix

### Revenue mix and changes in 2016–2018, RUB mn

Indicator	2016	2017	2018	2018/2017 variance	
				RUB mn	%
<b>Total revenue</b>	<b>86,110.3</b>	<b>91,060.4</b>	<b>93,873.5</b>	<b>2,813.1</b>	<b>3.1</b>
Including:					
Electricity transmission (RAS)	83,590.4	87,622.9	90,015.4	2,392.5	2.7
Electricity transmission, including internal electricity sales	83,613.0	87,866.3	90,267.6	2,401.3	2.7
Grid connection	1,411.3	1,591.2	1,863.9	272.7	17.1
Electricity sales (RAS)	51.6	548.4	530.0	-18.4	-3.4
Electricity sales, excluding internal electricity transmission	29.0	305.0	277.9	-27.1	-8.9
Others, including	1,057.0	1,297.9	1,464.2	166.3	12.8
Revenue from additional services	1,005	1,219	1,136	-83	-7

### Revenue mix in 2018, %



■ Power Transmission	97.1
■ Grid connection	1.6
■ Electricity sales	0.1
■ Other	1.2

The key drivers behind the increase in revenue from electricity transmission services (+2.7%):

- higher average tariff rate (revenue growth by RUB 7,556.8 mn);
- Amendments to the Rules for non-discriminatory access to electricity transmission services and the provision of these services by Resolution No. 810 of the Government of the Russian Federation dated 7 July 2017 as they pertain to load losses (an increase in revenue by RUB 1,914.2 mn);
- lower net delivery (revenue decline by RUB 7,069.7 mn).

In 2018, revenue from the grid connection services increased by 17.1% year-on-year. This growth was driven by major grid connection contracts implemented in Belgorodenergo, Tambovenergo, Kurskenergo, and Trevenegero in 2018.

Revenue from sales of electricity decreased by 8.9% year-on-year, which is associated with a decrease in the volume of electricity sales.

Income from other services increased by 12.8%. The trigger for the growth is the revenue received from the services provided within functions of the Sole Executive Body of IDGC of Center and Volga Region.

## Costs<sup>1</sup>

### Changes in cost of revenue in 2016–2018, RUB mn

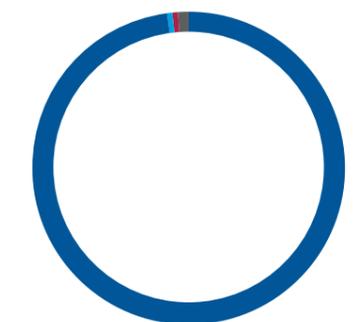
Indicator	2016	2017	2018	2018/2017 variation	
				RUB mn	%
<b>Cost of revenue<sup>2</sup></b>	<b>75,545.7</b>	<b>81,216.6</b>	<b>86,146.5</b>	<b>4,929.9</b>	<b>6.1</b>
Including:					
Electricity transmission	74,511.1	79,927.3	84,392.5	4,465.2	5.6
Electricity transmission, including internal electricity sales	74,511.1	79,927.3	84,603.1	4,675.8	5.9
Grid Connection	417.4	344.3	348.0	3.7	1.1
Electricity sales	27.7	297.2	484.8	187.6	63.1
Electricity sales, excluding internal electricity transmission	27.7	297.2	274.2	-23.0	-7.7
Other	589.5	647.8	921.2	273.4	42.2

The year-on-year increase in the cost of sales (including management and selling costs) by 6.1% was mainly spurred by higher uncontrollable costs for loss compensation, services provided by FGC UES, TGOs, and depreciation.

### Cost of revenue in 2016–2018, RUB mn

Indicator	2016	2017	2018	2018/2017 variance	
				RUB mn	%
<b>Total uncontrollable costs</b>	<b>49,997.3</b>	<b>54,323.4</b>	<b>57,355.7</b>	<b>3,032.3</b>	<b>5.6</b>
Including:					
loss compensation costs	11,865.5	13,609.1	14,976.5	1,367.4	10.0
Services of PJSC FGC UES	15,937.2	16,822.7	17,315.2	492.5	2.9
TGO services	12,299.9	12,874.1	13,657.1	783.0	6.1
depreciation of fixed and intangible assets	9,867.6	10,740.6	11,151.5	410.9	3.8
Electricity purchased for resale	27.1	276.9	255.4	-21.5	7.8
<b>Total controllable costs</b>	<b>25,548.4</b>	<b>26,893.2</b>	<b>28,790.8</b>	<b>1,897.6</b>	<b>7.1</b>
Including:					
Material costs	3,099.4	3,451.9	3,753.9	302.0	8.7
Production-related services	872.2	944.4	1,286.7	342.3	36.2
Staff costs (payroll, social security charges, contributions to private pension funds)	17,049.2	17,641.9	18,133.4	491.5	2.8
other	4,527.6	4,855.0	5,616.8	761.8	15.7
<b>Total costs</b>	<b>75,545.7</b>	<b>81,216.6</b>	<b>86,146.5</b>	<b>4,929.9</b>	<b>6.1</b>

### Cost of revenue in 2018, %



■ Electricity transmission	98.0
■ Grid connection	0.4
■ Electricity sales	0.6
■ Other	1.0

<sup>1</sup> In line with management statements.

<sup>2</sup> Including management and selling costs.

The cost structure comprises uncontrollable and controllable costs.

- In 2018, **uncontrollable costs** were RUB 57,355.7 mn (66.6% of total costs), a year-on-year growth of RUB 3,032.3 mn, or 5.6%, including:
  - Loss compensation costs amount to RUB 14,976.5 mn, (+10% year-on-year). The main contributor to the increase in costs is the exclusion of the cost of load losses from the calculation of costs from 1 August 2017 and the growth of weighted average unregulated prices on the WEM;
  - Services of PJSC FGC UES (+2.9%). The key driver behind the upsurge in costs is the exclusion of the cost of load losses from the calculation of costs from 1 August 2017 and higher maintenance rate for UNPG facilities and the higher average compensation rate for standard transmission losses in UNPG networks;
  - TGOs services (6.1%), driven by higher individual tariffs for TGO services;
  - Depreciation of fixed and intangible assets (3.8%), driven by the commissioning of new fixed assets;
  - Costs for electricity purchased for resale, which came at RUB 255.4 mn in 2018.

## Net Profit

### Net profit pattern in 2016–2018, RUB mn

Indicator	2016	2017	2018	2018/2017 change	
				RUB mn	%
Net profit	1,866.7	2,031.4	1,405.4	-626.0	-30.8
Including:					
Electricity transmission	785.7	296.6	-400.4	-697.0	-235.0
Grid connection <sup>1</sup>	705.9	970.0	1,211.1	241.1	24.9
Electricity sales	1.1	-66.8	-39.6	27.2	-40.7
Other services	374.0	831.6	634.3	-197.3	-23.7

- In 2018, **controllable costs** were RUB 28,790.8 mn (33.4% of total costs), a year-on-year growth of RUB 1,897.6 mn, or 7.1%, including:
  - Material costs (+8.7%); This increase was driven by the activities taken under the Programme to reduce electricity losses at grid facilities of IDGC of Centre and collective drills of IDGC of Centre's branches held in the territory of the Tver Region and aimed at training of emergency response in the context of the power grid complex and elimination of large-scale violations at power grid facilities, as well as collective training between ROSSETTI's subsidiaries and affiliates in emergency response in the power grid complex of IDGC of Northern Caucasus;
  - Production, maintenance and delivery services (+36.2%), which is associated with an increase in the volume of services provided for additional services, performance of energy survey activities and activities under the Repair Programme. In addition to the scope of annual works for clearing and expanding the forest corridor, in 2018, within the Tver-2018 Drills, the right-of-ways of power transmission lines were cleared;

- Staff costs (payroll, social security charges, contributions to private pension funds, +2.8%), driven by the indexation of wages and salaries of workers; compensation of employees assigned to rescue and recovery operations; compensation of workers sent to the Republic of Dagestan and the Tverenergo branch to participate in drills; additional bonuses to employees for reducing electricity losses (as part of initiatives to reduce losses), and the sale of additional services;
- other expenses (+15.7%). Growth due to an increase in the cost of taxes and fees, which is associated with an increase in the tax rate on power grid assets in accordance with Clause 3 of Art. 380 of the Tax Code of the Russian Federation (in 2017, the rate was 1.6%, and in 2018 - 1.9%) and the implementation of the Investment Programme, given the commissioning of new fixed assets, the appreciation of fixed assets after upgrading; for business trips and hospitality expenses related to drills held in the Tver Region and the Republic of Dagestan.

# 1.4 RUB bn

Net profit

# 24.9%

Growth of net profit from grid connections

### Profit distribution in 2016–2018 as resolved at the annual General Meeting of Shareholders, RUB '000.

Indicator	For 2015 (Meeting - 2016)	For 2016 (Meeting - 2017)	For 2017 (Meeting - 2018)
Retained profits	908,987	1,866,675	2,031,389
Including:			
Reserve fund	0	0	0
Profit for development	453,034	0	1,152,361
Dividends	455,953	1,866,675	879,028
Recovery of losses of prior periods	0	0	0

The resolution on profit distribution following results of 2018 will be adopted at the Annual General Meeting of Shareholders, taking into account recommendations of the Company's Board of Directors.

## EBITDA

As at the end of 2018, EBITDA stood at RUB 16,555.9 mn, a year-on-year drop of RUB 2,808.7 mn, or 14.5 %, driven by:

- an increase in revenue by RUB 2,813.1 mn;

- an increase in costs (less depreciation) by RUB 4,519 mn, mainly due to RUB 2,621.4 mn increase in uncontrollable costs;
- an increase in balances of other revenues and expenses (excluding interest payable) by RUB 1,102.8 mn.

# 16.6 RUB bn

EBITDA

## Financial Ratios

Indicator	Unit	2016	2017	2018	2018/2017 change, p.p.
Current liquidity ratio	-	1.2	0.8	0.6	-0.2
Return on assets (ROA)	%	1.6	1.7	1.2	-0.5
Return on equity (ROE)	%	3.3	3.5	2.4	-1.1
EBITDA margin	%	19.6	21.3	17.6	-3.7
Sales net profit margin	%	2.2	2.2	1.5	-0.7
Leverage	-	1.3	1.4	1.4	0
Long-term debt ratio	%	90.8	81.9	72.0	-9.9
Net debt/EBITDA	-	2.4	2.1	2.4	0.3

At the end of 2018, the current liquidity ratio was 0.6, which is down 0.2 p.p. year-on-year. Such a drop was triggered by a significant increase in short-term borrowings during the reporting period, while the negative dynamics of profit margins was contributed to by a decrease in the Company's net profit.

The leverage ratio in 2018 remained unchanged as compared to 2017. However, the long-term debt ratio decreased by 9.9 p.p.

Net Debt/EBITDA in 2018 increased by 0.3 p.p. year-on-year, which is attributable to a year-on-year lower EBITDA.

<sup>1</sup> Net profit from grid connection is a source for financing the bulk of the Company's obligations under grid connection agreements.

## Accounts Receivable and Accounts Payable

### Accounts receivable

#### Accounts receivable in 2016–2018, RUB mn<sup>1</sup>

Indicator	2016	2017	2018	2018/2017 change	
				RUB mn	%
Accounts receivable	15,175.7	12,361.7	12,873.1	511.4	4.1
Including:					
Trade receivables:	12,678.1	11,177.5	11,616.1	438.6	3.9
• Electricity transmission	11,932.5	10,730.3	11,003.5	273.2	2.5
• Electricity sales	455.8	142.6	129.1	-13.5	-9.5
Advances paid	117.1	131.0	131.7	0.7	0.5
Other debtors	2,380.5	1,053.2	1,125.3	72.1	6.8

The rise in accounts receivable by RUB 511.4 mn (4.1%) is caused by an increase in trade receivables, including for electricity transmission services - by RUB 273.2 mn.

In order to follow up the implementation of contractual obligations, the Company prepares and reviews its monthly receivables flow statements. In case of a payment delay by over 30 days, the Company takes punitive measures as stated in the corresponding regulatory documents.

#### Handling overdue accounts receivable

The bulk of overdue receivables is attributed to consumer debt for electricity transmission services. Arrears for electricity transmission services as of 31 December 2018

amounted to RUB 13,203.7 mn. (before deducting the bad debt provision according to the accounting reporting).

By the end of 2018, the total amount of overdue receivables to be recovered under enforcement orders was RUB 4,887.7 mn under 903 cases. Legal collection work resulted in RUB 3.7 bn, which includes RUB 813.8 mn recovered under enforcement orders. A total amount controlled under bankruptcy procedures is amounted to RUB 7,646.0 mn. Accounts uncollectible for electricity transmission services in the amount of RUB 113.3 mn was written off. RUB 289 mn of penalties were charged for delayed payment of electricity transmission services in 2018.

Overdue debts for the electricity supplied in the retail market for the period when the Company fulfilled

the functions of a supplier of last resort as of 31 December 2018 amounted to RUB 1,469.8 mn (before deducting the bad debt provision according to the accounting reporting), including RUB 628.9 mn, are recovered through legal proceedings. Bankruptcy procedures cover RUB 751.5 mn.

During the reporting period, uncollectible debts for the electricity supplied in the amount of RUB 319.2 mn were written off.

**3.7 RUB bn**  
recovered through legal collection actions

**19.8%**  
reduction in overdue debts for electricity supplied to the retail market

<sup>1</sup> Data as of 31 December of the relevant period. Metrics are aligned with accounting (financial) statements of the Company for the reporting period.

### Accounts payable

#### Accounts payable in 2016–2018, RUB mn<sup>2</sup>

Indicator	2016	2017	2018	2018/2017 change	
				RUB mn	%
Accounts payable	12,033.6	10,683.2	14,153.1	3,469.9	32.5
Including:					
Trade payables	5,775.8	4,589.9	6,066.2	1,476.3	32.2
Payroll liabilities	612.8	651.8	617.1	-34.7	-5.3
Taxes and charges	1,760.7	1,685.9	1,597.2	-88.7	-5.3
Advances received	2,680.3	2,925.2	2,241.2	-684.0	-23.4
Accrued dividends	16.0	39.9	43.2	3.3	8.3
Other accounts payable	1,188.0	790.5	3,588.2	2,797.7	353.9

#### Accounts payable decreased by RUB 3,469.9 mn (32.5 %) mainly driven by changes in the following items:

- trade payables (RUB 1,476.3 mn, or 32.2%) – the deviation is caused by the increase in current liabilities to counterparties;
- other payables (RUB 2,797.7 mn) are attributed to the fact that, for timely settlement with the key counterparties, the Company

signed agency contracts so that expenses can be partially financed by the agent. The amount of debts to the agent at the end of 2018 amounted to RUB 2.6 bn.

As at the end of 2018, overdue payables stood at RUB 847.2 mn, down by RUB 295.4 mn year-on-year, mainly driven by the payment of overdue payables to the counterparties that

fall under the category of Small and Medium-Sized Enterprises, under the Investment and Repair Programmes.

<sup>2</sup> Data as of 31 December of the relevant period. Metrics are aligned with accounting (financial) statements of the Company for the reporting period.

## Capital

### Capital of IDGC of Centre in 2016–2018, RUB mn

Indicator	2016	2017	2018	2018/2017 change	
				RUB mn	%
Equity	57,731.6	57,897.0	58,430.9	533.9	0.9
Borrowed funds	64,930.9	61,769.0	64,105.2	2,336.2	3.8
Including:					
Loans and borrowings	43,292.6	41,491.0	40,407.2	-1,083.8	-2.6
Accounts payable	12,033.6	10,683.2	14,153.1	3,469.9	32.5
Leverage	0.89	0.94	0.91	-	-3.2
Borrowed funds in liabilities, %	53	52	52	-	-
Cash at the end of the period	2,552.6	1,358.7	786.3	-572.4	-42.1
Net debt	40,740.0	40,132.3	39,620.9	-511.4	-1.3

Equity of the Company at the end of 2018 is 48% of the total capital. The RUB 533.9 mn increase in the Company's equity was driven by the positive financial result for the year. Revenue from electricity transmission grew RUB 2,392.5 mn year-on-year.

liabilities into current liabilities and by early repayment of some liabilities.

According to the results of financial and economic performance in 2018, the share of current liabilities in total liabilities came at 22%.

In 2018, the share of long-term liabilities reduced from 36% (2017) to 31% of the Company's capital. The apital structure was mainly affected by the reclassification of long-term

Net debt went down by 1.3% through RUB 1,083.8 mn decrease in borrowed funds in the reporting year.

**0.9%**  
increase in equity

**1.3%**  
reduction in net debt

## Performance Management Programme

The programme to improve operational efficiency and reduce costs of IDGC of Centre (approved by the Board of Directors on 21 December 2017, Minutes No. 28/17). The Programme's activities undertaken are included in the Business Plan, Investment Programme, Energy Saving and Energy Efficiency Programme, Innovative Development Programme, and

other target programmes prepared by the Company.

The performance indicators of the Programme cover the targets set by Development Strategy for Russia's Power Grid Complex and Directive No. 2303p-P13 of the Government of the Russian Federation dated 16 April 2015.

**3.6 RUB bn**  
financial effect from the Company's activities taken in 2018

### Achievement of targets in 2017–2018

Indicator	Target, %	Effect (2017)		Effect (2018)	
		%	RUB mn	%	RUB mn
Development Strategy for the Power Grid Complex of the Russian Federation	15	27.9	3,634	27.3	3,596.4
Reduction of per unit operating costs in the reporting year against 2012					
Directive of the Government of the Russian Federation No. 2303p-P13 dated 16 April 2015	2–3	6.8	1,826.5	2% <sup>1</sup>	
Year-on-year reduction of per unit operating costs in the reporting year					

<sup>1</sup> Target

### In order to increase IDGC of Centre's operational efficiency, the following activities were conducted in 2018

No.	Improvement areas	Measures	Financial effect, RUB mn
1	Enhancing the management efficiency relative to maintenance and repair of equipment, buildings, and facilities		The effect in monetary terms was not planned
2	Enhancing the working capital management	Optimisation of accounts receivable Inventory optimisation	2,584.3. 12.3
3	Enhancing the fixed assets management	Increase in equipment performance as a result of retrofitting and reconstruction of existing production facilities and construction of new ones. Utilisation of 6(10)/0.4 kV power transformers with lower power consumption (energy-efficient) Reduction in costs associated with maintenance and management of non-core assets, including costs associated with the disposition of these assets	2.3 2.8
4	Enhancing the procurement and supply chains management system	Obtaining the financial effect following the results of trading and procurement procedures through rebidding	431.6
5	Introducing the modern technologies and implementing the innovations	Measures under the Innovative Development Programme	99.1
6	Optimising the Staff Incentives and Remuneration System	Creation of a unified policy for staff remuneration Creation of a unified policy for staff non-financial incentives	426.5 2.6
7	Enhancing the organisational and functional structure, headcount optimising		The effect in monetary terms was not planned
8	Enhancing the energy efficiency	Programme for Energy Saving and Improvement of Energy Efficiency (without measures of the Programme to reduce electricity losses) the Programme's initiatives to reduce electricity losses (included in the Investment Programme of the Company)	4.1 108.8

## Summary of IFRS Financial Results

The group of companies, in addition to IDGC of Centre, includes the following enterprises.

Name	Ownership share, %	Core business
JSC Energetic Health Resort	100	Health resort services
LLC United Power Grid Company	51	Electric grid services

**3.1%**  
revenue growth (IFRS)

**7.1%**  
net profit growth (IFRS)

**3.9%**  
growth in assets (IFRS)

**Key financial results under IFRS in 2016–2018, RUB bn (unless otherwise specified)**

Metrics	2016	2017 (adjusted)	2018	2018/2017 change, %
Total revenue, Including:	86.3	91.1	93.9	3.1
Electricity transmission	83.6	87.6	90.0	2.7
Grid connection	1.4	1.6	1.9	18.8
Revenue from electricity and power resale	0.1	0.5	0.5	0.0
Other revenues	1.2	1.4	1.5	7.1
OPEX	-78.8	-83.1	-87.9	5.8
Other net income	1.7	1.1	1.3	18.2
Operating profit	9.2	9.2	7.4	-19.6
EBITDA	17.9	18.8	17.2	-8.5
EBITDA margin, %	20.7	20.6	18.3	-2.3 p.p.
Profit for the period	4.8	2.8	3.0	7.1
Profit for the period, %	5.6	3.1	3.2	0.1 p.p.

Metrics	As at 31 December 2016	As at 31 December 2017 (adjusted)	As at 31 December 2018	Change, %
Total equity	43.3	42.6	44.9	5.4
Total assets	107.0	104.0	108.1	3.9
Loans and borrowings	43.3	41.5	40.4	-2.7
Cash and cash equivalents	2.6	1.4	0.8	-42.9
Net debt <sup>1</sup>	40.7	40.1	39.6	-1.2

In accordance with the International Financial Reporting Standards (IFRS) for 2018, profit for the period amounted to RUB 3 bn, up RUB 0.2 bn period-on-period.

Revenue for the reporting period amounted to RUB 93.9 bn, which includes RUB 90 bn from electricity transmission services, RUB 1.9 bn from grid connection services, RUB 0.5 bn from the resale of electricity and power, RUB 1.5 bn - other revenues.

The key drivers behind the consolidated proceeds were the higher power transmission tariff and the increased volume of power transmission services rendered under comparable conditions, grid connection services, and other unregulated services.

Operating expenses of the Company for 2018 amounted to RUB 87.9 bn, up 5.8% year-on-year. The key contributor to the upstick was the growth of the following uncontrolled expenses:

- by 9.5% - expenses on the purchase of electricity to compensate for process losses due to the advance in the electricity prices on the WEM;
- by 5.3% - the accrued depreciation due to the commissioning of new facilities (implementation of the Investment Programme);
- by 4.1% - expenses for electricity transmission services of grid organisations.

Earnings Before Interest, Taxes, Depreciation, and Amortisation (EBITDA) in 2018 amounted to RUB 17.2 bn, EBITDA margin came at 18.3%.

As of 31 December 2018, the Company's assets totalled RUB 108.1 bn (31 December 2017 - RUB 104 bn). Net debt decreased to RUB 39.6 bn (31 December 2017 - RUB 40.1 bn). The decrease in net debt is attributable to a sufficient amount of own cash resources to cover current and investment expenses of the Company,

as well as early repayment of a part of the principal debt during 2018. The average weighted borrowing rate of IDGC of Centre at 31 December 2018 was 8.25%.

The financial standing of the Group of Companies at the end of 2018 is characterised as stable. Over this period, the Company managed to improve its financial standing year-on-year:

- profit growth by RUB 0.2 bn;
- decrease in loans and borrowings by RUB 1.1 bn.

<sup>1</sup> The key parameters of the Investment Programme broken-down by branches of IDGC of Centre are given in Appendix No. 3.5 to the Annual Report.

# INVESTMENTS

The Investment Programme<sup>2</sup> of the Company is aligned with regional development plans, technical state of power grids, and available financing sources generated on the basis of tariff and balance solutions.

The 2018 Investment Programme was approved by Order No. 29@ of the Ministry of Energy of Russia dated 24 December 2018.

**14.5 RUB bn**  
scope of the Investment Programme in 2018

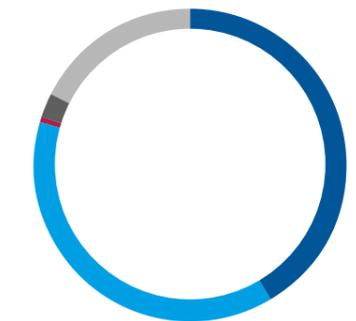
**The key parameters of the 2018 Investment Programme Parameters**

Year	CAPEX, RUB mn (excl. VAT)	Fixed assets commissioned, RUB mn	Financing, RUB mn (incl. VAT)	Capacity commissioned	
				MVA	km
2018	12,230	12,702	14,493	376	3,598
2017	11,756	11,823	14,198	560	4,075
2016	13,421	13,486	14,644	917	4,827
2015	12,973	12,758	15,184	1,228	4,785

## Priorities and Structure of Capex Financing

**Capex financing structure, RUB mn (incl. VAT)**

Capex area	2016	2017	2018
Grid connection	7,469	6,475	6,041
Reconstruction, upgrading, and retrofitting	4,296	4,449	5,555
Investment projects delivered through the schemes and programmes for the power industry prospective development	-	45	14
Other new construction of grid facilities	1,396	662	351
Purchase of land parcels for investment projects	-	-	-
Other investment projects	1,483	2,567	2,532
<b>Total</b>	<b>14,644</b>	<b>14,198</b>	<b>14,493</b>

**Capex financing structure in 2018, %**

- Grid connection ..... 41.7
- Reconstruction, upgrading, and retrofitting ..... 38.3
- Investment projects which are driven by the schemes and programmes for prospective development of the power industry ..... 0.1
- Other new construction of grid facilities ..... 2.4
- Other investment projects ..... 17.5

<sup>2</sup> The key parameters of the Investment Programme broken-down by branches of IDGC of Centre are given in Appendix No. 3.5 to the Annual Report.

## Investment Programme Financing Sources

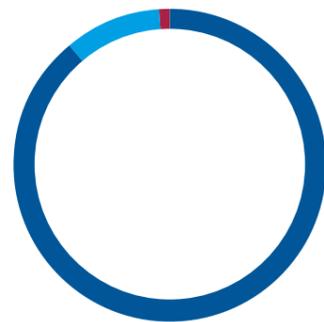
The Investment Programme in 2018 did not require borrowed funds, including:

- 89% - the Investment Programme items related to electricity transmission services were financed (from the Company's tariff (own funds));

- 10% - new construction projects were financed as part of grid connection of consumers with a maximum capacity of over 150 kW (from consumers' payment for grid connection).

The Company's Investment Programme does not include projects financed using federal budget funds.

Capex financing sources in 2018, %



Own resources	89
Payment for grid connections	10
Other	1

### The largest investment projects in 2018

Region	Project	Capacity commissioned in 2018	Project mission
Belgorod Region	Construction (relocation) of the 110/10 kV Sheino substation	RUB 212.6 mn 10 MVA	Ensuring the reliability of power supply and grid connection of new consumers
Belgorod Region	Construction of the 110/10 kV Vatutinskaya substation with 2x6.3 MVA transformers	RUB 243.6 mn 12.6 MVA	Ensuring grid connection of facilities of the Ministry of Defence of Russia
Belgorod Region	Reconstruction of approach lines of 68-a pole of the 35 kV Zavidovka - Vengerovka overhead line, 125-a pole of the 35 kV Rakitnoe - Malinovka, Rokitnoe - Dmitrievka overhead lines to the 35/10 kV Malinovka substation	RUB 38.4 mn 8.3 km	Ensuring the reliability of power supply and grid connection of new consumers
Smolensk Region	Reconstruction of the 110/35/10 kV Vyazma-1 substation with the replacement of 2x40 transformers with 2x63 MVA transformers	RUB 107.4 mn 63 MVA	Ensuring the reliability of power supply and grid connection of new consumers
Tambov Region	Construction of the double-circuit 35 kV overhead line of M. Zveryaevskaya - Maryevsky - 2 pig-breeding complex with taps from 35 kV overhead line of the M. Zveryaevskaya - Lvovskaya with taps to the 35/0.4 kV transformer substations of the Marievsky - 2 pig breeding complex	RUB 68.2 mn 14.7 km	Ensuring grid connection of facilities of LLC Tambov Bacon
Yaroslavl Region	Reconstruction of the 110/35/10 kV Abbakumtsevo substation with the replacement of 2x10 transformers with 2x16 MVA transformers, house transformers 1, 2, 110 kV outdoor switchgear, 10 kV package outdoor switchgear equipment to make up for power shortage of the main substation (first stage; transformer power - 16 MVA)	RUB 47.2 mn 16 MVA	Ensuring the reliability of power supply and grid connection of new consumers

## Long-Term Investment Programme

The Investment Programme of IDGC of Centre for 2016–2020 was approved by Order No. 951 of the Ministry of Energy of Russia dated 14 December 2015 and Order No. 29@ dated 24 December 2018.

The Programme is aligned with:

- regional development plans;
- technical state of power grids;
- significance of power supply facilities;
- projected revenues from electricity transmission and proceeds from grid connection contracts.

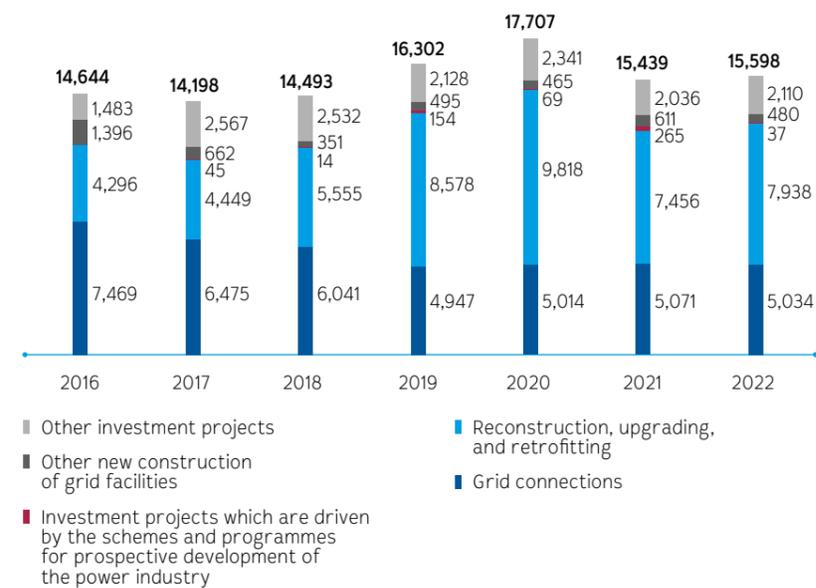
The Company witnesses the positive trend in key indicators of the Investment Programme (capex, financing, and commissioning). A stronger positive trend can be seen in the period 2018-2020 on the back of the three-year Programme to improve the reliability of power grids in the Tver Region agreed with the Regional Administrative Office. The Programme

covers additional measures for the reconstruction of the 35-110 kV mains of the Tverenergo branch.

### The key parameters of the 2016-2022 Investment Programme

Parameter	Value
Financing	RUB 108,382 mn (incl.VAT)
Capex	RUB 92,821 mn (incl.VAT)
Fixed assets commissioned	RUB 94,032 mn
	25.8 thousand km
	4 thousand MVA

### Financing of the Long-Term Investment Programme in 2016–2022, RUB mn, incl. VAT



# EFFICIENT GOVERNANCE

The Company involves well-developed corporate governance practices and follows most of the recommendations from the Corporate Governance Code.

Already  
the case:

**91%**

of the recommendations from the Corporate Governance Code are observed, +9 p.p.

05.

CORPORATE  
GOVERNANCE



# CHAIRMAN OF THE BOARD OF DIRECTORS' REPORT ON CORPORATE GOVERNANCE IN IDGC OF CENTRE

The corporate governance of IDGC of Centre is based on the requirements of the Russian legislation, trading authorities and regulations, as well as current trends and best corporate governance practices.

The Company has established an efficient system of corporate governance, as evidenced by the National Corporate Governance Rating (NCGR 7+) of the Russian Institute of Directors "Developed Corporate Governance Practice". The rating shows that the Company fully complies with high standards of corporate governance accepted in the Russian Federation and follows most of the recommendations from the Corporate Governance Code of the Bank of Russia.

Excellent corporate governance is one of the Company's sustainable development factors defining its social and investment environment.

The corporate governance principles applied by IDGC of Centre provide a reasonable balance among the shareholders, management bodies and stakeholders, protect the shareholders' rights, and are in line with high standards of Company's information transparency.

The corporate governance model of IDGC of Centre involves a controlling shareholder – PJSC ROSSETI. The Company's main shareholders are ROSSETI (50.2%) and GENHOLD LIMITED (15.0%), 0.5% of the authorised capital belongs to the State.

The basic elements of the corporate governance model of IDGC of Centre are the General Shareholders Meeting, the Board of Directors and its Committees, the Management Board (the collegial executive body) and General Director (the sole executive body), the powers and competences of which are set out in the Articles of Associations and the Company's internal documents.

## Enhancing Corporate Governance in 2018

In 2018, the Company continued its efforts to improve the corporate governance, also in line with the recommendations of the Corporate Governance Code, the Russian Institute of Directors, and the Action Plan for improving the Company's corporate governance by the results of the assessment performed as part of internal audit in 2018.

### Highlights:

- In 2018, two directors were elected to the Company's Board of Directors at the Annual General Meeting of Shareholders and appointed as Independent Directors. The Audit Committee of the Company's Board of Directors is chaired by an independent director and two thirds of its members are independent directors;

- during the preparation for the Annual General Shareholders Meeting following the results of 2017, the Company used a special e-mail address: ir@mnsk-1.ru to communicate with shareholders and provided a forum for the agenda issues on the Company's website. For the first time, shareholders were given the opportunity to vote by filling out an e-form in their account on the website of the Company's Registrar;
- in the reporting year, the Company updated the Articles of Associations and internal documents, which now include provisions aligned with the Corporate Governance Code as fully as possible;

- Self-assessment of the performance of the Board of Directors and the Company's committees was conducted in the 2018/2019 corporate year;
- for the first time, the [Sustainability Report for 2016–2017 was prepared](#).

## Observing the Corporate Governance Code (CGC)

IDGC of Centre seeks to improve corporate governance practices, including through the introduction of the principles and recommendations of Bank of Russia's Corporate Governance

Code. At the end of 2018, the Company follows 91% of the recommendations, fully or partially (vs 82% in 2017).

[For more details on the Company's compliance with the CGC, see Appendix 4 to the Annual Report.](#)

Corporate Governance Principles	Number of Code recommendations evaluated	2018			2017		
		Observed	Partially observed	Not observed	Observed	Partially observed	Not observed
Shareholder rights and equality of conditions for shareholders in exercising their rights	13	12	1	0	10	2	1
Company's Board of Directors	36	24	7	5	18	8	10
Corporate Secretary	2	2	0	0	2	0	0
Remuneration system for members of the Board of Directors, executive bodies and other key employees of the Company	10	8	1	1	7	1	2
Internal Control and Risk Management System	6	6	0	0	6	0	0
Public Disclosure, Information Policy	7	6	1	0	3	4	0
Major corporate action	5	1	3	1	1	3	1
<b>Total</b>	<b>79</b>	<b>59</b>	<b>13</b>	<b>7</b>	<b>47</b>	<b>18</b>	<b>14</b>
Share, %	100	75	16	9	59	23	18

## Corporate Governance Rating

In August 2018, the Russian Institute of Directors affirmed its corporate governance rating on IDGC of Centre as NCGR 7+ (Advanced Corporate Governance Practice).

NCGR 7+ rating proves that the Company complies with Russian corporate governance regulations, and

follows most of the recommendations from the Russian Corporate Governance Code. The Company is characterised by relatively low risks of owner losses related to the corporate governance quality.

[The corporate governance rating of IDGC of Centre is affirmed as NCGR 7+](#)

## Assessment of Corporate Governance

In 2018, the Internal Audit for the first time assessed the corporate governance efficiency of IDGC of Centre for 2017.

The assessment was aligned with Guidelines MI BP 1/08–01/2017 on the assessment of the effectiveness of the corporate governance system in IDGC of Centre.

Corporate governance components assessed:

- shareholders' rights;
- Board of Directors;

- executive management;
- transparency and disclosures;
- risk management, internal control, and internal audit;
- corporate social responsibility, business ethics, and compliance.

The overall corporate governance rating of IDGC of Centre was 442.75 scores, or 80.35%, which corresponds to an "effective" rating specifying that corporate governance is effective, but there is much room for improvement on minor issues.

The corporate governance assessment of IDGC of Centre for the 2018/2019 corporate year is scheduled for Q3 2019<sup>1</sup>.

IDGC of Centre's corporate governance rating

# 442.75

## "effective"

80.35%

## Company Transaction Approval Policy

Major transactions and related-party transactions of IDGC of Centre are subject to approval by the Company's management bodies in accordance with the federal law "On Joint-Stock Companies" and the Company's Articles of Associations.

To mitigate the risk of improper disposal of assets, the Articles of Associations was added with an expanded list of transactions with the Company's property that are subject to the mandatory pre-approval by the Board of Directors.

The report on related-party transactions made by IDGC of Centre in 2018 is given in Appendix No. 5 to the Annual Report. In 2018, the Company made no major transactions.

Apart from major transactions and related-party transactions, IDGC of Centre has made a list of transactions deemed to be material for the Company: transactions with over 2% of assets (in terms

of value), transactions with state-owned companies, and intra-group transactions (transactions with subsidiaries and members of management bodies).

The report on related-party transactions made by IDGC of Centre in 2018 is given in [Appendix No. 5 to the Annual Report](#).

## Corporate Governance Development

In 2019, IDGC of Centre schedules the following activities to improve the model and practices of corporate governance:

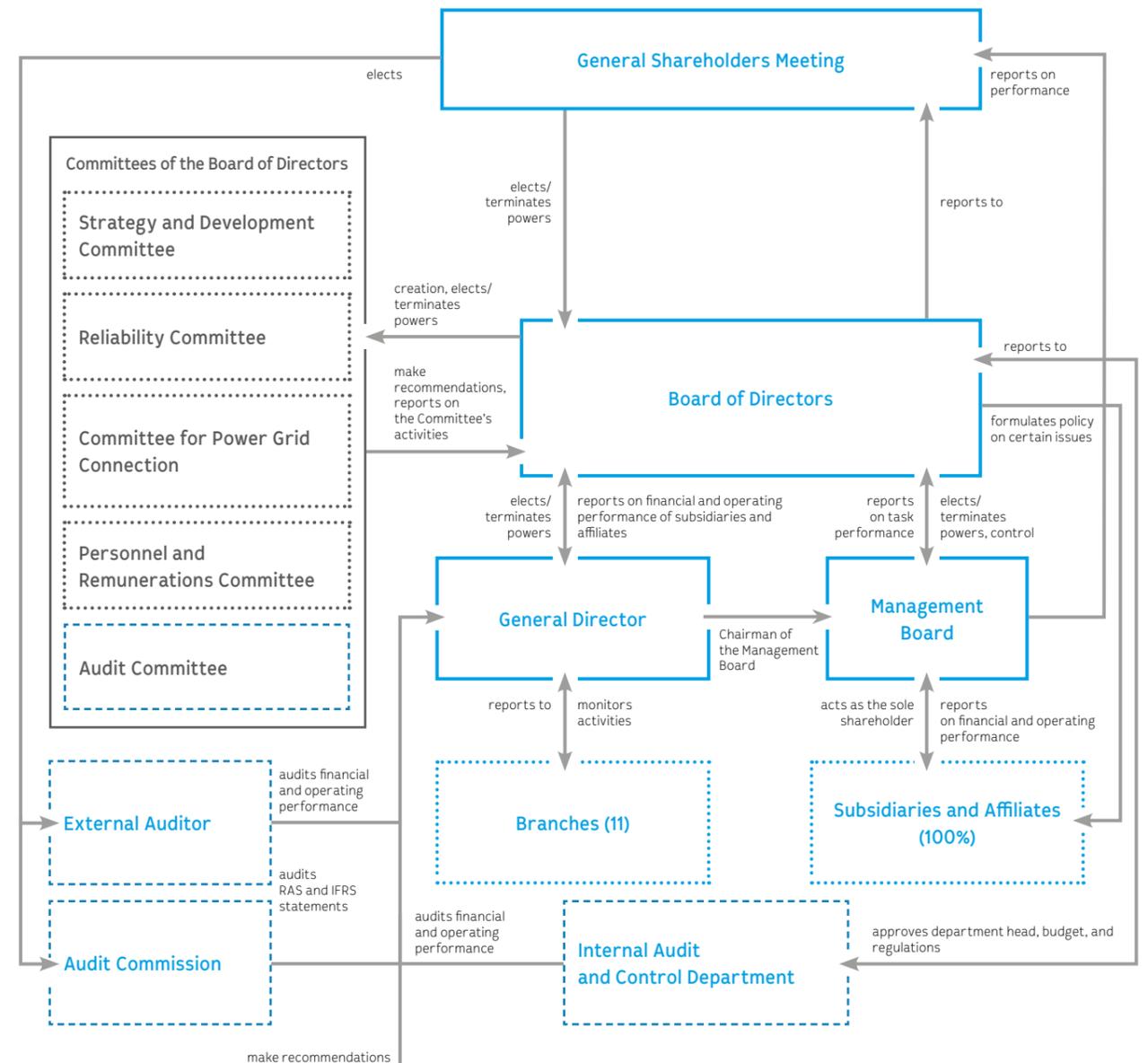
- monitoring the compliance of the Company's Articles of Associations and other internal documents with the requirements of the applicable Russian laws;
- cooperating with majority and minority shareholders of the Company, with the Moscow Exchange on the issues of holding corporate meetings/executing of corporate procedures to bring the Company's corporate governance practice in compliance with the requirements of the Moscow Exchange Listing Rules and

- the Corporate Governance Code;
- monitoring and assessing the corporate governance level and, following the results obtained, resolving on the compliance of the Company's corporate governance with the requirements of the Bank of Russia and Russian laws;
- assessing candidates to the Board of Directors nominated by the Company's shareholders and already elected members of the Board of Directors as to their compliance with independence criteria of the Moscow Exchange Listing Rules;
- improving the level of corporate governance following the self-assessment of the performance of the Board of Directors and

- committees of the Company in the 2018/2019 corporate year;
- creating favourable conditions for shareholders' participation in the General Meeting, for working out of the justified position on the General Meeting agenda items, for coordination of own activities, as well as for voicing their opinions on issues under discussion;
- reviewing best Russian and international corporate governance practices and adopting them in the Company's activities;
- maintaining the level of information transparency.

<sup>1</sup> In line with the workplan of the Internal Audit Department for 2019 approved by the Company's Board of Directors (Minutes No. 40/18).

## Structure of Governance and Control Bodies



### COMMISSIONS/COUNCILS WITH THE GENERAL DIRECTOR:

- Advisory Council;
- Central Procurement Commission;
- Investment Commission;
- Committee on Corporate Ethics Compliance and Conflict of Interest Resolution;
- Commission for Collection of Accounts Receivable;
- Labour Protection Commission;
- Fire Safety Commission;
- Certification Commission for Industrial and Energy Safety;
- Residential Real Estate Management Commission;
- Commission for Social Matters;
- Housing Commission.

# MANAGEMENT BODIES

## General Shareholders Meeting

**The General Shareholders Meeting is the supreme managing body of the Company, resolving on the most important issues of the Company's activities in line with art. 48 of the Federal Law "On Joint-Stock Companies" and paragraph 10.2 of the Company's Articles of Associations.**

The corporate governance system of the Company secures equal conditions for all shareholders, including minority

and international shareholders, as well as their equal treatment by the Company.

The Company adheres to the practice preventing actions that lead to forced redistribution of corporate control as IDGC of Centre does not have preference shares, while subsidiaries and affiliates do not own "quasi-treasury" shares.

## Meetings Held in 2018

On 31 May 2018, the Annual General Meeting of Shareholders of IDGC of Centre was held in person. Holders of

89% of the Company's shares took part in voting on agenda items.

### Attendance of the Annual General Meeting of Shareholders by IDGC of Centre's shareholders in 2016–2018

Meeting date	Individuals		Legal entities		Total	
	in person	in absentia	in person	in absentia	in person	in absentia
8 June 2016	54	2,330	17	33	71	2,363
8 June 2017	76	2,170	16	23	92	2,193
31 May 2018	75	2,293	13	13	88	2,306
Also in electronic form <sup>1</sup>	45	2,149	2	7	47	2,156

**There was no significant change in the number of voting shareholders in 2016–2018. Meanwhile, the Company takes measures to create the most favourable conditions for shareholders' participation in the Annual General Meeting of Shareholders, among them:**

- introducing electronic voting in 2018;
- notifying shareholders of the Annual General Meeting;
- running a forum to discuss issues on the agenda;
- providing a hotline on the issues of the Annual General Meeting of Shareholders;
- preparing information materials.

**Results of the Annual Meeting of Shareholders:**

- the Annual Report and annual accounting (financial) statements for 2017 were approved;
- a part of the net profit worth of RUB 879,028,000 was allocated for dividend payout, with the dividend amount of RUB 0.0208212 per ordinary share;
- new members were elected to the Board of Directors and the Audit Commission;
- the Company's auditor was approved for 2019;
- new versions of the Articles of Associations, the Regulations

on the Board of Directors, the Regulations on the Management Board of the Company, and the Regulation on the payment of remuneration and compensation to the members of the Audit Commission were approved.

[The decisions adopted on 31 May 2018 can be found on the Company's website.](#)

## The Board of Directors

**The Board of Directors provides strategic management of the Company and reports to the General Shareholders Meeting.**

The competence of the Board of Directors is set out in Art.15, para 15.1 of the Articles of Associations of

IDGC of Centre and includes a wider range of powers compared to those set out in the Federal Law "On Joint-Stock

Companies". This primarily applies to the pre-approval of resolutions on the execution of major transactions by the Company.

## Onboarding Newly Elected Members of the Board of Directors

IDGC of Centre has a Guidance on the onboarding of newly elected members of the Board of Directors and committees. The Company's management introduces "freshman class" directors to the Company's internal and strategic documents, business action plans, and production facilities.

(the quickest and the most effective integration into the above bodies).

**To support the activities of the Board of Directors and committees, the Corporate Secretary educated each of the assistants and experts authorised by members of the Board of Directors and committees to raise their awareness on the procedure of interaction with the Company, which includes:**

In 2018, "freshman class" members of the Board of Directors and committees passed an introductory involvement programme in order to ensure the effective performance of the Board of Directors and committees

- interaction in the preparation and arrangement of meetings of the Board of Directors and committees;

- drawing up the Company's reports and the amount of information about the members of the Board of Directors and committees required to be reflected in such reports;
- provision of materials for meetings of the Board of Directors and committees through a ultimate user-friendly file storage for members of the Board of Directors and committees to familiarise themselves with materials for meetings in a secured information space.

## Membership of the Board of Directors

The size of the Board of Directors optimally matches the current goals and objectives of IDGC of Centre, as well as industry practice, and allows the Board of Directors to achieve the balance of competencies (professionalism, knowledge, experience) among its members.

Committee, thereby providing the objectivity in considering issues. The independence of the judgments of these directors enhances the performance of the Board of Directors and also contributes to the improvement of the corporate governance system of the Company as a whole.

All members of the Board of Directors are non-executive directors.

The election is based on the evaluation of all nominees to the Board of Directors, representatives of minority shareholders (D. Spirin and R. Filkin), and independent directors (A. Varvarin and A. Shevchuk) conducted by the Personnel and Remunerations

In 2018, the Company carried on the routine quarterly monitoring of directors' compliance with independence criteria established by the Corporate Governance Code and the Moscow Exchange Listing Rules. In case any incompliance of a member of the Board of Directors were found, the case was submitted to the Board

of Directors for consideration with a preliminary examination of the same by the Personnel and Remunerations Committee<sup>2</sup>.

Recognised by the Company's Board of Directors as independent members of the Board of Directors, A. Varvarin and A. Shevchuk possess acknowledged good business standing, among investors as well, promote an effective system of checks and balances in IDGC of Centre corporate management model, favour decisions accommodating the interests of various groups of stakeholders, and improve the quality of management decisions.

<sup>1</sup> Voting by filling-out an e-form on the Registrar's website.

<sup>2</sup> Decisions of the Board of Directors of IDGC of Centre dated 29 June 2018 (Minutes No. 21/18) and dated 31 October 2018 (Minutes No. 36/18).

Most of the elected members of the Company's Board of Directors are acknowledged experts in power industry, finance, law, strategic management, audit, risk management, and corporate management; have a previous experience in boards of directors or in senior positions of other joint-stock companies, whose shares are included in quotation lists of organised trading facilities (stock exchanges), including in international companies.

**Citizenship:** the Russian Federation (100%).

**Gender:** women - one person (9%), men - ten people (90%).

**Education:** higher (100%), with an academic degree - one person.

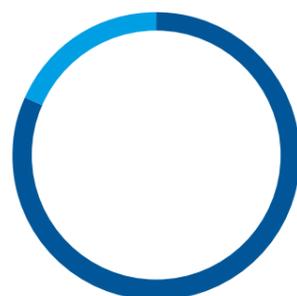
**Executive/non-executive director:** 0/11 people.

**Independent director:** two people.

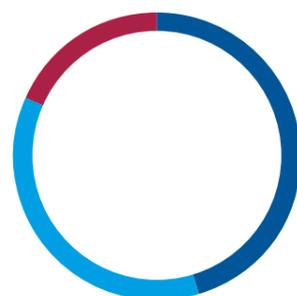
Representing the interests of various groups of shareholders: representatives of the majority shareholder - seven people, representatives of minority shareholders - two people.

The tenure in the Board of Directors: first elected - four people, elected two or more times - seven people.

**Diversification of the current Board of Directors**



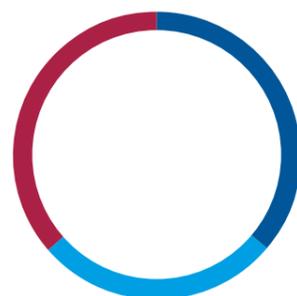
■ Non-executive directors ..... 9  
■ Executive directors ..... 2



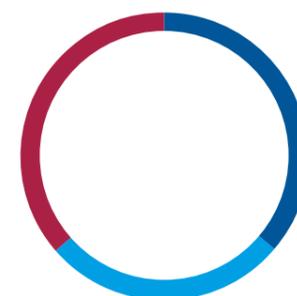
**Age:**  
■ 35-40 years ..... 5  
■ 41-50 years ..... 4  
■ Over 50 years ..... 2

7 members of the Board of Directors promote the interests of the majority shareholder

2 members of the Board of Directors promote the interests of minority shareholders



**Education:**  
■ Legal ..... 4  
■ Engineering, technical ..... 3  
■ Finance and economics ..... 4



**Length of service at the Company's Board of Directors**  
■ 5 year and more ..... 4  
■ 2-4 years ..... 3  
■ 1 year ..... 4

**Current members of the Board of Directors were elected at the Annual General Meeting of Shareholders on 31 May 2018<sup>1</sup>**



**Alexander Kazakov**  
Chairman of the Board of Directors

**Date of the first election to the Board of Directors:** 31 May 2018.

Chairman of the Board of Directors of JSC Far Eastern Energy Management Company (DVEUK).

Year of birth: 1948.

Education: 1971, Moscow Engineering and Economic Institute named after S. Ordzhonikidze.

From 2011 to the present, he has been holding the position of Chairman of the Board of Directors of JSC DVEUK, a professional director, Chairman of the Board of Directors of IDGC of Center and Volga Region.

Recipient of a number of state and industry awards.



**Dmitry Akopyan**  
Non-Executive Director  
An employee of the majority shareholder

**Date of the first election to the Board of Directors:** 31 May 2018.

Deputy General Director - Director of Rostovenergo branch of PJSC IDGC of the South.

Year of birth: 1967.

Education: 1993, Krasnodar Order of the Red Banner of Labour Polytechnic Institute.

During the last five years, he served as Director of the Investment Activity Department of PJSC ROSSETI, Deputy Director - Chief Engineer of LLC Leader, First Deputy Director of LLC Sevkavenergostroy.

Currently, he is a member of the Board of Directors of JSC IDGC of Urals, PJSC IDGC of the North Caucasus, PJSC IDGC of Siberia, and PJSC IDGC of the North-West.



**Alexander Varvarin**  
Independent Director

**Date of the first election to the Board of Directors:** 31 May 2018.

Vice-President - Managing Director of Corporate Relations and Legal Support at Russian Union of Industrialists and Entrepreneurs, General Director of NP "Centre for Development of Corporate Relations and Resolution of Economic Disputes".

Year of birth: 1975.

Education: 1998, Institute of International Law and Economics named after A. Griboedov.

During the last five years, he served as Vice President - Managing Director of Corporate Relations and Legal Support

at the Russian Union of Industrialists and Entrepreneurs.

Currently, he is a member of the Board and General Director of NP "Centre for Development of Corporate Relations and Resolution of Economic Disputes", Chairman of the Board of the Association "Interregional Self-Regulating Organisation of Professional Arbitration Managers", member of the Board of Directors of PJSC Kubanenergo, member of the Board of NP "Institute of Internal Auditors".

Chairs the Audit Committee, serves as a member of the Committee for Power Grid Connection of the Board of Directors of IDGC of Centre.

<sup>1</sup> Data are given as at 31 December 2018, in line with the current Russian laws on personal data.



**Oleg Isaev**  
Non-Executive Director

**Date of the first election to the Board of Directors:** 14 June 2013.

Year of birth: 1969.

Education: 1992, Krasnoznamenny Military Institute, a degree in Law; 2004, Russian Academy of State Service at the President of the Russian Federation. 2011–2012: professional retraining programme in Management in the Electric Power Industry.

Academic degree: Doctor of Law

During the last five years, he served as General Director and Chairman of

the Board of IDGC of Centre, Acting General Director and Chairman of the Board of IDGC of Center and Volga Region, member of the Board of the Moscow Chamber of Commerce and Industry.

Currently, he is a member of the Board of Directors of PJSC IDGC of Center and Volga Region, a member of the Board of the Moscow Chamber of Commerce and Industry.

Recipient of a number of state and industry awards.



**Alexey Pavlov**  
Non-Executive Director  
An employee of the majority shareholder

**Date of the first election to the Board of Directors:** 8 June 2017.

Director of the Treasury Department of PJSC ROSSETI.

Year of birth: 1982.

Education: 2004, St. Petersburg State University.

During the last five years, serves as Director of Finance Department of PJSC ROSSETI.

Currently, he is a member of the Board of Directors of JSC Severkavkazenergo and JSC Yantarenergo.

Holds membership in the Audit Committee, Strategy and Development Committee of the Board of Directors of IDGC of Centre.

Recipient of industry awards.



**Larisa Romanovskaya**  
Non-Executive Director  
An employee of the majority shareholder

**Date of the first election to the Board of Directors:** 31 May 2018.

Chief Advisor of PJSC ROSSETI.

Year of birth: 1972.

Education: 1995, Samara State Economic Academy.

During the last five years, she served as General Director of LLC Ensol, General Director of LLC Svoy Khleb.

Currently, she is a member of the Board of Directors of PJSC IDGC of Center and Volga Region, PJSC IDGC of Urals, PJSC MOESK.



**Maxim Saukh**  
Non-Executive Director  
An employee of the majority shareholder

**Date of the first election to the Board of Directors:** 15 June 2012.

Head of the Corporate Governance Office of the Department for Corporate Governance at PJSC ROSSETI.

Year of birth: 1979.

Education: 2001, St. Petersburg State University.

During the last five years, he served as Head and First Deputy Head of the Department of Corporate

Governance and Shareholder Relations at JSC ROSSETI/JSC IDGC Holding.

Currently, he is a member of the Board of Directors of JSC Kabbalkenergo, OJSC Ekaterinburg Power Grid Company, LLC IT Energy Service.

Holds membership in the Personnel and Remunerations Committee and the Audit Committee of the Board of Directors of IDGC of Centre.

Recipient of industry awards.



**Alexey Rakov**  
Non-Executive Director  
An employee of the majority shareholder

**Date of the first election to the Board of Directors:** 8 June 2017.

Head of the Office for Sales of Services and Energy Sales of the Department for the Sales of Services of PJSC ROSSETI.

Year of birth: 1975.

Education: 1997 and 2001, Penza State Technical University; 2012, Financial Academy under the Government of the Russian Federation.

During the last five years, he served as Director of the Department of Power Metering and Interaction with Electricity Market Entities, Head of the Office for

Sales of Services and Energy Sales of the Department for the Sales of Services of PJSC ROSSETI.

Currently, he is a member of the Board of Directors of PJSC IDGC of North Caucasus, PJSC Kabbalkenergo, PJSC Dagestan Energy Retail Company, JSC Sevkavkazenergo, PJSC IDGC of Volga, JSC Karachaevo-Cherkesskenergo, JSC Kalmenergosbyt, and JSC Tyvaenergosbyt.

Recipient of industry awards.

Chairs the Personnel and Remunerations Committee of the Board of Directors of IDGC of Centre.



**Denis Spirin**  
Non-Executive Director  
A representative of minority shareholders

**Date of the first election to the Board of Directors:** 11 June 2009.

Director for Corporate Governance at the representative office of Prosperity Capital Management (RF) Ltd.

Year of birth: 1980.

Education: 2006, Moscow State Law Academy; 2002, Moscow State Railway University.



**Roman Filkin**  
Non-Executive Director  
A representative of minority shareholders

**Date of the first election to the Board of Directors:** 11 June 2009.

Director for Electric Power Industry, Mechanical Engineering at the representative office of Prosperity Capital Management (RF) Ltd.

Year of birth: 1983.

Education: 2005, Financial Academy under the Government of the Russian Federation.

During the last five years, he served as Co-Director for Electric Power Industry, Mechanical Engineering at the representative office of Prosperity Capital Management (RF) Ltd.

Currently, he is a member of the Board of Directors of PJSC IDGC of Center and Volga Region, PJSC IDGC of the South, PJSC IDGC of the North-West.

Serves as a member of the Personnel and Remunerations Committee and Strategy and Development Committee of the Board of Directors of IDGC of Centre.



**Alexander Shevchuk**  
Independent Director  
A representative of minority shareholders

**Date of the first election to the Board of Directors:** 17 June 2011.

Executive Director of Association of Institutional Investors.

Year of birth: 1983.

Education: 2005, Financial Academy under the Government of the Russian Federation.

During the last five years, served as Expert, Chief Expert, and Deputy Executive Director at the Investor Rights Protection Association/Association of Institutional Investors.

Currently, a member of the Board of Directors of PJSC IDGC of North-West, JSC IDGC of Urals, PJSC OGC-2, PJSC IDGC of South, and PJSC IDGC of Center and Volga Region.

Serves as a member of the Audit Committee, Strategy and Development Committee, and Personnel and Remunerations Committee of the Board of Directors of IDGC of Centre.

Recipient of industry awards.

#### Until 31 May 2018, the Board of Directors was comprised of:<sup>1</sup>

<b>Yury Mangarov</b> Chairman of the Board of Directors Non-Executive Director An employee of the majority shareholder	Chief Advisor of PJSC ROSSETI
<b>Oxana Shatokhina</b> Deputy Chairman of the Board of Directors Non-Executive Director An employee of the majority shareholder	Deputy General Director for Economics at PJSC ROSSETI
<b>Oleg Isaev</b> Executive Director	Chairman of the Management Board, General Director, IDGC of Centre
<b>Pavel Snikkars</b> Non-Executive Director A government official	Director of the Power Industry Development Department at the Ministry of Energy of the Russian Federation
<b>Alexey Rakov</b> Non-Executive Director An employee of the majority shareholder	Director of Department of Power Metering and Interaction with Electricity Market Entities of PJSC ROSSETI
<b>Alexey Pavlov</b> Non-Executive Director An employee of the majority shareholder	Director of the Treasury Department of PJSC ROSSETI
<b>Maxim Saukh</b> Non-Executive Director An employee of the majority shareholder	Head of the Corporate Governance Office of the Department for Corporate Governance and Shareholder and Investor Relations at PJSC ROSSETI
<b>Denis Spirin</b> Non-Executive Director A representative of minority shareholders	Director for Corporate Governance at the representative office of Prosperity Capital Management (RF) Ltd.
<b>Roman Filkin</b> Non-Executive Director A representative of minority shareholders	Director for Electric Power Industry, Mechanical Engineering at the representative office of Prosperity Capital Management (RF) Ltd.
<b>Alexander Shevchuk</b> Independent Director	Executive Director of Association of Institutional Investors
<b>Tatyana Dronova</b> Independent Director	Deputy General Director for Strategy and Development at JSC Investment Holding E-Union

<sup>1</sup> Data are given as at 31 May 2018, in line with the current Russian laws on personal data.

**Additional information on the Board members for 2018**

Shareholding in the Company (directly or indirectly)	No shareholding
Transactions with the Company's shares	None
Shareholding in the Company's subsidiaries and affiliates	None
Transactions between members of the Company's Board of Directors, between members of the Board of Directors and the Company	None
Training of the Board members at the Company's expense	None
Serving on, or membership in, the management bodies of competitors	None
Lawsuits against current members of the Board of Directors	None

The information on the remuneration paid to the members of the Board of Directors is disclosed in the section "Remuneration of Management and Control Bodies".

**Report on the Work Performed by the Board of Directors**

The activities of the Board of Directors of IDGC of Centre are aligned with the internal documents of the Company: Articles of Associations, Regulations on the Board of Directors, and Regulations on the Corporate Secretary.

Meetings are held on a regular basis in line with a pre-approved workplan, at least three or four times a month. The workplan of the Board of Directors is shaped against the proposals of the Board's members, the management, and the external auditor and includes the key issues of the Company's activities (strategy, reliability, business planning, risks, and personnel affairs).

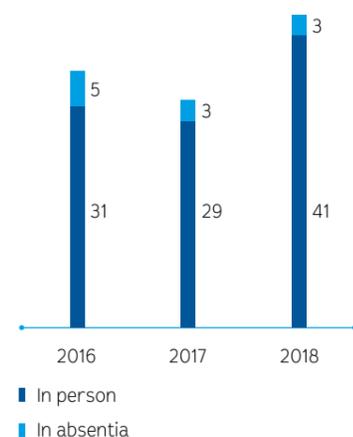
The format of the meetings is determined by Chairman of the Board of Directors from the perspective of the importance and significance of

their agenda items for the Company. However, certain matters set out in the Company's Articles of Associations may be resolved only during in-person meetings.

When holding meetings in person, the Company offers the members of the Board of Directors the opportunity to participate in the meeting remotely - via video conferencing. Moreover, the written opinion of the absent members of the Board of Directors on the agenda items is taken into consideration.

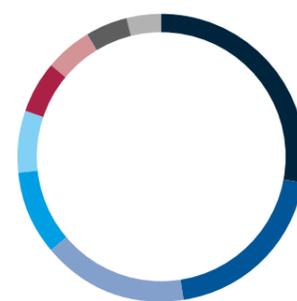
The most important strategic issues, in addition to in-person consideration by the Board of Directors, are also subject to preliminary discussion and approval at meetings of relevant committees. Thus, the Company is committed to making the most informed decisions.

**The format of the meetings of the Board of Directors**



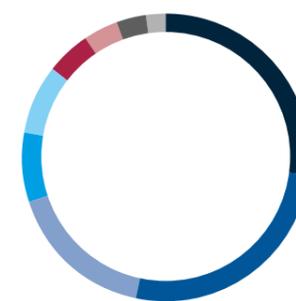
**Matters Discussed and Decisions Made by the Board of Directors**

**Mix of matters discussed by the Board of Directors in 2018**



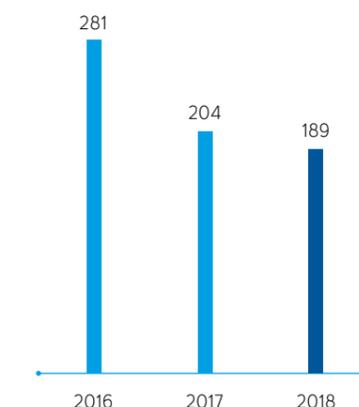
Corporate Governance	53
Strategy	37
Focus areas	31
Finance	18
Transaction approval	13
Risk management / internal audit and control	11
HR and structure	10
Social Policy / Others	9
Management of subsidiaries and affiliates	7

**Matters discussed by the Board of Directors in 2017**



Focus areas	55
Strategy	54
Risk management / internal audit and control	34
Finance	16
Transaction approval	16
Corporate Governance	10
Management of subsidiaries and affiliates	8
HR and structure	7
Social Policy / Others	4

**Number of matters discussed by the Board of Directors**



**Key Decisions of the Board of Directors**

**Strategy**

**Approving:**

- KPIs, including quarterly reports on their achievement;
- RAS summary and IFRS consolidated Group business plan;
- Environmental Policy Programme;
- Scenario conditions for preparing investment programmes;
- The non-core asset disposal programme;
- The procedure for organising the sale of non-core assets;
- Draft amendments to the Investment Programme;
- The Programme to reduce electricity losses in the grid complex;
- The Programme for prospective development of electricity metering systems in the retail market;
- quarterly timed action plans to reduce overdue receivables for electricity transmission services and to settle the differences arising at the reporting date, including relevant quarterly progress reports;
- The Regulations on the Corporate Technical Control System;
- The register of non-core assets, including relevant quarterly progress reports;
- The Regulation concerning the Central Purchasing Authority;
- The revised Plan for the development of a production asset management system;
- revised the Target programme for Improving Anti-Terrorism and Anti-Sabotage Security of Facilities;
- Procurement plan (including summary Plan of procurement of innovative and (or) high-tech products);
- Amendments to the Common procurement standard (the Regulations on procurement).

Focus areas	<p>Reviewing the schedule of works execution under the grid connection agreements expired as of 1 December 2017, including quarterly reports on its fulfilment results.</p> <p>Reviewing the quarterly reports on the implementation of:</p> <ul style="list-style-type: none"> <li>• Business Plan;</li> <li>• Investment Programme;</li> <li>• Programme to reduce electricity losses in the grid complex;</li> <li>• Programme for prospective development of electricity metering systems in the retail market;</li> <li>• Plan for power grid facilities preparation to FIFA World Cup;</li> <li>• the investment projects appeared in the priority facilities list;</li> <li>• the Smart Grid Investment Project.</li> </ul> <p>Reviewing the annual reports:</p> <ul style="list-style-type: none"> <li>• on the reliability and quality level of the services rendered by the Company (by branches) subject to tariff regulation based on long-term parameters for activity regulation (2017);</li> <li>• on implementing the Plan for the development of a production asset management system;</li> <li>• on implementing the Innovative Development Programme and Medium-term plan for implementing the Innovative Development Programme.</li> </ul> <p>Reviewing the results of the field checks conducted by the Ministry of Energy of Russia and the approved plans for corrective actions to eliminate the identified remarks</p>
Risk management / internal audit and control	<p>Approving the amended Register of Key Operational Risks (Minutes No.02/1 dated 26 January 2018).</p> <p>Reviewing the Company's internal audit reports:</p> <ul style="list-style-type: none"> <li>• on Internal Audit Plan Implementation and Internal Audit Performance Results, including results of self-assessment of internal audit quality by the end of 2017, and on implementation of the Action plan on development and improvement of the Company's internal audit function for 2017–2019 (Minutes No.12/18 dated 30 March 2018);</li> <li>• on the effectiveness of the internal audit system, risk management system and corporate management system in 2017 (Minutes No.13/18 dated 23 April 2018);</li> <li>• assessment of implementing the Non-core asset disposal programme and the Plan of the Company's non-core assets sale in 2017 (Minutes No.40/18 dated 17 December 2018).</li> </ul> <p>Reviewing the reports of the Company's General Director:</p> <ul style="list-style-type: none"> <li>• on the management of the Company's key operational risks in 2017 (Minutes No.13/18 dated 23 April 2018);</li> <li>• on the arrangement and operation of the internal audit system, including the implementation of measures to improve the internal audit and risk management systems and to enhance their maturity level in 2017 (Minutes No.13/18 dated 23 April 2018);</li> </ul> <p>Approving:</p> <ul style="list-style-type: none"> <li>• changes in the Action plan on development and improvement of the Company's internal audit function for 2017–2019 (Minutes No.43/18 dated 24 December 2018);</li> <li>• Action Plan of the Company's Internal Audit Department for 2019 (Minutes No.40/18 dated 17 December 2018);</li> <li>• the budget of the Internal Audit Department of IDGC of Centre for 2019 (Minutes No.40/18 dated 17 December 2018);</li> <li>• KPIs of the Internal Audit Department Head of IDGC of Centre for 2019 (Minutes No.40/18 dated 17 December 2018)</li> </ul>

REPORT IN THE REPORT	DEVELOPMENT STRATEGY	OPERATING REVIEW	FINANCIAL REVIEW	CORPORATE GOVERNANCE	CORPORATE RESPONSIBILITY	APPENDICES
Finance				<p>Reviewing the quarterly reports:</p> <ul style="list-style-type: none"> <li>• on activities to reduce the loan portfolio service expenses;</li> <li>• on providing the insurance coverage.</li> </ul> <p>Approving:</p> <ul style="list-style-type: none"> <li>• budgets of the Committees of the Board of Directors;</li> <li>• Regulations on providing the insurance coverage;</li> <li>• insurer candidates;</li> <li>• Regulations for depositing temporary free cash;</li> <li>• Regulations for payments</li> </ul>		
Transactions approval				<p>Approving:</p> <ul style="list-style-type: none"> <li>• purchasing/disposing of assets that compose the fixed assets and that are not intended for generation, transmission, scheduling, distribution of the electrical and thermal power;</li> <li>• related-party transactions.</li> </ul>		
Corporate Governance				<ul style="list-style-type: none"> <li>• New members of the Committees of the Board of Directors were selected.</li> <li>• The members of the Board of Directors were recognised as Independent Directors.</li> </ul> <p>Reviewing:</p> <ul style="list-style-type: none"> <li>• shareholders' proposals to introduce the issues to the agenda of the Annual General Meeting of Shareholders and to nominate candidates to the Company's management and control bodies;</li> <li>• issues in the context of preparation for holding the Annual General Meeting of Shareholders;</li> <li>• quarterly reports on implementing decisions made at meetings of the Board of Directors;</li> <li>• Corporate Secretary's report on activities executed during 2017/2018 corporate year;</li> <li>• Committees' reports to the Company's Board of Directors on activities executed during 2017/2018 corporate year.</li> </ul> <p>Approving:</p> <ul style="list-style-type: none"> <li>• Regulation on the Dividend Policy;</li> <li>• Regulation on the Information Policy;</li> <li>• Regulation on Insider Information.</li> <li>• Action plan of the Board of Directors for 2018–2019;</li> <li>• Procedure for the interaction of IDGC of Centre with entities whose shares (interests) are owned by IDGC of Centre;</li> <li>• Methodology to assess the effectiveness of the Board of Directors performance</li> </ul>		
Management of subsidiaries and affiliates				<p>Defining the Company's position regarding issues of the Annual General Meeting of Shareholders of JSC Energetic Health Resort.</p> <p>Defining the Company's position regarding issues on the agenda of the meeting held by the Board of Directors of JSC Energetic Health Resort:</p> <ul style="list-style-type: none"> <li>• on approval of target KPIs; quarterly reports on their achievements;</li> <li>• on approval of Business plan; quarterly reports on its fulfilment results</li> </ul>		
HR and structure				<ul style="list-style-type: none"> <li>• Approving candidates for executive office positions defined by the Board of Directors.</li> <li>• Approving special and additional bonuses paid to the General Director.</li> <li>• Approving election / early termination of the powers and employment contract of the Company's General Director</li> </ul>		
Social policy / Others				<ul style="list-style-type: none"> <li>• Approving addendum to the Collective agreement.</li> <li>• Approving the Private Pension Programme</li> </ul>		

For decisions made by the Company's Board of Directors please visit [the Company's website](#).

## Attendance at the Board of Directors and Committee Meetings in 2018<sup>1</sup>

In 2018, members of the Board of Directors were disciplined and took a responsible approach to discharging their duties, as evidenced by their active involvement in meetings of the Board of Directors and dedicated

committees. The quorum of the Board of Directors' meetings was persistently high. In total, 44 meetings were held in 2018, among them 29 meetings (66%) had 100% quorum, and 15 meetings had 90% quorum.

Full name of the Board member	Attendance at the Board of Directors' meetings	Attendance at the meetings of Committees at the Board of Directors				
		Strategy and Development	Audit	Reliability	Grid Connection	Personnel and Remuneration
<b>Board members who served on the Board of Directors throughout 2018</b>						
Oleg Isaev	38 (2) / 44 (3)	-	-	-	-	-
Maxim Saukh	44 (3) / 44 (3)	-	14 (5) / 14 (5)	-	-	9/9
Denis Spirin	44 (0) / 44 (3)	-	-	-	-	-
Alexey Pavlov	44 (3) / 44 (3)	7 (2) / 7 (2)	7 (2) / 7 (2)	-	-	9/9
<b>Board members who stepped down from the Board of Directors on 31 May 2018</b>						
Alexey Rakov	44 (2) / 44 (3)	-	-	-	-	9/9
Roman Filkin	44 (3) / 44 (3)	13 (5) / 14 (5)	-	-	-	9/9
Alexander Shevchuk	44 (3) / 44 (3)	14 (3) / 14 (5)	14 (5) / 14 (5)	-	-	9/9
<b>Board members who were elected to the Board of Directors on 31 May 2018</b>						
Tatyana Dronova	19 (1) / 19 (1)	-	7 (1) / 7 (2)	-	-	6/6
Yury Mangarov	19 (1) / 19 (1)	-	-	-	-	6/6
Pavel Snikkars	12 (0) / 19 (1)	0 (0) / 7 (3)	-	-	-	-
Oxana Shatokhina	19 (1) / 19 (1)	-	7 (1) / 7 (2)	-	-	6/6
<b>Board members who were elected to the Board of Directors on 31 May 2018</b>						
Alexander Kazakov	25 (2) / 25 (2)	-	-	-	-	-
Dmitry Akopyan	25 (1) / 25 (2)	5 (1) / 5 (1)	-	-	-	-
Alexander Varvarin	25 (2) / 25 (2)	-	7 (3) / 7 (3)	-	2 (1) / 2 (1)	-
Larisa Romanovskaya	25 (0) / 25 (2)	-	-	-	-	-

<sup>1</sup> Data are presented as X(n)/Y(m), where X – the number of meetings attended by a Board of Directors' member, Y – the total number of meetings held, n and m – the number of meetings held in person.

## Assessment of the Performance of the Company's Board of Directors and Committees of the Board of Directors

Self-assessment of the performance of the Board of Directors and the Committees was first conducted by IDGC of Centre in the 2018/2019 corporate year (hereinafter assessment).

Assessment is focused on determining the effectiveness of the Board of Directors and the Committees performance, compliance of their activities with the Company's development demands, promotion of

the Board of Directors operation and identification of performance areas to be improved.

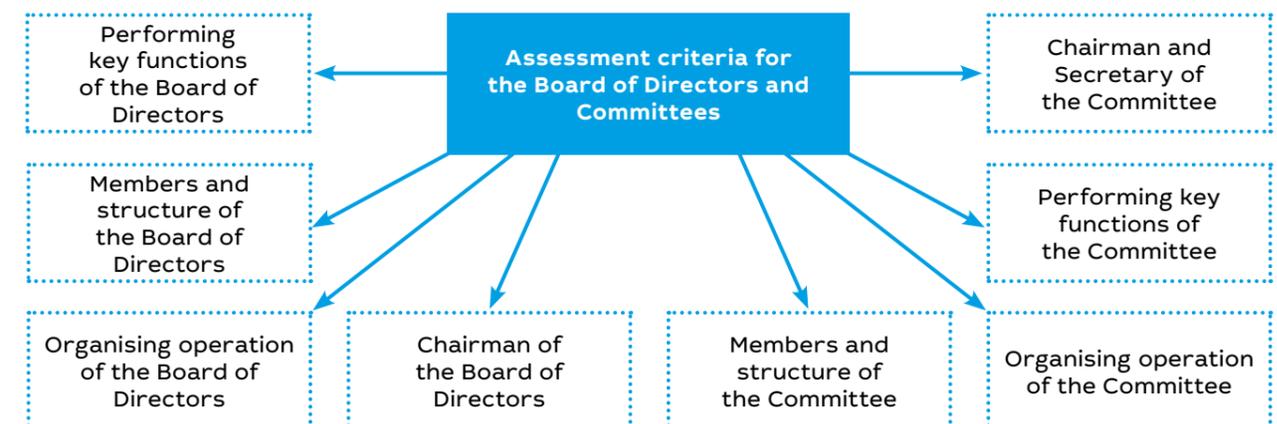
The assessment was made according to:

- requirements of the Corporate Governance Code of the Bank of Russia;
- Methodology for assessment of the Board of Directors and the Committees performance approved by the Company's Board of Directors on 22 November 2018.

# 4.59

out of 5 points

general assessment of the performance of the Board of Directors and Committees in the 2018/2019 corporate year ("efficiently with remarks")



Overall assessment amounted to 4.59 points (out of five points), which is equivalent to "efficiently with remarks".

The overall result was affected by the reduced score in items "Performing key functions by the Board of Directors regarding Company management" and "Members and structure of the Board of Directors", "Personnel and Remunerations Committee", the potential effectiveness of which depends on the position of shareholders, controlling persons and other external factors.

For numerous criteria of the most items, improvements can be promoted

by the direct initiative of the members of the Board of Directors and Committees at the Company's Board of Directors.

Performance of the Chairman of the Board of Directors, Corporate Secretary, Audit Committee, Strategy and Development Committee, Reliability Committee and Committee for Power Grid Connection is high-quality and generally effective.

Results of the annual self-assessment of the Company's Board of Directors performance were reviewed by the Board of Directors in April 2019.

According to the assessment results, the Personnel and Remunerations Committee provided recommendations to improve the performance of the Board of Directors and the Committees. The recommendations are to be considered when developing the action plans for the Board of Directors and the Committees for the 2019/2020 corporate year.

Independent assessment is planned for 2021.

## Committees of the Board of Directors

Committees of the Board of Directors serve as advisory and deliberative bodies, which preview the most

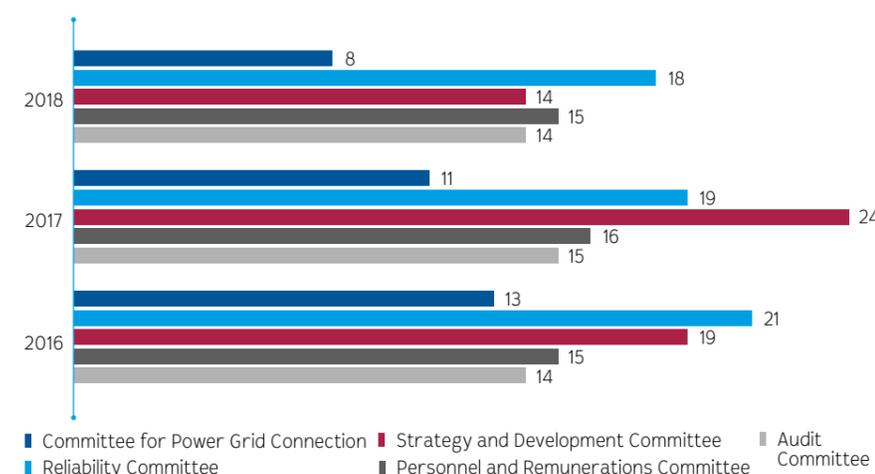
important matters within the authority of the Board of Directors and make recommendations thereon. IDGC of

Centre has in place five Committees of the Board of Directors.

### Overview of Committees

Committee	Establishment date	Regulations	Members	Resolutions
Audit Committee	April 2008	<a href="https://www.mrsk-1.ru/upload/documents/polowenie_audit_21.10.2016%20english.pdf">https://www.mrsk-1.ru/upload/documents/polowenie_audit_21.10.2016%20english.pdf</a> Minutes of the meeting of the Board of Directors No.04/16 dated 29 February 2016, Minutes No.29/16 dated 21 October 2016	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/audit/members/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/audit/members/2018/</a>	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/audit/decisions/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/audit/decisions/2018/</a>
Personnel and Remunerations Committee	April 2008	<a href="https://www.mrsk-1.ru/common/upload/docs/Prilozhenie_9_Polozhenie_KKiV_2014_english.pdf">https://www.mrsk-1.ru/common/upload/docs/Prilozhenie_9_Polozhenie_KKiV_2014_english.pdf</a> Minutes of the meeting of the Board of Directors No.17/14 dated 1 August 2014	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/cadre/members/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/cadre/members/2018/</a>	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/cadre/decisions/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/cadre/decisions/2018/</a>
Strategy and Development Committee	April 2008	<a href="https://www.mrsk-1.ru/about/projects/Strategy_and_Development_Committee_Regulation_2016_english.pdf">https://www.mrsk-1.ru/about/projects/Strategy_and_Development_Committee_Regulation_2016_english.pdf</a> Minutes of the meeting of the Board of Directors No.09/08 dated 30 April 2008, Minutes No.06/16 dated 17 March 2016	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/strategics/members/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/strategics/members/2018/</a>	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/strategics/decisions/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/strategics/decisions/2018/</a>
Reliability Committee	January 2006	<a href="https://www.mrsk-1.ru/about/projects/Reliability_Committee_Regulation_2017_english.pdf">https://www.mrsk-1.ru/about/projects/Reliability_Committee_Regulation_2017_english.pdf</a> Minutes of the meeting of the Board of Directors No.17/17 dated 18 July 2017	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/technological/members/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/technological/members/2018/</a>	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/technological/decisions/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/technological/decisions/2018/</a>
Committee for Power Grid Connection	February 2009	<a href="https://www.mrsk-1.ru/about/projects/Grid_Connection_Committee_Regulation_2017_english.pdf">https://www.mrsk-1.ru/about/projects/Grid_Connection_Committee_Regulation_2017_english.pdf</a> Minutes of the meeting of the Board of Directors No.17/17 dated 18 July 2017	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/realty/members/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/realty/members/2018/</a>	<a href="https://www.mrsk-1.ru/en/about/management/controls/committee/realty/decisions/2018/">https://www.mrsk-1.ru/en/about/management/controls/committee/realty/decisions/2018/</a>

### Statistics of Committees meetings in 2016–2018



## Report of the Chairman of the Audit Committee

In 2018, the Audit Committee undertook much work to improve efficiency of the internal control, risk management, and corporate governance systems,

as well as ensuring implementation of management and control functions by the Board of Directors regarding functioning of these systems,

monitoring of accounting (financial) statements validity and activities of the external auditor and Internal Audit Service.

### As at 31 December 2018, the Committee included three members

In place since 29 June 2018

Full name / Standing	Core position
<b>Alexander Varvarin</b> Chairman of the Committee Independent Director	General Director of NP "Centre for Development of Corporate Relations and Resolution of Economic Disputes" Vice-President – Managing Director of the Corporate Relations and Legal Support Office at the Russian Union of Industrialists and Entrepreneurs
<b>Maxim Saukh</b> Non-Executive Director	Head of the Corporate Governance Office of the Department for Corporate Governance at PJSC ROSSETI
<b>Alexander Shevchuk</b> Independent Director	Executive Director of the Association of Institutional Investors

The majority of current members of the Audit Committee (two of three), including Chairman, are Independent Directors (A. Varvarin and A. Shevchuk).

The Committee members have necessary experience and expertise in the field of preparation, analysis, assessment and audit of accounting (financial) statements that allow the Committee to operate as efficiently as possible.

In 2018, the Audit Committee held 14 meetings, including 5 meetings held in person, and discussed the following issues.

### Objectives of the Committee

The following matters/minutes/documents were reviewed/preliminary reviewed and relevant recommendations were given to the Board of Directors

With regard to accounting (financial) statements of the Company	<ul style="list-style-type: none"> <li>Information of the external auditor regarding key problems in the Company's financial statements for 2017 prepared under IFRS (Minutes No.04/18 dated 27 March 2018).</li> <li>Information of the external auditor regarding key problems in the Company's accounting (financial) statements for 2017 prepared under RAS.</li> <li>The Company's draft interim accounting (financial) statements for 2017 under RAS (Minutes No.03/18 dated 28 February 2018).</li> <li>The Company's interim accounting (financial) statements for Q1 2018 prepared under RAS (Minutes No.06/18 dated 11 May 2018).</li> <li>The Company's interim accounting (financial) statements for six months of 2018 prepared under RAS (Minutes No.08/18 dated 31 July 2018).</li> <li>Information of the external auditor regarding key problems in the Company's financial statements for six months of 2018 prepared under IFRS, and information of the Company's management on corrections made regarding the results of the statements external audit (Minutes No.10/18 dated 03 September 2018).</li> <li>The Company's interim accounting (financial) statements for nine months of 2018 prepared under RAS (Minutes No.12/18 dated 16 November 2018).</li> <li>Information of the external auditor regarding key problems in the Company's financial statements for the interim period (nine months) of 2018 prepared under RAS, and information of the Company's management regarding corrections made according to the results of the statements external audit (Minutes No.14/18 dated 21 December 2018).</li> <li>Information of the Company's management regarding non-standard operations and events, as well as regarding the formation of a reserve on doubtful debts and estimated liabilities (Minutes No.03/18 dated 28 February 2018).</li> </ul>
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Objectives of the Committee	The following matters/minutes/documents were reviewed/preliminary reviewed and relevant recommendations were given to the Board of Directors
With regard to the control over the reliability and effectiveness of the internal control system, risk management system, and corporate governance	<ul style="list-style-type: none"> <li>Report of the General Director and the Management Board On arrangement and operation of the internal control system in 2017, including information on implementing activities to improve the internal control system (Minutes No.04/18 dated 27 March 2018).</li> <li>Internal Audit report "Assessment of implementing the Non-core asset disposal programme and the Plan of the Company's non-core assets sale in 2017 (Minutes No.04/18 dated 27 March 2018).</li> <li>Section of Annual report regarding the internal control system (Minutes No.05/18 dated 20 April 2018).</li> <li>Information of the management on implementation of the Internal Control Policy of IDGC of Centre (Minutes No.09/18 dated 10 August 2018).</li> <li>Terms of reference, the essence of the contract for rendering service on the independent assessment of internal control system effectiveness (Minutes No.11/18 dated 29 October 2018)</li> </ul>
With regard to the control over external audits and selection of the auditor	<ul style="list-style-type: none"> <li>Procurement conditions to select an external auditor with a right to conclude the contract for an audit of the Company's accounting (financial) statements (Minutes No.05/18 dated 20 April 2018).</li> <li>A candidate nominated as the Company's external auditor to audit the Company's accounting (financial) statements for 2018 (Minutes No.05/18 dated 20 April 2018). Amount of payment for the audit of the Company's accounting (financial) statements (Minutes No.07/18 dated 15 June 2018).</li> </ul>
With regard to ensuring independence and objectivity of the internal audit function	<ul style="list-style-type: none"> <li>Internal audit report Internal Audit Plan Implementation and Internal Audit Performance Results, including results of self-assessment of internal audit quality by the end of 2017, and on implementation of the Action plan on development and improvement of the Company's internal audit function for 2017–2019 (Minutes No.03/18 dated 28 February 2018).</li> <li>Internal Audit report on implementation of the Action Plan during six months of 2018 and on results of internal audit performance (Minutes No.09/18 dated 10 August 2018).</li> <li>Audit Committee relations with external and internal auditors (Minutes No.09/18 dated 10 August 2018).</li> <li>Internal Audit report on implementation of the Action Plan during nine months of 2018 and on results of internal audit performance (Minutes No.12/18 dated 16 November 2018).</li> <li>Action Plan of the Internal Audit Department for 2019 (Minutes No.12/18 dated 16 November 2018).</li> <li>Structure and budget of the Internal Audit Department for 2019 (Minutes No.12/18 dated 16 November 2018).</li> <li>Remuneration of the Head of the Internal Audit Department (determining the functional KPI target values) for 2019 (Minutes No.12/18 dated 16 November 2018).</li> <li>Changes in the Action plan on development and improvement of the Company's internal audit function for 2017–2019 (Minutes No.13/18 dated 21 December 2018).</li> </ul>
With regard to the control over the effectiveness of the system for countering unfair practices of the Company's employees or third parties	<ul style="list-style-type: none"> <li>Information of the Company's Management On Implementation of the corrective measures in 2017 to eliminate gaps identified by the Company's Audit Commission, Company's Internal Audit, Third-Party Control and Supervision Bodies on implementation of measures taken to address the information about potential cases of unfair practices of employees, and following the results of investigations made (Minutes No.03/18 dated 28 February 2018).</li> <li>Information of the Company's Management On implementation of the Company's Anti-Corruption Policy in 2017 (Minutes No.03/18 dated 28 February 2018).</li> </ul>

## Report of the Chairman of the Personnel and Remunerations Committee

During 2018, the Personnel and Remunerations Committee promoted formation of the HR Policy, supervised issues regarding the organisational structure of the Company and its subsidiaries, selection and

assessment of persons appointed to certain positions of the Company's Executive Office, continued its efforts on determining compliance with the independence criteria of members of the Board of Directors. As a result of

these activities, the recommendations were given to the Board of Directors to appoint A. Varvarin and A. Shevchuk as Independent Directors.

### As at 31 December 2018, the Committee included five members

In place since 29 June 2018	
Full name / Standing	Core position
<b>Alexey Rakov</b> Chairman of the Committee Non-Executive Director	Head of the Office for Sales of Services and Energy Sales of the Department for the Sales of Services of PJSC ROSSETI
<b>Alexey Pavlov</b> Non-Executive Director	Director of the Treasury Department of PJSC ROSSETI
<b>Maxim Saukh</b> Non-Executive Director	Head of the Corporate Governance Office of the Department for Corporate Governance at PJSC ROSSETI
<b>Roman Filkin</b> Non-Executive Director	Director for Electric Power Industry, Mechanical Engineering at the representative office of Prosperity Capital Management (RF) Ltd.
<b>Alexander Shevchuk</b> Independent Director	Executive Director of the Association of Institutional Investors

All current members of the Personnel and Remunerations Committee are non-executive directors, one of them is Independent Director (A. Shevchuk).

All members of the Committee have the required skills and experience to handle the tasks of the Committee.

In the reporting year, the Committee held 15 meetings and discussed the following issues.

Objectives of the Committee	The following matters/documents/programmes were discussed and relevant recommendations were made
Generation of the principles and criteria for determining the amount of remuneration for members of the Board of Directors, members of the collegial executive body and the person acting as the sole executive body of the Company, including a managing company or a manager	<ul style="list-style-type: none"> <li>Changes in the Regulations on the payment of remuneration and compensation to the members of the Company's Audit Commission.</li> <li>Special bonuses to the General Director of IDGC of Centre by the end of 2016 as related to achieving KPI "Innovation performance".</li> <li>Changes in the Methodology of Calculation and Assessment of Key Performance Indicators for the General Director.</li> <li>Financial incentives for the General Director (bonuses – additional, special, for achieving KPI under the contract of the sole executive body, for performing a critical task)</li> </ul>
Determination of the criteria for selecting candidates to the Board of Directors and the collective executive body, to the position of the sole executive body of the Company, and preliminary assessment of these candidates	<ul style="list-style-type: none"> <li>Assessment of the Company's management talent pool members for 2018.</li> <li>Assessment of candidates to the Board of Directors of IDGC of Centre.</li> <li>Termination of powers of the Management Board member and election of the Management Board member.</li> <li>Appointment of the Board of Directors' member as an Independent Director.</li> <li>Methodology to assess the effectiveness of the Board of Directors and its Committees performance</li> </ul>
Regular assessment of the performance of a person serving as the Sole Executive Body (managing company, manager), and members of the Company's collective executive body, and preparation of proposals to the Board of Directors on their re-appointment	<ul style="list-style-type: none"> <li>Candidates for certain Company's executive office positions defined by the Board of Directors.</li> <li>Performance of the Company's Deputy General Directors (by business lines) and preparation of relevant recommendations to the Company's General Director.</li> <li>Candidate to the position of the Company's General Director and preparation of relevant recommendations to the Board of Directors.</li> <li>Consolidation of power grid areas of IDGC of Centre's branches – Kurskenergo, Oreleenergo, and Tverenergo</li> </ul>

## Report of the Chairman of the Strategy and Development Committee

Just like previous years, the activities of the Strategy and Development Committee in 2018 were focused on comprehensive analysis and study of key issues regarding financial and

investment planning of the Company's operation.

The most critical issues regarding approval of the reporting financial

information, approval of target indicators of the Company's activities according to the annual practice of the Committee operation were reviewed at the meetings held in person.

### As at 31 December 2018, the Committee included ten members.

In place since 20 July 2018	
Full name / Standing	Core position
<b>Evgeny Olkhovich</b> Chairman of the Committee	Deputy General Director for Strategic Development and Technological Innovations at PJSC ROSSETI
<b>Pavel Grebtsov</b>	Deputy General Director for Economics at PJSC ROSSETI
<b>Alexander Inozemtsev</b>	Deputy General Director for Economics and Finance at IDGC of Centre
<b>Valery Katayev</b>	Chief Expert of the Consolidated Planning and Reporting Office, Investment Department, PJSC ROSSETI
<b>Dmitry Kapustin</b>	Head of the Innovative Technical Policy and Energy Efficiency Office at PJSC ROSSETI
<b>Anastasia Krupenina</b>	Director for Strategy and Investments at LLC Pyat Plus
<b>Andrey Morozov</b>	Legal Director of the Association of Institutional Investors
<b>Alexey Pavlov</b> Non-Executive Director	Director of the Treasury Department of PJSC ROSSETI
<b>Roman Filkin</b> Non-Executive Director	Director for Electric Power Industry, Mechanical Engineering at the representative office of Prosperity Capital Management (RF) Ltd.
<b>Alexander Shevchuk</b> Independent Director	Executive Director of the Association of Institutional Investors

In 2018, the Committee held 14 meetings, including 5 meetings held in person, and discussed the following issues.

Objectives of the Committee	The following matters/documents/programmes were discussed and relevant recommendations were made
With regard to the determination of business priorities, strategic goals, and key principles of the Company's strategic development	<ul style="list-style-type: none"> <li>The Programme to reduce electricity losses in the grid complex of IDGC of Centre for 2018–2020.</li> <li>Changes in Methodology of Calculation and Assessment of Key Performance Indicators for the General Director.</li> <li>Programme for prospective development of electricity metering systems in the retail market of IDGC of Centre for 2018–2022</li> </ul>
With regard to the enhancement of the Company's investment appeal, improvement of the investment performance and balanced investment decision-making	<ul style="list-style-type: none"> <li>Changes in the Investment Programme of IDGC of Centre for 2016–2022.</li> <li>Report on Monitoring of economic performance of the investment projects in 2017 (35–110 kV main substations with increased installed capacity) included in the Company's Investment Programme.</li> <li>Quarterly reports on the progress of implementing the investment projects of IDGC of Centre appeared in the priority facilities list.</li> <li>Report on the implementation of corrective and preventive activities to eliminate the drawbacks identified by the results of technological and price audit of the reports on Implementation of the Company's Investment Programme</li> </ul>

Objectives of the Committee	The following matters/documents/programmes were discussed and relevant recommendations were made
With regard to the control over the execution of the accepted programmes and projects	<ul style="list-style-type: none"> <li>Quarterly reports on the execution of IDGC of Centre's Business Plan (including IDGC of Centre's Business Plans based on RAS integrated financial statements and IFRS consolidated financial statements).</li> <li>Quarterly reports on the execution of IDGC of Centre's Investment Programme.</li> <li>Report on implementing the Innovative Development Programme in 2017 and Medium-term plan for implementing the Innovative Development Programme of IDGC of Centre for 2018–2020.</li> </ul>
With regard to the control over the arrangement and operation of the risk management system	<ul style="list-style-type: none"> <li>Reports on the management of the Company's key operational risks.</li> <li>Section Risk Management System of the Annual Report 2017.</li> <li>Report on the arrangement and operation of the risk management system, including measures implemented in 2017 to improve the risk management system and enhance the risk management system maturity level</li> </ul>
Other issues	<ul style="list-style-type: none"> <li>Budget of the Committee.</li> <li>Drafts of new versions of the Company's internal documents - Articles of Association, Regulations on the General Shareholder's Meeting, Regulations on the Board of Directors, Regulations on the Audit Commission of IDGC of Centre</li> </ul>

### Attendance by the Strategy and Development Committee members in 2018<sup>1</sup>

Full name of a Committee member	Attendance at the Committee meetings
<b>Committee members who served in the Committee throughout 2018</b>	
Evgeny Olkhovich	14(5)/14(5)
Dmitry Kapustin	14(5)/14(5)
Roman Filkin	13(5)/14(5)
Alexander Shevchuk	14(3)/14(5)
<b>Committee members who stepped down from the Committee on 20 July 2018</b>	
Alexey Zharikov	7(3)/7(3)
Sergey Podlutsky	7(2)/7(3)
Sergey Romyantsev	7(3)/7(3)
Pavel Snikkars	0(0)/7(3)
Yury Savvin	7(3)/7(3)
Irina Shagina	7(2)/7(3)
<b>Committee members who were elected to the Committee on 20 July 2018</b>	
Dmitry Akopyan (serving till 22 November 2018)	5(1)/5(1)
Pavel Grebtsov	7(0)/7(2)
Alexander Inozemtsev	7(2)/7(2)
Valery Katayev (serving since 22 November 2018)	2(1)/2(1)
Anastasia Krupenina	7(2)/7(2)
Andrey Morozov	7(1)/7(2)
Alexey Pavlov	7(2)/7(2)

<sup>1</sup> Data are presented as X(n)/Y(m), where X – the number of meetings attended by a Committee member, Y – the total number of meetings held, n and m – the number of meetings held in person.

## Report of the Chairman of the Reliability Committee

In 2018, the Reliability Committee was focused on issues related to the expertise of production programmes, plans for technical

retrofitting, reconstruction, new construction and repair of power grid facilities, analysis of their development and execution in terms of ensuring

the requirements for reliability of operation and technical condition of electrical grids.

### As at 31 December 2018, the Committee included five members

In place since 29 June 2018	
Full name / Standing	Core position
Vasily Rozhkov Chairman of the Committee	Head of Production Planning Office, Operational and Technological Management Department, PJSC ROSSETI
Alexander Inozemtsev	Deputy General Director for Economics and Finance at IDGC of Centre
Alexander Pilyugin	First Deputy General Director – Chief Engineer at IDGC of Centre
Mikhail Smaga	Deputy Director of Centre for Technical Supervision – a branch of PJSC ROSSETI
Igor Polovnev	Financial Director of the Association of Institutional Investors

### Attendance by the Reliability Committee members in 2018<sup>1</sup>

Full name of a Committee member	Attendance at the Committee meetings
<b>Committee members who served in the Committee throughout 2018</b>	
Alexander Inozemtsev	18/18
Alexander Pilyugin	17/18
Mikhail Smaga	18/18
Igor Polovnev	18/18
<b>Committee members who stepped down from the Committee on 29 June 2018</b>	
Vladimir Pelymskiy	9/9
Dmitry Mikheev	8/9
Maxim Saveljev	9/9
<b>Committee members who were elected to the Committee on 29 June 2018</b>	
Vasily Rozhkov	9/9

<sup>1</sup> Data are presented as X(n)/Y(m), where X – the number of meetings attended by a Committee member, Y – the total number of meetings held, n and m – the number of meetings held in person.

In the reporting year, the Committee held 18 meetings and discussed the following issues.

#### Objectives of the Committee

In the field of expertise of production programmes, plans for technical retrofitting, reconstruction, new construction and repair of power grid facilities, analysis of their development and execution in terms of ensuring the requirements for reliability of operation and technical condition of electrical grids

With regard to the evaluation of the completeness and adequacy of measures taken following the accident investigation results, as well as control over their implementation

With regard to the examination of the Company's emergency planning activities (emergency preparedness, set-up and execution of emergency restoration procedures at power grid facilities)

With regard to the examination of the programmes to prevent and reduce the risk of personal injury to the Company's employees or third parties, as well as control over their implementation

With regard to control and assessment of the Company's technical services performance in terms of ensuring operational reliability and safety of power grids

With regard to the execution of the Environmental Policy Implementation Programme

When discussing proposals on the reorganisation of the Company's Governance System (change in the number of management levels,

#### The following matters/documents/programmes were discussed and relevant recommendations were made

- Target programmes for production activities starting from 2019.
- Production programmes and plans for retrofitting, reconstruction and repair of grid facilities for 2019, as well as the results of technical condition assessment of the facilities covered by these programmes.
- Programme of Upgrading (Renovation) of Grid Facilities for the period starting from 2019.
- Plan for the development of a production asset management system for 2016–2019.
- Changes in Investment Programme of IDGC of Centre for 2016–2022, quarterly reports on execution of this Programme.
- Quarterly reports on implementing:
  - Repair Programme;
  - Programme to improve reliability at IDGC of Centre's facilities;
  - Programme of Debottlenecking in the Power Grid Complex of IDGC of Centre;
  - investment projects appeared in the priority facilities list;
  - Programme of Upgrading (Renovation) of Grid Facilities of IDGC of Centre;
  - Plan for the development of a production asset management system for 2016–2018.
- Report for 2017 on the reliability indicators of the services rendered by the Company's branches subject to tariff regulation on the basis of long-term parameters for regulating the activities.
- Consolidation of power grid areas of PJSC IDGC of Centre's branches – Kurskenergo, Orelenergo, and Tverenergo
- Quarterly Reliability Reports.
- Quarterly quality review of the fault (accident) causes investigation, evaluation of the completeness and adequacy of measures developed based on the fault (accident) investigation results
- Report on the results of the autumn and winter period of 2017–2018.
- Reports on the results of the flood, thunderstorm and fire hazardous periods of 2018.
- Report on preparation for operation during the autumn and winter period of 2018–2019, including preparedness for set-up and execution of emergency restoration procedures in the autumn and winter period of 2018–2019
- Quarterly reports on taking measures to prevent wrong and incorrect actions of the personnel, executing the programmes to prevent and reduce the risk of personal injury
- Quarterly reports on the performance of the Company's technical services aimed at ensuring the operational reliability of IDGC of Centre power grids
- Quarterly reports on execution of the Environmental Policy Implementation Programme of IDGC of Centre

setting up/liquidation/regrouping of production departments of power grid regions), the Committee approved a pilot draft to merge the power grid

regions of Yarenergo, a branch of IDGC of Centre.

## Report of the Chairman of the Committee for Power Grid Connection

Over the year, the Committee continued with the current situation analysis concerning power grid connection of consumers and the efficiency of consumers and the efficiency assessment of the Company's activities for power grid connection of consumers.

### As at 31 December 2018, the Committee included five members

In place since 29 June 2018	
Full name / Standing	Core position
Alexander Pyatigor Chairman of the Committee	Deputy General Director for Service Sales, PJSC ROSSETI
Alexander Varvarin Independent Director	Vice-President – Managing Director of the Corporate Relations and Legal Support Office at the Russian Union of Industrialists and Entrepreneurs
Vladimir Davydkin	General Director of NP "Centre for Development of Corporate Relations and Resolution of Economic Disputes"
Alisa Manaka	Head of Grid Connection Office of Service Sales Department, PJSC ROSSETI
Igor Polovnev	Head of the Entrepreneurship Support Projects Office of the Department for Branch Grid Connection Activities Monitoring, PJSC MOESK
	Financial Director, Association of Institutional Investors

In the past year, the Committee held eight meetings, including one meeting held in person, and discussed the following issues.

Objectives of the Committee	The following issues/documents/programmes were discussed and relevant recommendations were made:
With regard to the development of proposals to improve the legal framework for antimonopoly regulation and ensure non-discriminatory access to grid connection services for consumers	<ul style="list-style-type: none"> <li>Reports on the compliance with applicable Russian Federation legislation in rendering grid connection services</li> </ul>
With regard to the analysis of the Company's current situation concerning grid connection of consumers	<ul style="list-style-type: none"> <li>Quarterly reports on the results of grid connection activities targeting consumers / generating facilities / federal consumers / small and medium-sized businesses / residential consumers</li> </ul>
With regard to the assessment of the Company's performance related to grid connection of consumers	<ul style="list-style-type: none"> <li>The Schedule of works execution under the grid connection agreements of IDGC of Centre expired as of 01 December 2017.</li> <li>Quarterly reports on complaints and applications concerning the connection to the Company's transmission and distribution grids.</li> <li>Quarterly reports on achieved KPIs: Compliance with grid connection time-frames and Increase of utilisation of power supply capacity</li> </ul>
With regard to the efficiency assessment of the Company's activities to improve the power grid development planning quality	<ul style="list-style-type: none"> <li>Five-year comprehensive programmes for the development of 35 kV and above power grids in the constituent entities of the Russian Federation.</li> <li>Reports on the cooperation with executive authorities in the constituent entities of the Russian Federation during development and review of the "Five-Year Schemes and Programmes for Power Grid Development in the Constituent Entity of the Russian Federation" within the 2018 cycle</li> </ul>

### Attendance by Committee for Power Grid Connection members at the meetings in 2018<sup>1</sup>

Full name of a Committee member	Attendance at the Committee meetings
<b>Committee members who served in the Committee throughout 2018</b>	
Igor Polovnev	8 (1) / 8 (1)
<b>Committee members who stepped down from the Committee on 20 July 2018<sup>17/18</sup></b>	
Alexander Korneev	6/6
Vasily Kukharevko	6/6
Irina Kim	6/6
Dmitry Mikheev	6/6
<b>Committee members who were elected to the Committee on 20 July 2018</b>	
Alexander Pyatigor	2 (1) / 2 (1)
Alexander Varvarin	2 (1) / 2 (1)
Vladimir Davydkin	2 (1) / 2 (1)
Alisa Manaka	2 (1) / 2 (1)

<sup>1</sup> Data are presented as X(n)/Y(m), where X – the number of meetings attended by a Committee member, Y – the total number of meetings held, n and m – the number of meetings held in person.

## General Director

**The General Director is responsible for the management of the Company's day-to-day operations, except for matters that are the responsibility of the General Meeting of Shareholders, the Board of Directors, or the Management Board of the Company.**



**Igor Makovskiy**  
General Director, IDGC of Centre

Date of birth: 24 May 1972, Semipalatinsk.

Education: 1993, Alma-Ata Boarder Command School named after F. Dzerzhinsky; 2000, Kaliningrad State University, a degree in Law; 2004, North-Western Academy of State Service, a degree in State and Municipal Management.

From 1993 to 1999, served in the military forces of the Russian Federation.

In 2009, was elected a member of the Kaliningrad district Council of Deputies from election district No.1 (a part of the Moskovsky district and Pribrezhny settlement).

In 2012–2018, held the position of the acting General Director of JSC Yantarenergo. In July 2012, was elected a member of the Board of Directors of JSC Yantarenergo. In September 2018, was appointed the Chairman of the Board of Directors of JSC Yantarenergo.

Since June 2018, a member of the Board of Directors, Chairman of the Board of Directors of OJSC Yantarenergoservis, OJSC Yantarenergosbyt, OJSC Kaliningrad Generating Company.

In September 2018, was appointed the General Director, Chairman of the Management Board of IDGC of Centre.

Holds the following awards: the Russian Orthodox Church Order of the Faithful Saint Prince Daniel of Moscow, 3rd class, Order and Medal of Merit for the Kaliningrad Region, Certificate of Merit for the Republic of Dagestan, the Letter of Gratitude from the President of the Russian Federation, the Letter of Gratitude and Certificate of Merit from PJSC ROSSETI, Medal of EMERCOM of Russia "85 Years of Civil Defence", the Letter of Gratitude from the Russian Ministry of Energy, Badge of Honour "For Contribution to the Development of the Power Grid Complex", 2nd class, Commemorative Medal "XXII Olympic Winter Games and XI Paralympic Winter Games of 2014 in Sochi", Commemorative Badge "For Provision of the Reliable Operation of the Olympic Power Facilities", Badge of Honour "For reliable operation of the Olympic Power Facilities», Badge of Honour "For Contribution into Construction of Olympic Facilities of Sochi Power District Grid Complex".

The information on the remuneration paid to the General Director is disclosed in the section "Remuneration of Management and Control Bodies".

## Management Board

The day-to-day management of the Company's operations is exercised by the Management Board (a collective executive body) and by the General Director of the Company (a sole executive body). The executive bodies are accountable to the Board of Directors and to the General Meeting of Shareholders of IDGC of Centre. The Management Board is responsible for the implementation of the Company's goals, development strategy and policy and manages the day-to-day operations within its competence.

The competence of the Management Board is set out in the Federal Law "On Joint-Stock Companies", Article 22 of the Company's Articles of Association, and the Regulations on the Management Board of IDGC of Centre (approved by the Annual General Meeting of Shareholders on 31 May 2018, Minutes No. 01/18 dated 1 June 2018).

At present, the Management Board consists of seven members. All members possess the skills and

experience to make balanced, well-informed decisions.

Over 2018, the membership of the Management Board of IDGC of Centre was changed as follows: on 19 September 2018, the authority of Oleg Isaev, Company's General Director, was terminated, so Igor Makovskiy, the elected General Director, was appointed the Chairman of the Management Board.

## Membership of the Management Board of IDGC of Centre<sup>1</sup>

**As at 31 December 2018, the Management Board included seven members**

Full name	Core position
<b>Igor Makovskiy</b>	Chairman of the Management Board, General Director
<b>Alexander Pilyugin</b>	Deputy Chairman of the Management Board First Deputy General Director – Chief Engineer
<b>Inna Gromova</b>	Member of the Management Board Deputy General Director for Human Resources Management and Organisational Design
<b>Ivan Kleymenov</b>	Member of the Management Board
<b>Konstantin Mikhailik</b>	Member of the Management Board
<b>Sergey Rumyantsev</b>	Member of the Management Board Adviser to the General Director
<b>Lyudmila Sklyarova</b>	Member of the Management Board Chief Accountant – Head of the Department for Financial and Tax Accounting and Reporting

### Additional information on members of the Management Board of IDGC of Centre

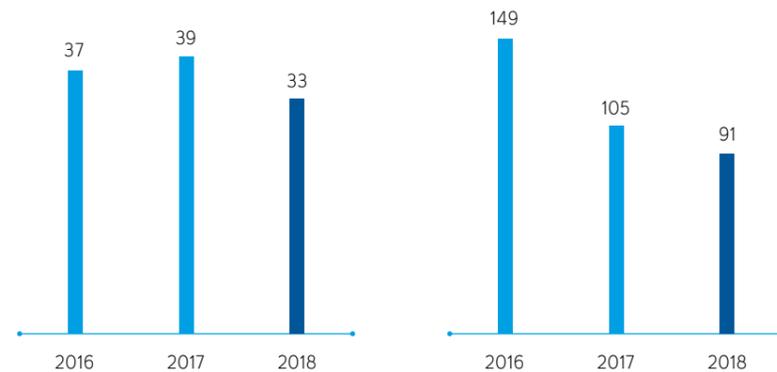
- In the reporting year, members of IDGC of Centre's Management Board did not acquire/dispose of the Company's shares.
- In 2018, no lawsuits against members of the Management Board were filed.
- Members of the Company's Management Board hold no positions in other companies competing with the Company. In 2018, no conflicts of interest occurred.
- Alexander Pilyugin owns 0.00035% of shares of IDGC of Centre, other members of the Management Board do not own the Company's shares.
- The information on the remuneration paid to the members of the Management Board is disclosed in the Section "Remuneration of Management and Control Bodies".

<sup>1</sup> The biographies of the Board members are given in the full version of the Annual Report - see the Company's website.

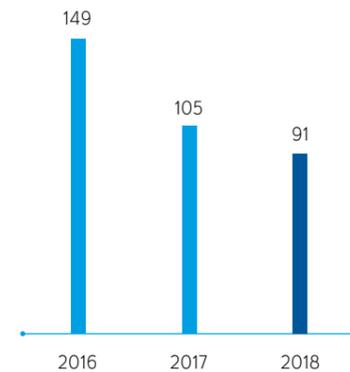
## The Chairman's Report on the Performance of the Management Board

The Management Board holds meetings in line with the quarterly Action Plan.

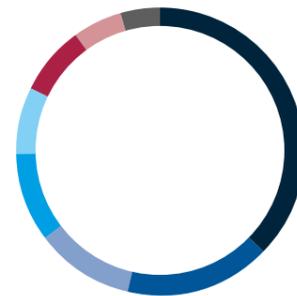
### Number of the Management Board's meetings



### Number of matters discussed by the Management Board



### Mix of matters discussed by the Management Board in 2018, %



Deputy General Director's reports by function	37.4
Strategy	16.5
Risk management	11.0
Management of subsidiaries and affiliates	9.9
Transactions	7.7
Corporate governance	7.7
HR and Social Policy	5.5
Finance	4.3

### Mix of matters discussed at the Management Board's meetings, matters

Matters:	2016	2017	2018
Number of meetings	37	39	33
Number of matters discussed	149	105	91
Including matters by category:			
Deputy General Director's reports by function	34	34	34
Strategy	27	18	15
Risk Management	16	14	10
Finance	11	14	4
Transactions	43	9	7
Corporate Governance / Social Policy	5	8	7
Management of subsidiaries and affiliates	4	5	9
HR Policy	3	3	5
Other	6	-	-

### Attendance by Management Board members in 2018<sup>1</sup>

Full name of the Management Board member	Attendance at the Management Board meetings
Igor Makovskiy	10 (4) / 10 (4)
Oleg Isaev	15 (0) / 23 (0)
Inna Gromova	30 (4) / 33 (4)
Ivan Kleymentov	27 (3) / 33 (4)
Konstantin Mikhailik	30 (1) / 33 (4)
Alexander Pilyugin	32 (3) / 33 (4)
Sergey Romyantsev	31 (4) / 33 (4)
Lyudmila Sklyarova	31 (4) / 33 (4)

<sup>1</sup> Data are presented as X(n)/Y(m), where X – the number of meetings attended by a Management Board member, Y – the total number of meetings held, n and m – the number of meetings held in person.

Along with the matters related to day-to-day operations management, many of the issues discussed in 2018 were recommendations to the Board of Directors, in particular on setting prices (monetary equivalent) of services and assets acquired or sold under contracts made by the Company, and priorities for the Company.

Being a key actor in the risk management process, the Management Board devoted much of its time to setting up and improving a robust risk management framework in the Company.

The Management Board also reviewed Deputy General Director's quarterly reports on performance in their areas of responsibility and dealt with social issues and matters related to the management of the Company's subsidiaries and affiliates.

## Corporate Secretary

The Corporate Secretary provides effective interaction of the Company's shareholders with the Board of Directors and executive management. The Corporate Secretary of IDGC

of Centre ensures the proper functioning of the Board of Directors, its Committees and acts as the Management Board Secretary, thus, improving the efficiency and

optimising the Company's corporate governance processes.

### Svetlana Lapinskaya

Corporate Secretary of IDGC of Centre since 2009

Since 2009, the Corporate Secretary of IDGC of Centre is Svetlana Lapinskaya<sup>2</sup>.

Nationality: A Russian citizen.

Education: 2002, Maimonides State Classical Academy.

Principal place of employment: from 2005 to the present time, the Head of Corporate Events, IDGC of Centre.

Date of the election as the Corporate Secretary: 19 June 2017 (Resolution of the Board of Directors, Minutes No.15/17 dated 19 June 2017).

Date of the first election as the Corporate Secretary: 25 March 2009.

A member of the National Association of Corporate Secretaries.

Does not own shares of the Company, its subsidiaries and affiliates.

Affiliation with members of the Company's management bodies or shareholders, criminal record, record of administrative offences committed in business operations, finance, taxes and fees or the securities market: none.

In 2018, Svetlana Lapinskaya was named a Top 25 Director for Corporate Governance / Corporate Secretary at 13th Director of the Year National Award held by the Independent Directors Association, Russian Union of Industrialists and Entrepreneurs in cooperation with PwC and the Moscow Exchange.

The Corporate Secretary of IDGC of Centre is appointed by the General Director based on the Board of Directors' resolution and accountable to the Board of Directors. Its activities are controlled by the Chairman of the Company's Board of Directors, which ensures relative independence from the Company's executive bodies.

### Functions of the Corporate Secretary are as follows:

- participating in the organisation of preparations for, and holding of, the General Meeting of Shareholders;
- ensuring support for the activities of the Board of Directors and

Committees of the Board of Directors;

- providing the Company's relations with its shareholders within own authorities and participating in corporate conflicts prevention;
- participating in the implementation of the Company's information disclosure policy;
- participating in ensuring the Company's interaction with the regulating authorities, market operators, registrar and other professional security traders;
- informing the Board of Directors about breaches of legislation and the Company's internal documents

- (within the Corporate Secretary's area of responsibility);
- participating in the implementation of the established procedures that ensure exercising of rights and legitimate interests of the shareholders, monitoring of their execution;
- participating in the improvement of the Company's corporate governance system.

The information on the remuneration paid to the Corporate Secretary is disclosed in the section "Remuneration of Management and Control Bodies".

<sup>2</sup> Personal details are provided with the consent of Svetlana Lapinskaya.

# INTERNAL CONTROL, AUDIT AND RISK MANAGEMENT

## Internal Control System

The Internal Control System is an element of the common management system of the Company aiming to provide reasonable guarantees that the goals in the following areas will be achieved:

- operational efficiency and strong performances of the Company including achievement of financial and operating results, protection of the Company's assets;
- compliance with the applicable laws and local regulations in the Company's commercial activities and financial accounting;

- reliability and timeliness of accounting (financial) statements and other types of statements.

The Internal Control System covers all areas of the Company's activities; control procedures are adhered to at all times across all the processes (all business activities) of the Company and at all management levels.

**The Internal Control System of the Company operates in accordance with Three Lines of Defence Model. This model implements**

**internal control in the Company at three levels:**

- management bodies (sole and collective executive bodies), the Company's units and departments performing control procedures as part of their functionality and professional duties – the first line of defence;
- the Company's control departments – the second line of defence;
- Internal audit departments – the third line of defence.

Functions of the Internal Control System actors are regulated by Company's Internal Control Policy approved by the resolution of IDGC of Centre's Board of Directors on 1 March 2016 (Minutes No.04/16),

the Regulations on business units, job instructions.

Control procedures for processes and sub-processes of the main and supporting activities, as

well as governance processes of the Company are recorded in control and risk matrices.

## Internal Control System Assessment

In order to guarantee that the Internal Control System is efficient and complies with the changing requirements and conditions, the Company's Internal Auditor assesses the efficiency of the Internal Control System, i.e., its compliance with the target status and the maturity level.

The issue of the Internal Control System efficiency by the end of 2018

was reviewed at the meeting of IDGC of Centre's Board of Directors. The maturity level of the Internal Control System scored five out of six points, which corresponded to the optimal maturity level. As a comparison, the Internal Control System maturity level by the end of 2017 scored 4.9 out of six points that also corresponded to the optimal maturity level.

The external independent assessment of the Internal Control System as at 31 December 2018, was carried out by the Consortium comprising LLC Ernst & Young - Assessment and Consulting Services and LLC RSM RUS.

# 5 points (optimal)

maturity level of the Internal Control System in 2018

## Internal Control System Development

The Company's Management Board approved the plan on the improvement of the Internal Control System and Risk Management System of IDGC of Centre on 8 May 2018 (Minutes No.10/18 dated 8 May 2018). On 9 August 2018, the Audit Committee of the Company's Board of Directors reviewed the information on the plan fulfilling as part of IDGC of Centre's Management Report on implementation of the Internal Control Policy of the Company (Minutes No.09/18 dated 9 August 2018).

**In 2018, the Company undertook the following key measures aimed at improvement of the Internal Control System.**

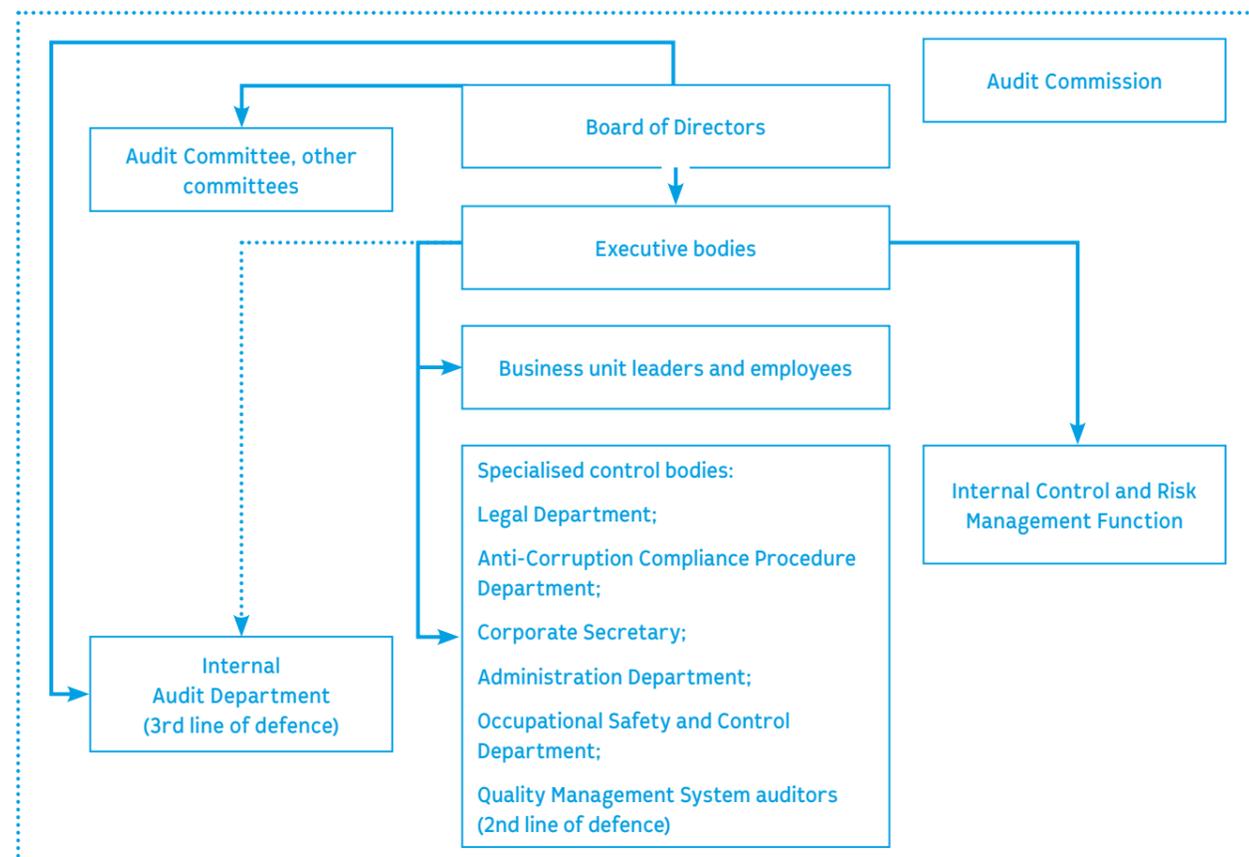
- Standard Regulations on business units of the Company were reviewed for the availability of internal control and risk management functions in them.

- Design and operating efficiency of control matrices were audited relative to 21 business processes/ business services, including:
  - management of accounting, tax accounting recording and statements, IFRS;
  - investment activities management;
  - metrological support;
  - electricity quality management;
  - operational process control;
  - diagnostics;
  - maintenance, repairs and replacement;
  - sales of electricity transmission services;
  - logistics and procurement management;
  - sales of grid connection services;
  - purchasing control;
  - financial management;
  - business planning management;
  - occupational safety management;

- legal support;
- Information Policy management;
- client relations management;
- property management;
- security provision;
- documentation management;
- HR management.

Based on the audit results, some incompliances and observations were revealed and improvements regarding the risks and controls were suggested.

## Internal Control System Participants



The adjusted control matrices for uncovered business processes were approved by Order No.335-TsA dated 16 July 2018 "On Amendments to the Certificates of Business Processes of IDGC of Centre in terms of Risk Matrices and Control Procedures" in

## Internal Audit

The unit responsible for implementing the internal audit function in the Company is the Internal Audit Department.

The internal audit is functionally accountable to the Company's Board of Directors, which means that the Board of Directors monitors and organises the activities of the Internal Audit Unit, including approval of an Internal Audit Action Plan, the Report on performance of that plan and the budget of the Internal Audit Unit, approval of decisions on the appointment, termination, and remuneration of the Head of the Internal Audit Unit.

The goals and objectives, organisational and functional principles, roles and responsibilities of the Internal Audit Department are set out in the Internal Audit Policy of IDGC of Centre (new version)<sup>1</sup>.

**Aside from the Internal Audit Policy, the Company approved the following documents regulating the internal audit function:**

- Regulations on the Internal Audit Department (PSP TsA/18/05-2016) approved by IDGC of Centre Order No.151-TsA dated 24 May 2016.

### Corrective measures in 2018



accordance with the requirements of the Regulations "Procedure for Implementation of the Internal Control Policy Requirements".

Heads of business processes/business services at IDGC of Centre carried

- Programme for ensuring and improving the internal audit quality of IDGC of Centre preliminary reviewed by the Audit Committee (Minutes No.13/16 dated 25 November 2016) and approved by the Board of Directors (Minutes No.33/16 dated 13 December 2016).

The purpose of the internal audit is to assist the Company's Board of Directors and executive bodies in improving management of the Company and its financial and business activities, including through systemic and consistent analysis and assessment of risk management, internal controls and corporate governance as tools for providing reasonable assurance that the goals set for the Company will be achieved.

In 2018, the internal audit function comprised seven employees.

During 2018, 39 control procedures were run as part of internal audits.

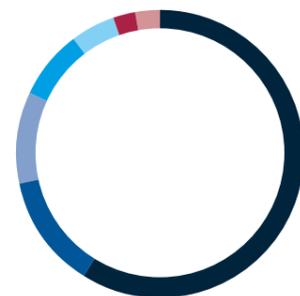
As a result of control measures implemented as part of internal audit in 2018, 520 corrective measures are to be taken in order to eliminate violations and drawbacks identified during the internal audit and to prevent them in the future.

out self-assessment of the efficiency of control procedures and business process internal control system as per the approved Methodology.

A total of 485 corrective actions were executed that were due in the reporting year (including the activities to be carried out based on the control procedures performed by the Department in previous periods).

Implementation of corrective measures is controlled by the Audit Committee of the Board of Directors during hearings: the Company's management presents periodic reports on executing the planned corrective measures for eliminating the drawbacks identified by the Company's Audit Commission, the internal auditor and external supervisory bodies.

### Control measures executed by the Internal Audit Department in 2018



Monitoring of measures implementation	23
Subject-matter checks	5
Audits	4
Comprehensive checks of the branches	3
Audits of the Company's S&A and their S&A	2
Corporate governance assessment	1
Assessment of the Internals Control System and Risk Management System	1

## Audit Commission

The Company's financial and business operations are supervised by the Audit Commission, which is elected by the General Meeting of Shareholders, holds office until the next Annual General Meeting of Shareholders and is guided by the Federal Law On Joint-Stock Companies, Article 24 of the Company's Articles of Associations and the Regulations on the Audit Commission.

### Key roles of the Audit Commission:

- control over the Company's financial and business operations;
- an independent assessment of the reliability of data provided in the Company's Annual Report and annual accounting statements.

[The Regulations are available on the Company's website](#)

[Resolutions of the Audit Commission are available on the website of IDGC of Centre](#)

### Current members of the Audit Commission were elected by the Annual General Meeting of Shareholders on 31 May 2018<sup>2</sup>

<b>Marina Lelekova</b> Chair of the Audit Commission	Year of birth: 1961. A Russian citizen. Education: 1982, Far Eastern Institute of Soviet Trade, a degree in Economics. Since 2013, Director of the Internal Audit and Control Department at PJSC ROSSETI. From 2009 to 2013, Head of the Control and Audit Department at OJSC FGC UES.
<b>Elena Kabizskina</b>	Year of birth: 1964. A Russian citizen. Education: 1986, Far East Technical Institute of Fishery and Fish Industry, a degree in Economics and Industrial Organisation. Since 2014, Deputy Head of the Internal Audit Office of the Internal Audit and Control Department at PJSC ROSSETI. From 2013 to 2014, Head of the Methodological Support Office of the Internal Audit Department at PJSC MOESK. From 2005 to 2013, Head of the Internal Control and Risk Management Department, Deputy Head of the Control and Audit Department at OJSC FGC UES.
<b>Svetlana Kim</b>	Year of birth: 1981. A Russian citizen. Education: 2004, Moscow State University of Railway Engineering, a degree in Commerce. Since 2013, Head of the Internal Audit Office of the Internal Audit and Control Department at PJSC ROSSETI. From 2008 to 2013, Head of Investment Control Function of the Control and Audit Department at JSC FGC UES.
<b>Sergey Malyshev</b>	Year of birth: 1965. A Russian citizen. Education: 1986, Yaroslavl Higher Military Financial School, a degree in Economics and Finance. Since 2013, Lead Expert of the Investment Audit Unit of the Internal Audit Office of the Internal Audit and Control Department at PJSC ROSSETI. Before that, worked at the Control and Audit Department of JSC FGC UES.
<b>Oxana Medvedeva</b>	Year of birth: 1978. A Russian citizen. Education: Magadan branch of Russian Academy of Entrepreneurship, a degree in Accounting, Analysis and Audit. Since 2014, Chief Expert of the Internal Audit Office of the Internal Audit and Control Department, Head of the General and Internal Audit Unit of the Internal Audit Office of the Internal Audit and Control Department at PJSC ROSSETI. From 2011 to 2014, Head of the Unit of the Control and Audit Department at JSC FGC UES.

<sup>1</sup> Approved by the resolution of the Company's Board of Directors (Minutes No.04/16 dated 1 March 2016) as amended by the Company's Board of Directors (Minutes No.03/17 dated 22 February 2017).

<sup>2</sup> Data on the members of the Audit Commission is provided as at 31 December 2018.

Members of the Audit Commission do not own shares of IDGC of Centre and its subsidiaries, did not acquire/dispose of shares in 2018.

In 2018, the Audit Commission held seven meetings to review matters of approval of the Audit Commission's action plan, election of the Commission's chairman and

secretary, and matters directly related to audits.

In the reporting year, the Audit Commission held one scheduled audit of financial and business operations of IDGC of Centre for 2017.

The information on remuneration paid to the members of the Audit

Commission is disclosed in the section "Remuneration of Management and Control Bodies".

[Resolutions of the Audit Commission are available on the website of IDGC of Centre](#)

## Auditor

The Auditor provides audit services to IDGC of Centre in respect of its RAS annual accounting (financial) statements and IFRS annual consolidated financial statements for 2018. In 2018, based on results of the public bidding, LLC Ernst & Young (EY Group of Companies) was selected (address: 77 bld. 1 Sadovnicheskaya nab., Moscow, Russia, 115035).

In order to ensure the independence and objectivity of the external auditor, its selection is based on public bidding. The bidding process is organised via an electronic trading platform at [www.b2b-energo.ru](http://www.b2b-energo.ru). Bidder evaluation criteria were defined in advance in the tender documents.

According to the research results of the RAEX Rating Agency (Expert RA), the EY Group of Companies ranked first among the largest audit and consulting groups and audit organisations (by the end of 2014-2016) in Russia for three years running. In addition, LLC Ernst & Young is No.1 in the list of the largest Russian audit organisations (auditors) compiled by the RAEX Agency by the end of 2016.

The Auditor is not affiliated with employees or management of the Company.

LLC Ernst & Young does not have any business relations (is not involved in the promotion of products (services),

or business activities, etc.) or contracts for services other than audit services, or family connections with officials at IDGC of Centre.

The Auditor does not provide any non-audit services to the Company.

The information on the Auditor's fees is disclosed in the section "Remuneration of Management and Control Bodies".

## Risk Management

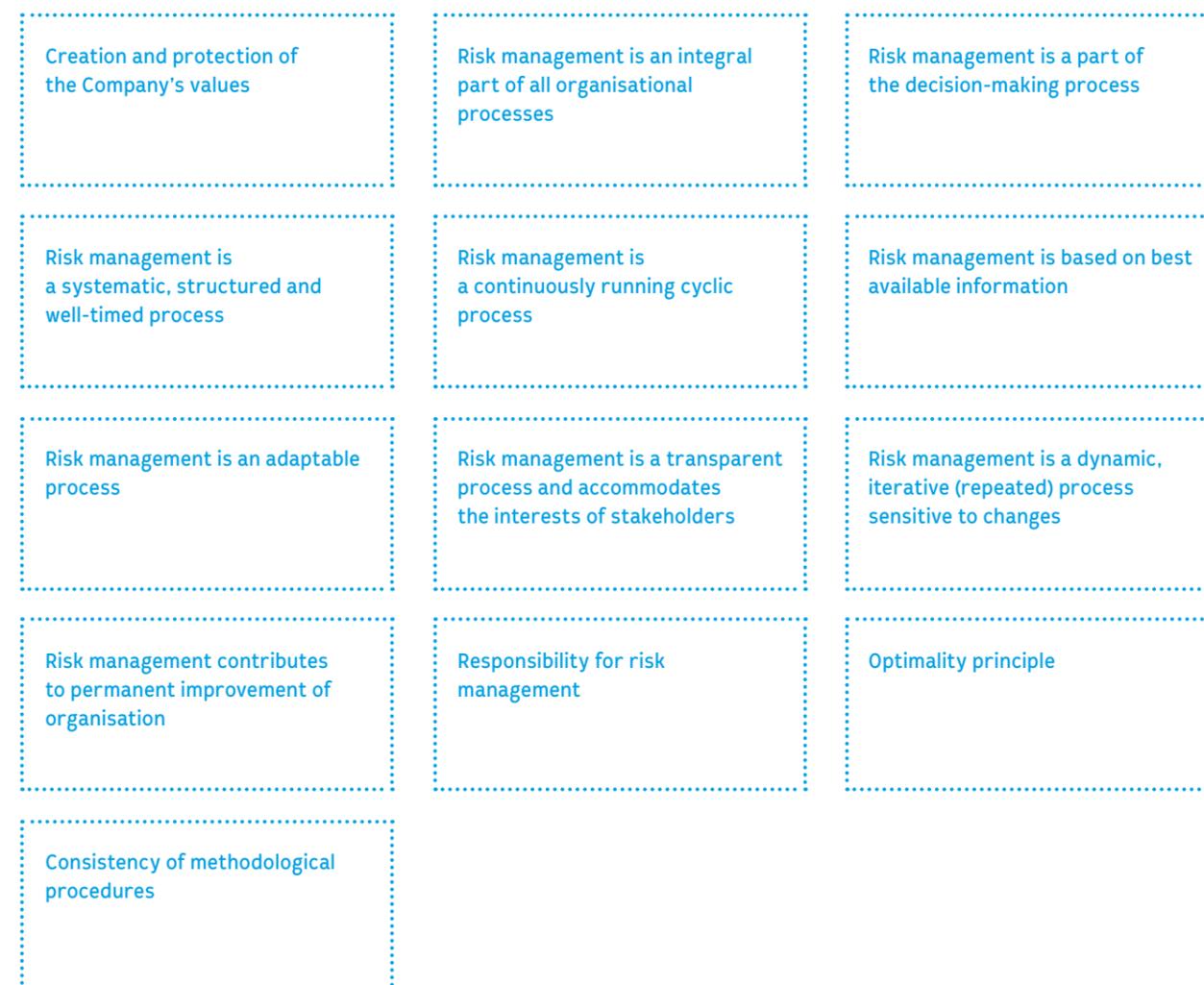
The Company has a robust risk management system in place (the "RMS"). The purpose of the RMS is to ensure sustainable continuous operation and development of the Company through timely identification, assessment and effective management of risks that threaten

to hamper the effective running of business or damage the reputation of the Company, health of its employees, the environment, or property interests of its shareholders and investors.

In March 2016, a new version of the Company's Risk Management Policy

was adopted by the resolution of IDGC of Centre's Board of Directors (Minutes No.06/16 dated 17 March 2016). [The document is available on the Company's website.](#)

### Principles of the Risk Management System Operation

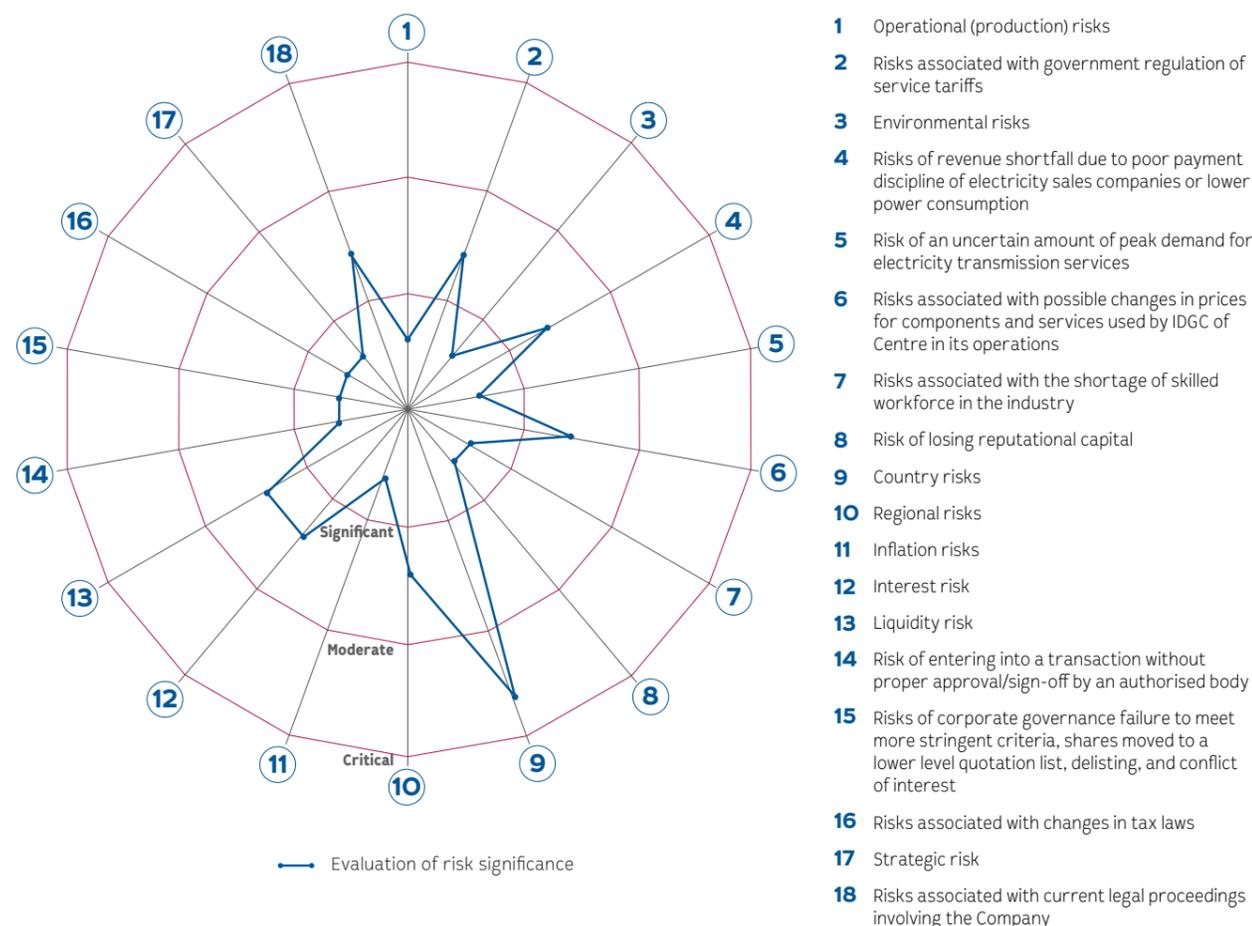


**RMS participants:**



[For more details on the functions of the RMS participants see Appendix on the Company's website](#)

**Key Risk Factors**



Description of the above risks, measures to mitigate the consequences of their implementation, as well as the assessment of the risk significance and dynamics, are given in the Appendix to the Annual Report.

**Assessment of the Risk Management System**

In order to guarantee that the RMS is efficient and complies with changing requirements and conditions, the Company's internal auditor assesses the RMS efficiency, i.e., its compliance with the target status and maturity level.

1. Problems (risks) of activities management are identified. The risk management system is integrated into planning and decision-making processes. However, the RMS is not automated, not all possible controls are automated.

the effective organisation of processes used in the Company are provided. If low efficiency of implemented processes is identified, they are optimised. The processes are continuously improved and based on good practice. Means of activities management automation are used partially and to a limited extent.

Considering the internal assessment results, in 2018, the Company scored 4.9 out of 6 points on the maturity level of the risk management system that corresponds to the 5th (optimal) level on the maturity assessment scale with the following characteristics:

2. The processes are regulated, unified in the society, the executive office and branches of subsidiary and dependent companies and communicated to the personnel by publishing on a common access resource. Monitoring of the implementation and assessment of

The external independent assessment of the reporting period was carried out by the Consortium comprising LLC Ernst & Young – Assessment and Consulting Services and LLC RSM RUS.

**4.9**  
out of 6 points  
on the maturity level of the risk management system in 2018

# REMUNERATION OF MANAGEMENT AND CONTROL BODIES

## Approaches to the Remuneration System

<p>When the remuneration system is formed and a specific amount of remuneration to members of IDGC of Centre's management bodies is determined, it is assumed that the level of benefits must be sufficient to attract, motivate and retain persons</p>	<p>with the competence and qualifications necessary for the Company.</p> <p>In this regard, the Board of Directors, with the involvement of the Personnel and Remunerations Committee, controls (supervises)</p>	<p>the introduction and implementation of the Remuneration Policy in the Company.</p> <p>The Remunerations Committee addresses the following issues.</p>
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### Competence issue in accordance with the Regulations on the Personnel and Remunerations Committee

- Development of principles, criteria and recommendations for remuneration and financial incentives:
- for members of the Company's Board of Directors, Chairman of the Company's Board of Directors;
  - for members of the Company's Management Board, the General Director of the Company, the managing company or the manager;
  - members of the Company's Audit Commission, Chairman of the Company's Audit Commission.

Preparation of recommendations on the approval (adjustment) of internal documents regulating the remuneration and financial incentive issues.

Development of proposals for defining the material terms of contracts (including the term of office and the amount of remuneration and compensation paid) concluded with members of the Company's Board of Directors, members of the Management Board, the Company's General Director, the managing company or the manager, introduction of changes into these contracts.

Regular assessment of the performance of the Company's General Director, the managing company (the manager), members of the Company's Management Board and preparation of relevant recommendations to the Company's Board of Directors.

Review of the performance results relative to the employees holding positions, candidates for which are approved by the Company's Board of Directors, and preparation of relevant recommendations to the Company's General Director.

### Application practice in IDGC of Centre

The Committee preliminarily reviews and gives recommendations to the Board of Directors on the approval/introduction of changes to the Methodology for Calculation and Assessment of Key Performance Indicators of the General Director for awarding bonuses to the General Director (additional, special, for KPIs achievement under the Contract of the Sole Executive Body, for performance of a critical task).

The Committee preliminarily reviews and gives recommendations to the Board of Directors on the approval/introduction of changes to the Regulation on Payment of Remuneration and Compensation to Members of the Company's Board of Directors, the Regulation on Payment of Remuneration and Compensation to Members of the Company's Audit Commission, the Regulations on Financial Incentives for the General Director of the Company, the Regulations on Financial Incentives and Social Benefits for Senior Managers of the Company.

The Company's Board of Directors, with regard to Article 21 of the Company's Articles of Associations, took a decision to approve the person authorised to define the terms of the employment contract, including the term of office for the General Director and members of the Company's Management Board.

By the end of the employment contract term, the Committee preliminarily reviews the performance results and provides recommendations to the Board of Directors regarding the General Director.

By the end of the employment contracts term, the Committee preliminarily reviews the performance results of the Company's Deputy General Directors by certain areas of activity and gives recommendations to the General Director whether to conclude or not to conclude an employment contract for a new term.

## Internal Documents on the Remuneration and Compensation

Document name	Date of approval	Minutes details	Link to the Company's website
The Regulation on Payment of Remuneration and Compensation to Members of the Board of Directors of IDGC of Centre	25.06.2015, Annual General Shareholders Meeting	Minutes No.01/15 dated 26.06.2015	<a href="https://www.mrsk-1.ru/information/documents/internal/">https://www.mrsk-1.ru/information/documents/internal/</a>
The Regulation on Payment of Remuneration and Compensation to Members of the Reliability Committee of the Board of Directors	02.09.2009, as amended on 31.12.2015, Board of Directors	Minutes No.13/09 dated 02.09.2009, No.28/12 dated 31.12.2015	<a href="https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KN_english.pdf">https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KN_english.pdf</a>
The Regulation on Payment of Remuneration and Compensation to Members of the Committee for Power Grid Connection of the Board of Directors			<a href="https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KpTP_english.pdf">https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KpTP_english.pdf</a>
The Regulation on Payment of Remuneration and Compensation to Members of the Strategy and Development Committee of the Board of Directors			<a href="https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KS_english.pdf">https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KS_english.pdf</a>
The Regulation on Payment of Remuneration and Compensation to Members of the Audit Committee of the Board of Directors			<a href="https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KA_english.pdf">https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KA_english.pdf</a>
The Regulation on Payment of Remuneration and Compensation to Members of the Personnel and Remunerations Committee of the Board of Directors			<a href="https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KKiV_english.pdf">https://www.mrsk-1.ru/upload/documents/Polozhenie_o_vyplate_voznagrazhdenij_KKiV_english.pdf</a>
The Regulations on Financial Incentives and Social Benefits for Senior Managers	18.07.2011, as amended on 07.09.2017, Board of Directors	Minutes No.16/11 dated 18.07.2011, No.22/17 dated 08.09.2017	-
The Regulations on Financial Incentives for the General Director	18.07.2011, as amended on 18.12.2014, 26.02.2015, 29.05.2017, 07.09.2017, Board of Directors	Minutes No.16/11 dated 18.07.2011, No.29/14 dated 19.12.2014, No.03/15 dated 27.02.2015, No.14/17 dated 29.05.2017, No.22/17 dated 08.09.2017	-

## Application Area of the Remuneration Policy

The Remuneration Policy of IDGC of Centre reviewed in this Report applies to members of the Board of Directors, members of the Management Board and other key employees classified as senior managers in accordance with the internal documents of the Company. This Policy

does not apply to persons controlled by the Company and other organisations.

This section also provides information on the remuneration to members of the Committees of IDGC of Centre's Board of Directors and the Corporate Secretary.

In the reporting year, there were no changes in the Remuneration Policy, independent assessment of the Company's remuneration system (its separate elements) was not carried out.

## Remuneration to Members of the Board of Directors

The Company presumes that the preferred form of the monetary remuneration to members of the Board of Directors is a fixed annual remuneration, the amount of which is linked to financial results of

the Company. In addition, the Company takes into account the higher level of responsibility and additional time expenditures associated with the participation of members of the Board of Directors in the work

of the Committees, servicing as the Chairman of the Board of Directors and the Chairmen of the Committees, and establishes additional remuneration for this.

Type of remuneration	Criteria and calculation	Amount paid in 2018
For attendance of meetings of the Board of Directors	<p>Calculation formula:  <math>S(1) = R_{base} \times 100 / 130 (n / m)</math>,            where</p> <ul style="list-style-type: none"> <li><math>R_{base}</math> – the base remuneration, calculated in line with the RAS revenue for the financial year;</li> <li><math>n</math> – the number of meetings of the Board of Directors attended by a member of the Board of Directors in the period between Annual General Shareholders Meetings;</li> <li><math>m</math> – a total number of meetings of the Board of Directors in the period between Annual General Shareholders Meetings.</li> </ul> <p><math>R_{base}</math> depends on the RAS revenue for the financial year:</p> <ul style="list-style-type: none"> <li>over RUB 200 bn = RUB 1,000,000</li> <li>over RUB 30 bn = RUB 900,000</li> <li>over RUB 10 bn = RUB 800,000</li> <li>over RUB 1 bn = RUB 700,000</li> <li>over RUB 600 mn = RUB 600,000</li> <li>under RUB 600 mn = RUB 500,000</li> </ul> <p><b>Flat-rate premiums:</b></p> <ul style="list-style-type: none"> <li>+30% – for the Chairman of the Board of Directors</li> <li>+20% – for a Chairman of a Committee at the Board of Directors</li> <li>+10% – for members of a Committee at the Board of Directors</li> </ul> <p><b>Restriction:</b> the total amount of remuneration may not exceed <math>R_{base}</math></p>	RUB 7,153,000
For higher market capitalisation of the Company	<p>0.0175% from the increase in the market value of the Company, calculated for the period from the election of a member of the Board of Directors until the election of a new Board of Directors</p> <p><b>Restriction:</b> may not exceed 5% of the RAS net profit for the financial year</p>	No remuneration was paid

There are no additional payments or compensation in case of early termination of the powers of members of the Company's Board of Directors. Non-monetary remuneration is not provided to members of the Board of Directors<sup>1</sup>.

The expenses of the members of the Board of Directors related to participation in meetings of the Board of Directors are subject to compensation according to the rules of reimbursement of travel expenses

established by the Company and applicable at the time of the meeting.

### Remuneration paid to members of the Board of Directors

In 2016–2018, the following remunerations were paid to members of the Board of Directors of IDGC of Centre

Type of remuneration	Amount of remuneration, RUB thousand (personal income tax included)		
	2016	2017	2018
Remuneration for service on a management body	7,810	19,096	7,153
Salaries of members of the Board of Directors employed by the Company	-	-	-
Bonuses	-	-	-
Commission	-	-	-
Other types of remuneration	63	-	-
Reimbursement of expenses related to service on the Board of Directors	110	-	-
<b>Total</b>	<b>7,983</b>	<b>19,096</b>	<b>7,153</b>

In July 2017, members of the Board of Directors were paid additional remuneration for the capitalisation growth in the 2016-2017 corporate year in the amount of RUB 11,688,000.

The remuneration of the Board of Directors' member, who is the Chairman of the Management Board and holds a position of the Company's General Director, is

included in the table "Remuneration paid to members of the Management Board".

### Personal remuneration paid out to members of the Board of Directors of IDGC of Centre in 2018, RUB<sup>2</sup>

1	Tatyana Dronova	808,316
2	Yury Mangarov	900,000
3	Alexey Pavlov	761,538
4	Alexey Rakov	692,308
5	Maxim Saukh	761,538
6	Denis Spirin	692,308
7	Roman Filkin	761,538
8	Oxana Shatokhina	875,676
9	Alexander Shevchuk	900,000

- Remuneration of Pavel Snikkars may not be accrued or paid out since he is a public official, for whom a federal law provides for a restriction or prohibition on receiving any payments from commercial organisations.
- Remuneration of Oleg Isaev may not be accrued and paid out since a member of the Board of Directors is the Sole Executive Body of the Company.

### Property (financial) benefit

- In 2016–2018, the Company did not issue loans (credits) to members of the Board of Directors, did not enter into other civil law contracts with members of the Board of Directors.

<sup>1</sup> Including remuneration in the form of shares (or based on shares), options (option contracts) for the purchase of shares, employment benefits or non-monetary benefits (provision of housing or reimbursement of housing expenses, insurance reimbursement, pension deductions, provision of a company car or compensation of expenses of the car use for work-related purposes, the provision of goods or services for free or at a reduced price, etc.

<sup>2</sup> The information is disclosed with the written consent of members of the Board of Directors and includes the personal income tax.

## Remuneration to Members of Committees of the Board of Directors

In accordance with the approved Policy in place at IDGC of Centre, remuneration was paid in 2018 to members of Committees of the Board of Directors for participation in committee meetings. The amount of remuneration depends on the form of the meeting.

- Two minimum monthly wages of a skill category 1 worker (the “minimum monthly wage”) for participation in meetings held in person.

- One minimum monthly wage for participation in meetings held by absentee voting.

Remuneration payable to the Committee Chairman is 50% higher.

Remuneration to members of the Board Committees who are also members of the Company’s Board of Directors is paid in the form and amount stipulated by the Regulations

on Payment of Remuneration and Compensation to Members of the Board of Directors. These persons receive an additional allowance set at:

- 10% for a committee member,
- 20% for a committee Chairman.

Remuneration is not paid to members who are also members of the Company’s Management Board.

### Remuneration paid to members of the Board Committees in 2018

Indicator	Committee:				
	Reliability	Grid Connection	Strategy and Development	Audit	Personnel and Remuneration
Remuneration for participation in the committee activities, RUB thousand (personal income tax included)	706	317	954	No remuneration was paid because only members of the Board of Directors are members of the committees	

## Remuneration to the General Director

Remuneration of the General Director of IDGC of Centre is determined by the employment contract and the Regulations on Financial Incentives for the General Director of IDGC of Centre. Official salary, bonuses for achieving the Key Performance Indicators are paid to the General Director.

Bonuses are paid to the General Director based on the Report on achieving KPIs approved by the Board of Directors:

- based on achieving the KPIs of the Company for the quarter and year;
- based on achieving the strategic priorities determined by the Company’s Board of Directors for the year.

In the reporting year, the General Director received bonuses for achieving the 2017 KPIs, as well as a special bonus for achieving the 2017 strategic priorities. These payments were included in the remuneration amount paid to members of the Company’s Management Board.

## Remuneration to Members of the Management Board

The Remuneration Policy of the executive bodies and other key employees of the Company applicable in IDGC of Centre stipulates the dependence of remuneration on the performance results of IDGC of Centre and individual contribution of each person to the achievement of this result by the implementation of tools for regular effectiveness assessment of their activities based on the Key Performance Indicators system.

Monthly remuneration is paid to members of the Management Board in the amount of RUB 15,800 for the exercise of authority. Members of the Management Board, who are employees of the Company, receive the remuneration in accordance with the terms of their employment contracts.

By resolution of the Company’s Board of Directors, members of the Management Board are classified

as senior managers. Senior managers receive bonuses based on the Key Performance Indicators and their achievement in the reporting periods (quarter and year).

For Key Performance Indicators see page 13.

## Remuneration paid to members of the Management Board

In 2016–2018, the following remuneration was paid to members of the Company’s Management Board.

Type of remuneration	Amount of remuneration, RUB thousand (personal income tax included)		
	2016	2017	2018
Remuneration for service on a management body	913	926	919
Salary	47,773	50,842	79,725
Bonuses	49,999	50,066	105,668
Commission	–	–	–
Other types of remuneration	–	–	–
Reimbursement of expenses related to service on the Management Board	–	–	–
<b>Total</b>	<b>98,685</b>	<b>101,834</b>	<b>186,312</b>

The total remuneration of the Management Board members includes the remuneration of the General Director, who chairs the Management Board, less

the remuneration for service on the Board of Directors. This amount is disclosed as part of the remuneration received by members of the Company’s Board of Directors.

### Property (financial) benefit

In 2016–2018, the Company did not issue loans (credits) to members of the Management Board, to the General Director, and did not enter into other civil law contracts.

## Remuneration of the Corporate Secretary

The Company’s Board of Directors determines the amount and procedure for payment of remuneration of, and bonus scheme for, the Corporate Secretary taking into account recommendations of the Personnel and Remunerations Committee of the Board of Directors.

The Company’s General Director signs an employment contract with the Corporate Secretary on the terms and conditions approved by the Company’s Board of Directors.

Under the terms and conditions of the employment contract, monthly remuneration of RUB 40,000 is payable to the Corporate Secretary of IDGC of Centre.

Pursuant to the Regulations on Remuneration and Compensation of Members of the Board Committees, remuneration is also payable for the provision of secretary services to the Board Committees for each meeting of the relevant Committee in the amount equivalent to 0.5 minimum monthly wage as at the meeting date.

### Remuneration paid to the Corporate Secretary in 2018<sup>1</sup>

Type of remuneration	Amount of remuneration, RUB thousand (personal income tax included)
Corporate Secretary	482
Secretary of the Board Committees	314
<b>Total</b>	<b>796</b>

## Remuneration of Members of the Audit Commission

Remuneration and compensation to members of the Audit Commission of IDGC of Centre are paid in accordance with the relevant Regulations approved by the Company’s Board of Directors.

In 2018, IDGC of Centre paid out RUB 673,000 to members of the Audit Commission for their audits of financial and business operations, compensations were not paid.

## Independent Auditor Fees

The Auditor’s fees are set by IDGC of Centre Board of Directors at RUB 4.7 mn (excl. VAT). This amount

includes audit fees for both RAS and IFRS statements for 2018.

<sup>1</sup> The information is provided with the consent of the Corporate Secretary Svetlana Lapinskaya.

# SECURITIES

## Shares

### Share Capital

As at 31 December 2018, the authorised capital of IDGC of Centre amounted to RUB 4,221,794,146.80 and was split into 42,217,941,468 ordinary shares (outstanding shares) with a par value of 10 kopecks each. There are no preference shares.

IDGC of Centre has authorised shares – 258,532 ordinary shares with a par value of 10 kopecks each. Authorised shares were formed as a difference between the number of authorised (42,218,200,000) and outstanding (42,217,941,468) shares during the Company reorganisation in 2008

in the form of its merger with regional grid companies. No additional shares were issued in 2018.

IDGC of Centre does not own shares held by the Company, as well as shares owned by the controlled companies.

### Shareholding Structure

In 2018, there were no changes in the list of persons entitled to dispose of at least 5% of the votes corresponding to the Company's voting shares.

Prosperity Capital Management Limited has a direct or indirect right to dispose of 20.85% of the Company's shares constituting the authorised capital of the Company.

IDGC of Centre is not aware of any shareholdings exceeding 5%, except for those disclosed by the Company.

IDGC of Centre is not aware of any shareholders that may acquire or acquired a degree of control disproportionate to their shareholdings in the Company, including pursuant to shareholder agreements.

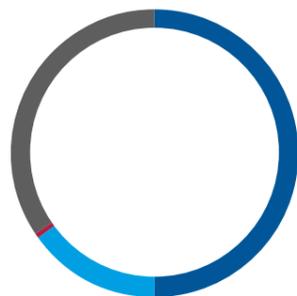
The Russian Federation holds 0.46% in the Company's authorised capital, including 0.4552% in federal ownership, 0.000000099% in the ownership of the constituent entities of the Russian Federation, and 0.0058% in municipal ownership.

The Russian Federation holds

# 0.46%

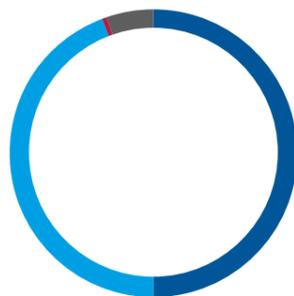
in the Company's authorised capital

Major shareholders as at 7 May 2018, %



■ PJSC ROSSETI	50.2
■ Genhold Limited	15.0
■ Russian Federation	0.5
■ Others	34.3

Major shareholders as at 31 December 2018, %



■ LLC Depository and Corporate Technologies	50.2
■ National Settlement Depository	44.1
■ Russian Federation	0.5
■ Others	5.2

### Shareholding structure, % of outstanding shares

Shareholding Structure as at 31 December 2018 (excluding clients of the nominee holders)		Shareholding Structure as at 7 May 2018 (last record date)	
Type of shareholder	% of outstanding shares	Type of shareholder	% of outstanding shares
Owners – individuals	4.4	Owners – individuals	11.0
Owners – legal entities	1.1	Owners – legal entities	87.1
Nominee holders	94.5	Nominee holders	0.0
Trustees	0.0	Trustees	1.5
		Central Securities Depository	0.4
<b>Total:</b>	<b>100</b>	<b>Total:</b>	<b>100</b>
Residents of the Russian Federation	99.9	Residents of the Russian Federation	68.7
Non-residents of the Russian Federation	0.1	Non-residents of the Russian Federation	31.3
<b>Total:</b>	<b>100</b>	<b>Total</b>	<b>100</b>

### Shareholding structure in terms of the shareholders' geography as at the last date of record (7 May 2018)

Country	Number of shareholders	% of total number of shareholders	Number of shares	% of the shareholding structure
Russia	18,656	99.32	29,002,122,164	68.6962
Cyprus	39	0.21	10,076,104,751	23.8669
Norway	1	0.01	914,654,120	2.1665
Cayman Islands	3	0.02	868,297,828	2.0567
Luxembourg	2	0.01	550,809,277	1.3047
Switzerland	9	0.05	476,107,464	1.1277
Great Britain	12	0.06	180,688,815	0.4280
Netherlands	1	0.01	42,275,000	0.1001
Seychelles	2	0.01	19,100,000	0.0453
The British Virgin Islands	3	0.02	17,558,561	0.0416
Other	55	0.28	70,223,488	0.1663
<b>Total</b>	<b>18,783</b>	<b>100.00</b>	<b>42,217,941,468</b>	<b>100.00</b>

### Registrar

VTB Registrar acts as a specialised registrar of IDGC of Centre and maintains its shareholder register.

VTB Registrar is a modern specialised register holder providing high reliability of register keeping and storing and

a professional approach to dealing with issuers and shareholders.

[Contact information of the Registrar's branches and those of IDGC of Centre](#)

100% of shares of VTB Registrar belong to JSC Bank VTB, this provides additional reliability of the registrar business and ultimately meets the requirements of the enterprises with the state participation about disclosure of information concerning the entire chain of owners of the counteragent organisations, including final beneficiaries.

Currently, VTB Registrar includes 54 regional units and provides services to more than 7,400 issuers. The company has over 25 years of licensed experience.

Shareholders and their representatives can also contact the Registrar's branches and those of IDGC of Centre concerning the introduction of changes

to the shareholder register and acquisition of information from the shareholder register. The authorised specialists of relevant branches execute some functions of the Registrar.

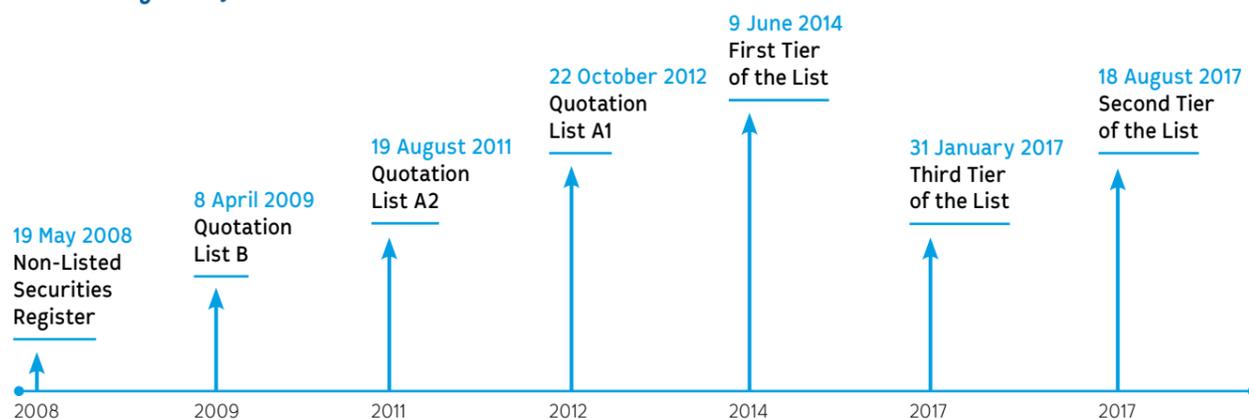
## Exchange Listings

The Company seeks to constantly improve the level of corporate governance and meet the maximum requirements of the Moscow Exchange Listing Rules in order to maintain

the securities admitted to trading in the Quotation list. As part of achieving its strategic goals, the Company pays close attention to the tasks of increasing the shares liquidity and

improving investment attractiveness, which should help to expand the circle of potential investors and improve the corporate governance rating in the future.

### Shares listing history



### Basic identification codes and tickers of shares

Name within the Exchange or information systems	Code / ticker
ISIN (International Security Identification Code)	RU000A0JPPL8
Moscow Exchange	MRKC
Bloomberg	MRKC RM
Reuters	MRKC.MM

According to the Index Committee of the Moscow Exchange, the free-float ratio of IDGC of Centre's shares is 34%.

### Stock indices of the Moscow Exchange as at 31 December 2018

Indices of the Moscow Exchange	Code	Share of IDGC of Centre in the index, %
Electric Utilities Index	MOEXEU	1.91
Index for Mid- and Small-cap Stocks	MCXSM	0.71
Broad Market Index	MOEXBMI	0.04
Regulated Company Index	MOEX RCI	1.47

[For more details on the free-float index calculation procedure please visit the Moscow Exchange website](#)

### Results of IDGC of Centre's shares trading at the end of 2018

Price and capitalisation as at 29 December 2018	RUB	USD
Share price (at close)	0.2860	0.0041
Share price (market price)	0.2854	0.0041
Capitalisation (at market price), mn	12,049.0	173.3

**12.0 RUB bn**  
IDGC of Centre's capitalisation at the end of 2018  
(-20.1%)

## Capitalisation

Throughout 2018, capitalisation was trending downwards, the similar pattern was true for the Electric Utilities Index. At the end of the year, the Company's capitalisation decreased by 20.1% and amounted to RUB 12,049 mn.

The main drivers of the capitalisation decline in the reporting year were

the publication of annual and quarterly financial statements with operating results worse than those in similar periods of previous years, as well as market trends under the pressure of news about the introduction of sanctions against Russia.

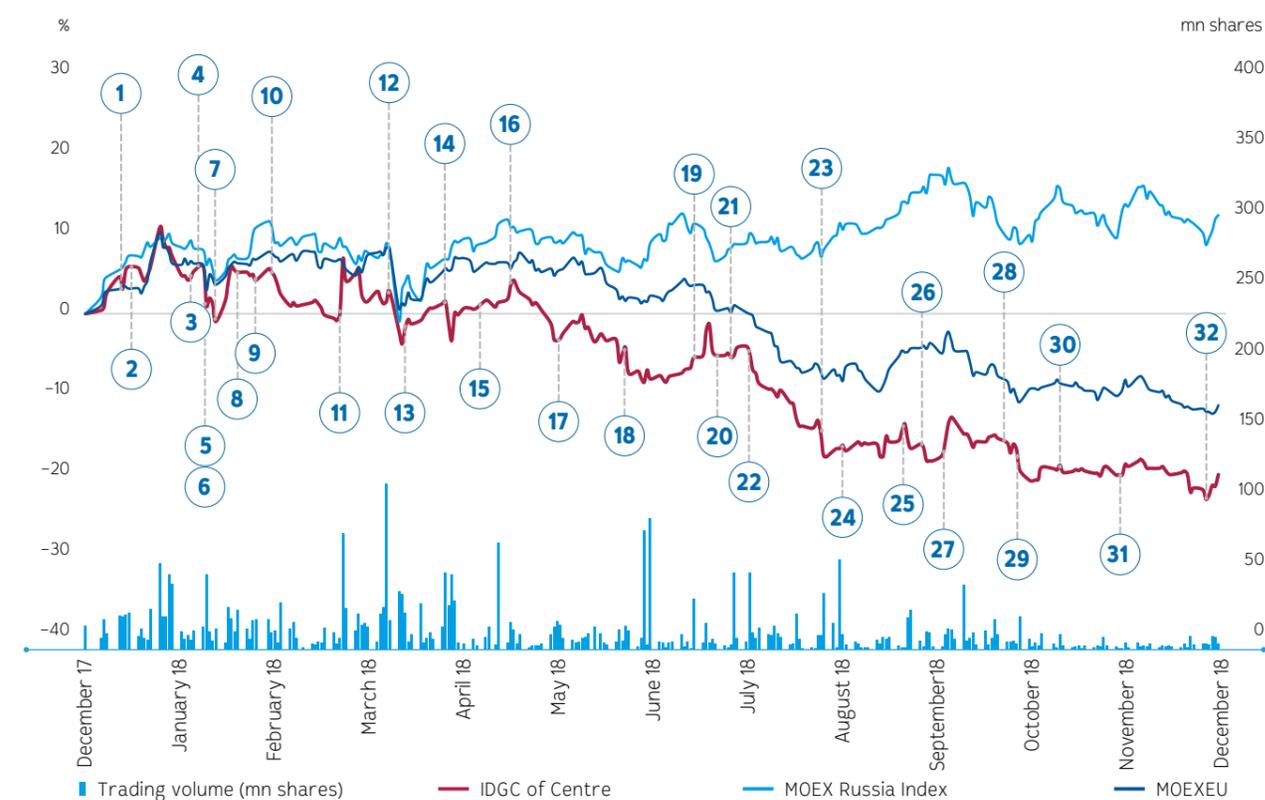
Favourable news on the approval of the revised Dividend Policy, upgrading

of the long-term credit rating and returning to the agenda of the items on resolving the legislative problems of the Power Grid Complex failed to reverse the situation on IDGC of Centre stock market.

### Capitalisation in 2016–2018

Indicator	2016	2017	2018	Change 2018/2017, %
Capitalisation, RUB mn	18,702.5	15,071.8	12,049.0	-20.1

### Capitalisation of IDGC of Centre's shares and the trading volume vs key market indicators and key events



## Chart-highlighted events and news that impacted trading volumes

No.	News / Details	Date	Source	Influence
1	In 2017 the power consumption in Russia and UES showed a year-on-year growth by 0.5% and 1.3%, respectively	10.01.2018	External	Positive
2	The scope of the ROSSETI's Investment Programme for 2018-2020 approved by the Ministry of Energy of Russia exceeded the planned scope for this period by 10%	11.01.2018	External	Negative
3	ROSSETI is developing the Grid Digitalisation Programme	01.02.2018	External	Positive
4	IDGC of Centre approved the new version of the Regulations on the Dividend Policy	05.02.2018	Internal	Positive
5	The Ministry of Energy of Russia proposed to pay for the grid reserve	06.02.2018	External	Positive
6	The Head of ROSSETI reported that the Holding was awaiting the adoption of a law on the transition to regulatory periods in Q2 2018	06.02.2018	External	Positive
7	Standard & Poor's Global Ratings upgraded the long-term credit rating of IDGC of Centre	08.02.2018	Internal	Positive
8	RAEX (Expert RA) assigned the "ruAA" credit rating to IDGC of Centre	19.02.2018	Internal	Positive
9	IDGC of Centre published its preliminary production results in 2017	22.02.2018	Internal	Positive
10	IDGC of Centre published its RAS financial statements for 2017	27.02.2018	Internal	Negative
11	IDGC of Centre held the Analyst Day for investors on the outcome of the Company's performance for 2017 and the outlook for 2018	21.03.2018	Internal	Positive
12	The biggest drop at the Moscow Exchange ( <a href="https://www.bfm.ru/news/381909">https://www.bfm.ru/news/381909</a> ).	09.04.2018	External	Negative
13	The Russian Government discussed the problem of reimbursement of RAB-tariff debt stock	11.04.2018	External	Positive
14	IDGC of Centre published its RAS financial statements for Q1 2018	26.04.2018	Internal	Negative
15	The President of the Russian Federation signed the Executive Order On National Goals and Strategic Objectives of the Russian Federation through to 2024. This Executive Order mentioned the adoption of "digital" grids, which ROSSETI intends to develop	07.05.2018	External	Positive
16	Change to the new state regulation of tariffs for natural monopolies may start in 2020 only	15.05.2018	External	Negative
17	Media reports that FAS of Russia will have approved decade-long energy tariffs before July 15	30.05.2018	External	Positive
18	FAS of Russia is elaborating the regulatory periods by upholding the "inflation minus" principle	22.06.2018	External	Negative
19	Finam has initiated the coverage of IDGC of Centre's shares with a target price of RUB 0.354 and a Hold recommendation	16.07.2018	Internal	Positive
20	IDGC of Centre published its RAS financial statements for the first six months of 2018	24.07.2018	Internal	Negative
21	Mass media reported that the Government was back to issues of the cross-subsidisation in power engineering once again – Deputy Prime Minister Dmitry Kozak the held the meeting on this matter	26.07.2018	External	Positive
22	Mass media reported that the US State Department announced new sanctions against Russia	01.08.2018	External	Negative
23	IDGC of Centre published its IFRS statements for the first six months of 2018	23.08.2018	Internal	Negative
24	Igor Artemyev, Head of Federal Anti-Monopoly Service (FAS), reported that FAS of Russia stood ready to provide ROSSETI with a ten year regulatory period	30.08.2018	External	Positive
25	Igor Makovskiy was appointed as General Director of IDGC of Centre	19.09.2018	Internal	Positive
26	According to FAS of Russia, the privatisation of ROSSETI's distribution grid subsidiaries and affiliates is absolutely unfeasible	25.09.2018	External	Negative
27	Finam raised a target price of IDGC of Centre's shares by 14% to RUB 0.40 and changed a Hold to Buy recommendation	02.10.2018	External	Positive
28	The Head of the Ministry of Energy of Russia reported that the investment programmes of state-owned infrastructure companies would be reviewed and approved at Russia's governmental level	23.10.2018	External	Negative
29	IDGC of Centre published its RAS financial statements for the nine months of 2018	26.10.2018	Internal	Negative
30	According to news reports, partially state-owned infrastructure companies may be granted a waiver to the procedure of dividend payout to state-owned companies (as initiated by the Ministry of Finance) – 50% of net profit	07.11.2018	External	Negative
31	IDGC of Centre held the public hearings on the Sustainability Report for 2016–2017	29.11.2018	Internal	Positive
32	The Head of the Ministry of Energy of Russia reported that the idea of additional issues of ROSSETI's shares is viable, but it is currently under elaboration. He noted that this decision should be very carefully assessed and aimed at developing the Power Grid Complex and gaining the capitalisation	25.12.2018	External	Positive

## IDGC of Centre's Share Performance Against Indices

Indicator	IDGC of Centre	MOEX Russia Index	Electric Utilities Index	Regulated Company Index
29.12.2018 (market price)	0.2860	2,369.33	1,608.85	1,161.42
29.12.2017 (market price)	0.3570	2,109.74	1,816.30	1,142.84
Change, %	-19.9	12.3	-11.4	1.6
Max (at close)	22.01.2018 0.3945	03.10.2018 2,493.91	22.01.2018 1,999.19	N/A N/A
Min (at close)	25.12.2018 0.2750	09.04.2018 2,090.88	27.12.2018 1,589.81	N/A N/A

Throughout the entire year, a strong correlation of dynamics of share price and electric power industry index was observed. Both these indices ended

the year with losses. The MOEX Russia Index showed the divergent dynamics due to higher demand for blue chips.

## Key Securities Market Data for the Company in 2016–2018

Indicator	2016	2017	2018	Change 2018/2017
Number of transactions	113,864	134,736	78,361	-41.8%
Trading turnover, mn shares	9,753.1	4,381.2	3,403.1	-22.3%
Trading turnover, RUB mn	2,935.7	1,946.4	1,173.7	-39.7%
Trading turnover, share of free-float <sup>1</sup> , %	67.9	30.5	23.7	-6.8 p. p.
Average daily number of transactions	452	535	309	-42.3%
Average daily spread, %	0.51	0.36	0.33	-0.03 p. p.

In 2018, the trading volume was characterised by moderate fluctuations about the annual average, with volume spikes mainly in first half-year. The trading volume at the Moscow Exchange (main trading mode T+) in 2018 amounted to 3.4 bn shares or 8.1% of the total number of shares (10.3% in 2017), whereas the RUB trading volume was the fourth among all IDGCs (it was the third among all IDGCs in 2017).

The average daily number of transactions with shares at the Moscow Exchange (main trading mode T+) was 309, a 42.3% decrease year-on-year. This metric was the fourth among all IDGCs (it was the second among all IDGCs in 2017). The average annual spread for the year was 0.33%, this figure was up 0.03 p.p. year-on-year.

The Company believes that a market maker is one of the most effective liquidity enhancement mechanisms, thus it continues over the years to attract brokers for improving the securities market indicators of IDGC of Centre. In 2018, JSC FINAM provided the market maker services. LLC IC Veles Capital will be the Company's market maker since 1 March 2019.

<sup>1</sup> According to the Index Committee of the Moscow Exchange, as at 29 December 2018, the free float ratio was 34%.

## Bonds

The Company's series BO-04, BO-05, and BO-06 bonds with a total face value of RUB 15 billion and a ten-year maturity are traded on the Moscow Exchange by the end of 2018. The NSD acts as depository.

- On 10 April 2018, the Moscow Exchange places IDGC of Centre's bonds of series BO-06. The placed bonds totalled RUB 5 billion, the coupon rate was 6.95% per annum, the maturity - ten years. Issue providers were Gazprombank, VTB Capital, Sberbank CIB, Sovcombank.
- On 23 May 2018, early repayment of series BO-02 bonds with a total value of RUB 5 billion was performed.

### Key Bond Issue Data

Key securities issue data	Bonds			
	BO-02	BO-04	BO-05	BO-06
Quantity, bonds	5,000,000	5,000,000	5,000,000	5,000,000
Face value, RUB	1,000	1,000	1,000	1,000
Amount, RUB	5,000,000,000	5,000,000,000	5,000,000,000	5,000,000,000
ID number	4B02-02-10214-A	4B02-04-10214-A	4B02-05-10214-A	4B02-06-10214-A
ID number assigned on	25.06.2013	25.06.2013	25.06.2013	25.06.2013
ISIN	RU000A0JVG2	RU000A0JVYL8	RU000A0JWR44	RU000A0ZZ1Y7
Other ID features	Put option in three years following the start date of placement	Put option in seven years following the start date of placement, additional option on 19 November 2019	Put option in ten years following the start date of placement, additional options on 23 August 2019 and 20 August 2021	Put option in three years following the start date of placement
Start date of placement	05.06.2015	24.11.2015	26.08.2016	10.04.2018
Maturity date	23.05.2025 (early repayment on 23 May 2018)	11.11.2025	14.08.2026	28.03.2028
Maturity	ten years	ten years	ten years	ten years
Coupon rate, %	12.42	11.58	9.32	6.95
Exchange				Moscow Exchange
List			Third Tier	Second Tier
Provider	Gazprombank (JSC), PJSC ROSBANK	Gazprombank (JSC)	Gazprombank (JSC)	Gazprombank (JSC), JSC VTB Capital JSC Sberbank CIB PJSC Sovcombank
Coupon yield per bond, RUB	61.93	57.74	46.47	34.65

In November 2016, the Company approved its series 001P Exchange-Traded Bond Programme and Prospectus (bonds placed as part of the series 001P Exchange-Traded Bond Programme).

The total face value of all issues of exchange-traded bonds placed

under the programme of exchange-traded bonds of 001P series is up to RUB 40 billion and including.

The maturity date is within 10,920 days from the bond issue date (30 years).

The ID number of the series 001P Exchange-Traded Bond Programme:

4-10214-A-001P-02E dated 21 December 2016.

The obligations of IDGC of Centre to pay coupon yield on the bonds were met in full and in a timely manner:

### Payments of coupon yields, RUB

Coupon No.	BO-01	BO-02	BO-03	BO-04	BO-05	BO-06
1	178,520,000 (17.04.2013)	309,650,000 (04.12.2015)	294,200,000 (24.05.2016)	288,700,000 (24.05.2016)	232,350,000 (24.02.2017)	173,250,000 (09.10.2018)
2	178,520,000 (16.10.2013)	309,650,000 (03.06.2016)	294,200,000 (22.11.2016)	288,700,000 (22.11.2016)	232,350,000 (25.08.2017)	
3	178,520,000 (16.04.2014)	309,650,000 (02.12.2016)	294,200,000 (23.05.2017)	288,700,000 (23.05.2017)	232,350,000 (23.02.2018)	
4	178,520,000 (15.10.2014)	309,650,000 (02.06.2017)	294,200,000 (21.11.2017)	288,700,000 (21.11.2017)	232,350,000 (24.08.2018)	
5	178,520,000 (15.04.2015)	309,650,000 (01.12.2017)		288,700,000 (22.05.2018)		
6	178,520,000 (14.10.2015)	292,650,000 (22.05.2018)		288,700,000 (20.11.2018)		

## Dividend Policy

In 2018, the Company approved a new version of the Regulation on the Dividend Policy of IDGC of Centre<sup>1</sup>.

The Company's Dividend Policy is based on a balance between the interests of the Company and its shareholders and the Company's needs. The Policy complies with the high corporate governance standards. The Dividend Policy aims at providing a stable, long-term and predictable level of dividend payments in order to improve the investment appeal of the Company and its market capitalisation.

**The Policy has defined the dividend rate in the amount of at least 50% of net profit under the financial statements including the IFRS consolidated statements. The dividend payout base does not include:**

- revenues and expenses from the revaluation of publicly traded shares of the joint-stock companies and related income tax;
- actual investments from net profit from the regulated activities under the Company's Investment Programme approved by the Ministry of Energy of Russia;

- net profit from the grid connection, excluding the actual funds received for grid connection services implementation in the reporting period.

[Regulation on the Dividend Policy of IDGC of Centre](#)

**4.1 RUB bn**  
paid out as dividends in the past five years

<sup>1</sup> The Decisions of the Company's Board of Directors dated 2 February 2018 (Minutes No.03/18 dated 2 February 2018), dated 10 August 2018 (Minutes No.27/18 dated 10 August 2018).

## Key Dividend Payout Criteria under the Articles of Associations and Dividend Policy

Criteria	Notes
Net profit determined based on the accounting (financial) statements prepared in compliance with Russian Accounting Standards (RAS) for the reporting period	Net of gains and losses from the revaluation of publicly traded shares of the joint-stock companies and related income tax, and mandatory contributions to reserve and other funds, as established the Company's Articles of Associations
Net profit determined based on RAS accounting (financial) statements for the reporting period, net of gains and losses from the revaluation of publicly traded shares of the joint-stock companies and related income tax	

## Dividend Calculation Formula

The amount of dividends paid in the reporting year is determined in line with the dividends calculation procedure by the general formula:  
 $DIV = \text{MAX} \{DIV^1; DIV^2\} - DIV^{int}$ ,

where

**DIV** is the amount of net profit allocated to dividends on ordinary shares;

**DIV<sup>int</sup>** is the amount of interim dividends paid out for the first quarter, six and nine months of the reporting year;

**DIV<sup>1</sup>** is the amount of dividends calculated under the Company's Dividends calculation procedure based on its net profit according to RAS accounting (financial) statements.

**DIV<sup>2</sup>** is the amount of dividends calculated under the Company's Dividends calculation procedure based on its net profit according to IFRS consolidated (financial) statements.

The amount of dividends (DIV<sup>2</sup>) shall not exceed the net profit determined

based on RAS accounting (financial) statements for the reporting year, net of gains and losses from the revaluation of publicly traded shares of the joint-stock companies and related income tax, and mandatory contributions to reserve and other funds, as established the Company's Articles of Associations.

# 43.3%

of RAS net profit allocated to dividends in 2017

[The detailed information on the Dividend Policy, dividend history and tax matters are available on the Company's website](#)

## Dividend History

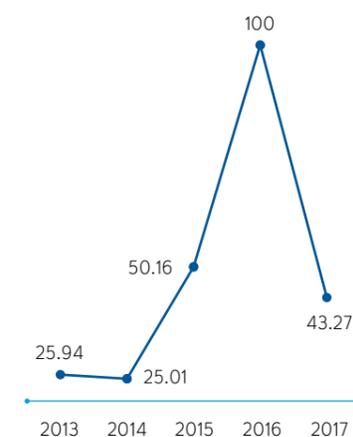
On 31 May 2018, the General Shareholders Meeting decided to allocate RUB 879.028 mn or 43.3% of RAS net profit for payment of dividends for 2017. The total amount of dividends paid out as at the last date of the payout period was RUB 872.045 mn or 99.2% of the total dividends accrued.

The Company did not pay the declared dividends in full, as some questionnaires of registered shareholder had no or wrong bank details for allocation of dividends.

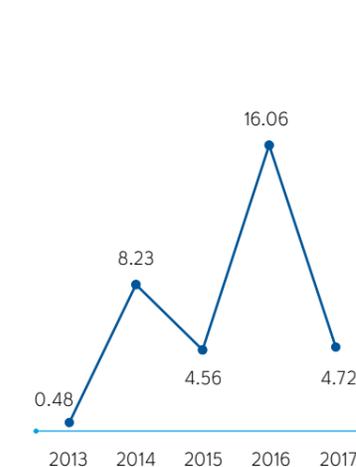
## Dividend History in 2013–2017

Reporting period for dividends payout, year	Total amount of declared dividends, RUB thous.	Amount of declared dividends per one share, RUB	Dividends paid out, RUB thous.	Share of dividends paid out <sup>1</sup> , %	The date for listing the persons entitled to receive dividends	Date of resolution on dividend payout
2013	75,992	0.0018	75,255	99.03	14.07.2014	26.06.2014
2014	831,693	0.0197	824,145	99.09	07.07.2015	25.06.2015
2015	455,954	0.0108	448,802	98.43	27.06.2016	08.06.2016
2016	1,866,675	0.044215195	1,842,549	98.71	21.06.2017	08.06.2017
2017	879,028	0.0208212	867,152	98.65	13.06.2018	31.05.2018

### Share of RAS net profit allocated to dividends, %



### Dividend yield<sup>2</sup>, %



The resolution on dividend payout for 2018 will be adopted by the Annual General Meeting of Shareholders of IDGC of Centre in 2019.

## Shareholder and Investor Relations (IR-activity)

Interaction with shareholders and investors is an integral part of Company's day-to-day operations aimed at enhancing mutual trust and increasing the Company's investment appeal. IDGC of Centre is not complacent and strives to extend mutually beneficial, long-term cooperation with all stakeholders under the best corporate governance

standards, ensuring a high level of information transparency and corporate reporting.

The planned events in 2019 are also available in IR-Calendar Section or on the portal Closir.com, where you may find the necessary data and apply to participate in the planned events with the Company's management.

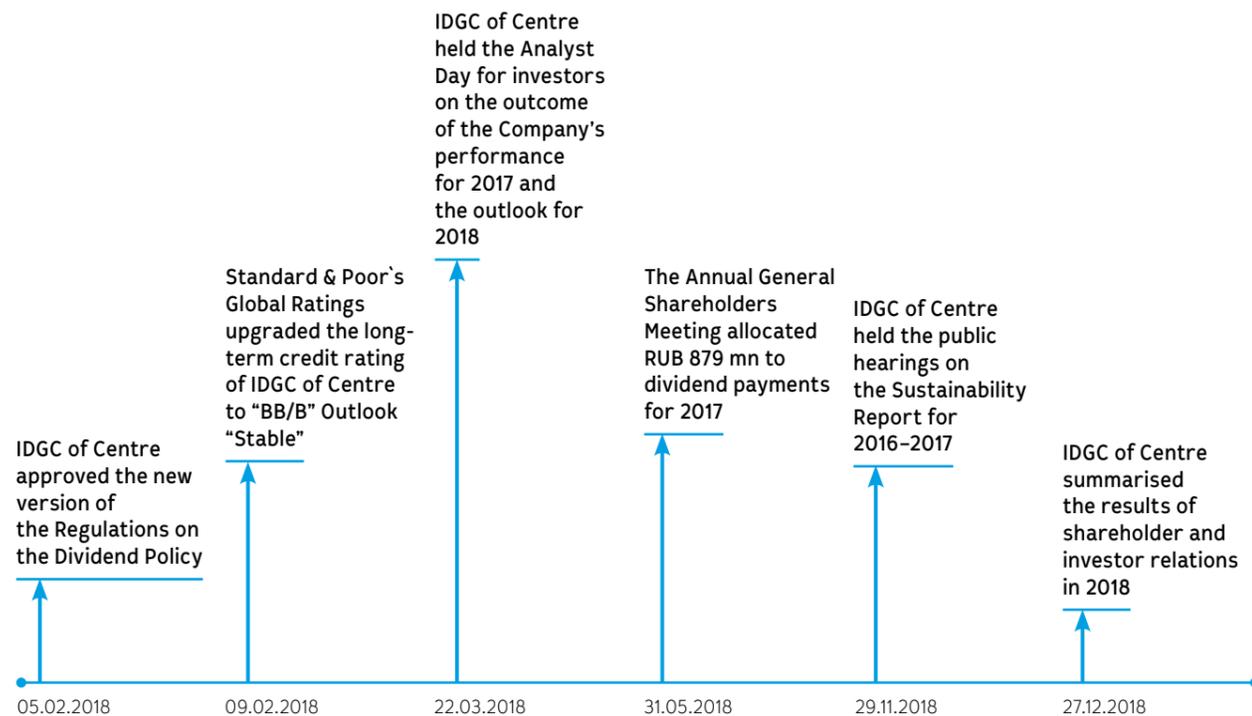
[The details of IR-event with the participation of IDGC of Centre are available on the website in Investor Calendar for 2018 Section](#)

[The planned events in 2019 are also available in IR-Calendar Section or on the portal Closir.com](#)

<sup>1</sup> As at 31 December 2018. No dividends were paid to shareholders who provided no payment details or incorrect details in accordance with clause 5 of Article 44 of Federal Law No. 208-FZ On Joint-Stock Companies dated 26 December 1995. Dividends accrued on shares held by unidentified persons are paid if and when shareholder rights to the securities are identified.

<sup>2</sup> According to the Moscow Exchange (Calculation Method)

### Key events enhancing the Company's investment appeal in 2018



### Information Disclosure Policy

Information disclosure is one of the key components of the Company's Corporate Governance and is critical for Company's interaction with shareholders, investors, regulatory bodies, and other stakeholders to build long-standing relationships with these parties and trust on their part, and to enhance the Company's investment appeal.

The Company aims to comply with high information transparency standards.

IDGC of Centre's listing on the Moscow Exchange imposes additional disclosure obligations in accordance with MOEX listing rules and instructions of the Bank of Russia.

Disclosures by IDGC of Centre follow the principles of completeness, accuracy, accessibility and timeliness as set out in the Bank of Russia Corporate Governance Code.

In the reporting year, the Company has approved a new version of the Regulation on the Information Policy of IDGC of Centre (Minutes of the Board of Directors No.12/18 dated 30 March 2018) intended to provide the effective communication of the Company, shareholders, investors, and other stakeholders. The Regulation determines the communications of members of management bodies, officials and employees of the Company with shareholders, investors, and media representatives. It contains the information (in addition to that required by applicable laws), the disclosure of which is the responsibility of the Company, as well as the corresponding disclosure procedure.

To ensure free access by stakeholders to disclosed information, disclosures are made via several information distribution

channels. The main disclosure channel is an official website of IDGC of Centre at [www.mrsk-1.ru](http://www.mrsk-1.ru). Information is disclosed in the Russian and English languages simultaneously. The Company updates and supplements its website section regularly both in respect to the mandatory disclosure information and to the additional data. The Company also issues here the actual press releases and news. Information on the Company is available in the news feed and on the website of Interfax Corporate Information Disclosure Centre, international news agencies Bloomberg, Euroland, Thomson Reuters, other media, and the corporate press.

[The basic channel of IDGC of Centre's information disclosure is its official website](#)

IDGC of Centre Annual Report 2017 was awarded as the Best Annual Report of the Company with the Market Capitalisation below RUB 40 bn at the 21st Annual Report Competition. The Competition was held by the Moscow Exchange and RBC media group.

IDGC of Centre also won a silver medal award in the Utilities – Electric category at LACP 2017 Vision Awards annual report competition hosted by the League of American Communications Professionals (LACP).

The Company's Annual Report was among the top 80 reports of the participating companies in Europe, Middle East and Africa (EMEA) and scored 97 of 100 points and also among the top 20 reports of the Russian companies.

IDGC of Centre's Annual Report won a gold medal award in the Integrated Report category among all the companies in its industry and was among the top 80 reports of EMEA companies.

In the reporting year, about 1 thousand of companies from over 20 countries took part in the LACP Vision Award.

[IDGC of Centre's Annual Report 2017 was awarded as the Best Annual Report at the 21st Annual Report Competition](#)

### Key Tools and Formats of Interaction with Shareholders and Investors

During the year, the Company was upholding the legitimate rights and interests of shareholders for information disclosure.

#### Key tools of interaction with shareholders and investors in 2018

- Providing information on shareholders' request (the Company responded to three submitted requests).
- Providing information, comments on analysts' and investors' requests (exhaustive responses were given to 11 submitted requests).
- Live teleconferences with investors conducted to discuss the results of publishing the IFRS statements of the Company for six and nine months of 2018. Exhaustive responses were given to stakeholders on the Company's performance drivers and on the questions raised. The teleconferences helped to reveal the matters that caused the biggest interest, understanding or misunderstanding of investors.

- Public hearings on independent certification of the Sustainability Report for 2016–2017. The Company has prepared the Report for the first time in its performance. The Report contains the information on the results achieved by the Company in social policy, environment protection and stakeholders and society relations. Through the Report, the IDGC of Centre communicates with the outside world, demonstrates a clear vision of risks and improves the transparency of its activity.
- Publications in Twitter social media.
- Information Disclosure in special sections of the Company's website: IR-news, Investors and Shareholders, Analytical Support.

The Company enhances its performance through the use of the most advanced communication practices, including electronic ones. Thus, an electronic voting system was launched for the first time at the Annual General for 2017 in line with the recommendations of the Corporate Governance Code. This system not only ensures equal conditions for security holders in the Company's Management irrespective of location and engagement but also improves the convenience and security while exercising the shareholders' rights, making the electronic voting system appropriate and essential for the Company in the future.

## Outcome of IR-activity in 2018

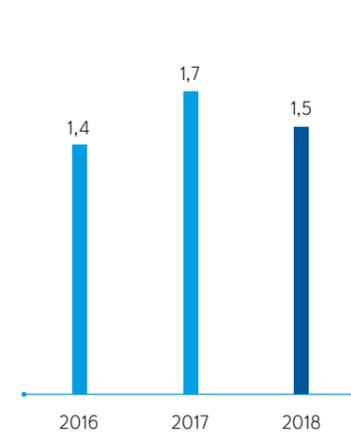
### Initiatives on interaction with investors with the participation of Top Managers, events



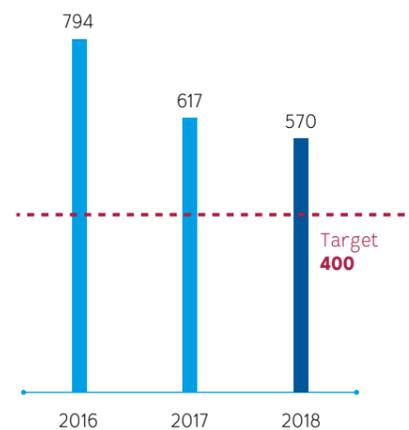
### IR-events with investors at the initiative of the Company (calls, meetings), events



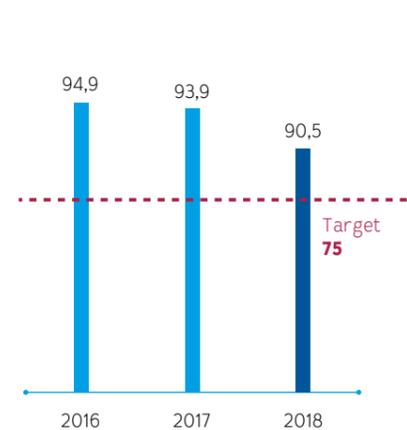
### Shareholders consulting on Company's shareholding, thousand of events



### Updated data in the register of shareholders, persons



### Positive image index, %



**90.5%**  
(target value – 75%) -

the positive perception study evaluating the performance quality of IDGC of Centre's IR Division in 2018

The annual perception study conducted among investors revealed a high disclosure level in the Company and efficient interaction with shareholders and investors.

The score given to IDGC of Centre's IR Division for its performance in the perception study in terms of

professional skills, availability, honesty, response time was 90.5% in 2018, it remained significantly higher than the target of 75%. The majority of respondents cited the implemented Dividend Policy, Company's stability, and the growth of operating indicators and assets as the key strengths of the Company.

## Questions Frequently Asked by Investors

### How will the Company implement the Digitalisation Project in IDGC of Centre and IDGC of Center and Volga Region by scopes, capital expenditures, terms, results?

**Answer:** IDGC of Centre has developed the Digital Transformation Programme of IDGC of Centre and IDGC of Center and Volga Region for 2019-2030 based on the Digital Transformation 2030 Concept of ROSSETI.

The main objective of the Programme is a change of process logic and the Company's transition to risk-oriented management based on digital technologies and big data analysis.

#### The current key tasks are:

- The Company's adaptability to new tasks and challenges;
- Improving the parameters and the reliability of electric power supply to consumers;
- Improving operational performance.
- Expanding the availability of power grid infrastructure;
- Developing human resources and new competencies;
- Diversifying the Company's business through additional services.

The Company has divided the Digital Transformation Process into three stages to provide highly effective implementation of the activities.

The first stage of the Digital Transformation is the foundation for all subsequent stages. It involves the adoption of current and proven technologies that form the hardware and information basis for further development. Beginning of operation with data arrays. Partial digitalisation of the production processes. Piloting of advanced technologies.

The second stage of the Digital Transformation incorporates further development of technological projects launched at the first stage and generation of the data array as

a single source of the Big Data through integrating the existing systems with the use of an enterprise service bus.

The third stage of the Digital Transformation will include the adoption of Big Data technologies, the introduction of algorithm-driven data operations of employees using software.

#### So far, the Programme project boundaries have been fully formulated. The key projects are:

- Covering the entire territory of IDGC of Centre and IDGC of Center and Volga Region with digital communication (DMR);
- Establishing 29 unified grid control centres for all voltages;
- Establishing 16 digital substations and 30 digital regions of power grids;
- Using the electrical energy storage system;
- Software-based Big Data analysis method to detect off-the-meter electricity consumption;
- Automated diagnostic system for overhead lines with the use of drones;
- Occupation health management system.

#### What does the Company expect from new tariff regulation methods, which will be introduced soon?

**Answer:** We do not expect any significant changes, as the long-term regulatory parameters have been defined through to 2022 for IDGC of Centre's branches (except for Lipetskenergo and Tambovenergo, where a new regulatory period begins one year earlier, since 2021). It guarantees the Company's stability for another 3-4 years.

Moreover, the tariffs growth is limited in the medium term in line with the forecast of the Russian Ministry of Economic Development for 2019 and the planned period of 2020-2021.

### What measures are undertaken by the Company to reduce electricity losses in the grids?

**Answer:** By the end of 2018, the total losses in the power grids of the Company amounted to 10.6%, representing a reduction of 0.42 p. p. from the indicators in the Business Plan. The savings totalled 259.7 mn kWh. The Programme to reduce electricity losses through the organisational and technical measures contributed to achieving this output.

The most effective measures are raids of power grid personnel and the electricity metering management offices of the Company's branches, also together with the Security Unit specialists, to detect off-the-meter electricity consumption. By the results of this activity in 2018, the net electricity supply included 74.4 mn kWh of the electricity stolen by unfair consumers for a total of RUB 207 mn.

The effective technical measures to reduce losses include redistribution of loads and shutdown of unloaded transformers at substations, installation of a wire of larger cross-section in overloaded power transmission lines, installation of a self-supporting insulated wire in the lines.

The Company uses the funds saved due to the Programme to reduce electricity losses as an additional financing source for implementation of the Company's essential production tasks.

# CLEAN PRODUCTION

IDGC of Centre consistently pursues  
the Environmental Policy  
of the Power Grid Complex

Already  
the case:

a **33%** increase  
in environmental initiatives and costs

# 06.

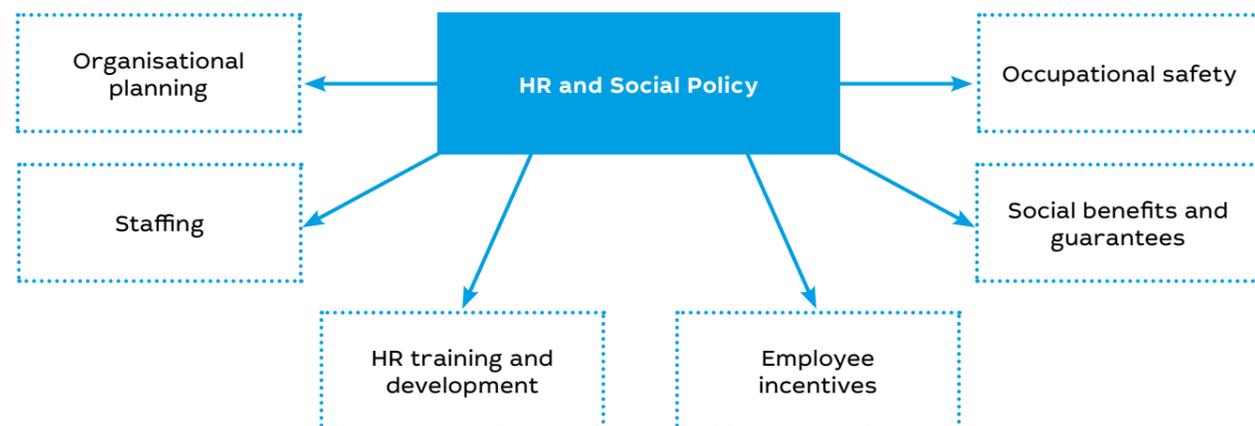
## CORPORATE RESPONSIBILITY



# HR DEVELOPMENT

The Board of Directors approved the HR and Social Policy of IDGC of Centre in 2014<sup>1</sup>. The Policy is a top-level document in relation to the Company's ongoing and in-progress local regulatory HR acts. The Company develops the target programmes under the Policy to achieve the strategic goals.

## Areas of HR and Social Policy



## Headcount and Personnel Turnover

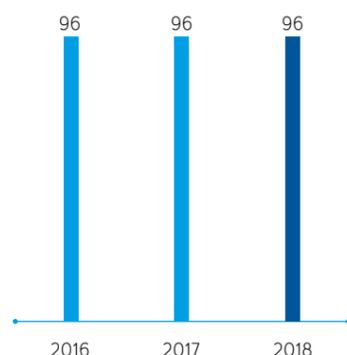
The Company plans the ongoing and perspective recruitment needs on the basis of the unified methodological principles considering the grid development plan, personnel turnover and qualification requirements. These projected and ongoing recruitment needs drive the personnel recruitment, rotation and development programmes designed and put in place by the Company.

In 2018, the Company's staffing level was 96% of the level of 2016 and 2017.

In 2018, IDGC of Centre's average headcount (including part-time employees) reached 30,486 people.

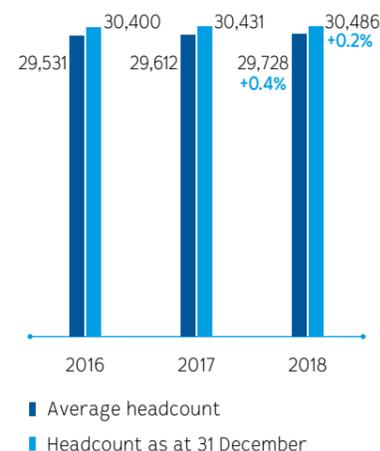
A 0.2% headcount growth in 2018 was due to the attraction of additional geodetic engineers at the specialised site for grid connection of

Staffing level in 2016–2018, %

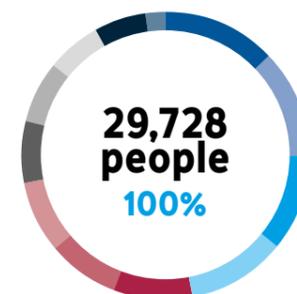


Smolenskenergo branch and additional employees in Rzhevsky, Toropetsky, and Nelidovsky RPGs of Tverenergo branch, and in the Logistics Support Office / Mechanisation and Transport Service of Tambovenergo branch.

IDGC of Centre's average headcount, people

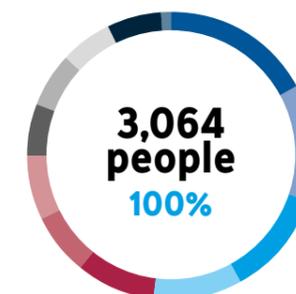


Average headcount by branches in 2018, %



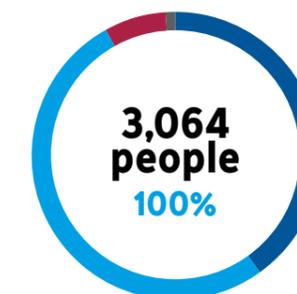
Belgorodenergo	13
Voronezhenergo	12
Tverenergo	11
Smolenskenergo	11
Yarenergo	9
Kurskenergo	8
Lipetskenergo	8
Kostromaenergo	7
Tambovenergo	7
Bryanskenergo	6
Oreleenergo	6
Executive Office	2

New hires by regions in 2018, %



Tver	17
Smolensk	13
Voronezh	12
Yaroslavl	10
Belgorod	9
Kostroma	7
Orel	7
Tambov	6
Kursk	6
Lipetsk	6
Bryansk	6
Moscow	1

New hires in 2018 by age, %



Under 25	40
25-50 years	52
From 50 to retirement age	7
Working retirees	1

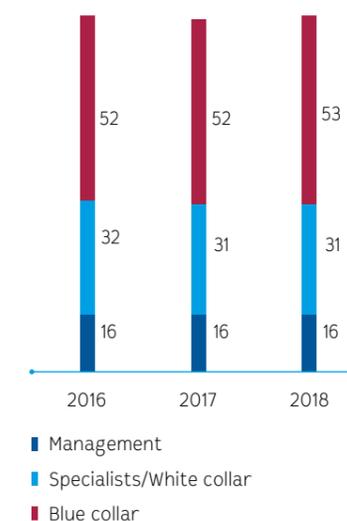
In 2018, the Company hired 3,064 employees. New hires amounted to 10% of the total number of regular staff by the end of the year. Most new hires are males due to a specific character of the power company performance.

New hires by gender in 2018, %



Men	83
Women	17

Headcount by categories, %



The headcount is typical for the power grid complex and remains unchanged over the past three years. Blue collars make up more than half (53%), specialists and white collars - one third (31%); managers make up the sixth part of the total number of employees (16%).

<sup>1</sup> The HR and Social Policy is available on the Company's website at: [https://www.mrsk-1.ru/upload/documents/staff\\_social\\_pol\\_english.pdf](https://www.mrsk-1.ru/upload/documents/staff_social_pol_english.pdf)

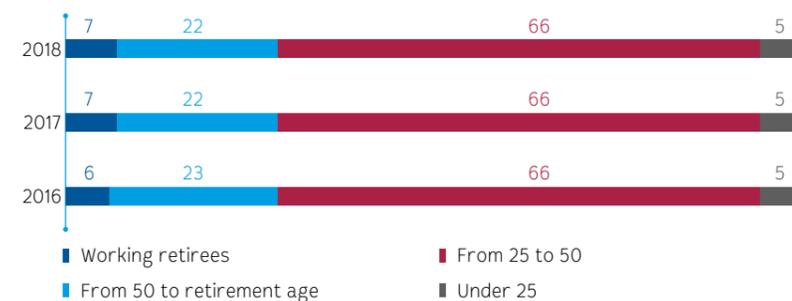
## Headcount by Age

The bulk of the Company's personnel is represented by employees aged between 25 and 50 years (66%). The Company's headcount by age is holding steady; in 2016-2018 this indicator has not considerably changed. The steadiness of the Company's headcount by age demonstrates measures taken by the Company to attract young specialists from industry-specific schools. The established headcount by age represents an optimal competence model. The share of employees in the socially active age (under 50) in the Company's headcount

is 71%. In 2018, our average employee age was 42 years, almost unchanged

against the previous periods (41 years in 2016-2017).

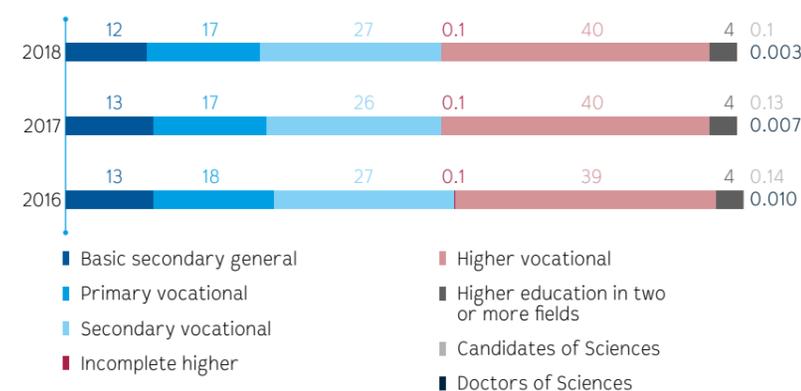
Headcount by age, %



## Personnel by Education Level

High-level advanced technologies in the power industry require the continuous qualification development of personnel. The Company's personnel educational level analysis demonstrates an annual decrease in the share of employees without professional education and an increase in the share of employees with higher vocational education (a 1% increase against 2017). In 2018, the share of regular personnel with professional education was about 88%.

Personnel by education level, %



## Training and Development

Training is one of the priorities in the Company's HR Policy specified in the HR and Social Policy of IDGC of Centre, the Personnel Management Rules for the Russian Power Sector, and our corporate standard, Personnel Management at PJSC IDGC of Centre (STO BP 18/02-03/2016).

The share of employees who took part in off-the-job training events in the reporting year against the average headcount is 46.7% (13,870 people), which corresponds to the key target set out in the Company's HR and Social Policy (30%), and down 3.3 p.p. year-on-year (932 people). The reduced number of trained personnel has been due to the periodicity of training (once in a year, once in three years, once in five years).

Operating personnel accounts for the bulk of trainees - 94.04% (91.8% in 2017).

The corporate training centres are the main educational institutions supporting the Company's branch employees training in the appropriate regions. In 2018, 3,238 people, that is 23.3% of the total number of trainees (22.3% in 2017), received vocational training, retraining and advanced training at corporate training centres.

We extensively use training sites, where our employees practice correct maintenance and repair of electrical installations. Totally IDGC of Centre has 277 regional training sites and 16 common training sites. Construction of

another five training sites is planned for 2019. The Company held 4,937 classes at training sites in 2018.

### Training centres of IDGC of Centre

- Private Voronezh Training Centre "Energetic".
- Private Orel Training Centre.
- Private Tver Business Training Centre.

Most of the educational activities in the training centres focus on the training of dispatchers, foremen, and multidisciplinary electricians.

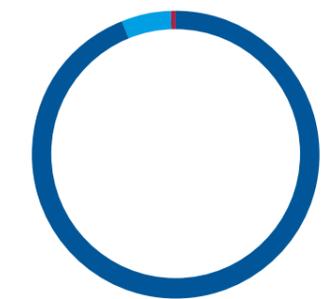
The training centres are authorised to carry out educational activities, they arrange training classes with up-to-date educational aids, trainers, computers, video and multimedia devices for training in all licensed specialities. The training centres have also sites with power grid equipment for skill practice.

### In addition to corporate training centres, our key providers of educational services include:

- Federal State Budget Institution "Learning and Training Centre" of Rostechndzor, Moscow;
- National Research University "Moscow Power Engineering Institute" (Smolensk Branch);

- Petersburg Power Engineering Institute of Professional Development;
- State Educational Institution of Higher Professional Education "Ivanovo State Power University" named after V.I. Lenin;
- Kostroma Chizhov Power Engineering College;
- Kursk Regional Centre for Training and Retraining of Utilities Staff;
- Regional higher and continuing education institutions.

### Breakdown of off-the-job trainees by categories, %



### Costs for personnel training

Focus area	Total, RUB mn	Share of total costs, %
<b>2018</b>		
Costs for personnel training, total:	91.8	100.0
Costs for training of personnel at corporate training centres	20.7	22.6
<b>2017</b>		
Costs for personnel training, total:	88.2	100.0
Costs for training of personnel at corporate training centres	17.6	20.0

In the reporting year, the ratio of actual personnel training costs to payroll fund was 0.59% (0.61% in 2017), which is significantly less than the KPI of the HR and Social Policy (1.5%). Missing this target was due to OPEX optimising activities of the Company. Expenditures on personnel training ensure its mandatory training in accordance with the requirements of professional standards.

The Company has concluded 97 agreements on mutual collaboration with higher and secondary education institutions.

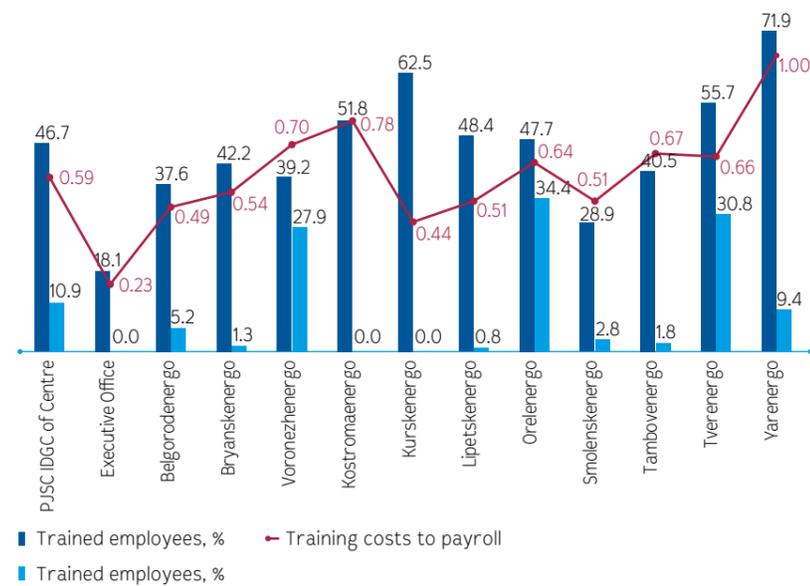
### Key areas in collaboration with these education institutions:

- training, retraining, and upskilling of the Company's employees under the continuing professional education programmes;

- target training of young talents;
- attraction of the Company's employees of an appropriate qualification to take part in the training;
- organisation of training, production and pre-graduation practice of trainees and students;
- career guidance to promote the power engineering profession and to recruit young talents into the industry.

The relatively low share of trained personnel in Smolenskenergo branch is caused by the great number of training on-job events for operating personnel in the branch's training classes. Taking into account the on-job training, the share of personnel participating in training events in the branch amounts to 55.8%, up 15.8 p. p year-on-year.

#### Employees trained off the job and training costs to payroll ratio in 2018



## Evaluation of Personnel

In view of the entry into force of changes in the Labour Code of the Russian Federation concerning the application of professional standards in the Company performance, IDGC of Centre has evaluated 11.6 thousand employees for compliance with 20 professional

standards of the Company.

Personnel of the following Company's business units was evaluated: Occupational Safety and Supervision Management, Relay and Automatic Controls Service, PTL Service, Substations Service,

Diagnostics Service, Dispatch and Process Control Equipment and IT Operational Service, Mechanisation and Transport Service, RPG.

## Talent Pool

In 2018, the Company initiated the activities on training of the Company's talent pool for the key positions: Branch's Deputy Director – Chief Engineer, Branch's Deputy Chief Engineer, Branch's Deputy General Director for Service Sales and Development and Head of the RPG. IDGC of Centre approved members of study groups and a topic list for each succession pool category.

Training of the succession pool focuses not only on the development of professional skills but also on studying the Company's basic tasks and missions, business processes, managerial skills development, studying the organisational rules in the Company's key areas.

The training was held in the form of remote self-study of materials of the defined training units on the Company's corporate portal and managerial skills workshops.

At the end of each quarter the succession candidates for RPG's Head position are invited into one of the corporate training centres for final testing and participation in the managerial skills improvement workshop. Since 3Q 2018, the Company has computerised the testing procedure on the portal.

The succession candidates for the position of Branch's Deputy Director – Chief Engineer, Branch's Deputy Chief Engineer, Branch's Deputy General Director for Service Sales and Development attend face-to-face workshops in Moscow with the attendance

of a corporate business coach. A total of 320 succession candidates takes part in the training.

In the reporting year, the Company has been implementing the comprehensive training programme for employees of consumer service centres, marketing offices and additional services of the branches. IDGC of Centre launched this programme in 2015 to grasp the basics of customer-centric service, managing conflicts and resolving disputes with current customers, to master the art of service sales and new client interaction. After starting in two pilot regions, the programme has demonstrated its efficiency and has been initiated in all branches of the Company. In 2018, the comprehensive training project covered all IDGC of Centre's branches.

In November 2018, Ivanovo hosted the corporate seminar "Introduction of Digital Technologies in Power Grids"

for the Company's employees. The event was held in the Ivanovo State Power University named after V.I. Lenin.

Over 60 specialists of the executive office and branches participated in this event.

## Incentive Policy

Financial incentives offered by the Company include fixed components (base salary) and additional payments set out in the corporate documents and in the Company's Collective Agreement.

## Financial Incentives

IDGC of Centre has in place a Unified Remuneration and Reward Policy, which seeks to engage and retain best talent. Salaries of employees vary depending on the personnel category, qualification, labour complexity and intensity, nature of work, and workplace conditions.

### The existing remuneration scheme implies the following:

- fixed salaries and pay rates to qualifications, business skills, experience, and worth to the Company. The pay rates are determined basing on minimum monthly wages of a skill category 1 worker;
- ongoing performance bonuses;

- supplementary payments and premiums for job scope and working conditions;
- ad hoc bonuses;
- seniority payments;
- leave allowances.

The Company has in place a uniform Pay Scale for blue collar jobs and a grading system for managers and white collar employees - the hierarchy of positions made basing on evaluation of all posts (managers, white collars, employees) according to a system of factor groups considering the value of labour for each typical job position;

The financial incentives of the employees are linked to a grading

system. Our framework of key performance indicators (KPIs) enables performance assessment of every business unit across the branch and encourages their employees to achieve specific performance targets set as KPIs. Every business unit within a given branch has its own individual KPIs reflecting its involvement in business processes and business services.

The average salary of branches' employees remains competitive in all regions of the Company's operations, however, it loses the competitive advantages related to the rate of wage growth by type of activity.

## Non-Financial Incentives

The non-financial incentives system covers various aspects of employees' life and has a significant influence on the effective performance of IDGC of Centre.

### The Company efficiently uses different kinds of non-financial incentives:

- employee service awards and recognition programs;
- creating and maintaining a favourable psychological climate;
- senior management communication with employees;

- arrangements for training, upskilling, career progress and personal development, skills contests for the employees, etc.

The awards and recognition programme is one of the non-financial incentives. It is aimed to recognise the employees' high performances and the works, which are of higher importance for the Company.

In the reporting year, two employees of the Company received national

awards of the Russian Federation; 137 employees received departmental awards from the Russian Ministry of Energy; 259 employees were given corporate awards of PJSC ROSSETI; 79 employees of the Company were awarded by the All-Russian Industry Association of Employers of the Power Sector (RaEI Association), while IDGC of Centre recognised 609 of its employees with corporate awards.

## Social Benefits and Guarantees

IDGC of Centre pursues its social policy by building a social partnership framework in line with the Company's Collective Agreement. The interests of its employees are represented by the company-wide Primary Trade Union.

The Collective Agreement of IDGC of Centre governs social and employment relations, while setting out the rights and obligations of social partners, pay rates and other work conditions, and providing for social guarantees and benefits for employees.

The Collective Agreement provides for supplementary payments to the Company's employees in certain cases (birth or adoption of children, marriage, parental leaves, annual leaves, etc.). Some benefits and compensations are provided together with the Primary Trade Union.

### Key social cost items in 2018

- One-off maternity (adoption) allowance.
- One-off first marriage allowance.
- Allowance paid to employees with disabled children up to age 18.
- Allowance paid to employees with three and more children up to age 18.
- Ad hoc allowance (including in case of natural calamities, fire, or theft).
- One-off healthcare and social allowance.
- Compensation for pre-school costs.
- Compensation for recreation and treatment costs of employees and their children.
- New Year gifts to employees' children up to age 14.
- One-off retirement allowance (payable to those who have retired within three months after they reach their retirement age).

- Allowance for housing improvements (reimbursement for bank loan interest or housing rent).
- Prize money for awards.
- Monthly parental leave pay.
- One-off bereavement allowance (payable if the employee's close relatives (spouse and/or children and/or parents) die).

## Medical Insurance

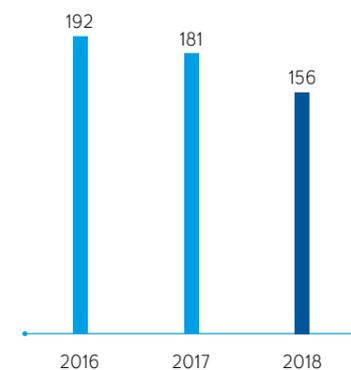
All employees of the Company are insured against accidents and diseases. We have in place Voluntary Medical Insurance (VMI) programmes offering a wide range of free healthcare services, including various types of medical examination, polyclinic, in-patient, and rehabilitation treatment services.

In 2018, we provided flu vaccination and tick-borne encephalitis vaccination for our employees. More than 500 employees and employees' children

benefited from rehabilitation treatment at Energetic, the Company's corporate resort in Tambov, as well as at Crimean resorts, etc.

To implement the Company's business plan indicators and ensure the financial stability, IDGC of Centre reduced the costs for VMI programmes with the realignment of resources between the key areas. It allowed to fulfil the obligations for the indexation of salaries of IDGC of Centre's employees.

### VMI costs in 2016-2018, RUB mn



## Housing Policy

We help our employees improve their housing conditions. For example in 2018, 199 young employees and highly skilled

professionals were reimbursed for their rent, and mortgage loan interest costs were covered for 291 employees.

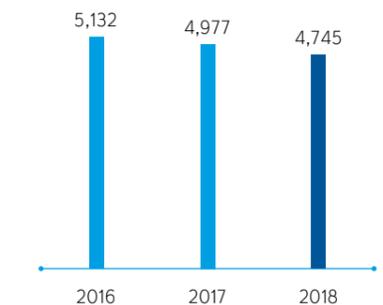
## Aid to Retirees

IDGC of Centre runs a Private Pension Programme designed to provide financial support for the Company's retirees and build a corporate pension plan. This Programme operates through the NPF Open and offers corporate and parity pension plans.

Every branch of the Company has in place Veterans' Councils, which help the management of the branches to contribute to joint events and identify the most vulnerable retirees.

The occupational pension is granted for five years. Thus, the decrease in the number of pension recipients is related to the withdrawal from the pension programme due to the expiration of the period for receiving pension from a non-state pension fund (NPF), as well as by the decrease in the number of tension-off employees.

### Non-working retirees receiving a pension from JSC NPF Otkrytie in 2016-2018, persons



## Social Events and Campaigns, Youth Policy

IDGC of Centre pays particular attention to work with young employees. A Youth Council is created at each of the Company's branches for efficient interaction with young employees. IDGC of Centre holds

annual Corporate Young Talent Congresses.

Career guidance collaboration with schools is organised in each region of the Company's footprint. To

attract young talent, the Company traditionally holds open days on the eve of the Power Engineers' Day. Branches set up traditional annual onboarding days for young power engineers.

## Dialogue between Management and Employees

### Trade Union Movement

The corporate trade union of the Company brings together 12 trade unions (one within the executive office and 11 in branches). The trade union includes 22 thousand persons,

that is 72% of the total headcount in the Company.

Through this positive social partnership, the parties maintain high

standards of social responsibility, including voluntary medical insurance, accident and disease insurance, benefits and financial assistance payable to employees.

### Complaints and Proposals

Counterparties and other stakeholders may submit a complaint or a proposal to the Company<sup>1</sup>.

omissions of employees, including corrupt practices.

allows creating comfortable conditions for conversation and finding an effective solution of a problem.

Appeals can be submitted via a compliance hotline, e-mail to [doverie@mrsk-1.ru](mailto:doverie@mrsk-1.ru), using a feedback form on the corporate website, or via other channels. This service is available 24/7 and ensures reception of complaints on all issues related to grid connection, as well as complaints related to wrongful actions or

Customers in 11 regions of the Company's footprint also have the opportunity to contact the toll-free hotline. Communication between the operator and the customer is based on the principles of mutual trust and confidentiality: the content of the conversation is not made public. The views expressed by the subscriber are not condemned and not criticised, which

With the hotline, power engineers can promptly respond to the customer complaints, thereby improving the quality of customer service. The total number of appeals processed during the year exceeded 900 thousand. The proportion of complaints in the total number of appeals decreased from 15% to 10% year-on-year.

<sup>1</sup> The feedback form is available on the official website of IDGC of Centre at: <https://www.mrsk-1.ru/customers/customer-service/feedback/complaint/nat/>.

To improve the quality of handling the employees' appeals on production and economic activities, increase the level of employees awareness of the Company's activities, develop corporate culture and business ethics, senior managers of the Company hold personal appointments and meetings with the employees (the schedule of such events is available on the corporate website).

### Employee Involvement in Management Decision-making

In line with the Collective Agreement, social partners are working together on evolving general principles to regulate social and employment relations to:

- increasing and improving labour performance and productivity;

- ensuring the compliance with employment rules and work discipline, occupational health and safety and workplace hygiene requirements;
- ensuring social stability across the Company.

## Occupational Safety

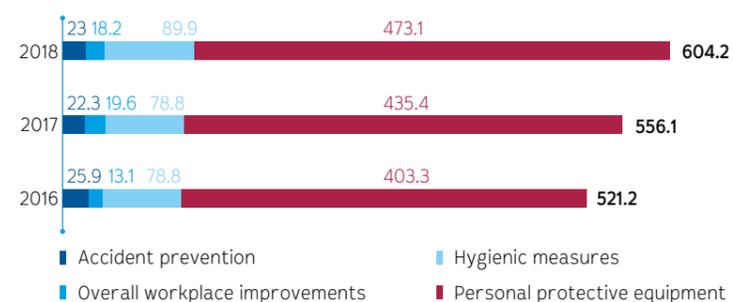
### Renewal of the Personal Protective Equipment

The occupational safety costs increased by 15.9% due to the ongoing programme on renewal of the personal protective equipment with up-to-date items. In regards to the provision of protective equipment, most of the funds in 2018 were spent to purchase sets of rods for 0.4 kV–10 kV temporary grounding to avoid climbing overhead line poles, which considerably reduces the risk of electric shock and fall injuries), sets of special arc-rated clothing, sets of special protective clothing resistant to punctures and cuts (for cutting operations), and fall protection equipment and accessories.

All personnel that are authorised to work at electric facilities without supervision are provided with special clothing, special shoes, and other

personal protective equipment, tools and accessories as specified by rules and regulations.

Changes in occupational safety costs in 2016-2018, RUB mn



### Injury Prevention

To prevent occupational injuries, the Company applies special standards:

- Occupational Injury Risk Reduction Programme of IDGC of Centre for 2018–2020 (approved by Order No. 98-TsA of IDGC of Centre dated 6 March 2018);

- Guidelines on Corporate Technical Control System of IDGC of Centre (approved by Order No. 100-TsA of IDGC of Centre dated 6 March 2018);
- Occupational Safety Policy adopted by ROSSETI Group of Companies (approved by Order No. 462-TsA dated 9 October 2018);

- Regulations on Corporate Labour Protection Management System of IDGC of Centre and IDGC of Center and Volga Region PS BP 18/01-04/2018 (approved by Order No. 556-TsA of IDGC of Centre dated 7 December 2018).

Priorities	Progress	2016	2017	2018	2019 (target)	KPI (2018)
Higher safety of power supply	Programmes to reduce injury risk					Zero increase in the number of people injured in accidents
	Reduction of occupational injury rates <sup>1</sup> , incidents	2	2	1	Zero growth in the number of people injured	
	Programme costs, RUB mn	521.2	405.6	454.79	1,178.2	
	Programmes to reduce the risk of injuries to third parties at the facilities of IDGC of Centre					Zero growth in the number of people injured
	Reduction of injuries to third parties <sup>2</sup> , incidents	0	0	0	Zero growth in the number of people injured	
	Programme costs, RUB mn	544.30	533.00	591.41	123.40	

IDGC of Centre has in place an Injury Risk Reduction Programme to prevent injuries to its employees. The Programme includes a set of activities for:

- improving internal technical controls;
- improving procedures for safe scheduled and emergency operation of electric facilities;
- training personnel on the job;

- motivating and encouraging personnel, improving HR services;
- fostering relations with industry-specific educational institutions;
- improving operational and technological management;
- ensuring safe transportation;
- checking workplaces.

All Programme activities scheduled for 2018 were completed.

### Occupational injury risk reduction programme costs, RUB mn

2016	2017	2018	2019 (target)
424.300	405.600	454.785	1,200.000

### Medical Examinations

The Company organises medical examination for its personnel and keeps record of employees engaged in harmful and hazardous working conditions with the reference to the results of a special assessment

of working conditions. In 2018, no first diagnosed occupational diseases of employees (acquired during employment with the Company) were identified.

The costs of sanitary and hygienic measures to prevent diseases in the workplace and the cost of measures to improve general working conditions remained almost flat with 2017.

<sup>1</sup> Industrial injuries due to a fault of the Company's officials and the victims themselves.

<sup>2</sup> Injuries to third parties due to a fault of the Company.

# ENVIRONMENTAL POLICY

**IDGC of Centre implements the Environment Policy of the Power Grid Complex focused on consistent limitation of environmental stress from fuel and energy facilities by reducing pollutant emissions (discharges) into the environment and reducing the generated production and consumption waste.**

**Current environmental costs in 2018 increased by 33% year-on-year.**

**The increase in costs was driven by the following reasons:**

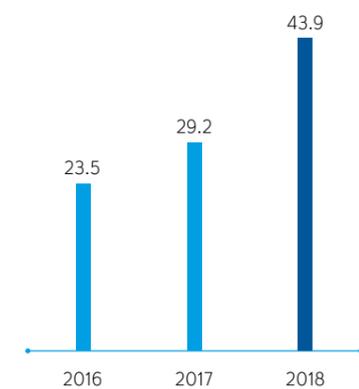
- construction and installation of the storm waste water treatment facilities with a capacity of 6 m<sup>3</sup>/hour (Yarenergo branch, costs amounted to RUB 8.0 mn);
- industrial control circle of influence of production facilities due to the changes in the environmental laws.

**The Company regularly undertakes technical measures to improve safety and reliability of power supply, reduce in-process emergency rate and mitigate negative environmental impacts. The**

**major technical measures taken in the reporting period:**

- usage of insulated conductors for 0.4-10 kV overhead lines (in 2018, the length of 0.4 kV–35 kV overhead lines equipped with bird protection devices increased by 1.8 thousand km);
- replacement of oil circuit breakers with vacuum or GIS circuit breakers (181 items of equipment were replaced in 2018), usage of insulated busbars at substations;
- replacement of oil-filled entrance and exit bushings with solid RIP-insulation bushings (45 items were replaced in 2018);
- replacement of old vehicles with Euro Emission Class vehicles.

**Current environmental costs<sup>1</sup>, RUB mn**



<sup>1</sup> The costs do not include costs for training (upskilling) of management and employees responsible for environmental protection and safety issues, land improvement and greening projects, purchase and installation of bird scarers, payments for negative environmental impact.

## Environmental policy areas

Environmental policy areas	Measures	Gross emissions of pollutants into the air, thousand m <sup>3</sup>		Costs, RUB mn	
		2018	2017	2018	2017
Air protection	In the reporting year, the Company carried out the following activities under the Programme to reduce the harmful exposure to the atmosphere: <ul style="list-style-type: none"> <li>• monitoring compliance with standards for pollutant emissions. According to the results of industrial environmental monitoring, no exceedance of standard limits was identified. By the end of 2018, there was a general decrease in gross pollutant emissions to atmosphere by 16.2% year-on-year due to a decrease in the number of pollutant emission sources following the results of the respective survey (emissions in 2018 amounted to 132.2 tonnes);</li> <li>• monitoring the operating efficiency of gas cleaning units (cyclones used to purify emissions from woodworking facilities); According to analyses conducted in 2018, the cleaning efficiency of all cyclones corresponds to the certificate data);</li> <li>• monitoring of air in buffer zones;</li> <li>• development of draft standards for maximum permitted emissions for the production sites of branches (46 draft standards were developed in 2018 vs 37 draft standards in 2017);</li> <li>• land improvement and greening;</li> </ul>	132.2	157.8	7.7	5.9

Environmental policy areas	Measures	Water intake and drawing, thousand m <sup>3</sup>		Costs, RUB mn	
		2018	2017	2018	2017
Water protection and sustainable use	The volume of water consumption of IDGC of Centre (centralised water supply and water taken from underground sources) in 2018 amounted to 201.5 thousand m <sup>3</sup> (in 2017 – 209.7 thousand m <sup>3</sup> ). The volume of water consumption reduced by 3.9% year-on-year.  The following measures were taken on a regular basis: <ul style="list-style-type: none"> <li>• instrumental monitoring of pollutants content in waste waters discharged into the city sewage systems;</li> <li>• monitoring of the quality of water taken from underground sources for compliance with the sanitary and hygiene standards</li> </ul>	201.5	209.7	16.4	8.9
Waste management	In 2018, seven Draft Waste Generation Standards and Waste Disposal Limits were prepared (in 2017, there were six drafts); <ul style="list-style-type: none"> <li>• different hazard class wastes were separately accumulated on site (41 containers were purchased);</li> <li>• special areas for waste accumulation were prepared;</li> <li>• 34 demercurisation kits were purchased to equip accumulation points for mercury-containing lamps, and 12 packs of oil neutralisers to clean up any oil spills;</li> <li>• 20,468 tonnes of industrial and consumer waste were processed, disposed of and landfilled by waste management contractors;</li> <li>• 890 containers with PCB-containing capacitors were decommissioned and deactivated (1,417 units in 2017)</li> </ul>	Industrial and consumer waste		19.8	14.4
		20.47	18.97		
		Including:			
		Class I wastes			
		0.04	0.03		
		Class II wastes			
		0.04	0.04		
		Class III wastes			
		0.11	0.12		
		Class IV wastes			
		3.83	3.70		
		Class V wastes			
		16.45	15.08		
Bird protection	To protect birds against electric shock, overhead lines were fitted with special bird scarers made of dielectric polymer weather-resistant materials. Bird scarers of different design are designed to insulate current-carrying parts, make it difficult for the birds to sit on traverses, prevent building nests on supports and poles, thus nearly eliminating the occurrence of dangerous circuits involving birds	Bird scarers purchased			
		6,835	4,732	3.4	3.7

# ENERGY SAVING AND ENHANCED ENERGY EFFICIENCY

## Energy saving and enhanced energy efficiency measures taken by IDGC of Centre are aligned with:

- Federal Law No. 261-FZ On Energy Saving and Enhanced Energy Efficiency as Well as Amendments

to Certain Legislative Acts of the Russian Federation;

- orders of the Ministry of Energy of Russia;
- Regulation on drafting Energy Saving and Enhanced Energy Efficiency

Programmes of subsidiaries and affiliates of PJSC ROSSETI<sup>1</sup>;

- Energy Saving and Enhanced Energy Efficiency Programme of IDGC of Centre for 2017-2022<sup>2</sup>.

## Energy Management System

The Energy Management System available at IDGC of Centre is consistent with GOST R ISO 50001-2012 national standard. In 2016,

the System was certified against ISO 50001:2011 international standard. In 2018, 10 employees of the Company received upskilling in

the Association "EnergoProfAudit" on the subject "Internal Audit of the Energy Management System as per ISO 50001:2011".

## Promotion of Energy-saving Lifestyle

The all-Russian Energy Saving Festival #VmesteYarche (Brighter for All) is held with the support of the Ministry of Energy of Russia, the Ministry of Education of the Russian Federation, the Ministry of Science and Higher Education of the Russian Federation, the Federal Agency for Youth

Affairs (Rosmolodezh), the Russian Schoolchildren's Movement, and the Fund for Promoting Housing and Utilities Reform State Corporation. The Festival is opened for federal, regional, municipal authorities, business entities, public and educational establishments. During

the festival #VmesteYarche (Brighter for All), specialised "boulevards of energy-efficient technologies" were offered for residents and guests in cities located within IDGC of Centre's footprint.

## Key performance indicators of Energy Saving and Enhanced Energy Efficiency Programme

Indicator	2017	2018
Power losses	9.86% of total electricity delivery to the grid	10.60%
Consumption for substation utilities	1.77% of power losses	1.83%
Total consumption of energy resources for housekeeping needs of administrative and industrial buildings, including:	51.30 thousand TFOE	50.41 thousand TFOE
electricity	42.77 thousand TFOE	41.60 thousand TFOE
heat energy (building heating systems)	7.01 thousand TFOE	7.09 thousand TFOE
natural gas (including liquified)	1.51 thousand TFOE	1.72 thousand TFOE

Indicator	2017	2018
Total consumption of natural resources for housekeeping needs of administrative and industrial buildings, including:	217.68 thousand m <sup>3</sup>	220.75 thousand m <sup>3</sup>
hot water supply	14.61 thousand m <sup>3</sup>	12.18 thousand m <sup>3</sup>
cold water supply	203.07 thousand m <sup>3</sup>	208.57 thousand m <sup>3</sup>
Total motor fuel consumption by motor vehicles and special vehicles, including:	29.6 thousand TFOE	30.6 thousand TFOE
petrol, including:	18.16 thousand TFOE	18.04 thousand TFOE
by motor vehicles	11.93 thousand TFOE	12.02 thousand TFOE
by special vehicles	6.23 thousand TFOE	6.02 thousand TFOE
diesel fuel, including:	11.44 thousand TFOE	12.56 thousand TFOE
by motor vehicles	5.63 thousand TFOE	6.67 thousand TFOE
by special vehicles	5.81 thousand TFOE	5.88 thousand TFOE
Use of energy-efficient LED-based lighting facilities	12.68%	35.8%
The number of lighting facilities used, including:	122,280	121,554
with energy-saving lamps (without LED)	100,665	11,457
with LEDs	15,501	43,568

The Company did not use any other types of energy, except for those included in the table (nuclear energy, electromagnetic energy, crude oil, fuel oil, coal, oil shale, peat, etc.).

<sup>1</sup> Approved by the Board of Directors of JSC ROSSETI, Minutes No. 156 dated 29 April 2014.

<sup>2</sup> Approved by Decision No. 29/17 of the Board of Directors of IDGC of Centre dated 22 December 2017.

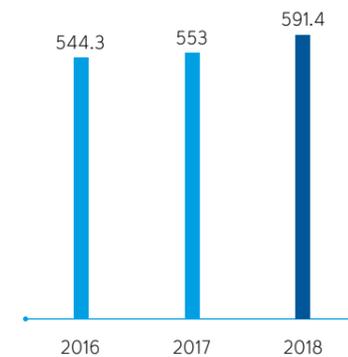
# THIRD-PARTY SAFETY

IDGC of Centre pursues the Programme to reduce the risk of injuries to third parties at the Company's facilities for 2018–2020 as part of a broader effort to minimise third-party injury risks, including injuries to members of the public and contractor employees.

The escalation of the Programme costs in 2018 is attributable to higher costs for bringing electrical

installations being in unsatisfactory or inoperable condition in compliance with the regulatory requirements of the 2018 Repair Programme, as well as to the widespread use of self-supporting insulated wire for new construction and reconstruction of 6–10 kV overhead lines in densely populated areas, in park areas and natural reserves during power supply to essential consumers.

The Programme costs in 2016–2018, RUB mn



The target Programme costs in 2019

exceed **123.3 RUB mn**

Measures on prevention of injuries to contractor employees

- Considering health and safety performance and injury rates when selecting contractors;
- Incorporating contractors' liability for violation of health and safety rules into relevant contracts;
- Organising joint health and safety drills and procedures with contractors in accordance with applicable regulations;
- Providing access to grid facilities for assigned contractor personnel only after the contractor's documents are thoroughly examined for compliance with applicable regulations.

## 2018 Measures

### Measures for providing safety of grid facilities

- Identifying and demolishing illegal structures in buffer zones;
- Relocating of overhead lines and transformer substations away from school sites, playgrounds, and residential areas; In 2018, the costs amounted to over RUB 27.4 mn.
- Replacing 6 kV–10 kV overhead lines with self-supporting insulated conductors; The costs amounted to over RUB 136.4 mn.
- Installation of additional signs and notices (in addition to those required by regulatory standards) in residential areas near community facilities, children's institutions, water bodies and in fishing areas, to inform people of electric shock hazard; In the reporting year, 42.8 thousand signs were installed.
- Bringing electrical installations being in unsatisfactory or inoperable condition in compliance with the regulatory requirements; The costs amounted to over RUB 339.4 mn.

### Public awareness and education initiatives

- Educating the public through the media on the risks of approaching grid facilities;
- Publishing electric safety information on the reverse side of utility bills;
- Notifying land users, local authorities and businesses of the need to comply with the rules for identification of grid facilities buffer areas and with specific conditions of land use within these areas, danger and inadmissibility of unauthorised works within buffer areas (4.9 thousand notifications sent);
- Classes for high-school and university students as part of the existing curriculum – life safety, etc. Moreover, social institutions for minors (orphanages, boarding schools, shelters, etc.) received methodological support and pupils were given special classes, amounting to 4.7 thousand classes in total;
- Producing cartoons and videos educating children on injury prevention; publishing electric safety pamphlets (reminders) for the wider public.

# PUBLIC RELATIONS

Being committed to the principles of information openness and availability, IDGC of Centre aims to ensure a high level of transparency of its activities and maintains active communication

with all stakeholders, providing them with necessary information on all aspects of the Company's activities in a timely manner. The Communication Policy of IDGC of Centre is

closely aligned with the Uniform Communication Policy of ROSSETI Group of Companies.

## Government Relations

At the St. Petersburg International Economic Forum, Rostec State Corporation, PJSC ROSSETI, and the Government of the Yaroslavl Region signed a trilateral cooperation agreement, which stipulated the establishment of an intelligent innovation cluster of digital networks

in the region and the delivery of a project for the manufacture of smart electricity meters. The agreement stipulates the delivery of a pilot project "Establishment of an intelligent innovation cluster of digital networks" in the Yaroslavl Region focused on ensuring more efficient operation of

the power grid complex, uninterrupted and reliable power supply to consumers of the Yaroslavl Region through obtaining accurate and timely information, improving controllability, and introducing automated intelligent electricity metering systems.

# CHARITY

The Company uses approved Regulations on the Formation and Use of the Sponsorship and Charity Fund to define the goals, application and financing procedures, and sources of

funding for IDGC of Centre's charitable and sponsorship activities<sup>1</sup>.

In 2018, the Company extended assistance to educational activities, in

particular, supported the establishment of an information technology and artificial intelligence centre.

# PROCUREMENT ACTIVITIES

The procurement activities of IDGC of Centre are based on the Uniform Procurement Standard of PJSC ROSSETI. The Standard incorporates provisions of Federal Law No. 223-FZ On Procurement of Goods, Work and Services by Certain Types of Legal Entities dated 18 July 2011.

In the reporting year, 6,900 procurement contracts for a total of RUB 45,601.0 mn (excl. VAT) were awarded. The share of competitive procurement procedures was 90.2% of total purchases in value terms (the share of single-source procurements was 9.8%, including

the services of PJSC ROSSETI – 6.2%). The economic effect on the outcome of the procurement processes for the period amounted to RUB 937.6 mn (excl.VAT), or 2% of the planned declared value of purchases.

## Procurement from Small and Medium-Sized Enterprises (SMEs)

The annual share of procurements from SMEs was 65.2% of the total purchases. The annual share of procurements from SMEs by bidding or other procurement processes stipulated by the Regulations on

Procurement, which involve only SMEs as the bidders, was 31.2% of the total purchases. No procurement contract awarded in 2018 contained a condition of engaging SMEs as subcontractors (associate contractors).

<sup>1</sup> The text of the Regulations is published on the official website of IDGC of Centre

# ANTI-CORRUPTION INITIATIVES

In 2018, IDGC of Centre carried out a number of measures to prevent, identify, and eliminate (minimise) the causes of corruption.

## 1 Developing and introducing standards and procedures oriented to ensuring fair work practices

**In the reporting period, the following local organisational and regulatory documents were approved.**

- New version of the Regulations on Insider Information of IDGC of Centre approved by the decision of the Board of Directors (Minutes No. 19/18 dated 30 May 2018).
- The Regulations on the Management of Anti-Corruption Compliance

Procedures of the Security Department of IDGC of Centre (Order No. 73-TsA of IDGC of Centre dated 15 February 2018).

- Guidelines on the Procedure for verification of personal data of candidates applying for vacant positions in IDGC of Centre (Decree No. TsA/12/81-r of IDGC of Centre dated 20 April 2018).

[The Regulations on Insider information are available on IDGC of Centre's website](#)

## 2 Reviewing and checking the information on potential corruption offences and other abuses

For the consideration of, resolution on, appeals of employees, contractors and other persons about potential facts of corruption, the Company uses such interactive channels as website, telephone hotline, as well as mail and personal appointment.

**All complaints (appeals) with elements of corruption received by the Company are registered and reviewed in a mandatory manner. 259 appeals were received in 2018, including:**

- via a feedback form available on the Company's corporate website - 23;
- via e-mail - 12;
- via the telephone hotline - 224.

In 2018, there were two possible facts of corruption among the appeals received. There facts were investigated with the negative results obtained.

259 appeals on possible facts of corruption received in 2018.

## 3 Preventing and settling conflict of interest

Management of conflicts of interest is carried out with the participation of the Committee on Corporate Ethics Compliance and Conflict of Interest Resolution.

Candidates applying for a vacant position in the Company must fill in the declaration of a conflict of interest, on the basis of which (amongst other things) a decision is made to approve the candidate. Similar declarations are also filled in by current employees of the Company.

The information about the Company's managers and their close relatives relating to their income and property liability is being checked.

**In 2018, in order to implement the measures on prevention of conflict of interests at IDGC of Centre:**

- conflict of interest declarations were collected, analysed, and evaluated. In 2018, as part of the Declaration campaign, 5,200 conflict of interest declarations were collected and checked, the results were reviewed at the Committee on Corporate Ethics Compliance and Conflict of Interest Resolution;

- over 100 income and property liability disclosures from managers of the Company and its branches, about 500 income and property liability disclosures from their close relatives were checked;
- over one thousand people were checked within the framework of checking and approving candidates for vacant positions in IDGC of Centre. Three candidates were given negative conclusions.

## 4 Taking measures to prevent corruption when interacting with partners and counterparties

The Company complies with the unified Anti-Corruption Standard during anti-corruption procurement control, which includes inspection of procurement documentation and participants of procurement/counterparties to evaluate their reliability and probity, resolve conflicts of interest, exclude affiliation and other abuses related to positions held in the Company.

The Company also conducts comprehensive audits of the financial and business activities of the Company's branches and checks how their officials adhere to

the requirements of organisational and administrative documents, particularly in combating corruption.

The Company carried out continuous control over signed contracts and addenda to them for full and reliable information on counterparties' ownership chain, as well as for available data on membership of their executive bodies.

**Pursuant to Instructions No. VP-P13-9308 and No. VP-P24-1269 of the Government of the Russian Federation dated 28 December 2011 and 5 March 2012, respectively, IDGC of Centre continuously conducts as follows:**

- controlling over signed contracts for full and reliable information on

counterparties' ownership chain, including beneficiaries (with ultimate ones), as well as for available data on membership of their executive bodies;

- checking the inclusion of an anti-corruption clause into concluded contracts and clauses on the provision of information by the counterparties on the complete ownership chain, including beneficiaries (with ultimate ones);
- checking signed contracts against timely submission of information by the Company's business units with respect to the counterparties' ownership chain.

In 2018, 4,700 contracts were covered by the above measures.

## 5 Participating in collective Anti-Corruption Initiatives to prevent and terminate corruption offences

In 2018, the Company was interacting with the representatives of the Russian business-community: Chamber of Commerce and Industry of the Russian Federation, as well as such public organisations as Russian Union of Industrialists and Entrepreneurs, Business Russia, OPORA of RUSSIA (Russia's Support), and other members of the Charter.

**In order to liaise with representatives of state authorities and administration, as well as anti-corruption law enforcement agencies, the Company exercised control and supervisory functions with a view to:**

- improve fuel and energy complex safety legislation and make specific decisions on inspection activities;
- settle problems relating to ensuring the transparency of the Company's financial and business activities and prevent cases of abuse by the power grid companies' officials and persons affiliated with them, as well as violations of the principles of

competition and abuse of dominant position;

- cooperate on the issues related to the elimination of administrative barriers, the restriction of freedom of economic activity, unlawful interference with the Company's activities.

## Protection of Insider Information

IDGC of Centre handles large amounts of insider information. Its classification and disclosure methods take into account responsibility for maintaining trade secrets and confidentiality.

**Insider information protection activities in the reporting year comprised the following measures:**

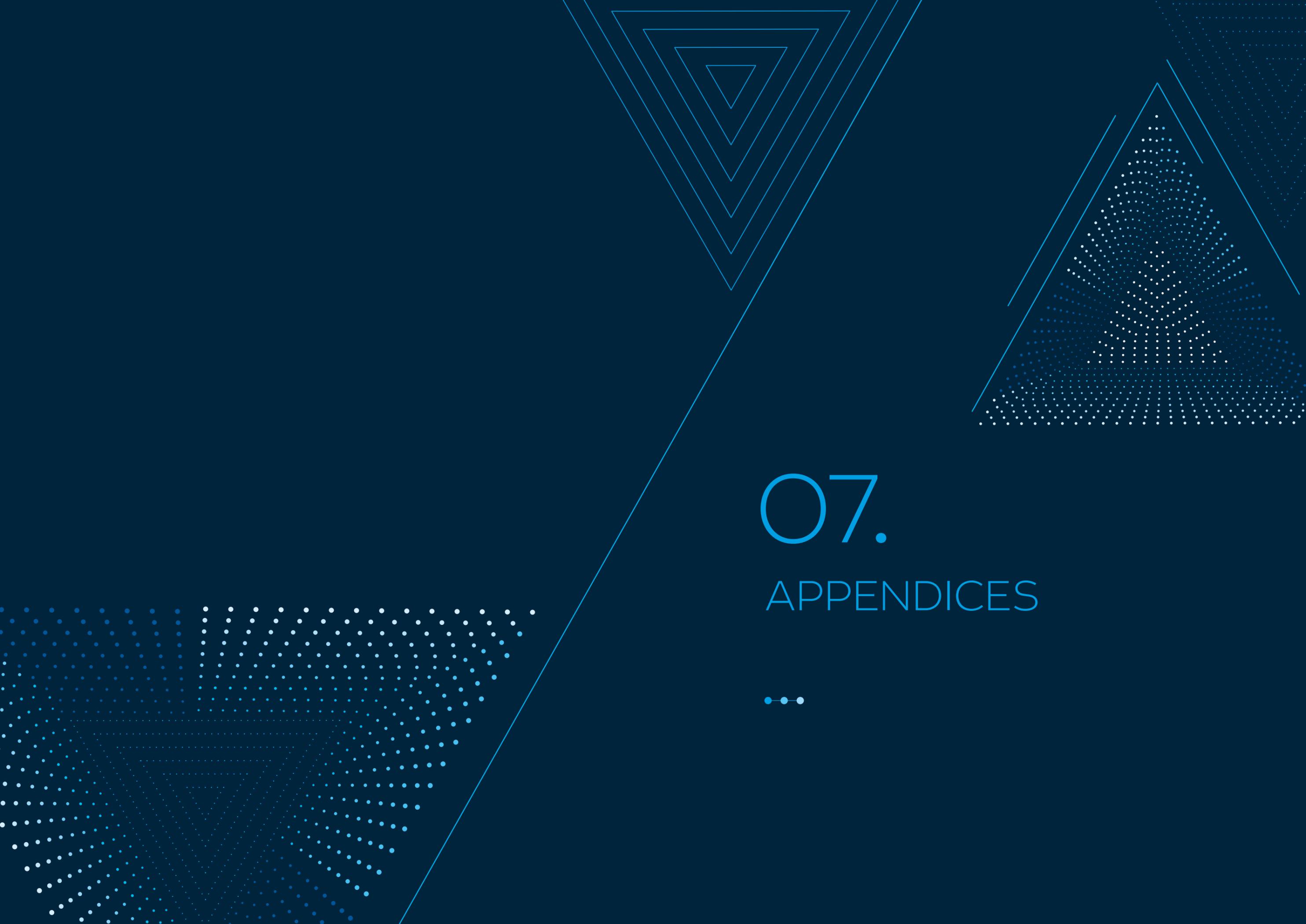
- the new insiders were consulted (with the respective explanation given)

how to use insider information at the Company;

- the compliance with the insider information laws was checked and amendments made to the laws on insider information control were monitored;
- amendments were made to the lists of insiders;
- reports were prepared and submitted to the Board of Directors

of IDGC of Centre following the measures taken to comply with the insider information control laws.

The Company adopted the Regulations on Insider Information, providing for internal procedures that promote compliance with the law and internal regulations.



07.

APPENDICES





## Independent Auditor's Report

### on the Accounting (Financial) Statements of Interregional Distribution Grid Company of Centre, Public Joint-Stock Company for 2018 February 2019

To the Shareholders and Board of Directors of Interregional Distribution Grid Company of Centre,  
Public Joint-Stock Company

#### Opinion

We have audited the accounting (financial) statements of Interregional Distribution Grid Company of Centre, Public Joint-Stock Company (the Company), which comprise the statement of financial position as at 31 December 2018, profit and loss statement for 2018 and appendices thereto.

In our opinion, the accompanying accounting (financial) statements present fairly, in all material respects, the financial position of the Company as at 31 December 2018 and its financial performance and its cash flows for 2018 in accordance with the rules on preparation of accounting (financial) statements established in the Russian Federation.

#### Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the accounting (financial) statements section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) together with the ethical requirements that are relevant to our audit of the accounting (financial) statements in the Russian Federation, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the accounting (financial) statements of the current period. These matters were addressed in the context of our audit of the accounting (financial) statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the accounting (financial) statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the accounting (financial) statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying accounting (financial) statements.

#### Key audit matter

#### How our audit addressed the key audit matter

##### Recognition and assessment of revenue from electricity transmission services

Recognition and assessment of revenue from electricity transmission services was one of the most significant matters of our audit in connection with certain specific features of the electricity market functioning mechanisms, which cause the existence of disagreements between power grids, power sales and other companies regarding the volumes and cost of transmitted electricity. The amount of revenue disputed by the counterparties is significant for the Company's accounting (financial) statements. The Company's management's assessment of the probability of resolving disputes in its favour is largely subjective. Revenue is recognized when, subject to assumptions, differences are resolved in favour of the Company.

Information on revenue from electricity transmission services is disclosed in paragraph 13 of the Notes to the statement of financial position and the profit and loss statement.

We reviewed the applied accounting policy with respect to the recognition of revenue from electricity transmission services, assessed the internal control system for the reflection of this revenue, checked the correctness of determining the respective amounts of revenue based on the electricity transmission agreements concluded, on a selective basis received confirmations of receivables balances from counterparties, analyzed the results of legal proceedings regarding the disputed amounts of services rendered, if any, and assessed the existing procedures for confirming the amount of electricity transmitted.

##### Impairment of account receivables

Impairment of account receivables is one of the most significant matter for our audit due to significant balance of account receivables as at 31 December 2018, as well as due to the fact that management's assessment of recoverability of account receivables is based on assumptions, in particular, on the forecasted ability of the Company's customers to pay.

Information on impairment of accounts receivable is disclosed in paragraph 10 of the Notes to the statement of financial position and the profit and loss statement.

We analyzed the adequacy of the Company's accounting policy with respect to impairment of account receivables, as well as the procedures for confirming the appropriateness of estimates made by the Company's management, including analysis of history of settlements, ageing and overdue receivables and customers' ability to pay.

We performed audit procedures with respect to the information used by the Company to determine the impairment of accounts receivable, the aging structure of accounts receivable, tested the applicable levels of account receivables impairment allowances based on the management's estimates.

##### Recognition, measurement and disclosure of provisions and contingent liabilities

Recognition, measurement and disclosure of provisions and contingent liabilities in respect of litigations and claims of counterparties (including territorial electric grid companies and energy supply companies) were matters of most significance in our audit because they require a lot of management judgments in respect of significant amounts in dispute in the course of litigations and claim settlements.

Information on provisions and contingent liabilities is disclosed in paragraph 13 of the Notes to the statement of financial position and the profit and loss statement.

The audit procedures included review of court rulings made by courts of different levels, review of adequacy of management judgments and documents confirming the assessment of possibility of outflow of economic resources following dispute resolutions, conformity of the prepared documentation with the existing contracts and compliance with the law.

## Other Information

The accounting (financial) statements of Interregional Distribution Grid Company of Centre, Public Joint-Stock Company for 2017 were audited by another auditor who expressed an unmodified opinion on those statements on 22 February 2018.

The accounting (financial) statements of Interregional Distribution Grid Company of Centre, Public Joint-Stock Company for 2016 were audited by another auditor who expressed an unmodified opinion on those statements 21 February 2017.

## Other Information Included in the Annual Report of Interregional Distribution Grid Company of Centre, Public Joint-Stock Company

Other information consists of the information included in the Annual Report of Interregional Distribution Grid Company of Centre, Public Joint-Stock Company other than the accounting (financial) statements and our auditor's report thereon. Management is responsible for the other information. The Annual Report of Interregional Distribution Grid Company of Centre, Public Joint-Stock Company is expected to be made available to us after the date of this auditor's report.

Our opinion on the accounting (financial) statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audit of the accounting (financial) statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the accounting (financial) statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

## Responsibilities of the Management and the Audit Committee of the Board of Directors for the Accounting (Financial) Statements

The management is responsible for the preparation and fair presentation of the accounting (financial) statements in accordance with the rules on preparation of accounting (financial) statements established in the Russian Federation, and for such internal control as management determines is necessary to enable the preparation of accounting (financial) statements that are free from material misstatement, whether due to fraud or error.

In preparing the accounting (financial) statements, the management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The Audit Committee of Board of Directors are responsible for overseeing the Company's financial reporting process.

## Auditor's Responsibilities for the Audit of the Accounting (Financial) Statements

Our objectives are to obtain reasonable assurance about whether the accounting (financial) statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these accounting (financial) statements.

**As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:**

- Identify and assess the risks of material misstatement of the accounting (financial) statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control system;
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management;
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the accounting (financial) statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern;
- Evaluate the overall presentation, structure and content of the accounting (financial) statements, including the disclosures, and whether the accounting (financial) statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Audit Committee of the Board of Directors of the Company regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee of the Board of Directors of the Company with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit Committee of the Board of Directors of the Company, we determine those matters that were of most significance in the audit of the accounting (financial) statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The partner in charge of the audit resulting in this independent auditor's report is - T.L. Okolotina.

### T.L. Okolotina

Partner  
Ernst & Young LLC  
20 February 2019

### Details of the audited entity

Company name: Interregional Distribution Grid Company of Centre, Public Joint-Stock Company  
Entered in the Unified State Register of Legal Entities December 17, 2004 with the state registration numbered 1046900099498.  
Registered office: 127018, Moscow, Russia, 2nd Yamskaya, 4.

### Details of the auditor

Company name: Ernst & Young LLC  
Entered in the Unified State Register of Legal Entities December 05, 2002 with the state registration numbered 1027739707203.  
Registered office: Sadovnicheskaya nab. 77, bld. 1, 115035 Moscow, Russia.  
Ernst & Young LLC is a member of Self-regulated organization of auditors "Russian Union of auditors" (Association) ("SRO RUA"). Ernst & Young LLC is included in the control copy of the register of auditors and audit organizations, main registration number 11603050648.

The RAS financial statements are available on the Company's website  
[https://www.mrsk-1.ru/upload/files/Accounting\\_statements\\_IDGC\\_under\\_RAS\\_2018\\_english.pdf](https://www.mrsk-1.ru/upload/files/Accounting_statements_IDGC_under_RAS_2018_english.pdf)

## Statement of Financial Position as at 31 December 2018

	Codes
Form under ARCMD	0710001
Date (year, month, day)	31   12   2018
Company: IDGC of Centre, PJSC	under ARCBO 75720657
Id. tax payer number	TIN 6901067107
Activity: Electric power transmission	ADCEA 35.12
Business legal structure/Form of ownership: PJSC/hybrid	under ARCFI/ARCFO 12247   41
Measurement unit: thousand RUB	under ARCM 384
Location (Address): 127018, Moscow, Russia, 2nd Yamskaya, 4	

Notes	Indicator	Line code	As at 31 December 2018 (1)	As at 31 December 2017 (2)	As at 31 December 2016 (3)
<b>ASSETS</b>					
<b>I. NON-CURRENT ASSETS</b>					
5.1.1–5.2.2.	Intangible assets	1110	109,847	46,622	19,935
5.2.2.	including pending transactions to acquire intangible assets	1111	-	-	-
5.2.1–5.2.2.	R&D results	1120	60,963	89,397	91,494
5.2.2.	including expenses for R&D in progress	1121	35,516	21,255	29,947
	Intangible exploratory assets	1130	-	-	-
	Tangible exploratory assets	1140	-	-	-
5.3.1–5.3.6.	Fixed assets	1150	101,460,901	99,672,180	98,424,983
	land plots and environmental facilities	1151	291,590	291,671	291,405
	buildings, machinery and equipment, constructions	1152	93,970,166	92,684,212	92,037,491
	other types of fixed assets	1153	3,258,176	2,751,666	2,170,430
5.3.5.	construction in progress	1154	3,152,535	3,391,575	3,443,262
5.3.6.	advances made for capital construction and acquisition of fixed assets	1155	209,012	35,107	847
	raw materials for use in the creation of fixed assets*	1156	579,422	517,949	481,548
5.3.1.	Profitable investments in tangible assets	1160	-	-	-
5.4.1–5.4.3.	Financial investments	1170	207,255	205,300	228,536
	investments in subsidiaries	1171	15,355	15,355	15,355
	investments in affiliates	1172	-	-	-
	investments in other companies	1173	191,900	189,945	213,181
	loans granted to companies for more than 12 months period	1174	-	-	-
	financial investments	1175	-	-	-
5.7.2.	Deferred tax assets	1180	1,379,125	1,200,078	1,505,129
	Other non-current assets	1190	2,398,571	1,981,363	1,996,577
	<b>TOTAL for section I</b>	<b>1100</b>	<b>105,616,662</b>	<b>103,194,940</b>	<b>102,266,654</b>
<b>II. CURRENT ASSETS</b>					
5.5.1–5.5.2.	Supplies	1210	2,717,892	2,112,386	2,087,286
	raw material, materials and other analogous values	1211	2,512,897	2,112,386	2,087,247
	construction in progress costs	1212	204,995	-	-
	finished products and goods for resale	1213	-	-	-
	shipped goods	1214	-	-	39
	other supplies and expenses	1215	-	-	-

Notes	Indicator	Line code	As at 31 December 2018 (1)	As at 31 December 2017 (2)	As at 31 December 2016 (3)
	Value added tax according to purchased valuables	1220	9,372	8,475	23,059
5.6.1–5.6.4.	Accounts receivable	1230	12,873,143	12,361,739	15,175,766
	Payments on which are expected more than 12 months after accounting date	1231	666,755	1,111,849	257,605
	buyers and customers	123101	417,928	907,221	27,799
	bills receivable	123102	-	-	-
	advances made	123103	9,813	3,276	3,493
	other accounts receivable	123104	239,014	201,352	226,313
	Payments on which are expected within 12 months after accounting date	1232	12,206,388	11,249,890	14,918,161
	buyers and customers	123201	11,198,197	10,270,268	12,650,349
	bills receivable	123202	-	-	-
	debts of subsidiaries and affiliates on dividends	123203	-	-	-
	debts of participators (founders) according to contributions in the authorised capital	123204	-	-	-
	advances made	123205	121,916	127,725	113,604
	other accounts receivable	123206	886,275	851,897	2,154,208
5.4.1–5.4.3.	Financial investments (excluding money equivalents)	1240	-	-	5,000
	loans granted to organisations for less than 12 months period	1241	-	-	5,000
	other short-term financial investments	1242	-	-	-
F.4	Monetary funds and money equivalents	1250	786,262	1,358,698	2,552,560
	cashier's desk	1251	-	-	-
	settlement accounts	1252	751,199	1,342,775	222,011
	foreign exchange accounts	1253	-	-	-
	other monetary funds	1254	35,063	15,923	2,330,549
	Other currents assets	1260	532,774	629,811	552,218
	<b>TOTAL for section II</b>	<b>1200</b>	<b>16,919,443</b>	<b>16,471,109</b>	<b>20,395,889</b>
	<b>BALANCE</b>	<b>1600</b>	<b>122,536,105</b>	<b>119,666,049</b>	<b>122,662,543</b>
	<b>LIABILITIES</b>				
	<b>III. EQUITY AND RESERVES</b>				
3.1.	Share capital (joint-stock capital, authorised capital, limited partner contributions)	1310	4,221,794	4,221,794	4,221,794
3.1.	Equity (prior to registered changes)	1311	-	-	-
3.1.	Own shares repurchased from shareholders	1320	-	-	-
5.3.1., 5.1.1.	Revaluation of non-current assets	1340	-	-	-
3.1.	Additional capital (without revaluation)	1350	33,269,936	33,269,936	33,269,936
3.1.	Reserve capital	1360	211,090	211,090	211,090
3.1.	Retained earnings (uncovered losses)	1370	20,728,118	20,194,226	20,028,775
	of previous years	1371	19,322,746	18,162,837	18,162,100
	of the reporting period	1372	1,405,372	2,031,389	1,866,675
	<b>TOTAL for section III</b>	<b>1300</b>	<b>58,430,938</b>	<b>57,897,046</b>	<b>57,731,595</b>

Notes	Indicator	Line code	As at 31 December 2018 (1)	As at 31 December 2017 (2)	As at 31 December 2016 (3)
	<b>IV. LONG-TERM LIABILITIES</b>				
5.6.7–5.6.8.	Loans and credits	1410	29,085,000	34,000,000	39,305,000
	bank credits subject to payment more than within 12 months after the reporting date	1411	24,085,000	24,000,000	19,305,000
	loans subject to payment more than within 12 months after the reporting date	1412	5,000,000	10,000,000	20,000,000
5.7.2.	Deferred tax liabilities	1420	7,870,003	7,968,308	7,747,838
5.7.1.	Estimated liabilities	1430	-	-	-
5.6.5–5.6.6.	Other liabilities	1450	730,906	923,355	1,042,019
	<b>TOTAL for section IV</b>	<b>1400</b>	<b>37,685,909</b>	<b>42,891,663</b>	<b>48,094,857</b>
	<b>V. SHORT-TERM LIABILITIES</b>				
5.6.7–5.6.8.	Loans and credits	1510	11,322,208	7,491,031	3,987,585
	bank credits subject to payment within 12 months after the reporting date	1511	1,013,458	2,213,131	3,651,185
	loans subject to payment within 12 months after the reporting date	1512	10,308,750	5,277,900	336,400
5.6.5–5.6.6.	Accounts payable	1520	13,422,187	9,759,815	10,991,556
	suppliers and contractors	1521	6,057,453	4,572,165	5,708,787
	bills payable	1522	-	-	-
	debt to personnel relating to labour payment	1523	617,113	651,768	612,841
	debt to governmental extra-budgetary funds	1524	430,808	373,731	444,082
	taxes and levies payable	1525	1,597,243	1,685,883	1,760,671
	advances received	1526	1,622,783	2,049,879	1,771,968
	debts to participators (founders) according to income payment	1527	43,154	39,896	15,971
	other accounts payable	1528	3,053,633	386,493	677,236
	Deferred income	1530	19,761	18,293	16,826
5.7.1.	Estimated liabilities	1540	1,655,102	1,608,201	1,840,124
	Other liabilities	1550	-	-	-
	<b>TOTAL for section V</b>	<b>1500</b>	<b>26,419,258</b>	<b>18,877,340</b>	<b>16,836,091</b>
	<b>BALANCE</b>	<b>1700</b>	<b>122,536,105</b>	<b>119,666,049</b>	<b>122,662,543</b>

(1) – specifies the reporting date of the accounting period.

(2) – specifies the previous year

(3) – specifies the year prior to the previous one.

20 February 2019

CEO

I.V. Makovskiy

Chief Accountant

L.A. Sklyarova

## Profit and Loss Statement for January-December 2018

	Codes
Form under ARCMD	0710001
Date (year, month, day)	31   12   2018
Company: IDGC of Centre, PJSC	under ARCBO 75720657
Id. tax payer number	TIN 6901067107
activity: Electric power transmission	ADCEA 35.12
Business legal structure/Form of ownership: PJSC/hybrid	under ARCF\ARCFO 12247   41
Measurement unit: thousand RUB	under ARCM 384

Notes	Indicator	Code	For January-December 2018 (1)	For January-December 2017 (2)
1	2	3	4	5
	Revenue	2110	93,873,534	91,060,447
	revenue from electricity transmission	2111	90,015,407	87,622,881
	revenue from grid connection	2112	1,863,891	1,591,236
	revenue from functioning organisation and development of UES of Russia in terms of electric distribution grid	2113	-	-
	revenue from resale of electric energy and power	2114	530,020	548,354
	income from participation in other organisations	2115	-	-
	lease income	2116	42,033	44,868
	revenue from sale of other goods, products, works, services of industrial nature	2117	1,422,183	1,253,108
	revenue from sale of other goods, products, works, services of non-industrial nature	2118	-	-
2.1.	Cost of sales	2120	(83,936,368)	(79,023,060)
	electricity transmission	2121	(82,279,583)	(77,619,323)
	grid connection	2122	(328,895)	(324,468)
	functioning organisation and development of UES of Russia in terms of electric distribution grid	2123	-	-
	resale of electric energy and power	2124	(465,997)	(473,250)
	participation in other organisations	2125	-	-
	lease	2126	(8,469)	(9,561)
	other goods, products, works, services of industrial nature	2127	(853,424)	(596,458)
	other goods, products, works, services of non-industrial nature	2128	-	-
	Gross profit (loss)	2100	9,937,166	12,037,387
2.1.	Commercial expenses	2210	(18,807)	(20,226)
2.1.	Management expenses	2220	(2,191,312)	(2,173,302)
	Profit (loss) from sales	2200	7,727,047	9,843,859
	Profit from participation in other organisations	2310	14,419	21,607
	Interest receivable	2320	53,123	366,782
	Interest payable	2330	(3,196,101)	(4,046,412)
5.11.	Other profit	2340	3,509,923	4,338,824
5.11.	Other expenses	2350	(5,900,097)	(5,947,057)
	Profit (loss) before taxation	2300	2,208,314	4,577,603

Notes	Indicator	Code	For January-December 2018 (1)	For January-December 2017 (2)
2.3.	Current profit tax	2410	(1,316,496)	(1,340,807)
2.3.	including constant tax liabilities (assets)	2421	517,165	891,610
2.3.	Change in deferred tax liabilities	2430	97,747	(297,069)
2.3.	Change in deferred tax assets	2450	259,921	(169,255)
2.3.	Other	2460	155,886	(739,083)
	Net profit (loss)	2400	1,405,372	2,031,389
<b>5.1.1.</b>	<b>FOR REFERENCE</b>			
<b>5.3.1.</b>				
	Result from the revaluation of fixed assets, not included in net income (loss) for the period	2510	-	-
3.2.	Result from other transactions not included in net income (loss) for the period	2520	-	-
	Aggregate financial result of the period	2500	1,405,372	2,031,389
2.2.	Basic earnings (loss) per share	2900	0.0000333	0.0000481
2.2.	Diluted earnings (loss) per share	2910		

(1) – specifies the reporting date of the accounting period.

(2) – specifies the period of the previous year, the same accounting period.

20 February 2019

CEO

I.V. Makovskiy

Chief Accountant

L.A. Sklyarova



## Independent Auditor's Report

**Consolidated Financial Statements**  
**prepared in accordance with International Financial Reporting Standards**  
**for the year ended 31 December 2018**  
**March 2019**

**To Shareholders and Board of Directors of Public Joint-Stock Company**  
**"Interregional Distribution Grid Company of Centre"**

### Opinion

We have audited the consolidated financial statements of Public Joint-Stock Company "Interregional Distribution Grid Company of Centre" and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2018, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for 2018, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2018 and its consolidated financial performance and its consolidated cash flows for 2018 in accordance with International Financial Reporting Standards (IFRSs).

### Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) together with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Russian Federation, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

### Key audit matter

### How our audit addressed the matter

#### Recognition and measurement of revenue from electricity transmission services

Recognition and measurement of revenue from electricity transmission services was one of the most significant matters for our audit due to certain specifics of the electricity market mechanisms that give rise to the existence of disagreements among electricity supply, utilities, and other companies in relation to the volume and cost of the transmitted electricity. The amount of revenue challenged by counterparties is material to the Group's financial statements. Management's assessment of the probability of settling disputes in the Group's favor is highly subjective. Revenue is recognized when disagreements are resolved in favor of the Group with regard to assumptions.

Information on revenue from electricity transmission services is disclosed in Note 7, 30 (d) to the consolidated financial statements.

We considered the applied accounting policy with regard to the recognition of revenue from electricity transmission services; assessed internal controls over the recognition of this revenue; checked the correctness of the corresponding revenue amounts based on the existing electricity transmission contracts; received, on a selective basis, confirmations of balances of receivables from counterparties; analyzed the results of litigations concerning disputable amounts of services provided, if any; and assessed existing procedures to confirm the volume of electricity transmitted.

#### Allowance for expected credit losses on trade receivables

The matter of creating allowance for expected credit losses on trade receivables is one of the most significant matters for our audit due to the material balances of trade receivables as of 31 December 2018, as well as due to the fact that management's assessment of the possible recoverability of these receivables is based on assumptions, in particular, on the projected solvency of the Group's customers.

Information on allowance for expected credit losses on trade receivables is disclosed in Note 18, 27 (a) to the consolidated financial statements.

We analyzed the adequacy of the Group's accounting policy on the trade receivables with respect to the creation of allowance for expected credit losses on trade receivables, as well as procedures to confirm the appropriateness of measurements made by the Group's management, including the analysis of repayment of trade receivables, the analysis of maturity and delayed performance of obligations, and the analysis of customers' solvency.

We performed audit procedures in respect of the information used by the Group to determine the allowance for expected credit losses on trade receivables, the structure of receivables by age and maturity, and tested the correctness of the charged allowance amounts based on management's estimates.

#### Recognition, measurement and disclosure of provisions and contingent liabilities

Recognition, measurement and disclosure of provisions and contingent liabilities in respect of litigations and claims from counterparties (including territorial electric grid and utilities companies) were among the most significant matters for our audit as they require significant judgments of management with respect to material amounts of balances of settlements with counterparties that are challenged in litigations or under the pretrial settlement.

Information on provisions and contingent liabilities is disclosed in Note 26 to the consolidated financial statements.

Audit procedures also involved analyzing decisions made by courts of different instances; considering the adequacy of management's judgments with regard to assessment of the possibility of an outflow of economic resources due to the dispute settlement; examining the compliance of the prepared documentation with provisions of existing contracts and legislation; and reviewing disclosures on provisions and contingent liabilities in notes to the consolidated financial statements.

## Key audit matter

## How our audit addressed the matter

**Impairment of non-current assets**

Due to the existence of the impairment indicators of non-current assets as of 31 December 2018, the Group performed impairment testing. The value-in-use of fixed assets, forming a significant share of the Group's non-current assets, as of 31 December 2018, was determined by the projected cash flow method.

The matter of impairment testing of fixed assets was one of the most significant matters for our audit because the fixed assets balance forms a significant part of the Group's assets at the reporting date, and because management's assessment of the value-in-use is complex and largely subjective and is based on assumptions, in particular, on the projected electricity transmission volumes, transmission fees, as well as operating and capital expenditures that depend on the expected future market or economic conditions in the Russian Federation.

Information on the results of the impairment analysis of non-current assets is disclosed by the Group in Note 13 to the consolidated financial statements.

As part of our audit procedures, we also assessed the assumptions and methodologies applied by the Group, in particular, those relating to projected total revenue from the electricity transmission, fee solutions, operating and capital expenditures, long-term rates of fee growth and discount rates. We tested the incoming data imported in the model and the arithmetic accuracy of the model used to determine the recoverable amount in the impairment test of fixed assets. We engaged valuation specialists to analyze the model used to determine the recoverable amount in the impairment test of fixed assets. We also analyzed the sensitivity of the model to changes in the main indicators of assessment and the Group's disclosures of assumptions on which the results of impairment testing largely depend.

**Assessment of retirement and other liabilities to employees**

The Group has defined benefit pension plans.

Assessment of retirement and other liabilities to employees is a significant audit matter as management determines carrying values of defined benefit pension plans and the discounted value of respective liabilities on the basis of actuarial valuation that includes certain assumptions, and the amount of liabilities under defined benefit pension plans at the reporting date is highly sensitive to changes in those assumptions. Such assumptions include, but are not limited to, mortality, both during and after employment, rates of employee turnover, discount rate, future salary and benefit levels as well as the expected return on plan asset.

Information on pension liabilities is disclosed in Note 24 to the consolidated financial statements.

In the course of our audit procedures we also analyzed the applied assumptions, made sample testing of the Group's employee data used for actuarial calculations, as well as performed analytical procedures in respect of the carrying value of liabilities under the defined benefit pension plans and their changes during the period. We engaged the professional actuaries to provide assistance with these audit procedures. We also reviewed the respective disclosures in the consolidated financial statements.

**Other Matters**

The financial statements of the Public Joint-Stock Company "Interregional Distribution Grid Company of Centre" and its subsidiaries for 2017 were audited by another auditor who expressed an unmodified opinion on those statements on 15 March 2018.

The financial statements of the Public Joint-Stock Company "Interregional Distribution Grid Company of Centre" and its subsidiaries for 2016 were audited by another auditor who expressed an unmodified opinion on those statements on 15 March 2017.

**Other Information Included in the Company's Annual Report**

Other information consists of the information included in the Annual Report other than the consolidated financial statements and our auditor's report thereon. Management is responsible for the other information. The Annual Report is expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

**Responsibilities of Management and Audit Committee of the Board of Directors for the Consolidated Financial Statements**

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Audit Committee of the Board of Directors are responsible for overseeing the Group's financial reporting process.

### Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

**As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:**

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with Audit Committee of the Board of Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide Audit Committee of the Board of Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with Audit Committee of the Board of Directors, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The partner in charge of the audit resulting in this independent auditor's report is T.L. Okolotina.

#### T.L. Okolotina

Partner  
Ernst & Young LLC

18 March 2019

#### Details of the Audited entity

**Name:** Public Joint-Stock Company "Interregional Distribution Grid Company of Centre"  
**Record made in the State Register of Legal Entities on 17 December 2004, State Registration Number** 1046900099498.  
**Address:** Russia 127018, Moscow, 2-Yamskaya street, 4.

#### Details of the Auditor

**Name:** Ernst & Young LLC  
**Record made in the State Register of Legal Entities on 5 December 2002, State Registration Number** 1027739707203.  
**Address:** Russia 115035, Moscow, Sadovnicheskaya naberezhnaya, 77, building 1.  
Ernst & Young LLC is a member of Self-regulated organization of auditors "Russian Union of auditors" (Association) ("SRO RUA"). Ernst & Young LLC is included in the control copy of the register of auditors and audit organizations, main registration number 11603050648.

The consolidated IFRS financial statements are available on the Company's website  
[https://www.mrsk-1.ru/upload/video/MRSK\\_MSFO\\_2018\\_eng.pdf](https://www.mrsk-1.ru/upload/video/MRSK_MSFO_2018_eng.pdf)

## Consolidated Statement of Profit or Loss and Other Comprehensive Income for the Year Ended 31 December 2018

(in thousands of Russian rubles, unless otherwise stated)

	Notes.	Year ended 31 December	
		2018	2017 (restated)
Revenue	7	93,935,259	91,115,571
Operating expenses	9	(87,861,825)	(83,057,852)
Other income, net	8	1,302,620	1,124,181
<b>Result from operating activities</b>		<b>7,376,054</b>	<b>9,181,900</b>
Finance income	11	125,277	442,309
Finance costs	11	(3,405,876)	(4,227,271)
<b>Total financial costs</b>		<b>(3,280,599)</b>	<b>(3,784,962)</b>
<b>Profit before income tax</b>		<b>4,095,455</b>	<b>5,396,938</b>
Income tax expense	12	(1,099,613)	(2,599,748)
<b>Profit for the year</b>		<b>2,995,842</b>	<b>2,797,190</b>
<b>Other comprehensive income</b>			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Net change in fair value of available-for-sale financial assets	15	-	(23,235)
Income tax related to items that may be reclassified subsequently to profit or loss	16	-	4,647
<b>Total items that may be reclassified subsequently to profit or loss</b>		<b>-</b>	<b>(18,588)</b>
<i>Items that will never be reclassified subsequently to profit or loss</i>			
Changes in the fair value of equity investments accounted for at fair value through other comprehensive income	15	1,955	-
Remeasurements of the defined benefit liability	24	125,617	(246,845)
Income tax related to items that will never be reclassified subsequently to profit or loss	16	(8,122)	28,476
<b>Total items that will not be reclassified subsequently to profit or loss</b>		<b>119,450</b>	<b>(218,369)</b>
<b>Other comprehensive income/(expense) for the year, net of income tax</b>		<b>119,450</b>	<b>(236,957)</b>
<b>Total comprehensive income for the year</b>		<b>3,115,292</b>	<b>2,560,233</b>
<b>Profit attributable to:</b>			
Equity holders of the Company		2,935,245	2,753,147
Non-controlling interests		60,597	44,043
<b>Total comprehensive income attributable to:</b>			
Equity holders of the Company		3,054,695	2,516,190
Non-controlling interests		60,597	44,043
<b>Earnings per share</b>			
Basic and diluted earnings per ordinary share (in RUB)	21	0.070	0.065

These consolidated financial statements were approved by management on 18.03.2019 and were signed on its behalf by:

General Director

I.V. Makovskiy

Chief Accountant

L.A. Sklyarova

## Consolidated Statements of Financial Position for the Year Ended 31 December 2018

(in thousands of Russian rubles, unless otherwise stated)

	Notes.	31 December 2018	31 December 2017 (restated) (Notes 2(h))	1 January 2017 (restated) (Notes 2(h))
		ASSETS		
<b>Non-current assets</b>				
Property, plant and equipment	13	87,860,303	84,633,932	82,667,093
Intangible assets	14	2,784,394	2,380,170	2,345,282
Trade and other receivables	18	585,262	1,037,558	166,251
Assets related to employee benefits plans	24	549,081	541,679	500,305
Financial investments	15	191,900	189,945	213,181
<b>Total non-current assets</b>		<b>91,970,940</b>	<b>88,783,284</b>	<b>85,892,112</b>
<b>Current assets</b>				
Inventories	17	2,735,443	2,128,986	2,099,699
Income tax prepayments		379,356	421,709	1,382,137
Trade and other receivables	18	12,252,673	11,295,073	13,977,188
Cash and cash equivalents	19	787,053	1,362,307	2,567,305
<b>Total current assets</b>		<b>16,154,525</b>	<b>15,208,075</b>	<b>20,026,329</b>
<b>Total assets</b>		<b>108,125,465</b>	<b>103,991,359</b>	<b>105,918,441</b>
<b>EQUITY AND LIABILITIES</b>				
<b>Equity</b>				
Share capital	20	4,221,794	4,221,794	4,221,794
Other reserves		(199,285)	(318,735)	(81,778)
Retained earnings		40,580,643	38,516,878	37,630,159
<b>Total equity attributable to equity holders of the Company</b>		<b>44,603,152</b>	<b>42,419,937</b>	<b>41,770,175</b>
Non-controlling interest		259,822	199,225	165,809
<b>Total equity</b>		<b>44,862,974</b>	<b>42,619,162</b>	<b>41,935,984</b>
<b>Non-current liabilities</b>				
Loans and borrowings	22	29,076,926	33,989,210	39,282,692
Trade and other payables	25	708,840	923,355	1,035,516
Employee benefits	24	1,950,777	2,432,135	2,202,613
Deferred tax liabilities	16	5,129,281	5,136,081	4,614,843
<b>Total non-current liabilities</b>		<b>36,865,824</b>	<b>42,480,781</b>	<b>47,135,664</b>
<b>Current liabilities</b>				
Loans and borrowings	22	11,312,750	7,491,456	3,995,795
Trade and other payables	25	14,266,857	10,828,220	11,822,357
Provisions	26	812,931	487,743	1,026,203
Current income tax liabilities		4,129	83,997	2,438
<b>Total current liabilities</b>		<b>26,396,667</b>	<b>18,891,416</b>	<b>16,846,793</b>
<b>Total liabilities</b>		<b>63,262,491</b>	<b>61,372,197</b>	<b>63,982,457</b>
<b>Total equity and liabilities</b>		<b>108,125,465</b>	<b>103,991,359</b>	<b>105,918,441</b>

# Contact Details

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## IR Division

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## Auditor

**Ernst & Young LLC**

(EY Group) (TIN/RCC: 7709383532 / 770501001)

77, bld.1, Sadovnicheskaya nab., Moscow, 115035, Russia

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Self-Regulatory Organisation of Auditors "Russian Union of Auditors" (SRO RSA)  
Ernst & Young LLC registration number in the Register of auditors and audit organisations of the Self-Regulatory Organisation of Auditors "Russian Union of Auditors" – 11603050648

## Registrar

**VTB Registrar CJSC**

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+7 (495) 787-44-83

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**Licence of the Bank of Russia to maintain a register of securities holders**  
No. 045-13970-000001, issued on 21 February 2008 with no expiry date

## Depository

**Non-Banking Credit Organisation Joint-Stock Company "National Settlement Depository" (NSD)**

112, Spartakovskaya St., Moscow 105066, Russia

+7 (495) 234-48-27, +7 (495) 956-09-38

[www.nsd.ru/ru/](http://www.nsd.ru/ru/)

**Licence of the Federal Financial Markets Service of Russia to maintain**  
register No. 177-12042-000100, issued on 19 February 2009 with no expiry date