ROSSETI LENENERGO

Preliminarily approved by
the Board of Directors of
Lenenergo, PJSC on *April 28*, 2020
Minutes No. *53* dd. *April 30*, 2020
Approved by
the General Meeting of Shareholders of
Lenenergo, PJSC on _____ 2020
Minutes No. _____ dd. _____ 2020

Annual Report

of Lenenergo, Public Joint Stock Company of the Power Industry and Electrification

for 2019

CEO of Lenenergo, PJSC	*(signed)*	**A.V. Ryumin**
Acting Chief Accountant of Lenenergo, PJSC	*(signed)*	**N.V. Korepanova**

Saint Petersburg

2020

(signed)

SECTION 1. GENERAL INFORMATION ON THE COMPANY

1.1. General Information. Assets Properties and Key Indicators

Lenenergo, Public Joint Stock Company of the Power Industry and Electrification is one of the largest distribution grid companies in Russia. Lenenergo, PJSC transmits electric power to the participants of the wholesale and retail electric energy markets in the Leningrad Region and Saint Petersburg.

Lenenergo, PJSC has been established subject to Orders No. 992 (dd. August 14, 1992), No. 923 (dd. August 15, 1992), No. 1334 (dd. November 5, 1992) of the President of Russia and registered subject to Decision No. 2518 dd. January 22, 1993 of the Registration Chamber of the Saint Petersburg City Administration. The Company is the successor of Lenenergo, State Enterprise of the Power Industry and Electrification.

The following are the core activities of the Company:

- electric power transmission and other services integral to the electric power supply to consumers
- grid connection of the power receivers (power plants) of entities and individuals.

Subject to Russian Federal Energy Committee Decree No. 127/8 dd. December 19, 1997, Lenenergo, PJSC has been included into the Register of Natural Monopolists Regulated and Controlled by the State (Section I: *Electric and/or Heat Power Transmission*).

The state represented by the regional regulators sets the tariffs for the Company's services subject to a decision of the Federal Antimonopoly Service.

Nowadays, Lenenergo, PJSC serves a large market of the city of Saint Petersburg and the Leningrad Region, with the overall area of 85.3 thousand sq.km having 7.2 mn residents (4.9% of the total country population).

Saint Petersburg area: 1.4 thousand sq.km.
Leningrad Region area: 83.9 thousand sq.km.
Population: 7.3 mn residents
Percent of the Russian Federation population: 4.9%

The average headcount in 2019 was 7,256 people (in the Group: 8,214 people).

History:

1886

July 16, 1886: Emperor Alexander III approved the Charter of Electric Illumination Company established by Carl von Siemens. That day is considered the beginning of the "Electric Era" and the date of Lenenergo, PJSC foundation.

1917

December 16 (29), 1917: 1886 Company was nationalized.

1926

December 19, 1926: the first and the most powerful hydropower plant of the time, Volkhovskaya HPP, was commissioned.

1932

After several reorganizations and changes of name, the company received the name of Lenenergo that is maintains to this day in 1932.

1933

December 19, 1933: an official ceremony was held for the commissioning of the world's first power plant built on an unstable soil (Devonian clay) foundation, Nizhne-Svirskaya HPP. The HPP power was transmitted to Leningrad substation of Chesmenskaya via the first Russian 220 kV electric power line that was 240 km long.

1941-1945

The War and the Leningrad Siege formed a separate page in the Leningrad power industry history. Over 1500 industry experts died protecting the city and maintaining its energy system.

1942

In winter of 1942, the Lenenergo workers laid four-strand 10 kV cable line to the besieged Leningrad. That cable, over 100 km long, was later named "The Cable of Life": it was that unique technical solution that led to breaking of the energy siege of the city and allowed the city to survive.

1949

During WWII, Lenenergo sustained colossal damage: it lost 2/3 of the energy system capacity. However, the electric power capacity and production reached the pre-war levels by 1949 already due to the selfless commitment of the energy workers.

1964

28 local energy operational offices of the agricultural sector (Selenergo) were liquidated, replaced by 8 Lenenergo electric power grid enterprises.

1965

1956 marked the start of the creation of the backbone 330 kV power grid. Vostochnaya, Chudovo, and Yuzhnaya 330 kV substations were commissioned.

1992

Lenenergo, Open Joint Stock Company of the Power Industry and Electrification was incorporated by way of privatization.

2000

From 2000 to 2005, the Saint Petersburg power system got 5 new backbone 110 kV substations and reconstructed over 120 km of heat grids and tens of thousands of kilometers of power grids.

2005

Lenenergo, OJSC was reorganized by dividing into the following companies: Petersburg Generating Company, OJSC; North-West Energy Management Company, OJSC; Petersburg Utility Company, OJSC; Petersburg Transmission Systems, OJSC.

2008

Saint Petersburg purchased the blocking shareholding in the Company.

2010

Lenenergo, OJSC acquired TSEK, CJSC (96.95% of the capital) and Kurortenergo, CJSC (98.13% of the capital) as part of creating a single electric power grid company.

2011

Since January 1, 2011, Lenenergo, OJSC switched to a new system of long-term tariff RAB (Regulatory Asset Base) regulation, the primary goal of which is attracting investments to expand and upgrade the infrastructure.

2012

The Agency for Strategic Initiatives partnered up with Lenenergo, OJSC to implement the road map of the Enhancing the Power Infrastructure Accessibility project. Lenenergo, OJSC honed the mechanisms for the grid connection system upgrade that are intended for implementation at a national level.

2014

Federal Testing Center, PJSC was created to become the first Russian center oriented at testing the high voltage equipment.

In December 2014, the Training Center launched in Tervolovo (the Gatchina District). It is a learning and training center that has 12 specialized classes and 2 simulation halls that function all year round, a 0.4, 10, 35, and 110 kV grid testing area, and a 110/35/10 kV substation testing area.

2015

Lenenergo, PJSC became the foundation for consolidation of the largest power transmission market players of Saint Petersburg and the Leningrad Region: SPb ES, JSC and PES, OJSC.

2016

The largest grid connection program in the history of the area was implemented, connecting consumers to the electric power grids. A single grid assets operation center was created.

Customer Area

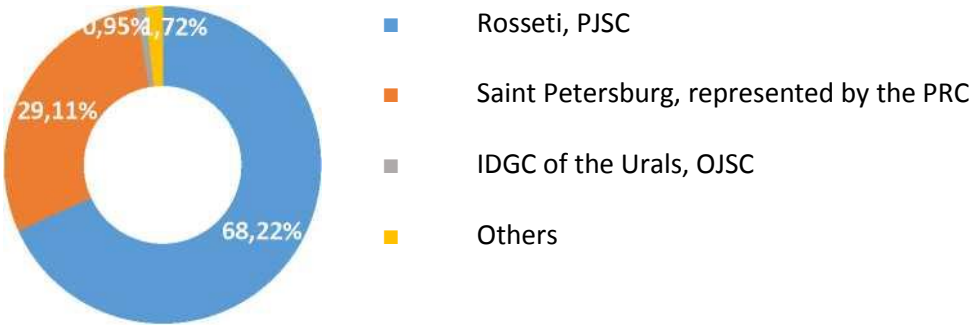
Lenenergo, PJSC is a regional distribution grid company. Lenenergo, PJSC operates in two Russian constituent entities that are governed and regulated separately: Saint Petersburg and the Leningrad Region.

As of now, Lenenergo, PJSC is the largest grid company in the area. The following companies transmit electric power and connect consumers to the grid in Saint Petersburg and the Leningrad Region alongside Lenenergo, PJSC:

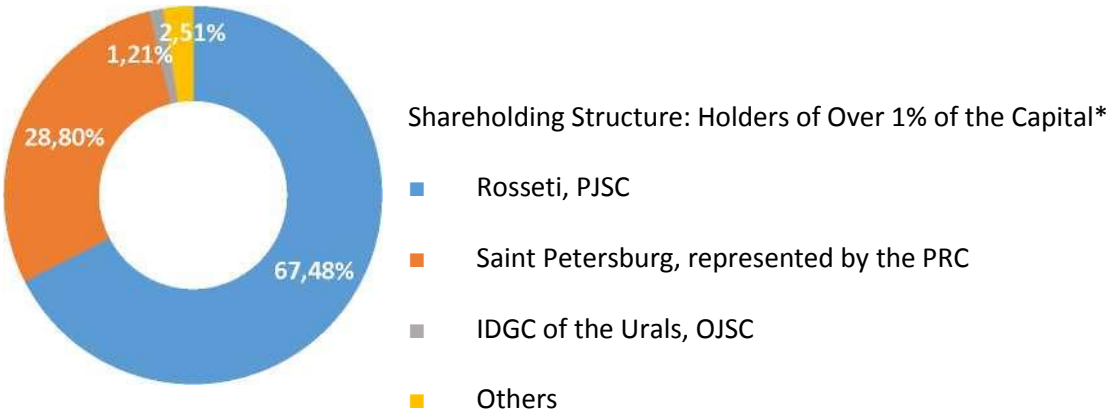
- North-West MES - a branch of FGC UES, PJSC,
- Leningrad Region Power Grid Management Company, JSC (LOESK, JSC),
- several partner grid companies, the responsibility areas of which are set out in the decrees issued by the governments of the relevant Russian constituent entities.

Share Capital Structure

Shareholding Structure: Holders of Over 1% of Ordinary Shares*



Shareholding Structure: Holders of Over 1% of the Capital*



*Structure of the share capital as of December 31, 2019.

Information on the Listing and Market Capitalization

Name	Code	Level	Trading Began On
Ordinary shares	LSNG	III	July 16, 2003
Preference shares, Class A	LSNGP	III	July 16, 2003

Market capitalization as of December 31, 2019: RUB 71,617 mn.

Credit Rating

Information is provided as of December 31, 2019:

Agency	Rating	Rating Date	Rating Action Date	Outlook
Moody's Investors Service (international rating)	Ba2	November 18, 2009	March 25, 2015	negative
			December 7, 2015	stable
			April 27, 2016	stable
	Ba1		December 7, 2017	stable
ACRA, JSC (national rating)	AA+(RU)	April 11, 2018		stable
	AAA(RU)		March 26, 2019	stable

Events After the Report Date

24 On March 24, 2020, the Analytical Credit Rating Agency, JSC confirmed the Rosseti Lenenergo credit rating of AAA(Ru) at the national scale with a stable outlook.

Key Performance Indicators of the Company for 5 Years

Parameter	Unit of Measurement	2015	2016	2017	2018	2019	2019 over 2018, % (unless otherwise specified)
Electric power transmission services	mn kWh	28,249	29,007	29,669	30,560	30,625	+0.2%
Power losses	%	12.23%	11.53%	12.05%	11.71%	11.19%	-0.52 p.p.
Connected capacity	MW	380	725	1,607	1,033	893	-13.5%
Revenue from sales, including:	RUB mn	43,727	61,260	74,682	76,450	82,371	+7.7%
from power transmission services	RUB mn	40,684	54,437	60,600	68,807	75,696	+10.0%
from grid connection	RUB mn	2,865	6,485	13,377	7,066	6,242	-11,7%
from other operations	RUB mn	177	338	705	577	433	-25,0%
Net cost, business and administrative expenses	RUB mn	44,071	49,296	54,023	57,450	58,473	+1.8%
Sales profit	RUB mn	-344	11,965	20,659	19,000	23,899	+ RUB 4,899 mn
Profit before tax	RUB mn	-6,529	10,214	16,717	13,678	17,176	+ RUB 3,498 mn
Net profit	RUB mn	-5,916	7,561	12,561	10,386	12,705	+ RUB 2,319 mn
ROE**	%	-6.40%	6.45%	9.94%	7.65%	8.74%	+1.09 p.p.
EBITDA***	RUB mn	7,325	21,661	28,531	26,328	30,546	+16.0%
EBITDA margin	%	16.75%	35.36%	38.20%	34.44%	37.08%	+2.64 p.p.
Equity to borrowed funds ratio	-	1.39	1.79	1.78	1.86	1.99	+0.13 p.
Net debt****	%	10,172	24,302	34,501	29,016	20,924	-27.9%
Net debt/EBITDA	-	1.39	1.12	1.21	1.10	0.69	-0.42 p.

Notes:

The 2015-2019 indicators are provided subject to the annual accounting reports and financial statements under the RAS, in view of the historic method of data provision.

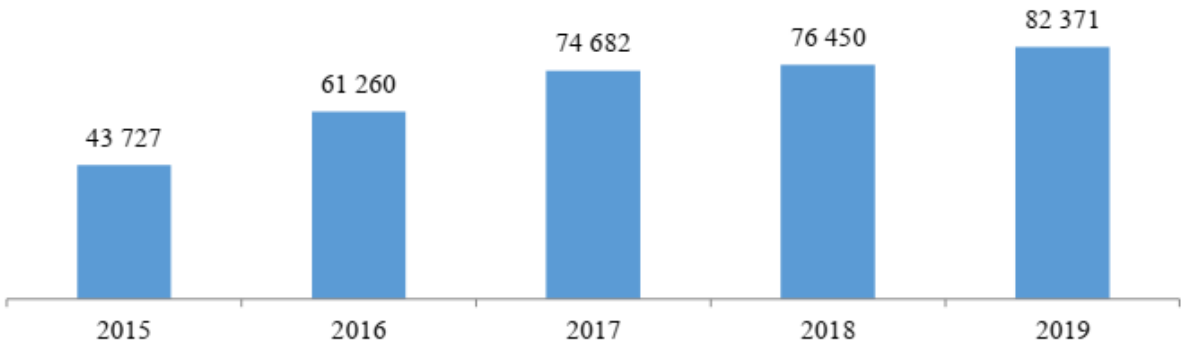
* ROE (return on equity) is calculated as follows:

ROE = (Net profit / Average equity)*100% = [Item 2400 F.2 / ((Item 1300 F.1 report + Item 1300 F.1 previous) / 2))*100%

** EBITDA is provided net of the impairment reserves position for the debt-based financial investments.

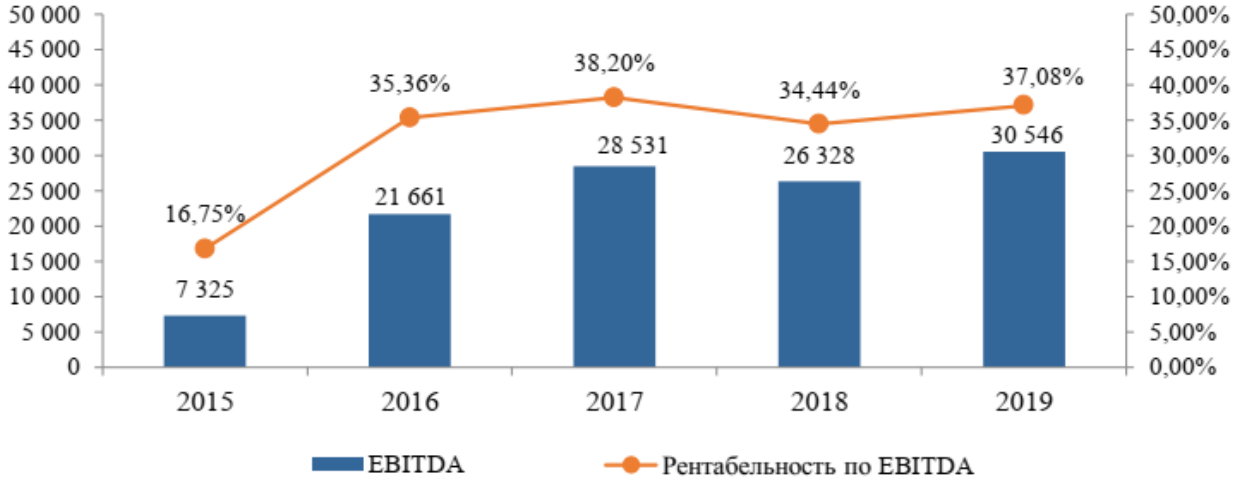
*** Net Debt is a sum of long-term and short-term borrowings (Items 1410 and 1510), including the debt on interest, net of cash (Item 1250) and short-term financial investments (Item 1240).

Revenue, RUB mn



Note: The 2015-2019 indicators are provided subject to the annual accounting reports and financial statements of the Company under the RAS, in view of the historic method of data provision.

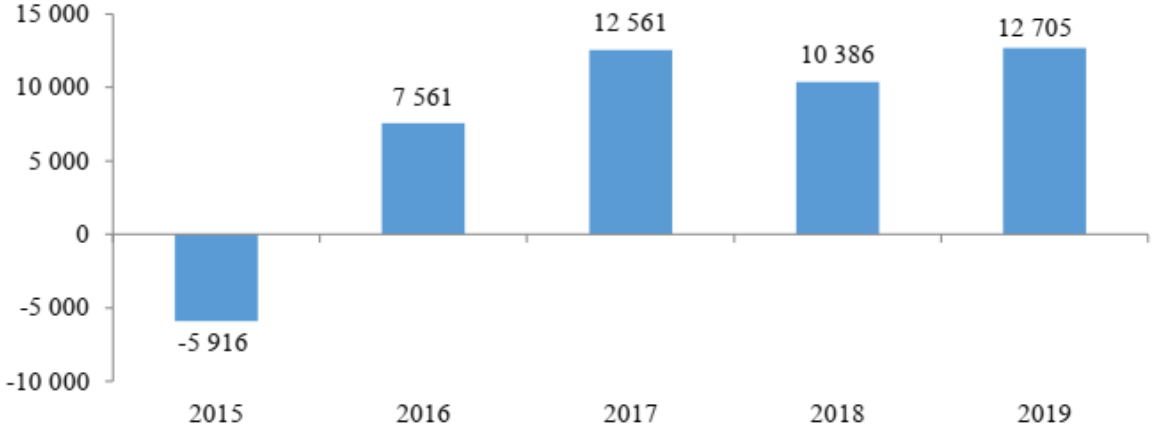
EBITDA, RUB mn, EBITDA margin



Рентабельность по EBITDA	EBITDA Margin

Note: EBITDA (under the RAS) is provided net of the impairment reserves position for the debt-based financial investments.

Net Profit, RUB mn



Note: The 2015-2019 indicators are provided subject to the annual accounting reports and financial statements of the Company under the RAS, in view of the historic method of data provision.

Properties of Assets of Lenenergo, PJSC Group

Parameter	Unit of Measurement	TOTAL for the Group
Installed capacity	MVA	34,064
0.4-110 kV overhead lines (on circuits)	km	47,909
0.4-110 kV cable lines	km	29,972
35-110 kV substations	units	428
6-35 kV transformer substations	units	23,612

1.2. Structure and Geography of Operations

The following branches form the Group of Lenenergo, PJSC as of December 31, 2019:

Branch	**Location**	**Numbers**
Vyborgskiye Power Grid	5, ul. Severny Val, Vyborg, Leningrad Region	650.9
Gatchinskiye Power Grid	73, bldg. A, ul. K. Marksa, Gatchina, Leningrad Region	612.5
Kingiseppskiye Power Grid	64, pr. K. Marksa, Kingisepp, Leningrad Region	535.7
Novoladozhskiye Power Grid	25, ul. Sadovaya, Novaya Ladoga, Leningrad Region	626.2
Prigorodnye Power Grid	22, ul. Setevaya, Pushkin, Saint Petersburg	772.7
St. Petersburg High Voltage Power Grid	160, lit. A, Leninsky pr., Saint Petersburg	1035.5
Tikhvinskiye Power Grid	143, bldg. 5, ul. PS, Tikhvin, Leningrad Region	376.2
Cable Grid	60-62, lit. A, Sinopskaya naberezhnaya, Saint Petersburg	1704.8
Construction Projects Directorate	1, lit. A, Ploshchad Konstitutsii, Saint Petersburg	77.9
Energouchet*		

*not active

The following entities ware part of the Group of Lenenergo, PJSC as of December 31, 2019:

1. Kurortenergo, Joint Stock Company

Share of Lenenergo, PJSC: 98.13% (99.75% of the JSC)

Core activities:

- electric power transmission and distribution
- grid connection of new consumers
- street lighting

2. Lenenergospetsremont, Joint Stock Company

Share of Lenenergo, PJSC: 100%

Core activities:

- construction, assembly, design and survey for clients in the Kurortny District of Saint Petersburg

3. Energoservice Company Lenenergo, Joint Stock Company

Share of Lenenergo, PJSC: 100%

Core activities:

- consumer service (personal visits and remote): call center, customer service center
- consumer's electric units' inspection
- commercial projects implementation
- identification and elimination of non-contractual power consumption

4. Tsarskoe Selo Energy Company, Joint Stock Company

Share of Lenenergo, PJSC: 96.95% (98.93% of the JSC)

Core activities:

- electric power transmission and distribution
- grid connection of new consumers
- street lighting

5. Saint Petersburg Power Grids, Joint Stock Company*

Share of Lenenergo, PJSC: 100%

6. Petrodvorets Power Grid, Joint Stock Company*

Share of Lenenergo, PJSC: 60.1% (80.1% of the JSC)

1.3. Report Period Milestones

JANUARY

January 18

Chiefs of staff of the power industry, Lenenergo, IDGC of the North-West, MOESK, and IDGC of Center held a meeting in Saint Petersburg dedicated to the elimination of the consequences of the adverse weather impact on the power grid facilities of the Leningrad Region. The meeting was chaired by Pavel Livinsky, the CEO of Rosseti.

January 25

Record high power consumption was reached in Saint Petersburg and the Leningrad Region. At 11:00 a.m. the consumption in the city and the region reached 7703 MW. The peak load did not affect the reliability of the power supply to consumers.

January 26

Lenenergo, PJSC industry veterans and employees took part in the city-wide commemorative events dedicated to the 75th anniversary of lifting of the Leningrad Siege of 1941-1944.

FEBRUARY

February 13-15

Lenenergo, PJSC representatives attended the Russian Investment Forum in Sochi. Rosseti Territory was one of the key platforms providing an intense business-related events schedule that addressed the power industry development issues.

February 13

A presentation of the advanced protection equipment for height works was held at the Training Center of Lenenergo, PJSC in Tervolovo.

February 15

Lenenergo, PJSC held its first Presentation Day for 2019 at the Training Center in Tervolovo. Thirteen producers from Saint Petersburg, Moscow, Chelyabinsk, Yaroslavl, the Volgograd and Kaluga Regions participated in the Presentation Day.

February 15

Engaged work teams from the Rosseti Group subsidiaries (MOESK, IDGC of the North-West, IDGC of Center) finished their works in the Leningrad Region. From January 17 to February 14, Lenenergo, PJSC experts together with the specialists from other Group companies eliminated 4695 defects at the overhead power lines in the area.

February 18

A Grid Connection Process workshop was held at the Training Center of Lenenergo, PJSC. Experts from the executive branch departments and offices, as well as from the Company's branches, responsible for connecting the consumers, and the employees of the Customer Service Center took part in the event.

MARCH

March 6

Lenenergo, PJSC conducted an accident-prevention training, during which the Company's experts trained the algorithm of switching the operative and process management over the electric power grids from the dispatch office of the Network Control Center (NCC) of Lenenergo to the backup one using mobile monitoring and control tools.

March 7

Lenenergo, PJSC held a meeting dedicated to the implementation of Digital Transformation 2030 concept, attended by the Chief Engineers of all the branches of the Company. Heads of the technical departments of the branches particularly concentrated on the project of the road map for implementation of Digital Transformation 2030, on establishing the project program, and on the introduction thereof in every branch of Lenenergo.

Experts of Lenenergo, PJSC held a Science and Engineering Board meeting dedicated to the issues of introduction of the modern digital technology in the electric power sector.

March 13

Lenenergo, PJSC together with HRHelplist held a public meeting on Enhancing the Production Safety Awareness for the leading experts in the field of OHS from the large Russian and foreign companies. Working as a team, the experts identified the most efficient and inventive methods to ensure the employees' safe behavior.

March 20

Lenenergo, PJSC, being one of the delegates from the Leningrad Region, took part in a meeting with the representatives of the Ministry of Energy of India and such large Indian power companies as National Thermal Power Corporation, National Hydroelectric Power Corporation, and Power Grid Corporation of India, held at the Saint Petersburg Technical Fair. The experts concentrated on improving the procedure for grid connection, and the Doing Business rating.

March 21

Lenenergo, PJSC experts met with the delegates from Pyongyang and presented the project of comprehensive development of the electric power grid of the Petrogradsky District of Saint Petersburg to the Chinese embassy and government agencies representatives, and demonstrated the operation of Monetnaya 35 kV package pole-mounted transformer substation (No. 830).

March 22

Lenenergo, PJSC was awarded a Winner Certificate of Made in Russia contest for the *110 kV Overhead Lines Reinforced Concrete Towers of Spun-Cast Sectional Frames* project.

The award ceremony was held at the State Duma of the Russian Federation.

March 26

Lenenergo, PJSC served as the base for the city-wide drill of the elimination of defects of the power supply to the facilities of the International Arctic Forum.

March 26

The Analytical Credit Rating Agency raised the Lenenergo, PJSC credit rating at the national scale up to AAA(Ru) with a stable outlook.

APRIL

April 2

Lenenergo, PJSC conducted joint drill emergency response works at the facilities located in the flooded areas.

April 5-11

Lenenergo, PJSC provided a stable and reliable power supply to the Arctic: Territory of Dialogue 5th International Arctic Forum. Our experts did not allow for any technical disruptions at the facilities serving the event.

April 9

Andrey Mayorov, Deputy CEO - Chief Engineer of Rosseti, visited Gatchinskiye Power Grid and Kingiseppskiye Power Grid (branches of Lenenergo, PJSC) and held work meetings with the heads of branches to discuss the results of the fall-winter season of 2018-2019.

April 10

Andrey Ryumin, CEO of Lenenergo, PJSC, was awarded Medal of the Order for Merit to the Fatherland, 2nd class, for his involvement in the organization of the 2018 FIFA World Cup. Igor Levitin, Aide to the President of the Russian Federation, decorated Mr. Ryumin at the official residence of the governor of Saint Petersburg subject to the Presidential Decree.

April 18

Aleksey Polinov, Deputy CEO for Economics and Finances of Lenenergo, PJSC, and Maksim Mamayev, Advisor to the CEO of Lenenergo, PJSC, discussed the prospects of development of the power sector with the experts at the conference attended by the representatives of the largest power grid companies of Saint Petersburg and the Leningrad Region, law associations, and public unions.

MAY

May 20

A work meeting with the representatives of the World Bank was held at the Customer Service Center of Lenenergo, PJSC (is a member of the Rosseti Group).

May 22

Lenenergo, PJSC, led by Andrey Bondarchuk, Chairman of the Energy and Building Services Committee, served as a base for joint drill interaction organization and defects elimination at the facilities that were serving the 23rd Saint Petersburg International Economic Forum.

May 30

A meeting of the Chief Engineers and Heads of production departments of Lenenergo (is a member of the Rosseti Group) discussed the results of the fall-winter season of 2018-2019. Experts analyzed the main causes of the technical disturbances in the grids, and discussed the innovative development, production safety, and other areas of the grid company's operations in Q1 2019.

May 31

A Presentation Day was held at the Lenenergo Training Center for the domestic producers of the power resources accounting and technical record-keeping systems. Companies presented various meters,

tools for measuring and analyzing the electric power quality parameters, electric power accounting units, newest tools for gathering and transmitting data, and other developments that allow for a comprehensive smart power recording.

JUNE

June 4

Andrey Ryumin, the CEO of Lenenergo, PJSC, attended a meeting with the industry, business, and public bodies representatives at the official residence of the governor of Saint Petersburg, chaired by Aleksandr Beglov, the Acting Governor, and discussed the tariff regulation in Saint Petersburg.

June 7

The Rosseti Group presented a new uniform brand architecture for the power holding at the 2019 Saint Petersburg International Economic Forum. From June 2019, all companies of the transmission and distribution power sector will be using new business names containing the Rosseti trademark and a regional or functional description in all corporate and marketing communications, as well as in letterheads and media containing the corporate style.

Lenenergo, PJSC and Siemens signed a cooperation agreement in order to implement the power grids digital transformation projects in Saint Petersburg. The signing ceremony that was held within the Saint Petersburg International Economic Forum was attended by Andrey Ryumin, the CEO of Lenenergo, PJSC, and Dr. Aleksandr Liberov, the President of Siemens in Russia.

The Government of Saint Petersburg, Lenenergo, PJSC (a member of the Rosseti Group), Highpark (a research and innovations center of the ITMO University of Saint Petersburg), and Gorod-Sputnik Yuzhnyi signed a letter of intent with regards to establishing an external power supply circuit for the facilities that are being constructed within a comprehensive urban project in the Pushkinsiy District of Saint Petersburg.

June 18

An Annual General Shareholders' Meeting of Lenenergo, PJSC (a member of the Rosseti Group) was convened and held in Saint Petersburg, chaired by Pavel Livinsky, the CEO of Rosseti. Lenenergo shareholders elected a new Board of Directors of the Company. Furthermore, the 2018 annual report, annual financial statements, and profit distribution (including the dividend) were approved.

Pavel Livinsky was also informed on the Lenenergo, PJSC (a member of the Rosseti Group) accomplishments with respect to the corporate geoinformation system (CGS) and the new online services aimed at improving the grid connection processes.

June 25

Snezhana Kitayeva, the Acting Deputy CEO - Chief of Staff of Lenenergo, presented the Company's accomplishments with respect to the HR procedures transformation and the Employee Profile solution designed for that purpose, at the Role of the HR Policy in the Development of the Russian Power Sector of the 2019 Russian International Economic Forum.

JULY

July 2-3

Lenenergo experts participated in the 5th Russian National Science and Technology Conference entitled Distribution Grid Operation Reliability Development and Improvement held in Moscow.

July 3

Lenenergo, PJSC adopted a new brand architecture designed in line with the Rosseti Uniform Corporate Identity Standard. It was resolved on by a virtual meeting of the Lenenergo Board of Directors.

July 13

Aleksandr Beglov, the Acting Governor of Saint Petersburg, visited Rosseti Lenenergo's 110 kV substation No. 210 Lensovetskaya. He took part in the commissioning ceremony of the new substation equipment installed during the retrofitting of the power center.

July 21

An opening ceremony for the Russian National Professional Skills Competition for the 0.4-10 kV distribution grid repair and maintenance workers was held. Fifteen teams from all over Russia competed to be recognized as the best.

July 26

An award ceremony was held for the Rosseti 0.4-10 kV distribution grid repair and maintenance professionals who participated in the Russian National Professional Skills Competition and the WorldSkills Open Corporate Championship held at the Rosseti Lenenergo Training Center. The Rosseti Volga team became the best among the competitors.

AUGUST

August 12

Rosseti Lenenergo became the first grid company in Russia to launch a mobile application for grid connection. Any potential client can use their personal Profile section to go through all of the connection procedure stages using their mobile device.

August 29 - September 1

Rosseti Lenenergo participated in the Russian National Power Industry Professionals Convention organized by Rosseti in Chelyabinsk. Two participants from the Company were included in the "golden hundred".

August 29

Rosseti Lenenergo (legal name - Lenenergo, PJSC) served as a base for the city-wide drill as part of preparation to the single voting day. Resource providers of Saint Petersburg engaged in the drill to coordinate and hone the joint actions to eliminate the technical disturbances at the power grid facilities and the utility services of Saint Petersburg.

SEPTEMBER

September 6

In Vladimirovka (Priozersk District) the Bukhta 35 kV substation of Rosseti Lenenergo (legal name - Lenenergo, PJSC) was commissioned. Dmitry Yalov, the Deputy Chairman of the Government of the Leningrad Region and the Chairman of the Economic Development and Investment Activity Committee for the Leningrad Region, and Andrey Ryumin, the CEO of Lenenergo, presided over the official ceremony. Archimandrite Aleksandr, the Vice-Rector of the Konevskiy Nativity of Mary Monastery, also attended.

September 26

Rosseti Lenenergo attended the meeting of the Government of the Leningrad Region chaired by Aleksandr Drozdenko, the Governor of the Region. Andrey Ryumin, the CEO of the Company, spoke on the item on the agenda: On the Beginning of the 2019-2020 Heating Season in the Leningrad Region.

September 27

Rosseti Lenenergo participated in the large-scale drill for the power sector entities in the North-West and Central Federal Districts to prepare to the fall-winter season of 2019-2020. The drill was led by the Ministry of Energy of Russia.

September 27

The Rosseti Lenenergo Training Center held a Common Employment Day and the Work-Fest festival. Aleksandr Drozdenko, the Governor of the Leningrad Region, and Andrey Ryumin, the CEO of the grid company, took part in the event.

OCTOBER

October 2-5

The Rosseti Lenenergo delegates led by Andrey Ryumin, the CEO, attended the Russian Energy Week international forum.

October 10

Rosseti Lenenergo participated in the city-wide joint drill for the accident-prevention systems and procedures led by Maksim Shaskolsky, the Vice-President of Saint Petersburg.

October 11

At the Rosseti Lenenergo Training Center in Tervolovo, the 2nd Research and Applied Conference entitled Urgent Issues of Personnel Training in Line with the Needs of the Modern Power Sector in View of the Digital Transformation of the Russian Power Sector was held.

Rosseti Lenenergo took the second prize at the annual city contest of the 2019 Best HR Technology in Saint Petersburg for the project of *Application of the Project Management and New T&D Technology in Training and Developing the Youth Candidates Pool of Lenenergo, PJSC*. The project won The Best HR Technology for the Professional Personnel Development category.

October 18

The Rosseti Lenenergo Training Center in Tervolovo presented a new course: Digital Power Distribution Zone. Pavel Livinsky attended the presentation.

A new 110 kV substation Kuzemkino of Rosseti Lenenergo (legal name - Lenenergo, PJSC) was commissioned in the Kingisepp District of the Leningrad Region. Aleksandr Drozdenko, the Governor of the Leningrad Region, Pavel Livinsky and Andrey Ryumin attended the official ceremony.

October 24

Information was published, according to which Russia became the 7th in the World Bank Doing Business Group rating for the first time ever in the Electric Power Supply System Connection category. This result became possible due to the large scale improvements in the grid connection of consumers carried out by the Rosseti Group.

NOVEMBER

Rosseti Lenenergo (legal name - Lenenergo, PJSC) completed Stage 1 of Construction of the Primorskaya-1,2,3,6 35 kV Cable Line at the section of the Primorskoye highway.

November 10

Andrey Ryumin viewed the display and held several work meetings at the European Utility Week 2019 in Paris.

November 15

Rosseti Lenenergo met all the requirements for preparation for the fall-winter season set by the Ministry of Energy of Russia. The Ministry gave a positive opinion on the readiness of the grid company (Order No. 1225 dd. November 15, 2019).

November 18

The 8 Safety Points project of Rosseti Lenenergo won the best work with the youth contest held among the Saint Petersburg enterprises as part of the 4th Forum for Young Workers.

DECEMBER

December 3-6

The Rosseti Lenenergo delegates attended the Power Grids International Forum held in Moscow at VDNKh.

December 16

Rosseti Lenenergo held a meeting dedicated to the efficiency of the Company's procurements, including from the SMEs.

December 20

Rosseti Lenenergo met with the resource providers of Saint Petersburg and discussed the automation of procedures and processes related to connection to the utility and technical support networks. Such resource providers as TEK SPB, SUE, Peterburgteploenergo, LLC, PeterburgGaz, LLC, as well as the representatives of the Energy and Building Services Committee attended the meeting.

December 25

A 35/10 kV substation Detskoselskaya was commissioned in the Pushkinskiy District of Saint Petersburg. Maksim Shaskolsky, the Vice-Governor of Saint Petersburg, and Andrey Ryumin, the CEO of Lenenergo, PJSC, attended the ceremony.

SECTION 2. STRATEGIC DEVELOPMENT BENCHMARKS

2.1 Market Overview

Macroeconomic Environment in Russia

Smart market actions of the recent years made it possible to overcome the most acute crisis and to lay foundation for renewal of economic growth and inflation decrease in Russia. In 2019, inflation rates became the lowest in the newest Russian history, despite the growth of the first few months due to the VAT being increased from January 1, 2019. However, the preemptive decision taken by the Central Bank to increase the key rate in the end of 2018 contributed to the decrease of the annual inflation rate by April 2019 already, and the impact of the increased VAT ceased.

The domestic economic environment in Russia in 2019 was mainly favorable. The Russian economy continued to grow without excessive inflation pressure. Loan expansion supported consumer demand; state expenses grew moderately; Ruble began strengthening its position against the background of improving international financial market conditions. Prices movement and the overall economic environment in 2019 made it possible to lower the Central Bank key rate. Monetary and credit conditions began gradually improving in Russia. Industrial manufacturing and production rates increased; however, the production activities' growth remains inconsistent and uneven throughout the industry sectors.

A growing domestic and international demand ensured the overall economic growth. According to the second GDP assessment by the Federal State Statistics Service, the actual GDP index in 2019 was 101.3%.

Unemployment remained at a low level, close to the natural one; therefore, the economy functions at full employment capacity: the unemployment rate in Russia in December 2019 was only 4.6%, according to the International Labor Organization's statistics methodology.

External factors such as global economy growth potential (that weakened due to the increase of the trade controversies and other geopolitical factors in 2019, oil prices decrease in Q1 2020, and worsened global market environment caused by the fear of what adverse effects the new coronavirus might have on China and the global economy in general) will significantly affect the Russian economic development and inflation tendencies in the near future.

Budget policy approaches (including approach to the use of the liquid segment of the National Wealth Fund that exceeds 7% of the GDP) are among the domestic factors that affect the situation. The rates and structure of the economic growth, as well as the way the economic trends affect inflation will greatly depend on the national projects implementation process and on the other structure-related measures. In the mid-term, a continued decrease in the numbers of economically active population will keep restricting the economic growth.

The organizational and structural policy measures and preservation of the state finances stability will affect the economic growth, development of the financial sector and the payment system the most. Domestic market prices, interest rates, and the position of the Ruble will directly depend on the Central Bank of Russia competence.

Macroeconomic Factors Over Time, 2018-2019, %[1]

Parameters	2019 over 2018, %
Actual gross payroll[2]	102.9%
Actual disposable cash income[2]	101.5%
Industrial producer price index[3]	95.7%
Consumer Price Index[3]	103.0%
Imports[4]	102.2%
Exports[4]	94.5%
Retail turnover	101.6%

Agricultural goods[5]	104.0%
Capital investment[6]	101.7%
Industrial production output (index), yoy	102.3%
GDP[7]	101.3%

Notes:

1) Principal economic and social factors of Russia are presented in the table according to the data on the official website of the Federal State Statistics Service (Rosstat, http://www.gks.ru, including the Social and Economic Indicators of Russia report published on that website).

2) The Actual Gross Payroll (i.e., the actual average monthly gross salary of the employees) and the Actual Disposable Cash Income figures for 2019 are presented according to the estimates of the Federal State Statistics Service (contained in the Social and Economic Indicators of Russia report) for 2019, in % over the indicators of the relevant period of the previous year.

3) The Industrial Producer Price Index and the CPI figures are presented in % for December 2019 over December 2018. The annual parameters, i.e. for January-December 2019 over January-December 2018, are as follows: - the industrial producer price index: 102.9%; the CPI: 104.5%.

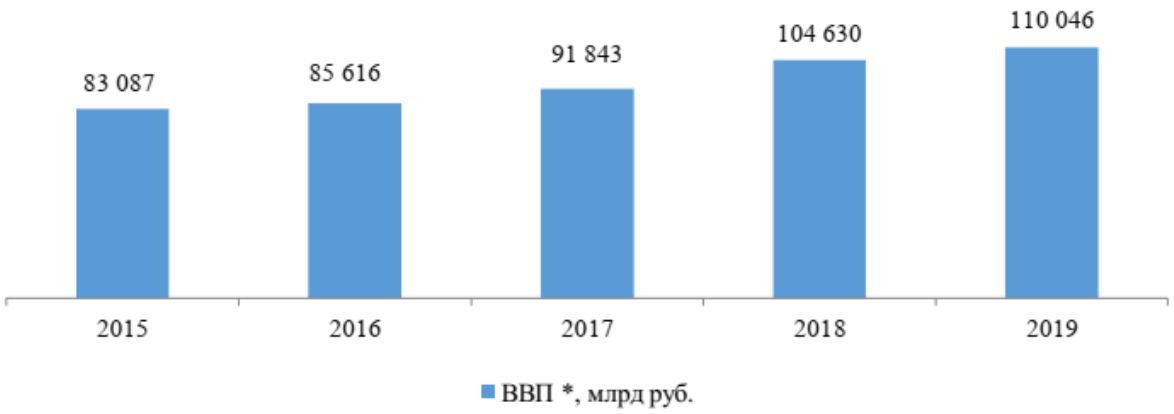
4) The Imports and Exports figures reflect the January-December 2019 parameters in % over the respective period of the previous year, in the actual prices according to the operative data of the Bank of Russia (under the balance of payment method).

5) The Agricultural Goods parameter reflects the data for January-December 2019, in % over the respective period of the previous year.

6) The Capital Investment parameters shows the assessed growth of the capital investments in 2019, according to Rosstat.

7) The actual 2019 GDP index is presented in % yoy according to the second GDP assessment by the Federal State Statistics Service.

GDP Over Time, RUB bn



GDP*, RUB bn

CPI Over Time

Consumer price index, %**

Capital Investment, RUB bn

Capital investment***

* The GDP is presented in current (market) prices; for 2019 - according to the second GDP assessment by the Federal State Statistics Service, in view of the specified GDP data of the previous periods.

** The CPI parameter as presented in the diagram is according to the analytical tables data from the official website of the Federal State Statistics Service (http://www.gks.ru/); the December parameters is provided in % over December 2018.

*** Information on the capital investments is presented as follows: for 2015-2018 - according to the officially published data of the Federal State Statistics Service (the Investments in Russia statistics compilation), in view of the specified data for 2018 according to the information provided for the monitoring of the social and economic status of the Russian constituent entities dd. April 1, 2020; for 2019 - according to the operative data of the Federal State Statistics Service.

Electric Power Market

The Russian Power Industry Structure

Power energy is a basic industry in Russia, encompassing a major part of the GDP. Changes of the power demand directly depend on the Russian economic growth rates and correlates significantly to the GDP.

The national unified energy system of Russia consists of 70 regional grids that form 7 integrated power grids (East, Siberia, Urals, Central Volga, South, Center, and North-West). Russia also has certain isolated grid systems: Taimyr, Kamchatka, Sakhalin, Magadan, Chukotka, Yakutia, Crimea and Sevastopol grids. The Russian grids that form the unified energy system of the country are interconnected by high voltage power lines of over 220-500 kV and function synchronously.

The existing power sector in Russia includes approximately 846 power stations of over 5 MW unit capacity that all form the Unified Energy System.

Power Market Participants

The value chain in the power sector consists of the following elements: generation, transmission, distribution, sale, dispatch services, and consumer services. After 2008, the state controls the grid, distribution, and dispatching activities; both private and public entities are present in the power generation and sale market.

The generating entities produce power and heat. Inter RAO, PJSC, Energoholding Gazprom, LLC, RusHydro, PJSC, Rosenergoatom, JSC, EuroSibEnergo, JSC, Enel Russia, PJSC, Unipro, PJSC, Fortum, PJSC, Quadra, PJSC, and OGK-2, PJSC are the largest market participants.

Distribution entities transmit power through the Federal Integrated Power Grid and connect the consumers to the power networks. Rosseti, PJSC, being the principal operator and a natural monopolist, combines the interregional distribution grid companies (IDGCs) and FGC UES. www.rosseti.ru

System Operator of the Unified Power System, JSC and its regional branches is the sole supervisory controller in the sector. www.so-ups.ru

Sale entities sell the produced or purchased power to the consumers.

Association Nonprofit Partnership Council for Organizing Efficient System of Trading at Wholesale and Retail Electricity and Capacity Market (Association NP Market Council) operates and controls the wholesale and retail power markets. www.np-sr.ru

The Electric Power Market Structure

<table>
<tr><td colspan="2">POWER GENERATION</td><td colspan="2">TRANSMISSION AND DISTRIBUTION</td><td>SALES</td></tr>
<tr><td>Nuclear power plants</td><td>Hydropower plants</td><td colspan="2">ROSSETI, PJSC</td><td>END CONSUMERS</td></tr>
<tr><td>Rosenergoatom, JSC
Electric power (capacity) generation at nuclear power plants</td><td>RusHydro, PJSC[10]
Electric power (capacity) generation at hydropower plants</td><td rowspan="4">FGC UES, PJSC
Backbone high voltage networks (of over 220 V)
Electric power transmission through the Federal Integrated Power Grid</td><td rowspan="4">Interregional Distribution Grid Companies (IDGCs)
Electric power transmission through the regional distribution networks
Lenenergo, PJSC is included in the list of IDGCs
PARTNER GRID COMPANIES</td><td rowspan="4">Industrial consumers and residents</td></tr>
<tr><td colspan="2">Thermal power plants</td></tr>
<tr><td>TGC[10]
territorial generating companies</td><td>WGC[10]
thermal generating companies in</td></tr>
</table>

	the wholesale market			
RETAIL GENERATION				
RAO Energy Systems of the East, PJSC				

Federal Law No. 36-FZ dd. March 26, 2003 *On Specifics of Electric Power Industry Functioning, and On Amending Several Russian Laws and Recognizing Several Russian Laws Void Due to Enactment of Federal Law On Electric Power Industry* prohibits entities or groups that are affiliated within the same price segment of the wholesale market from combining the electric power transmission and dispatching (markets that are considered to be natural monopolies) with the electric power generation and sale (markets considered to be competitive).

Key Indicators of the Russian Power Sector

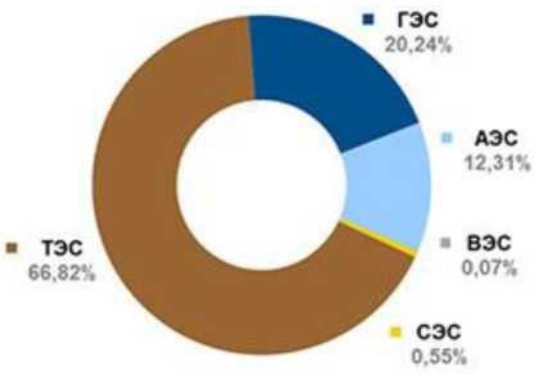
As of December 31, 2019, the overall installed capacity of the Russian power plants was 246.3 GW, which was 1.3% higher than the result of 2018.

The installed capacity growth at the power plants of the Russian Unified Energy System due to introduction of the new and upgrading of the existing generating equipment reached 3.2 GW. Introduction of new capacities in 2018 at the Russian UES power plants (including the power plants of the industrial enterprises) was 3.0 GW. 1.7 GW of outdated and ineffective generating equipment was decommissioned.

Broken down by the generation types, the installed capacity of the active electric power stations in 2019 had the following structure: thermal power plants - 66.8%, hydropower plants - 20.2%, nuclear power plants - 12.3%, wind power plants - 0.07%, solar power plants - 0.55%.

The Russian power plants generate approximately 1 trillion kWh of power every year. In 2019, the power production was 1,080.6 bn kWh, which is 0.9% more than in 2018.

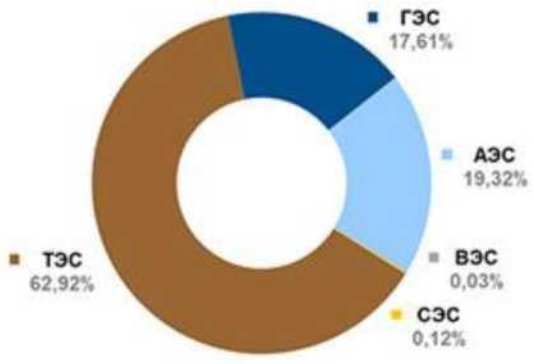
Installed Capacity Structure of the Russian UES Power Plants as of the End of 2019, %[1]



ГЭС	HPP
АЭС	NPP
ВЭС	WPP
СЭС	SPP
ТЭС	TPP

[1] According to SO UPS, JSC

Power Production Structure, Broken Down by the Russian UES Power Plant Types, as of the End of 2019, %[2]



ГЭС	HPP
АЭС	NPP
ВЭС	WPP
СЭС	SPP
ТЭС	TPP

A Unified Energy System of Saint Petersburg and the Leningrad Region

The energy systems of Saint Petersburg and the Leningrad Region form a unified energy system of the North-West and a basis for the Leningrad Regional Dispatch Supervisory Control.

The energy system of the North-West consists of 8 energy systems in 10 constituent entities of Russia (of the North-West Federal District): Saint Petersburg, Murmansk Region, Kaliningrad Region, Leningrad Region, Novgorod Region, Pskov Region, Arkhangelsk Region, Karelia, Komi, and the Nenets Autonomous District.

The aggregate installed capacity of the power plants of the Saint Petersburg and Leningrad Region power sector is 13,050.8 MW.

The Saint Petersburg and Leningrad Region power sector includes 648 power lines of 110-750 kV with the overall length of 13,165.1 km, and 383 transformer substations with the aggregate installed transformer capacity of 50,066.8 MVA.

The electric power output of the Saint Petersburg and Leningrad Region power sector power plants in 2019 was 65.8 bn kWh; and the power consumption was 46.9 bn kWh.

Company Geographical Reach

Lenenergo, Public Joint Stock Company of the Power Industry and Electrification is one of the largest distribution grid companies in Russia. It serves a rather large market of the Leningrad Region and Saint Petersburg.

The principal social and economic development indicators for the Company's served area for 2019 are presented in the table below:

Parameter Name	Saint Petersburg	Leningrad Region
Consumer price index*	103.0	102.9
Industrial production index**	104.1	104.8
Actual cash income over time**	100.9	101.0
Consolidated budget performance in 2019, RUB bn, including:	-10.8	1.7
income (growth over 2018, %)	649.0 (110.1%)	176.3 (104.5%)

[2] According to SO UPS, JSC

expenses (growth over 2018, %)	659.8 (113.8%)	174.6 (113.3%)
Public debt of the constituent entity as of December 31, 2019, RUB bn (yoy growth, %)	30.1 (100.0%)	2.8 (81.2%)
Capital investment for 2019, RUB bn (yoy growth, %)**	690.7 (75.6%)	419.1 (76.1%)
Residential buildings commissioning, total area, thousand sq.m. (yoy growth, %)***	3,471.2 (87.9%)	2,433.6 (92.2%)

Notes:

The table contains information provided by the Federal State Statistics Service (http://www.gks.ru), including the Saint Petersburg and Leningrad Region Department of the Federal State Statistics Service (up to January 1, 2017 - Petrostat, http://petrostat.gks.ru), the Saint Petersburg Finance Committee, Official Portal of the Leningrad Region Administrations (http://lenobl.ru/finance) and the Saint Petersburg Administration (http://gov.spb.ru), the data of the Ministry of Economic Development of Russia (http://economy.gov.ru), the operative data of the Federal Treasury subject to the analytical references published on the official website of the Ministry of Finance of Russia http://minfin.ru/, including the data of the operative statistical reports as of the date of preparation hereof.

The methodology for determining the parameters is published on the official website of the Saint Petersburg and Leningrad Region Department of the Federal State Statistics Service http://petrostat.gks.ru.

The information on the percentage change of the parameters contained in the table, including the ones in parentheses (*growth* indicators), is presented subject to the methodology applied by the Federal State Statistics Service as follows: **Report Period Parameter/Reference Period Parameter*100**

* Change in December 2019 over December 2018, %

** Change in 2019 over 2018, %, subject to the data on the social and economic status of the federal districts and Russian constituent entities (as published in the mass media) in 2019 according to Rosstat.

*** In order to make the data for the Leningrad Region comparable, the information for the introduced total area is provided net of the residences that are part of gardening communities (from 2019, introduction of the residential buildings will be reflected including the gardening communities; the changes are due to the enactment of Federal Law No. 217-FZ dd. July 29, 2019).

Since the Company's prospects directly depend on the overall economic environment in the country and the specific economic environment in the regions where the Company is present, taking consideration of the regional economic situation is an integral part of the Company's strategic development.

Improvement of certain parameters and factors of the economic environment in the regions where the Company operates affects Rosseti Lenenergo functioning and performance results in a positive manner, overall.

Position of the Company in the Industry

The grid companies of the Russian power sector form three tiers.

Tier 1:

The Federal Grid Company having grids of over 220 kV, operating all over Russia

Tier 2:

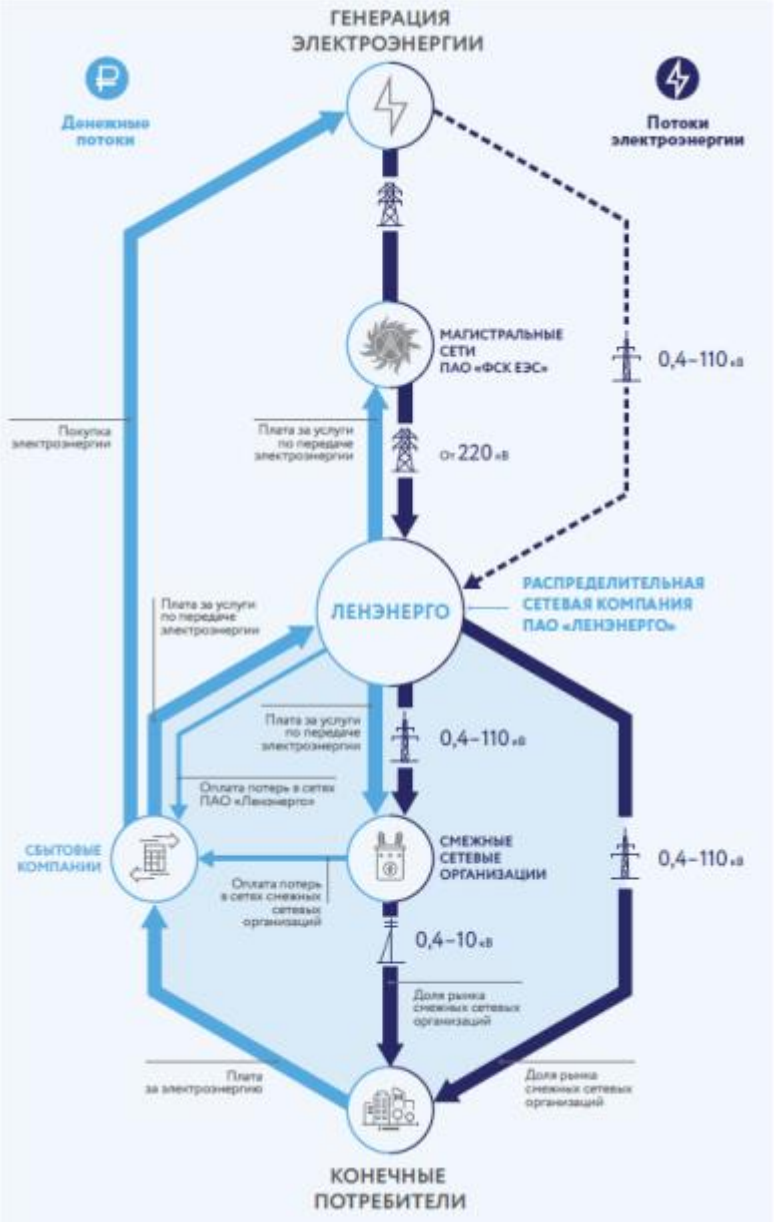
Regional distribution grid companies formed as a result of Energo, JSC reorganization. These entities own grids of 110-0.4 kV and serve separate Russian constituent entities

Tier 3:

The territorial grid entities owning, primarily, 0.4-10 kV grids.

Lenenergo, PJSC operates within the second tier of the energy system, being the principal grid company active in two areas - Saint Petersburg and the Leningrad Region - with the distinctive tariff rates for each area.

Transaction Flows



ГЕНЕРАЦИЯ ЭЛЕКТРОЭНЕРГИИ	POWER GENERATION
Денежные потоки	Cash flows
Потоки электроэнергии	Power flows
МАГИСТРАЛЬНЫЕ СЕТИ ПАО «ФСК ЕЭС»	FGC UES TRANSMISSION SYSTEMS
0,4-110 кВ	0.4-110 kV
От 220 кВ	Over 220 kV
Покупка электроэнергии	Purchases power
Плата за услуги по передаче электроэнергии	Pays for power transmission services
ЛЕНЭНЕРГО	LENENERGO
РАСПРЕДЕЛИТЕЛЬНАЯ СЕТЕВАЯ КОМПАНИЯ ПАО «ЛЕНЭНЕРГО»	LENENERGO, PJSC DISTRIBUTION GRID COMPANY
Оплата потерь в сетях ПАО «Ленэнерго»	Pays for power losses in Lenenergo, PJSC grids
0,4-10 кВ	0.4-10 kV
Оплата потерь в сетях смежных сетевых организаций	Pays for power losses in the partner grid companies' networks
СМЕЖНЫЕ СЕТЕВЫЕ ОРГАНИЗАЦИИ	PARTNER GRID COMPANIES

СБЫТОВЫЕ КОМПАНИИ	UTILITY COMPANIES
Доля рынка смежных сетевых организаций	Partner grid companies market share
КОНЕЧНЫЕ ПОТРЕБИТЕЛИ	END CONSUMERS

The following entities are the leading power producers in Saint Petersburg and the Leningrad Region: TGC-1, Leningrad NPP, OGK-6, North-West GRES, etc.

Lenenergo, PJSC grids receive power from FGC UES, PJSC branch - North-West MES - and directly from the generating entities. Power transmission services are rendered to the default providers, independent utility companies and direct consumers who are participants of the wholesale power market. The following utility companies are the main consumers: Saint Petersburg Power Supply Company, JSC (76.8%), RUSENERGOSBYT, LLC (6.3%), RKS-energo, LLC (8.0%).

The Lenenergo, PJSC Group engages 34 partner grid companies to fulfil its obligations to transmit power to the consumers in the serviced area. LOESK, JSC, operating in the Leningrad Region, is the largest territorial grid entity in the area of the Company's operations.

Lenenergo, PJSC Market Share

Lenenergo, PJSC electric power transmission share of the overall electric power consumption by the own consumers of the utility companies operating in Saint Petersburg and the Leningrad Region, in view of the consumers directly connected to the electric plants of the generating companies, is as follows for the latest three years:

- 2017: 72.6%
- 2018: 81.9%
- 2019: 81.9%.

Lenenergo, PJSC power transmission market share has not changed year-over-year; however, it increased as compared to 2017. It was due to power grid equipment lease agreements made by SPb ES, JSC and PES, JSC and, therefore, a decrease in the supply by the territorial partner entities and an increase of the share of the end consumers connected to the Company's grids.

In view of the net supply to the end consumers by the Company's SDCs (Kurortenergo, JSC, TSEK, JSC, SPb ES, JSC), the market share of the Lenenergo, PJSC Group is as follows:

- 2017: 80.49%
- 2018: 89.38%
- 2019: 92.12%.

2.2. Mission and Strategic Development Priorities Development Prospects

We are dedicated to the reliable and uninterrupted supply of high-quality and "green" electricity to our consumers, and meeting the increasing demand for power and electric capacity.

The development areas of the region are defined by the Russian Power Sector Development Strategy approved by Russian Government Instruction No. 511-r dd. April 3, 2013.

According to the Strategy, the principal objective (mission) of the power sector is to provide a long-term reliable, efficient, and accessible supply of power to the consumers in Russia. The sector is strategically aimed at organizing the most efficient grid infrastructure that complies with international standards. At the same time, the power transmission tariff rates should ensure the power expenses are acceptable for the Russian economy, and the sector in attractive for investors due to a satisfactory return on capital.

In order to fulfill its strategic goals, the Company uses HR, finance, corporate, investment, and production policy tools.

The strategic priorities of Lenenergo, PJSC are in line with the development strategy of the Russian power sector:

- providing a reliable, efficient, and accessible supply of power the consumers
- establishing and developing a grid infrastructure that meets the needs of the specific region
- maintaining a high level of administrative, operating, and investment efficiency
- advancing the research and innovations potential of the Company, contributing to the innovative development of the power sector
- increasing the investment attractiveness of the Company, strengthening its reputation, improving interaction and cooperation with stakeholders.

Lenenergo, PJSC strives to satisfy all the engaged parties (stakeholders), including the partner grid companies, personnel, consumers, government agencies, and the investment community.

The following are the priorities of Lenenergo, PJSC aimed at meeting the needs of the key stakeholders:

- Consumers.

Creating a system for accurate electric power supply quality and reliability measurement subject to the international standards; increasing the responsibility to reach the set quality and reliability standards. Providing for a high load of the introduced capacities due to a more efficient demand planning, adjustment of the power centers closure criteria, introduction of a stage-by-stage construction.

- Investment Community.

Maintaining the tariff regulation system based on the return on investment (RAB regulation); enhancing the transparency of the tariff and investment programs formation.

- Personnel.

Career growth (including training and knowledge exchange). Raising commitment to reaching the KPI. Efficient assessment and promotion of the best employees.

- Partner Grid Companies.

Ensuring the power sector of the region develops uniformly. Implementing a uniform technical policy of stage-by-stage construction.

- Government Bodies.

Meeting the economic needs of Saint Petersburg and the Leningrad Region for the new grid connections.

Lenenergo, PJSC Development Prospects:

In December 2019, the Rosseti Group adopted a new strategy identifying the goals and areas for development up to 2030.

The key change in the Group's operations is switching to a business model of a cutting-edge and innovative infrastructure. The principal strategic priorities include ensuring further increase of efficiency of the operations aimed at the overall sector development, as well as development of a reliable, efficient, and accessible infrastructure within the new digital framework. Particular attention is paid to the balance of interests of all the parties involved, including the state, consumers, shareholders, and investors, as well as to the development of new business areas.

The set goals are to be fulfilled through the main strategic areas: technological and innovative development, digital transformation, business diversification, increase of the operating and investment efficiency, promotion of legislative bills, expansion of international activities, improvement of HR potential, etc.

2.3. Priority Areas of Operations, and the Board of Directors' Report on the Priority Areas' Development Results

Subject to the Articles of Association of Lenenergo, PJSC, identification of the priority areas of operation falls within the competence of the Company's Board of Directors. The Company's General Meeting of Shareholders is presented with the information on the results of the Company's development within the said priority areas annually in the form of an annual report.

One of main tasks of the report period was the implementation of the adjusted Lenenergo Business Assets Management System Development Plan up to 2020. The Plan includes improvement of the maintenance and repair cost accounting, as well as automation of the retrofitted facilities technical state assessment procedures in order to form the retrofitting and upgrading programs more efficiently.

The Board of Directors reviewed and approved the Plan on October 10, 2018 (Minutes No. 9 dd. October 12, 2018).

The Company is committed to reaching the main operational goals set out in the Articles of Association, particularly: maintaining the efficient functioning of the distribution power grid facilities; maintaining the reliable power supply to the consumers.

The Board of Directors of the Company decided on March 20, 2019 (Minutes No. 31 dd. March 22, 2019) that Lenenergo, PJSC joins the Digital Transformation 2030 concept approved by the Rosseti Board of Directors on December 21, 2018 (Minutes No. 336 dd. December 21, 2018).

The main goal of the Concept is to identify the main areas of the process and organizational changes in the way the company deals with the data in order to discover new mechanisms, methods, tools, and algorithms for the corporate and production management of the business processes and their further transformation to improve the efficiency and quality of the services and the services' accessibility. These features in aggregate allow to ensure the simultaneous capitalization growth and the efficient implementation of the social function of the Company in the existing economic conditions and the market model.

Joining the Concept is an important step to begin the digitization of the Russian power sector.

In order to implement the Concept in the Company, the Board of Directors of Lenenergo, PJSC approved the Lenenergo Digital Transformation 2020-2030 Program on March 5, 2020 (Minutes No. 39 dd. March 6, 2020). The Program is a crucial core document governing the digital transformation of Lenenergo, PJSC and determining the overall approaches, goals, tasks, technology applied, and the action plan for digital transformation.

At the same time, the efficiency of the financial and economic activities, as well as the accessibility of the grid connection remain the priority areas for Lenenergo, PJSC. Achievement of the said goals allows Lenenergo, PJSC to be one of the most investment attractive market participants, and provides for the balance between the interests of the suppliers and the consumers of the electric power in the Leningrad Region and Saint Petersburg.

2.4. Key Performance Indicators

A key performance indicators (KPI) system of Lenenergo, PJSC assesses how the Company fulfills its priority goals.

The CEO KPI system is based on the following:

- Art. 15 Par. 45 of the Articles of Association
- Board of Directors' Resolution dd. July 14, 2017 (Minutes No. 31 dd. April 19, 2017), Item No. 2: Approval of a KPI Fulfillment Assessment Method for a Sole Executive Body of Lenenergo, PJSC to Be Applied from 2017 (as amended, Minutes No. 42 dd. June 6, 2018, Minutes No. 25 dd. December 20, 2019)
- Board of Directors' Resolutions of December 18, 2019 (Minutes No. 25 dd. December 20, 2019), Item No. 2: Approval of Target KPIs for the CEO of the Company.

Subject to the Resolution, the following KPIs are set out for the Company for 2019:

QUARTERLY INDICATORS:

Composition	2018 Results	2019 Target	2019 Results
Consolidated operating profit (EBITDA)	KPI fulfilled for all quarters	Q1, H1, 9 months of the report period: > 0 year: > 3.0%	KPI fulfilled for all quarters
Consolidated Net	KPI fulfilled for all quarters	Q1, Q2, Q3, Q4: < 3.0	KPI fulfilled for all quarters

Debt/EBITDA			
SDCs' receivables decrease plan completion	KPI fulfilled for all quarters	> 100.0%	KPI fulfilled for all quarters
Absence of growth in the number of large accidents or emergencies	KPI fulfilled for all quarters	Absence of growth Target (numerical): < 1	KPI fulfilled for all quarters
Absence of growth in the number of injuries sustained from accidents or emergencies	KPI fulfilled for all quarters	Absence of growth Target (numerical): < 0.0986	KPI fulfilled for all quarters
Commissioning schedule fulfilled[3]		Q3, Q4: >90%	KPI fulfilled for Q3 and Q4

YEARLY INDICATORS:

Composition	2018 Results	2019 Target	2019 Results
Consolidated net cash flow	RUB 5,081.6 mn	> RUB -2,896.0 mn	KPI fulfilled
Decrease of specific operating expenses (costs)	3.8%	> 2.0%	KPI fulfilled
Increase of the grid equipment capacity load	Completed	Completed	KPI fulfilled
Power losses	11.34%	< 11.15%	KPI fulfilled
Decrease of specific investment costs	0.84	< 1.00	KPI fulfilled
Increase of productivity	15.86%	> 2.00%	KPI fulfilled
Efficiency of innovations	115%	> 90%	Not calculated [4]
Compliance with the grid connection designated timelines	1.0	< 1.1	KPI fulfilled
Reaching the required level of reliability of services	0.41	Simultaneously: 1) KPI < 1.00 2) Ki <1.00	KPI fulfilled

The Board of Directors has not approved the actual parameters for Q4 2019 and the year 2019 overall, in view of the timeline and procedure for preparing the reports that serve as the data source for such parameters, as of the moment of compilation of this Annual Report.

The KPI composition and calculation methods were adjusted by the Board of Directors of the Company on December 18, 2019 (Minutes No. 25 dd. December 20, 2019) as follows:

1. The calculation method for the Absence of Growth in the Number of Large Accidents or Emergencies parameter was amended to switch from recording the overall statistics to performing the index assessment of the parameter performance depending on the scope of the equipment operated.
2. The annual Reaching the Required Level of Reliability of Services KPI was amended with respect to the use of the SAIDI/SAIFI over the relevant period of the previous year in the KPI calculation.
3. The Commissioning Schedule Fulfilled KPI was removed from the list of annual KPIs and added to the quarterly KPIs instead (as from July 1, 2019).

[3] For 2019: the KPI for Commissioning Schedule Fulfilled was removed from the list of annual KPIs and added to the quarterly KPIs instead (as from July 1, 2019).

[4] The Efficiency of Innovations KPI: the KPI results are identified and calculated subject to KPI Fulfillment Assessment Method for a Sole Executive Body of the Company (approved by the Board of Directors of the Company dd. April 19, 2017, Minutes No. 31 (as amended, Minutes No. 42 dd. June 6, 2018, Minutes No. 25 dd. December 20, 2019)) in a separate Board of Directors' Resolution in view of the Efficiency of Innovations KPI results of the CEO of Rosseti, PJSC (subject to Innovation Development Programs Preparation, Adjustment, and Implementation Monitoring Guidelines for Joint Stock Companies Partially Owned by the Government, for State Corporations, Public Entities, and Federal State Unitary Enterprises, as approved by Decree No. DM-P36-7563 dd. November 7, 2015, by the Chairman of the Government of the Russian Federation).

4. The Power Losses section of Information Sources was specified.

5. An indicative parameter was included in the Compliance with the Grid Connection Designated Timelines KPI method to consider the goal to reduce the scope of contracts, the grid connection under which was delayed due to a delay in fulfillment of obligations, including by the client.

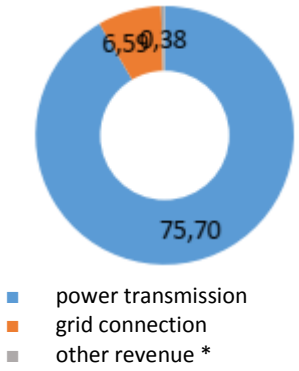
The table contains comparison of the 2019 and 2018 parameters.

The KPI system used by the Company is based on the consideration of the variable portion of the management remuneration: each indicator is taken in proportion with the amount of the bonuses paid out. The quarterly and annual bonuses are paid if the relevant KPIs are fulfilled.

2.5. Business Model

Lenenergo, PJSC has a strong social commitment: we support millions of residents of the area and help them work, communicate, share, create, learn, and grow. We realize that demonstrating stable positive financial results is not sufficient for a long-term value creation in itself. Our consumers expect continuous increase of quality and reliability of our services that directly affect the quality of their everyday life.

<table>
<tr><th>Value Foundation</th><th colspan="2">What We Do</th><th>Value Creation for Stakeholders (the Group's Financial Performance in 2018 under the IFRS)</th></tr>
<tr><td>Stability and Sustainability

Lenenergo, PJSC is a community-focused infrastructure company.
By ensuring a reliable power supply, we carry out socially important operations. This is why we are subject to government control and receive support from the state and the municipal authorities. Our Board of Directors includes representatives of our largest shareholders: Rosseti, PJSC (a state-owned entity), the city of Saint Petersburg, and the Ministry of Energy of Russia.</td><td colspan="2">Our core activities, which are electric power transmission and grid connection, are regulated. The Federal Antimonopoly Service and its regional offices.
Revenue Broken Down by Activity Types for 2018 (under the IFRS), RUB bn
 
</td><td rowspan="2">A. Consumers
We provide prompt connection and efficient and uninterrupted power supply.

Net power supply: 30,625 mn kWh
Connected capacity: 893.4 MW

B. Personnel
We uphold our status as a reliable and stable employer and offer comfortable working conditions, proper salary rates and social benefits.

Personnel remuneration expenses: RUB 8,997 mn

C. Shareholders, the Investment Community

Our efficient corporate governance system aims at ensuring the properly balanced interests of all our shareholders</td></tr>
<tr><td>Our Key Advantages</td><td>Power Transmission</td><td>Grid Connection</td></tr>
<tr><td>1. We are a natural monopolist in the consistently developing market of Saint Petersburg and the Leningrad Region.
2. We have a diversified consumer base that includes large enterprises, SMEs, and residents.</td><td>Lenenergo, PJSC grids receive power from FGC UES, PJSC and the generating entities, and transmits the energy to the default providers, independent utility</td><td>The Company connects new consumers to the grid based on the placed connection applications, specifically prepared and approved technical</td></tr>
</table>

3. We are implementing a long-term investment program that ensures growth and development. 4. We have highly qualified, experienced and trained personnel. 5. We are financially stable and have financial resources available at hand. Our strong reputation of a diligent borrower is confirmed by the Moody's long-term credit rating of Ba1 (stable outlook).	companies and direct consumers who are participants of the wholesale power market. **How We Generate Profit** Practically all revenue from power transmission is generated under a "top-down" model. This means that all payments collected by the utility companies go directly to a higher-tier grid entity of Lenenergo, PJSC, who then distributes the funds by using them to pay to the lower-tier territorial grid companies and FGC UES, PJSC.	specifications, and a contract made in line with those specifications. **How We Generate Profit** The grid connection revenue is an unstable source of income because it cannot be planned accurately due to the applicants' plans constantly changing affected by the changes of the external economic conditions, their financial status, etc. The grid connection payment is specific to each applicant and is formed only for the actions included in the technical specifications issued. It does not include expenses related to the improvement of the existing infrastructure (construction of power sources, improvement of the grid). Those are included in the planned investment program implemented using the electric power transmission tariff.	(including protection of the minority shareholders' rights), and at guaranteed repayment of loans. Interest paid under loans and otherwise borrowed funds: RUB 2,371 mn Dividend paid: RUB 1,339 mn **D. Public Authorities and Operations Area** We consistently expand our grid infrastructure to meet the needs of the community and industry in the operations area; and we are a large employer and taxpayer. Capacity growth: MVA: 935 km: 1,331 Corporate income tax paid: RUB 3,422 mn Employed by the Group: 1,352 people **E. Participants of the Power Grid System of the Area** We successfully interact with all the participants of the power grid system of the area employing the principles mutual respect in order to ensure the business relations are the most beneficial for all, and to guarantee smooth operations for the benefit of the consumers. Power transmission expenses (payment for the services of the partner grid companies
	*Other revenue includes mainly the revenue from repair and maintenance services, property lease, as well as subsidiaries' revenue (including from maintenance, street lighting upkeep,		

	electric installation, and design and survey).	and FGC UES, PJSC): RUB 18,745 mn **F. Suppliers and Contractors** We have a reputation of a reliable and scrupulous partner committed to establishing transparent, long-term, and mutually beneficial business relations. Procurements carried out: 1,306 Total procurement amount: RUB 48,233 mn (VAT incl.)

2.6. International Cooperation

International operations of Lenenergo, PJSC are one of the tools the Company uses to reach globally recognized parameters of technological development by applying the best international practices. The Company works toward building relations with the global leaders in the sphere of innovative development. In 2017, Lenenergo, PJSC signed an agreement with Siemens, LLC at the Saint Petersburg International Economic Forum for design and survey within the project of Modernization of a 6 kV Distribution Grid at Substation No. 18. The project includes creation of a pilot area of smart (digital) distribution grids. The project's objective is to create a pilot area for processing comprehensive solutions for modernization of distribution power grids and automation of their operation, aimed at increasing reliability and quality of power supply, decreasing power losses, optimizing the capital and operating expenses, and for that pilot program to be further duplicated at the SDCs of Rosseti, PJSC. The project area includes a 6-10 kV power grid operated by a Power Distribution Zone, including all consumers, applying clients, and potential investment platforms that have already been connected or are to be connected. Section 3.6.1 contains the results of the pilot project of Modernization of a 6 kV Distribution Network at Substation No. 18.

On June 7, 2019, Rosseti, PJSC and EDF signed a Memorandum of Understanding at the Saint Petersburg International Economic Forum. Lenenergo, PJSC is to implement a pilot project within the Digital Transformation 2030 concept to modernize a 0.4-10 kV grid in Krasnoye Selo (Petrodvorets Power Grid District). The timeline for the project is from 2021 to 2025. EDF offers its consulting and engineering services in the field of inspection and creation of concept designs for building smart grids. In order to implement the pilot project, EDF reviews and selects a Russian vendor (with a team of design experts having experience in the relevant field) to cooperate with. The start of the project is planned for 2021.

International operations of Lenenergo, PJSC are one of the tools the Company uses to reach globally recognized parameters of technological development by applying the best international practices.

Lenenergo, PJSC representatives take part in international industry-specific events every year in order to expand and improve their research and technological capacities and skills, and meet regularly with foreign partners within the power sector.

SECTION 3. PERFORMANCE RESULTS

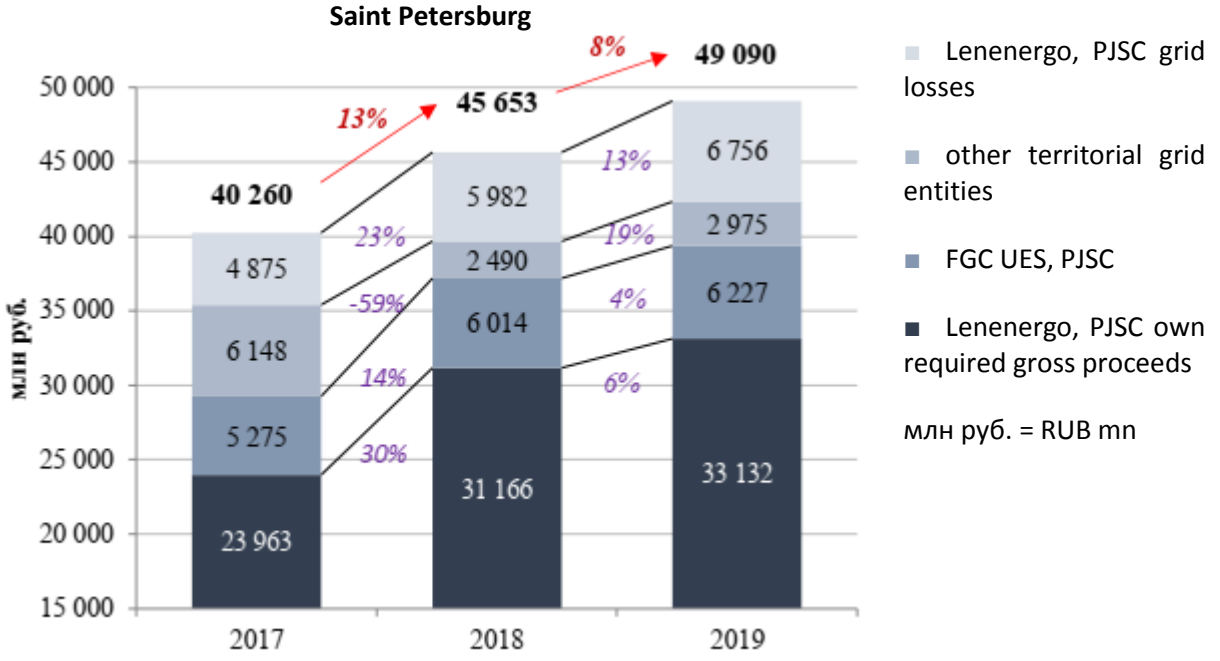
3.1. Tariff Regulation

Power Transmission Tariff Rates

Subject to Order No. 487-e/4 dd. December 28, 2010 of the Federal Tariff Service of Russia, January 1, 2011 marked the transition to the power transmission tariff rates regulation by setting long-term rates based on the return on investment method (Regulatory Asset Base control, RAB).

The first long-term regulation period for Rosseti Lenenergo was extended up to 2020, subject to Order No. 1335/17 dd. October 10, 2017 of the Federal Tariff Service.

Structure of the Approved Revenue from Electric Power Transmission Over Time, 2017-2019, RUB mn



The year-over-year change of the approved required gross proceeds of Rosseti Lenenergo in Saint Petersburg in 2019 (increase by RUB 3,437 mn, or 8%) is due to the following factors:

1. The own required gross proceeds in 2019 grew yoy by RUB 1,965 mn (6% growth) due to the following:

1.1. When determining the own required gross proceeds of Rosseti Lenenergo in 2018 the Saint Petersburg Tariff Committee included the return of the accumulated "flattening" of RUB (+5,201) mn. For 2019, the flattening was approved in the amount of RUB (+7,305) mn: as a result, the own required gross proceeds of Rosseti Lenenergo in 2019 increased by RUB 2,105 mn yoy.

1.2. The capital income increased by RUB 871 mn (+15%), and the return on investment increased by RUB 263 mn (+6%), in accordance with the planned implementation of the Rosseti Lenenergo investment program.

1.3. The uncontrolled expenses increased by RUB 227 mn (+3%) mainly through the lease expenses (grew by RUB 113 mn) and corporate income tax expenses (grew by RUB 82 mn).

1.4. The controlled expenses increased by RUB 245 mn (+5%) due to the growth of the amount of operated equipment and the inflation rate.

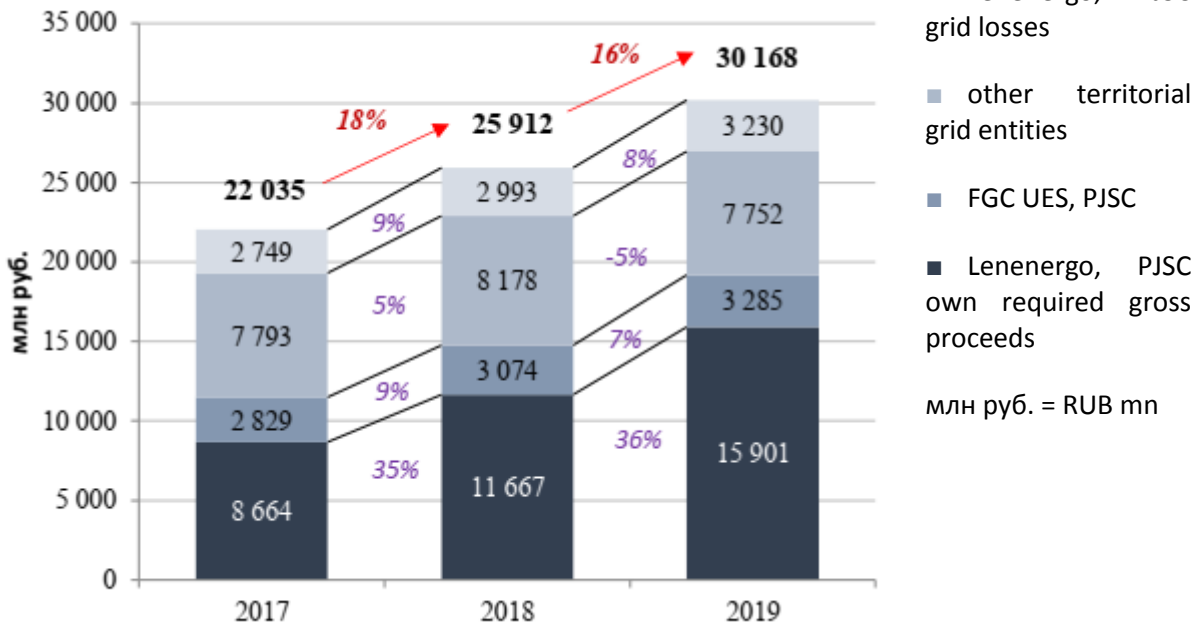
1.5. The RGP adjustment in 2019 based on the actual results of 2017 increased over the 2018 RGP adjustment based on the actual results of 2016 by RUB 1,745 mn (-40%).

2. The cost of services of FGC UES, PJSC increased by RUB 214 mn (+4%) subject to the resolution of the regulatory body.

3. The cost of losses increased by RUB 774 mn (+13%) in line with the wholesale power and capacity market forecast and the approved losses.

4. The partner grid services cost increased by RUB 485 mn (+19%) subject to the resolution of the regulatory body.

Leningrad Region



The year-over-year change of the approved required gross proceeds of Rosseti Lenenergo in the Leningrad Region in 2019 (increase by RUB 4,256 mn, or 16%) is due to the following factors:

1. The own required gross proceeds in 2019 grew yoy by RUB 4,234 mn (36% growth) due to the following:

1.1. When determining the own required gross proceeds of Rosseti Lenenergo in 2018 the Leningrad Region Tariff Committee included the return of the accumulated "flattening" of RUB (+189) mn. For 2019, the flattening was approved in the amount of RUB (+4,322) mn: as a result, the own required gross proceeds of Rosseti Lenenergo in 2019 increased by RUB 4,133 mn yoy.

1.2. The capital income increased by RUB 408 mn (+13%), and the return on investment increased by RUB 133 mn (+5%), in accordance with the planned implementation of the Rosseti Lenenergo investment program.

1.3. The uncontrolled expenses increased by RUB 586 mn (+43%) mainly through the corporate income tax expenses (grew by RUB 594 mn).

1.4. The controlled expenses increased by RUB 329 mn (+9%) due to the growth of the amount of operated equipment and the inflation rate.

1.5. The RGP adjustment in 2019 based on the actual results of 2017 increased over the 2018 RGP adjustment based on the actual results of 2016 by RUB 1,355 mn (-178%).

2. The cost of services of FGC UES, PJSC increased by RUB 211 mn (+7%) subject to the resolution of the regulatory body.

3. The cost of losses increased by RUB 236 mn (+8%) in line with the wholesale power and capacity market forecast and the approved losses standard.

4. The partner grid services cost decreased by RUB 425 mn (-5%) subject to the resolution of the regulatory body.

Analysis of the Change of the Approved Average Power Transmission Tariff Rate* Broken Down by the Russian Constituent Entities, kopecks per kWh

Branch	2017	2018	2019	2019 over 2018, %
Saint Petersburg	224.88	240.22	255.28	6%
Leningrad Region	177.91	201.25	226.23	12%
Rosseti Lenenergo, overall	**205.68**	**224.48**	**243.38**	**8%**
Growth, %	7%	9%	8%	

*The approved average power transmission tariff is a ratio of the required gross proceeds for each year to the overall net supply (including the net supply for Other Consumers and Residents categories).

The tariff growth rate for Saint Petersburg is presented subject to the decisions of the Saint Petersburg Tariff Committee enacted in:

- Instruction No. 297-r dd. December 30, 2016 setting out the single ("aggregate") electric power transmission tariffs for 2017
- Instruction No. 276-r dd. December 27, 2017 setting out the single ("aggregate") electric power transmission tariffs for 2018
- Instruction No. 298-r dd. December 27, 2018 setting out the single ("aggregate") electric power transmission tariffs for 2019.

The tariff growth rate for the Leningrad Region is presented subject to the decisions of the Leningrad Region Tariff and Pricing Policy Committee enacted in:

- Order No. 567-p dd. December 30, 2016 setting out the single ("aggregate") electric power transmission tariffs for 2017
- Order No. 659-p dd. December 29, 2017 setting out the single ("aggregate") electric power transmission tariffs for 2018
- Order No. 727-p dd. December 29, 2018 (as amended by Order No. 126-p dd. July 29, 2019, Order No. 158-p dd. August 30, 2019, and Order No. 177-p dd. September 30, 2019) setting out the single ("aggregate") electric power transmission tariffs for 2019.

Annex 6.7 contains the detailed information on the approved electric power transmission tariffs in the areas served by the Company for 2019 and 2020.

Grid Connection Payment

Grid Connection Payment Rates Set Out by the Regulating Authorities

The executive state tariff regulating authorities of the Russian constituent entities have set the following in 2019:

- standard tariff rates
- tariff rates for a unit of peak capacity (RUB/kWh)
- a grid connection payment formula.

Subject to Federal Law No. 35-FZ dd. March 26, 2003, *On the Electric Power Industry* and Order No. 1135/17 dd. August 29, 2017, *On Approval of Methodic Guidelines to the Setting of Payment for Grid Connection to the Power Grids* by the Federal Antimonopoly Service, the regulating authorities set the tariff rates for a unit of peak capacity and the standard tariff rates common for all territorial grid entities within the area based on the average statistical data for expenses for the past 3 years obtained from all of the territorial grid entities of the relevant constituent entity of Russia.

The Saint Petersburg Tariff Committee has set the 2019 tariff rates for grid connection to the grids in Saint Petersburg for all the territorial grid entities (approved by Instruction No. 299-r dd. December 27,

2018), including the Rosseti Lenenergo SDCs: Kurortenergo, JSC, Tsarskoe Selo Power Company, JSC, and Saint Petersburg Power Grid, JSC. For 2019, the rates are set for a unit of peak capacity at voltage below 35 kV and connected capacity below 8,900 kWh. Those rates are differentiated by voltage levels and connected capacity scopes and are broken down by specific measures and events. Standard tariff rates for network connection are also set in line with the prices of the regulated period.

In addition to that, in 2019, in order to calculate the payment amounts for network connection in Saint Petersburg the standard tariff rates were set for the construction of a 10 kV cable line (APvPu2g 3(1x240/70) cable) by a lateral directed drilling in view of the relevance of the trenchless field cable installation in HDPE pipes within the city limits, when crossing motorways and highways, local roads, driveways, and developed areas where the owners do not approve of open cable installation.

In the Leningrad Region, the Leningrad Region Tariff and Price Policy Committee issued Order No. 726-p dd. December 29, 2018 approving and setting the rates common for all territorial grid entities operating in the Region. The regulatory body did not change the approved rates applicable for 2018. For 2019, the rates are approved for a unit of peak capacity at voltage below 35 kV and connected capacity below 8,900 kWh. Those rates are differentiated by voltage levels and connected capacity scopes and are broken down by specific measures and events. Standard tariff rates for network connection are also set in line with the prices of the regulated period.

A client applying for a grid connection of their power receivers with a maximum capacity of up to 15 kW (incl., in view of previously connected capacity at the same connection point) shall pay up to RUB 550 (VAT incl.), when connecting facilities of reliability category 3 (per one power source), provided that the distance between the client's land plot borders and the power facilities of up to 20 kV (incl.) and of the voltage required by the client that belong to a grid company the client applies to should be no more than 300 meters in cities and urban settlements, and no more than 500 meters in rural areas.

The SMEs may pay for the connection of units of up to 150 kW in installments for up to 3 years.

Furthermore, from October 1, 2017 the SMEs with a connected capacity of up to 150 kW do not cover the expenses the grid company incurs from the "last mile" measures implementation.

Annex 6.8 hereto contains the information on the approved grid connection tariffs for 2019-2020.

The regulatory bodies included the income shortfalls due to implementation of administrative and technical measures when connecting the subsidized clients (of up to 15 kW) in the category of uncontrolled expenses when forming the 2019 tariff for power transmission as follows:

Saint Petersburg: RUB 3,863.19 thousand

the Leningrad Region: RUB 89,779.73 thousand.

3.2. Operating Results

3.2.1. Electric Power Transmission Services

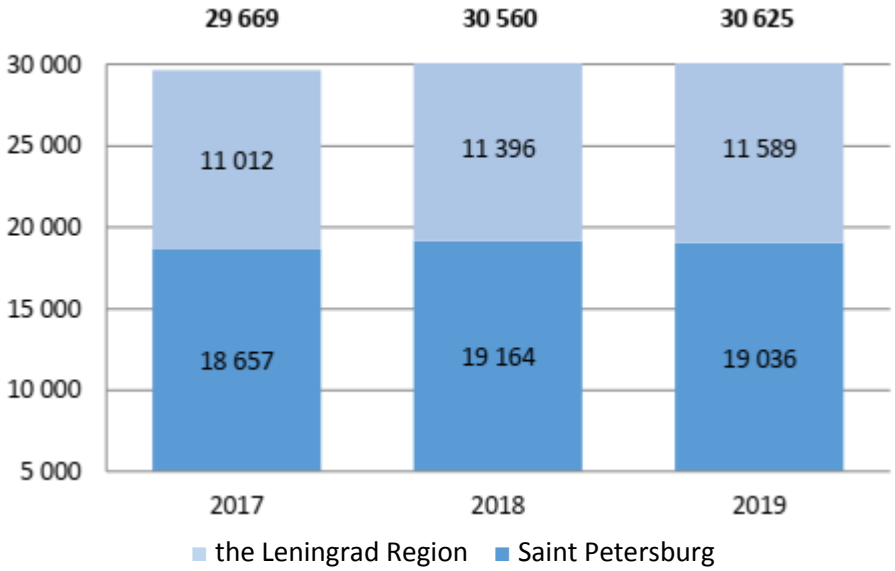
Power Consumption Scope and Structure

Power Transmission Scope in 2017-2019

	Supply to the grid, mn kWh			Supply from the grid, mn kWh			Power losses, mn kWh			Power losses, %		
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
Lenenergo, PJSC Group (including the SDCs)	38,717	38,264	38,256	34,278	33,926	34,117	4,440	4,338	4,138	11.47%	11.34%	10.82%
Lenenergo, PJSC	34,791	35,558	35,465	30,598	31,396	31,497	4,193	4,162	3,967	12.05%	11.71%	11.19%
Saint Petersburg	21,826	22,204	21,942	18,999	19,416	19,289	2,828	2,788	2,652	12.95%	12.56%	12.09%
Leningrad Region	12,965	13,355	13,523	11,599	11,981	12,208	1,366	1,374	1,315	10.53%	10.29%	9.72%

In 2019, the Company supplied 35,465 mn kWh of power to the girds. Out of that scope, the Company supplied 31,497 mn kWh to the consumers and regional grid entities. The power losses amounted to 3,967 mn kWh, or 11.19% of the power supplied by Lenenergo, PJSC.

Net Supply Over Time Broken Down by Areas, mn kWh



In 2019, the year-over-year net supply by Lenenergo, PJSC increased by 65.0 mn kWh (growth by 0.2%): in the Leningrad Region the net supply growth was 193.1 mn kWh (1.75%), and in Saint Petersburg the net supply reduced by 128.1 mn kWh (-0.7%). The net supply growth in mainly due to the year-over-year consumption increase in the category of Other: Non-Industrial Consumers.

The "Last Mile" Consumers

In view of the fact that from January 1, 2014, the "last mile" mechanism stopped applying in Saint Petersburg and the Leningrad Region; and the consumption scopes of all the facilities connected directly to the FGC UES, PJSC grids were completely excluded from the Lenenergo, PJSC service scopes, the "exclusion" of the "last mile" consumers in 2014-2019 did not affect the electric power transmission scope and revenue of Lenenergo, PJSC.

Lenenergo, PJSC Electric Power Net Supply Structure, Broken Down by Consumer Categories, mn kWh

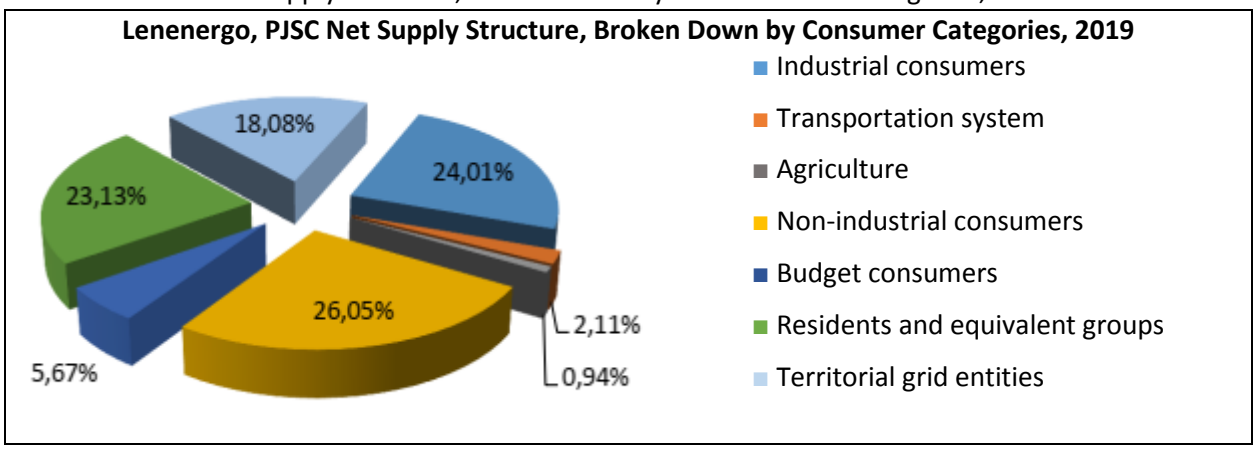
Category	Lenenergo, PJSC				
	2017	2018	2019	Change 2019/2018	
Industrial consumers	9,023.78	7,923.26	7,563.23	-360.03	-4.5%
Transportation system	674.53	624.55	663.62	39.06	6.3%
Agriculture	290.43	351.41	296.99	-54.42	-15.5%
Non-industrial consumers	4,941.64	7,758.45	8,204.83	446.38	5.8%
Budget consumers	253.80	1,805.91	1,786.45	-19.46	-1.1%
Residents and equivalent groups	6,944.63	7,250.63	7,286.66	36.03	0.5%
Territorial grid entities	8,469.19	5,682.10	5,695.69	13.59	0.2%
Total	30,598.00	31,396.31	31,497.47	101.15	0.3%

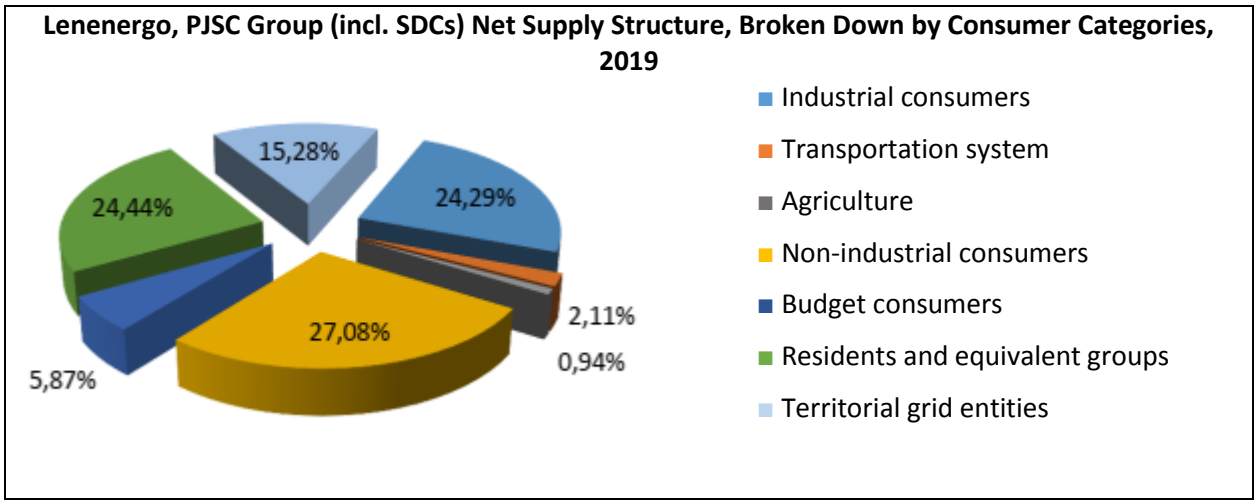
Lenenergo, PJSC Group (incl. SDCs) Supply from the Grid Structure, Broken Down by Consumer Categories, mn kWh

Lenenergo, PJSC Group	2019
Industrial consumers	7,653.42
Transportation system	663.62
Agriculture and food industry	296.99
Non-industrial consumers	8,530.83
Budget consumers	1,848.37

Residents and equivalent groups	7,699.00
Territorial grid entities	4,815.86
Total	31,508.09

Electric Power Supply Structure, Broken Down by End Consumer Categories, 2019





It is worth mentioning that the consumer category that has the biggest specific weight in the power supply structure of Lenenergo, PJSC is the non-industrial consumers: its overall share in the Company's power supply is 26.1%, including 27.3% in Saint Petersburg and 24.0% in the Leningrad Region of the overall power consumption. The other category that has a big share in the power supply structure is the industrial consumers: its overall share is 24.0%, including 27.6% in Saint Petersburg and 18.3% in the Leningrad Region of the overall power consumption. Such a structure is due to the fact that Saint Petersburg and the Leningrad Region hold a number of large industrial facilities with wide infrastructures.

The smallest specific weight belongs to agriculture and food industry (0.9%).

Supply to the territorial grid entities' networks is 18.1% (9,3% in Saint Petersburg). As for the Leningrad Region, the territorial grid entities' share is 31.9%.

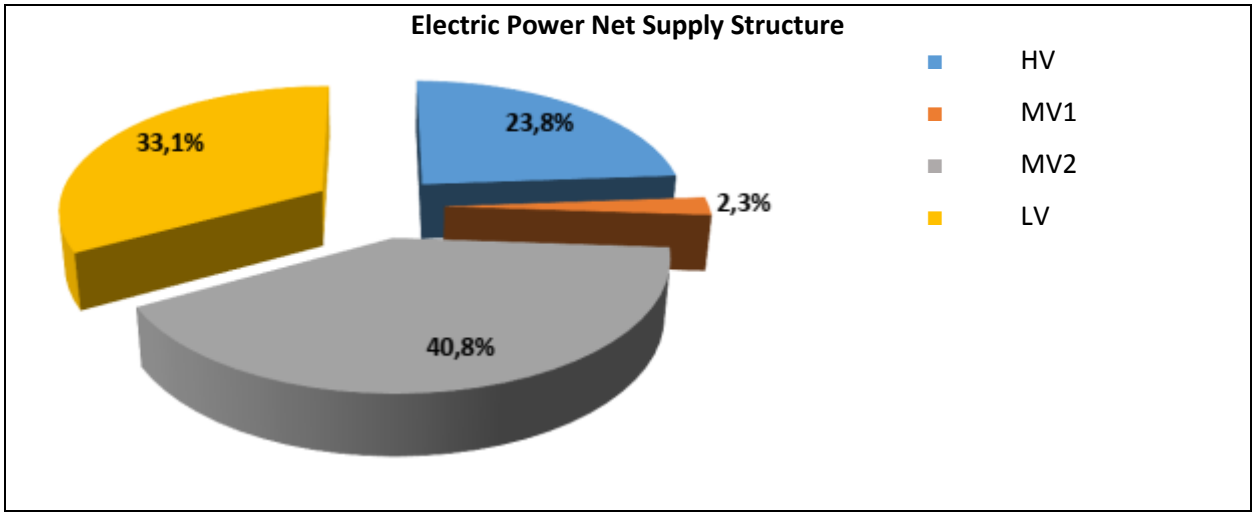
The table below contains the information on the power transmission scope over time, broken down by the voltage levels:

Lenenergo, PJSC Electric Power Transmission Structure, Broken Down by the Voltage Levels, mn kWh

Voltage	Lenenergo, PJSC			
	2017	2018	2019	Change 2019/2018
Total	29,668.70	30,560.29	30,625.29	65.00

HV	7,253.33	7,354.70	7,288.02	-66.68
MV1	684.33	731.19	704.67	-26.52
MV2	11,559.96	12,203.20	12,510.41	307.21
LV	10,171.08	10,271.20	10,122.19	-149.01

In 2019, consumption for all voltage categories decreased slightly, except for MV2: it grew by 307.21 mn kWh, which lead to the overall consumption growth for Lenenergo, PJSC.



The power supply structure, as broken down by voltage, demonstrates that the highest values of 40,8%, 33.1%, and 23.8% belong to MV2 (6-10 kV), LV, and HV, respectively. The supply structure by voltage is similar to the supply structure broken down by consumer categories, that is: the main scope of services rendered to the industrial consumers is charged for at the HV tier tariff, services rendered to the non-industrial consumers are charged for at the MV2 tier, and services rendered to the residents are charged for at the LV tier. In view of the fact the grid equipment structure of Lenenergo, PJSC includes a small amount of 20-35 kV equipment, MV1 tier has the smallest net supply of 2.3%.

Electric Power Consumption from the Lenenergo, PJSC Grids, Broken Down by the Largest Consumers, 2019

Name	Consumer Name	Consumption, mn kWh	Net Supply Share, %
Net Supply in 2019		30,625.3	100%
Saint Petersburg	Vodokanal of St. Petersburg, SUE	162.3	0.53%
	St. Petersburg Metropoliten, SUE	561.7	1.83%
	Philip Morris Izhora, JSC	108.6	0.35%
	Admiralty Shipyards, OJSC	86.9	0.28%
	Svetlana, PJSC	48.2	0.16%
	Hyundai Motor Manufacturing Rus, LLC	71.1	0.23%
	St. Petersburg Gorelectrotrans, SUE	164.5	0.54%
	TEK SPB, SUE	258.2	0.84%
	Nissan Manufacturing RUS, LLC	34.8	0.11%
Leningrad Region	Transneft Baltic, LLC	171.4	0.56%
	Tikhvin Ferroalloy Plant, CJSC	275.8	0.90%
	VLK, OJSC	116.1	0.38%
	St. Petersburg Cardboard and Printing Plant, OJSC (Knauf Petrobord, JSC)	140.2	0.46%
	Vodokanal of St. Petersburg, SUE	30.6	0.10%
	ROSTERMINALUGOL, JSC	53.6	0.18%
	NOKIAN TYRES, LLC	97.2	0.32%
	International Paper, CJSC	542.8	1.77%
	Phosphorit Production Association, LLC	167.6	0.55%
	A.P. Aleksandrov Scientific Research Technological Institute, FSUE	38.2	0.12%

	METAKHIM, JSC	140.0	0.46%
	Boksitogorsk Alumina Refinery, JSC	68.2	0.22%
	Severnaya Poultry Farm, CJSC	56.2	0.18%
	Lesplitinvest, OJSC	50.9	0.17%
	SIBUR Portenergo, LLC	52.0	0.17%
	NOVATEK Ust Luga, LLC	56.7	0.19%
Total, largest consumers		3,553.9	11.60%

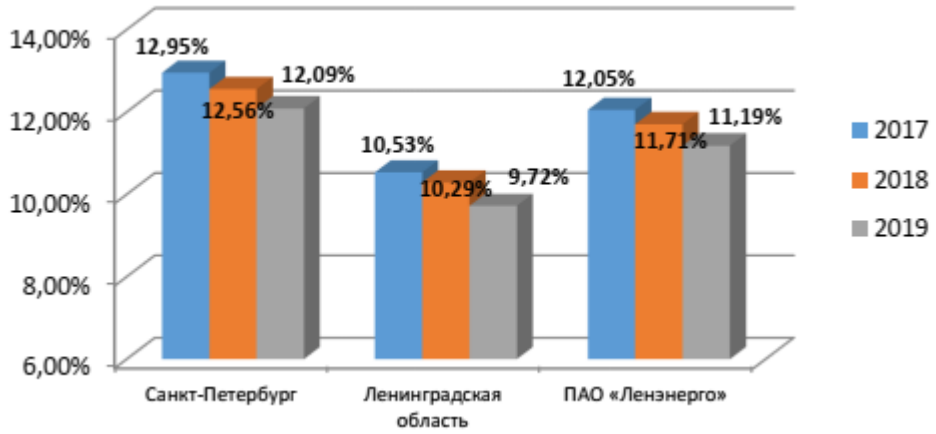
The table only contains the power consumption data for the largest consumers of Saint Petersburg and the Leningrad Region. Generally, for the two areas in aggregate, the overall number of large industrial consumers with installed capacity of over 670 kW is approximately 2,200.

Power Losses. The Energy Preservation and Energy Efficiency Improvement Program

Power Losses Over Time, 2017-2019

	2017		2018		2019		Change 2019/2018	
	mn kWh	%	mn kWh	%	mn kWh	%	%	p.p.
Saint Petersburg	2,827.54	12.95%	2,788.05	12.56%	2,652.37	12.09%	-4.9%	-0.47
Leningrad Region	1,365.66	10.53%	1,374.12	10.29%	1,314.79	9.72%	-4.3%	-0.57
Lenenergo, PJSC	4,193.20	12.05%	4,162.17	11.71%	3,967.15	11.19%	-4.7%	-0.52
Lenenergo, PJSC Group	4,439.56	11.47%	4,337.50	11.34%	4,138.36	10.82%	-4.6%	-0.52

Power Losses Over Time, %



Санкт-Петербург	Saint Petersburg
Ленинградская область	Leningrad Region
ПАО «Ленэнерго»	Lenenergo, PJSC

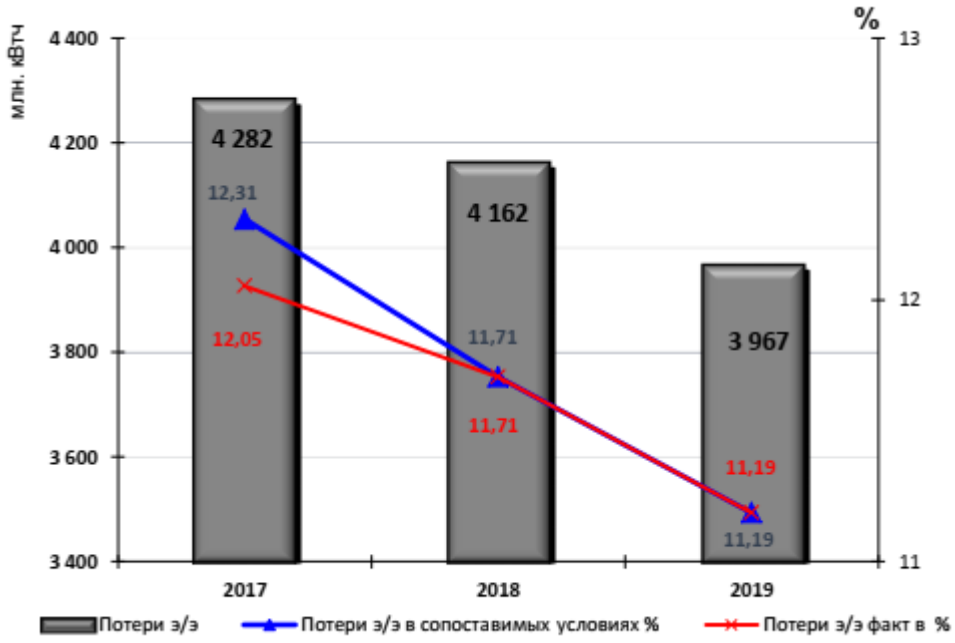
In 2019, power losses in the Lenenergo, PJSC grids amounted to 3,967.2 mn kWh, or 11.19% of the supply to the grid. This parameter decreased year-over-year by 195.0 mn kWh, or 0.52 percentage point.

Analysis of the Change in the Relative Losses under Comparable Conditions (Without Consolidating the Lenenergo, PJSC and SPb ES, JSC Power Grid Assets)

	2017	**2018**	**2019**
Saint Petersburg			
Supply to the grid	21,826.18	22,203.86	21,941.52
"Last mile"	0	0	0
Consolidation of the Power Grid Assets of Lenenergo, PJSC	86.65	0	0

and SPb ES, JSC (Board of Directors), (add. losses)			
Actual losses	2,827.54	2,788.05	2,652.37
Actual losses percentage	12.95%	12.56%	12.09%
Power losses under comparable conditions	**2,914.18**	**2,788.05**	**2,652.37**
Losses percentage under comparable conditions	**13.35%**	**12.56%**	**12.09%**
Leningrad Region			
Supply to the grid	12,965.01	13,354.63	13,523.11
"Last mile"	0	0	0
Consolidation of the Power Grid Assets of Lenenergo, PJSC and SPb ES, JSC (Board of Directors), (add. losses)	2.10	0	0
Actual losses	1,365.66	1,374.12	1,314.79
Actual losses percentage	10.53%	10.29%	9.72%
Power losses under comparable conditions	**1,367.76**	**1,374.12**	**1,314.79**
Losses percentage under comparable conditions	**10.55%**	**10.29%**	**9.72%**
Total			
Supply to the grid	34,791.20	35,558.49	35,464.62
"Last mile"	0	0	0
Consolidation of the Power Grid Assets of Lenenergo, PJSC and SPb ES, JSC (Board of Directors), (add. losses)	88.75	0	0
Actual losses	4,193.20	4,162.17	3,967.15
Actual losses percentage	12.05%	11.71%	11.19%
Power losses under comparable conditions	**4,281.95**	**4,162.17**	**3,967.15**
Losses percentage under comparable conditions	**12.31%**	**11.71%**	**11.19%**

Absolute and Relative Lenenergo, PJSC Grid Losses Over Time for the Past 3 Years (actual and under comparable conditions)



Потери э/э	Power losses
Потери э/э в сопоставимых условиях %	Power losses under comparable conditions %
Потери э/э факт в %	Actual power losses, %
млн. кВтч	mn kWh

Lenenergo, PJSC power losses over time in 2017-2019 (under comparable conditions) allow for a conclusion to be made that the actual power losses value for the Lenenergo, PJSC grids in 2019 (of 3,967.1

mn kWh, or 11.19% of the supply to the grid) was 314.8 mn kWh (or 1.12 p.p.) lower than the value of 2017 (4,281.9 mn kWh, or 12,31% of the supply to the grid), under comparable conditions.

Actual Electric Power Losses as Compared to the Plan, 2017-2019

Parameter	2017*	2018	2019	2019 (Lenenergo, PJSC Group)
Standard losses (power losses included in the tariff and balance), mn kWh	3,894.1	4,166.7	4,242.6	4,403.4
Standard losses (power losses included in the tariff and balance), %	11.57	11.83	11.80	11.38
Losses subject to the business plan, %	***11.31***	***12.05***	***11.56***	***11.15***
Losses, actual, %	***12.05***	***11.71***	***11.19***	***10.82***
Deviation from plan, p.p.	***0.75***	***-0.34***	***-0.37***	***-0.33***

** the approved 2017 Business Plan of Lenenergo, PJSC did not include the electric power grid equipment lease agreement with SPb ES, JSC.*

The results of 2018 with respect to the electric power losses of the Lenenergo, PJSC Group were 10.82% of the supply to the grid, which is 0.33 p.p. lower than the value set out in the business plan.

Energy Preservation and Energy Efficiency Improvement

In 2019, Lenenergo, PJSC carried out energy preservation and energy efficiency improvement activity in line with Federal Law No. 261-FZ *On Energy Preservation and Energy Efficiency Improvement, and On Amending Several Russian Laws*, Russian Government Decree No. 340 dd. May 15, 2010 *On Setting the Requirements to Energy Preservation and Energy Efficiency Improvement Programs of Entities Carrying Out Regulated Activities*, Russian Government Decree No. 977 dd. December 1, 2009 *On Investment Programs of the Power Sector Entities* (as amended by Russian Government Decrees No. 484 dd. June 30, 2010, and No. 1178 dd. December 29, 2011), Saint Petersburg Tariff Committee and Saint Petersburg Government Instruction No. 293-r dd. December 29, 2017 (as amended on March 1, 2019), and Leningrad Region Tariff and Pricing Policy Committee Order No. 91-p dd. June 30, 2014 (as amended by Leningrad Region Tariff and Pricing Policy Committee Order No. 41-p dd. March 10, 2017).

In 2017-2018, within that Lenenergo, PJSC performed a mandatory energy inspection resulting in Energy Passport No. E-015/240-18 being issued, valid until December 2022.

The Energy Preservation and Energy Efficiency Improvement Program of Lenenergo, PJSC for 2019 includes the following targets, presented in Table 1:

Table 1. Planned and Actual Targets of the Energy Preservation and Energy Efficiency Improvement Program of Lenenergo, PJSC for 2019

No.	Parameter Name	Units of Measurement	2019	
			Planned	Actual
1	Power losses	mn kWh	4,158	3,967
		RUB mn, net of VAT	11,301	10,746
		% of the supply to the grid	11.56	11.19
2	Substations' demand	mn kWh	37.84	36.41
		% of power losses	0.91	0.92
3	Office and production buildings' power resources demand, total, including:	RUB mn, net of VAT	160.88	155.95
		thousand toe	4.75	4.48
3.1.	Electricity	mn kWh	24.73	24.26
		thousand toe	2.97	2.91
		RUB mn, net of VAT	137.72	135.81

		mn kWh/m^2	0.00092	0.00090
3.2.	Thermal power (heating systems)	Gcal	12,498.70	10,980.77
		thousand toe	1.79	1.57
		RUB mn, net of VAT	23.17	20.14
		Gcal/m^3	0.1024	0.0867
4.	Office and production buildings' natural resources demand, total, including:	RUB mn, net of VAT	12.25	10.52
		thousand m^3	316.22	272.11
4.2	*cold water supply*	thousand m^3	12.25	10.52
		RUB mn, net of VAT	316.22	272.11
5	Vehicles and special-purpose machinery fuel demand, total, including:	thousand l	4,400.78	4,794.22
		thousand toe	5.21	5.67
		RUB mn, net of VAT	196.23	196.75
5.1.	*petrol, including:*	thousand l	2,170.32	2,409.13
		thousand toe	2.46	2.73
		RUB mn, net of VAT	93.42	94.61
		thousand l/ 100 km	37.66	41.40
5.2.	*diesel fuel, including:*	thousand l	2,230.46	2,385.09
		thousand toe	2.75	2.94
		RUB mn, net of VAT	102.81	102.13
		thousand l/ 100 km	6.34	6.55
6.	Energy efficient lighting units' availability, including LED	%	50%	62%
6.1.	number of used lighting units	units	23,783	23,783
6.2.	LED units	units	12,000	14,825
7	Advanced power meters' availability on the retail market	%	13.8	12.8

Table 2 contains information on the funding sources for the Energy Preservation and Energy Efficiency Improvement Program.

Table 2. Energy Preservation and Energy Efficiency Improvement Program Funding Sources

Expenses, RUB mn (net of VAT)	2019	
	Planned	Actual
Net Cost	**151.64**	**151.64**
Administrative measures (identification of off-the-meter power consumption)	3.15	3.15
Technical measures (introduction of LED lighting units)	1.49	1.49
Technical measures (buildings and facilities repair)	147.0	147.0
Investment Program	**3,798.0**	**7,414.0**
Retrofitting and upgrading, reconstruction, construction	3,158.0	7,052.0
improvement of commercial recording and technical metering of power	640.0	362.0
Total	**3,949.64**	**7,565.64**

Increasing investment projects implementation expenses within the retrofitting and upgrading procedures, as well as new construction projects result from the implementation of other investment projects that have also led to reduction in power losses.

Power Loss Reduction Measures

Lenenergo, PJSC implements a set of priority measures aimed at reducing the power losses.

In 2019, implementation of power loss reduction procedures throughout the Company had the following results: 506.5 mn kWh (by volume, exceeding the plan, 499.4 mn kWh, by 1.4%), or RUB 1,408 mn (by value, exceeding the plan, RUB 1,401.9 mn, by 0.4%).

Table 3 contains the main electric power loss reduction measures and the structure thereof.

Table 3. Main Electric Power Loss Reduction Measures and Structure Thereof (by volume and by value)

№	Measures	Effect			
		mn kWh		RUB mn	
		Planned	Actual	Planned	Actual
1	**Targeted measures, including:**	**323.4**	**350.4**	**907.7**	**980.1**
1.1	Administrative:	323.4	350.3	907.7	979.8
1.1.1	identification of off-the-meter power consumption	230.5	244.8	641.2	688.9
1.1.2	check meter reading	89.4	94.1	256.4	259.5
1.1.3	supervision of the operating substations	3.5	11.3	10.0	31.2
1.2	technical measures (introduction of LED lighting units)	0.01	0.09	0.03	0.25
2	**Side measures, including:**	**176.0**	**156.1**	**494.2**	**427.8**
2.1	retrofitting, upgrading, reconstruction and new construction (replacement of wires of the overloaded power lines, replacement of overloaded transformers, assembly and commissioning of additional power transformers)	23.5	28.7	67.4	79.15
2.2	improvement of commercial recording and technical metering of power	152.5	127.4	426.76	348.62
3	**Total**	**499.4**	**506.5**	**1401.9**	**1407.9**

Targeted Power Loss Reduction Measures

As a result of implementing the power loss reduction measures in 2019, 350.3 mn kWh (RUB 979.8 mn) were saved through the administrative measures, 0.09 mn kWh (RUB 0.25 mn) were saved through the technical measures, and 127.4 mn kWh (RUB 348.62 mn) were saved by the improvement of metering of power.

Administration measures had the strongest effect: 350.3 mn kWh, which is 69% of the overall result. Identification of off-the-meter power consumption proved to be the most efficient administrative measure (70% of the overall effect of this category of measures).

In 2019, 2,216 disturbances were eliminated from the record and metering systems, which allowed for reducing the electric power losses by 17.18 mn kWh, or RUB 54.37 mn (net of VAT) caused by the unauthorized intervention to the power metering units,

That scope was fully included in the scope of the power transmission services for 2019.

In 2019, 6,517 incidents of off-the-meter power consumption of 227.95 mn kWh for the amount of RUB 1,190.54 mn (net of VAT) were identified and eliminated, which allowed preventing the growth of power loss compensation expenses by RUB 634.63 mn (net of VAT).

The table below contains the information on the identified off-the-meter power consumption.

Identification of Off-the-Meter Power Consumption

Name	Identified off-the-meter power consumption included the scope of services provided (in view of the identified off-the-meter consumption of the previous periods)		Off-the-meter power consumption	
	mn kWh	RUB mn, net of VAT (price of the electric power transmission services)	mn kWh	RUB mn (net of VAT)
Lenenergo, PJSC	17.18	54.37	227.95	1,190.54

As part of optimizing the circuit and mode parameters while operating and managing the power grids, optimum reactive capacity and voltage modes were maintained, the power grid equipment (transformers and power lines) was shut down at low load, and the maintenance and repair of the primary equipment were sped up.

The optimization of the circuit and mode parameters while operating and managing the power grids resulted in the effect of 11.3 mn kWh (RUB 31.2 mn).

Side Power Loss Reduction Measures

The side power loss reduction measures include the measures that have a positive energy efficiency outcome and do not meet the criteria for the targeted measures category. Shutting down the transformers of the substations that have more than 2 transformers at low loads, shutting down the transformers at substations with seasonal loads, optimizing the points of open-circuiting with two-way feeding, flattening of the phase loads at 0.38 kV distribution grids are carried out annually, are categorized as "supportive" for the existing power loss level, and do not affect the electric power balance of the Company.

In 2019, the actual effect of the side power loss reduction measures was 156.1 mn kWh (RUB 427.8 mn), which is below the planned effect (176 mn kWh; RUB 494.4 mn) by 19.9 mn kWh (11.3%). The fact that the target for the side measures was not reached was compensated by the administrative measures.

In 2019, the following side measures were taken:

√ construction, reconstruction, and upgrading of power grids, as well as commissioning of energy efficient equipment, specifically:

- replacement of overloaded transformers, assembly and commissioning of additional power transformers at the existing substations

- optimization of the power grid load by constructing (reconstructing) the substations and power lines

- replacement of wires of the overloaded power lines.

The effect of construction, reconstruction, and upgrading of power grids, as well as commissioning of energy efficient equipment was 28.7 mn kWh.

√ implementation of the Power Metering System Prospective Development Program:

In 2019, 3.6 thousand technical record-keeping and metering units were installed. The installation of the power metering units allowed reducing the electric power loss by 127.4 mn kWh, or RUB 348.62 mn, as well as increasing the recorded power transmission services by value by RUB 414 mn (net of VAT).

Reduction of Consumption of Resources for Production and Economic Needs

The following measures were implemented as part of reducing the substations' electric power own demand: optimization of the operation duration and the number of the transformer and auto transformer cooling units turned on; optimization of the heating and lighting equipment operation at the substation control buildings; installation of LED lighting units for the outdoor switchboards; improvement of the buildings' energy efficiency. The effect of those measures was 1.43 mn kWh.

Administrative and technical measures are the main targeted measures ensuring the reduction of the resources use for own needs of the administration and production buildings. Energy efficient lighting units were introduced, mercury street lamps were replaced with LED ones, windows were replaced with plastic or wooden framed multi-chamber glass units, the buildings were waterproofed, flat roofs and ceilings of the top floors were heat insulated.

The table below contains the effects of the measures that ensure the reduction of the resource consumption for the own needs:

Effects of Measures Ensuring Reduction of Resource Consumption for Own Needs

№	Measures	Unit of Measuremen	Effect
			2019

		t	Planned	Actual
1	**Reduction of substations' electric power own demand (administration and production buildings), including:**	mn kWh	**0.35**	**0.47**
1.1	Administration measures (arrangement of the energy consuming equipment and lighting units' mode)		0.05	0.06
1.2	Technical measures (introduction of LED lighting units)		0.30	0.41
2	**Reduction of substations' thermal power own demand (administration and production buildings), including:**	Gcal	**1,472.4**	**1,517.9**
2.1	Administration measures (reducing the heating load in the buildings or separate premises during idle periods)		397.5	409.8
	Technical measures (repair of rooftops and facades)		1074.8	1108.1
3	**Reduction of substations' water own demand (administration and production buildings), including:**	thousand m3	**1.68**	**1.73**
3.1	Administration measures (ensuring control over the water misuse)		1.68	1.73

As a result of the implementation of measures aimed at reducing the electric power demand for own needs, the difference between the planned 2019 target (24.73 mn kWh) and the actual result (24.26 mn kWh) was 0.47 mn kWh. This is due to the optimization of the electric power consumption (control of the power use) and fitting the buildings with LED lighting units (62% of the overall lighting units used).

As a result of the implementation of measures aimed at reducing the thermal power demand for own needs, the difference between the planned 2019 target and the actual result was 1,517.9 Gcal due to the administration measures, the planned regular operation of the buildings, and the repair of the rooftops and facades.

Water consumption was reduced by 1.73 thousand m3 due to the administration measures by way of controlling the misuse of water.

In 2019, the use of transportation equipment determined the actual motor fuel (hereafter - the POL, petroleum, oil and lubricants) consumption rate by the motor vehicles and special-purpose machinery, which exceeded the target parameter by 393.44 thousand l (8.97%).

The table below contains details of the motor fuel consumption by motor vehicles and special-purpose machinery.

Motor Vehicles and Special-Purpose Machinery Fuel Consumption

Parameter	Unit of Measurement	Planned 2019	Actual 2019	difference	
				abs.	%
Motor vehicles and special-purpose machinery fuel consumption	thousand l	4,400.78	4,794.22	393.44	8.94%
	thousand toe	5.21	5.67	0.46	8.83%
	RUB mn, net of VAT	196.23	196.75	0.52	0.26%

Increased motor fuel consumption by motor vehicles and special-purpose machinery is due to the increased operation and engine hours of the motor vehicles resulting from the increase of the scopes of repair and maintenance of the power grid equipment of Lenenergo, PJSC using own resources (by the Company's branches) in order to mitigate the risk of the consumers' power supply interruptions. Additionally, the motor fuel (petroleum) consumption growth was due to the deterioration of the engines and the increased traffic load on roads.

In 2019, the diesel fuel consumption grew due to the use of the diesel generators in retrofitting, reconstruction, and new construction in order to provide power supply to the consumers.

The table below contains the fuel use breakdown by designated purpose.

Fuel Designated Purpose

№	Parameter Name	Unit of Measurement	Parameters			difference	
			2018	2019	2019	abs.	%
			Actual	Planned	Actual		
1	Motor fuel consumption by the motor	thousand l	3,479	4,222	3,868	- 354	- 8%

	vehicles and special-purpose equipment, net of the diesel generators						
2	Petroleum consumption by motor vehicles	thousand l	1,865	2,170	2,409	239	11%
3	diesel fuel consumption by special-purpose machinery	thousand l	1,414	2,052	1,459	- 593	- 29%
4	diesel fuel consumption by diesel generators	thousand l	200	178	926	747	419%

Including the diesel fuel actual consumption of 926 thousand l by diesel generators, the special-purpose machinery consumption is 1,459 thousand l, which is 593 thousand l less than the planned parameter. Thus, excluding the diesel generator consumption, the target was reduced by 354 thousand l of POL, or by 8%, which was due to the following administrative measures:

- optimization of the transportation routes and motor vehicles and special-purpose machinery load
- strengthening of the POL consumption control
- enhancing of the transparency and verification of the POL consumption report documents
- use of the technical tools for the motor fuel consumption and remaining balance control
- use of the monitoring and geopositioning systems for the motor vehicles.

When comparing the POL consumption with the actual parameters of 2018, except for the diesel generator consumption, the increase in 2019 was due to the increase of the operation and engine hours.

The table below contains the parameters of the operation and engine hours.

Vehicles Operation and Engine Hours

№	Parameter Name	Unit of Measurement	Parameters		
			Actual 2018	Planned 2019	Actual 2019
1	Vehicles operation	thousand km	20,717	16,754	23,040
2	Engine running time	engine hours	345,285	223,390	383,993

In 2019, the overall effect of the implementation of the targeted measures to reduce the Company's resources consumption for own needs was 4.5 thousand toe (272 mn l of cold water), or RUB 10.52 mn, against the target of 4.7 thousand toe (360 mn l of cold water), or RUB 12.25 mn. The overall consumption of the energy resources was reduced by 5.7%. The share of the technical measures to reduce the consumption of the natural resources for the own needs by the administrative and production buildings was 2% (the ratio of the aggregate reduction measures expenses of RUB 7,565.64 mn to the technical measures expenses of RUB 148.49 mn).

3.2.2. Grid Connection Scope and Connected Capacity Structure

Lenenergo, PJSC applied the following regulatory documents and standards in its grid connection services in 2019:

1. The Civil Code of the Russian Federation (Art. 426, Art. 779-783).
2. Federal Law No. 35-FZ dd. March 26, 2003 *On Electric Power Industry*.
3. Russian Government Decree No. 1178 dd. December 29, 2011 *On Pricing in Regulated Segment (Tariffs) of the Electric Power Industry*.
4. Russian Government Decree No. 861 dd. December 27, 2004 *On Approving the Rules for Non-Discriminating Access to the Electric Power Transmission Services and Provision of Such Services, the Rules for Non-Discriminating Management in the Electric Power Industry and Provision of Such Services, the Rules for Non-Discriminating Access to the Services of the Grid Operator of the*

Wholesale Market System and Provision of Such Services, and the Rules for Grid Connection of Power Receivers (Power Plants) of Entities and Individuals.

5. Federal Antimonopoly Service Order No. 1135/17 dd. August 29, 2017 *On Approval of Methodic Guidelines to the Setting of Payment for Grid Connection to the Power Grids*.

6. Leningrad Region Tariff and Pricing Policy Committee Order No. 726-p dd. December 29, 2018 *On Setting the Payment for Grid Connection of Power Receivers of Up to 15 kW (incl., in view of previously connected capacity at the same connection point), Standard Tariff Rates, Rates Per Unit of Peak Capacity, Calculation Methods for Connection of Power Receivers of Electric Power Consumers or Power Facilities Owned by the Grid Entities and Other Persons to the Leningrad Region Grids for 2019*.

7. Saint Petersburg Tariff Committee Instruction No. 299-r dd. December 27, 2018 *On Setting Standard Tariff Rates, Rates Per Unit of Peak Capacity, Calculation Methods for Connection to the Grids of the Territorial Grid Entities in Saint Petersburg for 2019*.

8. Russian Government Decree No. 977 dd. December 1, 2009 *On Investment Programs of the Power Sector Entities*.

9. Russian Government Decree No. 823 dd. October 17, 2009 *On the Electric Power Industry Prospective Development Patterns and Programs*.

10. Russian Ministry of Energy Order No. 186 dd. April 15, 2014 *On Single Quality Standards for the Grid Entities' Service of Clients*.

11. Russian Government Decree No. 24 dd. January 21, 2004 *On Approving the Information Disclosure Standards for the Wholesale and Retail Electric Power Markets*.

12. Russian Ministry of Energy Order No. 1042 dd. December 28, 2015 *On Approving the 2016-2020 Investment Program of Lenenergo, PJSC*.

13. Russian Government Instruction No. 1144-r dd. June 30, 2012 (as amended on September 14, 2016) *On Approving the Energy Infrastructure Accessibility Improvement Action Plan ("Road Map")*.

Grid Connection Scope and Connected Capacity Structure

In 2019, Lenenergo, PJSC fulfilled 27,482 contracts executing grid connection reports for permanent power supply (excluding connection of the generating facilities), which parameter decreased year-over-year by 8.7%. In 2019, Lenenergo, PJSC connected one generation facility of 0.02 MW.

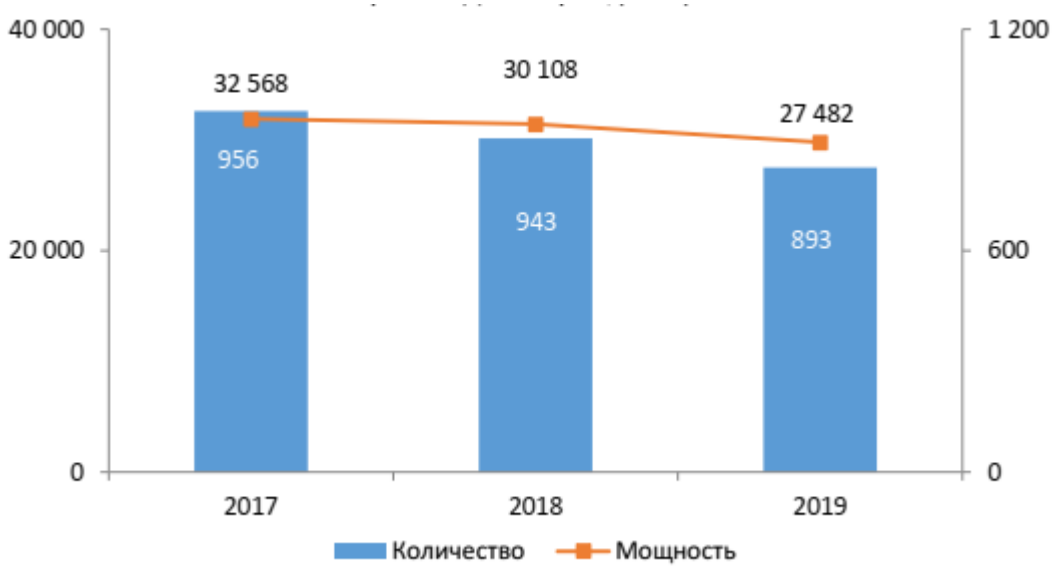
Within the common framework of fulfilled obligations, the number of fulfilled contracts in the Leningrad Region in 2019 became 76% (20,864 for 529 MW). In 2019 the connected capacity decreased yoy by 5%, reaching 893 MW in absolute terms.

Fulfilled Grid Connection Contracts*

	2017		2018		2019		2019 over 2018, %	
	units	MW	units	MW	units	MW	units	MW
Lenenergo, PJSC	32,568	956	30,108	943	27,482	893.4	91%	95%
Saint Petersburg	5,840	407	7,707	410	6,618	364.3	86%	89%
Leningrad Region	26,728	549	22,401	532	20,864	529.1	93%	99%
Lenenergo, PJSC controlled entities	1,529	118	972	64	738	28	76%	44%

* excluding the connection of generating facilities and facilities that are connected on a temporary basis (permanent grid connection)

Connected Capacity Over Time, and Fulfilled Contracts, MW, number of contracts*



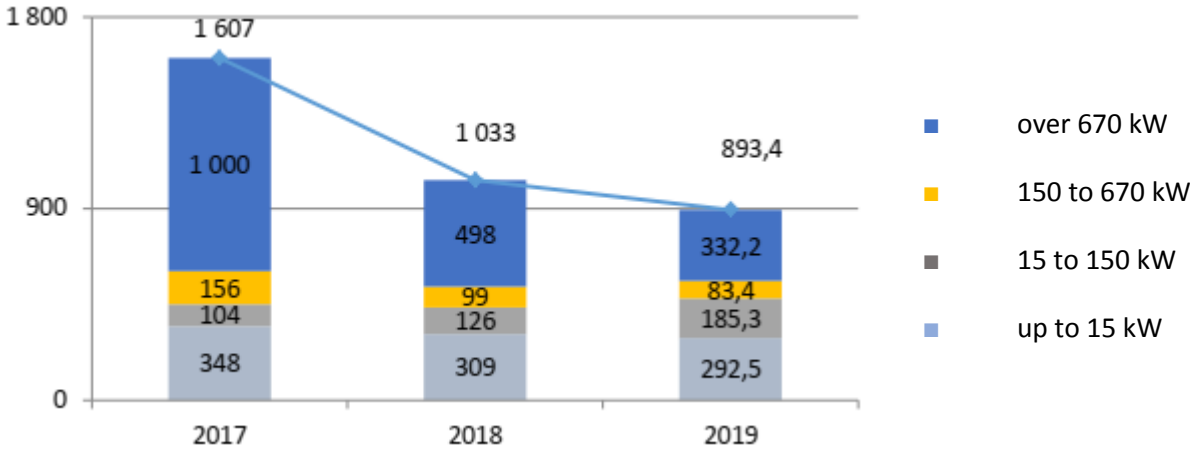
Количество	Quantity
Мощность	Capacity

* excluding the connection of generating facilities (permanent grid connection)

The connected capacity behavior pattern for the past 3 years shows a decline in 2019, as compared with the previous years, mainly in the consumer category of Over 670 kW, due to, among other factors, a decrease in the connected capacity scope per generation facilities.

The category of 15 to 150 kW showed a significant increase over the previous years (+47% yoy).

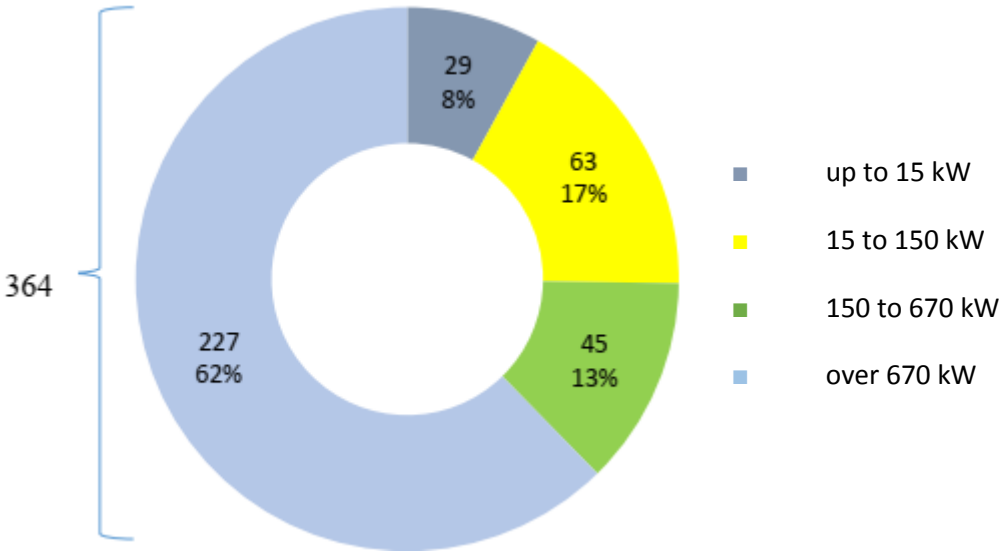
Connected Capacity Over Time, Broken Down by Consumer Categories*, kWh



* including the connection of generating facilities (permanent grid connection)

More than a half of the connected capacity structure in Saint Petersburg is formed by large clients of over 670 kW, which amounted for 62% of the overall capacity in the area.

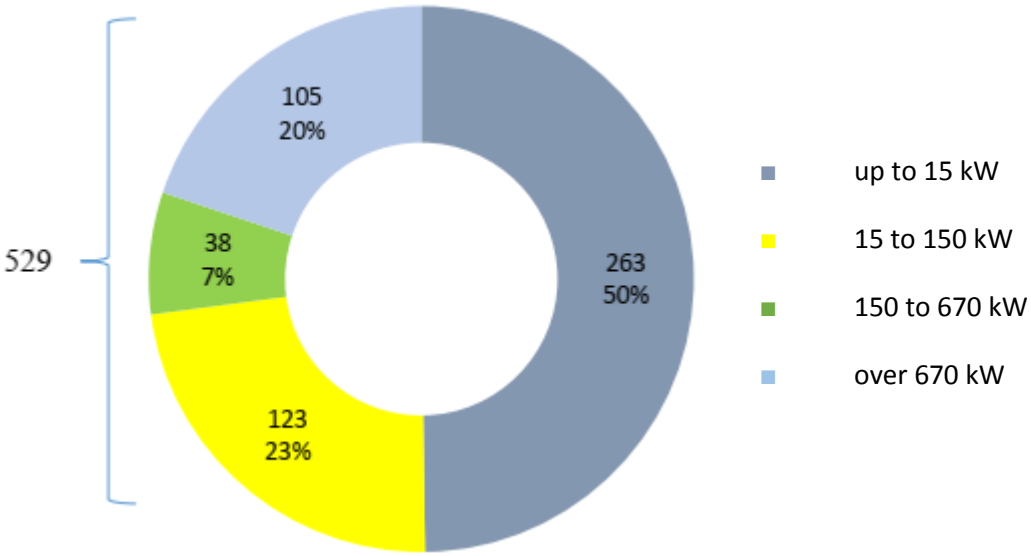
Connected Capacity Structure for Saint Petersburg in 2019, MW (%)*



As of the Leningrad Region, clients of over 15 kW prevail in the connected capacity structure amounting for over half of the overall connected capacity in the area.

* excluding the connection of generating facilities (permanent grid connection)

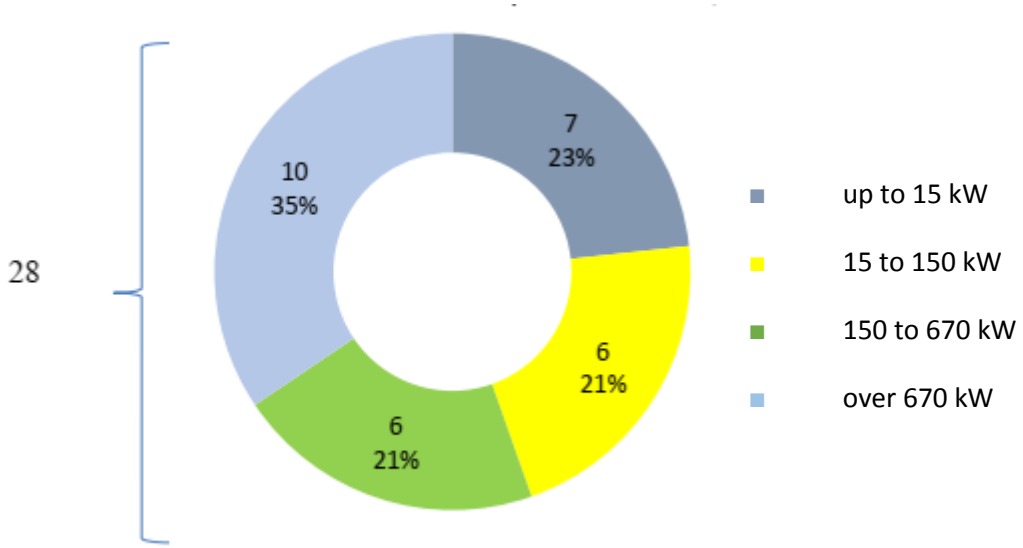
Connected Capacity Structure for the Leningrad Region in 2019*, MW (%)



* excluding the connection of generating facilities (permanent grid connection)

Entities controlled by Lenenergo, PJSC provided for connection of 28 MW in 2019, amounting for 3% of the overall connected capacity of Lenenergo, PJSC (excluding the generating facilities).

Connected Capacity Structure of Entities Controlled by Lenenergo, PJSC, 2019*, WM(%)

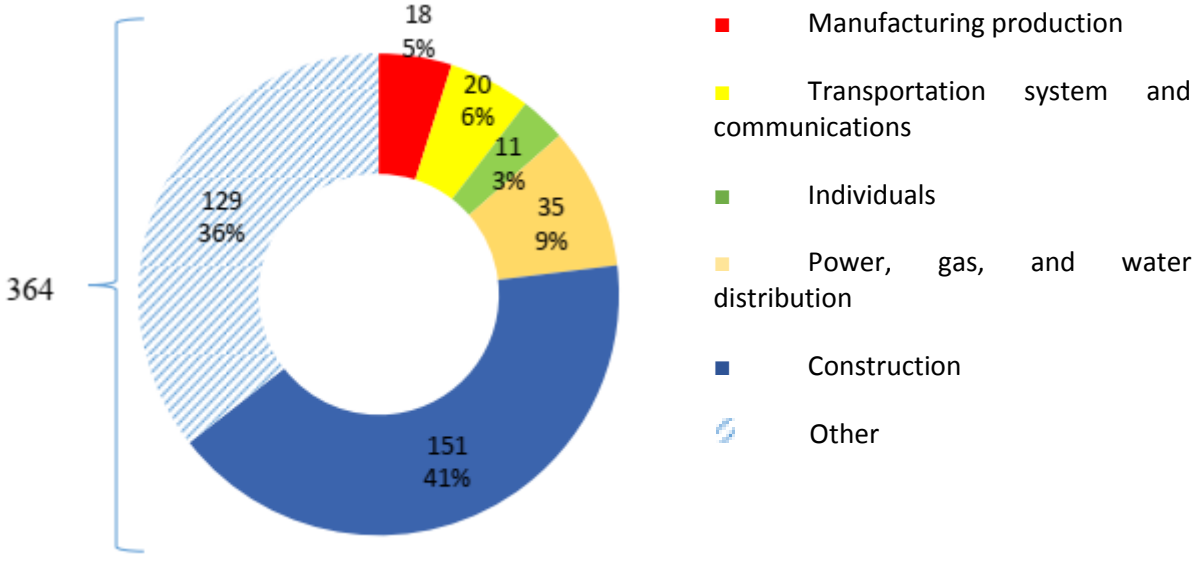


* excluding the connection of generating facilities (permanent grid connection)

The connected capacity structure broken down by the business activity sectors in Saint Petersburg in 2019 is characterized by prevailing construction sector (41%). Including the entities that provide power, gas, and water distribution services, the aggregate connected capacity for these categories amounted to 50% of the overall connected capacity of the area.

Comparison of the business activity sectors structure for Saint Petersburg in 2019 and 2018 shows a 13% decrease of the specific weight of the Construction category in 2019 (from 54 to 41%), as well as a 7% decrease of the clients of Power, Gas, and Water Distribution category (from 16 to 9%).

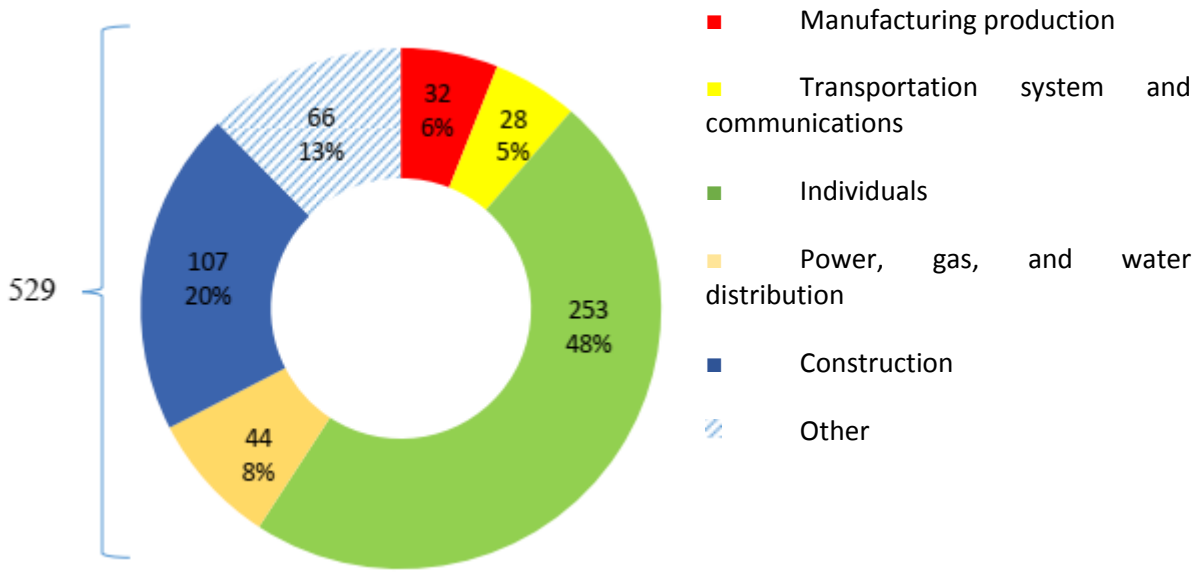
Connected Capacity Structure for Saint Petersburg in 2019*, MW (%)



* excluding the connection of generating facilities (permanent grid connection)

Analysis of the business activity sectors structure for the Leningrad Region in 2019 shows a moderate growth of the share of the construction sector in the area, which resulted in the year-over-year increase of the connected capacity scopes by 4% (from 86 MW in 2018 to 107 MW in 2019).

Connected Capacity Structure for the Leningrad Region in 2019*, MW (%)



* excluding the connection of generating facilities (permanent grid connection)

Grid Connection Demand

In the 12 months of 2019, Lenenergo, PJSC received 28,444 grid connection applications from consumers for the aggregate capacity of 1,608 MW (excluding the applicants connected on a temporary basis, and the generating facilities). The majority of the applications came from the clients in the Leningrad Region amounting to 19,364 for the aggregate capacity of 795 MW.

In 2019, Lenenergo, PJSC made 23,987 network connection contracts with the aggregate capacity of 772 MW, 68% of which were made with the clients in the Leningrad Region (permanent grid connection).

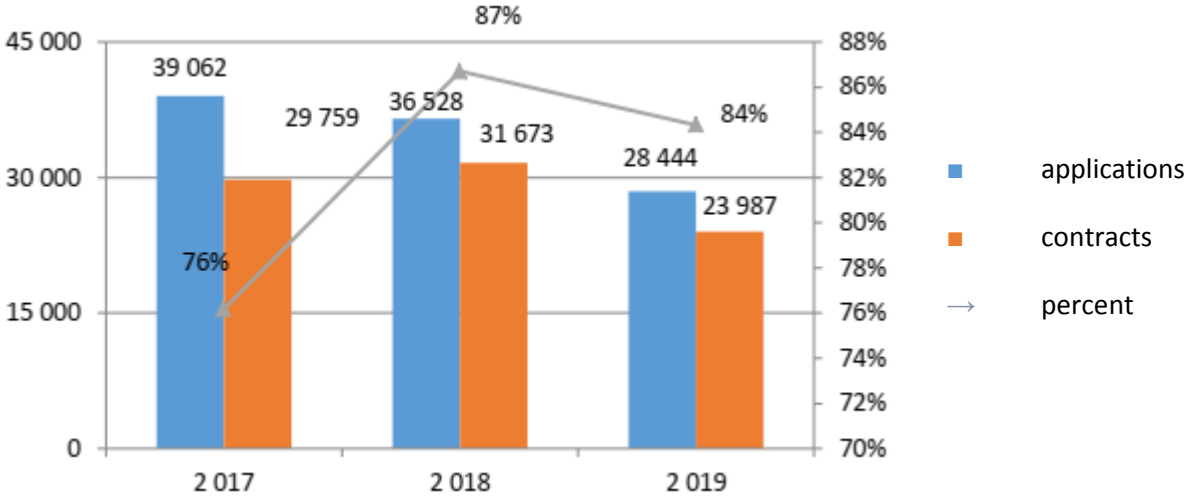
Grid Connection Demand Over Time *

	2017		2018		2019		2019 over 2018, %	
	units	MW	units	MW	units	MW	units	MW
Grid connection applications (over the report period)								
Lenenergo, PJSC	39,062	2,160	36,528	2,208	28,444	1,608	78%	73%
Saint Petersburg	11,898	1,002	11,094	1,032	9,080	813	82%	79%
Leningrad Region	27,164	1,158	25,434	1,176	19,364	795	76%	68%
Lenenergo, PJSC controlled entities	1,460	154	1,246	62	895	43	72%	69%
Grid connection applications (including brought or carried forward)								
Lenenergo, PJSC	42,155	2,701	39,816	2,793	29,983	1,998	75%	72%
Saint Petersburg	12,720	1,198	12,989	1,295	9,757	1,005	75%	78%
Leningrad Region	29,435	1,503	26,827	1,499	20,226	993	75%	66%
Lenenergo, PJSC controlled entities	1,707	357	1,310	69	910	46	69%	66%
Grid connection contracts made								
Lenenergo, PJSC	29,759	923	31,673	991	23,987	772	76%	78%
Saint Petersburg	6,496	404	9,464	387	7,593	318	80%	82%
Leningrad Region	23,263	519	22,209	604	16,394	454	74%	75%
Lenenergo, PJSC controlled entities	986	61	980	39	730	26	74%	66%

* excluding the generating facilities (permanent grid connection)

In 2019, Lenenergo, PJSC received 8 applications for connection of generating facilities with the aggregate capacity of 152.3 MW and made 4 grid connection contracts for 11.8 MW.

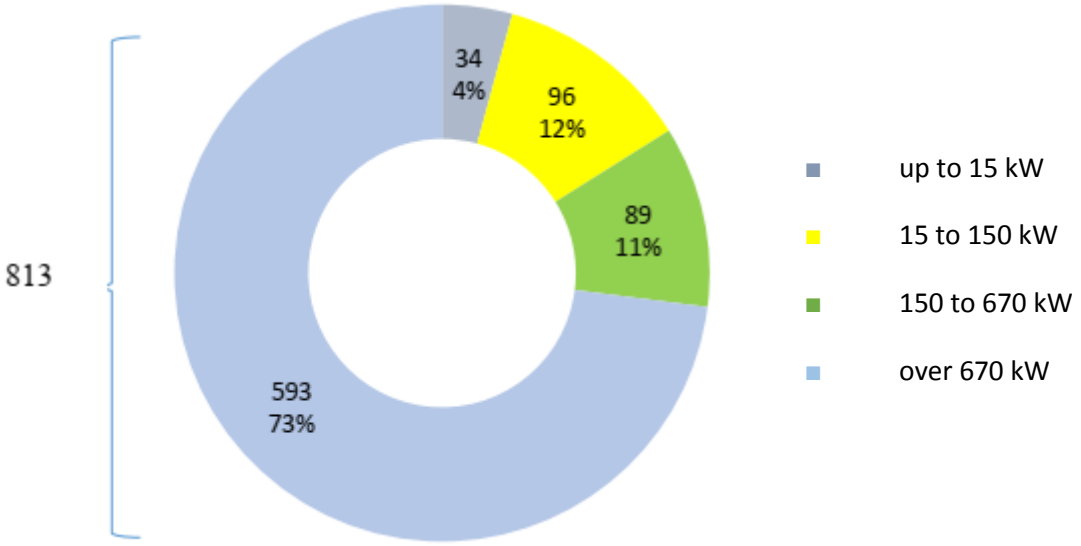
Ratio of Connection Applications to the Contracts Made *, number of contracts (%)



* excluding the connection of generating facilities (permanent grid connection)

In 2019 the Company slightly decreased the ratio of the number of application to the number of contracts made to 3% (the parameter reached 84%).

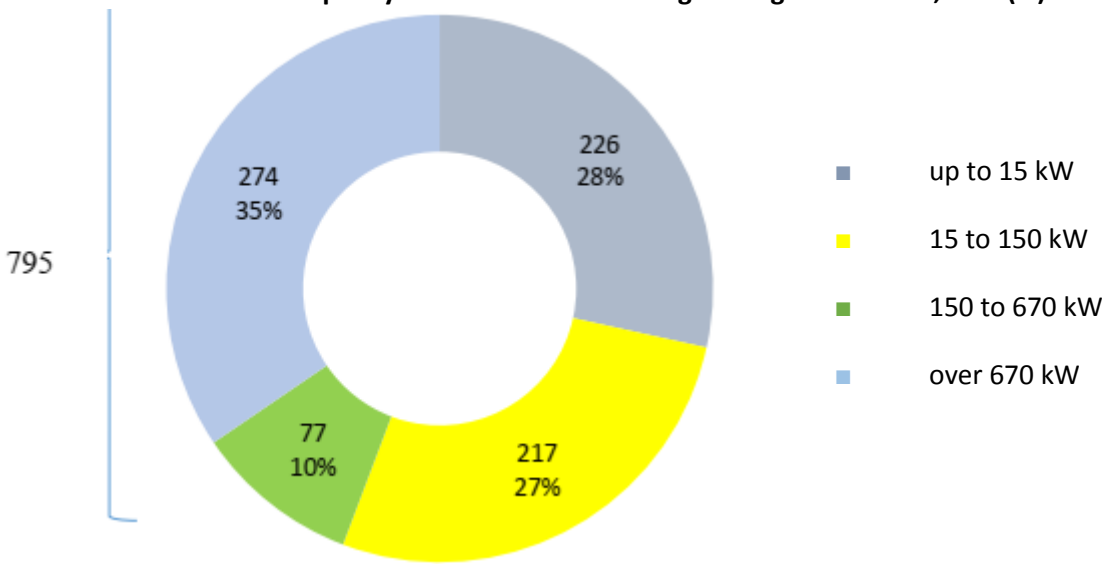
Contracted Capacity Structure for Saint Petersburg in 2019*, MW (%)



* excluding the connection of generating facilities (permanent grid connection)

The client category of Over 670 kW provided a major contribution to the contracted capacity in Saint Petersburg and the Leningrad Region reaching 73% and 35% of the overall contracted capacity, respectively. The category of 150 to 670 kW, being the second-largest in Saint Petersburg, amounted to 12% of the contracted capacity (96 MW). As for the Leningrad Region, the second-largest category with the share of 28% is the category of Up to 15 kW (226 MW).

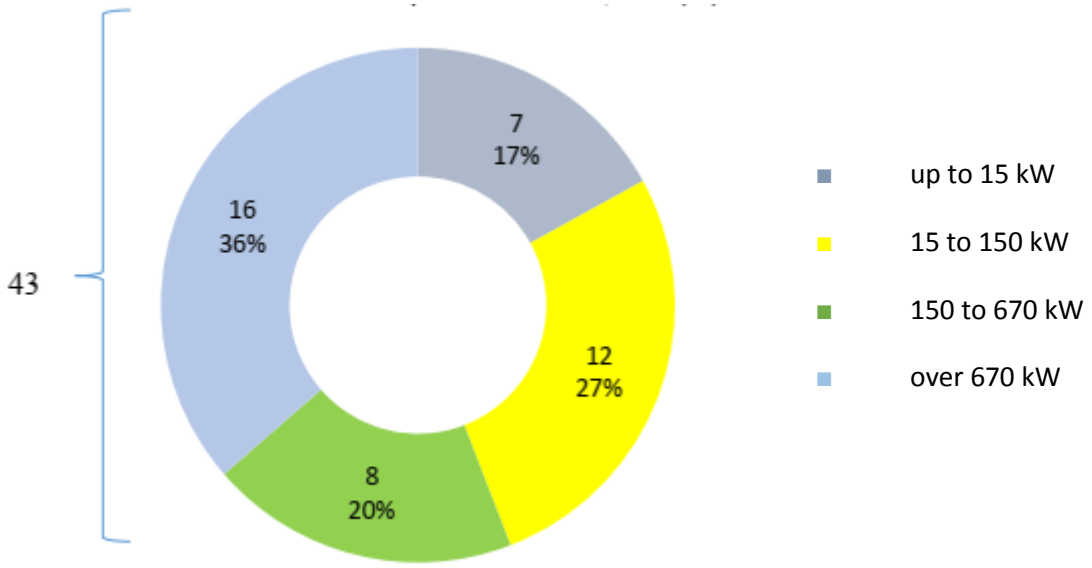
Contracted Capacity Structure for the Leningrad Region in 2019*, MW (%)



* excluding the connection of generating facilities (permanent grid connection)

The aggregate contracted capacity for the Lenenergo, PJSC Controlled Entities reached approximately 3% of the overall contracted capacity for the Company in 2019, which amounted to 43 MW in the absolute terms.

Contracted Capacity Structure of Lenenergo, PJSC Controlled Entities, 2019*, WM(%)



* excluding the connection of generating facilities (permanent grid connection)

Fulfillment of Obligations Under Overdue Grid Connection Contracts

As of December 31, 2019, the number of overdue obligations (excluding the connection contracts for temporary power supply and the generating facilities) reached 10,412 with the connected capacity of 957 MW, which is 38% of the overall active obligations. The contracts that became overdue through the grid company's fault amounted to less than 1%.

One of the key issues of Lenenergo, PJSC that prevents the company from fulfilling the gird connection contracts in due time is the fact the client's electric units are not ready to be connected within the timeline specified in the contract. In this respect, Lenenergo, PJSC arranges interaction with the relevant committees in the constituent entities of Russia in order to localize the relevant client categories within the territory of the area; the Company actively provides information to the clients both in person and remotely by designing and upgrading the interactive services, using automatic dialing systems, and

publishing the information in the printed mass media. Lenenergo, PJSC divisions that are responsible for client interaction also consistently address the issues of connecting representatives of various communities and unions (SMEs, farmers, gardeners' non-commercial partnerships, suburban non-commercial partnerships, etc.) to the grids. As part of complaint handling process, the Company has procedures in place for enforcing the clients' obligations under the contracts in courts.

The main issues Lenenergo, PJSC faces at the design, and construction and assembly stages of the contracts fulfillment are extended timelines for obtaining the approvals for laying power lines through the forests of Goslesfond and land plots belonging to the Committee for the State Preservation of Historical and Cultural Monuments (KGIOP), other issues arising from third parties' and land owners' intervention in the grid construction, as well as other factors.

The number of overdue contracts for the entities controlled by Lenenergo, PJSC was 569 with the aggregate capacity of 81 MW, which is 57% of the overall amount of existing obligations valid as of December 31, 2019.

In 2019, Lenenergo, PJSC connected over 800 socially significant facilities (education and healthcare institutions, infrastructure facilities) to the grids in Saint Petersburg and the Leningrad Region.

Over 500 of the connected facilities are located in Saint Petersburg. Thus, Lenenergo, PJSC experts connected 12 general education schools to the grids in the Moskovsky, Frunzensky, Krasnogvardeysky, and other districts of Saint Petersburg, as well as 3 outpatient clinics (including Municipal Clinic No. 8, fluorography center of Tuberculosis Dispensary No. 11), 16 pre-school educational institutions, and several highly socially significant facilities (such as the Center for Social Rehabilitation of the Disabled Children and Adults of the Vyborgsky District, the Hygienic and Epidemiological Center of Saint Petersburg, etc. Facilities of Nochlezhka, the inter-regional charitable organization for the homeless, are also among the Company's most important projects.

As for the Leningrad Region, the socially significant facilities connected there in 2019 include 8 paramedical and midwifery stations in the Gatchina, Vyborg, and Boksitogorsk Districts, 4 general education schools, the Lomonosovsky District police precinct, a health center of the Saint Petersburg State University of Industrial Technologies and Design in Streltsovo (Vyborg District), a social and cultural center of Mshynsky settlement, etc.

Connected Capacity Structure Subject to Grid Connection Contracts, Broken Down by Obligation Fulfillment Deadlines*

	2017	Share, %	2018	Share, %	2019	Share, %
Connected capacity, MW, including	956	100%	942.6	100%	893.4	100%
current contracts	561	59%	527.4	56%	422.6	47%
overdue contracts	395	41%	415.2	44%	470.8	53%

* excluding the connection of generating facilities (permanent grid connection)

Service Consumers Interaction Organization

1. Consumer Interaction Guideline Principles

Our key principles for working with consumers are increasing the accessibility of the grid connection procedure and a customer-focused approach, which are made possible by the centralized service system.

The Board of Directors adopted the Centralized Customer Service standard (Minutes No. 13 dd. December 19, 2011). The updated version was approved by the Board of Directors' Resolution dd. June 19, 2015 (Minutes No. 39) and Lenenergo, PJSC Order No. 404 dd. September 10, 2015.

The centralized service system includes the following:

- sufficient information on the Company and its services provided to the consumers
- geographical accessibility and comfortable service in the offices

- comfortable and prompt remote and online interactive services
- competent service
- transparent customer service business process
- objective and prompt review of the customer complaints.

These principles are aimed at creating a high level of client satisfaction with the services rendered. The centralized service system is implemented by:

- continuous development of new and updating of the existing information materials, including the ones published at the Company's official website
- expanding the interaction with clients by engaging the State and Municipal Services Offices
- upgrading the online services
- regular workshops for the employees of the Customer Service Center aimed at improvement of competence and knowledge of the personnel
- monitoring the quality of service and client satisfaction assessment
- introduction of complaint handling system for all complaints received by the Company.

2. Main Forms and Services for Customer Support

In-person and remote servicing is used for customer support.

The Customer Service Center provides in-person service in Saint Petersburg. As for the Leningrad Region, customers may visit either the Customer Service Centers, or the State and Municipal Services Offices.

Remote customer servicing includes Lenenergo, PJSC contact center, post service, client message box, and the following online interactive services:

- Lenenergo, PJSC client personal profile
- Rosseti Group power grid services portal
- the Unified Construction Sector System portal.

Lenenergo, PJSC client personal profile (the Profile) is a fully functional comprehensive online office operating as the Customer Service Center. The Profile allows the user to go through the entire network connection procedure remotely:

- to consult online
- to apply for connection
- to follow the application review status
- to be notified when the application status changes, and the documents are ready
- to receive a network connection contract and sign it using a digital signature
- to pay under the contract
- to notify the grid company on the technical specifications compliance.

3. Events Held in the Report Period and Planned for Future.

a. Measures aimed at increasing quality of the in-person customer service, including opening of new and modernizing the existing service offices and outlets

In order to improve the quality of in-person services, regular workshops were held in the report period for the employees of the Customer Service Center. An option for recording all oral complaints filed at in-person meetings was introduced allowing for optimization of the Company's complaint handling in due time.

Furthermore, 41 State and Municipal Services Offices in Boksitogorsk, Vsevolzhsk, Volosovo, Volkhov, Vyborg, Gatchina, Kingisepp, Kirishi, Kirovsk, Kommunary, Lodeynoe Pole, Luga, Nikolskoye, Pikalevo, Podporozhie, Priozersk, Roshchino, Sertolovo, Slantsy, Sosnovo, Sosnovy Bor, Telmana, Tekhvin, Tosno, etc. began accepting applications from clients in 2019 in order to improve the territorial accessibility and make the process comfortable for the clients.

In order to control the customer consultation quality, the information desks of the Customer Service Centers will be equipped with tablets allowing the customers to evaluate the quality of the services rendered to them.

b. Improvement of the quality and accessibility of the company's services (introduction of new online interactive services)

In 2019, we introduced geopositioning for the consumer's power receivers when they apply for the grid connection in person or using the Profile. Clients who meet the criteria of the Target Grid Connection Model and the Doing Business category may sign the power supply contract using their digital signature in the Profile (if they have given their consent to e-document flow).

c. Improvement of the consumers' trust (roundtable meetings with the consumers, creation of the company's consumer councils and boards)

In 2019, we held roundtable meetings, community gatherings, meetings, and webinars dedicated to the network connection procedures, elimination of non-contractual power consumption, and consulting the SME representatives with regard to grid connection, as well as participated in the meetings hosted by the Business Environment Improvement Headquarters in order to better inform our consumers and ensure their loyalty.

d. Raising awareness and improving the Company's operating transparency

We inform the clients on the existing connection options and disclose the status of the network connection at all stages of the connection procedure in the Profile section of our corporate website, as well as while rendering the in-person and remote services, including the call center common number at: 8-800-700-14-71.

In addition, all Customer Service Centers provide hand-outs containing instructions, and are equipped with the information boards that comply with the requirements set to the arrangement of the customer service offices in Order No. 186 dd. April 15, 2014 O*n Common Customer Service Quality Standards for Grid Companies* by the Ministry of Energy of Russia. The customer awareness is assessed through phone surveys and in-person polls conducted in the service centers.

4. Assessment of the fulfillment of the set service reliability and quality parameters in 2019

As part of the client-centered policy of customer service and the development of the comprehensive service system, the in-person service quality enhancement procedures were carried out, and new client communication channels were introduced for the State and Municipal Services Offices.

The actual quality parameters of the services rendered characterize the Company's core operations (grid connection and power transmission). They are calculated based on the Calculation Methodology approved by the Ministry of Energy of the Russian Federation (No. 1256 dd. November 29, 2016). An overall number of customers' requests and communications (connection applications, service contracts, information requests, etc.) serves as a basis for calculation of the service quality parameters. The government agencies of the relevant constituent entity of Russia set the long-term target service quality parameters. Such parameters are deemed to have been met in 2019, which resulted from our customer-focused approach.

Information on the SDCs role in the implementation of the grid connection target model by the Russian constituent entities. The results of the electric power grid infrastructure SME accessibility enhancement efforts

According to the World Bank data, Russia has greatly improved its position in 2019: it rose from being the 12th to being the 7th. Creation of a favorable investment environment in the country's power grid connection sector begins primarily with the Customer Service Center operations: receipt and processing of a connection application, interaction with the default provider, sending of a grid connection and power supply contract formal offer.

As part of business process optimization, the grid connection is carried out in view of the Target Grid Connection Model parameters. The Model criteria were set by Russian Government Instruction No. 147-r dd. December 26, 2016 and provide for the grid connection deadline of no more than 90 days in case of clients of up to 150 kW (including the design, survey, construction and assembly works).

According to the Road Map benchmarks, by 2018:

- the number of customer cooperation stages must not exceed 3
- the timeline for the grid connection must not exceed 90 days
- the cost of connection must not exceed 20% of the GDP per capita.

Due to the changes being introduced, the average time required for drafting a grid connection contract reduced to 3-5 days.

According to the National Investment Climate Index as of November 19, 2019, Lenenergo, PJSC improved its position year-over-year. The average connection timeline in Saint Petersburg was 33.73 days (in 2018 it was 50.5 days). The Leningrad Region became the 9th in the integral rating (as compared to the 12th position in 2018).

Ancillary (Non-Tariff) Services

The most popular ancillary (non-tariff) services

In 2019, the most popular and in-demand ancillary (non-tariff) services were maintenance, and repair and care. The share of those in the overall revenue was 39%. Along with maintenance and R&C, the lease and placement services were also in high demand (38%). In 2019, the demand for construction and assembly increased; the revenue grew yoy by 74%.

Financial and Economic Parameters of the Ancillary (Non-Tariff) Operations

In 2019, the Company's revenue from ancillary (non-tariff) services in view of the Group's internal turnover was RUB 432.6 mn, which is 25% lower than the 2018 result. Such a change was mainly due to the fact that, in 2018, the Company carried out rapid maintenance of the street illumination networks in Kolpino during the New Year holidays. The net cost of the ancillary (non-tariff) services in 2019 decreased by 22%. The cost-effectiveness of the services in 2019 was 33%, which is 4% lower than the 2018 result.

Grid Connection Revenue

Grid Connection Revenue Generation*

Parameter	Unit of Measurement	2017	2018	2019	2019 over 2018, %
Leningrad Region					
Revenue	RUB mn, net of VAT	1,590	1,098	1,401	28%
Connected capacity**	MW	621	560	529	-6%
Average closed contracts rate	RUB thousand per kWh	2.6	2.0	2.6	35%
Saint Petersburg					
Revenue	RUB mn, net of VAT	11,787	5,968	4,842	-19%
Connected capacity**	MW	985	472	364	-23%

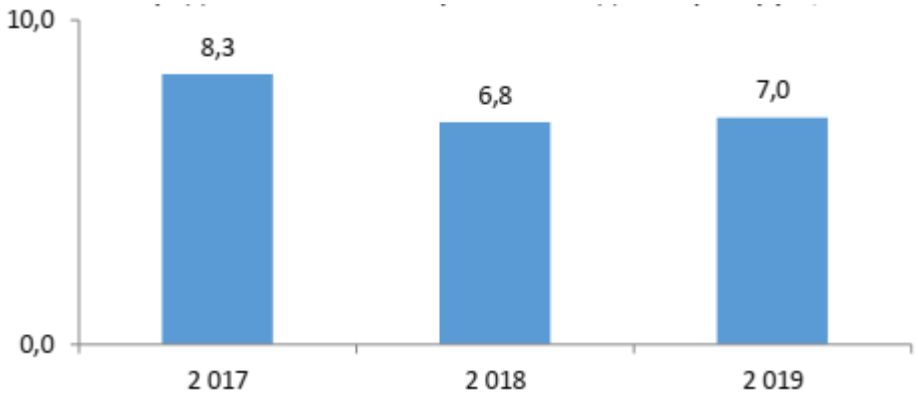
Average closed contracts rate	RUB thousand per kWh	12.0	12.6	13.3	5%
Lenenergo, PJSC, Total					
Revenue	RUB mn, net of VAT	13,377	7,066	6,242	-12%
Connected capacity**	MW	1,607	1,033	893	-13%
Average closed contracts rate	RUB thousand per kWh	8.3	6.8	7.0	2%

* including the connection of generating facilities

** permanent grid connection

The average rate for the closed contracts is calculated as a ratio of the grid connection revenue (RUB thousand) to the scope of the connected capacity (MW), in view of the connection of generating facilities, and all the categories of the contracts made, including the ones made under individual rates, etc.

Average Closed Contracts Rate, RUB/kW



Lenenergo, PJSC and Its SDCs Grid Connection KPI Over Time*

		SPb ES, JSC			TSEK, JSC			Kurortenergo, JSC			Lenenergo, PJSC		
		2017	**2018**	**2019**	**2017**	**2018**	**2019**	**2017**	**2018**	**2019**	**2017**	**2018**	**2019**
Grid contracts performed	units	502	160	33	148	215	172	879	597	533	32,568	30,108	27,482
	MW	88.5	32.4	4.2	4.3	10.9	6.3	24.9	21.1	17.5	956	943	893
Grid connection applications	units	343	0	0	226	250	226	891	996.0	669	39,062	36,528	28,444
	MW	79.0	0.0	0.0	19.3	26.6	14.0	55.9	35.8	28.7	2,160	2,208	1,608
Grid connection contracts made	contracts	195	0	0	173	194.0	198	618	786.0	532	29,759	31,673	23,987
	MW	26.6	0.0	0.0	6.4	13.0	11.6	27.6	26.2	14.2	923	991	772

Connected Capacity Structure in 2019, Broken Down by Client Categories*

	SPb ES, JSC		TSEK, JSC		Kurortenergo, JSC		Lenenergo, PJSC	
Client Category*	MW	%	MW	%	MW	%	MW	%
over 670 kW	2.4	56%	2.1	33%	5.2	30%	332.2	37%
150 to 670 kW	1.3	32%	1.3	20%	3.3	19%	83.4	9%
15 to 150 kW	0.3	7%	1.6	25%	4.1	23%	185.3	21%
15 kW	0.2	5%	1.4	21%	5.0	28%	292.5	33%

Total	4.2	100%	6.3	100%	17.5	100%	893.4	100%

Average Rate for the Closed Contracts Over Time, RUB (net of VAT) per kW

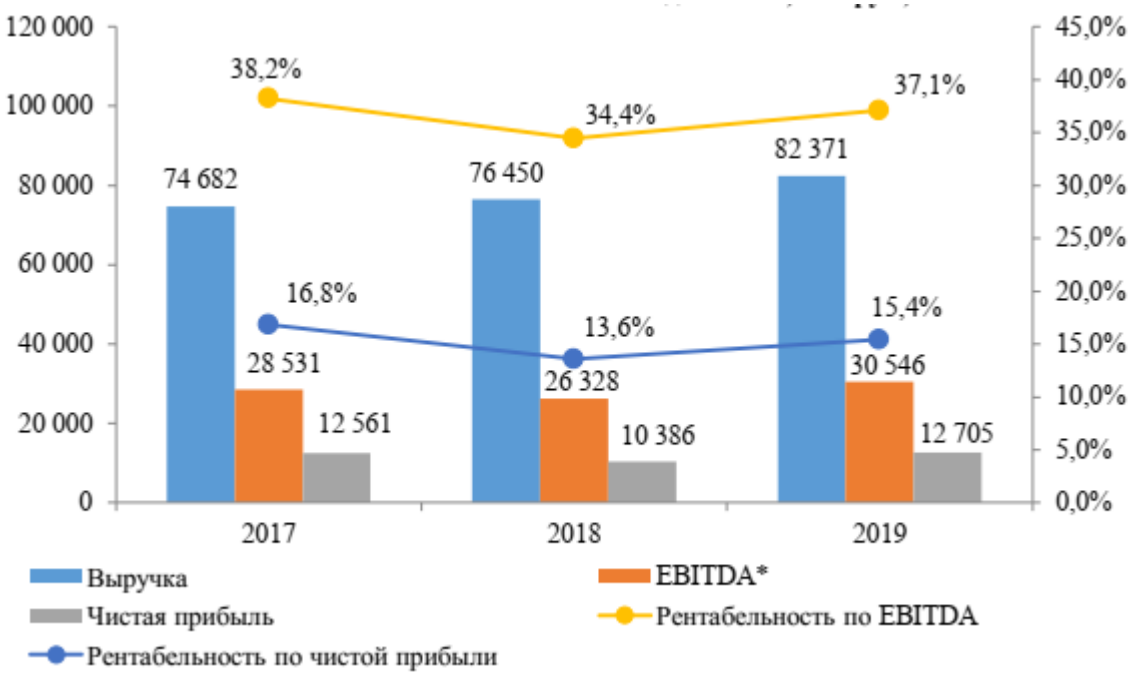
	2017		2018		2019	
	by revenue	by CAPEX	by revenue	by CAPEX	by revenue	by CAPEX
Lenenergo, PJSC	13,987	23,605	7,494	11,633	6,988	13,338
SPb ES, JSC	14,848	24,554	20,036	5,169	22,094	1,745
TSEK, JSC	13,992	9,649	28,613	10,691	2,472	3,182
Kurortenergo, JSC	10,621	2,247	7,330	7,829	11,864	12,516

* excluding the connection of generating facilities (permanent grid connection)

3.3. Financial Results

Financial and Economic Operations

Financial and Economic Indicators Over Time, RUB mn, %



Выручка	Revenue
Чистая прибыль	Net profit
Рентабельность по чистой прибыли	Net profit margin
Рентабельность по EBITDA	EBITDA margin

Note: The 2017-2018 indicators are provided subject to the 2019 annual accounting reports and financial statements of the Company under the RAS, in view of the historic method of data provision.
* EBITDA is provided net of the impairment reserves position for the debt-based financial investments.

In 2019, Rosseti Lenenergo net profit was RUB 12,705 mn, which exceeded the 2018 result by RUB 2,319 mn, or 22.3%, mainly due to the growth of revenue from power transmission. High operating result allowed the Company to keep working towards decreasing the debt load and strengthening the Company's financial independence.

Principal Financial and Economic Indicators, RUB mn

Item No.	Parameter	2019	2018*	2017*
1	**Revenue from sales, including:**	**82,371**	**76,450**	**74,682**
1.1.	from power transmission	75,696	68,807	60,600
1.2.	from grid connection	6,242	7,066	13,377
1.3.	from sale of power	0	0	0
1.4.	from other operations	433	577	705
2	**Net cost of goods (services)**	**-58,279**	**-57,252**	**-53,917**
3	Gross profit	24,092	19,198	20,765
4	Administrative expenses	-194	-198	-106
5	Business expenses	0	0	0
6	Profit (loss) from sales	23,899	19,000	20,659
7	Interest receivable	701	331	547
8	Interest payable	-995	-1,065	-1,383
9	Income from participation in other business	0	1	1
10	Other income	4,147	4,091	5,174
11	Other expenses	-10,576	-8,679	-8,281
12	Profit (loss) before tax	17,176	13,678	16,717
13	Corporate income tax and other payments	-4,471	-3,292	-4,156
14	Net profit (losses)	12,705	10,386	12,561
15	EBITDA**	30,546	26,328	28,531

* The 2017-2018 indicators are provided subject to the 2019 annual accounting reports and financial statements of the Company under the RAS, in view of the historic method of data provision.

** Here and further in the text EBITDA is presented net of the debt financial investments impairment reserve balance calculated as follows: EBITDA = Profit Before Tax - Interest Payable + Depreciation - Debt Financial Investments Impairment Reserve Balance = Item 2300 F. 2 - Item 2330 F. 2 + Item 6514 F. Note 2.1 + Item 6554 F. Note 2.1 + Item 6564 F. Note 2.1 - Debt Financial Investments Impairment Reserve Balance.

Revenue from sales in 2019 was RUB 82,371 mn, which is RUB 5,922 mn (7.7%) higher than the 2018 result. Such an increase is due to the growth of revenue from power transmission in grids, while the revenue from grid connection and other operations decreased.

Revenue from the power transmission services in 2019 grew by RUB 6,889 mn, or 10.0%, year-over-year. The increase was due to the growing consumption and tariff rates resulting from the regional regulatory bodies refunding the accumulated shortfalls in income and transferring the tariff revenue (income smoothing).

Revenue from the grid connection operations in 2019 decreased by RUB 824 mn (11.7%) due to the fulfillment of obligations to large clients in 2018, including connection of Lakhta Center to the grid.

Revenue from other operations for 2019 decreased by 25.0% (RUB 144 mn) year-over-year, mainly due to a decrease in power equipment maintenance resulting from transfer of street lighting facilities of SPb ES, JSC to Lensvet, St. Petersburg SUE subject to an exchange agreement.

Net cost (including the administrative and business expenses) in 2019 was RUB 58,473 mn, which is RUB 1,023 mn (only 1.8%) higher that the 2018 result.

The following were the main reasons for the growth of the aggregate net cost:

- increasing depreciation related to the increase of the fixed assets cost resulting from the implementation of the investment program

- increasing cost of the power transmission services of FGC UES, PJSC due to an increase in the maintenance tariff rate and in the average losses purchase tariff rate in the Federal Grid against the reduction of the standard losses

- increasing cost of power purchased to compensate for the losses due to an increase in the average tariff against the reduction of the actual losses.

At the same time, the cost of power transmission services of the territorial grid entities decreased mainly due to the reduction of expenses related to LOESK, JSC (year-over-year reduction of the approved grid maintenance rate in 2019 by 240.2 RUB/kW, or 20.2%); the corporate income tax expenses also reduced due to the transfer of a major portion of the property tax to the other expenses from the profit.

Sales profit of the Company in 2019 reached RUB 23,899 mn, which is RUB 4,899 mn (25.8%) higher than the 2018 result (RUB 19,000 mn), mainly due to a proactive growth of revenue from the sale of the goods as compared to the net cost growth.

Balance of other income and expenses (including the balance of interest) in 2019 reduced by RUB 1,401 mn (26.6%) due to the following factors:

- growth of the other expenses by RUB 1,897 mn, mainly due to the growth of provisions to the valuation reserves for the tax risks and lawsuits; growth of property-related expenses; growth of expenses brought forward, detected in the report period; growth of other expenses (mostly, the non-refundable VAT)

The following also took place in the report year:

- interest receivable grew by RUB 370 mn due to depositing funds to the minimum balances
- interest payable reduced by RUB 70 mn due to loan repayment in the report year, and the average weighted rate for borrowings being reduced as a result of the loan portfolio optimization
- other income grew by RUB 56 mn.

Profit before tax in 2019 was RUB 17,176 mn, which is RUB 3,498 mn higher than the 2018 result (RUB 13,678 mn) - mainly due to the growth of sales profit against a lesser reduction in the other income and expenses balance.

The **corporate income** tax increased year-over-year by RUB 1,179 mn (35.8%) as a result of growth of the profit before tax.

Net profit in 2019 was RUB 12,705 mn, which is RUB 2,319 mn (22.3%) higher than the 2018 result, mainly due to the growth of revenue from power transmission services.

Operating Efficiency Improvement and Expenses Reduction Program

The Company's Board of Directors adopted the Lenenergo, PJSC Operating Efficiency Improvement and Expenses Reduction Program on April 1, 2019 (Minutes No. 34 dd. April 1, 2019). Its implementation is taken in consideration in the business plan, the investment program, the energy preservation and energy efficiency improvement program, the innovative development program, and other target-specific programs of the Company.

The performance indicators under the Program are set in line with the benchmarks set out by the Russian Government in Directive No. 2303p-P13 dd. April 16, 2015.

Year-over-year decrease of operating expenses in 2019 became 3%, which is in line with the target set by the Russian Government in Directive No. 2303 p-P13 dd. April 16, 2015. That parameter was estimated subject to the

The Operating Efficiency Improvement and Expenses Reduction Program includes parameters for the following areas of operations:

- improvement of the PPE maintenance and repair management efficiency
- improvement of the operating assets management efficiency
- improvement of the fixed assets management efficiency
- improvement of the procurement and supply chains management efficiency
- introduction of new technologies and innovations
- optimization of the personnel incentive system and remuneration

- improvement of organizational structure and optimization of headcount
- improvement of energy efficiency.

Receivables

Receivables Change Analysis*, RUB mn

Parameter	as of December 31, 2017	as of December 31, 2018	as of December 31, 2019
Receivables, including:	7,675	6,425	4,259
Trade receivables, of those:	4,487	4,250	2,769
power transmission	2,651	2,902	2,182
Notes receivable	0	0	0
Advances paid	899	663	645
Other receivables	2,288	1,512	845

*Note: the table contains the aggregate receivables (current and non-current, Item 1230) according to the Company's financial statements for the report period.

The aggregate balance receivables of the Company as of December 31, 2019 is RUB 4,259 mn; as of December 31, 2018 was RUB 6,425 mn. It decreased year-over-year by RUB 2,165 mn (34%) mainly due to the trade receivables decreasing by RUB 1,481 mn (35%), advances paid decreasing by RUB 17 mn (3%), and other receivables decreasing by RUB 667 mn (44%).

The main reasons for the aggregate decrease in trade receivables by RUB 1,481 mn were:

• decrease of debt to utility companies for power transmission services by RUB 721 mn; decrease of debt for network connection services by RUB 584 mn; decrease of debt for identified non-contractual power consumption by RUB 113 mn (100%) using the accumulated reserve for bad debts; decrease of trade receivables from other operations by RUB 50 mn (18%) mainly due to the decrease of the SDCs' debt for the electric plants maintenance; decrease of debt for services of an SDC sole body by RUB 63 mn (98%)

• and simultaneous increase under profitable lease agreements (mostly, SDC) by RUB 50 mn (30%).

The following were the main reasons for the aggregate decrease of the debt under advances paid by RUB 17 mn:

• decrease of advances paid for fixed assets construction by RUB 16 mn; decrease of debt under the lease (sublease) agreements associated with spending of funds by RUB 5 mn, and under grid connection contracts with the partner grid companies by RUB 8 mn

• and simultaneous increase of advances for purchase of power to compensate losses by RUB 12 mn under a contract with Saint Petersburg Power Supply Company, JSC.

The following were the main reasons for the aggregate decrease of the other receivables by RUB 667 mn:

• reduction of the taxes overpaid by the overall amount of RUB 84 mn, mainly of the property tax, and an increase of the advances paid under the corporate income tax

• decrease of debt to the extra-budgetary funds by RUB 3 mn

• the aggregate decrease of receivables from other debtors by RUB 580 mn, including:

- decrease of the current receivables from the SDCs (St. Petersburg Power Grid, JSC and Petrodvorets Power Grid, JSC) to the Company in the aggregate amount of RUB 596 mn under the trilateral agreements for change of parties, already paid by the applicant to the SDCs under the grid connection contracts; decrease of the debt of OTKRYTIE Non-State Pension Fund by RUB 22 mn; the aggregate decrease of the receivables of other debtors by RUB 63 mn overall (of those, Registrar Company R.O.S.T., JSC is the prevailing debtor with the dividend debt of RUB 49 mn)

- and simultaneous growth of receivables from other debtors by RUB 89 mn; of those RUB 72 mn form the monetary claim under an assignment agreement that was assigned to Lenenergo, PJSC from Saint Petersburg Power Supply Company (United Energy Company, OJSC is the debtor); growth of debts under lawsuits by RUB 12 mn.

The major portion of the Company's receivables (51%) at the end of 2019 was formed by payments for the power transmission services rendered.

The Company takes the following measures aimed at reducing the overdue receivables:

• Overall control of the receivables and payables. Large-scale trade receivables and payables are monitored as part of such a control, as well as rating the debts by their terms of creation and repayment, structuring thereof by the debtors and creditors groups and quality; information is also collected on the debtor's financial position.

• Assessment of possible costs related to the receivables and payables due to delays in obligation fulfillment.

• Use of alternative debt enforcement procedures:

- Supplemental agreements are drafted to the agreements for rearrangement and set-off of receivables against payables. In 2019, the Company reduced its receivables of RUB 87.95 mn by offsetting claims of RUB 185 mn through signing assignment agreement.
- Settlements are made during court proceedings with the debtor counterparties.
- Debt restructuring agreements are made.

• When making agreements, the counterparty has to provide cash collateral or a bank guarantee.

• Quarterly inventory is taken, when the overdue debt terms, doubtful debt amounts and bad debt amounts as assessed under the Company's Accounting Policy are determined.

• Debts are enforced in a timely manner subject to the applicable laws, internal policies, and executive documents of the Company that regulate the pre-action and pre-court dispute resolution.

As a result of the complaint handling and pre-action procedures implemented by the Company in order to enforce the overdue receivables for the power transmission services in 2019, favorable rulings were obtained in 26 court cases for the overall amount of RUN 19.78 mn. There were no adverse rulings in 2019. The share of claims ruled in favor of the Company was 100% (in 2018: 100% as well).

As of December 31, 2019, the enforced amount under the writs of execution with respect to the debt for the power transmission services was RUB 936.26 mn, including:

- principal debt: RUB 872.38 mn
- interest: RUB 63.55 mn
- court expenses and state duty: RUB 0.32 mn.

As of December 31, 2019, the enforced amount under the writs of execution obtained in 2019 with respect to the debt for the power transmission services was RUB 1.45 mn, including:

- principal debt: RUB 0.00 mn
- interest: RUB 1.40 mn
- court expenses and state duty: RUB 0.05 mn.

The paid amount under the writs of execution with respect to the debt for the power transmission services in 2019 was RUB 22.32 mn, including:

- voluntarily: RUB 11.46 mn
- transferred by a bank (written off the accounts): RUB 10.71 mn
- enforced by the Federal Bailiffs Service: RUB 0.15 mn.

The targets for overdue debt repayment were 105% reached (RUB 234 mn planned vs RUB 246 mn actual).

The measures aimed at reducing the overdue receivables cover such receivables at a consistently high level of 100%.

Payables

Analysis of Changes in Payables*, RUB mn

Parameter	as of December 31, 2017	as of December 31, 2018	as of December 31, 2019
Payables, including:	30,279	29,792	33,809
Trade payables	12,179	12,172	13,010
Notes payable			
Advances received	13,544	14,647	16,687
Taxes and levies	1,704	618	1,396
Other payables	2,852	2,355	2,716

**The indicators are presented in accordance with the Company's accounting report for 2019*

The aggregate payables in 2019 grew year-over-year by RUB 4,017 mn (13.5%), and reached RUB 33,809 mn by December 31, 2019. All payables items experienced changes in the report year.

The trade payables increased by RUB 838 mn (6.9%) primarily due to the following:

• increase of debt to construction companies by RUB 145 mn (2.1%) due to a large scope of measures taken to fulfill obligations under the Company's grid connection contracts

• increase of debt to the grid companies by RUB 45 mn (2.1%) mainly due to the debt to FGC UES, PJSC growing by RUB 51 mn, year-over-year growing accruals resulting from the tariff rates increase in H2 2019, debt to other grid companies growing by RUB 105 mn (including SPb ES, JSC: RUB 45 mn, Kurortenergo, JSC: RUB 21 mn, Rosenergo, LLC: RUB 18 mn, VPES, ME: RUB 14 mn), and, at the same time, the debt to LOESK, JSC reduced by RUB 111 mn, mainly due to the tariff rates decrease in 2019

• increase of other trade payables by RUB 648 mn, mainly due to the increase of debts under the SDC power grid equipment lease agreements as part of assets consolidation by RUB 531 mn, increase of the VAT debts by RUB 123 mn with respect to disputes related to the power transmission services with UNECO, JSC, and a simultaneous reduction of the other payables.

Advances received grew by RUB 2,040 mn (13.9%) mainly due to the increase of grid connection advances by RUB 2,025 mn (13.8%) resulting from receipt of funds from clients under new grid connection contracts.

Tax and levies payables decreased by RUB 778 mn (125.7%) mainly due to the increase of the property tax debt by RUB 656 mn and VAT debt by RUB 207 mn, and the corporate income tax debt decreasing by RUB 98 mn.

Other payables grew by RUB 361 (15.3%) mainly due to the increase of payables under compensation agreements by RUB 421 mn, other payables growing by RUB 126 mn (including payroll debt growing by RUB 97 mn), and repayment of collateral received by RUB 186 mn.

Credit Rating

Agency	**Rating**	**Rating Date**	**Rating Action Date**	**Outlook**
Moody's Investors Service (international rating)	Ba2	November 18, 2009	March 25, 2015	negative
			December 7, 2015	stable
			April 27, 2016	stable
	Ba1		December 7, 2017	stable
ACRA, JSC (national rating)	AA+(Ru)	April 11, 2018		stable
	AAA(Ru)		March 26, 2019	stable

In November 2009, Moody's assigned a long-term credit ration of Ba2 (international scale) to Lenenergo, PJSC with a stable outlook, and an Aa2.ru (national scale).

On March 25, 2015, Moody's confirmed the Lenenergo, PJSC ratings: Ba2 (international scale), Ba2-PD (possibility of default), and Aa2.ru (national scale). The negative outlook of the Lenenergo, PJSC rating is due to a similar outlook for the sovereign rating of the Russian Federation, as well as the agency's overall pessimistic assessment of the Russian short-term and mid-term economic situation.

On December 7, 2015, Moody's confirmed the Company's credit rating as unchanged, but changed the outlook from negative to stable following the similar actions with the rating of the Russian Federation.

On March 18, 2016, Moody's Interfax initiated the withdrawal of the national scale rating. The rating action was due to the fact that the agency stopped assigning the national scale ratings to the Russian issuers. A decision to withdraw the national scale ratings did not affect the international scale ratings assignment.

On April 27, 2016, Moody's confirmed the Lenenergo, PJSC rating once again as Ba2 (international scale) with a stable outlook.

On December 7, 2017, Moody's increased the Lenenergo, PJSC long-term credit rating to Ba1 (international scale) with a stable outlook. The agency also decided to increase the possibility of default rating of the Company to Ba1-PD.

Thus, the current credit rating of Lenenergo, PJSC is the same as the sovereign rating of the Russian Federation and has a stable outlook, which evidences the high financial stability of the Company.

On April 11, 2018, the Analytical Credit Rating Agency, JSC assigned Lenenergo, PJSC a credit rating of AA+(Ru) (national scale) with a stable outlook.

On March 26, 2019, the Analytical Credit Rating Agency raised the Lenenergo, PJSC credit rating at the national scale up to AAA(Ru) with a stable outlook.

ACRA, JSC considered the balanced CAPEX of 2019-2021 at the backdrop of the growing tariff, as well as the increase of the Company's free cash flow as the main factors affecting the rating assessment. The agency also continues to rate high the systemic importance of the Company, its leading position in the power sector of Saint Petersburg and the Leningrad Region, a moderately strong operational profile, a high cost-effectiveness of the business, and the low debt load and strong liquidity.

Events After the Report Date

On March 24, 2020, the Analytical Credit Rating Agency, JSC confirmed the Lenenergo, PJSC credit rating of AAA(Ru) at the national scale with a stable outlook.

3.4. Investment Activity

Investment Program Implementation in 2019

The Lenenergo, PJSC investment program for 2019 includes the objectives of the Uniform Technical Policy for Power Distribution Sector and the provisions of the applicable laws.

The investment activity is the key component of the Company's successful operations. Timely and sufficient investments improve the power sector reliability and efficiency, decrease the grid losses, and allow to reduce the operating costs and to introduce additional capacities to connect new consumers, as well as to bridge the power deficit. Implementation of the investment program of Lenenergo, PJSC and the search for the ways of attracting the non-tariff funding sources are among the most crucial tasks. Special attention is also paid to the organization of transparent work with contractors and control over the construction and assembly.

The Ministry of Energy of Russia approved the 2019 Investment Program of Lenenergo, PJSC (Order No. 1042 dd. December 28, 2015, as amended by Ministry of Energy Order No. 27@ dd. December 21, 2018 and Ministry of Energy Order No. 16@ dd. December 2, 2019).

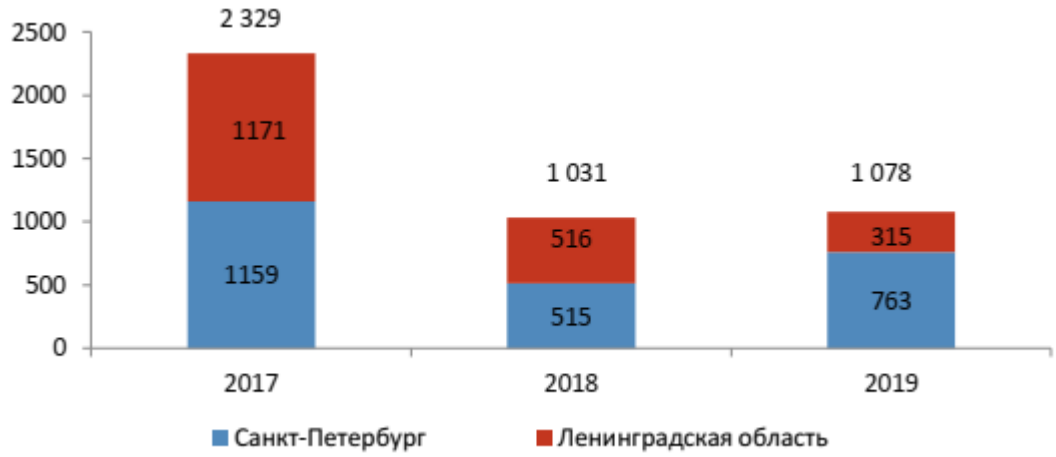
Investment Program Over Time

	Capital Investments	Fixed Assets Introduction	Funding	Capacity Introduction		Capacity Growth	
	RUB mn, net of VAT	RUB mn, net of VAT	RUB mn, VAT incl.	MVA	km	MVA	km
2019							
Saint Petersburg	18,790	18,237	23,565	763	579	673	506
Leningrad Region	7,345	5,760	9,003	315	1,715	244	777
Lenenergo, PJSC	26,135	23,997	32,568	1,078	2,294	916	1,282
Lenenergo, PJSC Group	26,533	24,360	32,978	1,097	2,343	935	1,331
2018							
Saint Petersburg	14,856	15,923	18,913	515	656	467	632
Leningrad Region	5,866	7,342	7,036	565	1,244	409	654
Lenenergo, PJSC	20,722	23,265	25,949	1,031	1,900	877	1,286
Lenenergo, PJSC Group	21,822	24,687	27,182	1,112	2,074	958	1,464
2017							
Saint Petersburg	19,871	18,069	27,046	1,158	684	1,003	576
Leningrad Region	8,332	10,714	8,409	1,171	1,452	637	856
Lenenergo, PJSC	28,203	28,783	35,454	2,329	2,136	1,640	1,432
Lenenergo, PJSC Group	31,600	30,106	39,255	2,414	2,265	1,725	1,560

Lenenergo, PJSC Capital Investments Over Time, RUB mn, net of VAT

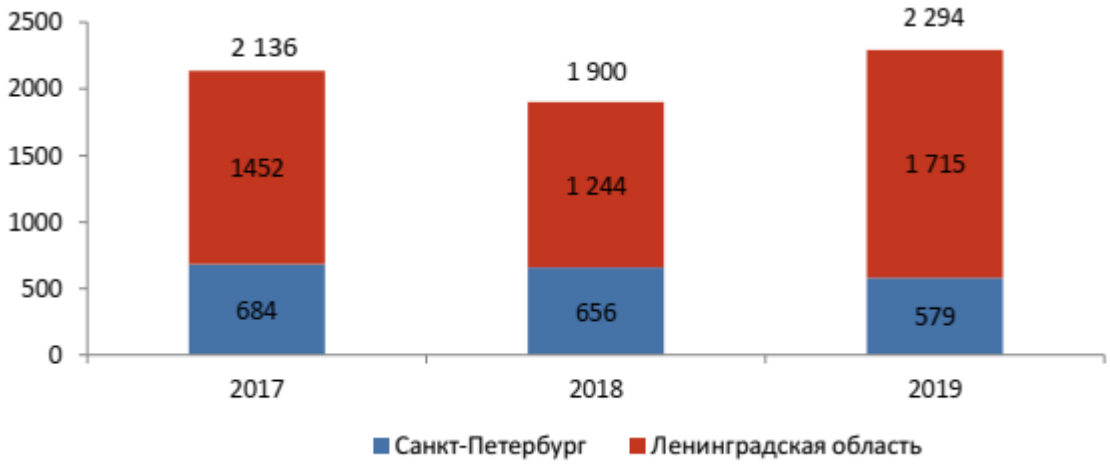
Saint Petersburg	Leningrad Region

Lenenergo, PJSC Capacity Introduction Over Time, MVA



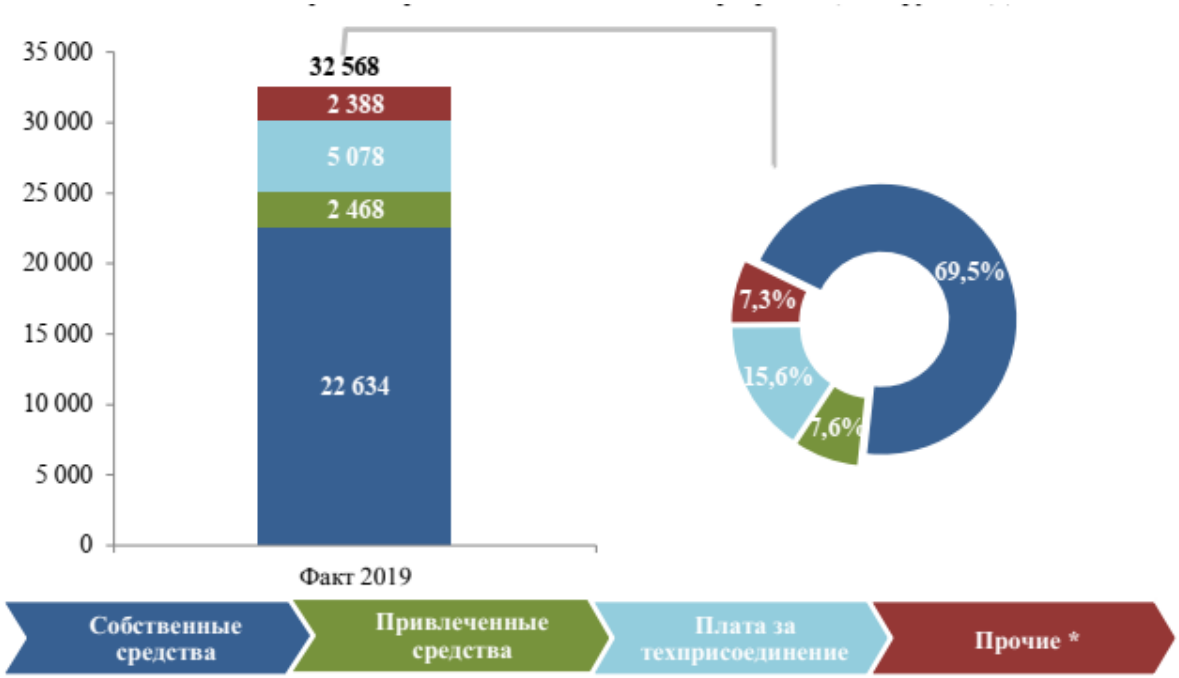
Saint Petersburg	Leningrad Region

Lenenergo, PJSC Capacity Introduction Over Time, km



Saint Petersburg	Leningrad Region

Investment Program Funding Sources, RUB mn, VAT incl.



Факт 2019	Actual 2019
Собственные средства	Own funds
Привлеченные средства	Borrowed funds
Плата за техприсоединение	Grid connection payment
Прочие*	Other*

*VAT refund, other

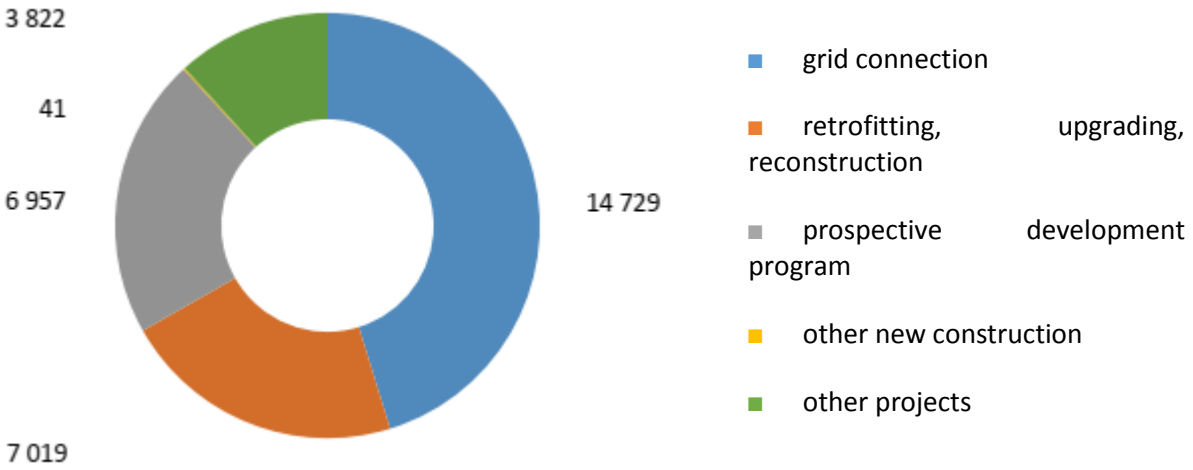
The following were the principal sources of capital investment funding for Rosseti Lenenergo in 2019: own funds (depreciation and net profit from power transmission), advance use of profit from grid connection, loaned funds, other funds (VAT refund, use of funds obtained by Lenenergo, PJSC in payment for the transferred payables for grid connection of SPb ES, JSC and PES, JSC, contractor payments under infringed property right compensation agreements).

The parameters of the investment program grew yoy due to the increased scope of retrofitting, upgrading, and reconstruction measures, and performance under the investment projects that are to be implemented subject to the power industry prospective development programs.

Lenenergo, PJSC Capital Investments Funding Structure Broken Down by Key Areas, RUB mn, VAT incl.

	2017	2018	2019
Total	35,454	25,949	32,568
Grid connection	28,465	14,518	14,729
Reconstruction, retrofitting, upgrading	3,338	4,895	7,019
Investment projects that are to be implemented subject to the power industry prospective development programs	206	1,976	6,957
Other new construction of power facilities	49	54	41
Purchase of land plots for investment projects	0	0	0
Other investment projects	3,396	4,506	3,822

Capital Investments Funding Structure Broken Down by Key Areas in 2019 for Lenenergo, PJSC, RUB mn, VAT incl.



Analysis of the investment program funding structure shows that the investments into grid connection in order to fulfill the grid connection contracts are a priority. The aggregate expenses for the retrofitting and upgrading items and the investment projects that are to be implemented subject to the power industry prospective development programs in 2019 are comparable to the grid connection expenses.

Funding of the various areas of the investment program in 2019 was as follows:

- grid connection is 45% of the overall investment program scope
- reconstruction, retrofitting, upgrading is 22% of the overall investment program scope
- investment projects that are to be implemented subject to the power industry prospective development programs are 21% of the overall investment program scope
- other investment projects are 12% of the overall investment program scope (including property under compensation agreements, equipment, transport).

Priority Projects within the Investment Program Commissioned in 2019

Project Name	Project Function	Construction Timeline, years	Commissioning Date	Cost of the Commissioned Fixed Assets, RUB mn	Capacity Introduction MVA/km	Primary Equipment
Kamenka 110 kV indoor electric power substation with 110 kV cable line (Construction of Kamenka 110 kV substation, installation of 2x80 MVA power transformers, construction of 110 kV cable line of 14.4 km)	Grid connection of applicants	2017-2019	December 31, 2019	RUB 869.74 mn	160 MVA	110 kV power transformer, TRDN 80000/110 U1 - 2 units
Construction of 110 kV substation No. 12A (Construction of 110 kV substation,	Program of comprehensive development of the Petrogradsky District power	2007-2019	December 31, 2019	RUB 882.81 mn	126 MVA	Power transformer 3P-GDAF-63000/110 - 2 units

installation of 2x63 MVA power transformers)	grid					
Construction of 110 kV incoming power lines to 110 kV substation No. 12A (estimated length: 6.7 km)	Program of comprehensive development of the Petrogradsky District power grid	2014-2019	December 31, 2019	RUB 588.24 mn	4.69 km	Zavod Iliych 330 kV substation (No. 15) - Karpovskaya 110 kV substation (No. 69) 110 kV cable line: 4.32545 km Levashovskaya 110 kV substation (No. 55) - Karpovskaya 110 kV substation (No. 69) 110 kV cable line: 0.36341 km
Reconstruction of Red Triangle substation No. 18 and transfer to 110 kV	Grid connection of applicants	2013-2019 (Stage 2)	October 31, 2019	RUB 242.85 mn	63 MVA 0.006 km	Power transformer TRDN-63000/110 U1 - 1 unit Avtovskaya 110 kV CHPP - Varshavskaya cable line: 0.006 km
Construction of 110 kV cable line of 16.3 km from substation No. 711	Improvement of power supply reliability	2014-2019	September 30, 2019	RUB 570.65 mn	6.32 km	Pulkovskaya 330 kV substation - Pushkin-Severnaya 110 kV substation (No. 711) 110 kV cable line: 5.2795 km Pushkin-Severnaya - Pulkovo 35 kV ACL section with a branch line to Detskoselskaya substation (approaches to substation No. 711): 1.0383 km
Construction of RU-10kV switchboard at 110/10 kV substation No. 347 (Reconstruction of 110/10 kV substation No. 347 - construction of ZRU-10kV indoor switchboard)	Grid connection of applicants	2016-2019	September 30, 2019	RUB 79.03 mn	-	110 kV outdoor switchboard - 2 cells of (each): Gas-insulated breaker, VGT-110 III 40/2000 UKhL1 - 1 unit Current transformer TOGF-110.Sh-0.25/0.5/10P/10P/10P/10 R-250-500-1000/5 UKhL1 - 1 units Disconnectors RGNP.1b-110/1000-40 UKhL1 - 1 unit Disconnectors RGNP.2-110/1000-40 UKhL1 - 2 units Surge arrester OPN-P1-110/88/10/2 III UKhL1 - 1 unit
Construction of two 110 kV cable lines from 110 kV substation No. 104 to Vasileostrovskaya 330 kV substation (estimated length: 1 km)	Improvement of power supply reliability	2018-2019	September 30, 2019	RUB 198.35 mn	1.76 km	Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) 110 kV cable line No. 1: 0.8685 km Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) 110 kV cable line No. 2: 0.8902 km
Construction of Primorskaya-1,2,3,6 35 kV cable lines	Improvement of power supply reliability,	2019-2019 (Stage 1)	September 30, 2019	RUB 572.18 mn	9.5 km	Primorskaya-6 35 kV ACL from Lakhta substation No. 613 to Novikova transfer

(switching from overhead lines to cable lines, overall length: 37.3 km) (1	switching from overhead lines to cable lines					point (section from substation No. 613 to 2, ul. Iliyushina, MS): 9.36884 km Nevskaya Guba 110 kV substation - Namyv-1 35 kV substation 35 kV cable line: 0.13426 km
Construction of two 110 kV cable lines from substation No. 46 to substation No. 24 (estimated length: 3.2 km)	Improvement of power supply reliability, switching from overhead lines to cable lines	2018-2019	December 31, 2019	RUB 707.33 mn	5.92 km	Section of Novorzhevskaya - Rzhevka No. 1 110 kV cable line from s/m coupling section No. 1 to substation No. 24: 2.957 km Section of Novorzhevskaya - Rzhevka No. 2 110 kV cable line from s/m coupling section No. 1 to substation No. 24: 2.961 km

Saint Petersburg
Construction of Kamenka 110 kV Substation (Stage 2)

Address: Saint Petersburg,
Primorsky District, ul. Parashyutnaya, 39
Timeline: 2017-2019
Construction scope:
Construction of Kamenka 110 kV indoor substation with the transformer capacity of 160 MVA (2x80 MVA). Arc suppression coil ADMK 500/10 - 4 units: 10 kV cubicle switchboard D-12P - 1 set (50 cells), 110 kV cubicle switchboard ELK-04 (5 cells), 10 kV current limiting reactor - 4 sets, 10 kV PSP and APS equipment; APCS equipment; AIMS EPA equipment; AFSS equipment; CCTV equipment; SFA equipment; security alarm and access monitoring and control system equipment; internal communication networks; substation communication equipment; cable line monitoring equipment; illumination systems; heating systems; ventilation systems.
Goal:
Power supply to Ioffe Physical-Technical Institute of the Russian Academy of Sciences, Federal State Budgetary Institution of Science; RosStroy, CJSC housing construction; LSR. Real Estate - SZ, LLC; and future residential and office areas of the Primorsky and Vyborgsky Districts of Saint Petersburg.
Progress:
In 2018, Stage 1 of construction was commissioned and added to the fixed assets: double-circuit 110 kV cable line of 7.043 km from Nissan 110 kV substation No. 99 to Kamenka 110 kV substation; line compact gas-insulated 110 kV switching module with 3AP1 DTC G cable gland; power system protection, communication, AIMS EPA, cable line monitoring systems.
In 2019, Stage 2 of construction was commissioned and added to the fixed assets: Kamenka 110 kV indoor electric power substation with transformer capacity of 160 MVA (2x80 MVA).

Saint Petersburg
Reconstruction of Red Triangle substation No. 18
and transfer to 110 kV (Stage 2)

Address: 185, nab. Obvodnogo Kanala, Saint Petersburg
Timeline: 2013-2019
Construction scope:
Stages 1 and 2 are commissioned; the substation is switched from 35 kV to 110 kV; new incoming 110 kV cable lines were built at CHPP-15.
Goal:
Grid connection of new clients and improvement of power supply reliability of the existing clients: Baltiyskiy Railway Station, Vodokanal of St. Petersburg, SUE, Baltiyskaya metro station, the Mariinsky Theater, Admiralty Shipyards, Goznak FSUE, Conservatory, Stepan Razin Factory, Central Post Office, outpatient clinics, industrial facilities, and residents
Progress:
Stage 1 of reconstruction was fully carried out in 2018.
Stage 2 of reconstruction was fully carried out in 2019.
Stage 3 of reconstruction is under way.
In 2019, the following was commissioned and added to the fixed assets:

Power transformer TRDN-63000/110 U1; power system protection packages (TOR); monitoring systems, PSP, APCS.

Saint Petersburg

Construction of 110 kV substation No. 12 (Construction of 110 kV substation, installation of 2x63 MVA power transformers)

Address:
Timeline: 2007-2019
Construction scope:
Construction of 110 kV substation with 2x63 MVA transformers, PSP equipment, auxiliary boards, batteries, DCS, 110 kV CSBGI, 35 kV CSBGI, UAT, APCS, AIMS EPA, communication equipment.
Goal:
Construction of a new power center within the project for connecting 35 kV package pole-mounted transformer substations of the Petrogradsky District as part of the comprehensive grid development program of the District.
Progress:
In 2019, 110 kV substation with the overall transformer capacity of 126 MVA was commissioned and added to the fixed assets. Construction footprint was cleared. A building was constructed; metal structures were fire-proofed (tiling of the facade; finishing work). Water supply and external plumbing were performed. Finishing works were performed; ventilation and air conditioning was installed; the control cable was installed; secondary circuits termination was carried out. The PSP equipment, auxiliary boards, batteries, DCS, 110 kV CSBGI, 35 kV CSBGI, UAT, APCS, AIMS EPA, communication equipment, power transformers were installed.

Saint Petersburg

Construction of 110 kV incoming power lines to 110 kV substation No. 12A (estimated length: 6.7 km)

Address: Saint Petersburg,
Timeline: 2014-2019
Construction scope:
Construction of 110 kV cable lines from substation No. 12A to substation No. 55 (363.71), from Zavod Iliych substation to substation No. 12A (4325.45)
Goal:
Grid connection of a new power center of 110 kV substation No. 12A to the grid as part of the comprehensive grid development program of the Petrogradsky District.
Progress:
In 2019, the following was commissioned and added to the fixed assets:
110 kV cable line of 4.7 km. A cable line monitoring cabinet was installed and adjusted at substation No. 12A
A power system protection cabinet was installed and adjusted at substation No. 55
Fiber optic lines were laid from substation No. 12A to substation No. 55 (354.04), from Zavod Iliych substation to substation No. 12A (4456.28)
APS cabinets were installed and adjusted at Zavod Iliych and Volkhov-Severnaya substations

Saint Petersburg
Construction of 110 kV cable line of 16.3 km from substation No. 711

Address: Saint Petersburg,
Timeline: 2014-2019
Construction scope:
110 kV cable line was laid along with a fiber optic line from substation No. 711 to Pulkovskaya substation (estimated length: 5.3 km). Pushkinskaya-3 and Pushkinskaya-1 35 kV overhead lines were aligned creating a 35 kV OL from substation No. 704 to substation No. 714.
Goal:
Increase of the transformer capacity of substation No. 711 in order to meet the potential load subject to the urban development plans, including the 35 kV grid (through the 35 kV substations fed by substation No. 711).
Progress:
Constructed: Pulkovskaya 330 kV substation - Pushkin-Severnaya 110 kV substation (No. 711) 110 kV cable line of 5.28 km was constructed.

- Pushkin-Severnaya - Pulkovo 35 kV ACL section with a branch line to Detskoselskaya substation (approaches to substation No. 711): 1.038 km
- cable temperature monitoring system for 35-110 kV CL: 1 set
- fiber optic line No. 1 from Pulkovskaya 330 kV substation to Pushkin-Severnaya 110 kV substation (No. 711); DPO-06-024A04-2.4: 5.556 km
- fiber optic line No. 2 from Pulkovskaya 330 kV substation to Pushkin-Severnaya 110 kV substation (No. 711); DPO-06-024A04-2.4: 5.609 km
- PSP system for Pushkin-Yuzhnaya 110 kV substation (No. 185) - 1 set.

In 2019, the following was commissioned and added to the fixed assets:

- Pulkovskaya 330 kV substation - Pushkin-Severnaya 110 kV substation (No. 711) 110 kV cable line: 5.28 km
- Pushkin-Severnaya - Pulkovo 35 kV ACL section with a branch line to Detskoselskaya substation (approaches to substation No. 711): 1.038 km
- cable temperature monitoring system for 35-110 kV CL: 1 set
- fiber optic line No. 1 from Pulkovskaya 330 kV substation to Pushkin-Severnaya 110 kV substation (No. 711); DPO-06-024A04-2.4: 5.556 km
- fiber optic line No. 2 from Pulkovskaya 330 kV substation to Pushkin-Severnaya 110 kV substation (No. 711); DPO-06-024A04-2.4: 5.609 km
- PSP system for Pushkin-Yuzhnaya 110 kV substation (No. 185) - 1 set.

Saint Petersburg

Construction of RU-10kV switchboard at 110/10 kV substation No. 347 (Reconstruction of 110/10 kV substation No. 347 - construction of ZRU-10kV indoor switchboard)

Address: Saint Petersburg,
Timeline: 2016-2019
Construction scope:
Reconstruction of 2 cells of 110 kV OSB; power system protection, APCS, AIME EPA, communication.
Goal:
Grid connection of applicants under contract(s): Nos. 13-15113, 14-19298 dd. November 7, 2013.
Applicant: Evrostroyproekt, Limited Liability Company.
Progress:
Reconstruction of 110 kV OSB; grounding contour; part of the fence; two sets of entrance gates; power system protection, APCS, AIME EPA, communication and security alarm; fiber optic line to Yuzhnaya 330 kV substation; accident prevention system at Yuzhnaya 330 kV substation; CCTV assembly; amenities; rainstorm drain; disassembly of old SCH.
In 2019, the following was commissioned and added to the fixed assets: 110 kV OSB, 2 cells.

Saint Petersburg

Construction of two 110 kV cable lines from 110 kV substation No. 104 to Vasileostrovskaya 330 kV substation (estimated length: 1 km)

Address: Saint Petersburg,
Timeline: 2018-2019
Construction scope:
Laying of a double-circuit 110 kV CL along with a fiber optic line from 110 kV substation No. 104 to Vasileostrovskaya 330 kV substation (estimated length: 0.9 km). Cable line monitoring, APS, PSP equipment assembly.
Goal:
Optimization of the 110 kV grid layout in order to reduce the short circuit current intensity and the transit load from 330 kV Zavod Iliych substation. The project is included in the Prospective Development Program (Decree No. 25-pg dd. April 25, 2019 by A.D. Beglov, the Saint Petersburg Governor).
Progress:
Constructed: - Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) 110 kV cable line No. 1: 0.869 km

- Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) 110 kV cable line No. 2: 0.89 km
- Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) fiber optic line No. 1, OPN-DPO-N-04-02A08-2.7: 1.026 km

- Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) fiber optic line No. 2, OPN-DPO-N-04-02A08-2.7: 1.195 km.

Assembled:

- Uralskaya 110 kV substation (No. 104) CL1 primary protection cabinet: 1 set
- Uralskaya 110 kV substation (No. 104) CL2 primary protection cabinet: 1 set
- APS cabinet AKA Kedr; ShE-200-AKA; substation No. 104: 1 set
- APS cabinet AKA Kedr; ShE-200-AKA; substation No. 104: 1 set
- APS cabinet AKA Kedr; ShE-200-AKA; substation No. 131: 1 set
- Control, management and communication cabinet; ShOSR.E42.UKhL4; substation No. 131: 1 set
- Cable line temperature monitoring cabinet; substation No. 104: 1 set

In 2019, the following was commissioned and added to the fixed assets:

- Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) 110 kV cable line No. 1: 0.869 km
- Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) 110 kV cable line No. 2: 0.89 km
- Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) fiber optic line No. 1, OPN-DPO-N-04-02A08-2.7: 1.026 km
- Vasileostrovskaya 330 kV substation - Uralskaya 110 kV substation (No. 104) fiber optic line No. 2, OPN-DPO-N-04-02A08-2.7: 1.195 km
- Uralskaya 110 kV substation (No. 104) CL1 primary protection cabinet: 1 set
- Uralskaya 110 kV substation (No. 104) CL2 primary protection cabinet: 1 set
- APS cabinet AKA Kedr; ShE-200-AKA; substation No. 104: 1 set
- APS cabinet AKA Kedr; ShE-200-AKA; substation No. 104: 1 set
- APS cabinet AKA Kedr; ShE-200-AKA; substation No. 131: 1 set
- Control, management and communication cabinet; ShOSR.E42.UKhL4; substation No. 131: 1 set
- Cable line temperature monitoring cabinet; substation No. 104: 1 set.

Saint Petersburg

Construction of Primorskaya-1,2,3,6 35 kV cable lines (switching from overhead lines to cable lines, overall length: 37.3 km)

Address: Saint Petersburg,

Timeline: 2019-2019

Construction scope:

1. Switching of Primorskaya-1 35 kV OL (ACL from Zavod Iliych 35 kV to Kamenka substation with a branch to Udelny transfer point) to cable directed from Zavod Iliych substation to Yuntolovo substation (connecting to the 35 kV cable line from the coupling section at Ilyushin transfer point to the coupling section at the intersection of Lakhtinsky pr. and Bezymyanny per.; performed as part of Stage 1).
2. Switching of Primorskaya-2 35 kV OL (ACL from Zavod Iliych 35 kV to Novikov transfer point with a branch to Udelny transfer point) to cable directed from Zavod Iliych substation to Lakhta substation with a branch to Namyv-1 substation (connecting to the 35 kV cable line from Lakhta substation to Ilyushin transfer point laid as part of Stage 1); disassembly of Novikov transfer point.

3. Switching of Primorskaya-3 35 kV OL (ACL from Kamenka 35 kV to Lisiy Nos, with branches) to cable directed from Yuntolovo substation to couplings at Lisiy Nos substation to the 35 kV CL directed to Damba-1 360 substation, retaining the branch to Lisiy Nos - Tyagovaya substation.

Goal:

Further development of the urban areas, infrastructure, residential and industrial construction. Reduction of the number of emergency shutdowns (insulation pollution, bird nesting, etc.). Improvement of the aesthetic appeal of the city architectural layout. Reconstruction of overhead lines passing through Saint Petersburg, switching them to cable, subject to the instructions of the Saint Petersburg Government (Meeting with I.N. Albin, the Vice-Governor of Saint Petersburg, and P.A. Livinsky, the CEO and Chairman of the Management Board of Rosseti, PJSC, Minutes No. 205 dd. November 7, 2017).

Progress:

Constructed:

- Primorskaya-6 35 kV ACL from Lakhta substation No. 613 to Novikova transfer point (section from substation No. 613 to 2, ul. Iliyushina, MS):
  9.369 km
- Nevskaya Guba 110 kV substation - Namyv-1 35 kV substation 35 kV cable line: 0.134 km
- Zavod Iliycha substation - Lakhta substation (No. 613) fiber optic line: 8.449 km
- Zavod Iliycha substation - Lakhta substation (No. 613) fiber optic line with a branch to Nevskaya Guba substation (No. 76): 9.100 km.

In 2019, the following was commissioned and added to the fixed assets:

- Primorskaya-6 35 kV ACL from Lakhta substation No. 613 to Novikova transfer point (section from substation No. 613 to 2, ul. Iliyushina, MS):
  9.369 km
- Nevskaya Guba 110 kV substation - Namyv-1 35 kV substation 35 kV cable line: 0.134 km
- Zavod Iliycha substation - Lakhta substation (No. 613) fiber optic line: 8.449 km
- Zavod Iliycha substation - Lakhta substation (No. 613) fiber optic line with a branch to Nevskaya Guba substation (No. 76): 9.100 km.

Saint Petersburg

Construction of two 110 kV cable lines from substation No. 46 to substation No. 24 (estimated length: 3.2 km)

Address: Saint Petersburg,

Timeline: 2018-2019

Construction scope:

Construction of a double-circuit 110 kV cable line,
fiber optic line, cable line monitoring cabinets, surge arresters.

Goal:

Further development of the urban areas, infrastructure, residential and industrial construction. Improvement of power supply reliability and safety of the residents and their property. Reduction of the number of emergency shutdowns (insulation pollution, bird nesting, etc.). Improvement of the aesthetic appeal of the city architectural layout. Reconstruction of overhead lines passing through Saint Petersburg, switching them to cable, subject to the instructions of the Saint Petersburg Government (Meeting with I.N. Albin, the Vice-Governor of Saint Petersburg, and P.A. Livinsky, the CEO and Chairman of the Management Board of Rosseti, PJSC, Minutes No. 205 dd. November 7, 2017).

Progress:

In 2019, the following was commissioned and added to the fixed assets:

1. Section of Novorzhevskaya - Rzhevka No. 1 110 kV cable line from s/m coupling section No. 1 to substation No. 24 (2.957 km)
2. Section of Novorzhevskaya - Rzhevka No. 2 110 kV cable line from s/m coupling section No. 1 to substation No. 24 (2.961 km)
3. Novorzhevskaya - Rzhevka No. 1; OPN-DPO-06-024A04-2.7 (3.228 km)
4. Novorzhevskaya - Rzhevka No. 2; OPN-DPO-06-024A04-2.7 (3.227 km)
5. Cable line temperature monitoring cabinet; TORA2-MT.0046-MKL; substation No. 24 (1 set)
6. Surge arrester; OPN-P1-110/77/10/3 IVUKhL1; substation No. 24 (1 set)
7. Substation No. 24. Foundations for Swed. disconn. 110 kV, 2 units (1 set).

Investment Program Performance Results in 2019

The following is the information on the 2019 performance results achieved due to implementation of measures included in the investment program, subject to Russian Ministry of Energy Order No. 177 dd. March 14, 2017:

- Transformer substation load in 2019: 24.6% (measured load in December 2019: 3,979.74 MVA; installed capacity: 16,872.6 MVA); in 2018: 26.0% (measured load in December 2018: 4,346.88 MVA; installed capacity: 16,368.6 MVA).
- The share of the net power supply based on the readings from the power meters included in the data collection and transfer system changed by 0.40% (the net power supply in 2018: 31,396,320 thousand kWh, in 2019: 31,497,470 thousand kWh).
- The average duration of interruptions in power supply to the consumers (ΔΠsaidi) change in 2019 was assessed as -0.00695081671123311.
- The average frequency of interruptions in power supply to the consumers (ΔΠsaifi) change in 2019 was assessed as -0.00338682229320889.
- The grid company's fulfilled grid connection obligations in 2019 decreased year-over-year by 9% and amounted to 27,483 (2018: 30,122) obligations.
- The peak capacity of the connected power consumers decreased year-over-year by 13.5% and amounted to 893,388 kW (2018: 1,032,528 kW), including:
  - power generating facilities: 20 kW
  - power facilities belonging to other grid entities: 893,368 kW.

Long-Term Investment Program

The Ministry of Energy of Russia approved the 2019-2020 Long-Term Investment Program of Lenenergo, PJSC (Order No. 1042 dd. December 28, 2015, as amended by Ministry of Energy Order No. 27@ dd. December 21, 2018 and Ministry of Energy Order No. 16@ dd. December 2, 2019).

The Company's Investment Program principal objectives:

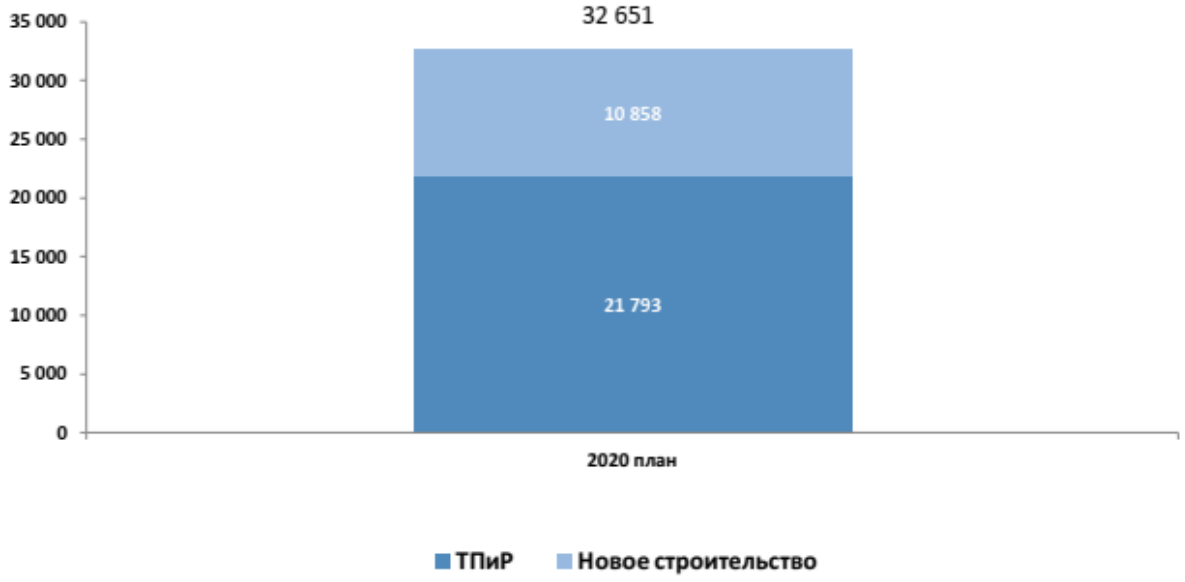
- ensuring retrofitting of the grid assets of the Company
- fulfilling the network connection obligations, including to the subsidized consumers in Saint Petersburg and the Leningrad Region
- introducing innovative projects and energy efficiency programs
- creating a technological infrastructure to maintain the competitiveness of the power and capacity market.

Long-Term Investment Program Key Parameters Over Time

	2020 Planned
Saint Petersburg	
Capital investments, RUB mn, net of VAT	24,181
Funding, RUB mn, VAT incl.	24,679

Fixed assets introduction, RUB mn	27,907
Commissioning of transformer capacity, MVA	1,347
Commissioning of power lines, km	481
Leningrad Region	
Capital investments, RUB mn, net of VAT	6,870
Funding, RUB mn, VAT incl.	7,973
Fixed assets introduction, RUB mn	7,658
Commissioning of transformer capacity, MVA	389
Commissioning of power lines, km	1,035
Lenenergo, PJSC, Total	
Capital investments, RUB mn, net of VAT	31,052
Funding, RUB mn, VAT incl.	32,651
Fixed assets introduction, RUB mn	35,565
Commissioning of transformer capacity, MVA	1,736
Commissioning of power lines, km	1,516
Lenenergo, PJSC Group, Total	-
Capital investments, RUB mn, net of VAT	31,396
Funding, RUB mn, VAT incl.	33,064
Fixed assets introduction, RUB mn	36,082
Commissioning of transformer capacity, MVA	1,745
Commissioning of power lines, km	1,531

Capital Investments Funding Structure Broken Down by Areas, RUB mn, net of VAT



Retrofitting, upgrading, reconstruction	New construction

Lenenergo, PJSC Capacity Introduction Over Time, MVA

Saint Petersburg	Leningrad Region

Lenenergo, PJSC Capacity Introduction Over Time, km

Saint Petersburg	Leningrad Region

Subject to the approved investment program for 2020, the capital investments funding is RUB 32,651 mn, VAT incl.

The investment program implementation in 2020 should result in the increase of fixed assets by RUB 35.6 bn, introduction of transformer capacity of 1,736 MVA, and installation of 1,516 km of power lines, which will increase the output, reduce the number of accidents, improve the reliability of the energy system, and allow for consumers' grid connection.

Development of the Power Sector in the Russian Constituent Entities Served by the Company

Lenenergo, PJSC has built active relationships with the executive authorities of Saint Petersburg and the Leningrad Region with respect to prospective development of the power grids. Thus, the Saint Petersburg Energy and Building Services Committee and the Leningrad Region Fuel and Energy Sector Committee annually receive nominations for the work groups dedicated to developing schedules and programs of prospective development of the electric power sector of Saint Petersburg and the Leningrad Region. The Company has officers assigned to be responsible for interacting with the government agencies for drafting the schedules and programs of prospective development of the city and region.

In 2019, Lenenergo, PJSC designed and drafted the 2019-2023 Prospective Development Program for the Power Sector of Saint Petersburg as part of the 2019-2024 Comprehensive Development Program for the Power Grid of Over 35 kV in Saint Petersburg and the Leningrad Region. The Comprehensive Development Program for the Power Grid was adopted by Lenenergo, PJSC Instruction No. 47-r dd. February 28, 2020.

Every year, Lenenergo, PJSC sends the executive authorities of the city and the region the initial data specifying the existing load and proposals to its increase for the purpose of drafting the schedules and programs of prospective development of the power sector. Another source of the input data for such schedules and programs for 2020-2024 was the approved 2019-2024 Comprehensive Development Program for the Power Grid of Over 35 kV for Saint Petersburg and the Leningrad Region, sent to the Saint Petersburg Energy and Building Services Committee and the Leningrad Region Fuel and Energy Sector Committee.

Fixed Assets Construction Quality Control

In order to implement Russian Government Order No. 468 dd. June 21, 2010 *On Construction Supervision When Constructing, Reconstructing, and Overhauling the Fixed Assets*, construction supervision is carried out to check the compliance of the construction, reconstruction, and overhaul of the fixed assets with the requirements of the project documents, technical regulations, urban plan of the land plot, results of the engineering surveys.

The scope of the independent construction supervision over the fixed assets under construction within the Investment Program of the Company in 2019 was 70.45%.

3.5. Consolidation of Power Grid Assets

The executive department and branches of the Company engaged in consolidating the power grid assets; their functions and headcount.

Power Grid Assets Consolidation of the Property Management Department of Lenenergo, PJSC. Organization the entire set of measures to consolidate power grid assets of the Company from planning to fulfilling the transactions. Headcount: 6 employees.

As part of their core operations, other departments, divisions and offices of the Company are also engaged in the process of asset consolidation:

Maintenance and Repair Department, together with the Company branches.

Maintenance of the facilities as part of implementation of the consolidation projects; preparation of information on the technical state of the property, anticipated expenses related to the operating maintenance, repair, and reconstruction of facilities.

Sale and Development of Services Block, together with the Company branches. Provision of information on the consolidation projects with respect to prospective development, grid connection, and power transmission.

Economics Department. Estimation of economic effectiveness of the consolidation implementation projects.

Corporate Governance and Shareholder Relations Department. Organization of corporate procedures aimed at the consolidation projects implementation (decisions of the governance bodies, initiatives, support of the securities issue procedures, etc.).

Regulatory base (including the documents issued on the regional level) used by the Company when consolidating the power grid assets:

- The Civil Code of the Russian Federation
- Federal Law No. 208-FZ dd. December 26, 1995 *On Joint Stock Companies*
- Federal Law No. 14-FZ dd. February 8, 1998 *On Limited Liability Companies*
- Federal Law No. 66-FZ dd. April 15, 1998 *On Gardening, Farming, and Suburban Non-Profit Unions*
- Federal Law No. 35-FZ dd. March 26, 2003 *On Electric Power Industry*; Federal Law No. 35-FZ dd. March 26, 2003 *On Electric Power Industry*
- Federal Law No. 178-FZ dd. December 1, 2001 *On Privatization of State and Municipal Property*
- Federal Law No. 115-FZ dd. July 21, 2005 *On Concession Agreements*

- Federal Law No. 224-FZ dd. July 13, 2015 *On Public Private Partnership, Municipal Private Partnership in Russia, and On Amending Several Russian Laws*

- Federal Law No. 131-FZ dd. October 6, 2003 *On General Principles of Local Governance in Russia*

- Russian Government Decree No. 184 dd. February 28, 2015 *On Allocating Power Facility Owners to Territorial Grid Entities*

- Russian Government Decree No. 1178 dd. December 29, 2011 *On Pricing in Regulated Segment (Tariffs) of the Electric Power Industry*

- Russian Government Instruction No. 511-r dd. April 3, 2013 *On Approving the Russian Power Sector Development Strategy*

- Saint Petersburg Municipal Property Management Committee Instruction No. 1503-r dd. September 30, 1999 *On Approving a Procedure for Transfer of Engineer Infrastructure Facilities to Special Operating Entities*.

Principles of Organization of Power Grid Assets Consolidation and Interaction with Territorial Grid Entities

- there are no Decrees of the President of Russia, the Russian Government, etc.

- no Agreements/Contracts with executive authorities of the Russian constituent entities, local governments were signed.

Interaction with proprietors and other lawful owners of the power facilities that do not meet the criteria for allocating the power facility owners to the territorial grid entities approved by Russian Government Decree No. 184 dd. February 28, 2015 with respect to the power grid assets management, was carried out by entering into donation and lease agreements.

In 2019, the Company consolidated power grid assets and obtained the following results: 501.88 MVA, 928.95 km, 9,158.68 prov.units.

Power Grid Assets Consolidation Monitoring*

IDGC/DGC (IDGC, DGC, IDGC SDC branch)	2017			2018			2019		
	Power grid assets consolidation scope			Power grid assets consolidation scope			Power grid assets consolidation scope		
	MVA	km	prov. units	MVA	km	prov. units	MVA	km	prov. units
1	2	3	4	5	6	7	8	9	10
Lenenergo, PJSC, Total	**480.90**	**862.60**	**6,054.70**	**507.66**	**848.87**	**8,626.30**	**501.88**	**928.95**	**9,158.68**
Purchase of power grid assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease of the power grid facilities	160.30	26.20	591.80	160.25	26.19	591.81	160.65	69.44	944.44
Other (permanent ownership and use rights)	5.60	137.10	323.50	24.61	90.38	341.08	17.51	99.58	302.22
Other (temporary ownership and use rights)	0.00	0.00	0.00	322.80	732.30	7,693.41	323.72	759.96	7,911.52
Lenenergo, PJSC - Saint Petersburg	**313.60**	**697.00**	**5,179.10**	**0.00**	**7.46**	**82.05**	**0.00**	**9.46**	**128.03**
Purchase of power grid assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease of the power grid facilities	0.00	7.50	82.00	0.00	7.46	82.05	0.00	9.46	128.03
Other (permanent ownership and use rights)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Other (temporary ownership and use rights)	313.60	689.50	5,097.10	0.00	0.00	0.00	0.00	0.00	0.00
Lenenergo, PJSC - the Leningrad Region	**167.30**	**138.90**	**804.60**	**184.46**	**103.49**	**826.12**	**178.16**	**159.54**	**1,119.13**
Purchase of power grid assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease of the power grid facilities	160.30	18.70	509.80	160.25	18.73	509.76	160.65	59.96	816.91
Other (permanent ownership and use rights)	5.60	110.40	252.50	24.21	84.76	316.36	17.51	99.58	302.22
Other (temporary ownership and use rights)	1.40	9.80	42.30	0.00	0.00	0.00	0.00	0.00	0.00
SPb ES, JSC - Saint Petersburg	**315.00**	**699.30**	**5,139.40**	**322.80**	**732.30**	**7,693.41**	**323.72**	**759.96**	**7,911.52**
Purchase of power grid assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease of the power grid facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other (permanent ownership and use rights)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other (temporary ownership and use rights)	315.00	699.30	5,139.40	322.80	732.30	7,693.41	323.72	759.96	7,911.52
TSEK, JSC - Saint Petersburg	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Purchase of power grid assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease of the power grid facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other (permanent ownership and use rights)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other (temporary ownership and use rights)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kurortenergo - Saint	**0.00**	**26.70**	**71.00**	**0.40**	**5.62**	**24.72**	**0.00**	**0.00**	**0.00**
Purchase of power grid assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease of the power grid facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other (permanent ownership and use rights)	0.00	26.70	71.00	0.40	5.62	24.72	0.00	0.00	0.00
Other (temporary ownership and use rights)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NOTES:

purchased - the entire actual scope of purchased power grid assets for the calendar period

leased - the entire actual scope of the leased power grid assets as of the end of the period (i.e., all the valid agreements in force, including the ones having been entered into previously, the number of applicable deals and transaction in force as of the end of the period)

other (permanent ownership and use rights) - all the actual purchased property for the calendar period

other (temporary ownership and use rights) - all the valid agreements in force as of the end of the period, including the previously entered into ones

*Information is provided for each area of operations, including the controlled entities

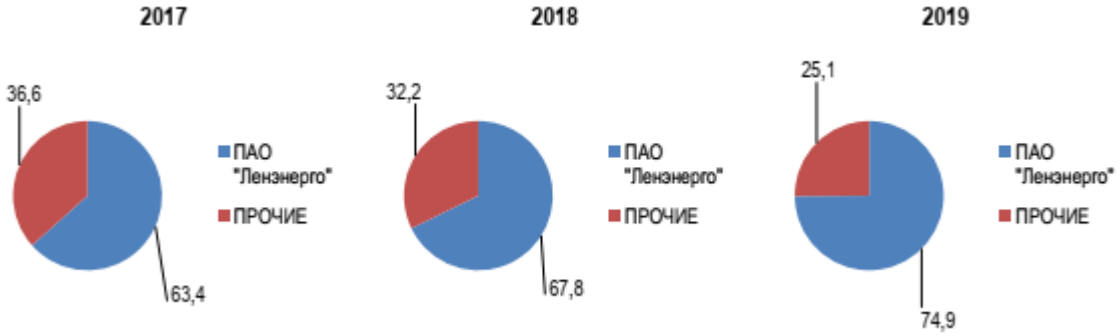
**N - report period.

Lenenergo, PJSC is the largest power grid company in Saint Petersburg and the Leningrad Region.

Share of SDC of Rosseti, PJSC in RGP of Areas of Operations*

• Saint Petersburg

• Leningrad Region



ПАО «Ленэнерго»	Lenenergo, PJSC
ПРОЧИЕ	OTHERS

**Information is provided for each area of operations, including the controlled entities*
**N - report period.

Information reflected in the decrees approving the common ("aggregate") tariffs for power transmission services by the executive authorities of the Russian constituent entities that regulate tariffs is used to calculated the required gross proceeds share in the area.

Assets Management

The Company's share and participation in the other subsidiaries (except for non-profit entities).

Information on Lenenergo, PJSC Participation in Non-Core Entities

№	Name	Area of Operations	Activities (to be specified in case of non-core entities)	Stake, %	2019 Revenue, RUB thousand
1	2	3	4	5	6
1.	NWEMC, JSC	Saint Petersburg	Other activities related to the use of computing equipment and information technology (according to 2019 statements under the RAS)	12.51	68,204
2.	LESR, JSC	Saint Petersburg	Engineering surveys, design and engineering, construction projects management, construction supervision and designer supervision, technical consulting in these fields Construction of local power lines and communication networks	100	1,270.007

			(according to the Unified State Register of Legal Entities)		
3.	FITS, JSC	Saint Petersburg	Testing, research and analysis of the integral mechanic or electric systems, energy inspection (according to the USRLE)	1%	131,446*

* in 2018

Sale and Disposal of Non-Core Assets in 2019 **(only for the grid SDCs)**

Subject to Order No. 596 dd. May 7, 2012 of the President of the Russian Federation, Russian Government Directive No. 4863p-P13 dd. July 7, 2016, and Russian Government Instruction No. 894-r dd. May 10, 2017, the Board of Directors of Lenenergo, PJSC (Minutes No. 18 dd. March 1, 2017) adopted a revised Non-Core Assets Disposal Program for the Company (hereafter referred to as the Program).

The Program sets out new approaches, principles, and procedures for identification and disposal of the non-core assets, the criteria for non-core assets, the procedure for the keeping of the Non-Core Assets Register, approaches to determination of the non-core assets value, main provisions for the disposal of the non-core assets, as well as the procedure for reporting on the fulfillment of the Non-Core Assets Register.

The Company's Board of Directors approved the updated Non-Core Assets Register created in line with the Program on November 1, 2019 (Minutes No. 16).

Table 16 contains information on the sale and disposal of non-core assets in 2019.

Sale and Disposal of Lenenergo, PJSC Non-Core Assets in 2019

Table 16

No.	Asset Name	Stock No. (if any)	Statement of Financial Position Item reflecting the asset as of the report date prior to the asset sale/disposal	Ledgers (in view of analytics) reflecting income and expenses from the asset disposal (91.1, 91.2)	Asset Book Value, RUB thousand	Actual Sale Value, RUB thousand	Difference between the actual sale value and book value, RUB thousand	Reasons for such difference
1	2	3	4	5	6	7	8	9
1.	Garage building and extension	36010012	1152	91.01	0	292.15	292.15	Sale at an auction

3.6. Technical Upgrades, Modernization, and Innovations

3.6.1. The Company's Technical Policy

The Board of Directors of Rosseti, PJSC adopted a new version of the Rosseti Regulation on Uniform Technical Policy in the Power Sector (Minutes No. 378 dd. November 8, 2019). The Board of Directors of Lenenergo, PJSC approved the Rosseti Regulation on Uniform Technical Policy as an internal corporate document (Minutes No. 26 dd. December 20, 2019).

The following are the goals of the Uniform Technical Policy in the Power Sector:

• Identifying the principal technology paths and unifying the technical and process solutions that improve reliability, efficiency, and reduction of the resource intensity of the power sector, and ensure its safety at the same time in short term and medium term.

• Transition of Rosseti, PJSC to the risk-focused management based on the introduction of digital technology and big data analysis.

• Arranging for introduction of cutting-edge research and innovations in the power sector.

The principal objectives of the Uniform Technical Policy in the Power Sector are:

• arranging and improving the power grids readiness to transmit and distribute electric power to ensure the reliable supply of electric power to consumers, functioning of the wholesale and retail electric power markets, parallel operation of the unified energy system of Russia and the power systems of other countries

• ensuring the power output into the grid by the power generating facilities

• creating options for connecting the wholesale and retail market participants to the grids and providing inclusive access

• participating in the measures aimed at increasing efficiency and developing the systems of performance and accident-prevention management systems of the Russian unified energy system

• developing and upgrading the structure of the operative and process management of the power facilities

• developing and upgrading the information and telecommunications infrastructure, improving the observability of the power grid and of the quality of information exchange with other power industry enterprises

• optimizing and reducing the investment and operational expenses and costs related to the power facilities by optimizing the technical and process solutions when preparing design documents, applying innovative technology and equipment, construction materials and structures, and saving the floor spaces occupied by the power facilities

• improving the efficiency of the power grid asset management

• improving the energy efficiency of the technology, equipment, materials, and systems applied and used, and reducing the process power losses in the grids

• overcoming the fixed assets of the grids and grid equipment becoming obsolete by modernizing them, and optimizing their reconstruction, retrofitting and upgrading, as well as by improving the efficiency of the power grid asset management

• automating the power transmission and distribution processes, introducing and upgrading cutting-edge technical state supervision, diagnostics, and process equipment monitoring systems, security systems, automation systems, accident-prevention systems, communications systems, engineering systems, commercial recording and technical measuring of power, creating and upgrading digital substations and power grids

• upgrading technology used and improving the efficiency of operation, maintenance, and repair of power facilities

• arranging, improving, and upgrading the professional skills and training of the operating and repair personnel

• minimizing the environmental impact of the new construction, reconstruction, operations, repairs, and maintenance of the power facilities

• ensuring the safety of the power facilities' functions

• creating drivers for manufacture of cutting-edge equipment, building structures, and construction materials in Russia, as well as for development of research and project potential

• creating conditions ensuring the power supply to the consumers without creating or reconstructing the power assets.

Information on the key, special, or crucial Lenenergo, PJSC projects implemented using innovative, cutting-edge, and progressive technical solutions, processes, materials, and equipment that comply with the technical policy (including the investment development program).

No.	Name	Key Technical Parameters
1	Creation of a 10-110 kV smart distribution grid in Saint	The project uses the following progressive technical solutions: 1. Use of elements of 1D, 2D, 3D digital design of the power sector

No.	Name	Key Technical Parameters
	Petersburg	facilities and elements of the networks digital design system (DPS, PLM, CAD) for the pilot projects of the comprehensive automation of the 6-10 kV distribution grid of the Tsentralny, Vasileostrovsky, Kolpinsky, and Petrogradsky Districts of Saint Petersburg, and Pesochinsky and Severny Power Distribution Zone, with a distributed intelligent systems of automation and management, and integration into a single software and hardware grid management package (drafting the project documents). 2. Design of architecture, grid management algorithms in view of the equipment state and economic cost estimation; design of the management platforms within the scope of the design. 3. Integrated solutions: smart metering devices that can be integrated into a single management system; detection systems for the damage areas and points of the grid within the pilot automation project for the 6-10 kV distribution grid of the Severny Power Distribution Zone. 4. Integrated solutions: smart cubicle switchboard (PNP) with integrated bay controllers and a possibility of integration into a single management system as close to plug-n-play as possible; smart metering devices than can be integrated into a single management system and that have remote management and grid operating parameters reporting functions; smart (digital) monitoring and diagnostics systems for the substation equipment; secondary equipment monitoring systems; grid damage detection systems within the pilot comprehensive project for the transition of the existing 6-10 kV grid of the Petrogradsky District of Saint Petersburg to the high-tech automated 35 kV grid. 5. Integrated solutions: PNP smart cubicle switchboard, smart metering devices, smart (digital) monitoring and diagnostics systems for the substation equipment, secondary equipment monitoring systems at substations No. 612, 613, 615, and Kamenka substation. 6. Smart grid monitoring and diagnostic system (for cable lines); data gathering and processing integration within the single software and hardware package of the 110 kV cable line monitoring system at the segment of substation No. 104 - Vasileostrovskaya 330 kV substation. 7. 1D, 2D, 3D digital design of the power sector facilities and elements of the grid digital design (DPS, PLM, CAD) within the upgrade of substations No. 77, 184, 33, 195, 160, 165, 236. 8. Integrated solutions: grid damage detection systems; power grid mode digital modeling systems; wireless communications (cellular service represented by the cellular service providers, LTE and higher networks) in automation and damage location and containment, and management of prompt start of the reserve capacities in the 6-10 kV cable grid.
2	Creation of a single automated grid management system for the Lenenergo, PJSC grids using cutting-edge technology and digital microprocessors.	In 2019, the creation of an automated management system was in progress for the higher and lower tiers of digital networks (35-110 kV substation, transformer substation, distribution substation, 6-10 kV distribution transformer substation) in order to integrate those into the automated supervisory control system software and hardware package of the Lenenergo, PJSC Unified Grid Management Center. The data center and unified supervisory control equipment was installed and adjusted; software within the software and hardware package and information security area was commissioned, adjusted, installed and customized; the Lenenergo, PJSC automated supervisory control system was commissioned and adjusted. The project uses the following progressive technical solutions: 1. Integrated solutions: grid modeling in line with the uniform data standard: grid mode management systems (DMS), grid operating management systems (OMS), mapping information systems -

No.	Name	Key Technical Parameters
		geoinformation systems (GIS) linked to the geolocation and geopositioning systems, power grid mode digital modeling systems. 2. A cross functional software and hardware package of the Automated Process Management System. 3. Design of an automated management system for the higher and lower tiers of digital networks (35-110 kV substation, transformer substation, distribution substation, 6-10 kV distribution transformer substation) in order to integrate those into the automated process management system software and hardware package of the Lenenergo, PJSC Unified Grid Management Center. 4. Design of multiagent algorithms for detecting, analyzing, reacting and self-recovery of the components or members of the power grid. 5. Integrated solutions: multiagent management systems (AAC), power control systems (PCS), management and monitoring of power grids with distributed generation, information gathering and display systems (SCADA).
3	A digital substation based on Martyshkino 110 kV substation No. 502.	In 2019, the digital substation's design was completed, all documentation was approved. The expert review of the design and estimate documents is underway. In the design process, elements of 1D, 2D, 3D digital design of the power sector facilities and elements of the grid digital design (DPS, PLM, CAD) were used. The project uses the following progressive technical solutions: - creation of an open-type digital substation with architecture No. 3 (bus division: process bus subject to IEC 61850-9.2 SV, station bus subject to IEC 61850-8-1) - use of digital metering 110 kV transformers - introduction of an information gathering and transmission system and of IEC 61850 standard (information is exchanged under IEC 61850-9-2LE, IEC 61850-8-1) - introduction of extended monitoring tools for the power system protection elements at the substation, including gathering and accumulating the oscillogram from smart devices - creation of computer workstations equipped with data display and archiving tools (SCADA).
4	A digital substation based on Detskoselskaya 35 kV substation No. 714.	In 2019, the reconstruction of Detskoselskaya 35 kV substation No. 714 was completed applying the technology of digital substations; the substation was commissioned and adjusted. Detskoselskaya 35/10 kV digital substation was commissioned. The project introduced the following digital grid elements: - a single communication network under IEC 61850-8.1 protocols - 100% visibility of the facility, information transmission to the single management system - remote control and management of the substation - cross functional metering and recording devices, synchronization systems - power system protection, SCADA - updated microprocessing safety terminals - automated and transparent smart power business recording system.
5	Modernization of a 6 kV distribution network at substation No. 18 (Tsentralny District)	In 2019, the project documents were prepared for all 4 stages of the project (are currently being approved by Lenenergo, PJSC). Work documents for Stage 1 are being prepared. The project uses the following progressive technical solutions: - elements of 1D, 2D, 3D digital design of the power sector facilities and elements of the grid digital design (DPS, PLM, CAD) - smart metering devices that can be integrated into the single management system and that have remote management and grid operating parameters reporting functions

No.	Name	Key Technical Parameters
		- smart monitoring and diagnostics systems for the grid equipment (including the remote diagnostics tools and tools integrated into the equipment and transmitting data into APCS) - grid damage detection systems integrated into the single management system, etc.
6	Creation of a digital power distribution zone based on the Severny Power Distribution Zone of Cable Grid	In 2019, all principal solutions are prepared and approved by Lenenergo, PJSC. Project documents were prepared for all 7 stages of the project (are currently being approved by Lenenergo, PJSC). The project uses the following progressive technical solutions: - elements of 1D, 2D, 3D digital design of the power sector facilities and elements of the grid digital design (DPS, PLM, CAD) - "smart" switching units and other devices for automatic identification, location and containment of the grid damages - modernization of power centers: introduction of the data collection and transmission system, installation of switching units and power system protection using high-tech circuit breakers and microprocessing bay controllers with digital current and voltage sensors - introduction of (upgrading of the existing) software and hardware package of automated response, technological and case management system (response data management system, DMS, OMS, GIS) using a single information model of the grid in compliance with CIM IEC 61968/61970 that provides for intake, storage, display, processing, and analysis of all types of essential and non-essential telemetrics, manually input data, information from the adjacent technological and corporate automation systems in order to manage the operation and development of the grid - introduction of digital monitoring, management, and emergency detection systems (identification of type and location of short circuits or line-to-ground short circuits), quality determination, and power and capacity recording systems transmitting data to the higher data management tiers at transformer substations and end consumers in order to update the estimate model of the grid and manage power consumption; provision for unloading the grid and disconnecting the consumers using the preset algorithms - introduction of a software package that ensures gathering, processing, and storage of power records; analysis of the balance and losses of power in order to identify the losses focal areas and amounts, to calculate and display the power quality; provision of remote power consumption review options and options to cut the power expenses to the consumers using the Internet; provision for the feedback from the consumers to the utility company.
7	Upgrading and automation of the Kingiseppsky Power Distribution Zone of Lenenergo, PJSC branch - Kingiseppskiye Power Grid	In 2019, the pilot segment of the grid was designed. Construction and assembly began for the upgrading and automation of the 6-10 kV distribution grid of Lenenergo, PJSC branch - Kingiseppskiye Power Grid. The project uses the following progressive technical solutions: 10 kV overhead lines: - smart switching units (automatic circuit reclosers) with embedded power system protection and remote control systems. The project includes an alternative option to the automated isolation of the damaged section of the 10 kV overhead lines in case of short circuit at the branch line: application of remotely operated circuit breakers - short circuit indicators for overhead lines with data transmission functions. 35-110 kV substation: - selective line-to-ground short circuit protection with determination of the failed feeder and data transmission to the automated supervisory control system

No.	Name	Key Technical Parameters
		- advanced remote control and communication systems (to Rassiya substation No. 11) - installation, expansion, or upgrading of SCADA (response data management) systems of the supervisory control station of Kingiseppskiye Power Grid; integration of the equipment installed within the project; implementation of the information and management functions to create a smart grid. Along with the circuit breakers, the short circuit indicators transmitting data to the SCADA systems are installed in order to provide for the prompt decision-making on remote disconnection of the damaged branch lines after the failed automatic reclose cycles of the transmission smart switching units (reclosers) are complete.
8	Use of composite power line towers for Shusharskaya-2 35 kV power lines	In 2019, 11 single circuit intermediary towers were installed at the Pulkovo-Shushary 35 kV ACL with branch line to Parovoznyi Muzei Tyag. substation (Shusharskaya-2 35 kV ACL). The overhead line is 3,390 m long. The project uses the following progressive technical solutions: - introduction of the composites, particularly, the PKf110-1 composite towers for overhead lines.

Technical Standards Designed by the Company for Technical Regulation in 2019

Subject to the existing multilateral Agreement on Coordination and Development of the Technical Regulation and Standards in the Power Sector No. VR0000003 dd. October 21, 2015, Lenenergo, PJSC regularly updates the lists of internal and external technical standards observed in the production and business operations of the Company in order to implement its Technical Policy with respect to the technical regulations and standards (in line with the technical standards register of Rosseti, PJSC and its SDCs).

In 2019, 31 technical regulatory standards designed by Rosseti, PJSC were included in the List of the external regulations that govern the production operations of Lenenergo, PJSC.

The Company's structural divisions drafted 55 internal technical regulatory standards in 2019.

	Reg. No. of the document in the Technical Standard Register of Lenenergo, PJSC	Regulation scope	Name	Cost of design (if any), RUB	Primary contractor drafting the document (if any), name and form of ownership
1.	STO-OO.OO.01-003-2019		Documented Information Management (rev. 9)		
2.	STO-00.00.02-003-2019		Corrective and Preventive Actions (rev. 7)		
3.	STO-00.00.03-003-2019		Internal Audits (rev. 8)		
4.	STO-00.00.04-003-2019		IMS Analysis by the Top Management (rev. 8)		
5.	STO-00.01.01-003-2019		Management of Nonconforming Products (rev. 6)		
6.	STO-00.02-003-2019		Identification and Assessment of the Importance of the Environmental Aspects (rev. 4)		
7.	STO-00.03-003-2019		Identification of HSE Threats and Assessment of HSE Risks (rev. 4)		
8.	RISM-2019		Integrated Management System Guidelines (rev. 1)		

	Reg. No. of the document in the Technical Standard Register of Lenenergo, PJSC	Regulation scope	Name	Cost of design (if any), RUB	Primary contractor drafting the document (if any), name and form of ownership
9.	STO-05.01.03-004	Property and plant	Operation of Lenenergo, PJSC Property and Plants (rev. 1)		
10.		Operative, process, and contingency management	Regulations for Executive Staff		
11.	PL-05.02-001-2019	Operative, process, and contingency management	Regulations for a Single State System for Preventing and Eliminating Emergencies in Lenenergo, PJSC at the Facility Level of the Functional Emergency Prevention and Elimination Subsystem for the Fuel and Energy Sector Entities (Facilities) and the Entities (Facilities) Governed by the Ministry of Energy of Russia (rev. 1)		
12.	PL-05.02-002-2019	Operative, process, and contingency management	Regulations for the Emergency Prevention and Elimination, and Fire Safety Committee of Lenenergo, PJSC (rev. 1)		
13.	PR-05.05.-001-2019		Procedure for Taking Stock of the Title to the Intellectual Deliverables of Lenenergo, PJSC		
14.	PL-12.03.01-001-2019	Security	Regulations for Creating and Maintaining the Inventory of Maintenance Supplies, Food, Healthcare Items and Other Stock of Lenenergo, PJSC, and Using Thereof for the Civil Defense Purposes (rev. 1)		
15.	RP-PL-01.03.03-001-2019	HR management	Regulations for the Leave Provision and Official Arrangement Procedure in Lenenergo, PJSC (rev. 1)		
16.		Power lines, substations, and primary equipment	Regulations for the Equipment Cultural and Historical Importance Assessment Committee of Lenenergo, PJSC		
17.	RP-01.05.01-002-2019	HR management	Workers Training Organization Guidelines of Lenenergo, PJSC (rev. 3)		
18.	RP-12.01.01-001-2019	Security	Guidelines Regulating the Actions of Officers, Employees, and Duty Desks When Reacting to a Threat, Act of Sabotage, or a Terrorist Attack in the Buildings of the Executive Branch of Lenenergo, PJSC (rev. 1)		
19.	PL-01.04.01-002-2019	HR management	Regulations for Certification of the Workers and Employees,		

	Reg. No. of the document in the Technical Standard Register of Lenenergo, PJSC	Regulation scope	Name	Cost of design (if any), RUB	Primary contractor drafting the document (if any), name and form of ownership
			and Determining the Rights of Preference in Case of a Layoff in Lenenergo, PJSC (rev. 1)		
20.	STO-05.06.02-003-2019	OHS	Procedure for Interacting with the Contracting Entities (rev. 3)		
21.	PL-12.03.01-002-2019	Security	Regulations for the Evacuation Committee of the Executive Department of Lenenergo, PJSC (rev. 1)		
22.	RP-05.05.-002-2019		Guidelines for the Lenenergo, PJSC Committee for Equipment, Materials, and Systems Clearance for Operations (rev. 2)		
23.		Design and construction	Recommended Practice for Approval of the Technical Portion of the Project Documents for the Comprehensive Projects Aimed at the Digital Transformation of the Distribution Grids (rev. 1)		
24.	PL-05.05-006-2019		Regulations for Designing and Implementing the RD&T Program of Lenenergo, PJSC (rev. 3)		
25.	PL-01.03.03-002-2019	HR management	Regulations for the Leave Provision and Official Arrangement Procedure in Lenenergo, PJSC (rev. 2)		
26.	PL-01.06.01-010-2019	HR management	Regulations for Bonus Payments to the Lenenergo, PJSC Employees Related to Commissioning of Capacities and Adding Facilities to the Fixed Assets Within Implementation of the Investment Project (rev. 1)		
27.	PR-05.02-001-2019	Operative, process, and contingency management	Guidelines for Duty Assignments in Lenenergo, PJSC on Weekends and Non-Business State Holidays (rev. 1)		
28.	PL-05.05.-007-2019		Regulations for Designing and Implementing the Innovative Development Program of Lenenergo, PJSC (rev. 2)		
29.	STO-05.01.03-006-2019	Maintenance and repair	Arrangement of Maintenance and Repair of the Facilities of the 0.4-20 kV Distribution Grids of Lenenergo, PJSC (rev. 1)		
30.	STO-05.01.03-005-2019	Maintenance and repair	Arrangement of Maintenance and Repair of the Power Grid		

	Reg. No. of the document in the Technical Standard Register of Lenenergo, PJSC	Regulation scope	Name	Cost of design (if any), RUB	Primary contractor drafting the document (if any), name and form of ownership
			Facilities of 35 kV and More of Lenenergo, PJSC (rev. 1)		
31.	PL-05.02-003-2019	Operative, process, and contingency management	Regulations for Creating Summary Annual and Monthly Repair Schedules for the Power Lines and the Power Grid Equipment		
32.	RP-01.03.02-001-2019	HR management	Guidelines for Arranging the Overtime Work of the Lenenergo, PJSC Employees on Weekends and Non-Business State Holidays (rev. 1)		
33.	RP-05.04-004-2019	Electric power metering and quality	Metrological Supervision at Lenenergo, PJSC (rev. 2)		
34.	PL-12.03.01-003-2019	Security	Standard Regulations for the Teams Performing Civil Defense Operations That Are Not Part of the Regular Staff of Lenenergo, PJSC (rev. 1)		
35.	RP-16.01-003-2019	Design and construction	Guidelines for Presentation, Review, and Approval of the Technical Portion of the Project and Work Documents in Construction and Reconstruction of Facilities, the Technical Client for which is Construction Projects Directorate, a Branch of Lenenergo, PJSC (rev. 1)		
36.	PL-05.02-004-2019	Operative, process, and contingency management	Regulations for the Procedure of Drafting, Presentation, Review, and Approval of the Lenenergo, PJSC Power Grid Facility Process Mode or Operational State Change Applications (rev. 1)		
37.		HR management	Regulations for Distribution of the Economic Effect of the Electric Power Loss Reduction		
38.	PR-01.05.02-002-2019	HR management	Procedure for Implementation of the Energostart Corporate Program (rev. 1)		
39.	RP-16-001-2019	Design and construction	Guidelines for Implementation of the Investment Projects of Lenenergo, PJSC (rev. 2)		
40.	PL-05.05-008-2019		Regulations for Designing and Implementing the RD&T Program of Lenenergo, PJSC (rev. 4)		
41.		Operative, process, and contingency management	Instructions for Switching Operations in the Lenenergo, PJSC Electric Plants		

	Reg. No. of the document in the Technical Standard Register of Lenenergo, PJSC	Regulation scope	Name	Cost of design (if any), RUB	Primary contractor drafting the document (if any), name and form of ownership
42.	I-05.02-002-2019	Operative, process, and contingency management	Instructions for Voltage Regulation in the 6-110 kV Power Grids Operated by Lenenergo, PJSC (rev. 1)		
43.	PR-05.02.2019	Operative, process, and contingency management	A Procedure for Publishing Information and Analytical Materials Related to the Contingency Management of the Production Operations of Lenenergo, PJSC on the Corporate Portal of Rosseti, PJSC (rev. 1)		
44.		Operative, process, and contingency management	Instructions for Normal Operation Disruptions Prevention and Elimination at the Power Sector Facilities Operated by Lenenergo, PJSC		
45.	RP-04.04.02-002-2019	Electric power recording and services development	Guidelines for Interaction When Arranging the Smart Metering and Recording of Electric Power at Lenenergo, PJSC (rev. 1)		
46.	RP-01.03.01-004-2019	HR management	Guidelines for HR Decisions Related to Heads of Branches and SDCs of Lenenergo, PJSC (rev. 5)		
47.	PL-12.01.02-001-2019	Security	Regulations for Access Control and Internal Facility Security Regulations at the Lenenergo, PJSC Facilities (rev. 1)		
48.	PL-05.02-004-2019	Operative, process, and contingency management	Regulations for Operative and Process Management within the Operational Responsibility of Lenenergo, PJSC (rev. 1)		
49.	RP-02.-008	Grid connection	Guidelines for Grid Connection at Lenenergo, PJSC (rev. 1)		
50.	RP-16-001-2019	Design and construction	Guidelines for Implementation of the Investment Projects of Lenenergo, PJSC (rev. 3)		
51.		HR management	A Procedure for HR Management in the Rosseti, PJSC Group. Part I: Knowledge and Skill Testing		
52.	PL-01.07.04-002-2019	HR management	Regulations for Non-State Pension Support to the Employees of Lenenergo, PJSC (rev. 3)		
53.	M-05.05-001-2019		Recommended Practice for Using the Flexible Alternating Current Transmission Systems at the Facilities of Lenenergo, PJSC (rev. 1)		
54.			Regulations for a Work Group		

	Reg. No. of the document in the Technical Standard Register of Lenenergo, PJSC	Regulation scope	Name	Cost of design (if any), RUB	Primary contractor drafting the document (if any), name and form of ownership
			for Imports Phasing Out at Lenenergo, PJSC		
55.	PL-05.02-006-2019	Operative, process, and contingency management	Regulations for Contingency Management in the Power Grid of Lenenergo, PJSC (rev. 1)		

Science and Engineering Board Activities

Lenenergo, PJSC has an active Science and Engineering Board subject to Order No. 386 dd. August 23, 2018 (replacing Orders No. 358 dd. August 8, 2011 and No, 542 dd. August 5, 2014). The Board reviews the following issues:

research, development, and testing (RD&T)
pilot operation of equipment and use of materials
use of equipment
innovative and prospective development of the Company
implementation of the Uniform Technical Policy in the Power Sector
implementation of research and technical solutions within the Company's grids
other issues.

The Science and Engineering Board held 7 meetings in 2019 and discussed 17 issues, including:

Topic	Issues discussed
Research, development, and testing (RD&T)	1. Review of an application for RD&T for Creation of a Training and Simulation Device for Modern Digital Technology for Lenenergo, PJSC. 2. Review of an application for RD&T Design of an Online Monitoring System for Flammable Gasses in Power Oil-Filled Transformer Relays. 3. Review of the R&D results for Development of Approaches to Design, Control, Study in Physical Models, and Application of Semiconductor-Based Reactive Power Regulators of New Generation with the Highest Idle Current Regulation Quality in Smart Grids to Reduce Losses and Maintain Optimum Voltage at Substation Buses, as part of the R&D project of Development and Study of Approaches to Design and Application of Mode Regulation Systems Based on Semiconductor-Based Reactive Power Regulators of New Generation with High Idle Current Regulation Quality in Smart Distribution Grids to Reduce Losses and Maintain Optimum Voltage at Substation Buses and Load Connection Points. 4. Review of the R&D results for Studying the Application of FACTS (Flexible Alternating Current Transmission System) to Create 110 kV Smart Power Grids for Lenenergo, PJSC (with justification). 5. Review of an application for RD&T for Temporary Easy-to-Assemble 110 kV OL Tower for Emergency Response Works.
Innovative and prospective development of the Company	1. Review of the results and effects of switching the 6-10 kV city distribution grids to resistance grounding of the neutral, using the example of pilot projects. Main requirements to the introduction. 2. Updating of the requirements to the contents of Innovative Solutions section of the project documents. 3. Results and effects of the implementation of the pilot project for automation of the Vsevolozhsky Power Distribution Zone.
Use of the equipment	1. Review of the organization of the defects identification system of the city 6-20 kV cable distribution grid. 2. Review of the feasibility study of the use of power accumulation system in the power grids. 3. Review of the results of Inspection, Analysis, Mathematical Modelling, and

Topic	Issues discussed
	Estimation of Operational Modes of Dry Insulated Transformers of the High Nominal Voltage of 35 kV; Recommendations for Damage Reduction. 4. Specific issues of the use of 35 kV SIW. Construction of power lines in residential areas using 35 kV SIW. 5. Specific issues of the use of 6-35 kV transformers in the grids of Lenenergo, PJSC. Damage rate of the 6-35 kV transformers with cast insulation. 6. Automatic active combustion prevention system as an alternative to the traditional fire suppression systems.

Practical Implementation of the Technical Policy

The Technical Policy is implemented by Lenenergo, PJSC in several key areas, including use of new technology and equipment in various segments of business.

Business Segments	Areas
0.4-10 kV distribution grids	- use of cables with cross linked polyethylene insulation - use of self-supporting insulated and covered wires - use of package integrated transformer substations - use of advanced switching units (automatic circuit recloser) - switching to vacuum circuit breakers - use of gas-insulated small-size cubicle switchboards - use of cutting-edge pulse and lightning surge protective devices
35-110 kV distribution grids	- switching to vacuum and gas-insulated circuit breakers - use of 110 kV gas-insulated small-size cubicle switchboards (subject to a feasibility study) - use of 35-110 kV cell-type and compact switchgear - use of gas-insulated or air-insulated small-size cubicle switchboards of medium voltage - use of cables with cross linked polyethylene insulation - use of transmission towers of complex shapes or elevated towers - a design model of 110 kV grid was created and introduced in order to optimize the power modes
Power system protection, supervisory control system, communications, telemechanics, monitoring systems	- use of microprocessing protection - automation of process management - introduction of SCADA systems - introduction of updated control units with automatic supervisory control systems of different levels - use of power lines isolation monitoring systems - use of power equipment monitoring systems

Pilot Operation of Equipment and Use of Materials and Technology

Pilot operation of the equipment, materials, and technology is regulated by the Guidelines for Pilot Operations at Power Grid Facilities of Lenenergo, PJSC, as adopted by Lenenergo, PJSC Order No. 122 dd. March 30, 2018.

Eight applications for pilot operation at the power sector facilities of Lenenergo, PJSC were reviewed in 2019.

Equipment	Purpose	Pilot Operation Results
Accounting stand of EPShR-(F)-2-2 type, manufactured by PKP Energoplast, LLC	The stand is intended for distribution and recording (accounting) of 0.4 kV power. The stand has a special anti-vandal coating that has better natural and	The pilot operation was completed on March 26, 2019. The Science and Engineering Board of Lenenergo, PJSC branch - Cable Grid - resolved on repurchasing this

Equipment	Purpose	Pilot Operation Results
	human factors resistance properties than a metal coating. Is allows for a lesser weight of the stand, as compared to the existing alternatives. The stand structure makes the operation and maintenance easier.	equipment based on the pilot operation performance report.
Hughes auto recloser owned by SIKAM, LLC	The auto recloser is used in overhead distribution lines and distribution substations as an advanced smart grid equipment. Is consists of several modules to facilitate the assembly and installation. The vacuum circuit breaker model includes options for an air-break disconnector.	The pilot operation commenced on June 25, 2019. Its timeline is 9 months from the date of the technical statement signing. It is planned to be completed in 2020.
35 kV cubicle switchboard in the KRU-SEShCh-70 cells, manufactured by Electroshield Samara, CJSC	The 35 kV KRU-SEShCh-70 CSB is intended for receiving and distributing the three-phase AC electric power of 50 Hz (industrial frequency) with the standard voltage of 35 kV to the design currents of up to 3150 A. The purpose of the pilot operation is: - to gain experience in the operation of such an equipment - to confirm the design technical properties declared by the manufacturer. May be used in a digital substation. The domestically produced primary equipment.	Pilot operation is in the implementation stage. In 2019, work documents were approved, an acceptance procedure was designed and adopted consisting of the equipment testing and personnel training.
10 kV cubicle switchboard in the KRU-SEShCh-70 cells, manufactured by Electroshield Samara, CJSC	The 10 kV KRU-SEShCh-70 CSB is intended for receiving and distributing the three-phase AC electric power of 50 Hz (industrial frequency) with the standard voltage of 10 kV to the design currents of up to 4000 A. The purpose of the pilot operation is: - to gain experience in the operation of such an equipment - to confirm the design technical properties declared by the manufacturer. May be used in a digital substation. The domestically produced primary equipment.	Pilot operation is in the implementation stage. As of the end of 2019, the work documents are under review.
Combined electronic current and voltage transformer, TTNK, manufactured by Profotech, JSC	Instrument current and voltage transformer (TsTTN) is intended to meter and transmit the current and voltage parameters to the metering, recording, protection, automatics, signaling, and management units in the DC and AC grids with nominal voltage of 110 kV and frequency of 50 or 60 Hz. The purpose of the pilot operation	The pilot operation is being implemented. As of the end of 2019, the project documents are under review. The acceptance procedure is being designed.

Equipment	Purpose	Pilot Operation Results
	is: - to gain experience in the operation of such an equipment with respect to digital equipment operation - to improve the quality of the electric power accounting at the facilities of Lenenergo, PJSC - to confirm the technical properties declared by the manufacturer: • full galvanic separation • high quality metering, including the lowest acceptable values and values that change at high speed (lack of ferroresonance) • high operational safety. The combined electronic CT and VT of the TTNK type provides for metering, transforming, and transmitting of the process information via the process bus subject to IEC 61850-9.2-LE.	
Microprocessor PSP units of BEMP type (ShMZL61, 69), manufactured by ChEAZ, JSC	The cabinets are intended to carry out functions of protection, automation, metering, and control of the connection circuit breaker with high voltage of 110-220 kV The BEMP type PSP support data transmission protocols under IEC 61850. The purpose of the pilot operation is to gain experience in the operation of such an equipment.	Pilot operation is in the implementation stage. In 2019, the work documents and the acceptance program were approved.
Multipurpose unit BINOM334i, manufactured by Vabtek, CJSC	BINOM334i is a certified multipurpose device that can be used as an independent unit for separate connection, or as a component of the AIMS EPR, EPQMAS, DCTS, and APCS of the power substations of all voltage ratings, electric stations, industrial power utilities, transport enterprises power supply systems.	The pilot operation is being implemented. In 2019, the work documents and cost estimates were approved, and the pilot operation program was developed and approved.
Vacuum load circuit breaker disconnecting, VVnR-10/630-20 U2, manufactured by Elektroapparatny Zavod, JSC	VVnR-10/630-20 U2 is intended for live switching the three-phase AC (50 Hz, nominal voltage of 10 kV, up to 630 A incl.) on and off.	Pilot operation is in the implementation stage. In 2019, construction and assembly commenced; in 2020, construction and assembly are planned to be completed. The cost estimation documents are being approved. The acceptance program is designed and approved.
Thyrister automatic switching unit, APST-0.4kV-630A-2, manufactured by NTTs RIF, JSC	The thyrister automatic switching unit is a hardware and software device intended for power supply of the critical load fed by two RU-0.4 kV main busbars and requiring minimum time for switching from one gland to another, with an option for remote control. Backup gland switching time is no more than 0.01 sec.	Pilot operation is in the implementation stage. In 2019, a necessary list of documents was approved for the positive decision on the pilot operation. The design specification is under development.

3.6.2. Innovations and RD&T

The Board of Directors of Lenenergo, PJSC (Minutes No. 31 dd. April 19, 2017) adopted an Innovative Development Program for 2016-2020, with an outlook up to 2025.

The medium-term and long-term goal of the Program up to 2020 is transition of the Russian power sector in general to the power grid with an entirely new technological pattern of cutting-edge reliability, efficiency, accessibility, manageability characteristics, and a client-oriented approach.

The Program objectives are as follows:

- to gain positive effect of the program implementation
- to improve the efficiency of core business processes
- to improve productivity
- to improve the competitiveness of the Company and its investment attractiveness and commercial value
- to include innovative options and opportunities in designing and adopting managerial decisions as much as possible
- to form a corporate governance system that is focused on upgrading and introducing new technology, innovative products and services
- to increase energy efficiency by introducing innovative solutions
- to improve the workforce potential of Lenenergo, PJSC
- to ensure the correct required level of protection of the Lenenergo, PJSC intellectual property
- to provide for an information support system for the innovative processes management and innovations introduction monitoring in Lenenergo, PJSC
- to promote innovative projects aimed at energy preservation, energy efficiency, cost efficiency, and power supply reliability within the power sector
- to optimize the operating costs and reduce the expenses incurred by the Company.

Key Areas of Innovative Development of the Company

Technology innovations:

1) Innovative technology and solutions: creating new materials and equipment required for the Company's business.

2) Digital transformation of management and production process: transitioning from analog to digital control of power system protection and accident-prevention automatic systems, APCS systems, power metering, and communications (applying digital metering transformers, vector mode registers, introducing power grid equipment, switching to digital substations, etc.); digital modeling and design; digital transformation of production assets management; introducing digital production process supervision systems in grids and at substations.

3) Development of multiagent systems: developing of interaction principles in peer-to-peer management systems between components and grid systems (introducing smart distribution management systems).

Improvement of efficiency and adaptability of power grids: upgrading the grid characteristics in order to improve the system reliability against the grid disturbances and an automated recovery of a regular operating mode (power system protection adaptive devices, regulation systems, logic-based automated systems, digital grid online models).

Organizational and marketing innovations:

1) Design of new and system-wide reengineering of existing business processes from the point of view of end-to-end performance: managing business assets, management systems, customer services, system life cycle management, lean production practices, introducing relevant updated technologies for the current conditions of human resource management.

2) Creation of the Company's innovative environment: promoting the creation of a wide spectrum of innovation entities, research institutes, and educational institutions around Lenenergo, PJSC and its SDCs, tasked with addressing the Lenenergo, PJSC research, technical, and technological requests (by participating in technological platforms, territorial innovative clusters, or fulfilling the cooperation agreements with supporting higher education institutions, etc.).

Key Comprehensive Innovative Projects Implemented by Lenenergo, PJSC

Creation of a 10-110 kV smart grid in Saint Petersburg

The project includes a comprehensive modernization of the existing power grids in the Admiralteysky, Petrogradsky, Vasileostrovsky, Kolpinsky, Kalininsky, Vyborgsky, and Kurortny Districts of Saint Petersburg, and switching of those grids to a single digital smart grid with smart automation and control system.

The resulting distribution grid is to be integrated in the hardware and software package of the automated process control system of the Lenenergo, PJSC grid management center.

The distribution grid modernization includes:

- control of the localization of damage and management of the prompt backup introduction in 6-10 kV cable grids as part of switching the grid to the neutral grounding using low-value resistor
- installation of controlled maintenance-free units in the distribution point and transformer substation cells
- equipment of the distribution points and transformer substations with the means of automation
- comprehensive automation of the grid facilities (distribution points and transformer substations) with a provision for the grid visibility, remote monitoring (remote signaling and metering) and control (remote control)
- introduction of the automatic process shutdown identification, isolation of the damaged grid section, an option for automated recovery of consumer supply (FLISR)
- control of the equipment load and automatic mode optimization
- automatic load control
- application of the 6-10 kV equipment without open live parts
- arrangement of the control platform with functions of SCADA, DMS, OMS, FLOC, FLISR (synchronization with the Single Grid Management Center SHW - grid management platform (ADMS) with SCADA, DMS, OMS, NMS, EMS functions) for a 6-10 kV grid
- creation of the CIM of the grid
- introduction of mode analysis and optimization functions
- integration with GIS, APSMS, etc.
- duplication to other power nodes, etc.

The project is aimed at reducing the losses, increasing the net supply of electric power, reliability of the supply, reducing the duration of the repair and recovery, reducing the undersupply, improvement of visibility and remote controllability of the grid while retaining a high level of informational security, improvement of the supervision efficiency, reduction of the number of emergencies caused by the personnel errors, improvement of the electric plant operation safety, overcoming the grid limitations for the node output, and optimizing the grid upgrade cost.

The results in 2019:

1) Modernization of a 6 kV distribution grid at substation No. 18 (Tsentralny District):

Eight design stages are defined:

Project documents were prepared for 4 stages of the project (are currently being approved by Lenenergo, PJSC). Work documents for Stage 1 are being prepared.

In the design process, elements of 1D, 2D, 3D digital design of the power sector facilities and elements of the grid digital design (DPS, PLM, CAD) were used (20% of the overall design costs). The project and cost estimate documents are planned to be accepted in 2020.

Implementation timeline: 2017-2023.

2) Creation of a digital power distribution zone based on the Severny Power Distribution Zone of Cable Grid:

The project document drafting takes 16 stages.

All principal solutions sections are prepared and approved by Lenenergo, PJSC.

Project documents were prepared for 7 stages of the project (are currently being approved by Lenenergo, PJSC). In the design process, elements of 1D, 2D, 3D digital design of the power sector facilities and elements of the grid digital design (DPS, PLM, CAD) were used (12% of the overall design costs). The project and cost estimate documents are planned to be accepted in 2020.

Implementation timeline: 2018-2023.

3) Modernization of a 6 kV distribution grid at substation No. 13 (Ostrovnoy District):

The project document drafting takes 2 stages.

All principal solutions sections are prepared and approved by Lenenergo, PJSC.

The project documents are partly drafted. In the design process, elements of 1D, 2D, 3D digital design of the power sector facilities and elements of the grid digital design (DPS, PLM, CAD) were used (4% of the overall design costs). The project and cost estimate documents are planned to be accepted in 2020.

Implementation timeline: 2018-2023.

4) Modernization of a 0.4-10 kV grid (Kolpinsky District):

The principal solutions for the projects are approved.

Implementation timeline: 2018-2023.

5) Modernization of a 0.4-10 kV grid (Petrogradsky District):

The principal solutions for the projects are approved.

Implementation timeline: 2018-2023.

6) Comprehensive modernization of the pilot segment of the Pesochinsky Power Distribution Zone distribution grid:

All principal solutions, project documents, and work documents sections are prepared and approved by Lenenergo, PJSC. As of now, the documents are being assessed by the experts with respect to the cost estimates, therefore, the project works will be carried out after the expert examination in 2020.

Implementation timeline: 2018-2021.

<u>Comprehensive automation of 6-10 kV grids of the Leningrad Region and further integration of the grids into the single information management system</u>

The project includes automation of the 6-10 kV distribution grid of the Leningrad Region and introduction of innovative technology features: smart (digital) switching units (automatic circuit reclosers) with integrated bay controllers and an option for integration with the single information management system as much in line with plug-n-play concept as possible, compatible with the digital data exchange; smart metering units with an option for integration with the single information management system, providing for the data output on the grid operating parameters; PNP smart cubicle switchboards with integrated bay controllers and an option for integration with the single information management system, capable of exchanging data with the adjacent smart cubicle switchboards and the SCADA system, with a self-diagnostic and remote parameterization features. A subsystem for collecting and transmitting data is intended to collect and preprocess data obtained from the facilities operated and controlled by the Power Distribution Zone. The data collection and transmission subsystem also provides for transmitting the controlling signals to the controlled microEMS in the Power Distribution Zone supervision point operational space.

The project is aimed at addressing the improvement of reliability of the power supply to the consumers in the Leningrad Region, reducing the operating costs with respect to emergency, repair, and operative maintenance, reduction of the time required for identification and elimination of emergencies and breakdowns, improvement of visibility while retaining a high level of information security.

In this area the following measures were taken in 2019:

1. Automation of the 6-10 kV grid of Vsevolozhsky PDZ of Prigorodnye Power Grid (the implementation effect was assessed based on the results of 2018; the Science and Engineering Board reviewed (No. LE/02-011/4090 dd. December 31, 2019) the implementation effect based on the reliability estimates).

2. Automation of the 6-10 kV OLs of Kingiseppsky PDZ of Kingiseppskiye Power Grid (design was concluded, and the construction and assembly began).

3. Comprehensive automation of the PDZ using smart switching units (reclosers) with integrated bay controllers and an option for integration into a single information management system, compatible with the Plug-n-Play technology as much as possible, supporting digital data exchange; and using the technology of the damage detection system for the grid and the data transmission network using GSM/GPRS channel in the 6-10 kV grids of the following branches of Lenenergo, PJSC: Prigorodnye Power Grid, Novoladozhskiye Power Grid, Gatchinskiye Power Grid, Vyborgskiye Power Grid, Kingiseppskiye Power Grid.

A significant result of 2019 in this aspect is the beginning of the pilot project of modernization and automation of the 6-10 kV distribution grid of Kingiseppskiye Power Grid, with installation of smart switching units and 10 kV fault indicators:

- the grid and feeders diagram was optimized
- the power centers were modernized
- the 10 kV OL was modernized using the smart grid technology
- the SCADA (response data management) systems of the supervisory control station of Kingiseppskiye Power Grid were expanded and upgraded, with integration of the equipment installed within the project, and implementation of the information and management functions to create a smart grid.

Implementation timeline: 2017-2020.

Innovative Development Program Implementation Costs

Planned and Actual Costs of the Main Innovative Development Areas

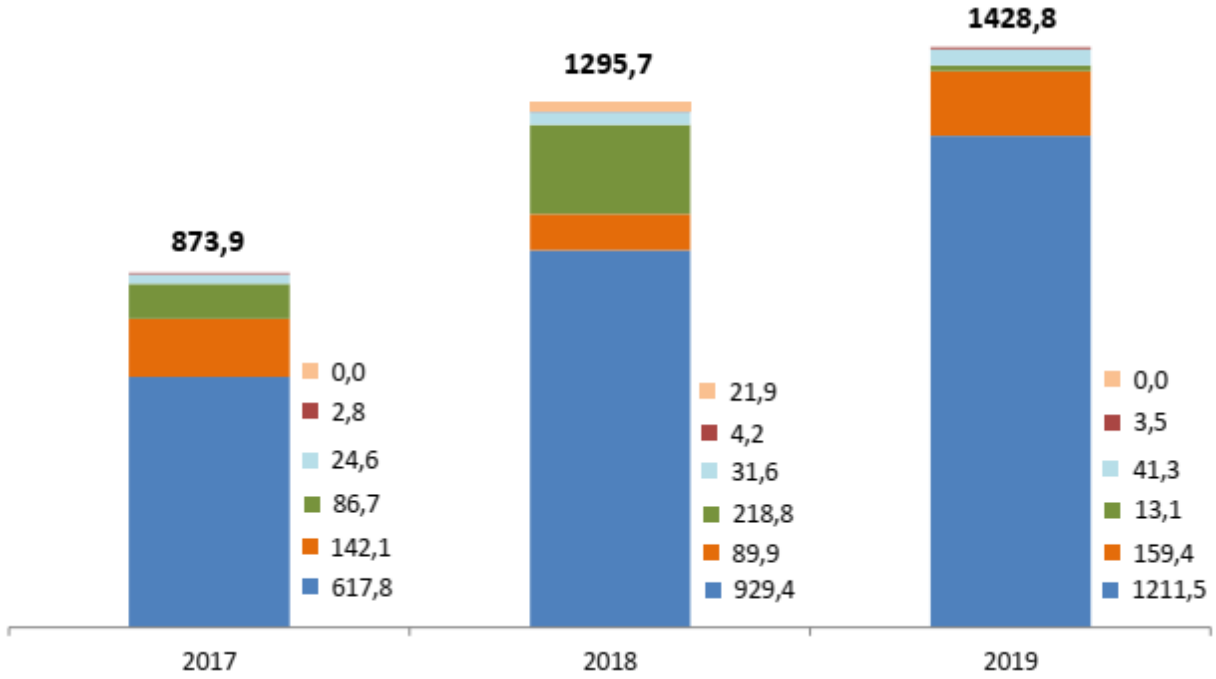
№	Innovative Development Area	Costs Planned, RUB mn (net of VAT)	Costs Actual, RUB mn (net of VAT)
1	Switching to and large-scale introduction of 35-110 kV digital substations	60.41	0.00*
2	Switching to the digital smart grids with a distributed smart automation and management system	1212.78	1211.48
3	Switching to the end-to-end performance system for business processes and automation of the management systems	72.75	159.38
4	Application of new technology and use of new materials in the power sector	67.10	13.14**

* Deviations from the planned parameters under Switching to and Large-scale Introduction of 35-110 kV Digital Substations resulted from the following aspects of the implementation of the 110 kV digital substation project at: 1) Martyshkino substation No. 502 - due to the expert review of the project and cost estimate documents; 2) Moskovskaya-Tovarnaya substation - due to elimination of the defects in the project documents submitted for approval; 3) Podporozhskaya substation No. 201 - due to rescheduling of the project in order to coordinate the arrangement of a connection point at 110 kV OSB of the Verkhne-Svirskaya HPP (No. 12) with TGC-1, PJSC subject to the notes of Leningradskoye RDU, a branch of SO UPS, JSC.

** Deviations from the planned parameters under Application of New Technology and Use of New Materials in the Power Sector resulted from the implementation of the electric transport charging

infrastructure project. Subject to Procurement Committee Minutes No. OK-19/227 RS-3 dd. September 9, 2019, a contract is planned to be made with the co-dependent entity based on Par. 2.4 of Annex 2 to Rosseti Management Board Resolution No. 915pr/1 dd. September 18, 2019; therefore, the project for installation of 20 charging stations in Saint Petersburg was rescheduled for 2020.

Innovative Development Program Implementation Costs Broken Down by Key Areas, RUB mn



- Switching to and large-scale introduction of 35-110 kV digital substations
- Expansion of HR potential and partnership in the sphere of education and research
- RD&T (research and design)
- Application of new technology and use of new materials in the power sector
- Switching to the end-to-end performance system for business processes and automation of the management systems
- Switching to the digital smart grids with a distributed smart automation and management system

Performance Indicators

Indicator Name	Unit of Measurement	2019
Cost of research and development performed by the third parties, including contractors (higher education institutions, research facilities, innovative SME entities)	RUB thousand	41,268.3
of those: projects implemented within		
the process platforms	RUB thousand	0.0
higher education institutions	RUB thousand	5,700.0
research institutions	RUB thousand	35,568.3
Cost of innovative products purchase (technology, solutions, goods, services set out in the Innovative Development Program of the Company)	RUB thousand	1,384,000.0

RD&T

The RD&T Program includes design of new breakthrough technology aimed at creating the entirely new designs, technology, methods, as well as of application methods aimed at improving the existing technology.

The RD&T Program's main goal is to create and expand the smart power system with a smart grid.

The RD&T Program objectives are as follows:

- to introduce new technologies, innovative products and services
- to reduce the grid deterioration down to the levels demonstrated by the developed countries
- to preserve energy and increase energy efficiency
- to increase the cost efficiency and reliability of power supply in the distributive power sector
- to optimize the operating costs and reduce the expenses incurred by the Company.

RD&T Key Areas Implemented by Lenenergo, PJSC with the RD&T Program

In 2019, Lenenergo, PJSC conducted the following RD&T:

RD&T Name	Innovative Development Area
Creating the solutions for design, management, model testing, and introduction of a new class of semiconductor-based reactive power regulators with a maximum idle current regulating quality in order to be used in smart grids to reduce the power losses and maintain the best possible voltage at the substation buses.	Switching to the digital smart grids with a distributed smart automation and management system
Developing a fault localization microprocessor set for all types of short circuiting at the 35 kV lines, integrated to the digital smart grids.	Switching to the digital smart grids with a distributed smart automation and management system
Designing a digital catalog of standard solutions for the digital Power Distribution Zone.	Switching to the digital smart grids with a distributed smart automation and management system
Review of the R&D results for Studying the Application of FACTS (Flexible Alternating Current Transmission System) to Create 110 kV Smart Power Grids for Lenenergo, PJSC (with justification).	Switching to the digital smart grids with a distributed smart automation and management system
Creating regional schedules the forest clearing for power lines laying in view of the growth speed of the principal forest-forming species of wood depending on the climate zones and the state of the soil along the existing power line routes, and preparing recommendations as to the methods to be used.	Switching to the end-to-end performance system for business processes and automation of the management systems

Main RD&T in 2019; Technical Results of the RD&T

Development of Approaches to Design, Control, Study in Physical Models, and Application of Semiconductor-Based Reactive Power Regulators of New Generation with the Highest Idle Current Regulation Quality in Smart Grids to Reduce Losses and Maintain Optimum Voltage at Substation Buses, as part of the R&D project of Development and Study of Approaches to Design and Application of Mode Regulation Systems Based on Semiconductor-Based Reactive Power Regulators of New Generation with High Idle Current Regulation Quality in Smart Distribution Grids to Reduce Losses and Maintain Optimum Voltage at Substation Buses and Load Connection Points.

The following are the main objectives:

1) Study of the modes of the electric power grid of the selected pilot area of Lenenergo, PJSC in order to assess the var flows' effect on the quality and loss of power in the electric power grids of the pilot area.

2) Creation of feasible technical specifications for introduction of a standard mode regulation system for the smart grids in the pilot area based on the next generation semiconductor-based reactive power regulators with high quality idle current regulation functions (hereafter referred to as the System) in order to reduce the loss and maintain the optimum voltage at the buses of the substation area with an option for further replication of the result technical solution in the grids of Lenenergo, PJSC.

3) Justification of the power loss option, improvement of the grid connection of consumers to the substation, and maintenance of the power quality in the grids of Lenenergo, PJSC at the level required by the GOST through unloading of the feeding lines and transformer of the substation of the pilot area with respect to var.

The RD&T portion of the R&D project of the Development and Study of Approaches to Design and Application of Mode Regulation Systems Based on Semiconductor-Based Reactive Power Regulators of New Generation with High Idle Current Regulation Quality in Smart Distribution Grids to Reduce Losses and Maintain Optimum Voltage at Substation Buses and Load Connection Points was completed.

In 2019, the following results were obtained:

1) The method of selection of the installation points, capacities, and main properties of the semiconductor-based reactive power regulators for the distribution grid was designed based on the multicriteria optimization and the actual load schedules.

2) The algorithm for semiconductor-based reactive power regulators control with a high idle current regulation quality was designed.

3) Electric modes of the grid operation in the pilot area were studied during the current stage, and for the 5 and 10-year perspective.

4) Technical requirements for the main properties, parameters, and installation points were drafted for the equipment of the operation mode regulation system based on the next generation semiconductor-based reactive power regulators to be introduced in the pilot area.

5) Technical requirements were drafted for the prototypes of the semiconductor-based reactive power regulators and the high-tier management system intended to be installed in the pilot area. Feasibility study.

6) The feasibility of the proposed System introduction in the pilot area was analyzed.

7) The global experience of the use and analysis of the semiconductor-based reactive power regulators market was analyzed (with respect to the devices meeting the requirements of the technical proposal).

8) Documents were drafted for the development and testing for the creation of the System and introduction thereof in the pilot area.

In 2019, subject to a resolution of the Science and Engineering Board of Lenenergo, PJSC on the D&T based on the result of the research, a development and testing contract was made for Creation and Introduction in the Pilot Area of a Smart Grid Operation Mode Regulation System Based On the Next Generation Semiconductor-Based Reactive Power Regulators to Be Introduced in the Pilot Area.

Within the D&T contract, the following results were obtained in 2019:

1) A technical proposal for the prototype of the semiconductor-based reactive power regulator was drafted.

2) The power quality parameters, voltage ratings, and load capacities were monitored at the point of installation of the hazardous production facility semiconductor-based reactive power regulator in order to specify the technical requirements set to the HPF semiconductor-based reactive power regulators.

Developing a Fault Localization Microprocessor Set for All Types of Short Circuiting at the 35 kV Lines, Integrated to the Digital Smart Grids.

The purpose of the RD&T is to design, creation, and production testing of a fault localization microprocessor set for all types of short circuiting at the 35 kV overhead lines in order to improve the reliability of the power grid functioning.

The fault localization set planned to be developed must ensure the fullest set of features when creating the digital grid and implementing the Smart Grid.

The following are the main objectives:

- analysis of the existing methods of wave localization of the fault points in overhead lines
- drafting of the technical requirements to the fault localization set for the 35 kV OL

- drafting of the design documents for the fault localization set for the 35 kV OL
- creation of the prototype fault localization set for the 35 kV OL
- testing of the fault localization set for the 35 kV OL in production
- drafting of the operational documents for the fault localization set for the 35 kV OL
- creation of a smart portfolio and intangible assets of Lenenergo, PJSC by patenting the results of the R&D in Russia and abroad.

The RD&T is planned for 2018-2020.

In 2019, the following technical results were obtained:

1) The design documents were drafted for the fault localization set for the 35 kV OL.
2) The program and the methods for the control testing of the 35 kV OL fault localization set prototype were developed.
3) Three 35 kV OL fault localization set prototypes were made.
4) The 35 kV OL fault localization set prototypes were control tested.
5) A pilot operation program was developed for the 35 kV OL fault localization set prototypes.
6) The operational documents for the fault localization set for the 35 kV OL were drafted.
7) The projects for connecting the 35 kV OL fault localization set at the grid facilities were designed.
8) The 35 kV OL fault localization set prototypes were transported to, assembled, and pre-commissioned at the pilot areas.

Design of the Digital Catalogue of Standard Solutions for the Power Grid Digital Zone

The main objective of the research project is to create a Digital Catalogue of Standard Solutions for the Digital PDZ (DPDZ) and a Database for the digital equipment offered by the developers and for the digital systems of separate and comprehensive technical solutions for the DPDZ, and to test such solutions when forming the draft DPDZ projects in the area served by Lenenergo, PJSC.

The Digital PDZ is a highly automated zone of the distribution power grids that provides for a visibility and controllability thereof by means of the digital communication systems and equipment. The Digital Catalogue of Standard Solutions is intended to simplify the process of design and selection of the DPDZ equipment. The objective of its development is to address the issue of comprehensive introduction of the digital technology into the grid infrastructure. The comprehensive aspect means that within the segment of the grid infrastructure works are conducted that allow for a comparative assessment of the efficiency of separate technical DPDZ solutions as well as the sets of technical solutions recommended by the designers of the digital equipment as standard comprehensive DPDZ solutions. The standard comprehensive DPDZ solutions must include the integrated components of different systems: from the system of measuring and recording the produced, transmitted, and consumed power to the digital equipment used in various mode situations.

The R&D is planned for 2018-2020.

In 2019, the following technical results were obtained:

1) The Database for the technical DPDZ solutions was created.
2) The Guidelines for Forming the Technical DPDZ Solutions were drafted.
3) A statement of work for the design of the digital catalogue of the technical DPDZ solutions was drafted.
4) The Digital Catalogue of Technical DPDZ Solutions software was developed.

Studying the Application of FACTS (Flexible Alternating Current Transmission System) to Create 110 kV Smart Power Grids for Lenenergo, PJSC (with justification).

The R&D objective is to conduct theoretic studies and experiments (based on mathematical models) related to the use of FACTS technology in the 110 kV power grids of Lenenergo, PJSC, and to justify the use of such a technology in the pilot power areas of Lenenergo, PJSC.

Introduction of the FACTS will allow to:

- reduce the fault currents down to the acceptable values without replacing the equipment and using the additional diagram and mode measures
- provide for the prompt regulation of the capacity flows in the cross-sections
- reduce the number of unavoidable segmentation in the 110 kV grids
- reduce the number of automated equipment that shuts down the load and the grid components
- create new smart automation devices using the FACTS devices controllability.

The research was conducted in 2018-2019.

In 2019, the following technical results were obtained:

1) The efficiency of the FACTS devices was studied.

2) The established operating modes and transition processes in the 110 kV grid of Lenenergo, PJSC were calculated for the pilot power areas using mathematic modeling.

3) A feasibility study was prepared for the installation of special devices in the pilot area.

4) Technical requirements to such special devices were drafted for the pilot power area of Lenenergo, PJSC.

5) The stock of the special devices from Russian and foreign manufacturers was analyzed; and the guidelines for the use of FACTS were drafted.

The development was completed. Based on the R&D results, an application was filed in the Federal Intellectual Property Service for the registration of the database of the Mathematical Model Parameters of the 110 kV Electric Power Grid of Lenenergo, PJSC Using FACTS Devices (Application No. 2019670058/69).

Creation of the Regional Schedules for the Forest Clearing for the Power Lines in View of the Growth Speed of the Principal Forest-Forming Species of Wood Depending on the Climate Zones and the State of the Soil Along the Existing Power Line Routes, And Preparation of the Recommendations as to the Methods to be Used.

The objective of the R&D is to create the regional digital schedules (geoinformation databases) for the OL forest clearing in the territories of Lenenergo, PJSC based on the research and obtained data on the properties of the forest vegetation required for determination of how quickly the OL routes get covered with vegetation for different forest zones and areas, and to prepare the recommendations as to the frequency and methods of the forest clearing.

This R&D will allow to:

- reduce the scope of forest clearing
- improve the quality of planning of the OL clearing
- optimize the costs for maintaining the OL subject to the forest clearing standards
- reduce the number of technical disturbances caused by the OL shutdown due to the overlap of the wires and tree branches
- improve the reliability of the distribution grid.

The R&D is planned for 2019-2023.

In 2019, the research aimed at creating the geoinformation databases on the forest vegetation were conducted in order to determine the speed with which the OL get covered with forest vegetation and to draft recommendations as to the frequency and methods of forest clearing in the areas served by Lenenergo, PJSC.

List of the Title Documents (Patents, Certificates) Obtained for the RD&T Results

In 2019, the Company obtained Patent No. 2703266 for the System and Method of Automated Control of the Urban Distribution Grid of 6-10 kV, invented within Research and Design Agreement No. 17-11738 dd. September 21, 2017 (Design of the Automated Control System for the 6+10 kV Urban Distribution Grids), and entered the said patent in the State Register of Inventions of Russia on October 16, 2019.

This invention is aimed at improving the power supply reliability of the distribution cable grids and at reducing the labor and time input in the elimination of the distribution grid damages.

Digital Transformation of the Power Grid Facilities

Digital transformation of the management and production processes of the power grids and at the substations is the key priority of the Lenenergo, PJSC innovative development. The Innovative Development Program of the Company stipulates the following digital transformation measures:

- switching to and large-scale introduction of 35-110 kV digital substations
- switching to the digital smart grids with a distributed smart automation and management system.

Digital Transformation Projects Implemented by Lenenergo, PJSC:

Digital Substation (DSS) based on Martyshkino 110 kV substation (No. 502)

The project involves creating the digital substation architecture and arranging the process bus and the station bus using the digital protocols under IEC 61850. It also stipulates the monitoring and control of the digital communications to be arranged under IEC 61850 along with the logging of the emergencies using data transmission under IEC 61850, and creation of the documents in the SCD file.

Implementation timeline: 2018-2021.

2019 results:

In 2019, the digital substation's design was completed, all documentation was approved. The cost estimates were sent for an expert review.

DSS based on Detskoselskaya 35 kV substation (No. 714).

In 2019, the reconstruction of Detskoselskaya 35 kV substation No. 714 was completed applying the technology of digital substations; the substation was commissioned and adjusted. The first 35/10 kV digital substation (Detskoselskaya) in Saint Petersburg was commissioned.

The following main criteria of the digital grid component architecture were observed, namely:

- the visibility of the system parameters and the power equipment and secondary systems modes was ensured
- the power is metered and recorded automatically
- the remote control over the equipment and systems was arranged for the operation of the substation without the need for an on-duty officer or an operative staff being present all the time
- digital exchange between the process systems was arranged
- elements of the adaptable management of the power equipment operating mode were implemented in view of the operating modes of the adjacent power grid and the internal production processes
- functional and information safety and security was provided for within the business process digitization.

Moskovskaya-Tovarnaya 110 kV DSS

In 2019, the DSS design on the base of Moskovskaya-Tovarnaya 110 kV substation began. As part of construction of the indoor DSS having the transit 110 kV grid equipment that is subject to the supervisory control by a system operator, the DSS technology is planned to be used under Architecture No. 3 (bus allocation: process bus under IEC 61850-9-2 SV, and station bus under IEC 61850-8-1).

Implementation timeline: 2019-2021.

Creation of a Single Automated Grid Management System for the Lenenergo, PJSC Grids Using Cutting-Edge Technology and Digital Microprocessors

The project includes creation of a Unified Grid Management Center at Lenenergo, PJSC that would operate based on the automated process control system SHW.

At Stage 1, conditions are created for the use of integrated grid modeling in line with the uniform data standard, introduction of the grid mode management systems (DMS), grid operating management systems (OMS), mapping information systems - geoinformation systems (GIS) linked to the geolocation and geopositioning systems, power grid mode digital modeling systems. A multipurpose APMS software and hardware package is being introduced.

An automated management system is designed for the higher and lower tiers of digital networks (35-110 kV substation, transformer substation, distribution substation, 6-10 kV distribution transformer

substation) in order to integrate those into the APMS SHW of the Lenenergo, PJSC Unified Grid Management Center.

At Stage 2, the architecture is being honed, and a multiagent system project is being implemented for multi-tier power system management: the network control center (NCC) level (centralized management), the substation level, the equipment level. The multiagent algorithms are designed for detecting, analyzing, reacting and self-recovery of the components or members of the power grid.

At the final stage, the functions of the integrated multiagent control technology (smart grid) are implemented along with the PCS (Power Control System), management and monitoring of the power grids with distributed generation, information gathering and display systems (SCADA), grid modeling in line with the uniform data standard, introduction of the grid mode management systems (DMS), grid operating management systems (OMS), mapping information systems - geoinformation systems (GIS) linked to the geolocation and geopositioning systems, power grid mode digital modeling systems. The functions of detecting, analyzing, reacting and self-recovery of the components or members of the power grid are being introduced and operated.

The single grid management center project is closely connected in its time frame with the 35-110 kV DSS projects and the digital distribution grid projects.

Based on the results of the 35-110 kV DSS projects, data exchange between the SHW of the 35-110 kV DSS and the APMS of the SGMC will be arranged using the standard protocols in order to provide for visibility and controllability, as well as to provide input data for the estimation and analysis performed by the APMS of the SGMC.

The exchange of data between the introduced field-level devices and the APMS of the SGMC will be arranged using the standard protocols in order to provide for visibility and controllability, as well as to provide input data on the grid state for the estimation and analysis performed by the APMS of the SGMC.

Implementation timeline: 2016-2022.

In 2019, the creation of an automated management system was in progress for the higher and lower tiers of digital networks (35-110 kV substation, transformer substation, distribution substation, 6-10 kV distribution transformer substation) in order to integrate those into the APMS software and hardware package of the Lenenergo, PJSC Unified Grid Management Center. The data center and unified supervisory control equipment was installed and adjusted; software within the software and hardware package and information security area was commissioned, adjusted, installed and customized; the Lenenergo, PJSC automated supervisory control system was commissioned and adjusted.

Introduction of an Automated Power Metering System with an Option of Integrating It into the Single Grid Management System and Obtaining Information on the Grid Operational Parameters

Within the project, the automated software for power recording (Grid Pyramid) is introduced with the extended functional options, including an option for integration into various automated control systems and SCADA system; and power recording in arranged at the borders between the Lenenergo, PJSC grids and the grids of the wholesale and retail electric power market participants, using the AIMS EPA devices that provide for a remote control and grid parameters display. All AIMS EPA devices installed are integrated into the software introduced.

The power accounting and recording system includes or provides for integration with the unauthorized access prevention tools, including the identification, authentication, and authorization of the personnel when accessing the system, the monitoring of the personnel actions, the antivirus protection, and the tools to control the integrity of the software and hardware.

The power accounting and recording system is created as a territorially distributed multi-tier measurement and information system with centralized management and a single information gathering, processing, storage, and transmission center for the power metering data, with a distributed function for the metering itself.

Implementation timeline: 2009-2025.

In 2019, the following was implemented:

1) Conditions for the record system automation were created.

- automated power metering and recording was arranged (design, assembly, commissioning, and adjustment) at transformer substations at the 0.4 kV connections (3,241 units)
- automated power metering and recording was arranged (design, assembly, commissioning, and adjustment) at the 6(10) kV connections of the 35+ kV substations and 6(10) kV distribution points (310 units)
- 6(10) kV power accounting units were introduced (design, assembly, commissioning, and adjustment) (37 units)
- automated power metering and recording was arranged (design, assembly, commissioning, and adjustment) at the 110 kV connections of 110 kV substations (33 units)
- automated power metering and recording was arranged (design, assembly, commissioning, and adjustment) at the 35 kV connections of the 35+ kV substations (5 units).

2) The introduced AIMS EPA devices were integrated into various automated control systems.

3) The automated software for power recording (Grid Pyramid) was introduced and commissioned.

The following of the above-mentioned comprehensive projects of Lenenergo, PJSC are implemented within the grid digital transformation framework as well:

- creation of a 10-110 kV smart grid in Saint Petersburg
- comprehensive automation of 6-10 kV grids of the Leningrad Region and further integration of the grids into the single information management system.

Digital Transformation of the Power Grid Facilities

In 2019, an in-depth analysis of the digital technology introduction and digital transformation plans for the Lenenergo, PJSC power grid was carried out. Materials for the 2020-2030 Digital Transformation Program of Lenenergo, PJSC were drafted and agreed upon with the relevant departments of Rosseti, PJSC.

The key areas of Lenenergo, PJSC innovative development within the digital transformation framework are as follows:

- introduction of 35-110 kV digital substations
- comprehensive automation of business processes
- introduction of infrastructure and cross-cutting technology
- switching to the digital smart grids.

The Company carried out a whole range of the grid digital transformation events and measures as part of the Innovative Development Program in these areas, including:

- ensuring the 35-110 kV substations visibility
- introduction of the power system protection digital units that support the digital data exchange
- use of the smart switching units (reclosers) with integrated bay controllers and an option for integration into the single information management system, as much in line with plug-n-play concept as possible, supporting the digital data exchange
- installation of the smart power recording and metering units at 110/35 kV substations
- use of the smart (digital) grid equipment monitoring and diagnostics systems (including the tools for remote diagnostics, as well as the tools integrated into the equipment itself), with an option for integration into the single management system
- use of the fault detection systems in the grid
- use of the smart house technology
- introduction of the information gathering and display systems (SCADA)
- use of the grid digital design systems (DPS, PLM, BIM, CAD) when carrying out design works
- use of the process facility digital design (1D, 2D, 3D) when carrying out design works
- creation of a digital model of the power grids of Lenenergo, PJSC

- introduction of the ERP systems
- creation of the data storage and processing systems using the BigData technology
- works were carried out with respect to the digital substations, creation of the Digital Power Distribution Zone, and introduction of the smart distribution grid in the pilot areas of Saint Petersburg and the Leningrad Region under the specified grid digital transformation projects and integrated innovative projects.

3.6.3. Information Technology and Telecommunications

Lenenergo, PJSC is an advanced power entity, the efficiency of which significantly depends on using the information technology and automation tools. These tools are developed by the Company in line with the Rosseti IT, Automation, and Telecommunications Strategy adopted by the Board of Directors of the Company in order to:

- improve the reliability of the power supply to the consumers of Saint Petersburg and the Leningrad Region
- reduce the power supply interruption period - increase of the electric power transportation and reduce the shutdown time
- reduce the power loss in the grids of Lenenergo, PJSC
- improve the visibility of the substations that are subject to the operative management and supervisory control
- promptly prevent emergencies
- provide for the safety of the operating personnel
- improve the information security of the supervisory and operating personnel at the regular operating mode of the grid, as well as at emergencies.

The information technology plays its most important role in the implementation of the key business tasks of the Company, such as ensuring the reliability and consistency of the power supply, increasing the quality of service, and ensuring the consumers' needs are satisfied.

The Company implements pilot digital transformation projects using the big data technology and machine learning:

- creation and introduction of a software package to generate the required scope of power transmission services rendered and the power balances by way of designing an information power transmission management system using the big data technology
- creation and introduction of software to automate the reactive maintenance by way of designing the information system for estimating the probability and forecasting the consequences of the equipment breakdowns based on big data.

The APMS results in 2019:

- data collection and transmission, and APCS systems were introduced at fourteen 35-110 kV substations
- data collection and transmission system sets were constructed at 118 transformer substations and distribution transformer substations.

The technological control and information and telecommunications infrastructure results in 2019:

- 438 km of fiber-optic lines constructed
- 15 communication hubs of the digital network commissioned at 110 kV substations
- digital communication channels established with 21 110 kV substations
- 132 radio plants commissioned for the field service teams

The information security development effects:

Three sets of information security systems were introduced in 2019, which provided for the following:

- protecting the outside and inside perimeters of the data communication network by means of firewalling
- processing and correlating the information security events in order to identify incidents
- scanning the technological traffic of the network in order to identify vulnerabilities of the equipment and software.

The results of the automated management systems development in 2019:

A range of infrastructure projects was implemented aimed at:

- fulfillment of governing documents in the sphere of phasing out imports
- automation of the Company's preparation of the regulatory reporting
- arrangement of machine-to-machine data communication between the Company's information systems.

3.6.4. Ensuring Reliability, and Repairs

Reliability

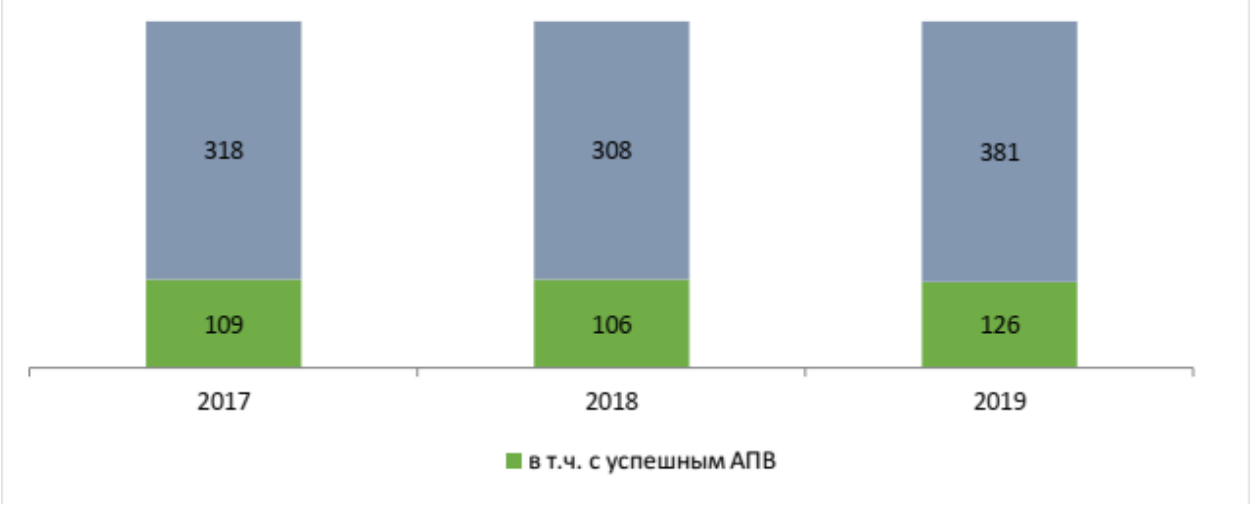
Ensuring the reliable power supply to the consumers is the ultimate strategic priority for Lenenergo, PJSC. The reliability indicators are included in the list of key performance indicators of the Company.

Lenenergo, PJSC implements the following target-specific programs in order to improve the reliability of power facilities:

Program	Implementation	Implementation Effect
Automatic circuit reclosers installation at 6-10 kV overhead lines	Since 2008	Implementation of this program will provide for an automatic identification and separation of a damaged sector without depowering other consumers when technical disturbances occur in the network, and in some cases will allow for an automatic recovery of the power supply (automatic reclose and automatic transfer switch) and improvement of the power supply reliability. Installing reclosers in the distribution network will allow reducing the duration of interruptions in the power supply to certain consumers by up to 60%.
Forest clearing expansion program for overhead lines	Since 2011	The implementation of this program allows reducing significantly the number of technical disturbances resulting from falling trees, and bringing the overhead lines clearings in compliance with the regulatory documents. Over the implementation period (2011 to 2019), 5,601.7 ha of forest clearings for overhead lines have been expanded, which reduced the overall number of accidents at overhead lines caused by falling trees by over 60%.
Lenenergo, PJSC program for replacing 6-10 kV oil circuit breakers	Since 2014	The implementation of this program will phase out the oil (fire hazardous) equipment and increase the electric safety of the equipment use by the operators. It is also worth mentioning that within this program the outdated equipment that served its standard operation term is replaced.
A program for isolating and grounding switches replacement with circuit breakers in 35-110 kV grids	Since 2017	As of now, there are no spare parts for the repair of those components available (the manufacturers have terminated their production). Furthermore, the isolating and grounding switches have several gears that are selectively interconnected, and if one of them breaks, it will lead to the failure of the entire cluster. The implementation of this program will allow reducing the number of technical disturbances at the substations, decrease the lost power load,

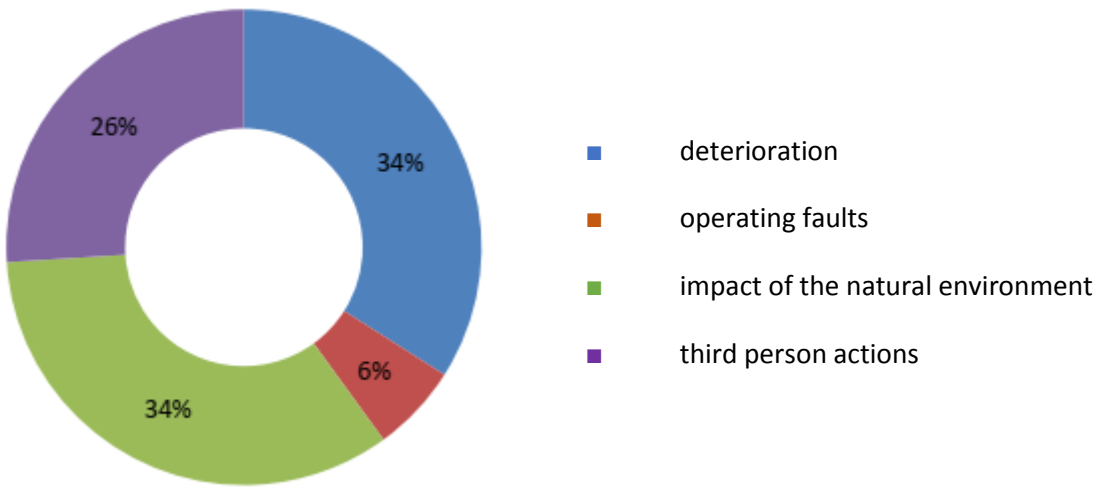
		eliminate "bottle neck" weak points in the substations layouts, and decrease the deterioration of the equipment.
A program for replacing non-insulated wires with self-supporting insulated wires	Since 2017	This investment project is of a crucial nature because it is aimed at increasing the reliability and quality of power supply to the facilities and residents of the Gatchina District of the Leningrad Region, the socially significant facilities, the consumers of reliability categories 1 and 2, as well as at increasing the output of the 6-10 kV grid, lowering the probability of the equipment failure, reducing the power losses, and ensuring the required safety levels. In 2020-2026 it is planned to replace 3,580 km of wires.
Capacitance compensation program	Since 2007	This program implementation will allow for bringing the short circuit currents' values in compliance with the regulatory standards (Operating and Maintenance Rules (PTE): CO 153-34.20.501-2003; par. 5.11.8, 5.11.9, 5.11.10, 5.11.11, 5.11.12), fulfilling the recommendations of the supervisory bodies, and improving the reliability of equipment operation at the substations, and, therefore, the reliability of the power supply to the consumers.

Number of Accidents at Facilities of the 110 kV Grid Over Time



Including successful automatic reclose

Principal Accident Causes for 2019

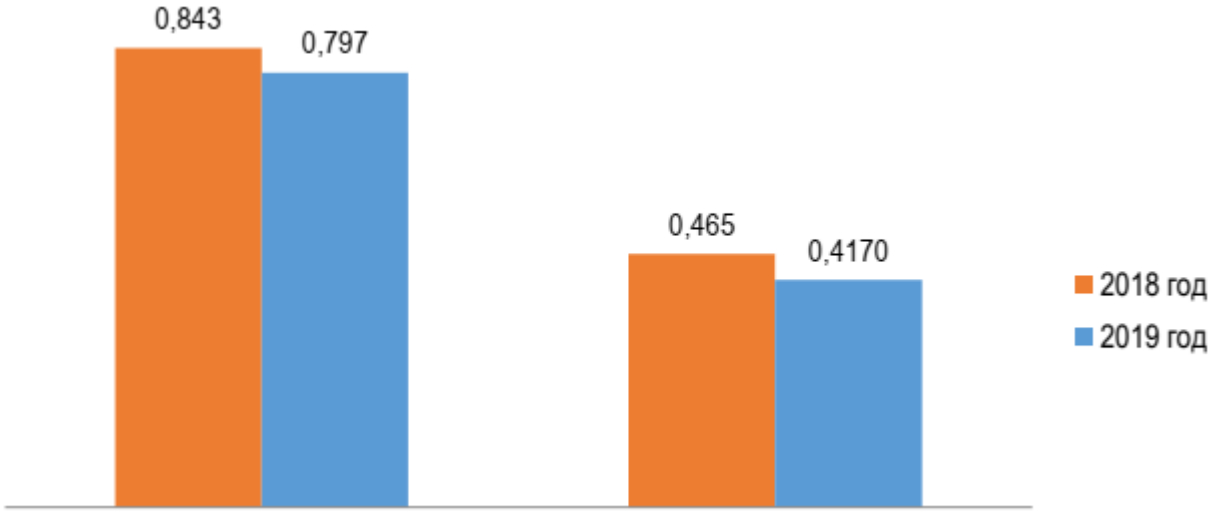


Russian Ministry of Energy Order No. 1256 dd. November 29, 2016 *On Approval of the Methodical Guidelines for Estimation of the Reliability and Quality of the Goods and Services Provided for Entities Managing the National (Russian) Power Grid and the Territorial Grid Entities*, Saint Petersburg Tariff Committee Instruction No. 274-r dd. December 27, 2017, and Leningrad Region Tariff and Pricing Policy Committee Order No. 658-p dd. December 27, 2017, set the services reliability parameter (average duration of interruptions in power supply, SAIDI) for Lenenergo, PJSC for 2019 at the level of 0.017944541.

The actual value of the services reliability (saidi) in 2019 for Saint Petersburg was 0.0063 (reached with substantial improvement).

The actual value of the services reliability (saidi) in 2019 for the Leningrad Region was 0.0102.

Lenenergo, PJSC Reliability (excluding the SDCs)



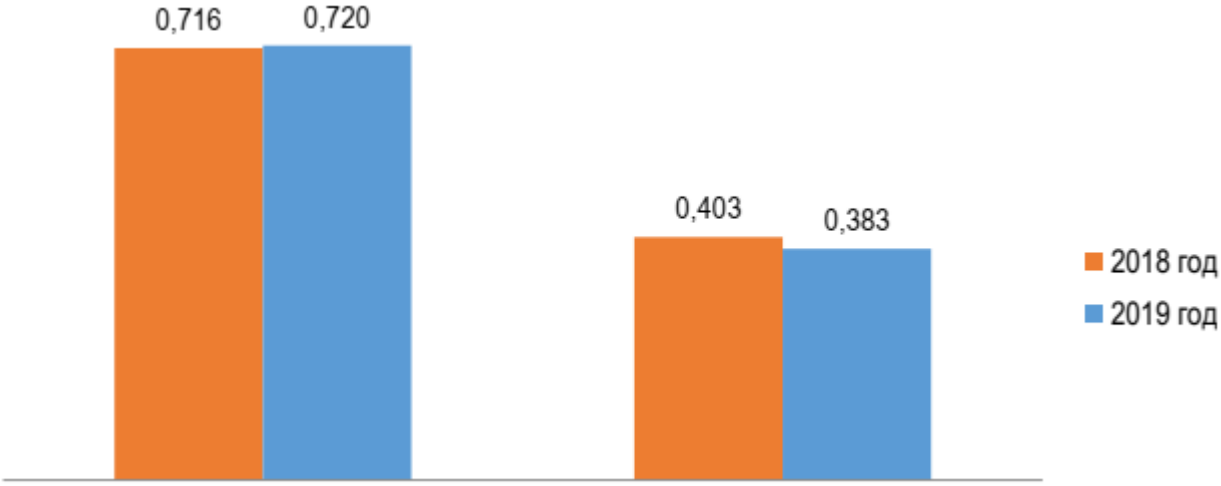
The average duration of interruptions in power supply (Пsaidi), h

The average frequency of interruptions in power supply (Пsaifi), number of incidents

2018 год
2019 год

2018
2019

Lenenergo, PJSC Reliability (including the SDCs)



The average duration of interruptions in power supply (Пsaidi), h

The average frequency of interruptions in power supply (Пsaifi), number of incidents

2018 год	2018
2019 год	2019

Maintenance and Repair Program

The Maintenance and Repair Program of Lenenergo, PJSC is formed every year based on the multi-year equipment repair schedules, 0.4-110 kV power lines state analysis, basic and supporting repair of the substation equipment, inspection reports, instructions from supervisory bodies, and identified reliability risks within the distribution grids.

M&R Program Parameters

Parameters	2019	2019 (Lenenergo, PJSC Group)
Overhead lines overhaul, km	4,664	4,692.35
Overhead lines routes clearing, ha	4,375	4,382.99
35-110 kV transformer and		
auto transformer overhaul, number of units	28	28.00
Switching units overhaul, number of units	1,673	1,673.00
M&R Program (RUB mn)	2,589	2,718.96

SECTION 4. CORPORATE GOVERNANCE

4.1. Corporate Governance

Compliance with the laws, industry standards, as well as requirements set for the governance and control bodies in the internal regulations (as published on the corporate website) is the crucial component of the Company's management.

Applying a personalized approach to working with shareholders, the Company aims at strict observation of their rights, including ensuring the shareholders and investors are able to make reasonable decisions based on the full, relevant, up-to-date, and accurate information on the Company's operations promptly provided by the Company.

The Board of Directors plays the key role in the corporate governance system of the Company. Its independence is the essential success factor in the Company's reaching its strategic goals.

The subsidiaries and dependent companies (SDCs), and other entities, the member, founder, or participant of which Lenenergo, PJSC is, are governed by a single corporate policy based on the common corporate governance principles.

Corporate governance in the Company is based on the following main principles:

treating all of the Company's shareholders equally and fairly when they exercise their rights to participate in management of the Company

providing the shareholders with equal and fair opportunities to participate in the Company's profit by receiving dividend

providing equal conditions for all shareholders holding shares of the same category (class), including the minority (small) shareholders and foreign shareholders, and provide for equal treatment of shareholders by the Company

providing the reliable and efficient methods to record the rights on shares, as well as an opportunity to dispose of the shares freely and in an unencumbered manner

conducting of the strategic management of the Company by the Board of Directors that determines the basic principles and approaches to creating a risk management and internal control system within the Company, controls the actions of the Company's executive bodies, and exercises other functions

the Board of Directors' accountability to the Company's shareholders

effective management of the current interactions with the shareholders, coordination of the Company's actions to protect the shareholders' rights and interests, and support of the efficient performance of the Board of Directors by the Company's Corporate Secretary

an efficient risk management and internal control system aimed at creating a reasonable assurance in the possibility of reaching the set objectives and goals

ensuring the transparency of the Company's operations for the shareholders, investors, and other stakeholders

prompt publication of the complete, updated, and accurate information on its operations in order to ensure the shareholders and investors are capable of making reasonable decisions

ensuring such a process for taking material corporate actions as to provide the shareholders with an opportunity to promptly obtain full information on such actions, and an opportunity to affect the taking of such actions, and guarantees the shareholders' rights are adequately observed and protected during the taking of such actions.

These principles allow Lenenergo, PJSC to ensure a sustainable and consistent upgrading of the core elements of the corporate governance structure at all hierarchy and administrative interaction tiers of Rosseti, PJSC Group.

Corporate Governance System

The Company understands corporate governance as a set of procedures that ensure management and control of the Company's operations and that include the interactions between the shareholders, the Board of Directors, and the executive bodies of the Company for the benefit of the shareholders.

Lenenergo, PJSC views corporate governance as a tool for improving the Company's performance, strengthening its reputation, and reducing cost of raising funds.

The Company's Articles of Association and other internal documents, including the following, regulate the specific corporate governance structure, procedures, and practices:

Regulations for the General Meeting of Shareholders
Regulations for the Board of Directors
Regulations for the Management Board
Regulations for the Internal Audit Board
Regulations for the Board of Directors' Remuneration and Compensation
Regulations for the Internal Audit Board's Remuneration and Compensation
Regulations for the Strategy Committee of the Board of Directors
Regulations for the Reliability Committee of the Board of Directors
Regulations for the Audit Committee of the Board of Directors
Regulations for the HR and Remuneration Committee of the Board of Directors
Regulations for the Grid Connection Committee of the Board of Directors
the Corporate Governance Code
Regulations for the Insider Information
Regulations for the Information Policy
the Risk Management Policy
the Internal Audit Policy
the Internal Control Policy.

All of the above mentioned documents are published on the official website of the Company at:
http://www.lenenergo.ru/shareholders/corp/ustav/?part=1
http://lenenergo.ru/shareholders/c9orp/control

Rosseti, PJSC Group

Yantarenergo, JSC	FGC UES, PJSC	TDC, PJSC
IDGC of Volga, PJSC	Tyumenenergo, JSC	IDGC of Center and Volga Region, PJSC
IDGC of South, PJSC	IDGC of Center, PJSC	IDGC of the Urals, OJSC

IDGC of Siberia, PJSC	IDGC of the North-West, PJSC	IDGC of the North Caucasus, PJSC
MOESK, PJSC	Lenenergo, PJSC	Kubanenergo, PJSC

The Company is one of the largest inter-regional distribution grid companies in Russia and belongs to Rosseti, PJSC Group (the share of Rosseti, PJSC in the authorized capital of the Company is 67.48% as of the date of closing the shareholders register on December 23, 2019).
The Company's membership in the said Group means the application of common approaches and principles to the functioning of the governance and control bodies.

Information on Compliance with the Corporate Governance Code

The corporate governance **priority** of Lenenergo, PJSC is to form an advanced and comprehensible system for interactions between the shareholders, the Board of Directors, management, and other stakeholders.

The corporate governance **principal objective** of the Company is to ensure a high-quality information disclosure in the key areas of corporate governance allowing to inform the stakeholders and build trust in the financial market.

The Company pursues a **goal** of forming the due standards for the relevant sections of annual reports and improvement of the corporate governance system efficiency.

Lenenergo, PJSC, being a publicly traded company, pays close attention to the development of and changes in the Russian and international corporate laws and practices.

By improving the corporate governance system efficiency, the Company intends to follow the best Russian practices set out in the Corporate Governance Code as recommended by the Bank of Russia.

Compliance with the Code principles and recommendations is an absolute priority for all governance and control bodies of the Company.

The Lenenergo, PJSC corporate governance is carried out in line with the rules and procedures set out in the Articles of Association and other internal documents of the Company.

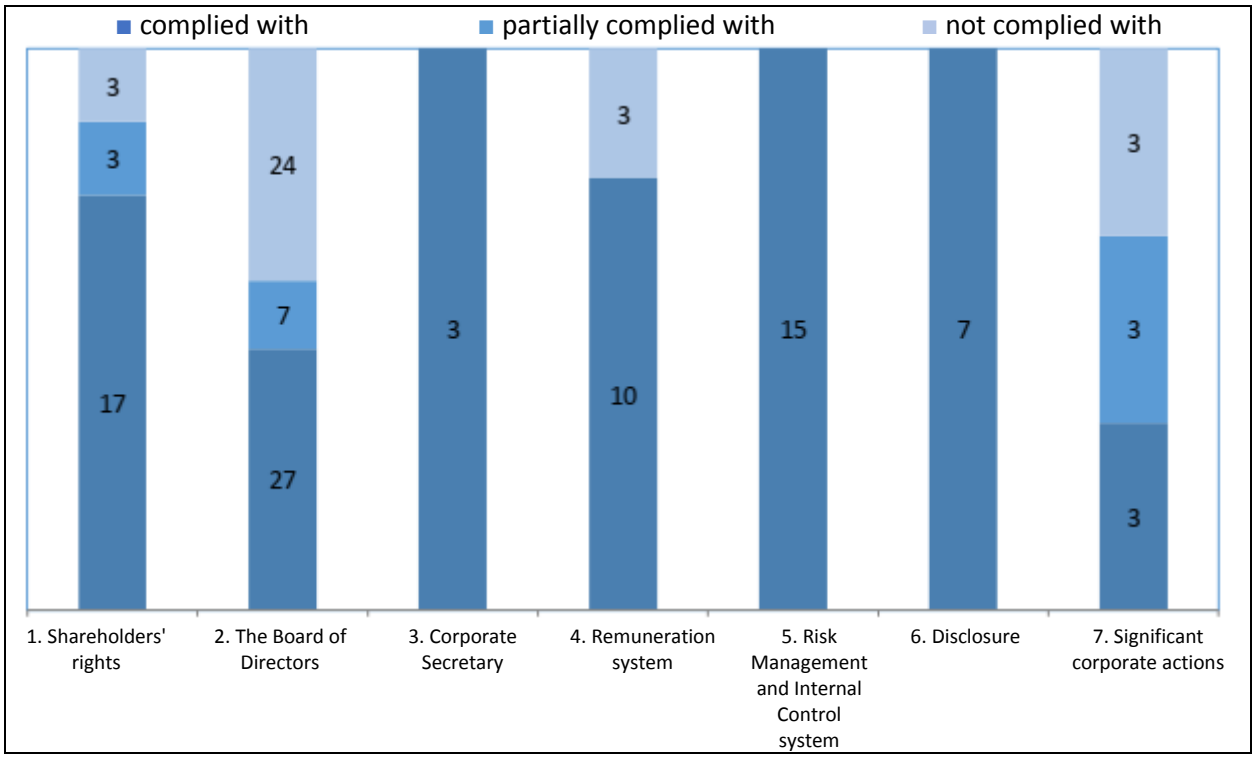
Lenenergo, PJSC has adopted the Corporate Governance Code in order to ensure more transparency of the corporate governance and to evidence the Company is unwaveringly committed to following the standards of proper corporate governance.

In 2019, the Company took corporate measures to amend the internal regulations and the Articles of Association in order to provide for compliance with the Bank of Russia's recommendations.

In order to determine whether the Lenenergo, PJSC corporate governance complies with the principles and recommendations of the Code, the Company assessed the corporate governance principles compliance in view of the Bank of Russia's recommendations on the Corporate Governance Code compliance reporting.

Subject to the applicable methodology, a percentage of "complied with" and "partially complied with" results for each section of the Code is calculated for the criteria contained in each section.

The overall number of "complied with" and "partially complied with" results is also calculated in the analysis.



In 2019, the "complied with" and "partially complied with" results accounted for 115 out of 128 criteria, or 90% (74% - "complied with", 16% - "partially complied with"), which is 16% more than the 2018 results, and evidences that the corporate governance system in the Company is well developed.

For the complete information on the Company's compliance with the Code provisions see Annex 6.3 hereto.

The Company fulfills the majority of the principles and recommendations of the Corporate Governance Code of the Bank of Russia.

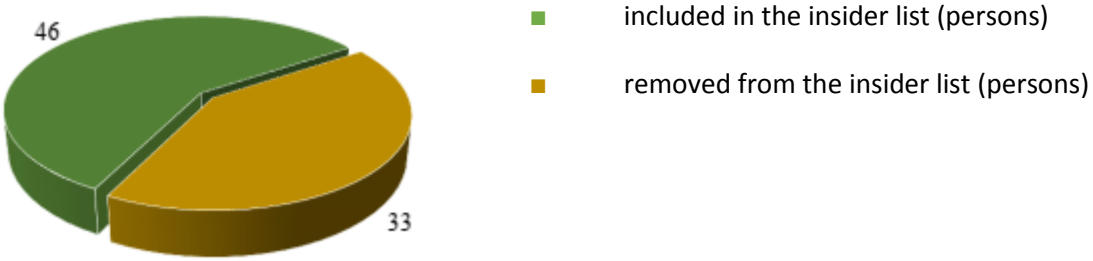
Information in the Insider Information Protection

Lenenergo, PJSC pays considerable attention to controlling the insider information that may significantly affect the prices of the financial instruments.

In line with Federal Law No. 224-FZ dd. October 27, 2010 *On Combatting the Unauthorized Use of Insider Information and Market Manipulation, and On Amending Several Russian Laws*, Federal Law No. 39-FZ dd. April 22, 1996 *On Securities Market*, and Federal Law No. 208-FZ dd. December 26, 1995 *On Joint Stock Companies*, the Company's Board of Directors approved the Regulations for Insider Information of Lenenergo, PJSC (Minutes No. 45 dd. June 6, 2019).

Subject to the requirements of Federal Law No. 224-FZ, the Company prepares, approves, and delivers to Moscow Exchange, PJSC a list of insiders.

Company's Insiders Over Time, 2019



Lenenergo, PJSC carefully observes all the requirements the laws set to the insider information disclosure. No incidents of failure to comply with the timeline of the insider information disclosure were discovered in 2019.

The insider information of Lenenergo, PJSC is published on the official corporate website at: http://www.lenenergo.ru/shareholders/forinsiders/.

The Company's Governance and Control Bodies Structure

<table>
<tr><td colspan="2">Control Bodies System</td><td colspan="2">Governance Bodies System</td></tr>
<tr><td colspan="4">The General Meeting of Shareholders</td></tr>
<tr><td colspan="2">The Internal Audit Board</td><td colspan="2">The Board of Directors</td></tr>
<tr><td colspan="2">The Audit Committee</td><td>The Grid Connection Committee</td><td>The Strategy Committee</td></tr>
<tr><td>The Independent Auditor</td><td>The Internal Audit Department</td><td>The Reliability Committee</td><td>The Remuneration Committee</td></tr>
<tr><td colspan="2"></td><td colspan="2">The Management Board</td></tr>
<tr><td colspan="2"></td><td colspan="2">The CEO</td></tr>
</table>

GOVERNANCE BODIES SYSTEM	
The General Meeting of Shareholders	The supreme governance body. Procedures for preparation, convening, holding, and summarizing the results of the General Meeting of Shareholders are set out in the Articles of Association and the Regulation on the General Meeting of Shareholders.
The Board of Directors	The collective governance body carrying out the strategic management and controlling the actions of the sole executive body (CEO). The forming procedures, status, composition, functions, goals and objectives, and powers of the Board of Directors, as well as the procedures for convening and holding the meetings of the Board of Directors are set out in the Articles of Association and the Regulation on the Board of Directors. The main goals and objectives of the Board of Directors of the Company are as follows: identification of the priority areas and strategies for development of the Company aimed at increasing its market capitalization and investment attractiveness, obtaining the highest possible profit, and increasing the Company's assets ensuring the implementation and protection of the rights and vested interests of the Company's shareholders, as well as facilitating the resolution of corporate conflicts ensuring the complete, accurate, and objective disclosure of information by the Company creating the efficient mechanisms of internal control regular assessment of the actions and operations of the Company's executive bodies and management.
The Collective Executive Body (the Management Board)	The collective executive body managing the regular operations of the Company.

	The Management Board answers to the General Meeting of Shareholders and the Board of Directors of the Company. The forming procedures, status, composition, functions, goals and objectives, and powers of the Management Board, as well as the procedures for convening and holding the meetings of the Management Board are set out in the Articles of Association and the Regulation on the Management Board.
The Sole Executive Body (CEO)	The sole executive body managing the regular operations of the Company. The sole executive body (CEO) answers to the General Meeting of Shareholders and the Board of Directors of the Company. The appointment procedure, status, functions, goals and objectives, and powers of the sole executive body (CEO) are set out in the Articles of Association.

CONTROL BODY	
The Internal Audit Board	A continuously operating independent elected body of internal control carrying out periodic inspections of the financial and business operations of the Company, its standalone divisions, officers of the governance bodies of the Company and structural divisions of the Executive Structure of the Company: document and factual inspections of the legality, feasibility, and efficiency (utility) of the Company's business and financial operations conducted during the inspected period document and factual inspections of the completeness and correctness of representation of the business and financial operations in the Company's records.
INTERNAL AND EXTERNAL AUDIT	
The Audit Committee of the Board of Directors	The objective of the Audit Committee of the Board of Directors is to assists the efficient performance of the Board of Directors' functions with respect to preliminary review of the issues related to the control of the business and financial operations of the Company. The forming procedures, status, composition, functions, goals and objectives, and powers of the Audit Committee, as well as the procedures for convening and holding its meetings are set out in the Articles of Association and the Regulation on the Audit Committee of the Board of Directors.
The Internal Audit Department	The objective of the Internal Audit and Control Department of the Company is to assist the Board of Directors and the Company's executive bodies in increasing the efficiency of the Company's management and improving its business and financial operations, including by applying a systematic and consistent approach to analysis and assessment of the risk management, internal control, and corporate governance systems as tools for creating reasonable assurance of the possibility of fulfilling the Company's goals and objectives.
The Independent Auditor	The General Meeting of Shareholders appoints an auditor to audit and confirm the annual financial statements of the Company every year. Such an auditor is not connected to the Company and its shareholders by any property interests. The auditor audits the financial and business operations of the Company in accordance with the requirements of the Russian laws and subject to the service agreement regulating the auditor's actions.

Governance Bodies

The General Meeting of Shareholders

Shareholders are entitled to the following:
to participate personally or via a proxy in the General Meeting of Shareholders of the Company and vote on all items on the agenda that fall within the shareholder's competence
suggest items for the General Meeting of Shareholders agenda subject to the procedures set out in the Russian laws and the Articles of Association
to receive information on the Company's operations and acquaint themselves with the Company's documents subject to Federal Law No. 208-FZ On Joint Stock Companies dd. December 26, 1995, other regulations, and the Articles of Association
to receive dividend declared by the Company
to have a preemptive right to purchase additional shares placed by subscription and issuable securities convertible into shares pro rata to the number of ordinary shares held by such a shareholder in cases stipulated by the Russian laws
to receive a portion of the Company's property upon its liquidation
to challenge the decisions of the Company's governance bodies that create civil law consequences in cases and subject to a procedure set out in the Russian laws
to demand compensation of the losses incurred by the Company
to challenge the deals and transactions made by the Company on the grounds set out in the Russian laws and demand the application of the invalidity consequences, as well as to demand the application of the consequences of the Company's void transactions' invalidity
to enter into a corporate rights agreement (corporate agreement) with other shareholders, the Company's lenders, or other third parties
to exercise other rights set out in the Russian laws and the Articles of Association.

Shareholders holding at least 1% of the voting shares are entitled to the following:

Shareholder(s) holding at least 1% of the voting shares in the Company is (are) entitled to receive the list of persons entitled to participate in the General Meeting of Shareholders; to file for the recognition of a large transaction made in violation of the consent procedure as void; to demand the Board of Directors' or General Meeting's consent to a related-party transaction prior to its making; to file a lawsuit in a court against a member of the Board of Directors, the sole executive body, a member of the collective executive body (the Management Board, the directorate), or a managing entity (the Managing Director) for the recovery of the Company's losses.
Shareholders holding at least 2% of the voting shares are entitled to the following:
Shareholder(s) holding at least 2% of the voting shares in the Company is (are) entitled to suggest items for the agenda of the annual General Meeting, and to nominate candidates to the Board of Directors, the Internal Audit Board, and the Sole Executive Body of the Company. The suggestions for the agenda of the annual General Meeting must be submitted within 60 days after the end of the fiscal year.

Shareholders holding at least 10% of the voting shares are entitled to the following:

Shareholder(s) holding at least 10% of the voting shares in the Company is (are) entitled to call for an extraordinary General Meeting; and demand an inspection (audit) of the financial and business operations of the Company.

Shareholders holding at least 25% of the voting shares are entitled to the following:

Shareholder(s) holding in aggregate at least 25% of the voting shares in the Company is (are) entitled to have access to the accounting documents and minutes of the meetings of the collective executive body.

The General Meeting of Shareholders exercises primarily the rights of the Company's shareholders set out in the Articles of Association.

In 2019, one General Meeting of Shareholders was held, that is the Annual General Meeting.

The Annual General Meeting was held on June 18, 2019 (Minutes No. 1/2019 dd. June 21, 2019) and had the following agenda:

Approval of the Annual Report and Annual Financial Statements of the Company

Distribution of profit (including the declaration of dividend payment) and allocation of losses of the Company for 2018

Appointment of the members of the Board of Directors of the Company

Appointment of the members of the Internal Audit Board of the Company

Appointment of the Auditor of the Company

Approval of the revised Articles of Association of the Company

Approval of the revised Regulations for the General Meeting of Shareholders of Lenenergo, Public Joint Stock Company of the Power Industry and Electrification

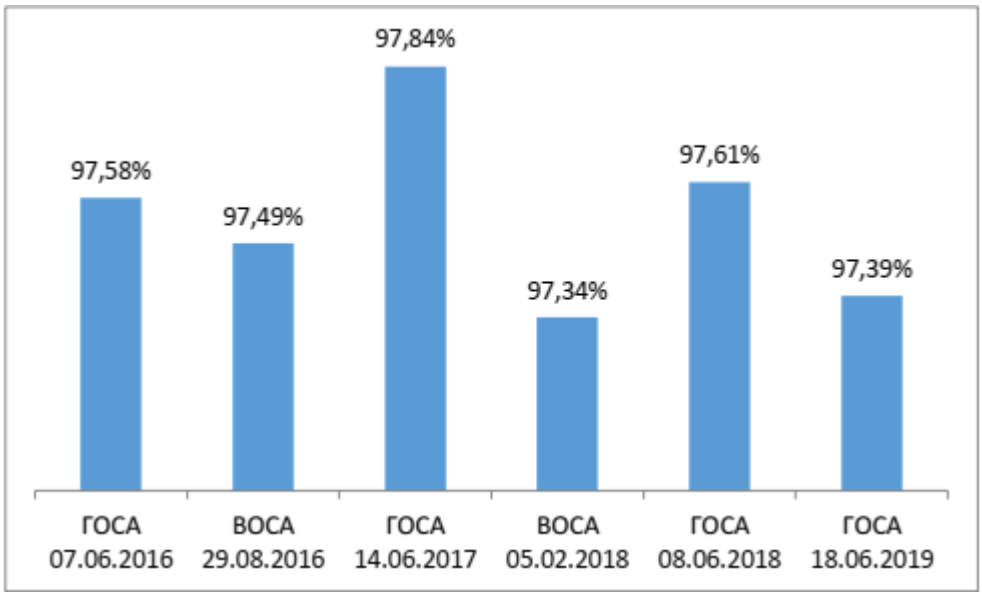
Approval of the revised Regulation on the Board of Directors of Lenenergo, Public Joint Stock Company of the Power Industry and Electrification

Approval of the revised Regulation on the Board of Directors of Lenenergo, Public Joint Stock Company of the Power Industry and Electrification

Approval of the revised Regulation on the Management Board of Lenenergo, Public Joint Stock Company of the Power Industry and Electrification

For information on the meeting go to www.lenenergo.ru/ shareholders/corp/control/osa/

The General Meeting Quorum in 2016-2019, %



The Board of Directors

The Board of Directors of Lenenergo, PJSC is the collective governance body of the Company that carries out the overall management of the Company's operations subject to the Federal Law On Joint Stock Companies, the Articles of Association, and the revised Regulations for the Board of Directors of Lenenergo, PJSC (as approved by the Annual General Meeting of Shareholders on June 18, 2019, Minutes No. 1/2019 dd. June 21, 2019). The Board of Directors consists of 13 people, which complies with the requirements of the laws and meets the operations scope and needs of the Company. According to the Articles of Association, the Board of Directors holds its meetings as needed, but at least once every six weeks.

When reviewing the items on the agenda, the members of the Board of Directors assess the possible conflict of interest they may have with the Company (including related to their participation in the governance bodies of other companies). When an item may, in the Directors' opinion, result in a conflict of interest, a Director having such a conflict abstains from voting, and if necessary - from the discussion altogether. The Directors must inform the Board on the existence of the conflict of interest or a possibility thereof. Such information is submitted through a Corporate Secretary who provides support to the Board of Directors and its Committees.

As of December 31, 2019, the Board of Directors included the following officers of the Company[5]:

Name	Position	Status in the Board of Directors	Shareholder's Proxy	Key Competence	Committees Membership
Chairman of the Board of Directors					
Pavel Livinsky	Chairman of the Management Board, Rosseti, PJSC; CEO, Rosseti, PJSC	Non-Executive	Rosseti	power system reliability, digital transformation	—
Members of the Board of Directors					
Daniil Krainsky	Senior Advisor, Rosseti, PJSC; Deputy CEO for Legal and Corporate Governance, Lenenergo, PJSC	Executive	Rosseti	legal and corporate governance, property management	The Audit Committee (member)
Larisa Romanovskaya	Senior Advisor, Rosseti, PJSC	Non-Executive	Rosseti	HR policy, organization design, public relations (government agencies and media)	The HR and Remuneration Committee (Chairperson), the Audit Committee (member)
Andrey Ryumin	Member of the Management Board, CEO, Lenenergo, PJSC	Executive	Rosseti	strategic development, power system reliability	
Sergey Sergeev	Deputy CEO for Fixed Assets Construction, Rosseti, PJSC	Non-Executive	Rosseti	fixed assets construction	The Audit Committee (member)
Olga Sergeeva	Member of the Management Board, Deputy CEO - Chief of Staff, Rosseti, PJSC	Non-Executive	Rosseti	HR policy, organization design	The Audit Committee (Chairperson), the HR and Remuneration Committee (member)
Sergey Pikin	Director, Energy Development Fund	Independent	Rosseti	strategic development	The Audit Committee (member), the

[5]Here and further in the text, the personal information on the members of the governance and control bodies is provided with the written consent of the said persons; their jobs and positions are provided as of the appointment date.

					Strategy Committee (member)
Andrey Bondarchuk	Chairman, Saint Petersburg Energy and Building Services Committee	Non-Executive	Saint Petersburg Government	power system reliability, prospective development	
Aleksandr German	Deputy Chairman, Saint Petersburg Property Relations Committee	Non-Executive	Saint Petersburg Government	property management, corporate governance	The Audit Committee (member), the HR and Remuneration Committee (member)
Dmitry Koptin	Chairman, Saint Petersburg Tariff Committee	Non-Executive	Saint Petersburg Government	tariff policy, business planning	The Strategy Committee (member)
Gennady Magazinov	Chief of Staff for M.A. Shaskolsky, the Saint Petersburg Vice-Governor	Non-Executive	Saint Petersburg Government	power system reliability, prospective development	The Strategy Committee (member)
Aleksey Malukhin	First Deputy Chairman, Saint Petersburg Energy and Building Services Committee	Non-Executive	Saint Petersburg Government	power system reliability, fixed assets construction	The Audit Committee (member)
Yelena Tsereteli	Director, Saint Petersburg Small and Medium Enterprises Development Foundation, Nonprofit Entity	Non-Executive	Saint Petersburg Government	client service, services development	The Grid Connection Committee (member)

Shareholders Representation in the Board of Directors, number of persons

The Board of Directors of Lenenergo, PJSC as of December 31, 2019 as Appointed by the Annual General Meeting of Shareholders on June 18, 2019 (Minutes No. 1/2019 dd. June 21, 2019):

Name	Pavel Livinsky
Position	Chairman of the Board of Directors
Year of Birth. Nationality	1980, Russia

First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on February 5, 2018
Education	Higher. M.V. Lomonosov Moscow State University, specializing in Economics (2001) M.V. Lomonosov Moscow State University, Master of Management (2003).
Positions for the Past 5 Years	2018 to the present day: Chairman of the Board of Directors, Lenenergo, PJSC 2017 to the present day: Chairman of the Management Board, Rosseti, PJSC; CEO, Rosseti, PJSC 2017 to 2017: Head of the Moscow Department of Housing, Utilities and Amenities 2013 to 2017: Head of the Moscow Department of Fuel and Power Sector 2011 to 2013: CEO, UNECO, OJSC.
Share in the Authorized Capital	None
Positions Held in Other Entities	CEO, Chairman of the Management Board, member of the Board of Directors, Rosseti, PJSC Chairman of the Board of Directors, MOESK, PJSC Member of the Board of Directors, Mosenergo, PJSC Member of the Supervisory Board, National Research University Moscow Power Engineering Institute, Federal State Budget Institution of Higher Vocational Education President, member of the Panel, Sports Federation of Firefighters and Rescuers, Regional Public Organization Member of the Supervisory Board, Cathedral of Christ the Savior Foundation Member of the Panel, the Russian National Committee of the World Energy Council, Fuel and Energy Industry Association Member of the Management Board, Russian Union of Industrialists and Entrepreneurs (Russian Association of Employers) Member of the Supervisory Board, STC UPS, JSC Member of the Board of Directors, RusHydro, PJSC Chairman of the Board of Directors, FGC UES, PJSC Member of the Board of Directors, SO UPS, JSC Member of the Panel, the Russian National Committee of the International Council on Large Electric Systems – CIGRE Member of the Supervisory Board, the Modern Pentathlon Federation of Russia Member of the Supervisory Board, Association Digital Energy

Name	Daniil Krainsky
Position	Member of the Board of Directors Member of the Audit Committee of the Board of Directors Member of the Management Board Deputy CEO for Legal and Corporate Governance
Year of Birth. Nationality	1979, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on February 5, 2018
Education	Higher. Kutafin Moscow State Law Academy (2002), specializing in Legal Studies
Positions for the Past 5 Years	2018 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2018 to the present day: Deputy CEO for Legal and Corporate Governance, Lenenergo, PJCS 2017 to the present day: Advisor, Senior Advisor, Rosseti, PJSC 2011 to 2017: First Deputy CEO, Deputy CEO, UNECO, JSC
Share in the Authorized Capital	None
Positions Held in Other Entities	Advisor, Senior Advisor, Rosseti, PJSC Chairman of the Board of Directors, Energoservice Company Lenenergo, JSC

Name	Larisa Romanovskaya
Position	Member of the Board of Directors Chairperson of the HR and Remuneration Committee of the Board of Directors Member of the Audit Committee of the Board of Directors

Year of Birth. Nationality	1972, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on June 18, 2019
Education	Higher. Samara State University of Economics (1995), Economist
Positions for the Past 5 Years	2017 to the present day: Advisor, Senior Advisor, Deputy CEO for Public Relations (Government Agencies Interaction), Acting Deputy CEO for HR Management and Public Relations (Government Agencies and Media Interaction), Rosseti, PJSC 2014 to 2017: CEO, Ensol, LLC 2011 to 2014: CEO, Svoy Khleb, LLC
Share in the Authorized Capital	None
Positions Held in Other Entities	Acting Deputy CEO for HR Management and Public Relations (Government Agencies and Media Interaction), Rosseti, PJSC Member of the Board of Directors, IDGC of Center, PJSC Member of the Board of Directors, MOESK, PJSC Member of the Management Board, Association Digital Energy

Name	Andrey Ryumin
Position	Member of the Board of Directors Chairman of the Management Board CEO
Year of Birth. Nationality	1980, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on February 5, 2018
Education	Higher. M.V. Lomonosov Moscow State University, Department of Mechanics and Mathematics (2002) Peoples' Friendship University of Russia (RUDN), specializing in Information Systems in Economics (2002) Candidate of Science (PhD) in Economics
Positions for the Past 5 Years	2018 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2018 to the present day: Chairman of the Management Board, CEO, Lenenergo, PJSC 2016-2017: Independent Director, member of the Board of Directors, Mosenergo, OJSC 2011 to 2013: First Deputy CEO, Deputy CEO, UNECO, OJSC
Share in the Authorized Capital	None
Positions Held in Other Entities	—

Name	Sergey Sergeev
Position	Member of the Board of Directors Member of the Audit Committee of the Board of Directors
Year of Birth. Nationality	1976, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on June 7, 2016
Education	Higher. Novocherkassk State Technical University (1998), specializing in Industrial and Civil Construction; Construction Engineer
Positions for the Past 5 Years	2019 to the present day: CEO, Kubanenergo, PJSC 2016 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2013-2019: Deputy CEO for Fixed Assets Construction, Rosseti, PJSC 2009-2013: Deputy Chairman of the Management Board, FGC UES, OJSC
Share in the Authorized Capital	None
Positions Held in Other Entities	CEO, Kubanenergo, PJSC Member of the Board of Directors, FGC UES, PJSC Member of the Board of Directors, MOESK, PJSC

Name	Olga Sergeeva
Position	Member of the Board of Directors Chairman of the Audit Committee of the Board of Directors

	Member of the HR and Remuneration Committee of the Board of Directors
Year of Birth. Nationality	1984, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on June 8, 2018
Education	Higher. Plekhanov Russian University of Economics (2006), specializing in Economics and Company Management. Construction; Planning Engineer
Positions for the Past 5 Years	2018 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2018 to the present day: Advisor, Senior Advisor, Deputy CEO - Chief of Staff, Senior Advisor, Rosseti, PJSC 2017 to 2017: Deputy Head of the Moscow Department of Housing, Utilities and Amenities 2016-2017: Deputy Head of the Moscow Department of Fuel and Power Sector 2015-2016: Head of the Organizational and Legal Office of the Moscow Department of Fuel and Power Sector 2012-2015: Head of the Administration of the Moscow Department of Fuel and Power Sector
Share in the Authorized Capital	None
Positions Held in Other Entities	Member of the Management Board, Rosseti, PJSC Chairman of the Board of Directors, IDGC of South, PJSC Chairman of the Board of Directors, IDGC of the North-West, PJSC Member of the Board of Directors, Kubanenergo, PJSC Chairman of the Supervisory Board, Association ERA of Energy Member of the Board of Directors, MOESK, PJSC Member of the Board of Directors, IDGC of the North Caucasus, PJSC Member of the Board of Directors, FGC UES, PJSC

Name	Sergey Pikin
Position	Member of the Board of Directors Member of the Audit Committee of the Board of Directors Member of the Strategy Committee of the Board of Directors
Year of Birth. Nationality	1979, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on June 14, 2017
Education	Higher. M.V. Lomonosov Moscow State University (2003), Department of Economics
Positions for the Past 5 Years	2017 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2007 to the present day: Director, Energy Development Fund
Share in the Authorized Capital	None
Positions Held in Other Entities	Director, Energy Development Fund Member of the Strategy Committee of the Board of Directors, Rosseti, PJSC Member of the Board of Directors, Profotech, JSC Director, Energy Development Fund Member of the Strategy Committee of the Board of Directors, Rosseti, PJSC Member of the Board of Directors, Profotech, JSC

Name	Andrey Bondarchuk
Position	Member of the Board of Directors
Year of Birth. Nationality	1977, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on August 27, 2012
Education	Higher. Saint Petersburg Mining University, specializing in Enterprise Power Supply (1999) Saint Petersburg State University, specializing in General Management (2006) Candidate of Science (PhD) in Engineering

Positions for the Past 5 Years	2015 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2013 to the present day: Chairman, Saint Petersburg Energy and Building Services Committee 2006-2013: Chairman of the Leningrad Region Fuel and Energy Sector Committee, Deputy Chairman of the Leningrad Region Tariff and Price Committee
Share in the Authorized Capital	None
Positions Held in Other Entities	Chairman, Saint Petersburg Energy and Building Services Committee Chairman of the Board of Directors, PeterburgGaz, LLC Member of the Board of Directors, St. Petersburg Heating Grid, JSC

Name	Aleksandr German
Position	Member of the Board of Directors Member of the Audit Committee of the Board of Directors Member of the HR and Remuneration Committee of the Board of Directors
Year of Birth. Nationality	1969, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on February 5, 2018
Education	Higher. Voronezh Higher School of the Ministry of Interior of Russia (1997), Radio Engineer
Positions for the Past 5 Years	2018 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2016 to the present day: Deputy Chairman, Saint Petersburg Property Relations Committee 2014-2016: First Deputy Chairman, Saint Petersburg Entrepreneurship and Consumer Market Development Committee 2004-2014: Director, Saint Petersburg State Budget Institution Center for Control and Quality of Goods (Products), Works, and Services
Share in the Authorized Capital	None
Positions Held in Other Entities	Deputy Chairman, Saint Petersburg Property Relations Committee Member of the Board of Directors, West High-Speed Diameter, JSC Member of the Board of Directors, Center of Exhibition and Museum Projects, JSC Member of the Board of Directors, Zhilcomservis No. 2 of the Moscow Area, LLC Member of the Board of Directors, Saint Petersburg Property Fund, JSC Member of the Board of Directors, Pulkovo Airport, JSC Member of the Board of Directors, Southwest Heat Station, JSC Member of the Board of Directors, Passenger Port of Saint Petersburg Marine Façade, JSC Member of the Board of Directors, PeterburgGaz, LLC Member of the Board of Directors, Yubileyny Sports Center, LLC; Member of the Board of Directors, Metrostroy, OJSC Member of the Board of Directors, State Healthcare Insurance Company, JSC Member of the Board of Directors, Overground Express, OJSC Member of the Board of Directors, Petrovskiy Sports Center, OJSC Member of the Board of Directors, Center for Infrastructure Projects Support, JSC Member of the Board of Directors, Saint Petersburg Direct Investments Agency, OJSC Member of the Board of Directors, Geodetic and Engineering Survey Association, OJSC

Name	Dmitry Koptin
Position	Member of the Board of Directors Member of the Strategy Committee of the Board of Directors
Year of Birth. Nationality	1964, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on March 17, 2014
Education	Higher. Saint Petersburg Machinery Institute (2000), Management

Positions for the Past 5 Years	2019 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2013 to the present day: Chairman, Saint Petersburg Tariff Committee
Share in the Authorized Capital	None
Positions Held in Other Entities	Chairman, Saint Petersburg Tariff Committee

Name	Gennady Magazinov
Position	Member of the Board of Directors Member of the Strategy Committee of the Board of Directors
Year of Birth. Nationality	1987, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on June 18, 2019
Education	Higher. ITMO University, Information Technologies and Programming Department, Bachelor of Business Informatics (2008), Master of Business Informatics (2010) Saint Petersburg State University, Bachelor of Laws (2011), Master of Private Law (2013)
Positions for the Past 5 Years	2019 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2019 to the present day: Chief of Staff for M.A. Shaskolskiy, the Saint Petersburg Vice-Governor 2011 to 2019: Lead Legal Advisor, Head of Legal Support, Saint Petersburg Power Supply Company, JSC
Share in the Authorized Capital	None
Positions Held in Other Entities	Chief of Staff for M.A. Shaskolsky, the Saint Petersburg Vice-Governor Member of the Board of Directors, PeterburgGaz, LLC Member of the Board of Directors, Southwest Heat Station, JSC

Name	Aleksey Malukhin
Position	Member of the Board of Directors Member of the Audit Committee of the Board of Directors
Year of Birth. Nationality	1974, Russia
First appointed in	First appointed in the Board of Directors at the General Meeting
the Board of Directors	of Shareholders on June 18, 2019
Education	Higher. Higher School of Privatization and Entrepreneurship (2000), Management/ Crisis Management
Positions for the Past 5 Years	2019 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2019 to the present day: First Deputy Chairman, Saint Petersburg Energy and Building Services Committee 2017 to 2019: Head of the Regional Tariff Service of the Nizhny Novgorod Region of the Nizhny Novgorod Region Government 2015 to 2017: Director, Volgo-Vyatsky Branch of Oboronenergo, OJSC 2015: Deputy Director for Services Sale and Development, Centralny Branch of Oboronenergo, OJSC 2014: Head of MOESK Engineering Project, MOESK, OJSC
Share in the Authorized Capital	None
Positions Held in Other Entities	First Deputy Chairman, Saint Petersburg Energy and Building Services Committee Member of the Board of Directors, Southwest Heat Station, JSC

Name	Yelena Tsereteli
Position	Member of the Board of Directors Member of the Grid Connection Committee of the Board of Directors
Year of Birth. Nationality	1966, Russia
First appointed in the Board of Directors	First appointed in the Board of Directors at the General Meeting of Shareholders on June 18, 2019
Education	Higher. Herzen State Pedagogical University of Russia (2004), specializing in Psychology; Educational Psychologist St. Petersburg University of Management Technologies and Economics (2009);

	Top Qualification Administrator
Positions for the Past 5 Years	2019 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2015 to the present day: Director, Saint Petersburg Small and Medium Enterprises Development Foundation, Nonprofit Entity 2011 to 2015: CEO, Administration of Otkrytoye Nebo, the Public Council for the Small Enterprises Development under the Saint Petersburg Governor
Share in the Authorized Capital	None
Positions Held in Other Entities	Director, Saint Petersburg Small and Medium Enterprises Development Foundation, Nonprofit Entity

Members of the Board of Directors of the Company Active in 2019

Members of the Board of Directors Appointed by the Annual General Shareholders' Meeting on June 8, 2018 (Minutes No. 2/2018 dd. June 13, 2018):*

#	Name	Position When Appointed
1	Pavel Livinsky	Chairman of the Management Board, Rosseti, PJSC; CEO, Rosseti, PJSC
2	Andrey Ryumin	Chairman of the Management Board, CEO
3	Yevgeny Olkhovich	Deputy CEO for Strategic Development, Rosseti, PJSC
4	Sergey Sergeev	Deputy CEO for Fixed Assets Construction, Rosseti, PJSC
5	Daniil Krainsky	Acting Deputy CEO for Legal and Corporate Governance, Lenenergo, PJSC; Senior Advisor, Rosseti, PJSC
6	Sergey Pikin	Director, Energy Development Fund
7	Olga Sergeeva	Member of the Management Board, Deputy CEO - Chief of Staff, Rosseti, PJSC
8	Andrey Bondarchuk	Chairman, Saint Petersburg Energy and Building Services Committee
9	Sergey Miloslavksy	Deputy CEO, Metrostroy, OJSC
10	Olga Kolesnikova	First Deputy Chairman, Saint Petersburg Energy and Building Services Committee
11	Gasan Safarov	First Deputy Chairman, Saint Petersburg Tariff Committee
12	Lyudmila Soloviyova	Deputy Chairperson, Saint Petersburg Housing Committee
13	Aleksandr German	Deputy Chairman, Saint Petersburg Property Relations Committee

*Information is provided as of the appointment date.

Information on the Board of Directors Members' Attendance of the Board of Directors and Its Committees Meetings in 2019*

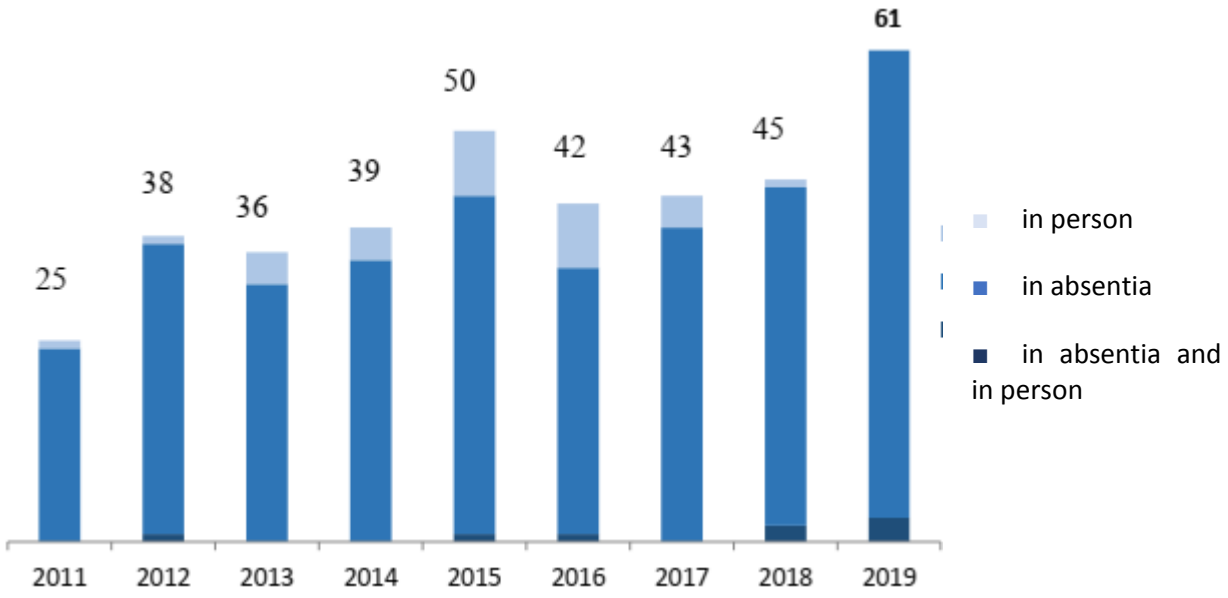
The Board of Directors Member of the Board of Directors	Non-Executive	Independent[6]	Attendance	The Strategy Committee	The Reliability Committee	The Grid Connection Committee	The Audit Committee	The HR and Remuneration Committee
Members of the Board of Directors Appointed by the Annual General Shareholders' Meeting on June 18, 2018								
P. Livinsky	X		61/61					
A. Ryumin			61/61					
D. Krainsky			61/61				17/17	
L. Romanovskaya	X		34/33				8/8	5/5
O. Sergeeva	X		61/61				17/17	8/8
S. Sergeev	X		61/58				17/17	
S. Pikin	X	X	61/61	11/11			17/17	
A. Bondarchuk	X		61/57				9/8	

[6]In accordance with the Rules of Listing of Moscow Exchange, PJSC approved by the Supervisory Board of the Moscow Exchange, PJSC on January 21, 2020 (registered by the Bank of Russia on January 28, 2020)

A. German	X		61/58				17/11	8/8
G. Magazinov	X		34/33	6/6				
A. Malukhin	X		34/33				8/7	
D. Koptin	X		34/29	6/5				
Ye. Tsereteli	X		34/32			2/2		
Members of the Board of Directors Who Left the Board on June 18, 2019:								
Ye. Olkhovich	X		27/24	5/5				
G. Safarov	X		27/27				9/9	
L. Soloviyova	X		27/21	5/4				
S. Miloslavksy	X		27/0	5/0				
O. Kolesnikova	X		27/2					

*The data are presented in the table in X/Y format, where X is the number of the meetings of the Board or a Committee the Director could attend, and Y is the number of meetings actually attended by the Director; Board of Directors' Meetings Statistics for 2011-2019

In 2019, the Board of Directors held 61 meetings; of those: 58 in absentia (by poll), and 3 in person and in absentia (personal attendance along with the polling forms being sent out).



Issues Reviewed

178	260	241	257	268	245	160	159	220

The Board of Directors holds its meeting subject to the Board operating schedule. The Chairman of the Board sets the date for the Board Meeting.

The Board of Directors' Participation in the Business Administration

The Board of Directors plays a key role in organizing an efficient corporate governance system.

Issues set out by the specific Russian laws and the Articles of Association of Lenenergo, PJSC fall within the Board's competence. The Board reviewed 220 issues in 2019. The most important of those were the following ones:

- Approval of the business plan of Lenenergo, PJSC and the performance results of 2019

- Approval of the amendments to be introduced to the 2016-2020 investment program of Lenenergo, PJSC
- Review of the Digital Transformation 2030 concept
- Ensuring a reliable power supply to the facilities of Expoforum for the duration of the 5th International Arctic Forum in 2019
- Ensuring a reliable power supply to the facilities for the duration of the St. Petersburg International Economic Forum in 2019

Adoption of the Company's internal documents and amendments thereto:

- Regulations for Corporate Identity Management of Lenenergo, PJSC
- Regulations for Uniform Technical Policy for the Power Sector of Rosseti, PJSC (adopted as an internal corporate document of the Company)
- Regulations for Insider Information of Lenenergo, PJSC (revised)
- Regulations for Dividend Policy of Lenenergo, PJSC (revised)

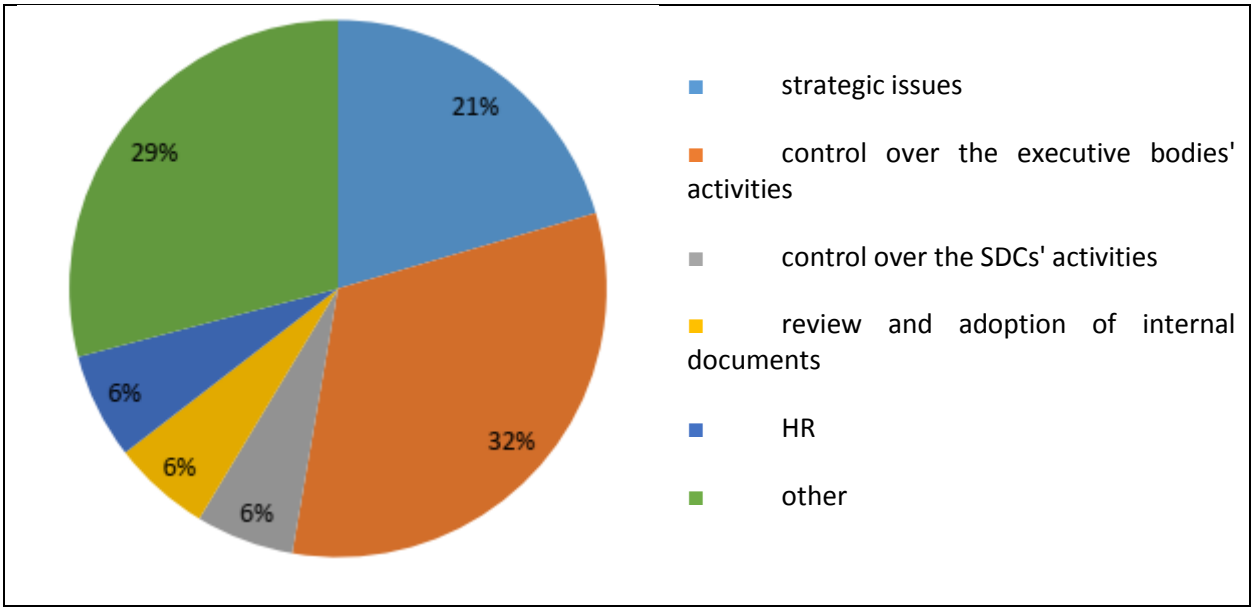
Approval/ review of various programs of Lenenergo, PJSC:

- the 2019 Insurance Protection Program of Lenenergo, PJSC
- the 2020 Insurance Protection Program of Lenenergo, PJSC
- the 2019-2023 Power Losses Reduction Measures for the Grid of Lenenergo, PJSC
- the Power Meters Commissioning Program for the meters installed by Lenenergo, PJSC in residential buildings of Saint Petersburg.

Review of the sole executive body's reports:

- on approval of the amendments introduced to the Company's investment program
- on implementation of the 2016-2019 Business Assets Management System Development Plan of Lenenergo, PJSC (for 2018)
- on arrangement and functioning of the internal control system, including the implementation of the internal control improvement measures in 2018
- on arrangement, functioning, and performance of the risk management system in 2018
- on managing the key operating risks of the Company in 2018
- on implementing the Innovative Development Program for 2016-2020, with an outlook up to 2025, of Lenenergo, PJSC in 2018
- on the progress of the investment projects of Lenenergo, PJSC that are included in the list of priorities
- on approving the KPI reports of the Company's CEO for Q4 2018 (in 2018).

The Board of Directors' Jurisdiction and Competence Breakdown When Reviewing the Issues in 2019:



For minutes of the Board of Directors Meetings go to http://www.lenenergo.ru/shareholders/corp/control/sd/?part=1

The Board of Directors holds its meeting subject to the Board operating schedule. The Chairman of the Board sets the date for the Board Meeting. The Board of Directors holds its meeting as necessary, but at least once a quarter.

The Board of Directors of Lenenergo, PJSC drafts its operating plan in line with the Russian laws, suggestions from the Board members, and executive bodies. The plans are then subject to approval by the Chairman of the Board. The operating plans are made for a year and cover the period between two annual General Meetings of Shareholders. As necessary, but at least once each 6 months the plans are to be adjusted (corrected).

The agenda of the Board Meetings includes issues stipulated by the Board operating plans, and some additional issues as well.

The Board of Directors' Participation in the Internal Control and Audit System's Functioning

In 2019, the Board reviewed the following issues regarding organization, functioning, and efficiency of the internal control and audit system of the Company:

- approved the Internal Audit Policy of Lenenergo, PJSC (revised), Minutes No. 18 dd. December 3, 2019

- approved the Operating Plan for the Internal Audit and Control Department for 2019 (Minutes No. 36 dd. April 25, 2019) and for 2020 (Minutes No. 33 dd. December 31, 2019), reviewed reports on fulfillment of the plan, including the results of internal audit's quality self-assessment for 2018 (Minutes No. 44 dd. May 31, 2019)

- reviewed the internal audit's report on the identification and sale of non-core assets of the Company for 2018 (Minutes No. 44 dd. May 31, 2019)

- reviewed the results of an external independent assessment of the efficiency of the internal audit and control system and the risk management system (Minutes No. 2 dd. July 1, 2019)

- reviewed the plan of measures to maintain the efficiency of the internal control system of Lenenergo, PJSC and its development (Minutes No. 22 dd. December 16, 2019).

The Internal Control System section of this Report contains information on the efficiency assessment of the internal control system of the Company in the report year.

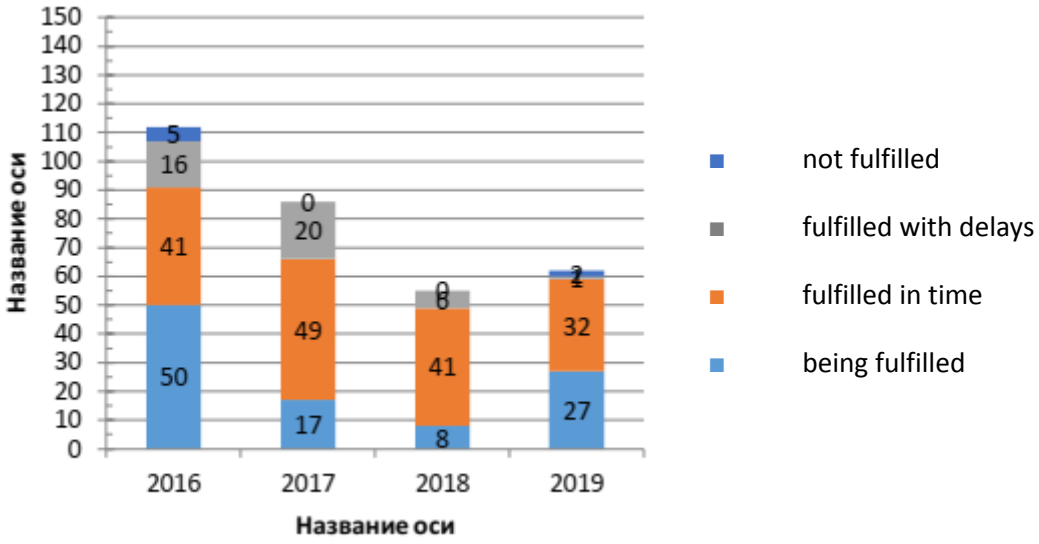
The operations of the Board of Directors in 2019 were in compliance with the applicable Russian laws, the Articles of Association of the Company, and the Regulations for the Board of Directors of Lenenergo, PJSC.

Information on the Instructions of the Board of Directors in 2016-2019

In 2016, the Board gave 112 instructions to the Company management, of those: - 41 fulfilled in time (37%) - 16 fulfilled with delays (14%) - 5 not fulfilled (4%) - 50 are being fulfilled (45%).	In 2017, the Board gave 86 instructions to the Company management, of those: - 49 fulfilled (57%) - 20 fulfilled with delays (23%) - 0 not fulfilled (0%) - 17 are being fulfilled (20%).	In 2018, the Board gave 55* instructions to the Company management, of those: - 41 fulfilled (75%) - 6 fulfilled with delays (11%) - 0 not fulfilled (0%) - 8 are being fulfilled (14%).	In 2019, the Board gave 62* instructions to the Company management, of those: - 32 fulfilled (52%) - 1 fulfilled with delay (2%) - 2 not fulfilled (3%) - 27 are being fulfilled (44%).

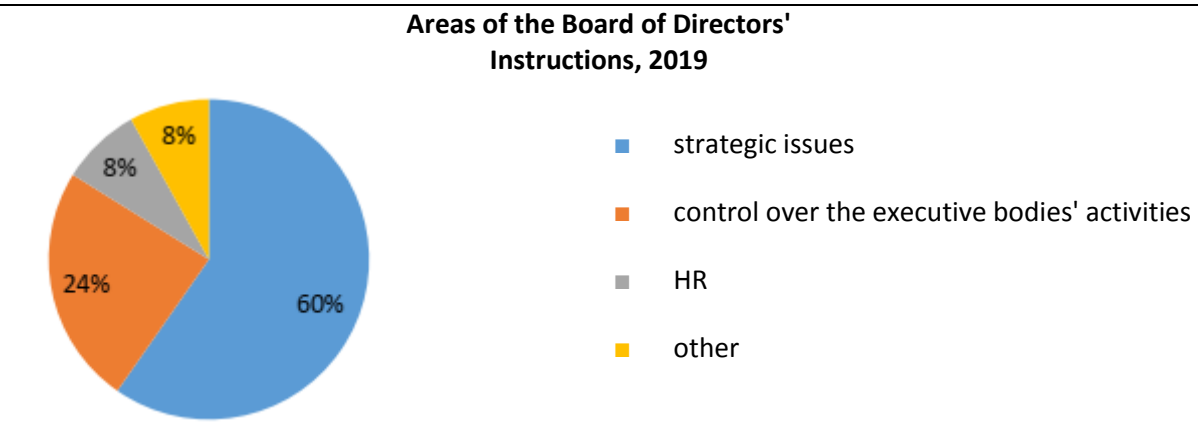
* except the instructions having periodic or regular nature.

Information on the Fulfillment of the Instructions of the Board of Directors in 2019



Название оси	Axis name

The Board of Directors regularly reviews reports from the Company's CEO on the fulfillment of the Board's instructions.



Corporate Secretary

The Corporate Secretary of Lenenergo, PJSC acts under the Articles of Association and the Regulations for the Corporate Secretary of Lenenergo, PJSC approved by the Board of Directors on September 30, 2016 (Minutes No. 12 dd. October 5, 2016).

The Corporate Secretary answers directly to the Board of Directors.

The following are the principal functions of the Corporate Secretary:

- participation in preparing for and holding of the General Meetings of Shareholders
- support of the operations of the Board of Directors and its Committees
- participation in implementing the Company's disclosure policy, as well as arrangement of the corporate records storage
- arrangement of interaction between the Company and its shareholders; participation in corporate conflicts prevention
- arrangement of interaction between the Company and the regulatory bodies, trade organizers, registrar, and other professional participants of the securities market within the corporate secretary's competence
- arrangement of implementation of the procedures set out in the laws and in the internal documents of the Company that ensure the shareholders' vested rights and interests, and control over those
- prompt notification to the Board of Directors of all identified cases of violation of laws or provisions of the internal documents of the Company, compliance with which is in line with the corporate secretary's functions
- participation in upgrading the system and practices of corporate governance of the Company.

The Board of Directors appointed Valeriya Frolikova the Corporate Secretary of the Company on April 22, 2019 (Minutes No. 36 dd. April 25, 2019).

Name	Valeriya Frolikova
Year of Birth. Nationality	1988, Russia
Education	Higher. Kutafin Moscow State Law Academy (currently: Kutafin Moscow State Law University), Moscow, specializing in Legal Studies; Lawyer, 2010 Further professional training in Corporate Law: Current Issues and Case Law, Legal Institute M-Logos, Non-Governmental Organization, 2012
Additional Training	Financial Market Specialist in Brokership, Dealership, and Securities Management, 2013
Positions for the Past 5 Years	2019 to the present day: Corporate Secretary, Lenenergo, PJSC 2019 to the present day: Secretary of the Management Board, Lenenergo, PJSC 2019 to the present day: Deputy Head, Head of Corporate Governance and Shareholders Interactions Department, Lenenergo, PJSC 2013-2019: Deputy Head, Head of Corporate Governance Department, UNECO, JSC, Moscow 2014-2018: Deputy Director of Legal Department, Energocomplex, JSC, Moscow
Share in the Authorized Capital	None
Positions Held in Other Entities	Secretary of the Board of Directors, SPb ES, JSC Secretary of the Board of Directors, PES, JSC

Committees of the Board of Directors of Lenenergo, PJSC

The Committees of the Board of Directors are created in order to preliminarily review the most crucial specific issues that fall within the competence of the Board, to resolve the disputes between the shareholders' representatives prior to the meetings, to formulate reasonable recommendations to the Board of Directors, and to ensure the Board's efficient performance of its functions with respect to the overall management of the Company's operations.

1. STRATEGY COMMITTEE Determination of the strategic goals of operation, assessment of the long-term efficiency, adjustment of the existing development strategy	Principal objectives: • providing the Board of Directors with recommendations on strategic goals and drafting, fulfillment, and adjusting of the business plan that contains the investment program • control over the implementation of the business plan and the investment program • assessment of the Company's long-term efficiency
2. RELIABILITY COMMITTEE Ensuring the overall reliability of the grid equipment and plants	Principal objectives: • expert review of the investment programs and power facilities repair plans, analysis of the performance of those from the point of view of ensuring the overall reliability • assessment of the completeness and sufficiency of measures taken to mitigate the consequences of accidents and large technical disturbances; control over the implementation of those measures; assessment of the Company's technical services' operations
3. AUDIT COMMITTEE Preliminary in-depth review of the most important issues and preparation of recommendations for the Board of Directors for deciding on the issues that fall within the Committee's competence	Principal objectives: • review of the accounting reports and financial statements of the Company; supervision of drafting thereof • control over the reliability and efficiency of the internal control, risk management, and corporate governance systems functioning • control over the independent audit and the selection of the auditor • ensuring independence and objectivity of the internal audit • supervision of the efficiency of the system for combatting unethical actions of the Company's employees and third parties
4. HR AND REMUNERATION COMMITTEE Provision of recommendations for the creation of the personnel selection and incentive systems that allow for a successful implementation of the Company's strategic plans	Principal objectives: • provision of recommendations on changes to the structure of the executive bodies and the branches of the Company, and on determining the clauses of the employment agreements and remuneration conditions for the members of the governance bodies of the Company • identification of selection criteria for the candidates to the collective executive body of the Company and to the position of the Company's CEO
5.GRID CONNECTION COMMITTEE Ensuring the visibility of the operations and equal-opportunity access to the grid connection for consumers	Principal objectives: • provision of recommendations to the Board of Directors on improving the internal regulations and standards of the Company governing the equal-opportunity access to the grid connection services for consumers

	• assessment of the Company's network connection performance

Report of the Strategy Committee of the Board of Directors

The Strategy Committee is aimed at playing a crucial part in determining the strategic goals of the Company, assessing its long-term efficiency, and recommending the Board of Directors on adjustment of the existing development strategy.

The Committee acts under the Regulations for the Strategy Committee of the Board of Directors of Lenenergo, PJSC approved by the Board of Directors on November 12, 2019 (Minutes No. 17 dd. November 15, 2019).

The Committee's goal is to formulate and provide the Board of Directors with recommendations (opinions) on the areas of the Board's operations that fall within the Committee's competence, namely: strategic development and operation priorities, innovative development, organization of the business processes, business planning, dividend policy, risk management, assessment of the Company and its SDC's efficiency, as well as other tasks and areas determined by the Corporate Governance Code recommended by the Bank of Russia (Letter No. 06-52/2463 dd. April 10, 2014 *On the Corporate Governance Code*).

The Board of Directors of Lenenergo, PJSC appointed the active members of the Strategy Committee of the Board of Directors of the Company on November 12, 2019 (Minutes No. 17 dd. November 15, 2019):*

№	Name	Position
Chairman of the Committee		
1	Yegor Prokhorov	Acting Deputy CEO for Strategy, Rosseti, PJSC
Members of the Committee		
2	Irina Bogacheva	Head of the Investment Planning and Pricing of the Investment Activities Department, Rosseti, PJSC
3	Grigory Gladkovsky	Deputy Director of Technical Policy, Rosseti, PJSC
4	Dmitry Koptin	Member of the Board of Directors, Lenenergo, PJSC; Chairman of the Saint Petersburg Tariff Committee
5	Gennady Magazinov	Member of the Board of Directors, Lenenergo, PJSC; Chief of Staff of M.A. Shaskolsky, Vice-Governor of Saint Petersburg
6	Svetlana Melnikova	Deputy Chairman, Saint Petersburg Energy and Building Services Committee
7	Dmitry Mikheev	Director of Services Sale, Rosseti, PJSC
8	Aleksey Pavlov	Director of Strategy, Rosseti, PJSC
9	Sergey Pikin	Member of the Board of Directors, Lenenergo, PJSC; Director, Energy Development Fund
10	Aleksey Polinov	Deputy CEO for Economics and Finances, Lenenergo, PJSC
11	Irina Shagina	Director of Tariff Policy, Rosseti, PJSC

*Information is provided as of the appointment date.

Members of the Strategy Committee of the Board of Directors of the Company Active in 2019

Up to November 12, 2019, the Committee had been governed by the Regulations for the Strategy and Development Committee of the Board of Directors of Lenenergo, Public Joint Stock Company of the Power Industry and Electrification approved by the Board of Directors on October 10, 2018 (Minutes No. 9 dd. October 12, 2018).

The Board of Directors appointed the members of the Strategy and Development Committee of the Board of Directors on April 22, 2019 (Minutes No. 36 dd. April 25, 2019):*

№	Name	Position

Chairman of the Committee		
1	Yevgeny Olkhovich	Deputy CEO for Strategic Development, Rosseti, PJSC
Members of the Committee		
2	Dmitry Miryukov	Head Expert of the Investment Planning and Pricing of the Investment Activities Department, Rosseti, PJSC
3	Denis Guriyanov	Director of Corporate Governance and Shareholder and Investor Interactions, Rosseti, PJSC
4	Yuri Zafesov	Director of Procurements, Rosseti, PJSC
5	Marina Lavrova	Head of SDC Economics of the Economic Planning and Budgeting Department, Rosseti, PJSC
6	Svetlana Melnikova	Deputy Chairman, Saint Petersburg Energy and Building Services Committee
7	Sergey Miloslavksy	Deputy CEO, Metrostroy, OJSC
8	Sergey Pikin	Director, Energy Development Fund
9	Maksim Pokalyuk	Head of Innovative Projects Implementation of the Process Development and Innovations Department, Rosseti, PJSC
10	Lyudmila Soloviyova	Deputy Chairperson, Saint Petersburg Housing Committee

*Information is provided as of the appointment date.

The Board of Directors appointed the members of the Strategy and Development Committee of the Board of Directors on August 30, 2018 (Minutes No. 5 dd. September 4, 2018):*

№	Name	Position
Chairman of the Committee		
1	Yevgeny Olkhovich	Deputy CEO for Strategic Development, Rosseti, PJSC
Members of the Committee		
2	Berik Bekneev	Head Expert of the Overall Planning and Reporting of the Investment Activities Department, Rosseti, PJSC
3	Denis Guriyanov	Director of Corporate Governance and Shareholder and Investor Interactions, Rosseti, PJSC
4	Yuri Zafesov	Director of Procurements, Rosseti, PJSC
5	Marina Lavrova	Head of SDC Economics of the Economic Planning and Budgeting Department, Rosseti, PJSC
6	Svetlana Melnikova	Deputy Chairman, Saint Petersburg Energy and Building Services Committee
7	Sergey Miloslavksy	Deputy CEO, Metrostroy, OJSC
8	Sergey Pikin	Director, Energy Development Fund
9	Viktor Seleznev	Head of Research and Technical Development and RD&T Control of the Process Development and Innovations Department, Rosseti, PJSC
10	Lyudmila Soloviyova	Deputy Chairperson, Saint Petersburg Housing Committee

*Information is provided as of the appointment date.

In 2019, the Committee held 11 meetings, 3 of those in person.

The Committee reviewed the following crucial issues:

- The Committee prepared recommendations for the Board of Directors to review the draft 2020 Business Plan of Lenenergo, PJSC and the 2021-2024 forecast.

- The Committee reviewed preliminarily the 2018 report of the Sole Executive Body of the Company on implementation of the 2016-2020 Innovative Development Program with an outlook up to 2025, of Lenenergo, PJSC.

- The Committee reviewed the results of an external independent assessment of the efficiency of the risk management system.

- The Committee reviewed the 2018 report of the Sole Executive Body and the Management Board of Lenenergo, PJSC on the organization, functioning, and efficiency of the risk management system.

- The Committee reviewed preliminarily the plan for improvement of the risk management system of Lenenergo, PJSC.

- The Committee prepared recommendations for the Board of Directors on approval of the Investment Program Forming Scenario of Lenenergo, PJSC from 2020 onwards.

For minutes of the Strategy Committee Meetings during the report year go to: http://www.lenenergo.ru/shareholders/corp/control/komitets/kom_1/?part=2

Report of the Reliability Committee

The Reliability Committee of the Board of Directors plays an important role in ensuring the overall reliability of the grid equipment and plants.

In 2019, the Committee acted based on the revised Regulations for the Reliability Committee of the Board of Directors of Lenenergo, PJSC approved by the Board of Directors on September 19, 2017 (Minutes No. 10 dd. September 22, 2017).

Principal objectives:

- expert review of the investment programs and power facilities repair plans, analysis of the performance of those from the point of view of ensuring the overall reliability

- assessment of the completeness and sufficiency of measures taken to mitigate the consequences of accidents and large technical disturbances; control over the implementation of those measures; assessment of the Company's technical services' operations.

The Board of Directors of Lenenergo, PJSC appointed the active members of the Reliability Committee of the Board of Directors of the Company on September 25, 2019 (Minutes No. 12 dd. September 27, 2019):*

№	Name	Position
Chairman of the Committee		
1	Andrey Mayorov	Deputy CEO - Chief Engineer, Rosseti, PJSC
Members of the Committee		
2	Natalia Antonova	Head of Electric Power Sector Office of the Leningrad Region Fuel and Energy Sector Committee
3	Igor Alyushenko	Director of Contingency Analytic Center - Deputy Chief Engineer, Rosseti, PJSC
4	Eduard Bogomolov	First Deputy Director of Technical Supervision Center, branch of Rosseti, PJSC
5	Konstantin Kotvitsky	Head of the Engineering Office of the Saint Petersburg Energy and Building Services Committee
6	Igor Kuzmin	First Deputy CEO - Chief Engineer, Lenenergo, PJSC
7	Andrey Soldatov	Head of the Energy and Fuel Budget Office of the Tariff Regulation Department of the Saint Petersburg Tariff Committee

*Information is provided as of the appointment date.

Members of the Reliability Committee of the Board of Directors of the Company Active in 2019

The Board of Directors of Lenenergo, PJSC appointed the active members of the Reliability Committee of the Board of Directors of the Company on August 30, 2018 (Minutes No. 5 dd. September 4, 2018):*

№	Name	Position
Chairman of the Committee		
1	Dmitry Gvozdev	Chief Engineer, Rosseti, PJSC
Members of the Committee		
2	Eduard Bogomolov	First Deputy Director of Technical Supervision Center, branch of Rosseti, PJSC
3	Igor Kuzmin	First Deputy CEO - Chief Engineer, Lenenergo, PJSC
4	Andrey Soldatov	Head of the Energy and Fuel Budget Office of the Regulated Entities

		Prospective Development Department, Saint Petersburg Tariff Committee
5	Konstantin Kotvitsky	Head of the Engineering Office, Saint Petersburg Energy and Building Services Committee

*Information is provided as of the appointment date.

In 2019, the Committee held 3 in absentia meetings.

The Committee reviewed the following crucial issues:

- a 2018 report on the reliability and quality indicators for the Company's services that are subject to tariff regulation based on the long-term regulation parameters (the reliability indicators, specifically)
- a report on the Company's performance and operations during the Fall-Winter of 2018/2019
- a report on the Company's preparations for the storm season of 2019
- a report on the Company's preparations for the fire-hazardous season of 2019
- a report on the production programs (maintenance and repair, retrofitting, upgrading, and reconstruction) implementation in Q1 2019
- a report on implementation of measures to prevent the erroneous or incorrect actions by the staff, on implementation of prevention programs, and on reduction of the trauma risks.

Report of the Audit Committee

The Audit Committee was established by the Board of Directors of the Company in order to carry out the preliminary in-depth review of the most crucial issues and prepare recommendations to the Board for deciding on the matters that fall within the Committee's competence, as well as resolve other issued delegated to the Committee by the Board of Directors.

The objective of the Audit Committee is to assists the efficient performance of the Board of Directors' functions with respect to preliminary review of the issues related to the control of the business and financial operations of the Company.

Principal objectives:

- review of the accounting reports and financial statements of the Company; supervision of drafting thereof
- control over the reliability and efficiency of the internal control, risk management, and corporate governance systems functioning
- control over the independent audit and the selection of the auditor
- ensuring independence and objectivity of the internal audit
- supervision of the efficiency of the system for combatting unethical actions of the Company's employees and third parties

The Committee acts under the revised Regulations for the Audit Committee of the Board of Directors of Lenenergo, OJSC approved by the Board of Directors on March 11, 2016 (Minutes No. 41 dd. March 15, 2016), as amended by the Board on November 21, 2016 (Minutes No. 14 dd. November 24, 2016).

The Committee includes one independent director, S. Pikin, the director of the Energy Development Fund.

The Board of Directors of Lenenergo, PJSC appointed the active members of the Audit Committee of the Board of Directors of the Company on September 17, 2019 (Minutes No. 10 dd. September 19, 2019):*

№	Name	Position	Status
Chairman of the Committee			
1	Olga Sergeeva	Member of the Management Board, Senior Advisor, Rosseti, PJSC	Non-Executive

Members of the Committee			
2	Aleksandr German	Deputy Chairman, Saint Petersburg Property Relations Committee	Non-Executive
3	Daniil Krainsky	Senior Advisor, Rosseti, PJSC; Deputy CEO for Legal and Corporate Governance, Lenenergo, PJSC	Executive
4	Aleksey Malukhin	First Deputy Chairman, Saint Petersburg Energy and Building Services Committee	Non-Executive
5	Sergey Sergeev	Member of the Board of Directors, Lenenergo, PJSC; CEO, Kubanenergo, PJSC	Non-Executive
6	Sergey Pikin	Director, Energy Development Fund	Independent
7	Larisa Romanovskaya	Acting Deputy CEO for HR Management and Public Relations (Government Agencies and Media Interaction)	Non-Executive

*Information is provided as of the appointment date.

Members of the Audit Committee of the Board of Directors of the Company Active in 2019

The Board of Directors of Lenenergo, PJSC appointed the members of the Audit Committee of the Board of Directors of the Company on August 30, 2018 (Minutes No. 5 dd. September 4, 2018):*

№	Name	Position	Status
Chairman of the Committee			
1	Olga Sergeeva	Member of the Management Board, Deputy CEO - Chief of Staff, Rosseti, PJSC	Non-Executive
Members of the Committee			
2	Sergey Sergeev	Deputy CEO for Fixed Assets Construction, Rosseti, PJSC	Non-Executive
3	Daniil Krainsky	Senior Advisor, Rosseti, PJSC	Executive
4	Sergey Pikin	Director, Energy Development Fund	Independent
5	Gasan Safarov	First Deputy Chairman, Saint Petersburg Tariff Committee	Non-Executive
6	Andrey Bondarchuk	Chairman, Saint Petersburg Energy and Building Services Committee	Non-Executive
7	Aleksandr German	Deputy Chairman, Saint Petersburg Property Relations Committee	Non-Executive

*Information is provided as of the appointment date.

In 2019, the Committee held 17 meetings, 2 of those in person.

The Committee reviewed the following crucial issues:

The Committee reviewed preliminarily the 2018 report on the results of implementation of measures to ensure compliance with the laws governing the insider information control, and the 2018 report on the anti-corruption monitoring performance (Minutes No. 102 dd. February 20, 2019).

The Committee approved preliminarily of the candidate for the position of an independent auditor to audit the accounting report and financial statements of the Company for 2019 prepared under the RAS, and to audit the consolidated financial statements for 2019 prepared under the IFRS (Minutes No. 108 dd. May 7, 2019).

The Committee assessed the efficiency of the independent audit, including the opinion of the independent auditor (Minutes No. 108 dd. May 7, 2019)

The Committee reviewed written notices given by the independent auditor regarding the main points of concern raised by the accounting reports and financial statements, from time to time (Minutes No. 107 dd. May 6, 2019, No. 118 dd. December 18, 2019).

The Committee discussed the non-standard operations and events of the Company, as well as creation of a provision for bad debts and contingencies (Minutes No. 107 dd. May 6, 2019).

The Committee analyzed the material aspects of the accounting policy and amendments thereto (Minutes No. 103 dd. March 18, 2019, No. 118 dd. December 18, 2019).

The Committee reviewed the accounting reports of the Company under the RAS and the consolidated financial statements under the IFRS from time to time (Minutes No. 107 dd. May 6, 2019, No. 114 dd. October 28, 2019).

The Committee reviewed the revised version of the Internal Audit Policy of the Company prior to its approval by the Board of Directors (Minutes No. 115 dd. November 5, 2019).

The Committee approved the revised version of the Regulations for the Internal Audit Department, the structure and headcount thereof, and preliminarily reviewed the key performance indicators for the Head of the Internal Audit Department (Minutes No. 115 dd. November 5, 2019, No. 112 dd. October 15, 2019).

The Committee reviewed the business processes of Lenenergo, PJSC (Minutes No. 112 dd. October 15, 2019).

The Committee reviewed the internal audit plan and budget for 2020 (Minutes No. 116 dd. November 18, 2019).

The Committee reviewed the reports on the fulfillment of the action plan of, and the results of the internal audit from time to time (Minutes No. 104 dd. April 2, 2019, No. 109 dd. June 3, 2019, No. 113 dd. October 25, 2019, No. 117 dd. November 29, 2019).

The Committee reviewed the management's information on the fulfillment of the Internal Audit Policy of the Company (Minutes No. 113 dd. October 25, 2019).

The Committee from time to time reviewed the Company management's reports on the performance of the corrective measures to eliminate the defects identified by the Internal Audit Board, the Company's internal auditor, external control (supervision) bodies, on the implementation of measures taken to address the notices of potential unethical actions of the employees, as well as on the results of investigations carried out (Minutes No. 104 dd. April 2, 2019, No. 113 dd. October 25, 2019).

The Committee reviewed the report on the internal control (audit) system and the risk management system's efficiency (Minutes No. 105 dd. April 18, 2019).

Report of the HR and Remuneration Committee

The Committee acts under the revised Regulations for the HR and Remuneration Committee of the Board of Directors of Lenenergo, OJSC approved by the Board of Directors on August 11, 2014 (Minutes No. 4 dd. August 13, 2014).

The goal of the HR and Remuneration Committee of the Board of Directors is to provide recommendations on the system of selecting and motivating the employees that ensures the efficient fulfillment of the strategic plans of the Company.

Principal objectives:

- provision of recommendations to the Board of Directors on changes to the structure of the executive bodies and the branches of the Company, and on determining the material clauses of the employment agreements and remuneration conditions for the members of the governance bodies of the Company

- identification of selection criteria for the candidates to the collective executive body of the Company and to the position of the Company's CEO.

The Board of Directors of Lenenergo, PJSC appointed the active members of the HR and Remuneration Committee of the Board of Directors of the Company on October 4, 2019 (Minutes No. 14 dd. October 7, 2019):*

№	Name	Position
Chairman of the Committee		

1	Larisa Romanovskaya	Acting Deputy CEO for HR Management and Public Relations (Government Agencies and Media Interaction), Rosseti, PJSC
Members of the Committee		
2	Aleksandr German	Deputy Chairman, Saint Petersburg Property Relations Committee
3	Zinaida Ivleva	Director of the HR Management and Organization Design - Head of the HR Management and Organization Design, Lenenergo, PJSC
4	Ksenia Zimnukhova	Head of the Public Service and HR Issues Office of the Energy and Building Services Committee
5	Olga Sergeeva	Member of the Management Board, Senior Advisor, Rosseti, PJSC
6	Dmitry Chevkin	Acting Director of HR Management, Rosseti, PJSC

*Information is provided as of the appointment date.

Members of the HR and Remuneration Committee of the Board of Directors of the Company Active in 2019

The Board of Directors of Lenenergo, PJSC appointed the members of the HR and Remuneration Committee of the Board of Directors of the Company on August 1, 2018 (Minutes No. 3 dd. August 6, 2018):*

№	Name	Position
Chairman of the Committee		
1	Olga Sergeeva	Deputy CEO - Chief of Staff, Rosseti, PJSC
Members of the Committee		
2	Dmitry Chevkin	Director of the HR Policy and Organization Development, Rosseti, PJSC
3	Yelena Peshekhonova	Head of the HR Audit and Analysis of the HR Policy and Organization Development, Rosseti, PJSC
4	Aleksandr German	Deputy Chairman, Saint Petersburg Property Relations Committee
5	Ksenia Zimnukhova	Head of the Public Service and HR Issues Office, Saint Petersburg Energy and Building Services Committee

*Information is provided as of the appointment date.

In 2019, the Committee held 8 in absentia meetings.

The Committee prepared the recommendations for the Board of Directors on the following issues:

- identification of the number of members of the Management Board of Lenenergo, PJSC, on election and termination of powers of the members of the Management Board of Lenenergo, PJSC
- approval of the Management Board members' taking concurrent positions in the governance bodies of other companies, or other paid positions in other companies
- preliminary review of the organizational structures of the executive bodies of Lenenergo, PJSC, and the governance bodies of Lenenergo branches
- review of the amendments to be introduced to the CEO KPI Estimation and Assessment Method of Lenenergo, PJSC.

The Committee also reviewed the report on the performance of the Company's Corporate Secretary, and approved the managerial candidates pool (at the branch level) and key positions candidates pool of the Company for 2019.

Report of the Grid Connection Committee

The Committee acts under the Regulations for the Grid Connection Committee of the Board of Directors of Lenenergo, PJSC approved by the Board of Directors on February 9, 2009 (Minutes No. 8 dd. February 10, 2009), as amended by the Board of Directors on July 17, 2017 (Minutes No. 5 dd. July 20, 2017).

The main goal of the Grid Connection Committee is to provide for transparent operations and an equal-opportunity access to the grid connection for the consumers of the Company.

Principal objectives:

- provision of recommendations to the Board of Directors on improving the internal regulations and standards of the Company governing the equal-opportunity access to the grid connection services for consumers

- assessment of the Company's grid connection performance.

The Board of Directors appointed the active members of the Grid Connection Committee of the Board of Directors of the Company on July 17, 2019 (Minutes No. 10 dd. September 19, 2019), as amended by the Board of Directors on December 20, 2019 (Minutes No. 26 dd. December 20, 2019):*

№	Name	Position
Chairman of the Committee		
1	Aleksandr Pyatigor	Member of the Management Board, Deputy CEO for Service Sale, Rosseti, PJSC
Members of the Committee		
2	Pavel Diyakov	Acting Deputy CEO for Grid Connection, Lenenergo, PJSC
3	Roman Kanivtsov	Head of the Power Sector Tariff Regulation of the Tariff Regulation Office, Saint Petersburg Tariff Committee
4	Snezhana Kitayeva	Acting Deputy CEO - Chief of Staff, Lenenergo, PJSC
5	Aleksandr Korneev	Deputy Director for Service Sale, Rosseti, PJSC
6	Vitaly Stromakov	Director for Grid Connection - Head of the Grid Connection Department, Lenenergo, PJSC
7	Svetlana Melnikova	Deputy Chairman, Saint Petersburg Energy and Building Services Committee
8	Sergey Podlutsky	Director of Investment Activities, Rosseti, PJSC
9	Yelena Tsereteli	Chairperson of the Community Board for Small Business Development for the Governor of Saint Petersburg

*Information is provided as of the appointment date.

Members of the Grid Connection Committee of the Board of Directors Active in 2019:

The Board of Directors appointed the members of the Grid Connection Committee of the Board of Directors of the Company on September 17, 2019 (Minutes No. 10 dd. September 19, 2019):*

№	Name	Position
Chairman of the Committee		
1	Aleksandr Pyatigor	Member of the Management Board, Deputy CEO for Service Sale, Rosseti, PJSC
Members of the Committee		
2	Pavel Diyakov	Acting Deputy CEO for Grid Connection, Lenenergo, PJSC
3	Roman Kanivtsov	Head of the Power Sector Tariff Regulation of the Tariff Regulation Office, Saint Petersburg Tariff Committee
4	Snezhana Kitayeva	Acting Deputy CEO - Chief of Staff, Lenenergo, PJSC
5	Aleksandr Korneev	Deputy Director for Service Sale, Rosseti, PJSC
6	Igor Korolev	Head of Connection and Categorization Sector, Leningrad Region Fuel and Energy Sector Committee
7	Svetlana Melnikova	Deputy Chairman, Saint Petersburg Energy and Building Services Committee
8	Sergey Podlutsky	Director of Investment Activities, Rosseti, PJSC
9	Yelena Tsereteli	Chairperson of the Community Board for Small Business Development for the Governor of Saint Petersburg

The Board of Directors appointed the members of the Grid Connection Committee of the Board of Directors of the Company on August 30, 2018 (Minutes No. 5 dd. September 4, 2018):*

№	Name	Position
Chairman of the Committee		
1	Aleksandr Pyatigor	Acting Deputy CEO for Services Development and Sales, Rosseti, PJSC
Members of the Committee		
2	Aleksandr Korneev	Director for Grid and Grid Connection Prospective Development, Rosseti, PJSC
3	Pavel Diyakov	Deputy CEO for Services Development and Sales, Lenenergo, PJSC
4	Snezhana Kitayeva	Advisor to the CEO for Client Interaction, Lenenergo, PJSC
5	Yelena Kapustina	Deputy Chairperson, Saint Petersburg Entrepreneurship and Consumer Market Development Committee
6	Roman Kanivtsov	Head of the Power Sector Tariff Regulation of the Tariff Regulation Office, Saint Petersburg Tariff Committee
7	Valery Uskov	Head of Project Support of the Prospective Development Office, the Saint Petersburg Energy and Building Services Committee

*Information is provided as of the appointment date.

In 2019, the Committee held 5 in absentia meetings.

The Company reviewed the following:

- reports on fulfillment of grid connection contracts
- a 2018 report on the quality of the Company's services that are subject to tariff regulation based on the long-term regulation parameters
- a report on implementation of measures to increase the number of clients applying for the grid connection online
- a plan for measures to increase the number of clients applying for the grid connection online.

Information on Remuneration and Compensations Paid to the Members of the Board of Directors and Its Committees

The internal documents of the Company approved by the General Meeting of Shareholders and the Board of Directors of Lenenergo, PJSC govern the Board of Directors and its Committees members' remuneration and compensation amounts and payment procedures.

The revised Regulations for the Board of Directors Remunerations and Compensations of Lenenergo, PJSC approved by the General Meeting of Shareholders on June 18, 2019 (Minutes No. 1/2019 dd. June 21, 2019) govern the remunerations and compensations to the members of the Board of Directors.

The revised Regulations for the Board of Directors Remunerations and Compensations of Lenenergo, Public Joint Stock Company of the Power Industry and Electrification approved by the Board of Directors on January 23, 2019 (Minutes No. 22 dd. January 25, 2019) govern the remunerations and compensations to the members of the Committees of the Board of Directors.

In 2019, remunerations and compensations were paid to the members of the Board of Directors of Lenenergo, PJSC subject to the revised Regulations for the Board of Directors Remunerations and Compensations of Lenenergo, Public Joint Stock Company of the Power Industry and Electrification approved by the Annual General Meeting of Shareholders on June 22, 2015 (Minutes No. 1/2015 dd. June 24, 2015), and the revised Regulations for the Board of Directors Remunerations and Compensations of Lenenergo, PJSC approved by the Annual General Meeting of Shareholders on June 18, 2019 (Minutes No. 1/2019 dd. June 21, 2019).

Analysis of the Regulations for the Board of Directors Remunerations and Compensations of Lenenergo, PJSC approved by the Annual General Meeting on June 22, 2015 (Minutes No. 1/2015 dd. June 24, 2015)

Remuneration for attending the meetings of the Board of Directors

The remuneration ($) of the member of the Board of Directors depends on: - base remuneration in view of the Company's revenue (for Lenenergo, PJSC: RUB 900,000) - the number of the meetings attended by the member of the Board of Directors. Additional bonuses: 30% of $ — to the Chairman of the Board of Directors 20% of $ — to the Chairman of the special committee of the Board of Directors 10% of $ — to the member of the special committee of the Board of Directors Overall remuneration received by a member of the Board of Directors (including the bonuses) may not exceed the base remuneration (RUB 900,000).
Additional Remuneration for the Net Profit Specified in the Annual Financial Statements
No additional remuneration for the net profit specified in the annual financial statements applies.
Additional remuneration in case the Company's market capitalization amount increases
The calculation coefficient is 0.0175 percent of the Company's market value increase from the moment the member is appointed to the Board of Directors to the moment a new Board is appointed. The remuneration amount depends on the following factors: - the average weighted price of the Company's shares at the MICEX - the Company shares' traded value at the MICEX - the MICEX index. The aggregate remuneration paid to the members of the Board of Directors may not exceed 5% of the net profit of the financial year under RAS.

Analysis of the Regulations for the Board of Directors Remunerations and Compensations of Lenenergo, PJSC approved by the Annual General Meeting on June 18, 2019 (Minutes No. 1/2019 dd. June 21, 2019)

Remuneration for attending the meetings of the Board of Directors
The remuneration ($) of the member of the Board of Directors depends on: - base remuneration in view of the Company's revenue (for Lenenergo, PJSC: RUB 2,700,000) - the number of the meetings attended by the member of the Board of Directors. Additional bonuses: 30% of $ — to the Chairman of the Board of Directors 20% of $ — to the Chairman of the special committee of the Board of Directors 10% of $ — to the member of the special committee of the Board of Directors Overall remuneration received by a member of the Board of Directors (including the bonuses) may not exceed 1/4 of the base remuneration (RUB 675,000).
Additional Remuneration for the Net Profit Specified in the Annual Financial Statements
No additional remuneration for the net profit specified in the annual financial statements applies.
Additional remuneration in case the Company's market capitalization amount increases
No additional remuneration in case the Company's market capitalization amount increases applies.

Information on Remuneration Paid to the Members of the Board of Directors in 2019, RUB

Name	Remuneration Paid to the Board Member				Total, RUB
	Bonus	Remuneration for Attendance	Remuneration for Capitalization	Total	
Active members of the Board of Directors appointed by the Annual General Shareholders' Meeting on June 18, 2019:					
P. Livinsky	30%	1,665,000	0	1,665,000	1,665,000
A. Ryumin	---	---	---	---	not paid

O. Sergeeva	20% 10%	1,606,154	0	1,606,154	1,606,154
S. Sergeev	10%	1,289,136	0	1,289,136	1,289,136
S. Pikin	10% 10%	1,478,078	0	1,478,078	1,478,078
L. Romanovskaya	20% 10%	571,154	0	571,154	571,154
D. Krainsky	10%	761,539	0	761,539	761,539
A. Bondarchuk	---	---	---	---	not paid
A. German	10%	---	---	---	not paid
D. Koptin	10%	---	---	---	not paid
G. Magazinov	10%	---	---	---	not paid
A. Malukhin	10%	---	---	---	not paid
Ye. Tsereteli	10%	---	---	---	not paid
Members of the Board of Directors Who Left the Board on June 18, 2019:					
Ye. Olkhovich	20%	796,154	0	796,154	796,154
O. Kolesnikova	---	---	---	---	not paid
G. Safarov	—	—	—	—	not paid
L. Soloviyova	—	—	—	—	not paid
S. Miloslavksy	10%	---	---	---	not paid

The overall amount of the compensations paid to the members of the Board of Directors in 2019 was RUB 2,617,104.

The aggregate remuneration and compensation paid to the members of the Board of Directors of Lenenergo, PJSC in 2019 (excluding salary) was RUB 10,784,319.

On January 23, 2019, the Board of Directors of Lenenergo, PJSC approved the revised Regulations for the Board of Directors Remunerations and Compensations of Lenenergo, Public Joint Stock Company of the Power Industry and Electrification (Minutes No. 22 dd. January 25, 2019).

In 2019, the members of the Board of Directors' Committees received RUB 405,515, excluding bonuses, commission fees, and compensations.

In 2019, there were no transactions made between the members of the Board of Directors or its Committees; and the Company did not provide any loans to the members of the Board of Directors or its Committees. The Company did not file any lawsuits against the members of the Board of Directors or its Committees.

The members of the Board of Directors or its Committees did not make any transactions with the Company in 2019.

In view of the scope of responsibility of the members of the Board of Directors and the Company's executive bodies, and the scale of the projects implemented and the significance of the transactions made, the Company insures the liability of the members of the Board of Directors and the Company's management from its own funds. The insurance amount is RUB 1 bn. The additional insurance for the Independent Directors for August 2018 - July 2019 was RUB 200 mn, and for August 2019 - July 2020 is RUB 200 mn.

The Company's Executive Bodies

The Company's executive bodies are the Sole Executive Body (the CEO) and the Collective Executive Body (the Management Board).

The Collective Executive Body (the Management Board)

The Management Board of Lenenergo, PJSC is the collective executive body of the Company that manages the day-to-day operations of Lenenergo, PJSC subject to the Federal Law On Joint Stock Companies, the Articles of Association of the Company, and the revised Regulations for the Management Board of Lenenergo, PJSC approved by the Annual General Meeting of Shareholders on June 18, 2019 (Minutes No. 1/2019 dd. June 21, 2019).

The Management Board held 21 meetings in 2019. The Chairman of the Management Board (the Company's CEO) organizes the Management Board operations.

The Management Board reviewed the following most crucial issues:

- approved the Operating Risks Management Plan for 2020
- reviewed the reports on the business plan performance (including the investment program and the information on the key operating risks)
- reviewed the business plan (including the investment program and the information on the key operating risks) of Lenenergo, PJSC for 2019, and the 2020-2023 forecasts, etc.

Active Members of the Management Board Appointed by the Board of Directors of Lenenergo, PJSC on June 17, 2019 (Minutes No. 48 dd. June 17, 2019):*

Name	Andrey Ryumin
Position	Member of the Board of Directors Chairman of the Management Board CEO
Year of Birth. Nationality	1980, Russia
Education	Higher. M.V. Lomonosov Moscow State University, Department of Mechanics and Mathematics (2002) Peoples' Friendship University of Russia (RUDN), specializing in Information Systems in Economics (2002) Candidate of Science (PhD) in Economics
Positions for the Past 5 Years	2018 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2018 to the present day: Chairman of the Management Board, CEO, Lenenergo, PJSC 2016 to 2017: Independent Director, member of the Board of Directors, Mosenergo, OJSC 2011 to 2013: First Deputy CEO, CEO, UNECO, OJSC
Share in the Authorized Capital	None
Positions Held in Other Entities	No

Name	Igor Kuzmin
Position	Member of the Management Board Member of the Reliability Committee of the Board of Directors First Deputy CEO - Chief Engineer, Lenenergo, PJSC
Year of Birth. Nationality	1975, Russia
Education	Higher. Kurgan State University, specializing in Automation of Production and Production Process, Automation of Power Industry Production and Production Process (1997) St. Petersburg University of Management Technologies and Economics, the Top Qualification Administrator Presidential Program for training professional managers for the Russian national economic entities (2011) Saint Petersburg State University, occupational retraining, Master of Business Administration (2015)
Positions for the Past 5 Years	2019 to the present day: member of the Management Board 2017 to the present day: First Deputy CEO - Chief Engineer, Lenenergo, PJSC 2016 to 2017: First Deputy CEO - Chief Engineer, IDGC of the North-West, PJSC 2007 to 2016: Deputy Chief Engineer for Operative and Process Management -

	Head of Network Control Center, Director for Operative and Process Management - Head of Network Control Center, Deputy Chief Engineer for Operative and Process Management - Head of Network Control Center, Lenenergo, PJSC
Share in the Authorized Capital	None
Positions Held in Other Entities	2019 to the present day: Chairman of the Board of Directors, TSEK, JSC 2019 to the present day: member of the Board of Directors, Kurortenergo, JSC

Name	Daniil Krainsky
Position	Member of the Board of Directors Member of the Management Board Member of the Audit Committee of the Board of Directors Deputy CEO for Legal and Corporate Governance
Year of Birth. Nationality	1979, Russia
Education	Higher. Kutafin Moscow State Law Academy (2002), specializing in Legal Studies
Positions for the Past 5 Years	2018 2018 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2019 2019 to the present day: Member of the Management Board, Lenenergo, PJSC 2018 to the present day: Deputy CEO for Legal and Corporate Governance, Lenenergo, PJCS 2017 to the present day: Advisor, Senior Advisor, Rosseti, PJSC 2011 to 2017: First Deputy CEO, Deputy CEO, UNECO, JSC
Share in the Authorized Capital	None
Positions Held in Other Entities	2017 2017 to the present day: Advisor, Senior Advisor, Rosseti, PJSC 2018 2018 to the present day: Chairman of the Board of Directors, Energoservice Company Lenenergo, JSC

Name	Aleksey Polinov
Position	Member of the Management Board Member of the Strategy Committee of the Board of Directors Deputy CEO for Economics and Finances
Year of Birth. Nationality	1978, Russia
Education	Higher. Moscow State University of Civil Engineering, Economics Manager (2000) Candidate of Science (PhD) in Economics
Positions for the Past 5 Years	2019 to the present day: member of the Management Board 2018 to the present day: Deputy CEO for Economics and Finances, Lenenergo, PJSC; Acting Deputy CEO for Economics and Finances 2018 to 2018: Advisor to the CEO (concurrent position), Lenenergo, PJSC 2018 to 2018: Advisor to the CEO, Chief of Advisors, UNECO, JSC 2014 to 2017: Deputy CEO for Grid Connection, Deputy CEO for Development, Sintez-Group, JSC
Share in the Authorized Capital	None
Positions Held in Other Entities	Chairman of the Board of Directors, Kurortenergo, JSC

Name	Aleksey Goryachev
Position	Member of the Management Board Deputy CEO for Fixed Assets Construction
Year of Birth. Nationality	1979, Russia
Education	Higher. North-West Institute of Management, specializing in Public and Municipal Administration (2007) International Management Institute St. Petersburg, further training in Executive MBA Strategy (2015) Peter the Great St. Petersburg Polytechnic University, specializing in Power

	Industry and Electrical Engineering (2017)
Positions for the Past 5 Years	2019 to the present day: member of the Management Board 2018 to the present day: Advisor to the CEO, Deputy CEO for Fixed Assets Construction, Lenenergo, PJSC 2017 to 2017: Head of Departmental Project Office, State Contracting Authority Directorate, Federal Budget Institution 2010 to 2017: CEO (concurrent position), Meridian, LLC 2007 to 2017: CEO, Prichal, LLC
Share in the Authorized Capital	None
Positions Held in Other Entities	2019 to the present day: Chairman of the Board of Directors, LESR, JSC

*Information is provided as of December 31, 2019

Over 2019, there were two active Management Boards of Lenenergo, PJSC.
The Management Board of Lenenergo, PJSC active prior to June 17, 2019:
Andrey Ryumin
Maksim Artemiev
Aleksandr Nikonov
Andrey Smolnikov
Pavel Diyakov
Ilya Meshcheryakov.

The Sole Executive Body (CEO)*

The CEO of Lenenergo, PJSC is the sole executive body of the Company that manages the day-to-day operations of Lenenergo, PJSC subject to the Federal Law *On Joint Stock Companies* and the Articles of Association.

The Board of Directors of Lenenergo, PJSC appointed Andrey Ryumin the CEO of the Company on December 25, 2017 (Minutes No. 18 dd. December 28, 2017) for the period from January 12, 2018, to January 11, 2023, inclusive.

Name	Andrey Ryumin
Position	Member of the Board of Directors Chairman of the Management Board CEO
Year of Birth. Nationality	1980, Russia
Education	Higher. M.V. Lomonosov Moscow State University, Department of Mechanics and Mathematics (2002) Peoples' Friendship University of Russia (RUDN), specializing in Information Systems in Economics (2002) Candidate of Science (PhD) in Economics
Positions for the Past 5 Years	2018 to the present day: Member of the Board of Directors, Lenenergo, PJSC 2018 to the present day: Chairman of the Management Board, CEO, Lenenergo, PJSC 2016 to 2017: Independent Director, member of the Board of Directors, Mosenergo, OJSC 2011 to 2013: First Deputy CEO, CEO, UNECO, OJSC
Share in the Authorized Capital	None
Positions Held in Other Entities	No

*Information is provided as of December 31, 2019

Information on Remuneration Paid to the Members of the Management Board and the CEO

Financial incentives and KPI systems for the CEO are set out in the revised Regulations for the CEO Financial Incentives (applicable from January 1, 2018) approved by the Board of Directors on October 26, 2018 (Minutes No. 11 dd. October 29, 2018).

Financial incentives and KPI systems for the Company's top managers are set out in the Regulations for the Top Management Financial Incentives and Benefits approved by the Board of Directors on July 22, 2011 (Minutes No. 1 dd. July 25, 2011), as amended by the Board of Directors on May 5, 2015 (Minutes No. 33 dd. May 7, 2015) and on June 6, 2016 (Minutes No. 55 dd. June 8, 2016).

The top management KPI system is set out in compliance with the principles used for awarding bonuses to the CEO of the Company, but according to the specific weights and targets for each of the top managers determined by the CEO of the Company.

A key performance indicators (KPI) system of Lenenergo, PJSC assesses how the Company fulfills its priority goals.

In 2019, in order to include the priorities set out by the Power Sector Development Strategy adopted by the Russian Government on April 3, 2013 (Instruction No. 511-r), coordinate the indicators with the goals of the Long-Term Development Program of the Company, and fulfill certain instructions of the Russian Government, the following composition and targets were set for the KPI:

Target KPIs

№	Name	2019 Target
Quarterly KPIs		
2.1.	Consolidated operating profit (EBITDA)	Q1, H1, 9 months of the report period: > 0 year: > 3.0%
№	Name	2019 Target
2.2.	Consolidated Net Debt/EBITDA	< 3.0
2.3.	Company's receivables decrease plan completion	> 100%
2.4.	Absence of growth in the number of large accidents or emergencies	Absence of growth
2.5.	Absence of growth in the number of injuries sustained from accidents or emergencies	Absence of growth
2.6.	Commissioning schedule fulfilled	> 90%
Annual KPIs		
3.1.	Consolidated net cash flow	> RUB -2,896.0 mn
3.2.	Decrease of specific operating expenses (costs)	> 2.0%
3.3.	Increase of the grid equipment capacity load	Completed
3.4.	Power losses	< 11.15%[7]
3.5.	Decrease of specific investment costs	< 1.00
3.6.	Increase of productivity	> 2.00%
3.7.	Efficiency of innovations	> 90%
3.8.	Compliance with the grid connection designated timelines	< 1.1
3.9.	Reaching the required level of reliability of services	Simultaneously: KPI < 1.00 Ki < 1.00

The KPI system used by the Company is based on the consideration of the variable portion of the management remuneration: each indicator is taken in proportion with the amount of the bonuses paid out. The quarterly and annual bonuses are paid if the relevant KPIs are fulfilled.

The Regulations for the CEO Financial Incentives approved by the Board of Directors on October 26, 2018 (Minutes No. 11 dd. October 29, 2018) sets out certain types and amounts to be paid out to the CEO based on the resolution of the Board of Directors.

[7] Group (Lenenergo, PJSC, Kurortenergo, JSC, TSEK, JSC, St. Petersburg Power Grid, JSC)

The Regulations for the Top Management Financial Incentives and Benefits sets out certain types and amounts to be paid out to the top managers of the Company based on the resolution of the CEO.

The employment agreement with the CEO and the Regulations for Financial Incentives approved by the Board of Directors of the Company (Minutes No. 11 dd. October 29, 2018) set out the criteria for determination and the amounts of remuneration paid out to the CEO.

Bonuses are paid to the CEO based on the fulfillment of the KPI set by the Board of Directors for certain report periods (quarters and year).

The Board of Directors of the Company approved the KPI Estimation and Fulfillment Assessment Method for the CEO on April 14, 2017 (Minutes No. 31 dd. April 19, 2017). The Board of Directors of the Company amended the KPI Estimation and Fulfillment Assessment Method for the CEO and approved the revised version on December 18, 2019 (Minutes No. 25 dd. December 20, 2019), applicable from January 1, 2019.

The aggregate amount of remuneration and compensation paid out to the members of the Management Board of the Company in 2019 (taxed included), in view of the remuneration paid out to the CEO of Lenenergo, PJSC for his functions as a Sole Executive Body, was RUB 265,818,020.

The executive bodies of Lenenergo, PJSC did not make any transactions with the Company's shares in 2019.

The executive bodies of the Company and Lenenergo, PJSC did not make any transaction with each other in 2019; and the Company did not provide any loans to the executive bodies.

The Company's Policy on Retirement Benefits and Severance Payments for Key Officers

The key officers may receive compensation from the Company in the amount of no more than three-fold average monthly salary depending on their performance of the KPIs and absence of any gross violations in their actions in the following cases:

negotiated resignation

the employee's transfer (at their request and with their consent) to a position with another employer, or transfer to an elective position

the employee being declared unemployable due to medical issues

termination of the employment agreement at the employee's request (due to retirement)

the employee's refusal to transfer to another position as required in view of medical issues, or in case the employer is unable to offer a requested position.

4.1.3. Control Body

The Internal Audit Board

The Internal Audit Board of Lenenergo, PJSC is a continuously operating internal control body of the Company that is independent from the governance and the executive bodies' officers of the Company. The Internal Audit Board powers are set out in the Federal Law On Joint Stock Companies, the Articles of Association of the Company, and the revised Regulations for the Internal Audit Board of Lenenergo, PJSC approved by the General Meeting of Shareholders (Minutes No. 1/2017 dd. June 14, 2017).

According to the Articles of Association, the General Meeting of Shareholders elects the Internal Audit Board of 5 (five) members, with their powers valid for 1 year (until the next Annual General Meeting of Shareholders).

In 2019, the Internal Audit Board of the Company carried out the audit of the business and financial operations of Lenenergo, PJSC for 2018. It drafted its opinion on the accuracy of the data contained in the annual report and the financial statements of the Company for 2018.

Active Members of the Internal Audit Board of the Company Appointed by the General Meeting of Shareholders on June 18, 2019 (Minutes No. 1/2019 dd. June 21, 2019):*

Name	Sergey Kiryukhin
Position	Chairman of the Internal Audit Board Senior Advisor, Rosseti, PJSC
Year of Birth. Nationality	1979, Russia
Education	Higher. Tula State University, Legal Studies (2002) Orel Regional Public Service Academy, Public and Municipal Administration (2010)
Information on Employment Over the Past 5 Years	2019 to the present day: member of the Internal Audit Board, Lenenergo, PJSC 2018 to the present day: Senior Advisor, Director of Organization Support Department (internal concurrent positions), Acting Deputy CEO - Chief of Staff, Rosseti, PJSC 2017 to 2018: Deputy Head of Control and Analytics Department, Head of Organization and Analytics Department, Federal Environmental, Industrial and Nuclear Supervision Service of Russia 2017 to 2017: Advisor to the CEO of Russian Research and Development Center of Labor Relations of the Ministry of Labor and Social Protection of Russia 2012 to 2016: Head of the Second Investigation Division of the First Department of Investigations of the Central Office of Criminal Investigations; Deputy Head of Internal Affairs Division of the Main Office of Interdepartmental Communications and Internal Affairs - Head of Internal Investigations Department of the Investigative Committee of Russia
Share in the Authorized Capital	None

Name	Marina Lelekova
Position	Member of the Internal Audit Board Director of the Internal Control and Risk Management, Rosseti, PJSC
Year of Birth. Nationality	1961, Russia
Education	Higher. Far East Institute of Soviet Trade, Economist
Information on Employment Over the Past 5 Years	2015 to the present day: Chairperson of the Internal Audit Board 2013 to the present day: Director of the Internal Control and Risk Management Department, Director of the Control and Audit Activities Department, Director of the Internal Audit and Control Department, Rosseti, PJSC
Share in the Authorized Capital	None

Name	Dmitry Ponomaryov
Position	Member of the Internal Audit Board Head of the Internal Control and Risk Management Department, Rosseti, PJSC
Year of Birth. Nationality	1978, Russia
Education	Higher Armavir Linguistics University, specializing in Legal Studies (2001)
Information on Employment Over the Past 5 Years	2018 to the present day: Head of the Internal Control and Risk Management Department, Head of the Control and Analytics Office of the Control and Audit Activity Department, Rosseti, PJSC 2017 to 2018: Deputy Head - Head of the Control Division of the Organization and Analytics Department of the Federal Environmental, Industrial and Nuclear Supervision Service of Russia 2007 to 2017: Head of the Investigative Division, Senior Assistant to the Head of the Internal Affairs Investigative Division of the Tula

	Department of the Investigative Committee of Russia
Share in the Authorized Capital	None

Name	Artem Kirillov
Position	Member of the Internal Audit Board, Deputy Head of the Internal Control and Risk Management Department, Rosseti, PJSC
Year of Birth. Nationality	1984, Russia
Education	Higher. Moscow Power Engineering Institute, Electrical Engineer
Information on Employment Over the Past 5 Years	2015 to the present day: member of the Internal Audit Board, Lenenergo, PJSC 2013 to the present day: Deputy Head of the Internal Control and Risk Management Department, Deputy Head of the Audit Activity Office of the Control and Audit Activity Department, Rosseti, PJSC
Share in the Authorized Capital	None

Name	Yelena Kabizskina
Position	Member of the Internal Audit Board Deputy Head of the Audit Activity Office of the Control and Audit Activity Department, Rosseti, PJSC
Year of Birth. Nationality	1964, Russia
Education	Higher Far East Technical Institute of Fishing Industry, Planning Engineer (2004)
Information on Employment Over the Past 5 Years	2015 to the present day: member of the Internal Audit Board, Lenenergo, PJSC 2014 to the present day: Deputy Head of the Audit Activity Office of the Control and Audit Activity Department, Rosseti, PJSC 2013 to 2014: Head of the Methodology Support Department of the Internal Audit Department, MOESK, PJSC
Share in the Authorized Capital	None

*Information is provided as of the appointment date.

Members of the Internal Audit Board Active in 2019

Members of the Internal Audit Board of the Company Appointed by the Annual General Meeting of Shareholders on June 8, 2018 (Minutes No. 2/2018 dd. June 13, 2018):*

№	Name	Position
1	Marina Lelekova	Chairperson of the Internal Audit Board Director of Control and Audit Activity, Rosseti, PJSC
2	Oksana Medvedeva	Member of the Internal Audit Board Chief Expert of Control and Audit Activity, Rosseti, PJSC
3	Artem Kirillov	Member of the Internal Audit Board Deputy Head of the Audit Activity Office of the Control and Audit Activity, Rosseti, PJSC
4	Yelena Kabizskina	Member of the Internal Audit Board Deputy Head of the Audit Activity Office of the Control and Audit Activity, Rosseti, PJSC
5	Yelena Yerandina	Member of the Internal Audit Board Chief Expert of the Control an Expert Office of the Control and Audit Activity, Rosseti, PJSC

*Information is provided as of the appointment date.

Information on Remuneration and Compensation Paid to the Members on the Internal Audit Board

The internal documents of the Company approved by the General Meeting of Shareholders of Lenenergo, PJSC govern the Internal Audit Board members' remuneration and compensation amounts and payment procedures.

The new version of the revised Regulations for the Lenenergo, PJSC Internal Audit Board Members' Remuneration and Compensation approved by the Annual General Meeting of Shareholders on June 8, 2018 (Minutes No. 2/2018 dd. June 13, 2018) governs the payment of remuneration and compensation to the members of the Internal Audit Board.

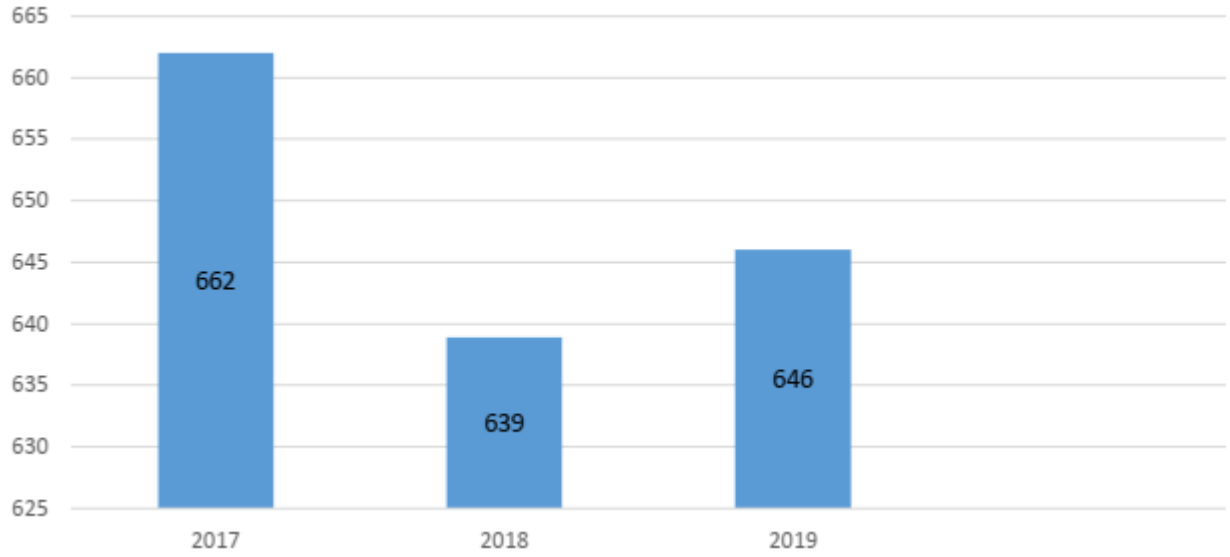
Analysis of the Regulations for the Lenenergo, PJSC Internal Audit Board Members' Remuneration and Compensation:

The Internal Audit Board Members Remuneration
The Internal Audit Board Members Remuneration depends on the base remuneration (Rbas). The base remuneration is paid to the member of the Internal Audit Board based on the Company's revenue. The actual remuneration of the member of the Internal Audit Board based on the corporate year performance results is calculated as follows: Ract = Rbas * (mi / m) * Ic, where: Ract is the actual remuneration paid out depending on the base remuneration Rbas is the base remuneration determined subject to the scale provided in Par. 2.2 mi is the number of calendar days in the corporate year, during which the member of the Internal Audit Board performed as a member m is the total number of calendar days in the corporate year Ic is the personal contribution index of the member of the Internal Audit Board. The personal contribution index reflects the participation and contribution of the member during the meetings of the Internal Audit Board, as well as the member's fulfillment of additional duties such as serving as a chairman or a secretary of the Internal Audit Board. The personal contribution index of a member of the Internal Audit Board is determined individually for each member as follows: Ic = (1 + Im + Iadd) * Iinsp, where: Ic is the personal contribution index Im is the index of the Internal Audit Board meetings attendance Iadd is the index of additional services, such as fulfilling the duties of a chairman or a secretary of the Internal Audit Board Iinsp is the index of participation in the inspections carried out by the Internal Audit Board.
Compensations Paid to the Members of the Internal Audit Board
The members of the Internal Audit Board are compensated for their documented expenses related to their participation in the activity of the Internal Audit Board incurred when visiting the Company's facilities, attending the meetings of the Internal Audit Board held at the Company's location, as well as fulfilling other tasks of the Internal Audit Board of the Company.

Information on Remuneration and Compensations Paid to the Members of the Internal Audit Board and Engaged Experts in 2019

The aggregate amount of remuneration and compensations paid to the members of the Internal Audit Board in 2019 was RUB 646,137.36.

Remuneration Paid to the Members of the Internal Audit Board Over Time, 2017-2019, RUB thousand



The members of the Internal Audit Board did not make any transactions with the Company. The Company did not file any lawsuits against the members of the Internal Audit Board.

The Independent Auditor

The Annual General Meeting of Shareholders appointed Ernst & Young, LLC (Minutes No. 1/2019 dd. June 21, 2019) to audit the accounting report and financial statements of the Company for 2019 prepared under the RAS, and the consolidated financial statements for the year ending on December 31, 2019, prepared under the IFRS.

After the procurement procedures were completed, the Audit Committee of the Board of Directors of Lenenergo, PJSC considered Ernst & Young, LLC as the candidate on May 7, 2019 (Minutes No. 108 dd. May 7, 2019). Based on the Committee's recommendation, the Board of Directors decided on submit Ernst & Young, LLC's candidacy for approval of the Annual General Meeting of Shareholders (Minutes No. 43 dd. May 24, 2019).

Subject to Art. 22, Par. 22.11, of the Articles of Association of the Company, the Board of Directors sets out the amount of the Auditor's remuneration.

Subject to the Board of Directors' resolution dd. July 24, 2019, Ernst & Young, LLC, being the Company's independent auditor, received remuneration for the auditing services in the amount of RUB 8,039,330 (eight million thirty-nine thousand three hundred thirty and 00/100) in 2019, including 20% VAT of RUB 1,339,888.33.

The Independent Auditor does not provide any non-auditory services to the Company.

The Company's Management of the Controlled Entities

The legal status of the subsidiaries and dependent companies (SDCs) is determined subject to the Federal Law On Joint Stock Companies and the Civil Code of the Russian Federation.

The principal documents governing the interaction between the Company and its SDCs are the Articles of Association of Lenenergo, PJSC, and the Guidelines for the Company's Interaction with the Business Entities, Shares (Participation Interest) in Which Lenenergo, PJSC Holds (hereafter referred to as the Guidelines) approved by the Board of Directors on March 24, 2019 (Minutes No. 12 dd. March 24, 2009).

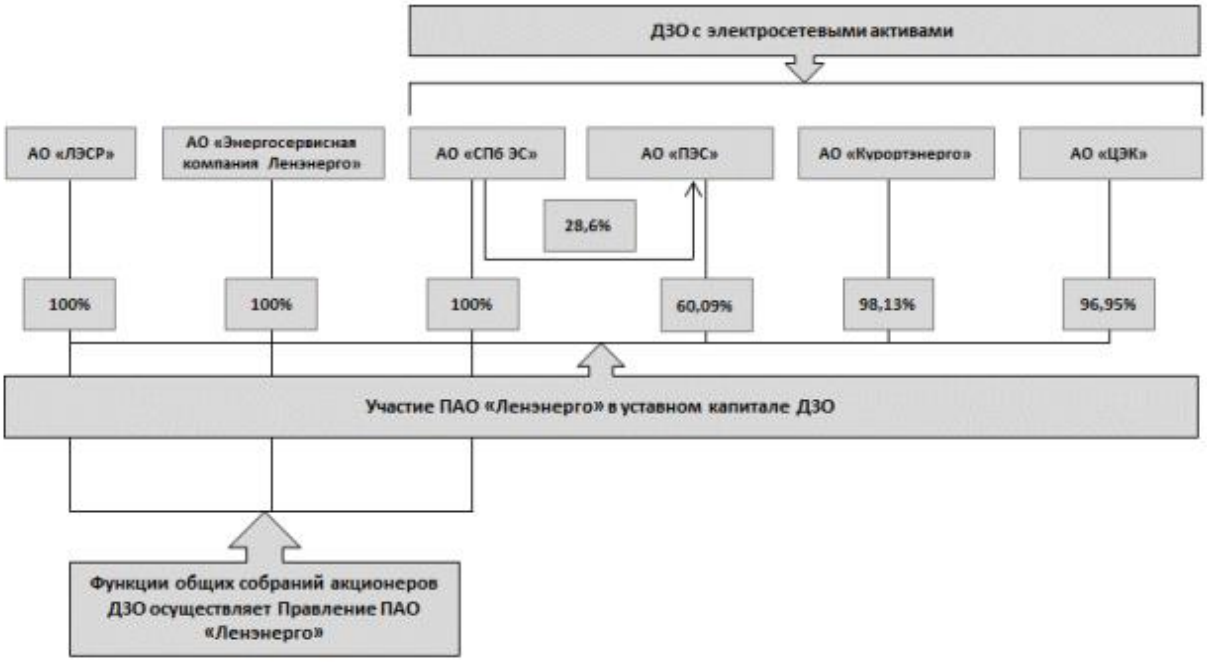
These documents set out the general principles for the corporate interaction between the Company and its SDCs in such areas as corporate governance, or organization and control of corporate actions taken when the governing bodies of the SDCs review the issues that require the Company's opinion to be made clear subject to the Company's Articles of Association. These documents also regulate in details the way

the Company exercises its shareholder (member) rights in the SDCs in order to ensure the efficient participation of the Company's representatives in the shareholders' (members') meetings, the meetings of the boards of directors, or the meetings of the internal audit boards of the SDCs.

List of the SDCs of Lenenergo, PJSC:

1. Lenenergospetsremont, Joint Stock Company (LESR, JSC)
2. Energoservice Company Lenenergo, Joint Stock Company (Energoservice Company Lenenergo, JSC)
3. Saint Petersburg Power Grids, Joint Stock Company (SPb ES, JSC)
4. Tsarskoe Selo Energy Company, Joint Stock Company (TSEK, JSC)
5. Kurortenergo, Joint Stock Company (Kurortenergo, JSC)
6. Petrodvorets Power Grid, Joint Stock Company (PES, JSC).

The SDCs Boards of Directors are composed of the highly qualified experts of Lenenergo, PJSC having the required and sufficient experience, skills, and knowledge of the power sector. The Company constantly strives to include the representatives of the executive government agencies into the boards of directors of the SDCs along with the representatives of Lenenergo, PJSC itself.



		SDCs with grid assets			
LESR, JSC	Energoservice Company Lenenergo, JSC	SPb ES, JSC	PES, JSC	Kurortenergo, JSC	TSEK, JSC
		28.6%			
100%	100%	100%	60.09%	98.13%	96.95%
Lenenergo, PJSC Participation in the SDCs' Capitals					
The Management Board of Lenenergo, PJSC functions as the General Meeting of Shareholders of the SDCs.					

The main organizational and administrative actions the Company takes to carry out the corporate control over its SDCs is taking resolutions of the Board of Directors subject to the Articles of Association and the Guidelines regarding the position and opinion of the Company (its representatives) on the most

prominent or crucial items on the agendas of the general shareholders' meetings and the meetings of the boards of directors of the SDCs:

- reorganization or liquidation of the SDC
- determining the size of the control and governance bodies of the SDC, nominating and appointing their members or terminating their powers early, nominating and appointing the sole executive body of the SDC or terminating their powers early
- increasing the capital of the SDC by increasing the nominal value of its shares or issuing additional shares
- approving the large transactions by the SDC
- deciding on the SDC's participation in other entities, as well as purchasing, disposing of, or encumbering the shares and participatory interests in the capitals of entities, in which the SDC participates, and on changing the participatory interest in such an entity
- amending and supplementing the SDC's constituent documents
- establishing the procedure for paying out the remuneration to the members of the board of directors and the internal audit board of the SDC, etc.

The Company's representatives' voting at the general shareholders' meetings and the meetings of the boards of directors of the SDCs is done subject to a special directive (final instruction) reflecting the Company's voting position on the items included in the agenda of the respective meeting of a governance body of the respective SDC. Such a directive is mandatory for the Company's representatives to comply with.

A special competent division of the executive branch of Lenenergo, PJSC organizes and controls the activity of the Company's representatives.

As for the SDCs, in which Lenenergo, PJSC is the sole shareholder, the Management Board of Lenenergo, PJSC acts as the General Meeting of Shareholders.

The SDCs Boards of Directors Composition

Suggesting candidates to the SDCs' boards of directors to be elected and appointed at the SDCs' general meetings of shareholders falls within the competence of the Board of Directors of Lenenergo, PJSC.

The SDCs' boards of directors decide on including the shareholder's (Lenenergo, PJSC) candidate into the list of candidates to be appointed at the general meetings. The Company's representatives in the SDCs' boards of directors vote in line with the Company's position determined by the Board of Directors of Lenenergo, PJSC.

After the Company receives notice of the general meeting of an SDC, the Board of Directors of Lenenergo, PJSC determines the Company's position for the representatives to vote in line with on the issue of appointing the members to the SDC's board of directors.

Prior to holding the general meetings of the SDC, the authorized division of the executive branch of the Company arranges for the final instruction reflecting the Company's position on appointment of the members of the SDC's Board of Directors to be drafted and sent to the Company's representatives subject to a resolution of the Board of Directors of Lenenergo, PJSC.

On the day of the SDC general meeting, the Company's representatives vote on the appointment of the members of the SDC's board of directors in full compliance with the final instruction reflecting the Company's position.

Information on Lenenergo, PJSC Fulfilling the Role of the Sole Executive Body of its Subsidiaries

Subject to the resolution of the general meeting of PES, JSC dd. August 12, 2016 (Minutes No. VOSA-16(2) dd. August 15, 2016) and the resolution of the sole shareholders of SPb ES, JSC dd. June 30, 2016 (No. 5-2016), Lenenergo, PJSC, being their managing company, acts as the sole executive body of these two entities.

The board of directors of PES, JSC (Minutes No. 4 dd. March 31, 2017, Minutes No. 16 dd. December 29, 2017, Minutes No. 20 dd. June 7, 2018, Minutes No. 10 dd. March 29, 2019, Minutes No. 15 dd. June 25, 2019) and the board of directors of SPb ES, JSC (Minutes No. 6 dd. February 20, 2017, Minutes No. 9 dd. March 31, 2017, Minutes No. 23 dd. December 25, 2017, Minutes No. 5 dd. June 27, 2018, Minutes No. 4 dd. March 29, 2019, Minutes No. 7 dd. June 25, 2019) approved the terms and conditions of the Agreements on Passing the Sole Executive Body Functions to the Managing Company, Lenenergo, PJSC, as well as supplements thereto.

According to those, the managing company's goals and objectives are as follows:

fulfillment of the company's goals and objectives set out in its articles of association

gaining profit

ensuring the efficient and reliable functioning of the distribution power grid facilities

ensuring the sustainable and continuous development of the distribution power grid

carrying out the grid connection of the power receivers (power plants and power facilities) of entities and individuals

ensuring the reliable and high-quality power supply to the consumers (with respect to the power transmission services)

carrying out trust management of the property.

It is also the objective of the managing company to provide for the company's conducting of the activities specified in its articles of association.

The Agreements are valid through June 30, 2020.

Information on the SDCs of Lenenergo, PJSC*

Name	Lenenergospetsremont, Joint Stock Company (LESR, JSC)
Registered and actual address	7, lit. A, room 23N, ploshchad Konstitutsii, Saint Petersburg, 196191
Authorized capital	RUB 7,500,000
Lenenergo, PJSC share in the capital	100%
Customer area	Saint Petersburg
Core activities	Engineering surveys, engineering and technical design, construction projects management
CEO	Acting CEO Aleksey Zozulya Date of birth: 1974 Appointed on October 8, 2019

Name	Energoservice Company Lenenergo, Joint Stock Company (Energoservice Company Lenenergo, JSC)
Registered and actual address	60-62, lit. A, Sinopskaya naberezhnaya, Saint Petersburg, 191124
Authorized capital	RUB 1,000,000
Lenenergo, PJSC share in the capital	100%
Customer area	Saint Petersburg
Core activities	provision of services to the consumers consumer's electric units' inspection commercial projects implementation
CEO	CEO Igor Filippenko Date of birth: 1970 Appointed on June 14, 2019 (from June 27, 2018 to June 14, 2019 was the Acting CEO of Energoservice Company Lenenergo, JSC)

Name	Saint Petersburg Power Grids, Joint Stock Company (SPb ES, JSC)
Registered and actual address	196191, Saint Petersburg, 7, lit. A, pl. Konstitutsii
Authorized capital	RUB 35,769,200
Lenenergo, PJSC share in the capital	100%
Customer area	Saint Petersburg and the Leningrad Region

Core activities	power grid assets lease trust management of the power grid assets owned by Saint Petersburg
CEO	Managing company Lenenergo, Public Joint Stock Company of the Power Industry and Electrification Appointed on February 21, 2017

Name	Tsarskoe Selo Energy Company, Joint Stock Company (TSEK, JSC)
Registered and actual address	5, ul. Glinki, Pushkin, Saint Petersburg, 196601
Authorized capital	RUB 13,152,000
Lenenergo, PJSC share in the capital	96.95%
Customer area	Saint Petersburg
Core activities	provision of power transmission services in the distribution grids grid connection of the electric plants operation of the street lighting networks
CEO	CEO Veronika Tarnorutskaya Date of birth: 1959 Appointed in 2005

Name	Kurortenergo, Joint Stock Company (Kurortenergo, JSC)
Registered and actual address	16, ul. Kommunarov, Sestroretsk, Saint Petersburg, 197706
Authorized capital	RUB 209,160
Lenenergo, PJSC share in the capital	98.13%
Customer area	Saint Petersburg
Core activities	provision of power transmission services in the distribution grids grid connection of the electric plants operation of the street lighting networks
CEO	Acting CEO Aleksandr Lurie Date of birth: 1963 Appointed on October 29, 2019

Name	Petrodvorets Power Grid, Joint Stock Company (PES, JSC)
Registered and actual address	9, ul. Volodi Dubinina, Petergof, Saint Petersburg, Russian Federation, 198510
Authorized capital	RUB 10,370
Lenenergo, PJSC share in the capital	60.09%
SPb ES, JSC share in the capital	28.6%
Customer area	Saint Petersburg and the Leningrad Region
Core activities	power grid assets lease
CEO	Managing company Lenenergo, Public Joint Stock Company of the Power Industry and Electrification Appointed on April 1, 2017

* Information provided as of December 31, 2019

Information on the Company's Contribution to Other Entities

Entity Name	Activity	Capital, RUB	Share in the Capital, %	Contribution Made In
North-West Power Management Company, JSC	Trust management of property; consulting	897,363,008	12.51	2005
Federal Testing Center, JSC	Research and development	350,000,000	1	2014

The Company's Participation in Non-Profit Organizations

The Company participates in the following non-profit organizations and partnerships:*

Entity Name	Date of Entry
The Leningrad Region Chamber of Commerce and Industry	September 3, 2003
Saint Petersburg Chamber of Commerce and Industry	December 14, 2006
All-Russia Public Organization Business Russia	September 27, 2007
Saint Petersburg Construction Union (self-regulating entity)	September 25, 2008
Science and Engineering Board of the Unified Energy System of Russia (non-profit partnership)	December 1, 2008
Saint Petersburg Union of Industrialists and Entrepreneurs (regional association of employers)	December 24, 2009
Energoproekt Association of Power Project Designers	March 5, 2010
EnergoProfAudit Association of Power Inspectors (self-regulating entity)	December 23, 2010
National Committee of CIRED. Electrical distribution networks (non-profit partnership)	May 29, 2012
Strategic Partnership for Economic and Social Development of the North-West Federal District (independent non-profit entity)	2012
Non-Profit Partnership of Territorial Grid Entities	February 25, 2014

* as of December 31, 2019

Information on the Large Related-Party Transactions and Other Significant Transactions Made by the Company in 2019

In 2019, the Company did not make transactions deemed large under the Federal Law On Joint Stock Companies.

In 2019, the Company did not make transactions deemed related party transactions under the Federal Law On Joint Stock Companies.

4.2. Risk Management

Risk Management System

The Company has a Risk Management System (hereafter referred to as the RMS) in place to ensure the consistent and continuous Company functioning and development by promptly identifying, assessing, and efficiently managing the risks that threaten the Company's productive operations and reputation, the employees' health, the environment, as well as the property interests of the shareholders and investors.

In order to provide for the risk management system development, the Board of Directors of the Company approved the revised version of the Risk Management Policy (Minutes No. 45 dd. April 12, 2016). The Risk Management Policy determines the goals, objectives, principles, and the composition of the RMS, as well as the basic functions and responsibility areas for the RMS participants, and the procedure for assessment of the RMS efficiency. Furthermore, the Company has the following regulations in force with respect to the risk management:

- Procedure for Fulfillment of the Requirements of the Risk Management Policy of Lenenergo, PJSC
- Instructions for Planning and Implementing the Risk Management Measures
- Procedure for Determining the Risk Appetite of Lenenergo, PJSC.

The RMS is integrated into the business planning system. The Board of Directors of the Company approved the Standard and Guidelines for Business Planning (Minutes No. 31 dd. April 14, 2015; the revised version is approved subject to Minutes No. 9 dd. September 4, 2017) that stipulate the assessment of the Company's key operating risks when forming the business plan, and the quarterly monitoring of such risks and reporting thereon to the Board of Directors. A Method of Operating Risk Assessment is also approved (Order No. 386 dd. August 28, 2015) that sets out the approaches to risk assessment and classification, the methods and algorithms of risk assessment, and the reporting format (risk passport), as well as determines the risk significance scale, and formalizes the process of creation of the risk

management action plan and the process of reporting on its fulfillment by the management (Order No. 603 dd. December 22, 2015, Order No. 127 dd. March 17, 2017).

The Company has an Internal Control and Risk Management Department that, subject to the Risk Management Policy and the Regulations for the department, fulfills the following functions:

- overall coordination of the risk management procedures, including the interaction between all the participants of the RMS
- introduction of the methodology documents governing the risk management process and the RMS functions
- the RMS training of the Company's employees
- prompt aggregation of the information on all the risks identified, and preparation of suggestions for the risk register updating
- monitoring of the risk management process in the Company and, subject to the established procedure, in its controlled entities
- preparation (at least once a year) of a report and informing the Company's executive bodies on the results of the risk management and the RMS efficiency assessment
- drafting of an annual report on the RMS organization, functions, and efficiency, as well as on other issues of the Risk Management Policy.

The Risk Management Policy together with the regulations for the structural divisions, and the relevant service instructions set out the functions performed by the RMS participants. The following (Table 1) are the main participants of the risk management process:

Table 1

Name	Main RMS Functions
The Board of Directors	• approves the Risk Management Policy of the Company • approves the internal documents of the Company that determine the organization and functions of the RMS • assesses the key operating risks and determines the acceptable risk values • at least once a year arranges the analysis and assessment of the risk management system's functioning • annually reviews the reports from the Company's executive bodies with respect to the organization, functioning, and efficiency of the risk management system, assesses such functioning and provides recommendations as to its improvement • annually reviews the reports of the internal audit on the risk management system efficiency • reviews the results of an external independent assessment of the efficiency of the risk management system.
The Authorized Committee of the Board of Directors (Strategy Committee)	• controls the efficiency of the risk management procedures • drafts and provides the Board of Directors with recommendations (opinions) on risk management, including risk identification and risk parameters adjustment • preliminarily reviews, analyses and drafts the recommendations on risk assessment and setting the acceptable parameters for the Company annually reviews the organization, functioning and efficiency of the risk management system in the Company prior to reporting to the Board of Directors • reviews (prior to the Board of Directors' approval) the internal documents of the Company that set out the organization and functioning of the risk management system, the Risk Management Policy, and subsequent amendments thereto • reviews (prior to the Board of Directors' approval) the RMS related section of the annual report of the Company and prepares an opinion thereon.
The Audit Committee of the Board of Directors	• preliminarily reviews the results of the RMS efficiency assessment based on the internal auditor's report prior to its presentation to the Board of Directors.
The Internal Audit Board	• based on the results of the internal audit prepares suggestions/ recommendations as to the risk management system improvement.
The CEO, the Management Board	• establish and maintain the efficient RMS by application of single approach and standards approved for the Rosseti Group

Name	Main RMS Functions
	• fulfill the Board of Directors' resolutions on the RMS organization and functions.
The Management Board	• forms improvement and development areas and plans for the internal control system • sets out requirements to the format and integrity of the information on the Company's risks • analyses the risk portfolio and determines the reaction strategy and resource reallocation measures within the relevant risk management system; approves the budget for the risk management measures within the limits approved by the Board of Directors; sets cross-cutting risk management tasks (performed by several structural divisions at once) • reviews (at least once every six months) of the risk management report on the results of the risk management operations and the RMS efficiency assessment • reviews the results of the RMS internal efficiency assessment; determines the RMS development and improvement measures • annually presents a report on the RMS organization, functions, and efficiency to the Board of Directors along with suggestions for the RMS further improvement.
CEO	• ensures the efficient risk management within the Company's everyday operations • approves the regulating and methodology documents governing the RMS organization and functions, except for the approval that falls within the Board of Directors' competence • annually drafts a report on the RMS organization, functions, and efficiency to the Board of Directors along with suggestions for the RMS further improvement.
Risk Owners	• promptly identify and assess the risks • select the risk reaction method • promptly determine and organize the risk management measures • regularly monitor the risks • promptly notify the executive bodies on the risk management performance • ensure the efficient interaction with the risk management office with respect to the documents and reports created within the risk management procedures.
Risk Management Measures Actors	• promptly identify and/or minimize risks in line with the service instructions and regulating documents • carry out measures and steps aimed at risk management fully and in due scope.
Internal Control and Risk Management Department	• carry out the overall coordination of the risk management procedures, including the interaction between all the participants of the RMS • introduce the methodology documents governing the risk management process and the RMS functions • train the Company's employees with respect to the RMS • promptly aggregate the information on all the risks identified, and prepare suggestions for the risk register updating • monitor the risk management process in the Company and, subject to the established procedure, in its controlled entities • prepare (at least once a year) a report and informing the Company's executive bodies on the results of the risk management and the RMS efficiency assessment • draft an annual report on the RMS organization, functions, and efficiency, as well as on other issues of the Risk Management Policy.
Internal Audit Department	• carry out an internal independent RMS efficiency assessment and provision of the risk management office with the recommendations on risk management aimed at the RMS efficiency and productivity improvement • inform the executive bodies and the Board of Directors (its authorized committee) on the RMS state.

The Company regularly identifies, assesses and controls the risks, and adapts its operations in order to decrease the probability and mitigate the potential consequences of the risks, as well as informs the shareholders and other stakeholders accordingly.

Below is the list of the most substantial risks that may affect the Company's operations, as well as the measures for the mitigation thereof and minimization of the adverse effects thereof.

Significance of the risk is a combination of the possibility of its occurrence and the scope of its financial and other consequences for the Company. It is assessed based on the available risk passports, or by an expert subject to the following scale (Table 2):

Table 2

Significance		**Behavior Over Time**	
Critical		No (or insignificant) changes)	
Significant		Significance growth	
Moderate		Significance reduction	

Significance assessment

No.	Risk	Description	Effect Minimization Procedures	Risk Significance Assessment and Behavior Over Time, yoy
	Industry Risks:			
1.	Tariff Regulation Risks	The core activities of the Company are electric power transmission via distribution grids, and grid connection. They are regulated by the government. The regulatory bodies set out the tariffs for such services, which directly affects the gained revenue. The main risks are: 1. Restriction/prevention of the tariff growth (average aggregate, the voltage rating specific for different consumer categories) and, therefore, setting of the tariff revenue that does not cover the feasible expenses. 2. Risks related to the changes introduced to the laws that govern the pricing with respect to the electric and thermal power in retail markets. 3. Reduction of the revenue due to the specific way of how the regulator records the contracted capacity. 4. Reduction of the revenue due to the changes in the actual electric power transmission structure with respect to the voltage ratings as compared to the tariff structure.	1. Systematic interaction with the regional regulators with respect to the setting of the feasible tariffs that include, if possible, all of the Company's expenses. 2. Control over the tariff and balance decisions in the Company's area of operations; use of the means of protection of the Company's legal rights in the Federal Antimonopoly Service. 3. Monitoring and forecasting the electric power consumption and flows; interaction with the service consumers to approve the planned parameters.	
2.	Risk of Electric Power Transmission Scope Reduction	This risk is related to the reduction of the electric power and capacity demand from the large consumers due to the reduction of the production scope, optimization of the consumers' external power supply systems, development of their own generating facilities, or reduction in the payment capacity.	1. In order to minimize the risk, the Company takes steps to improve the accuracy of the electric power transmission forecast used for the pricing and business planning purposes in view of the economic development statistics and forecasts for Russia and Russian constituent entities, as well as forecasts of the large consumers' behavior. 2. In order to improve the competitiveness of the power supply by connecting the Company's grids, the Company takes steps to improve the reliability, quality, and safety of the power supply and to simplify the grid connection process, as well as implement the customer-focused policy of the consumer interaction, and takes measures to improve the efficiency of the power grid. 3. The Company takes steps to implement the Recording	

No.	Risk	Description	Effect Minimization Procedures	Risk Significance Assessment and Behavior Over Time, yoy
			Prospective Development Programs, the Power Loss Reduction Program, and the Off-the-Meter Power Consumption Program, and engages the law enforcement agencies in such.	
3.	Grid Connection Risks	1. A large scope of the grid connection obligations, the revenue from which does not cover the required investment expenses, creates grounds for delays in the grid connection obligation fulfillment. That may result in the risks of lawsuits initiated by the applicants and a breach of the antimonopoly laws with respect to the grid connection timelines. 2. As a result of the simplification of the access to the grid infrastructure, and of the provision of benefits to certain applicant categories over the past years, the demand for the grid connection significantly increased. At the same time, the connection of the increased number of new consumers did not lead to the comparable growth in the power consumption. The applicants do not consumer the peak capacity in full; therefore, underutilized power sources grow in number. 3. Insufficient receipt of the potential revenue from power transmission due to the applicants' failure to fulfill their obligations (including their refusal from grid connection) and, therefore, lack of use of the newly constructed equipment and underutilization of the power sources. 4. The risk of funding source deficit for the actions under the grid connection contracts due to the grid connection payment rates being set by the regulatory bodies that do not cover the feasible expenses.	1. Optimization of the Company's expenses related to the construction of the distribution grid for the consumers to be connected to. 2. Improvement of the grid connection business process using information technology, online services, and standard solutions aimed at lowering the number of stages and reducing the timelines for the grid connection, and improvement of the interactive services; initiation of legislative bills. 3. Continuous monitoring of the up-to-date nature of the grid connection. As a result, handling the complaints from the applicants with respect to the grid connection expenses compensation. 4. Interaction with the regulatory bodies of the Russian constituent entities in order to include the expenses related to the connection of the subsidized category of applicants into the power transmission tariff. 5. Applying to the regulatory bodies for an individual grid connection tariff. 6. Implementation of the measures to reduce the timeline and stages of grid connection in order to reach and maintain the targets for the Doing Business rating in the category of electric power supply system connection. 7. In order to reduce the grid entity's risks with respect to the growth of expenses related to the grid connection and following maintenance of the grid, and to maintaining the power supply full reliability, the Company initiates legislative bills. 8. In order to minimize the risk, the timeliness of funds receipt from applicants is monitored, complaints are handled with respect to the applicants who breach the payment schedules.	
4.	Risks of Growth of the Overdue and Bad	Risks of lost income related to the lack of payments from the utility companies due to disputes with respect to the	1. Work with contractors aimed at the timely fulfillment of the contractual obligations and repayment of the overdue debt	

No.	Risk	Description	Effect Minimization Procedures	Risk Significance Assessment and Behavior Over Time, yoy
	Receivables	power and capacity consumption scopes used for tariff calculation	amounts, application of fines to the contractors. 2. Verification inspections and restriction of the electric power consumption with respect to the consumers who fail to fulfill their obligations. 3. Restriction of the power consumption by the clients who fail to fulfill their obligations; and further restriction compliance check of such consumers. 4. Complaint handling aimed at recovery of the receivables (penalties for the delay) and creation of the favorable court practice; interaction with the Federal Bailiffs Service. 5. Implementation of the comprehensive Energy Preservation and Energy Efficiency Improvement Program including installation of the metering units and implementation of measures to discover the non-contractual consumption.	
	Country and Regional Risks			
5.	Risks related to the political and economic situation in the country and region (area)	The country and regional risks are driven by the global, country-wide, and regional macro-economic factors. Primarily, they result from the anti-Russian sanctions introduced by the European Union that affect the Russian Federation through a number of macro-economic factors (unstable exchange rate, restriction of imports of the raw materials and equipment, etc.). The Company operates in two constituent entities of Russia: Saint Petersburg and the Leningrad Region, that are economically developed and are centers of financial and political activity. This factor drives the consistent demand for the Company's services; however, such a demand is subject to the effects of the economic cycles.	The Company analyses the situation and takes anti-crisis management measures in order to reduce the adverse effect as much as possible. To minimize these risks, the Company works to cut the internal costs, optimize the investment program, and carries out a weighted borrowing policy.	
6.	Risks related to the geographical peculiarities of the country or an area, including the increased risk of	The geographic peculiarities of the Company's operations area stipulate the risk of natural disasters (windstorms, rainstorms, floods, heavy snow, snow mounds, etc.), resulting in the interruptions of the power supply and the Company incurring material damage.	1. Implementation of measures to prepare the agricultural sector to the fall-winter season. 2. Efforts to reduce the time needed to promptly liquidate the aftereffects of a natural emergency in the fall-winter season. 3. Design of the power facilities in view of the peculiarities of the regional climate and geography.	

No.	Risk	Description	Effect Minimization Procedures	Risk Significance Assessment and Behavior Over Time, yoy
	natural disasters, or possible cut off of the transportation.		4. Implementation of measures to prepare the power grid sector to the flood season, lightning storm season. 5. Expansion of the OL clearings in line with the relevant regulations that govern the protected areas and forest clearing around the power facilities. 6. Implementation of the property insurance program. Provision for the availability and readiness of the emergency response and recovery teams. 7. Arrangement for the command center of Lenenergo, PJSC in order to provide for the reliable operation of the Company's power grid facilities, improve the efficiency of the management and reaction speed in case of interruptions to the power supply or a threat thereof, reduce the time needed to eliminate emergencies and mitigate the aftereffects thereof, and to arrange the interaction and coordination of joint actions by the grid entities aimed at prevention and liquidation of emergencies.	
7.	Risks related to the possible conflicts, introduction of a state of emergency, or strikes in the country(ies) or the area	The Company cannot fully eliminate the risks related to a possibility of a state of emergency being introduced in the area of operations, or in the country in general. Terrorist attacks, both domestic and international, also may have an adverse effect on the Company's operations. Military conflicts or terrorist attacks may result in the risks of the Company's fixed assets being disabled.	In order to mitigate these risks, the Company takes steps to fulfill the requirements of Federal Law No. 256-FZ dd. July 21, 2011 On Safety and Security of the Fuel and Energy Sector Facilities.	
	Financial Risks			
8.	Risks related to the exchange rates change	The Company currently does not carry out foreign economic activities. Its main clients consuming the electric power are the residents of Russia. The transportation payments are also conducted in the currency of the Russian Federation. However, considering the inventory of goods and equipment procured by the Company includes the imported components, the growth of the exchange rate carries the risk of the procured products becoming more expensive.	1. Continuous monitoring of the prices, holding public tenders, and implementing the imports phasing out policy. 2. Contracts and agreements containing obligations set in foreign currencies are prohibited, including the loan agreements.	

No.	Risk	Description	Effect Minimization Procedures	Risk Significance Assessment and Behavior Over Time, yoy
9.	Risks related to the interest rates change	The Company borrows funds; therefore, it is subject to the risk of the loans interest rates increasing. A rapid growth of the interest rates for loans and borrowings may result in the increase of the debt servicing costs.	1. Refinancing the loans in order to optimize the loan portfolio with respect to the service cost. 2. Setting a new coupon period with a lower rate for the bonded loan.	
10.	Risks related to inflation	1. Risk of losses related to reduction of the actual value of the receivables in case of a significant delay or rescheduling of the payment. 2. Risk of increase of interest payable for the borrowings. 3. Risk of increase of the net cost of goods, products, and services due to the increase of the energy, transportation services prices, salary, etc. 4. Risk of reduction of the actual value of funds of the investment program.	1. Effect of the inflation factors on the financial stability of the Issuer is forecast when the Company drafts its financial plans. 2. Implementation of the measures to reduce the receivables and increase its turnover. 3. Inflation risk is not critical for the issuer, since, if the actual inflation in the regulation period exceeds the one included in the tariff model, the regulator takes that fact into account in the following period subject to the applicable laws. 4. Change of the existing contractual relations with the consumers.	
	Legal Risks:			
11.	Legal risks	1. Risks of changes to the legislation (federal laws and subordinate legislation) that governs the shareholding and corporate relations. 2. Risks of antimonopoly regulation affect the consumers' electric plant grid connection operations the most. If the Company is declared in violation of the antimonopoly laws, it may result in fines, including the turnover-based ones, i.e. calculated based on the Company's revenue amount. 3. Risk of losses related to the incorrect legal execution of documents and Company's operational support.	1. Monitoring activities in order to promptly react to the changes introduced to the Russian laws that affect various aspects of the Company's operation; and active interaction with the legislative and executive bodies and public organizations with respect to the interpretation and improvement of the legislative requirements. 2. In order to reduce the effect of factors that result in the antimonopoly regulation risks occurring, the Company improves its grid connection business processes by simplifying its internal procedures and reducing the timelines thereof and introduces the new types of servicing the consumers, particularly with respect to the interactive methods of servicing, which reduces the impact the personnel errors and abuse have. If the Company is held liable for the violation of the antimonopoly laws by the antimonopoly bodies wrongly, the Company will dispute such measures in court. 3. In order to minimize the legal risks, all business processes of the Company that are subject to such risks (e.g., making of contracts) undergo mandatory legal expert reviews.	
12.	Risks related to the tax laws change	1. Introduction of new taxes and levies; increase of the existing tax rates; expansion of the tax base. 2. Change of the deadlines and procedure of tax	1. If the applicable procedure and tax terms change, the Company intends to plan its financial and business operations in view of such changes.	

No.	Risk	Description	Effect Minimization Procedures	Risk Significance Assessment and Behavior Over Time, yoy
		payments, as well as preparation and submission of the tax reports. 3. Potential risks of the Company being held liable related to the taxes in case the state fiscal policy changes with respect to certain taxes and levies, as well as in case the court practice changes (not in favor of the taxpayer) with respect to certain tax cases categories.	2. The Company's tax and levies obligations subject to the applicable Russian laws are included in the tariffs as feasible expenses. 3. If the taxes and levies are called to be paid not in line with the applicable laws and regulations, the Company uses the pre-court dispute resolution tools against the tax bodies, and uses its right for court protection. 4. Creation of provisions for the tax risks related to ambiguous interpretation of the tax base.	
13.	Change of the court practice with respect to the issues related to the Company's operations.	Change of the court practice with respect to the Company's operations may result in rulings that are not in favor of the Company, which in turn may adversely affect the business results.	1. Continuous monitoring of the commercial court practice. 2. Optimization of the process of legal execution of the documents and Company's operations support.	
	Risks of Business Reputation Loss (Reputational Risk)			
14	Reputational risk	This risk is related to a possible failure to fulfill the obligations to the clients and contractors completely.	1. Lenenergo, PJSC constantly works to maintain the reliability and continuity of the power supply to the consumers, to improve the quality of the services rendered and increase the client-focusedness, that is to reach the goals set by the Russian Power Sector Development Strategy (approved by the Russian Government on April 3, 2013, Instruction No. 511-r). 2. Arrangement of electric power supply recovery after natural disasters as soon as possible, engaging the emergency teams from all the branches. 3. Prompt response to the consumers. 4. Fulfillment of the grid connection obligations. 5. Disclosure of the Company's information subject to the requirements of the applicable laws.	
	Strategic Risk			
15.	Strategic Risk	**The Company's strategic priorities are set in the Russian Power Sector Development Strategy approved by the Russian Government that governs the approaches to resolving the system-wide issues in the power sector.**	1. Implementation of the set of organizational measures aimed at: - improvement of reliability and power supply quality to the level that corresponds to the consumers' requests	

No.	Risk	Description	Effect Minimization Procedures	Risk Significance Assessment and Behavior Over Time, yoy
		Therefore, the Company's strategic risks are the risks that affect the possibility of the Company providing a long-term reliable high-quality and accessible power supply to the Russian consumers, and the improvement of the power sector efficiency.	- improvement of the power supply safety, including reduction of the number of accidents - improvement of the efficiency of the power grid, including: • increase of the capacity load • reduction of the specific investment expenses • reduction of the operational expenses • reduction of the power losses. 2. In order to provide for the balanced development of the power grid of Saint Petersburg, optimize the investment program of Saint Petersburg, and to improve the efficiency thereof, the Company implements the instructions of the Russian President made as a result of the meeting On Mechanisms of Regulation of Activity and Financial Recovery of Lenenergo, PJSC - in particular, all the main strategic benchmarks are related to the implementation of measures to switch the Company and its SDCs to the single share system (reorganization).	
	Risks Related to the Company's Business			
16.	Operational risks	Operational and process risks that affect the reliability of power supply are related to the systemic interruptions of the operability and efficiency of the distribution power grid equipment and interruptions of power supply as a result of the natural disasters, high physical deterioration and outdatedness of the power grid assets, violation of the operational and use modes of the power grid equipment, or insufficiency of the repair program. These risk factors affect the losses in the power grids increasing the Company's expenses for the purchase of power in order to compensate for the losses. As a result of such risks, both significant economic and reputational outcomes are possible.	1. As measures to reduce the possibility of the operational and process risks, the Company carries out steps aimed at improving the reliability of the consumers' power supply and preventing the risks of the process disturbances, including: - creation and expansion of the forest clearings for the OLs, reconstruction of the power facilities - expansion of the fleet of the backup power sources and special machinery for the emergency response works - comprehensive program of modernization of the power grid assets, switching equipment, and remote control systems - improvement of the data collection and transmission systems, analysis of the technical disturbances, etc. 2. The Company implements the set of measures to prepare the grid to the fall-winter season (subject to the issue of the Readiness Passport). 3. A program for reduction of the risks of injury is implemented at the grid facilities along with training, control, and certification of	

No.	Risk	Description	Effect Minimization Procedures	Risk Significance Assessment and Behavior Over Time, yoy
			the personnel. 4. The Company has an integrated management system that constantly develops and improves and is based on ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and the relevant national standards. 5. The power grid facilities are being upgraded, reconstructed, and constructed; the repair and maintenance policy is being continuously improved; modern equipment diagnostics methods are introduced. 6. The operative and process management model is upgraded with respect to the inspection, arrangement, and updating of the automated process management system (SCADA).	
17.	Environmental risks	The environmental risks include the possibility of the pollution caused by the motor vehicles. These risks may also occur from the leaks of the transformer oil at the substations in case of oil-feeding units breakdown, which may result in pollution of the environment with oil products.	1. Implementation of the Environmental Policy of the Company aimed at minimizing the adverse impact of the power grid facilities on the environment, the environmental safety of Saint Petersburg and the Leningrad Region. 2. The environmental risks are reduced by a long-term prospective program to replace the oil circuit breakers in 6-110 distribution grids to the vacuum and gas-insulated ones and to install reclosers, which reduces the process turnover of the dielectric oils and prevents them from leaking into the environment, including the reduction of the costs of oil disposal. 3. The maximum permissible emission, wastewater, timely waste removal are controlled at the production sites.	
18.	Investment risk	1. Risk of not meeting the commissioning schedules for the facilities under the investment program, including due to a failure to fulfill or a delay in fulfillment of the contractors' and suppliers' obligations. 2. Risk of application of provisions (sanctions) by the regulatory bodies that stipulate the reduction of the tariff revenue if the investment program is not implemented. 3. Risk of not reaching the target effect of reduction of the specific investment expenses in line with the Russian Power Sector Development Strategy with respect to the	1. Subject to the applicable laws, the Ministry of Energy of Russia approved the adjusted investment program of Lenenergo, PJSC for 2016-2020 (Order No. 16@ dd. December 2, 2019). 2. Monitoring of the investment program and its funding, analysis of the causes for the deviation of the actual parameters from the planned ones. 3. Improvement of the quality control and management system for the fixed assets construction processes when implementing the investment program. 4. Continued control of the price of 1 km and 1 MVA construction.	

No.	Risk	Description	Effect Minimization Procedures	Risk Significance Assessment and Behavior Over Time, yoy
		benchmark for the investment expenses reduction, due to the fact the expenses for the imported materials take a certain part of the investment expenses structure, and due to the growth of prices of the primary materials.	5. Complaint handling with respect to the contractors who fail to fulfill their obligations. 6. In order to reduce the dependency on the imported equipment, process units, components, etc., the Company implements an import phasing out action plan.	

Significance assessment

Tariff regulation risks	Risk of electric power transmission scope reduction
Investment risk	Grid connection risks
Environmental risks	Risks of growth of the overdue and bad receivables
Operational risks	Risks related to the political and economic situation in the country and region (area)
Strategic risk	Risks related to the geographical peculiarities of the country or area
Reputational risk	Risks related to the possibility of conflicts, introduction of a state of emergency, or strikes in the country(ies) or the area
Court practice change	Currency risks
Risks related to the tax legislation change	Risks related to the interest rates change
Legal risks	
Inflation risks	
Risk Assessment	

In order to guarantee the RMS is effective and complies with the objectively changing requirements and conditions, the Company's internal auditor assesses the RMS efficiency.

In 2019, the RMS was also independently assessed and declared "moderately efficient" by the independent expert. The Strategy and Development Committee (Minutes No. 109 dd. June 3, 2019) and the Board of Directors (Minutes No. 2 dd. July 1, 2019) reviewed the results of the RMS independent assessment.

In order to improve the RMS and its efficiency subject to the instruction of the Company's Management Board (Minutes No. 166 dd. April 20, 2018) and the Audit Committee (Minutes No. 95 dd. May 7, 2018), the Company drafter the Action Plan (Road Map) for the internal control and risk

management system improvement for 2018-2019 (approved subject to Order No. 265 dd. June 9, 2018). The principal RMS measures were taken in 2018.

In 2019, based on the results of the independent assessment of the RMS, a Risk Management System Development and Upgrading Plan of Lenenergo, PJSC was drafted and approved by the Board of Directors (Minutes No. 33 dd. December 31, 2019). The Plan includes the measures taken in Rosseti Group in general. Principal RMS development steps in 2020:

- Adjustment of the new risk identification, assessment, certification, and management methodology subject to the requirements set out in the standards of Rosseti, PJSC.
- Increasing the importance of risk management procedures, development of the risk awareness culture.
- Organization of the systematic risk management training of the key decision-making employees, as well as other staff - the risk management system participants.

4.3. Anti-Corruption Policy

Federal Law No. 273-FZ dd. December 25, 2008 On Combatting Corruption is the essential regulation with respect to the fight against corruption.

The Board of Directors of the Company adopted Lenenergo, PJSC Anti-Corruption Policy as an internal document (Minutes No. 23 dd. February 27, 2017). The Anti-Corruption Policy is a set of interconnected principles, procedures, and specific measures aimed at combatting and preventing corruption in the Company.

The goal of the Policy is to form a uniform approach to ensuring compliance with Art. 13.3 of the Law On Combatting Corruption where it relates to the obligations of Rosseti, PJSC and its SDCs to design and take measures to prevent and fight corruption: to identify and eliminate the causes for corruption (preventive measures); to identify, prevent, and eliminate corruption and other offenses; to mitigate and/or eliminate the consequences of corruption and other offenses.

The Lenenergo, PJSC employees, regardless of the position and duties, as well as partners and contractors of Rosseti, PJSC and its SDCs, and other persons due to the mutual obligations existing between them and Lenenergo, PJSC (including the anti-corruption obligations and other anti-corruption agreements) are the main groups affected and governed by the Anti-Corruption Policy.

Local Regulations Enacted in 2019 in Order to Comply with the Federal Anti-Corruption Laws

In 2019, Lenenergo, PJSC updated the internal documents aimed at preventing and combatting corruption in line with the applicable Russian laws, and the documents that set out the procedure for identification and resolution of the pre-conflicts of interest of the Lenenergo, PJSC and its SDCs' employees:

- 2019 Corruption Combatting Plan of Lenenergo, PJSC (adopted by Lenenergo, PJSC Order No. 57 dd. February 5, 2019).
- Order No. 134 dd. March 23, 2017 *On Improvement of the Corruption Prevention Procedures: Prevention and Resolution of the Conflict of Interest* (as amended by Order No. 170 dd. April 5, 2019).
- Order No. 185 dd. April 12, 2019 *On Organizing the Contractors' Chain of Ownership Disclosure*.
- The Board of Directors of the Company approved Lenenergo, PJSC Insider Information Regulation (Minutes No. 45 dd. June 6, 2019).

For documents adopted and approved in order to prevent and combat corruption go to Anti-Corruption Policy at: http://lenenergo.ru/about/corruption (publicly available).

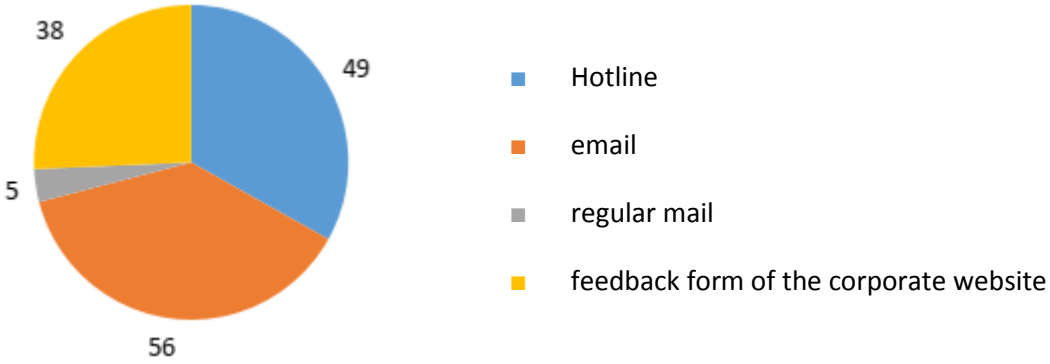
Information on the Possible Corruption and other Abuse Cases in the Company

Subject to the Guidelines for Reception, Review, and Handling of Reports (from Lenenergo, PJSC employees, contractors, and other individuals or entities) on the possible cases of corruption (approved by Lenenergo, PJSC Order No. 636 dd. November 16, 2017), the reports and complaints of the possible corruption cases are controlled in 2019.

Reports of the possible corruption facts (hereafter referred to as the Reports) are registered in a log. Subject to the requirements of the Company's executive documents, the Reports are verified, and if the facts of corruption are actually discovered, an investigation is initiated when necessary, and actions are designed to prevent corruption offences.

Overall, in 2019, Lenenergo, PJSC recorded 148 Reports.

Reports on Possible Cases of Corruption



Review results:

- 35 reports were related to the fulfillment of the contractual obligations for grid connection
- 6 reports were related to making a capacity increase contract
- 16 reports were related to a possible illegal connection to the grid
- 91 reports from the citizens and entities were related to other issues, including interruptions in power supply, scheduled power supply shutdown, execution of the documents for a grid connection contract.

Questions were also sent to the economic security, grid connection departments, and the contact center as to which departments should carry out inspections and react to the issues.

The staff of the Anti-Corruption Compliance Procedures Office verified the information on the possible corruption offences, but did not discover any illegal activity of corruption nature or other offences.

Identification and Resolution of Conflict of Interest

Lenenergo, PJSC has a system in place to prevent, promptly identify, and resolve the conflict of interest, as well as to coordinate the actions taken by employees if the conflict of interest occurs, or if there is a possibility of its occurrence. The system includes, among others, the procedures for disclosure of information on the conflict of interest existence:

- initial declaration of a conflict of interest upon employment
- check of the job applicants' declarations of conflict of interest when they apply to fill a vacancy or to transfer to another position
- annual disclosure of the occurrence of conflicts of interest as of December 31 of the relevant year
- employees' declaration upon occurrence of a personal interest in line of duty that may create or creates a conflict of interest.

Subject to Rosseti, PJSC Order No. 35 dd. March 4, 2015, and the Conflict of Interest Resolution Regulation of Lenenergo, PJSC, the Company has implemented the annual conflict of interest declaration measures for the Lenenergo, PJSC and its SDCs' employees in due time and in full scope. A subsystem of electronic declaration was used, i.e. the Automated System for Analysis and Gathering of Beneficiaries Information.

Results of the Conflict of Interest Declaration Campaign in 2019

Item No.	Check Result	Checked/Identified
1.	Employees required to make declarations,	**2,148**
	including,	
1.1.	- having already made a declaration.	**2,050**
2.	Employees who have not made a declaration,	**98**
	of those:	
2.1.	- on a maternity leave/ long-term sick leave	**64**
2.2.	- dismissed/quitted as of the moment of submitting the declarations	**23**
2.3.	- others.	**1**
3.	Cases of conflict of interest identified,	**0**
	including,	
3.1.	- resolved as of the date of the meeting of the Corporate Ethics and Conflict of Interest Committee.	**0**
4.	Pre-conflict situations identified,	**2**
4.1	- resolved as of December 31, 2019.	**2**

Lenenergo, PJSC has the Regulation on Declaration of Information on Property, Income, and Property Obligations for the officers of the Company and its SDCs. The Regulation sets out the procedure for forming, presenting, analyzing, and processing, as well as submitting to Rosseti, PJSC the income, property, and obligations statements from the employees and relatives of the employees of the Company and its SDCs.

In 2019, certain checks were carried out to handle the declarations from 102 employees and 414 relatives.

In order to comply with the requirements on prevention of the conflict of interest or a pre-conflict situation, Lenenergo, PJSC continuously carries out background checks on the job applicants and employees applying for a transfer.

The Company prepared 492 opinions on existence/absence of the conflict of interest based on the candidates' checks in 2019.

Combatting and Prevention of Corruption When Interacting with Partners and Contractors

Lenenergo, PJSC builds relations with partners, contractors, and third parties in line with the anti-corruption principles and standards. The Company conducts tender procurements following the objective criteria of selecting suppliers, and takes respective awareness-raising actions.

In order to comply with the anti-corruption laws of Russia and improve the anti-corruption activity, the Company designed and introduced a single mechanism for the verification of the information on the chain of ownership of the Company's contractors, including the beneficiaries (including the ultimate beneficiaries), for work with personal data when disclosing the information on the contractors' chain of ownership, and for compliance with the anti-corruption standards of procurements and conflict of interest management system.

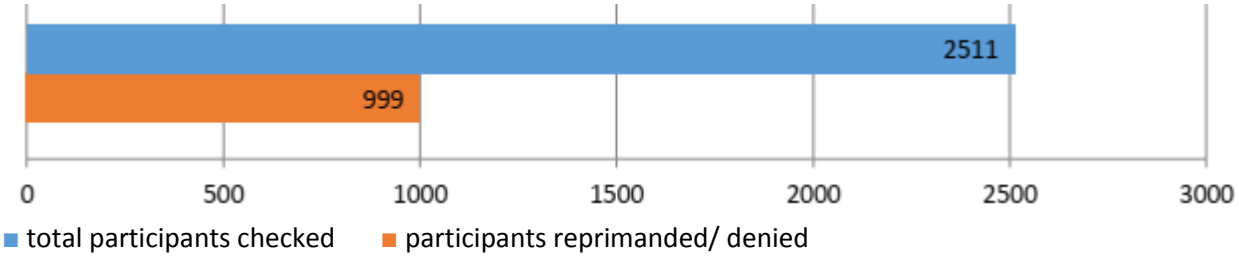
Subject to the Company's executive documents, the Company checks the procurement participants' or contractors' disclosure of information contained in the submitted statements and documents, its

completeness, accuracy, and compliance with the requirements in place, in order to discover indication of affiliated status, conflict of interest, pre-conflict situations, and other abuse.

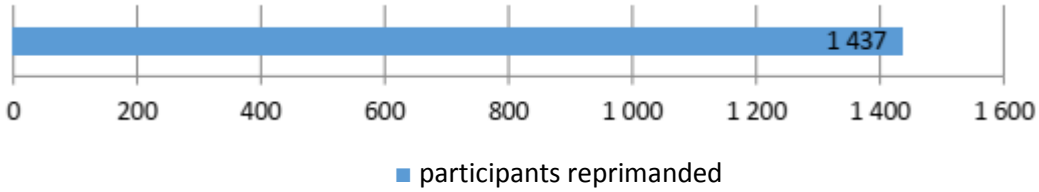
In 2019, at least 999 large procurements and 2,511 procurement participants went through the checking procedures and approval. 316 participants were reprimanded or denied further participation in the procurement procedures due to violations of the Uniform Procurement Standard of Rosseti, PJSC.

At least 1,437 procurement transactions were checked with respect to their compliance with the anti-corruption laws based on the simple and small procurements' materials.

Approval of the Participants / Potential Participants of Large Procurements



Approval of the Participants / Potential Participants of Regular or Small Procurements



The Company reviews contracts on a regular basis with respect to their compliance with the requirements set for disclosure of information on the contractor's owners (including beneficiaries, and ultimate beneficiaries). The information is entered into the Automated System for Analysis and Gathering of Contractors Information.

Participation in the work groups and collective initiatives for combatting and preventing corruption (interaction with the government agencies and civil public institutions when implementing the Anti-Corruption Policy)

Within the anti-corruption activity regulated by the applicable Russian laws, the Company takes part in the collective anti-corruption initiatives.

Subject to Par. 2.13.2 of the Anti-Corruption Policy of Rosseti, PJSC and its SDCs, Lenenergo, PJSC joined the Anti-Corruption Charter of Russian Business (Certificate No. 2023 dd. June 1, 2015).

In order to confirm the compliance with the requirements of the Anti-Corruption Charter of Russian Business, the anti-corruption compliance office drafted and sent to the Chamber of Industry and Commerce of Saint Petersburg a Declaration on Compliance with the Anti-Corruption Charter of Russian Business.

The result of the work carried out was the confirmation from the Russian Chamber of Industry and Commerce of Lenenergo, PJSC compliance with the requirements set by the Charter, and the renewal of Lenenergo, PJSC inclusion in the Consolidated Register of Members of the Anti-Corruption Charter of Russian Business.

Lenenergo, PJSC takes active part in the operations of the Work Group of Rosseti, PJSC that aims at improving the methodological support of anti-corruption measures (established under Rosseti, PJSC Instruction No. 244-r dd. June 20, 2016). In 2019, the Work Group held seven meetings.

Anti-Corruption Training of Personnel

In order to increase the efficiency of educational and other measures intended to prevent corruption, Lenenergo, PJSC designed and produced information boards addressing the anti-corruption issues, and continuously ensures those boards are filled with the appropriate and up-to-date information on the requirements of the anti-corruption laws, the general principles of the Anti-corruption Policy, the number for a confidential hotline, and other available methods of reporting the cases of corruption, as well as other information required to ensure the lawful behavior of the employees. Such boards are placed in the offices of the branches, subsidiaries, and customer service centers.

Within the annual executive workshop meeting with the representatives of the SDCs of Rosseti, PJSC, the Lenenergo, PJSC employees responsible for taking corruption combatting measures have undergone the upgrading training at Saint Petersburg Security Academy (autonomous non-profit further vocational training institution) under the further vocational training program of Current Corruption Prevention and Combatting Issues in the Power Sector.

Subject to Par. 7.4 of the 2019 Corruption Combatting Plan of Lenenergo, PJSC, two of the Company's employees underwent further vocational training in Corruption: Combatting and Investigating, and Combatting Corruption.

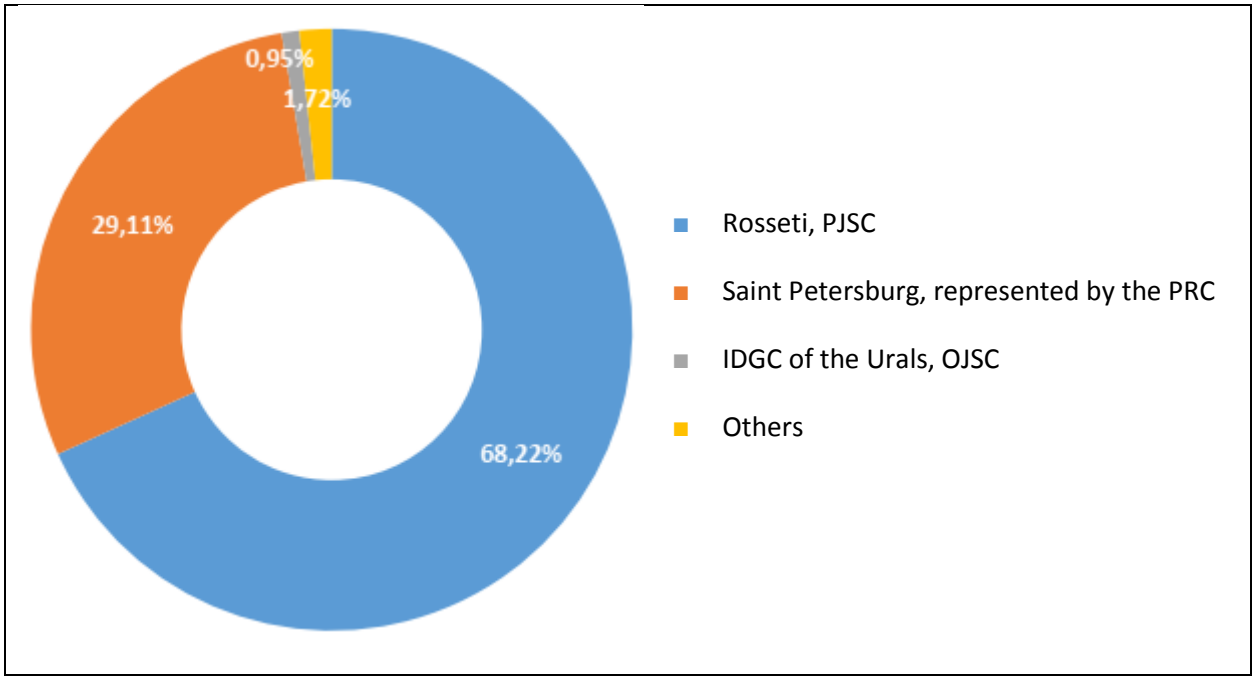
The anti-corruption compliance experts continuously consult the Company's employees on issues related to the corruption prevention and combatting. At least 380 consulting sessions were carried out with respect to the employees' conflict of interest declaration in 2018.

4.4. Securities

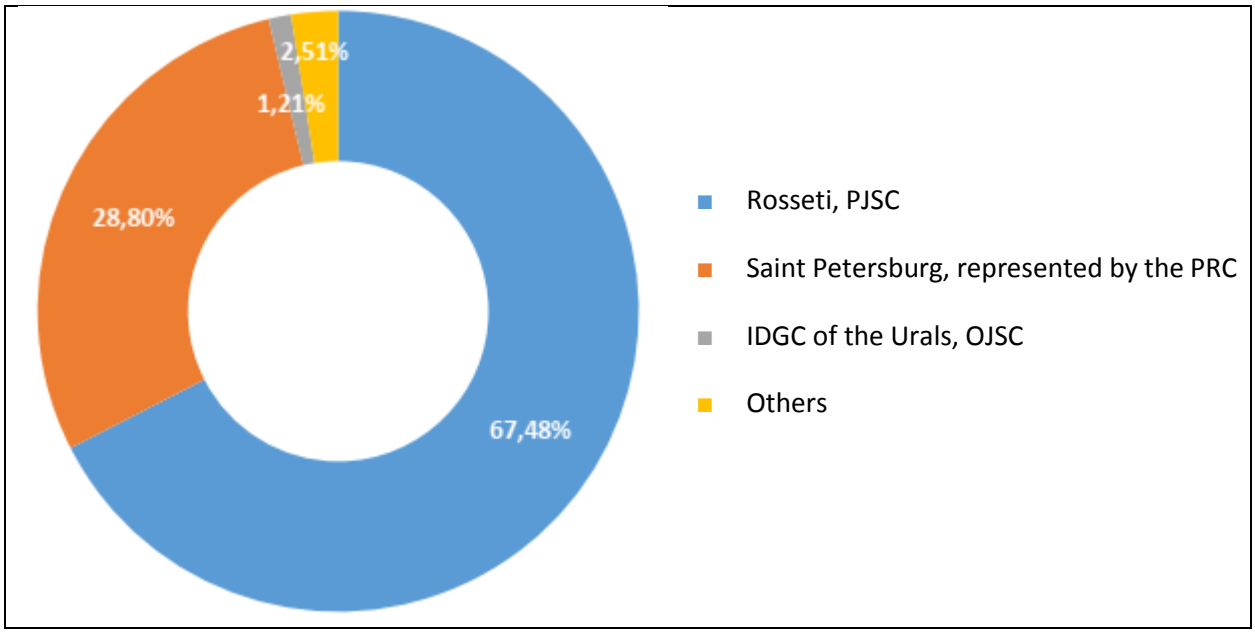
As of December 31, 2019, the authorized capital of Lenenergo, PJSC is RUB 8,617,049,631.05, and is divided in 8,523,785,320.05 ordinary shares and 93,264,311 preference shares (with nominal value of RUB 1 each).

The Company has 12,017,484,970 additional authorized shares (ordinary shares with nominal value of RUB 1 each). The additional authorized shares provide the same rights as the issued ordinary shares.

Shareholding Structure: Holders of Over 1% of Ordinary Shares*



Shareholding Structure: Holders of Over 1% of the Capital*



Structure of the share capital is provided as of December 31, 2019.

The Share Capital Structure as of December 31, 2019

Shareholders	Number of Shareholders	Share of the Authorized Capital
Entities	166	98.7209
Individuals	26275	1.2765
Joint holding	43	0.0026
Total	26484	100

Brief History of the Company's Securities Issue

Brief history of the company's securities issue	State Registration Number	Number of shares
First Issue	**72-1p-191**	**2,951,852**
Issue was due to privatization of the Company under Order No. 923 dd. August 15, 1992 of the President of Russia. The issue was registered by the Financial Committee of the Saint Petersburg City Administration on February 1, 1993. The following shares were placed:		
Ordinary shares		2,519,852
Preference shares		432,000
Nominal value of each security within the issue: RUB 1,000 (pre-revaluation). Date of the state registration of the issue report: September 6, 1999.		
Additional Issue (1)	**72-1-2367**	**894,411,156**
The Saint Petersburg Finance and Economics Committee registered the issue on November 29, 1995. The following additional shares were placed:		
Ordinary registered shares		763,515,156
Preference shares, Class A		130,896,000
Nominal value of each security within the issue: RUB 1,000 (pre-revaluation). Date of the state registration of the issue report: August 9, 1999.		
Issues Consolidation The securities from the different issues were consolidated subject to Decree No. 03-1269/r dd. June 27, 2003 by the Federal Commission on Securities Market of Russia. Nominal value of each security within the issue: RUB 1. The authorized capital reduced as a result of shares redemption subject to the resolution of the General Meeting of Shareholders on reorganization held on April 8, 2005 (report on the redemption dd. August 1, 2005). Following the shares redemption, the authorized capital included:		
Ordinary registered shares	1-01-00073-A	691,854,144
Preference shares, Class A	2-01-00073-A	93,264,311

Additional Issue (2)*	**1-01-00073-A-002D**	**234,167,535.04**
The Financial Market Service of the Bank of Russia registered the issue on October 25, 2007. The following additional shares were placed:		
Ordinary registered shares		234,167,535.04
Nominal value of each security within the issue: RUB 1. Date of the state registration of the issue report: December 12, 2008. Three months after the state registration of the report on additional issue of ordinary registered shares of Lenenergo, OJSC the individual No. of the additional issue: 001D (state registration number: 1-01-00073-A-001D) was cancelled (Notice No. 09-EK-03/6679 dd. April 1, 2009).		
Additional Issue (3)**	**1-01-00073-A-002D**	**209,039,634.04**
The Federal Financial Markets Service of Russia registered the issue on February 21, 2012. The following additional shares were placed:		
Ordinary registered shares		209,039,634.04
Nominal value of each security within the issue: RUB 1. Date of the state registration of the issue report: September 18, 2012. Three months after the state registration of the report on additional issue of ordinary registered shares of Lenenergo, OJSC the individual No. of the additional issue: 002D (state registration number: 1-01-00073-A-002D) was cancelled (FFMS of Russia's Notice No. 13-EK-03/3554 dd. February 7, 2013).		
Additional Issue (4)**	**1-01-00073-A-003D**	**926,876,304**
The Financial Market Service of the Bank of Russia registered the issue on September 10, 2013. The following additional shares were placed:		
Ordinary registered shares		523,753,525.97
Nominal value of each security within the issue: RUB 1. Date of the state registration of the issue report: October 16, 2014. Three months after the state registration of the report on additional issue of ordinary registered shares of Lenenergo, OJSC the individual No. of the additional issue: 003D (state registration number: 1-01-00073-A-003D) was cancelled (Bank of Russia's Notice No. 52-4/290 dd. January 16, 2015).		
Additional Issue (5)***	**1-01-00073-A-004D**	
The Bank of Russia registered the issue on December 3, 2015. The following additional shares were placed:		
Ordinary registered shares		6,864,970,481
Nominal value of each security within the issue: RUB 1. Date of the state registration of the issue report: January 2, 2017. Three months after the state registration of the report on additional issue of ordinary registered shares of Lenenergo, OJSC the individual No. of the additional issue: 004D (state registration number: 1-01-00073-A-004D) was cancelled (Bank of Russia's Notice No. 28-1/1611 dd. May 5, 2017).		

* The main objective of Lenenergo, OJSC issue of additional shares in 2008 was to establish a joint grid company in Saint Petersburg and to improve both the technological and economic reliability using the technically integral and interconnected grid equipment.

** The main objective of Lenenergo, OJSC issue of additional ordinary shares in 2012-2014 was financing of the 6-110 kV cable lines retrofitting program in Saint Petersburg.

*** The additional ordinary shares were issued in 2015-2017 within the framework of Lenenergo, PJSC financial recovery and consolidation of Lenenergo, PJSC grid assets.

Principal Features of Lenenergo, PJSC Shares

Type	Ordinary Uncertificated Registered Shares	Preference Uncertificated Registered Shares, Class A
State registration No.	1-01-00073-A	2-01-00073-A
Shares issued	1,658,814,839.05	93,264,311
Nominal value	RUB 1	RUB 1
Exchange	Moscow Exchange, PJSC	Moscow Exchange, PJSC
Trading Began On	July 16, 2003	July 16, 2003
ISIN	RU0009034490	RU0009092134
Stock code	LSNG	LSNGP
Level	III	III

Listing date	January 31, 2017	January 31, 2017
Stock indices of the exchange	MICEX BMI MICEX PWR MICEX SC	MICEX BMI MICEX PWR MICEX SC

Lenenergo, PJSC Shares' Principal Trading Parameters*

	2017	2018	2019	2019 over 2018, %
Ordinary shares				
Minimum price, RUB	3.76	4.4	5.21	18.4
Maximum price, RUB	6.20	6.95	7.5	7.9
Price at the end of the year	*4.8*	*5.29*	7.04	33.1
Traded value, RUB	540,268,420	422,066,769	716,841,386	69.8
Number of transactions	41,761	35,752	37,890	6.0
Preference shares				
Minimum price, RUB	40	80.4	92.72	15.3
Maximum price, RUB	93	122	132.35	8.5
Price at the end of the year	81.4	93.9	122.3	30.2
Traded value, RUB	4,889,875,845	7,805,883,355	5,832,967,447	-25.3
Number of transactions	142,335	187,032	202,576	8.3

*According to the trading data of Moscow Exchange, PJSC (http://www.moex.com/).

In 2019, Lenenergo, PJSC shares movement was positive. Ordinary shares were traded stably on the positive track up until September, when the investors' interest spiked. As a result, the price grew exponentially over three trading days and continued growing until the end of the year. The positive trends in the ordinary shares behavior over the year were due to the growing long-term attractiveness of the Company because of the strong financial performance maintained. Furthermore, the information background and investors' expectations in Q4 2019 with respect to the reorganizational plans of the Lenenergo, PJSC Group also supported it.

Preference shares traditionally showed rapid growth over the year, excepting a short post-dividend drop in July-August. The increased dividend yield due to the fact the Company maintains its dividend policy (under which the holders of preference shares are paid dividend of 10% of the net profit under the RAS) remains the principal idea in this aspect.

The MICEX BMI and the MICEX PWR in 2019 also grew and maintained their position in the growth area practically for the entire duration of the year. This was mainly due to the inflow of "fresh" funds from a large range of small investors, as well as winning back on the foreign platforms. By the end of 2019, the MICEX PWR grew by 25%, and IMOEX - by 29%.

Key Multipliers for the Lenenergo, PJSC Ordinary Shares

	2017	**2018**	**2019**
Earnings per share (EPS)*, RUB	1.46	1.10	1.3
P/E**	3.30	4.81	5.43

*Calculated as follows: (net profit for the report year calculated under the RAS — the amount of dividend accrued on the preference shares for the report year (for 2019: subject to the Lenenergo, PJSC dividend policy)) / the number of ordinary shares in circulation.

**Calculated as follows: the average weighted price of one ordinary share as of the end of the report year / earnings per share.

Key Events that Affected the Shares' Price, According to the Company

Date	Event
February 22, 2019	Lenenergo, PJSC published its 2018 financial statements prepared subject to the RAS

March 21, 2019	Lenenergo, PJSC published its 2018 financial statements prepared subject to the IFRS
April 29, 2019	Lenenergo, PJSC published its financial statements for Q1 2019 prepared subject to the RAS
May 24, 2019	Lenenergo, PJSC published its financial statements for 3 months of 2019 prepared subject to the IFRS
May 20, 2019[8]	The Board of Directors of Lenenergo, PJSC recommended the General Meeting of Shareholders to decide on payment of dividend for 2018 on ordinary and preference shares
June 21, 2019[9]	The Annual General Meeting of Shareholders of Lenenergo, PJSC decided on paying out the dividend for 2018
July 3, 2019	Lenenergo, PJSC presented the Uniform Corporate Identity Standard of Rosseti, PJSC and the Rosseti Group
July 26, 2019	Lenenergo, PJSC published its financial statements for H1 2019 prepared subject to the RAS
August 23, 2019	Lenenergo, PJSC published its financial statements for H1 2019 prepared subject to the IFRS
October 25, 2019	Lenenergo, PJSC published its financial statements for 9 months of 2019 prepared subject to the RAS
November 28, 2019	Lenenergo, PJSC published its financial statements for 9 months of 2019 prepared subject to the IFRS
December 13, 2019[10]	The Board of Directors of Lenenergo, PJSC decided on convening an Extraordinary General Meeting of Shareholders on January 24, 2020

Trading Prices and Traded Value of Ordinary Shares at Moscow Exchange, PJSC Over Time, 2019

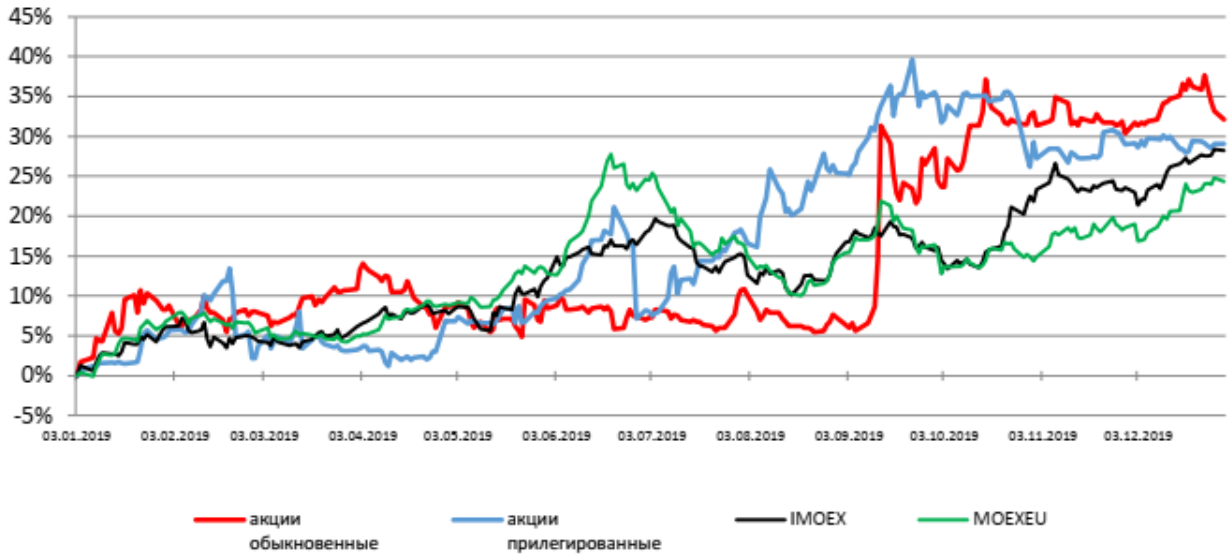
Trading scope, RUB	Ordinary Shares, RUB

[8] Date of the Minutes
[9] Date of the Minutes
[10] Date of the Minutes

Trading Prices and Traded Value of Preference Shares at Moscow Exchange, PJSC Over Time, 2019

Trading scope, RUB	Ordinary Shares, RUB

Lenenergo, PJSC Shares Listed Prices Over Time, Compared to MICEX BMI, and MICEX PWR Over Time at Moscow Exchange, PJSC, in 2019



Ordinary shares	Preference shares	IMOEX	MOEXEU

Lenenergo, PJSC Shares, MICEX BMI, and MICEX PWR Over Time at Moscow Exchange, PJSC

	December 31, 2017	December 31, 2018	December 31, 2019	2019 over 2018, %
MICEX BMI, p.p.	2109.74	2369.17	3045.87	28.6%
MICEX PWR, p.p.	1816.3	1608.85	2010.99	25.0%
Ordinary shares (LSNG)*	4.80	5.29	7.04	33.1%
Preference shares (LSNGP)*	81.4	93.9	122.3	30.2%

*Closing price at Moscow Exchange, PJSC

Capitalization

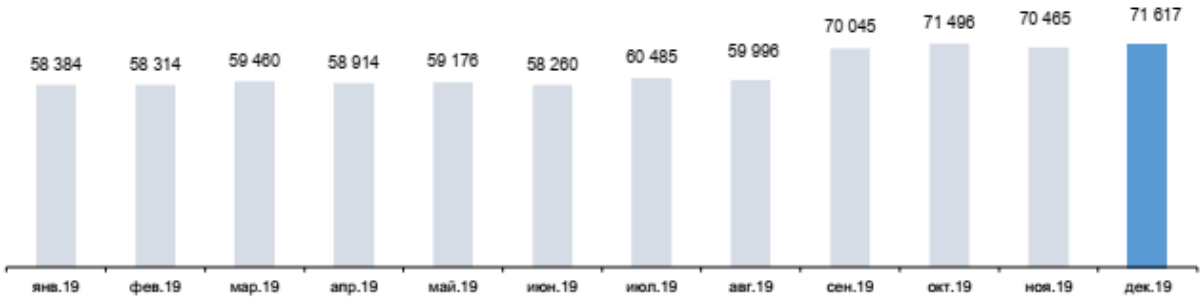
Here and further in the text, the capitalization estimation is based on the average weighted price for the shares at Moscow Exchange, PJSC as of the last trading day of the report period.

Lenenergo, PJSC Capitalization at the Moscow Exchange, PJSC Over 2017-2019

	2017	2018	2019	2019 over 2018, %
Capitalization, RUB mn*	48,554	53,682	71,617	33.4

*The capitalization was calculated based on the average weighted price of shares at Moscow Exchange, PJSC.

Lenenergo, PJSC Capitalization Over Time, RUB mn



Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

Capitalization of the Distribution Grid Entities at Moscow Exchange, PJSC in 2019, RUB bn

Капитализация на 31.12.2019	Capitalization as of December 31, 2019
Россети	Rosseti
МОЭСК	MOESK
МРСК Центра	IDGC of Center
Ленэнерго	Lenenergo
МРСК Центр и Приволж	IDGC of Center and Volga Region
МРСК Урала	IDGC of the Urals
МРСК Волги	IDGC of Volga
МРСК Сибири	IDGC of Siberia
МРСК С-З	IDGC of the North-West
МРСК СК	IDGC of the North Caucasus
МРСК Юга	IDGC of South
ФСК ЕЭС	FGC UES

GDR Program

The Russian Federal Commission on Securities Market issued a permit for trading of ordinary and preference shares of Lenenergo, PJSC outside Russia on September 30, 2008. Abroad, 74,206,626 ordinary shares and 19,585 preference shares of the Company are permitted for trade, which amounts for 12.0% of the overall number of shares placed (as of the permit date).

In Q4 2008, Lenenergo, OJSC opened four sponsored programs of depositary receipts (GDR) for the shares of Lenenergo, OJSC with a right to be traded in Central Europe and the USA. The GDRs were issued within the programs under Rule 144A and Regulation S. The GDR depositary of Lenenergo, OJSC is The Bank of New York Mellon.

In October 2018, Lenenergo, PJSC received a notice on the depositary's intent to stop the GDR program. Thus, all the GDRs were converted into shares, or sold. The program closing was due to the localization of the demand for Lenenergo, PJSC securities to the Russian market.

Profit Distribution and Dividend Policy

The Lenenergo, PJSC dividend policy is set out in the Dividend Policy Regulation designed in compliance with the applicable laws, the Articles of Association of Lenenergo, PJSC, and the Lenenergo, PJSC Corporate Governance Code recommendations, as well as other internal documents. The regulation determines the general principles of the dividend policy of Lenenergo, PJSC, the terms of payment and the amount of dividend to be paid out, the procedure for deciding on the payment of dividend, the procedure for determining the list of people entitled to receive dividend, the procedure for, terms and form of the dividend payment, the dividend policy information disclosure, and the Company's liability for failure to pay the dividend.

The dividend policy of Lenenergo, PJSC is a set of principles and methods used by the Company to estimate the proportion between the capitalized portion of the Company's profit and the portion that is paid out as dividend, as well as a system of principles used to determine the procedure for and terms of dividend payment and to specify the Company's liability in case it fails to fulfill its obligation to pay dividend. The policy is based on maintaining the balance between the Company's interests and the interests of its shareholders when determining the amount to be paid as dividend, and on strict observation and respect of the shareholders' rights subject to the applicable Russian laws, the Articles of Association, and the internal documents of the Company. The dividend policy aims to improve the Company's investment attractiveness and the growth of its market capitalization.

The Lenenergo, PJSC dividend policy is based on the following principles:

- Dividend is calculated out of the profit, without provision for the revaluation of financial investments.
- A certain specific financial and technical position of the Company is to be maintained (implementation of the investment program), as well as the Company's development prospects.
- The dividend accrual and payment must be in compliance with the Company's approved practice, the Russian laws, and the best corporate conduct standards.
- The dividend payment must maintain the best possible balance between the interests of the Company and of its shareholders.
- The Company needs to improve its investment attractiveness and capitalization.
- The Company ensures the transparency of the mechanism of the dividend calculation and payment.
- The dividend on the ordinary shares is only paid out when the dividend on the preference shares is paid out in full subject to the Company's Articles of Association (if the Company has preference shares).

The Board of Directors determines the recommended amount of dividend to be paid based on the financial performance results. The Board of Directors takes effort to ensure the upward trend in the dividend payments to the shareholders.

The Company provides for the dividend policy information disclosure by publishing the Lenenergo, PJSC Dividend Policy Regulation and all amendments thereto on the corporate website and providing users with permanents access to it.

Profit Distribution in 2017-2018*

		2016 (AGM 2017)	2017 (AGM 2018)	2018 (AGM 2019)
Retained profit, TOTAL, RUB thousand, including:		7,561,315	12,560,998	10,386,223
Reserve fund, RUB thousand		378,066	628,050	102,193
Profit set aside for development, RUB thousand		5,292,602	9,512,497	8,945,364
Dividend, RUB thousand		1,890,647	2,420,451	1,338,666
Recovery of loss brought forward, RUB thousand		0	0	
For dividend,	RUB thousand	1,890,647	2,420,451	1,338,666
	% of the net profit	25	19.3	12.9
Dividend on an ordinary share, RUB		0.1331	0.1366	0.0352
Dividend on a preference share, RUB		8.107405	13.4682	11.1364

*Information on the profit distribution is provided according to the resolutions of the Annual General Meetings of Shareholders.

AGM 2017 (for 2016) - AGM Minutes No. 1/2017 dd. June 14, 2017

AGM 2018 (for 2017) - AGM Minutes No. 2/2018 dd. June 13, 2018

AGM 2019 (for 2018) - AGM Minutes No. 1/2019 dd. June 21, 2019

Subject to the Articles of Association of the Company, the annual general meeting of shareholders will decide on the distribution of the 2019 profit.

Information on the Dividend Accrued, RUB

Income Type	**for 2016 (2017 AGM)**	**for 2017 (2018 AGM)**	**for 2018 (2019 AGM)**
on an ordinary share	0.1331	0.1366	0.0352
on ordinary shares, total	1,134,515,826.1	1,164,349,074.7	300,037,243.27
on a preference share	8.107405	13.4682	11.1364
on preference shares, total	756,131,541.3	1,256,102,393.4	1,038,628,673.02

Information on the Paid Dividend Amounts in 2017-2019

Income Type	**for 2016 (2017 AGM)**	**for 2017 (2018 AGM)**	**for 2018 (2019 AGM)**
Ordinary shares, RUB	1,134,236,208.07	1,164,094,472.10	299,839,463.88
Preference shares, RUB	729,726,821.05	1,208,593,776.05	1,001,551,643.31

Reasons for the Declared Dividend Not Being Paid in 2016-2018:

- persons included in the dividend list did not provide accurate and full information required for the dividend payment

Dividend Yield of Lenenergo, PJSC Shares

		2017	**2018**	**2019**
Payout Ratio*, %	ordinary shares	15	9.3	2.9
	preference	10	10	10.0

	shares			
Dividend Yield**, %	ordinary shares	2.76	2.59	0.5
	preference shares	10.06	14.3	9.1

*Calculated as follows: the amount of the accrued dividend for the report year / net profit for the report year, calculated in accordance with the financial statements under the RAS.

**Calculated as follows: dividend on a share in the report period / the average weighted price of a share as of the end of the report year.

Bonds

Bonds in Circulation

	Issue
Securities Type	**Listed bonds, Series BO-05**
Registration No.	4B02-05-00073-A
Issued amount, RUB mn	2,400
Quantity, thousand bonds	2,400
Nominal value, RUB	1,000
Circulation period, years	10
Rate, %	7.80%
State registration of the issue	June 7, 2013
Placement date	July 22, 2015
Redemption/offer date	July 9, 2025 / January 20, 2020
Coupon yield per 1 bond	38.89
Exchange	MICEX
List	Level 3

As of December 31, 2019, Lenenergo, PJSC has MICEX listed bond issues that have not been placed: Series BO-02, BO-03, and BO-04 (identification Nos.: 4B02-02-00073-A; 4B02-03-00073-A; 4B02-04-00073-A) dd. June 7, 2013, with the aggregate value of RUB 16 bn (16 billion bonds with nominal value of RUB 1,000).

In order to improve the Company's financial stability, the Board of Directors approved the 001R Listed Bonds Program on February 20, 2017 (Minutes No. 23 dd. February 27, 2017). 001R are the certificated interest-bearing non-convertible bearer bonds subject to centralized storage with an aggregate nominal value (of all listed bonds issues within the 001R Listed Bonds Program) of up to RUB 35,000,000,000 (thirty-five billion), inclusive. 001R bonds are to be redeemed no later than 10,920 (ten thousand nine hundred twenty) days after the placement of the listed bonds of the Publicly Offered Listed Bonds Program commenced. As of now, the Moscow Exchange decided on issuing identification No. 4-00073-A-001R-02E to the Lenenergo, PJSC Listed Bonds Program.

Events After the Report Date

In January 2020, the coupon rate for the bonded loan Series BO-05 was decreased from 7.80 to 6.50% per annum as a result of the offer.

On February 5, 2020, Lenenergo, PJSC placed listed bonds Series BO-03 and BO-04 for RUB 10 bn at the coupon rate of 6.2% per annum. The circulation period for the bonds is 5 years, an offer option is available after 3 years. The funds obtained from the placement of the listed bonds were fully used to refinance bank loans with higher interest rates within the Company's efforts to optimize the debt portfolio.

On February 5, 2020, the Analytical Credit Rating Agency (ACRA) issued a credit rating of AAA(Ru) on the national scale to the bond Series BO-03 and BO-04.

Information Disclosure and Interaction with the Investments Community

An efficient interaction with the shareholders and the investments community is among the Lenenergo, PJSC's priorities.

Lenenergo, PJSC strives to build a regular and efficient dialog with the investments community in order to maximize the transparency of the Company's operations with a focus on interacting with analysts and investors from both the securities market, and the debt market. The Company actively works with the representatives of the leading rating agencies and credit institutions, since using the market tools and mechanisms to attract funding is one of the strategic priorities of the Lenenergo, PJSC financial policy. The Company endeavors to provide the information requested by the analysts, investors, and minority shareholders as promptly and possible. The Lenenergo, PJSC management is always open to personal meetings, conference calls, and investment conferences attendance.

Lenenergo, PJSC has an active information disclosure policy: apart from the mandatory disclosure subject to the applicable laws, the Company continuously publishes additional materials on its website containing material information for the shareholders and potential investors. For example, the Company prepares IR releases on a quarterly basis that cover the operating and financial performance results (both subject to the RAS, and the IFRS) for the report period. The Company also prepares presentations for the investors on the financial year results (and as necessary). Such presentations contain information on the key results and long-term forecasts, as well as the required comments.

The open and transparent information policy of the Company was highly praised by the members of the professional community: Lenenergo, PJSC annual reports have been awarded three times (reports for 2011, 2012, 2013) for The Best Information Disclosure in an Annual Report of a Company with Capitalization of Under RUB 10 bn. The 2016 annual report won the award for The Best Annual Report of a Company With Capitalization of Under RUB 40 bn; and the 2018 report was The Best Annual Report of a Company With Capitalization of RUB 40 to 200 bn at the annual report awards held each year by Moscow Exchange, PJSC.

SECTION 5. RESPONSIBLE BUSINESS

5.1. HR Management

HR and Social Policy of Lenenergo, PJSC

The key objectives of the HR and Social Policy of Lenenergo, PJSC aimed at ensuring the targets of the Power Sector Development Strategy are reached, are:

- planning the staffing requirements - ensuring there is accurate information on the operative and forecast headcount and qualitative need in human resources required and sufficient for the performance of the Company's tasks
- prompt meeting the required qualification personnel recruitment needs of the Company
- ensuring the productivity and efficiency of the personnel

These key targets are reached through the set of measures in various fields:

- organization design
- headcount management
- staffing and personnel development
- personnel efficiency management (motivation and incentives)
- social benefits and guarantees
- personnel safety and work culture.

Headcount and Personnel Structure

The average headcount in Lenenergo, PJSC in 2019 was 7,256 people, which is 2.1% higher than the parameter of 2018. The average headcount grew due to the employment of the production personnel in the power grid areas.

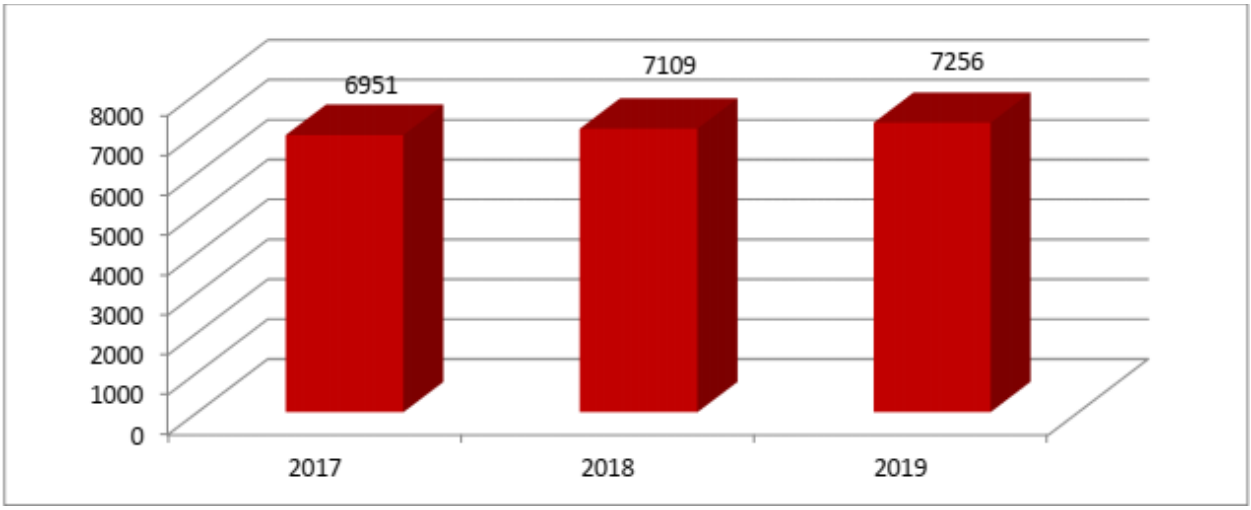


Diagram 5. Average Headcount of Lenenergo, PJSC Over Time, 2017-2019, number of people

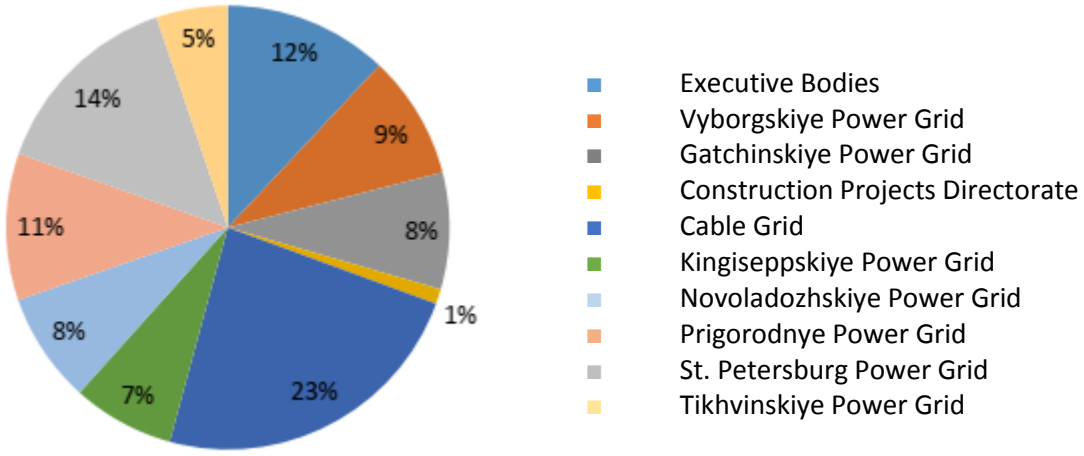


Diagram 6. Lenenergo, PJSC Headcount Breakdown in 2019, %

The staffing of Lenenergo, PJSC in 2019 remained unchanged from 2018 and was 97.4% (-0.2 p.p. from 2017). The active personnel turnover in 2019 was 6.8%.

Analysis of the age composition shows the age breakdown remains practically unchanged. The average age of the employees in 2019 was 44 years, the share of recent graduates of under 35 is approximately 30%.

The Lenenergo, PJSC personnel is highly qualified: 85.3% of employees have professional education and training. The analysis of the staff education shows that over the past three years the share of personnel not having professional education or training consistently decreases: from 15.5% in 2017 to 14.0% in 2019.

Personnel Training and Development, Candidates Pool

Personnel Training and Development

Training is one of the priorities of the Company's HR policy. It is governed by the HR and Social Policy of Lenenergo, PJSC, the Regulation on Personnel Training, and the provisions of the HR Rules for Power Entities of the Russian Federation.

The share of the employees who underwent off-the-job training in 2019 was 84.9% (6,052 people) of the average headcount, which is 9 p.p. (236 people) higher than the result of the previous year.

The highest share of the staff members who underwent such training belonged to the production personnel: 92.7% (5,611 people). In 2018 it was 89.6%. The structure of the employees who underwent training, broken down by categories (administrative and managerial staff, production and auxiliary staff), is provided below.

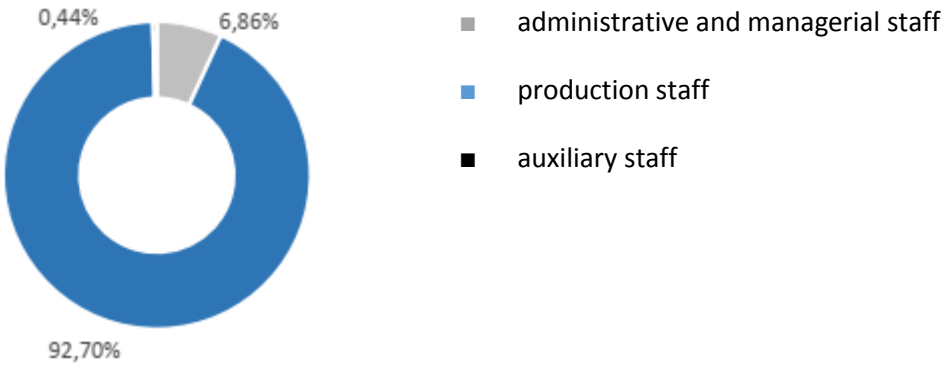


Fig. 32. Structure of the Personnel Having Undergone Off-the-Job Training, Broken Down by Categories, %

In the Training Center of Lenenergo, PJSC in 2019, 981 people underwent professional training and advanced training, which is 15.1% of the overall number of the trained personnel and 1.9 p.p. (270 people) higher that in 2018 (in 2018, 711 people were trained in Lenenergo, PJSC (13.2% of the overall number of the trained personnel)).

Production personnel makes up for the majority of the people trained in the Training Center: 98.2% (963 people).

The key suppliers of educational services, other than the Training Center, are:

- Institute of Industrial Safety, Occupational Health and Safety, and Social Partnership (Private educational institution of further vocational training)
- Training and Methodological Technical Engineering Center (Private educational institution of further vocational training)
- Environmental Training Center (Private educational institution of further vocational training)
- Standardization, Metrology and Certification (Training) Academy (Federal state independent educational institution of further vocational training)
- Rostechnadzor Training and Methodological Profile (State budget institution)
- Driver Training School No. 1 of Saint Petersburg and Leningrad Region Division of the Russian Road-Users Union (Private educational institution of further vocational training)
- Basis Training Center (Private educational institution of further training)
- Saint Petersburg Energy Institute of Advanced Training (Federal state independent educational institution of further vocational training)
- Peter the Great St. Petersburg Polytechnic University (Federal state independent educational institution of higher education).

The Company continued introducing professional standards: in line with the 2019 plan, a set of developing measures was implemented with respect to the workers whose qualifications did not meet the professional standards to formal education and training. Overall, of 803 of such workers 565 were trained (including 544 in 2019).

- In Peter the Great St. Petersburg Polytechnic University

an advanced training program was introduced adapted specifically to the needs of Lenenergo, PJSC: Maintenance and Repair of the Cable Power Lines.

In 2019, the employees of Lenenergo, PJSC took part in the Young Professionals Open Corporate Championship of Professional Skills of Rosseti, PJSC carried out under the WorldSkills methodology in the following categories:

- Operation of cable power lines.
- Maintenance and repair of the power system protection equipment.
- Smart power metering systems.

The Young Professionals Open Corporate Championship of Professional Skills of the Rosseti Group carried out under the WorldSkills methodology in the category of Operation of Cable Power Lines (within the Russian Professional Skills Competition for the Power Grid Repair and Maintenance Personnel) was held at the Lenenergo, PJSC Training Center in Tervolovo (Gatchina Municipal District, the Leningrad Region). Fifteen cable workers from all SDCs of Rosseti, PJSC took part in the Championship together with a partner participant from Gazpromneft, PJSC.

In order to participate in the category of Maintenance and Repair of the Power System Protection Equipment, one representative of Lenenergo, PJSC was sent to IDGC of the Urals, OJSC on a business trip.

In order to participate in the category of Smart Power Metering Systems, two representatives of Lenenergo, PJSC were sent to IDGC of South, PJSC on a business trip.

Handling the Candidates Pool of the Company

Forming of a candidate pool and working with it is a part of career planning process and is a tool for early identification of the most prospective and motivated employees, their professional and managerial skills development and promotion in the Company.

Lenenergo, PJSC forms and expands three types of candidate pools: managerial, youth, and key personnel.

Managerial Candidates Pool and the Key Personnel Pool

By the beginning of 2019, the managerial pool included 94 people, and the key personnel pool was 19 people.

In 2019, the Company continued to implement the candidate pools development program aimed at improvement of personal competences and efficiency of the reserve personnel, and facilitate their career growth. The program includes both standard training methods (workshops, training) and innovative T&D technology, such as mobile training and training bots.

The following were organized and conducted for the participants of the candidate pools development program:

- mobile Efficient Management training aimed at improving the communication competence of the head officers, and managerial and administrative skills of the employees
- training bots in Commitment to Development, Readiness to Change, Commitment to Achieving Results
- Teamwork training aimed at building competences that ensure efficient teamwork and increased overall team productivity
- Strategic Mindset training.

In 2019, 15 employees out of the managerial and key personnel pool were promoted to the higher positions in the Company (including 8 people - to the target positions, and 7 people - to higher non-target positions).

Youth Candidates Pool of Lenenergo, PJSC

In 2019, the members of the youth candidates pool took part in the following training sessions:

- Innovation Potential Development co-creation event
- Project Management training
- Self-Motivation mobile training
- Change Management training
- Efficient Presentation training
- SMART training bot.

The introductory event within the youth candidates pool development program was a business simulation that allowed the participants to get to know each other and understand whom they would want to be in a project team with.

Expert sessions with head officers of the Company were one of the crucial elements of the youth candidates pool development program. The participants discussed the project stages and received feedback. Participation in the expert sessions became a very powerful motivational tool for further project development and personal professional growth.

The implementation of the program led to positive results on many levels. On one hand, it aims to build competences, and, therefore, to give young employees opportunity to demonstrate their leadership position; on the other hand, it contributes to the Company's operations by its initiatives and implemented project changes.

In 2019, 12 employees out of the youth candidates pool were promoted to the higher positions (including 3 people - to the target positions, and 9 people - to higher non-target positions).

In December 2019, the youth candidates pool was updated. Subject to assessments (psychodiagnostics, assessment business simulation), 49 new candidates were recommended for the general candidate pool.

The overall (including the additions) headcount of the youth candidates pool of the Company as of December 31, 2019 was 78 people.

In 2019, the own candidates filled 92 managerial positions (49.2%), including 23 people from the candidate pools (12.3%).

Power Sector Leaders Contest

The Power Sector Leaders became the first target-specific project aimed at creating a pool of high-potential motivated officers of various profiles and management levels in order to promote their careers and professional growth.

In 2019, the first contest was conducted among the heads of grid areas of the Rosseti Group.

Twenty-seven participants entered the contest from Lenenergo, PJSC. The heads of the East and West Grid Areas of the Lenenergo, PJSC's Cable Grid won.

A roadmap was designed for the purpose of their further development and promotion that included: Technological Management comprehensive professional support program, interaction with the assigned mentor, performance at an area-specific position, assistance from the mentor, performance as a consultant for the youth candidates pool project, training of a successor for the current position, participation in industrial conferences and forums, support from a career consultant, etc.).

Youth Policy of the Company

The Company implements its youth policy in three distinct areas: early career guidance for school students, internship training for secondary and higher professional education institutions, and adaptation and development of young specialists employed by the Company.

Work with School Students

1. In 2019, Lenenergo, PJSC successfully continued its work with students of the Science School of the Peter the Great St. Petersburg Polytechnic University. In 2019, 21 students joined the power class.

2. In 2019, the St. Petersburg Polytechnic University held a Russian National Academic Competition for School Students under the Rosseti Group. 151 high school students (Years 9-10) from Saint Petersburg and the Leningrad Region participated in the competition. The winners and runners-up joined the Power Project Crew under the Rosseti Group.

3. Career guidance was offered to the high school students (Years 9-11) from Saint Petersburg and the Leningrad Region along with the power safety lessons and trainings for the primary school students.

Work with Other Education Institution Students

The Company coordinates the interaction between the Rosseti Group and the Peter the Great St. Petersburg Polytechnic University with respect to candidates training and career guidance.

The following entities and institutions are the key partners of the Company with respect to candidates training:

2. higher education:

- Saint Petersburg Mining University (Federal state budget educational institution of higher education)

- Peter the Great St. Petersburg Polytechnic University (Federal state independent educational institution of higher education)

- V.I. Lenin Ivanovo Power Engineering University (Federal state budget educational institution of higher education)

3. secondary education:

- University Polytechnical College at Peter the Great St. Petersburg Polytechnic University.

The following was carried out in 2019 within the Company's operations:

1. 306 students had their internship and undergraduate training at the Lenenergo, PJSC branches; 53 graduates were employed by Lenenergo, PJSC branches. Furthermore, 158 students from 10 partner higher education institutions of Saint Petersburg and other Russian regions and areas worked at the Company's facilities in the 2019 labor season. The Training Center held professional skill competitions for the members of the student teams and conducted an Aviator teambuilding business simulation. The student teams of Lenenergo, PJSC took part in the power sector student teams' Leader Camp, the Russian National Student Teams Rally, and the Russian National Student Labor Season Closing Ceremony for Rosseti Group.

In order to help the recent graduates adapt in the work and professional environment, Lenenergo, PJSC designed and approved an education course in its Training Center for the applied bachelor program students of the St. Petersburg Polytechnical University who study Power Sector and Electrical Engineering in Research and Development (396 academic hours). The program is constructed in such a way that starting from the 3rd year of education the students attend practical courses in the Training Center of Lenenergo, PJSC once a week. During these courses the students decide on their graduation papers' topics. They are provided with double oversight: they have mentors from the Company's employees, and supervisors from the University. The course allows the students to gain experience in solving specific production tasks, to study the production technology, and to acquaint themselves with the equipment used in production.

In 2019, 16 students of the applied bachelor program successfully presented their bachelor theses and completed their 4-year studies. Eight of those students went on to study further under a master program, while four have been employed by the Company. Since September 2019, 19 students of the 3rd year and 17 students of the 4th year study under a dual education program.

2. Thirty students of the 2nd year of education of the University Polytechnical College specializing in power plants, grids, and systems underwent the introductory course for the profession of Category 2-3 Electrician Operating the 0.4-10 kV Distribution Grids.

3. Within the student training program, three high school graduates entered the Peter the Great St. Petersburg Polytechnic University within the designated employer-sponsored quota at the Power Sector and Electrical Engineering program. By the end of 2019, 14 students are studying power sector and electrical engineering within the employer-sponsored quota.

4. The Company offers scholarship support used by 8 students by the end of 2019.

5. The Energostart Program was designed and implemented. Four students studying under secondary vocational education programs have entered into agreements for employer-sponsored education.

Work with Recent Graduates

Lenenergo, PJSC has a Recent Graduates Council aimed at involving and integrating recent graduates in the process of solving corporate tasks and improvement of youth program.

A Chairman presides over the Council. In accordance with the Council structure, a Deputy Chairman is elected at each branch.

The Company actively supports the professional growth of its experts, their gaining the best possible experience, creative growth, and a maximum use of the recent graduates' potential.

The Chairman of the Recent Graduates Council of Lenenergo, PJSC is a member of the Power Sector Youth Council at the Ministry of Energy of the Russian Federation that was established in 2018 and is led by the representative of Rosseti, PJSC.

The Recent Graduates Council is committed to promoting the interests of the youth. The Council works for onboarding, involvement of the experts into the research and development operations, and supports the implementation of the Company's corporate policy.

The recent graduates employed by the Company took part in the following events and projects in line with the Company's youth program:

■ The selection stage of the International Youth Energy Forum of Rosseti, PJSC. One employee of the Company was selected for the Forum within the Rosseti, PJSC team. Recent graduates employed by the Company volunteered for the Forum member teams.

■ The Russian Fuel and Power Sector Technological Development Forecast project (in view of the global tendencies). The topic of the project was Digital Power Sector and Prospects of Development of the Smart Electricity Grids.

■The interactive sessions in Technological Projects and Social Projects of the Russian Energy Week International Forum.

■The Forsage-2019 Russian Forum (with participation in the sector of the Rosseti Group).

■The Forum for Young Workers of Saint Petersburg. The best youth program contest for the enterprises of Saint Petersburg in the category of *The Best Project Designed and Implemented by the Young Workers - the Company's employees won the award for the 8 Safety Points OHS simulation*.

■The Correct Focus video contest aimed to provide career guidance to school students, in two categories: Teamwork, and Expert Master Class. *The Company's employees took the 3rd prize in the Expert Master Class category for the video entitled Electrician at a Power Substation*.

■The MEGA RACE 2.0 athletic and intellectual competition for the Moskovsky District Youth Council Cup (Saint Petersburg) held for the young workers (two teams participated). *One of the teams took the 1st prize*.

■The Orion intellectual challenge (theory of solving the inventive tasks) within the celebrations of 100-year anniversaries of the Moskovsky District of Saint Petersburg and G.N. Chernyshev (the General Designer). *The team of the Company's recent graduate employees took the 2nd prize.*

■The events organized and held within the Saint Petersburg Young Workers Council and the Saint Petersburg Youth Policy Committee (forums, conferences, athletic competitions, roundtables, etc.).

Social Responsibility

The Company is a responsible employer. It pays considerable attention to providing social support to the employees, their relatives and family members, and the retirees.

The management of Lenenergo, PJSC considers creation of conditions that allow for the efficient and productive operations of the employees, their professional growth, and opportunities for good payment to be one of the key social policy objectives.

Social Policy Goals	**Basic Principles and Objectives of the Social Policy**	**Social Policy Areas**
• social protection of the employees	• protecting the employees through the system of benefits and guarantees provided by the state and Lenenergo, PJSC itself	• provision of social benefits and compensations
• improving the production efficiency	• ensuring and supporting the social stability at the Company	• preventive healthcare and health protection
• maintaining the competitiveness of Lenenergo, PJSC	• creating efficient and safe workplaces	• arranging for the healthcare and wellness related vacations for the employees and their family members
• motivating the employees for high productivity that will lead in the improvement of their welfare and living standards	• engaging and hiring qualified workers	• sports events and entertainment
• creating a good social and		• non-state pension provision

psychological environment		
		• work with youth and veterans
		• supporting the retired employees of Lenenergo, PJSC.

The Lenenergo, PJSC Social Policy is built on the implementation of a collective agreement valid through December 31, 2020 setting the rights and obligations of the parties, which is the result of the cooperation between the employer and the professional union aimed at regulating the social and labor relations.

Social Policy Areas and Implementation Tools

Areas	**Tools**
Provision of social benefits and compensations	The collective agreement stipulated the following benefits and compensations for the Lenenergo, PJSC employees: • additional leaves provided and paid for • a bonus paid for the special working conditions that deviate from the acceptable standards • a lumpsum incentive pay for an annual leave • a bonus for the long service • bonuses for the employees who are the recipients of the industry and departmental awards • a lumpsum bonus for newborn children, and monthly maternity (child care) allowances for children under 3 • financial support in case of marriage • compensation of the children pre-school institution bills for the families with multiple children and the families with disabled children • anniversary bonuses • holiday bonuses (the International Women's Day (March 8), Power Engineer's Day) • partial compensation of the household electricity bills for all employees, as well as retirees and disabled of Lenenergo, PJSC • other payments.
Preventive healthcare and health protection	In order to maintain and strengthen the employees' health, the Company arranges for the following: • optional medical insurance • accident and disease insurance • preventive and regular medical examinations • fluorography examinations • flu vaccination • tick-borne encephalitis vaccination • special working conditions assessment • provision of special-purpose clothing and footwear, as well as other personal protection equipment • employees' first aid training in case of production accidents.
Arranging for the healthcare and wellness related vacations for the employees and their family members	The Company offers special vouchers and packages partially or completely paid for by Lenenergo, PJSC to the employees who require health resort and wellness treatment. In 2019, the Company arranged for health resort and wellness treatment for 57 employees. The workers also received partial compensation of the children summer camp trips. In 2019, 173 children spent time at summer camps all over Russia.
Non-state pension provision	The Otkrytie private pension fund offers non-state pension provision to the Company's employees. In 2019, the following non-state pension provision programs have been

	implemented: • the Support Program within the Corporate Plan: the Company arranges for the non-state pension provision for its employees who retire • the Solidary Company-Employee Non-State Pension Provision Financing Program: the Company and its employees form the non-state pension provision jointly, on a parity basis • the Co-Financing Program aimed at supporting the creation of pension savings subject to Federal Law No. 56-FZ On Additional Premiums to the Accumulated Portion of the Retirement Pension and the State Support of Pension Savings dd. April 30, 2008.
Award policy	In 2019, 896 employees of the Company received the following awards: state awards: 1 employee departmental awards from the Ministry of Energy of Russia: 26 employees industry awards from the Association ERA of Energy: 38 employees corporate awards from Rosseti, PJSC: 125 employees corporate awards from Lenenergo, PJSC: 657 employees awards from the Energy and Building Services Committee: 42 employees awards from the Saint Petersburg Governor: 2 employees awards from the Leningrad Region Government: 5 employees.
Work with youth and veterans	Lenenergo, PJSC annually invites the WWII veterans and home front workers who were employed by the Company to events commemorating the Lifting of the Leningrad Siege, the Breach of the Leningrad Energy Siege, and celebrating Victory Day. On every memorial event the Company's veterans receive congratulatory notes from the CEO. In order to maintain the historical values, all branches of the Company and its executive bodies distribute congratulatory posters. In 2019, the following events took place involving the retired veterans and supported by the Recent Graduates Council: - In January, veterans from the power sector and employees of Lenenergo, PJSC participated in memorial events (placing of wreaths and flowers at the Mother Homeland Memorial in Saint Petersburg and the plate commemorating the power sector workers who defended Leningrad during WWII at the Piskaryovskoye Memorial Cemetery) dedicated to the 75th anniversary of the lifting of the Leningrad Siege. The retired veterans went on a bus guided tour entitled Nothing is Forgotten: Visit to the Memorial Places of the Sieged Leningrad, and visited the Theater of Musical Comedy. - In May, the veterans from the power sector placed flowers at the Heroes Defenders of Leningrad Monument on ploshchad Pobedy (Victory Square) and visited the Russia Grand Market national museum, within the celebrations of the 74th anniversary of the victory at the Eastern Front of WWII. - In September, the retired veterans placed flowers at the Broken Circle Memorial and visited the Road of Life Museum attending a guided tour dedicated to the history of the breach of the energy siege of Leningrad, within the celebrations of the 77th anniversary of the breach of the Leningrad energy siege.
Fitness, health recreational, and entertainment events	The employees of Lenenergo, PJSC took part in the skiing (11th place), volleyball (8th place), table tennis (10th place), track and field (8th place), swimming (8th place) corporate championships, as well as the Rosseti Cup football championship (5th place). The employee of Lenenergo, PJSC participated in the industry track and field championship held by the Ministry of Energy of Russia, and became the silver medalist. The Company's recent graduate employees took part in the Path of Victory and Arena Race GTO ("Ready for Labor and Defense") competitions, the Zabeg Russian National Half-Marathon, the Race of Heroes, the beach volleyball, street basketball, futsal, table tennis tournaments, and the X-

	Waters international open water swim race. A football tournament was organized for the teams of the Lenenergo, PJSC branches and SDCs. On September 14-15, 2019, an annual Lenenergo, PJSC Spartakiad Games took place with over 300 participating employees.
Support of the retired industry veterans, former employees of Lenenergo, PJSC	The Company pays significant attention to the retirees, retired veterans, Eastern Front veterans, and disabled people. The following programs have been implemented for those groups: • non-state pension provision • financial assistance • bonus payments for the Eastern Front veterans dedicated to the anniversaries, memorial dates, and holidays: the Lifting of the Leningrad Siege, Victory Day, the Power Engineer's Day • compensation of the household electricity bills • financial assistance for funerals.

Charity

In 2019, Lenenergo, PJSC implemented the following principal charity and sponsorship measures in Saint Petersburg and the Leningrad Region:

support of education, research, culture, arts, and awareness-raising

support of physical fitness and popular sports

maintenance and conservation of buildings, sites, and territories having historic, spiritual, cultural or environmental significance

support of public health care, disease prevention, treatments, and rehabilitation, as well as promotion of healthy lifestyle and improvement of the mental state of the public.

The overall charity support in 2019 reached RUB 96.9 mn, while the sponsorship support reached RUB 3 mn.

OHS

Lenenergo, PJSC adopted regulatory and administrative documents in 2019 that are aimed at preventing traumas and accidents, improving the OHS system of the Company, and identifying the main areas of trauma prevention.

1. Order No. 1 dd. January 11, 2019 *On the Lenenergo, PJSC Branches' Power Facilities Performance in 2018; Main Steps to Improve the Operational Reliability of Power Facilities Repair, to Introduce New Equipment, Automation, and Mechanization of the Production Processes, and Health Safety of the Employees of Branches of Lenenergo, PJSC for 2019*.
2. Order No. 12 dd. January 17, 2019 *On the Constantly Operating Committees of Lenenergo, PJSC for Testing Knowledge and Skills*.
3. Order No. 68 dd. February 12, 2019 *On Approving the Updated Documents of the Integrated Management System of Lenenergo, PJSC*.
4. Order No. 73 dd. February 12, 2019 *On Approving the Training, Re-Training, and Advanced Training Plan for the Managers, Experts, and Workers of Lenenergo, PJSC for 2019*.
5. Order No. 111 dd. February 27, 2019 *On the OHS Performance Results in 2018*.
6. Order No. 195 dd. April 16, 2019 *On Approving the Guidelines for Interaction with Contractors of Lenenergo, PJSC*.
7. Instruction No. 71-R dd. April 24, 2019 *On Fulfilling the Resolutions of the OHS Committee of Rosseti, PJSC*.
8. Order No. 217 dd. April 26, 2019 *On Preparing for the Large-Scale Repair Works at Lenenergo, PJSC Facilities in 2019*.
9. Instruction No. 79-R dd. May 8, 2019 *On the Results of Surprise Inspections of Workstations in Q1 2019 in the Branches of Lenenergo, PJSC*.

10. Order No. 269 dd. May 28, 2019 *On Introduction of the Personal Protection Equipment. Guidelines of Provision; Technical Requirement standard of Rosseti, PJSC*.

11. Instruction No. 109-R dd. June 10, 2019 *On Enactment of Rules of the Ministry of Energy of the Russian Federation*.

12. Instruction No. 177-R dd. July 31, 2019 *On the Results of Surprise Inspections of Workstations in Q2 2019 in the Branches of Lenenergo, PJSC*.

13. Order No. 558 dd. November 1, 2019 *On Results of the Investigation of an Accident that Occurred on August 20, 2019 at SPbVS (Branch of Lenenergo, PJSC)*.

14. Order No. 575 dd. November 13, 2019 *On the Results of Surprise Inspections of Workstations and OHS Days Held During 9 Months of 2019 in the Branches of Lenenergo, PJSC*.

15. Order No. 640 dd. December 10, 2019 *On Organization of the Knowledge and Skills Testing at Lenenergo, PJSC*.

16. Instruction No. 547 dd. December 25, 2019 *On Providing Rights to the Operative Personnel of the NCC of Lenenergo, PJSC for 2020*.

General and Fatal Accidents Over 2017-2019
(numerator is the number of accidents; denominator is the number of injured)

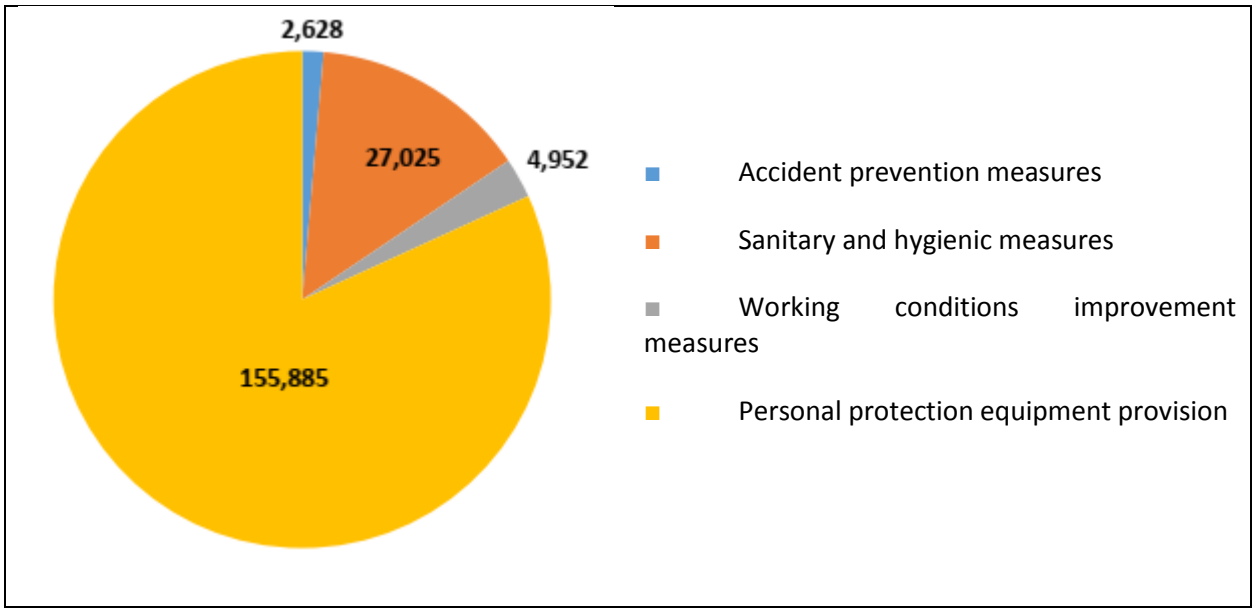
Branch Name	2017		2018		2019	
	General	Fatality	General	Fatality	General	Fatality
Vyborgskiye Power Grid					1/1	
Gatchinskiye Power Grid	1/1					
Cable Grid	1/1	1/1				
Kingiseppskiye Power Grid	1/1	1/1				
Novoladozhskiye Power Grid						
Prigorodnye Power Grid						
St. Petersburg Power Grid					1/1	
Tikhvinskiye Power Grid	½					
Executive bodies			1/1			
Lenenergo, PJSC, TOTAL	**4/5**	**2/2**	**1/1**		**2/2**	

OHS Expenses Over 2017-2019

	2017 (RUB mn)	2018 (RUB mn)	2019 (RUB mn)
Lenenergo, PJSC	122,897	158,564	190,490

OHS Expenses Structure Broken Down by Areas in 2019, RUB mn

2019



5.2. Environmental Policy

The environmental goals and objectives are drafted and introduced by Lenenergo, PJSC Order No. 389 dd. September 13, 2010 and updated by Order No. 229 dd. May 23, 2012.

Lenenergo, PJSC Order No. 318 dd. June 28, 2019 sets out the strategic goals of the integrated management system (IMS), including in the environmental aspect.

Lenenergo, PJSC Order No. 318 dd. June 28, 2019 sets out the goals of the integrated management system (IMS) for 2019, including in the environmental aspect.

Lenenergo, PJSC Order No. 68 dd. February 12, 2019 approves the register of significant environmental aspects managed by the Company.

One of the priorities of Lenenergo, PJSC is development and introduction of the integrated management systems (IMS), including introduction of ISO 14000 standards (environment management system). Introduction of the Environment Management System (EMS) in Lenenergo, PJSC within the IMS implementation began in March 2010 (Order No. 108 dd. March 18, 2010).

The certificates confirming the Company's IMS compliance with the requirements of ISO 14001:2015 with respect to the power transmission, power distribution, and network connection until March 29, 2022.

The following were the results of the EMS implementation in Lenenergo, PJSC by the end of 2019:

1. environment protection measures are designed and implemented
2. the responsibility for environment protection is allocated within the branches and divisions (Order No. 19 dd. January 22, 2015)
3. the officers and personnel were trained in environment safety and waste management
4. an internal information exchange system with respect to the environment protection is put into place
5. the procedures for the EMS document management are put in place within the IMS document management system (STO-00.00.01-003-2019: Management of Documented Information)
6. the procedures for management of operations related to identified significant environmental issues are put into place
7. the procedures for identification of hazardous production facilities and potential accidents or emergencies are put into place and maintained subject to the applicable laws; preventive actions, localization and elimination actions are planned for such instances
8. the environmental issues are assessed in view of the identified risks; the IMS-related opportunities are assessed (including the environment-relates issues)

9. the environment protection measures are regularly monitored and measured

10. Lenenergo, PJSC branches' compliance with the environment protection laws (as regarding the executive bodies) is assessed

11. the results of the monitoring and assessment of the overall environmental performance are recorded

12. the IMS performance for 2018 was analyzed; Lenenergo, PJSC Order No. 318 dd. June 28, 2019 *On the Results of Analyzing the Integrated Management System in 2018*

13. the goals of the integrated management system (IMS) were set for 2019, including in the environmental aspect; Lenenergo, PJSC Order No. 318 dd. June 28, 2019

14. the following EMS documents and procedures were drafted, introduced, and are applicable as of the end of 2019:

Order No. 68 dd. February 12, 2019 approved and introduced the following:

- STO-00.00.01-003-2019 Management of the documented information (rev. 9)
- STO-00.00.02-003-2019 Corrective and preventive actions (rev. 7)
- STO-00.00.03-003-2019 Internal audits (rev. 8)
- STO-00.00.04-003-2019 IMS analysis by the top management (rev. 8)
- STO-00.02-003-2019 Identification and assessment of the importance of the environmental aspects (rev. 4)
- RISM-2019 Integrated Management System Guidelines (rev. 1).

As part of the IMS internal audit program approved by Lenenergo, PJSC Order No. 577 dd. December 5, 2018, eight EMS audits were conducted in 2019 in order to check the compliance with ISO 14001:2015 with respect to the following seven processes:

Code	Internal audit object (process)
00	Integrated management system
01	HR management
02	Grid connection of consumers
03	Procurement management
04	Sale of power transmission services
05	Ensuring the functioning of power grid equipment, including
05.10	Maintenance and repair
05.02	Operative and process management
05.03	Business assets management
05.04	Metrological supervision
05.05	Innovative development management, including RD&T
05.06	Production and industrial safety
06	Investment operations and fixed assets construction

The internal audit discovered one discrepancy in the environment management system. There were no insights in the environment management. An adjustment plan to be implemented until June 22, 2020 was drafted for the discrepancy uncovered.

In 2019, the independent (external) environmental audit of Lenenergo, PJSC was not conducted.

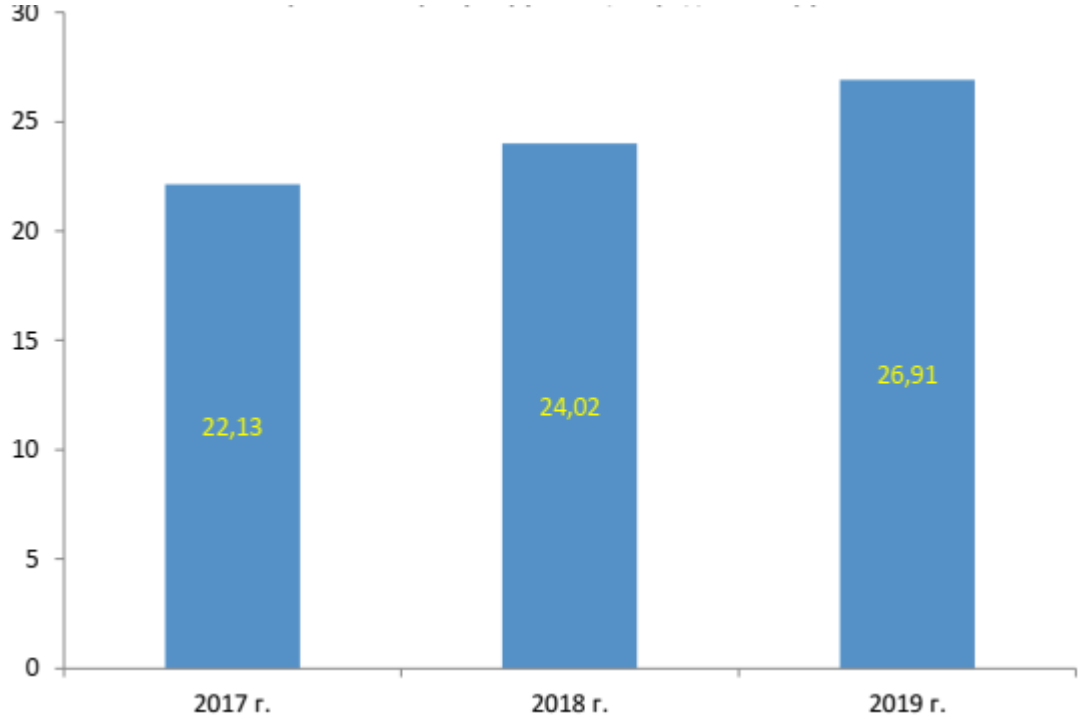
In March 2019, subject to Contract No. 19-474 dd. February 25, 2019 with Russian Register - Baltic Inspectorate, LLC an independent audit of the EMS was conducted as part of recertification audit of the IMS of Lenenergo, PJSC by Russian Register - Baltic Inspectorate, LLC for the compliance with ISO 9001:2015 (GOST R ISO 9001-2015), ISO 14001:2015 (GOST R ISO 14001-2016) and ISO 45001:2018 (GOST R 59934-2012, GOST 12.0.230-2007). Two discrepancies and no insights were discovered. Lenenergo, PJSC Order No. 224 dd. April 29, 2019 approved the preventive plan to be implemented until June 30, 2019. Corrective actions were performed within their timeframes. The Environment Management System was

certified in compliance with ISO 14001:2015 (Compliance Certificate No. 19.0716.026 dd. May 16, 2019, valid until March 29, 2022).

Environment Protection Expenses, RUB thousand

Area	**2017**	**2018**	**2019**
protection and sustainable use of water resources	7,539.8	7,825.23	9,742
protection of atmospheric air	2,889.7	3,530.6	4,476
protection of environment (land resources) from industrial and consumer waste	11,697.8	12,305.87	12,286
recultivation of lands	-	-	-
Total	**22,127.3**	**23,661.7**	**26,504**

Environment Protection Expenses, RUB mn



Environment Protection Measures in 2019

Measures	Expenses, RUB mn	Environmental Impact, RUB mn
Environment protection documents drafting	3.16	Mitigating the risk of fines and 5-fold penalties for adverse environmental impact
Maximum allowable discharge, noise level and water quality control and measurement	3.93	Compliance with the environment protection laws
Waste disposal and landfilling at licensed landfills	9.4	Compliance with the waste management requirements (mitigation of the risk of fines and penalties)

Environmental Performance Indicators

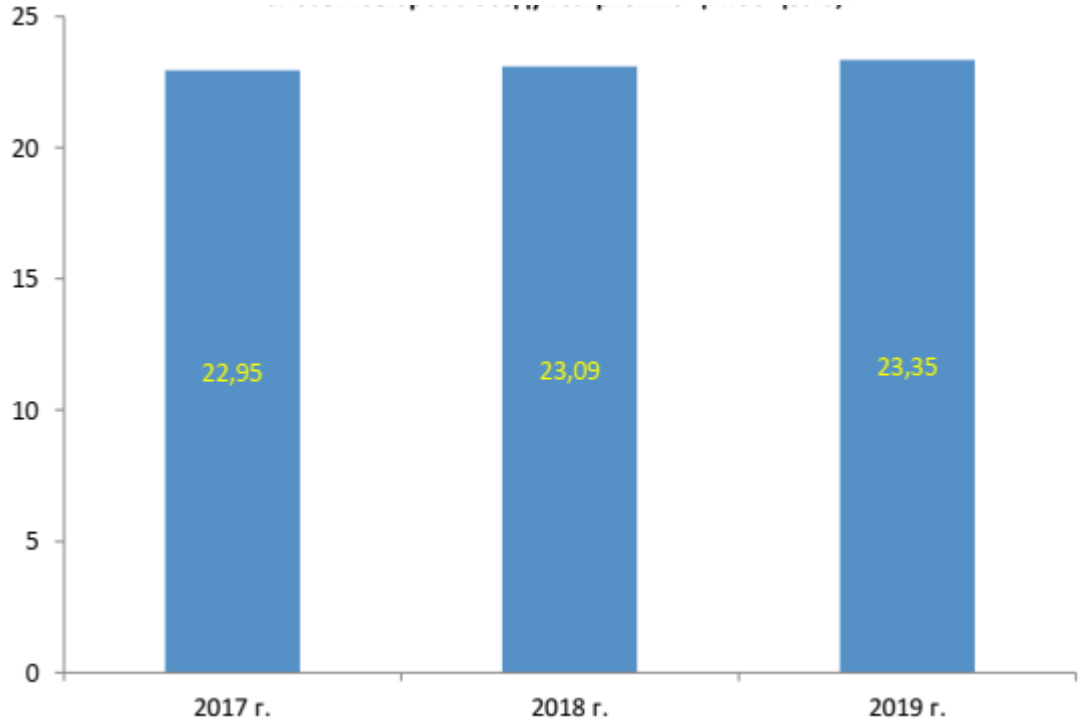
Parameter	**2017**	**2018**	**2019**
Gross discharge of pollutants into the atmosphere, tons	22.95	23.09	23.35
including:			
pollutants captured and treated, tons including:			
Solids, tons			
Water intake and obtaining water, m^3 including:	57.92	62.63	58.87

	from surface sources, m^3			
	from underground sources, m^3			
	from other sources, m^3	57.92	62.63	58.87

Industrial Waste Generation Over Time, tons

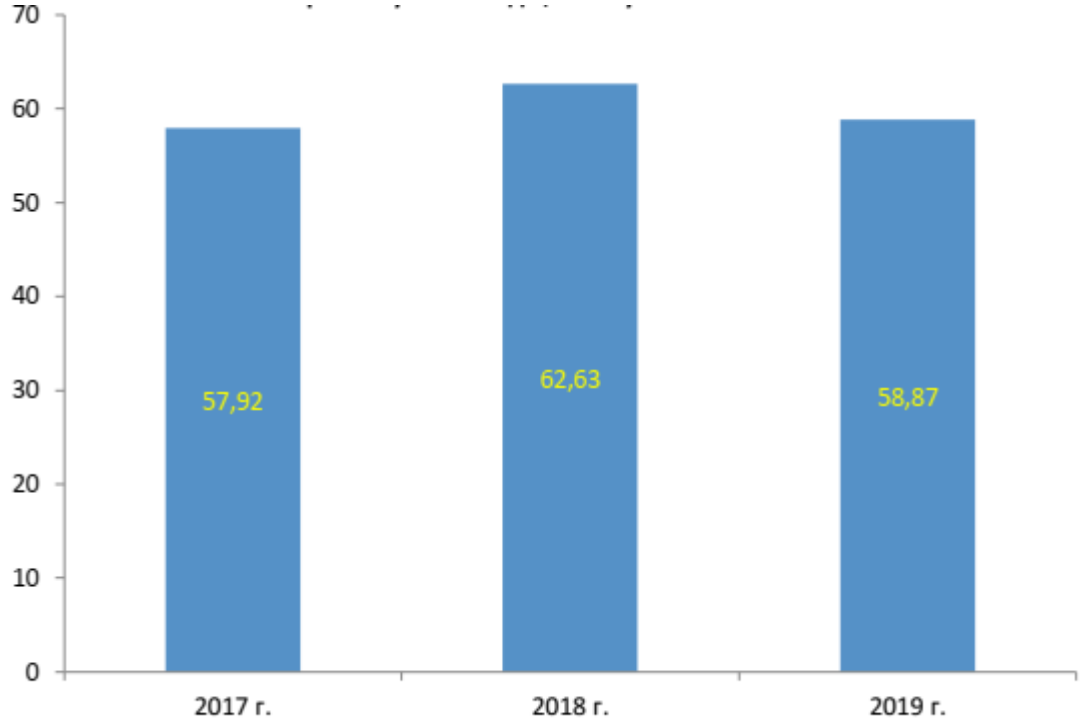
Hazard Class	**2017**	**2018**	**2019**
I	3.392	2.68	3.236
II	0	2	1.999
III	43.7	41.3	40.166
IV	1334.072	1771.86	1641.246
V	3458.032	2479.94	2959.169

Gross Discharge of Pollutants into the Atmosphere, tons



Total	**4839.196**	**4297.78**	**4645.816**

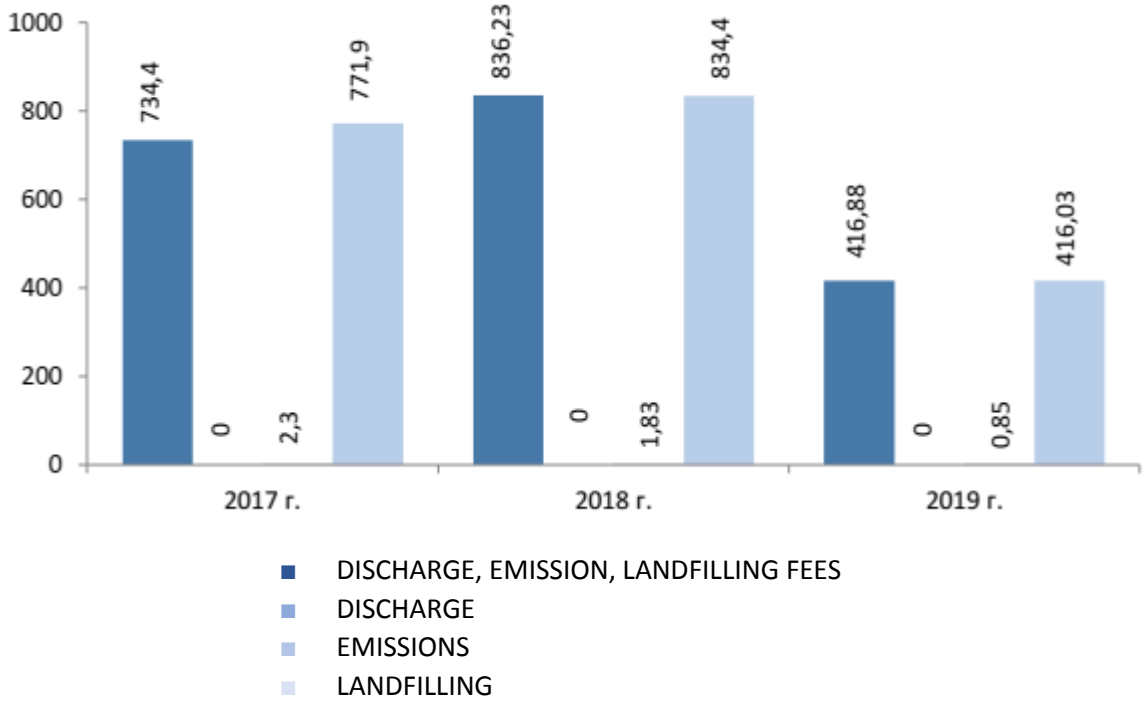
Water intake and obtaining water, thousand m3



Share and overall volume of treated and reused water

Parameter	2017	2018	2019
Overall volume of treated and reused water, m^3	-	-	-
Share of treated and reused water in the overall scope of water intake, %	-	-	-

Adverse Environmental Impact Penalties Over Time, RUB thousand



5.3. Procurements

The main priorities of procurement activity of the Company are the policy of transparent and open procurement process, improvement of the procurement efficiency in competitive environment, reaching the maximum possible economic effect of the procurement measures.

The key targets with respect to the improvement of procurement efficiency are as follows:

- provision of high-quality equipment, machines, materials, and services that meet the price criteria
- competitive procurement
- high level of organization in procurement procedures
- high level of objectivity in procurement procedures
- achieving economic efficiency in procurements.

The key targets with respect to the improvement of procurement efficiency are as follows:

- provision of high-quality equipment, machines, materials, and services that meet the price criteria
- competitive procurement
- high level of organization in procurement procedures
- high level of objectivity in procurement procedures
- achieving economic efficiency in procurements.

Procurements in 2019 were regulated by the following documents:

- the Civil Code of the Russian Federation
- Federal Law No. 223-FZ dd. July 18, 2011 *On Procurement of Goods, Works, Services by Certain Types of Entities*
- Federal Law No. 135-FZ dd. July 26, 2006 *On Competition Protection*
- Federal Law No. 122-FZ dd. May 5, 2014 *On Amending the Code of Administrative Offences*
- Government Decree No. 591 dd. June 14, 2012 *On Approving the Rules of Preparation and Adoption of Instruments of the Government of the Russian Federation on Specific Procurements, Lists, and/or Groups of Goods, Works, Services, the Information on Which Is Not State Secret, However Is Not to be Disclosed on the Official Website*
- Government Decree No. 616 dd. June 21, 2012 *On Approving the List of Goods, Works, and Services, Procurement of Which is Done in Electronic Form*
- Government Decree No. 908 dd. September 10, 2012 *On Approving the Rules for Disclosing the Procurement Information on the Website*
- Government Decree No. 932 dd. September 17, 2012 *On Approving the Rules for Planning the Procurement of Goods (Works, Services) and the Requirements to the Format of Such a Plan*
- Government Decree No. 1211 dd. November 22, 2012 *On Introduction of the Register of Bad Suppliers Under the Federal Law On Procurement of Goods, Works, Services by Certain Types of Entities*
- Government Decree No. 1132 dd. October 31, 2014 *On the Procedure of Keeping the Register of Contracts Made by Clients as a Result of Procurement*
- Government Decree No. 1352 dd. December 11, 2014 *On Specifics of SME Participation in Procurement of Goods, Works, Services by Certain Types of Entities (rev. dd. October 29, 2015)*
- Government Decree No. 1169 dd. October 29, 2015 *On the Procedure of Monitoring of the Compliance of Goods, Works, Services Procurement Plans, Innovative Products, High-Technology Products and Pharmaceuticals Procurement Plans, Amendments to Such Plans; Compliance Assessment of the Drafts of Such Plans, and Drafts of Amendments to Such Plans to the Requirements of the Russian Laws That Provide for the SME Participation in the Procurement Process, And On the Procedure and Terms of Suspension of Implementation of Such Plans Based on the Results of Such Monitoring and Assessment*
- Russian Government Decree No. 1442 dd. December 25, 2015 *On Procurement of Innovative Products, High Technology Products by Certain Types of Entities, And On Amending Several Russian Government Decrees*

• Russian Government Decree No. 925 dd. September 16, 2016 *On Prevalence of Russian-Made Goods, and Works and Services Provided by the Russian Entities Over the Goods Originating from Foreign States, and Works and Services Provided by Foreign Entities*

• Government Decree No. 867-r dd. May 29, 2013 *On Approving the Action Plan (Road Map) of Expansion of Access of SME to Procurements of Infrastructure Monopolies and Companies with State Participation*

• Uniform Procurement Standard of Rosseti, PSC (Regulations for Procurements) approved by the Board of Directors of the Company (Minutes No. 21 dd. December 29, 2018)

• Procurements Policy of Rosseti, OJSC approved by the Board of Directors of the Company (Minutes No. 1 dd. July 4, 2014)

• Regulations for the Central Procurement Body of Lenenergo, PJSC approved by Lenenergo, PJSC Order No. 5 dd. January 14, 2019

• other internal regulations of the Company.

Open competitive and non-competitive procedures are applied for the selection of contractors and inventory suppliers in procurements:

- competitive procurement procedures:
  - tender
  - auction
  - request for proposals
  - request for quotation
  - competitive pre-selection
  - request for quotations following the competitive pre-selection.
- non-competitive procurement procedures:
  - pre-selection
  - procurement from a sole supplier (contractor)
  - price comparison.

Procurement from a sole supplier (contractor) is used in the following cases:

• when contractors are selected to eliminate the emergencies, if the procurement scope does not exceed the amount strictly sufficient for the elimination of the emergency or its aftereffects

• when additional procurements are required exceeding the ones specified in the contract, if the change of the supplier may result in substantial technical difficulties in operation and maintenance procedures, or if additional services (works) are integral to the main contract

• when the goods, services or works are procured from the market monopolists.

Performance Under the Procurement Program in 2019

In 2019, the actual number of procurement procedures with selected winners was 1,306, for the aggregate amount of RUB 48,233 mn, VAT incl.

Broken Down by Procurement Program Segments:

Annual Comprehensive Procurement Program segments	Procurements under the Procurement Program			
	Number of procurement transactions		Cost, RUB mn, VAT incl.	
	Planned*	Actual**	Planned***	Actual****
New construction and expansion	91	88	6,147	6,142
Reconstruction and retrofitting	950	835	34,749	29,356
Power repair (repair) production, maintenance	308	221	3,019	2,266
IT	49	46	1,131	933
RD&T	3	2	145	16

Consulting	15	11	384	170
Other procurements	129	103	9,678	9,367
Lenenergo, PJSC, Total	1,545	1,306	55,252	48,233

Planned: * - the number of procurements declared in 2019

*** - the planned value of the declared procurements

Actual** - the number of procurements conducted with selection of the winner

**** - the actual value of the procurements conducted with selection of the winner.

There were 1,442 procurements conducted using the e-commerce tools for the amount of RUB 54,488.73 mn (VAT incl.) in 2019 (100% of the overall number of procurements, 100% of the overall procurements by value, excluding the procurements from a sole supplier).

The economic effect of the procurements in 2019 was RUB 1,531.49 mn (VAT incl.), or 3.1% of the planned declared value of competitive procurements (excluding the procurements from a sole supplier).

The share of the public procurements in the procurement structure was 98.4% of the overall amount of procurements, by value.

Use of the cutting-edge online technology provides for the openness, publicity, and transparency of the procurements, and for a safe remote access in order to control the following main stages of the procurement procedures: timely declaration of the regulated procurements, publication of full (sufficient) information on the procurements (including notices, procurement documents, minutes, etc.), the timelines for the results summing up, selection of the winners.

Lenenergo, PJSC, as a rightful user of virtual electronic trading platforms, conducted 98.4% of procurements in 2019 in electronic form, namely using the virtual electronic trading platform at www.roseltorg.ru.

The efficiency of the competitive procurements conducted in electronic form is confirmed by the existence of sufficient number of market proposals from a large number of active users of competitive procurement procedures conducted by Lenenergo, PJSC.

The official website of the Russian Uniform Information System for Procurements at http://zakupki.gov.ru (the address is set by the applicable Russian laws) is used as a main information resource. Publication of information on the planned and conducted regulated procurements and on the procedure thereof is mandatory on this website, which allows to intensify the competition between the regulated procurements participants and, therefore, to purchase products of a higher quality under better conditions.

Structure of Procurements from SME

In order to provide the SME with a better access to the procurements of Lenenergo, PJSC, a Partnership Program was designed for the Company and the SME sector.

It specifies the set of measures aimed at creating and supporting the community of reliable, qualified, and responsible suppliers (contractors) from the SME sector.

The Program aims at ensuring the fulfillment of the state SME development policy through the Company's procurements, including the following:

- increasing the share of procurements from the SME sector in the overall annual procurement structure
- increasing the share of direct procurements from the SME sector in the overall annual procurement structure
- increasing the share of innovative and/or high-tech products, R&D, design and experimental, and technology services procurement from the SME sector in the overall annual procurement structure
- creating a system of transfer of new technological and technical solutions from the SME entities, including the solutions aimed at innovative development of the Company and integrated in the business strategy of the Company.

For more details on the Program go to Tenders at: www.lenenergo.ru.

Lenenergo, PJSC Order No. 305 dd. July 4, 2018 *On Amending Lenenergo, PJSC Order No. 34 dd. February 3, 2016* appointed the active members of the Consultative Body on the Company's procurement efficiency, including from SME.

The following tasks were implemented following the meetings of the Consultative Body:

- templates of the contracts of up to RUB 1 mn (VAT incl.) were amended with respect to the obligations and liabilities of the parties (equal requirements)
- no tender security for offers in procurements with the initial (top) price of up to RUB 5 mn is required
- procurement procedures were conducted for the line accessories under the STO of Rosseti, PJSC
- procurements conducted by the Company were divided into two types: procurement of equipment and materials, and procurement of services
- in order to simplify the SME access to the procurement procedures of the Company, the list of required documents is shortened
- deadlines of the review of the offers and applications by Lenenergo, PJSC were reduced (with respect to the interaction for technical specifications).

As a result of the tenders won by the SME in 2019, 1,046 contracts were made for RUB 31,002 mn (VAT incl.), which is 82% of the overall amount of contracts, of those 609 contracts for RUB 15,338 mn (VAT incl.) were made as a result of tenders intended for the SME only, which is 41% of the overall amount of contracts (except the contracts that are excluded from calculations subject to Government Decree No. 1352 dd. December 11, 2014 On Specifics of SME Participation In Procurement of Goods, Works, Services by Certain Types of Entities (rev. dd. October 29, 2015). These figures are in line with the requirements of the Decree.

Overall in 2019, 1,130 procurement procedures were conducted, in which the SME were winners of the tenders, for the aggregate amount of RUB 32,207 mn (VAT incl.), which is 87% of the amount of the procurements made, except the ones excluded from calculation subject to the Decree.

In accordance with the scenarios of Rosseti, PJSC that are designed to minimize the use of the imported equipment and materials, Lenenergo, PJSC prioritizes the use of domestically produced equipment, materials, appliances, accessories and software when solving the project tasks and forming the statements of work.

Action Plan Subject to Order No. 116 dd. August 30, 2017 *On Approving the Imports Phasing Out Action Plan for Rosseti, PJSC*:

- implementation of measures to reduce the dependency on imported equipment, technical appliances, parts, accessories, services (works) of foreign companies and on the use of foreign software
- minimization of the use of the imported equipment and materials when drafting the design solutions and statements of work.

In order to introduce and promote new technology and solutions in the Company's operations, Lenenergo, PJSC has a mid-term five-year Innovative Development Program in place in line with the priorities of the state R&D and innovative policy that specifies a set of measures aimed at the design and introduction of new technology, and innovative products and services that meet the international requirements.

Ten innovative product procurement transactions were conducted in 2019 for the overall amount of RUB 783 mn (VAT incl.).

The key targets with respect to the improvement of procurement efficiency are as follows:

• equality, fairness, lack of discrimination or unreasonable restrictions of competition with respect to the tender participants

• competitive selection of suppliers and contractors where it is possible and expedient; is possible, collective decision-making in situations where such competitive selection is impossible or not expedient

• use of modern information technology, electronic document flow, and automation of tenders and procurements, including the use of electronic trading platforms

• fitting the Company with high-quality equipment, machinery, materials, and services for an optimum price

• professionalism and competence of the Company's employees when drafting and making the procurement decisions.

5.4. Management Systems

The Company has a Quality Management System in place within the integrated management system. The Board of Directors decided on introducing the quality, environmental and OHS management systems in 2018 (Minutes No. 17 dd. February 6, 2008 and No. 20 dd. March 12, 2008).

In order to cut expenses, these systems were introduced as a set, by means of the Integrated Management System, the IMS (Lenenergo, OJSC Order No. 299 dd. August 21, 2008 *On Introduction of the Integrated Management System*).

The IMS is a component of the overall management system of the Company that is aimed to ensure the high quality of the services rendered in line with the regulations, needs and expectations of the consumers, and to meet the interests of all stakeholders, including the employees, shareholders, investors, and partners of the Company.

The following management systems have been introduced within the IMS:

1. Quality Management System (QMS)

The QMS is a component of the overall management system of the Company that is aimed to ensure the high quality of the services rendered in line with the regulations, needs and expectations of the consumers, and to meet the interests of all stakeholders, including the employees, shareholders, investors, and partners of the Company.

2. Environment Management System (EMS)

The EMS is a component of the overall management system of the Company that includes the organizational structure, operational planning, responsibility allocation, practical work, as well as procedures, processes, and resources for the design, introduction, and assessment of the results of implementation and upgrading of the environmental policy, tasks, and objectives.

3. OHS Management System (OHSMS)

The OHSMS is a component of the overall management system of the Company that provides for the risk management and improvement of the OHS operational performance.

The Company's management systems comply with the requirements of the international standards ISO 9001:2015 (GOST R ISO 9001-2015), ISO 14001:2015 (GOST R ISO 14001-2007), ISO 45001:2018 (GOST R 59934-2012 (GOST 12.0.230-2007) (Table 20).

Information on the Certificates Issued

Item No.	Lenenergo, PJSC	Management Systems / Certificate Validity Term			Certifying Body
		ISO 9001	ISO 14001	ISO 45001	
1.	**Lenenergo, PJSC**	No. 19.0713.026 dd. May 16, 2019 (until March 29, 2022)	No. 19.0716.026 dd. May 16, 2019 (until March 29, 2022)	No. 19.0718.026 dd. May 16, 2019 (until March 29, 2022)	Russian Register - Baltic Inspectorate, LLC

Notes:
Lenenergo, PJSC, including all the branches.
ISO 9001 — quality management system
ISO 14001 — environment management system
ISO 45001 — OHS management system.

In March 2019, Russian Register - Baltic Inspectorate, LLC carried out re-certification audit of the Company's IMS that confirmed its compliance with ISO 9001:2015 (GOST ISO 9001-2015), ISO 14001:2015 (GOST R ISO 14001-2016), ISO 45001:2018 (GOST R 54934-2012, GOST 12.0.230-2007).

Key IMS targets include:

a) improvement of reliability and power supply quality to the level that corresponds to the consumers' requests

b) improvement of the power supply safety, provision for the occupational health and safety on production, including reducing the overall accidents rate and ensuring compliance with the health, safety and environment protection laws

c) environmental safety.

The main IMS participants are:

- the Board of Directors
- the executive bodies of the Company - the CEO and the Management Board
- management representative for the integrated management system (MRIMS) - First Deputy CEO - Chief Engineer (Lenenergo, PJSC Order No. 239 dd. May 30, 2018)
- the quality management system that organizes the IMS
- other structural divisions of the Company that fall within the area of IMS operations.

Main results of the management systems functioning:

a) improved reliability and quality of power supply

Information is presented in Performance Results, p.31

b) improved safety of power supply

Information is presented in Performance Results, p.31

c) occupational health and safety on production, including reduced overall number of accidents and ensured compliance with the health, safety and environment protection laws

Information is presented in Responsible Business, p.202

d) improvement of energy efficiency

Information is presented in Innovations and RD&T, p.102

e) environmental safety

Information is presented in Environmental Policy, p.213

f)improved quality of the network connection services

Information is presented in Grid Connection Scope and Connected Capacity Structure, p.45

Overall, the managements systems had positive results in 2019.

5.5. External Communications

Within the Uniform Communications Policy of the Rosseti Group and the Uniform Brand Architecture, Rosseti Lenenergo maintains and regularly updates information published by the Company's official social media handles and platforms. The Company particularly focuses on consumers' education and awareness-raising, and controls the accuracy of the information published on social media during weather-related power supply interruption recovery. The Company has established and maintains constant business relations with the press centers of the Saint Petersburg and Leningrad Region government agencies. It provides informational support to the Company's officers' meetings with the heads of the Russian constituent entities within the Company's scope of competence. Mass media report

the key events and programs. In 2019, such topics were heavily covered as implementation of Digital Transformation 2030 by the Company, commissioning of advanced substations in Saint Petersburg and the Leningrad Region (Lensovetskaya, Bukhta, Kuzemkino, Detskoselskaya). The mass media also touched upon the Company's launch of online resources for network connection (particularly, the first Russian mobile application for network connection), the Company's successful reorganization of network connection in the areas served by Rosseti Lenenergo, significant improvement of the Rosseti position in the Doing Business rating with respect to the power supply system connection carried out by the Company, the Company's fight against non-contractual and off-the-meter consumption, etc. The PR Department prepares releases for the Russian Grids magazine every month. It is an important communication tool creating the single information space both within the Company that has a diverse branch system, and the outside media space.

GLOSSARY

AIMS EPA	automated information and measurement system for electric power accounting
ASCS	automated supervisory control system
APCS	automated process control system
APSMS	automated power supply management system
PITS	package integrated transformer substation
OL	overhead line
HEI	higher educational institution
UES	unified energy system
ETS	enclosed transformer substation
CL	cable line
CSB	cubicle switchboard
CSBGI	gas-insulated small-size cubicle switchboard
CU	compensating unit
PL	power line
HWP	hardware package
RD&T	research, development, and testing
TStand	technical standards, regulations, specifications
SEB	science and engineering board
DLD	damage location detection
SW	software
SS	substation
EIC	Electrical Installations Code
PSP	power system protection
SB	switchboard
SCS	supervisory control system
SO UES	system operator of the unified energy system
TS	transformer substation
TGE	territorial grid entity
PSP ST	signal transmitter of the power system protection
PIU	process interface unit
FU	functioning unit
CC	central computer (computing unit)
EDIS	expert diagnostics and information system
DIA	State Corporation Deposit Insurance Agency
TSA	Trading System Administrator of the Wholesale Power Market
Gross Domestic Product (GDP)	An aggregate parameter of the economic activity of the country. At the production stage is the cum of added value of the types of economic activities in basis prices and net taxes for the products, and at the use stage - the price of

	goods and services intended for the end use, accumulation, and exports. GDP is calculated in the current basis and market prices and fixed prices
Foreign Trade Turnover	The sum of exports and imports
Internal Debt	Obligations in the currency of the Russian Federation; as well as obligations of the Russian constituent entities and municipalities to the Russian Federation that arise in a foreign currency from the use of the target foreign loans (borrowings) (Art.6 of the Budget Code of the Russian Federation)
State of Municipal Debt	Obligations arising from the state or municipal borrowings, guarantees for obligations of third parties, other obligations in line with the types of debts set out by the Budget Code, taken by the Russian Federation, the Russian constituent entity, or a municipality (Art.6 of the Budget Code of the Russian Federation)
SDC	Subsidiaries and dependent companies
Financial income	Salary of payroll employees, incomes of persons engaged in entrepreneurial activities, pensions, benefits, scholarships, and other social transfers, incomes from property in the form of interest on deposits, securities, dividend, etc.
Financial income actual	Nominal financial income adjusted by the consumer price index
Budget shortfall	Budget expenses exceeding its income (Art.6 of the Budget Code of the Russian Federation)
Budget income	Funds incoming to the budget, except for the funds that are the sources of the budget shortfall financing according to the Budget Code (Art.6 of the Budget Code of the Russian Federation)
UES	the Unified Energy System
Imports	Importation of goods to the Russian Federation without obligations to export them back Imports are made of goods brought to Russia intended for consumption in the economics of the country and goods brought to Russia under reimports system Reimported goods are the goods that were previously exported from Russia and then were imported back without paying customs duties and taxes, and without economic restrictions or limitations being applied Imports are recorded in importer's franco border (CIF) prices, meaning the price of the goods includes the cost of insurance and transportation of the goods to the border of the importer
Capital investment	(according to the definition of the Federal State Statistics Service) Capital investments include the expenses for new construction, reconstruction, expansion and retrofitting of the existing production, agricultural, transportation, commercial and other facilities, as well as for residential, communal, and cultural construction. Capital investments include all construction expenses; equipment assembly expenses; expenses for purchase of equipment that does or does not require assembly included in the construction cost estimates; expenses for purchase of production and other tools included in the construction cost estimates; expenses for purchase of machinery and equipment not included in the construction cost estimates; other capital work expenses. Capital investments do not include the expenses for drilling and geological exploration conducted using the operative funds of the state budget or core activity funds; expenses for the overhaul of plant and property, equipment, and other fixed assets, advance payments to the contractors
Consumer Price and Goods and Services Price Index (CPI)	A parameters that represents the change of the overall prices and tariffs for the goods and services purchased by the general public for non-production consumption It measures the ratio between the price of a fixed set of goods and services in the current period and its price in the previous period

Industrial Production Index	A relative indicator that characterizes the changes of the production scopes over the compared periods. Industrial production indices can be individual and aggregate. The individual index reflects the change of the specific goods production scope. It is the ratio of the production scope in kind over the compared periods. The aggregate industrial production index reflects the aggregate changes of the production (of all goods). It characterizes the change of cost created during the process of production as a result of change of the actual scope of the goods produced. In order to calculate the aggregate industrial production index, the individual indices for specific types of goods are aggregated step-by-step into the economic activity indices and the overall industrial production indices
Industrial Producer Price Indices	These are based on the registered prices to the goods representing the base (principal) enterprises. The actual enterprises' prices (net of indirect commodity taxes: VAT, excise duty, etc.) for the products intended for sale domestically in the report period are taken into account
Foreign investments in the economy	Contributions from foreign investors and foreign branches of Russian entities to the entrepreneurial and other facilities and entities in Russia in order to gain profit in the future. Investments can be direct, portfolio, and other.
Inflation	A process described by the overall price level increase in the economic environment, or, if equivalent, by the decrease of the purchasing capacity of money
TC	Tariff Committee
Consolidated budget	The body of Russian budgets for the relevant territory (except for the budgets of state extra-budgetary funds), excluding the inter-budgetary transfers between such budgets (Art.6 of the Budget Code of the Russian Federation)
KPI	Key performance indicators
Asset Liquidity	The ability of an asset to be transformed into funds through an established production process. The liquidity rate is determined by the time such transformation requires to be completed.
Facility's Accounting Liquidity	The degree of coverage of the facility's obligations by its assets, the liquidity rate of which corresponds to the obligations maturity term
ILO	International Labor Organization
IFRS	International Financial Reporting Standards
Ministry of Finance	Ministry of Finance of the Russian Federation
VAT	Value added tax
ITA	Intangible assets
FA	Fixed assets
Company	Lenenergo, Public Joint Stock Company of the Power Industry and Electrification
Facility's paying capacity	The facility's ability to fulfill its financial obligations arising out of commercial, loan, or other transactions of a credit nature
Budget surplus	Budget income exceeding its expenses (Art.6 of the Budget Code of the Russian Federation)
CCP	Cost control program
PES, JSC	Petrodvorets Power Grid, JSC
Budget expenses	Funds paid out of the budget, except for the funds that are the sources of the budget shortfall financing according to the Budget Code (Art.6 of the Budget Code of the Russian Federation)

RAS	Russian Accounting Standards
DGC	distribution grid company
NWFD	North-Western Federal District
SPb ES, JSC	St. Petersburg Power Grid, JSC
TGE (in power sector)	Territorial grid entity (according to Federal Lax No. 35-FZ dd. March 26, 2003 On Electric Power Industry)
GC	Grid connection
Service	Useful effect of operations that meets specific needs but does not have a tangible (financial) form. The main types of international services are: transportation, accommodation and catering, post service and communication, machinery repair, equipment assembly, and other services.
FZ	Federal Law
FGC	FGC UES, PJSC
Financial analysis	A set of analytical procedures at the facility level that are based, in general, on the publically available financial information and are intended to assess the economic potential of the facility and its development prospects
Central Bank	Central Bank of the Russian Federation
e/p	electric power
Exports	Exportation of goods outside of the customs territory of a state without obligations to export them back. Exports include domestically produced goods, as well as re-exportation of goods. The domestically produced goods also include foreign goods brought to the country and significantly changed with respect to their principal quality or technical properties. Re-exported goods are the goods that were previously imported into the customs territory of Russia and then were exported back without paying customs duties and taxes, and without economic restrictions or limitations being applied. Exports are recorded in exporter's franco border (FOB) prices.
EBITDA	Short for Earnings before Interest, Taxes, Depreciation and Amortization — an analytical parameter that equals the profit before the expenses for interest, taxes , depreciation and amortization are excluded.
ROE	Short for return on equity. The ratio of the net profit to the net equity after taxes. Also referred to as cost-effectiveness of equity.