



Inter RAO Group 2017 Consolidated Financial and Operational Results

26 February 2018

Key Factors Affecting Group's Financial Performance

1

GENERATION IN THE RUSSIAN FEDERATION:

- Commissioning of 1470 MW new and modernized power generation capacity under the Capacity Delivery Agreements (CDA);
- Decommissioning of 1271 MW old inefficient power generation capacity;
- Capacity payments under CDA grew on average 0.5% YoY due to increased yields of long-term government bonds, adjusted mechanism for calculating the day-ahead market coefficients and the CPI-indexed operating expenses and delta CDA payments for a number of units
- KOM's capacity prices on the wholesale market increased by 22.6% YoY
- Unfavorable pricing environment in the day-ahead market (DAM): Electricity price decrease in in the 1st pricing zone (by 2.2%) and an insignificant increase in electricity prices in the 2nd pricing zone (0.1% YoY);
- Heat tariffs for the Group's Russian assets increased on average 4.5% YoY;

2

SUPPLY IN THE RUSSIAN FEDERATION:

- Electricity prices for end-users increased on average due to the growth of regulated and non-regulated components of the price cap;
- Regional expansion and client base increase for guaranteed supply companies and independent supply companies;
- Active development of the paid services (PS) segment.

3

TRADING:

- Electricity export decreased to Belarus by 14.1% and to Finland by 4.6% while exports to Lithuania increased by 3.7%, alongside with increased electricity imports from Kazakhstan by 2.1 times YoY;
- Strengthening of the national currency against the currencies of major export power supply contracts: 12.9% YoY against USD , and 11.2% YoY against EUR, on an average.

4

FOREIGN ASSETS:

- Completed the sale of a 100% stake in Power Grids of Armenia and Razdan TPP in December 2016;
- Disposal of a 100% stake in Mtkvari Energy to pool of international investors in June 2016.
- Reclassification of a 50% stake in the joint venture of JSC Ekibastuzskaya GRES-2 to 'held for sale' assets



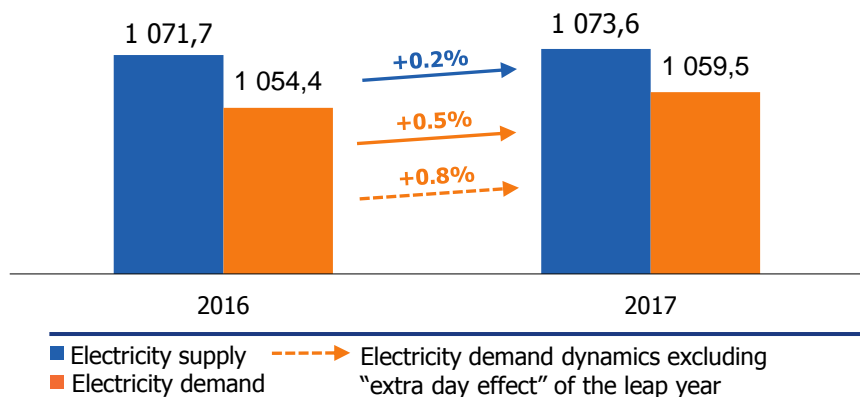
I. Operational Performance Results



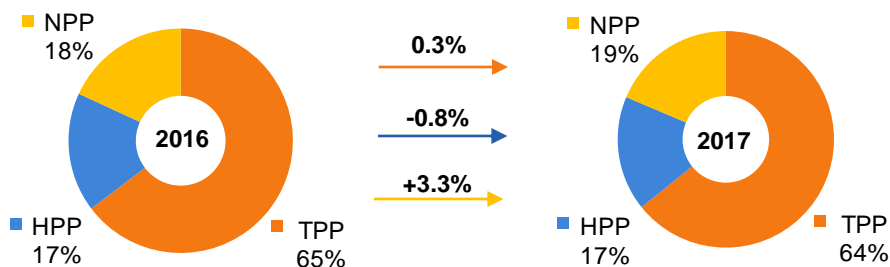
Electricity market conditions in Russian Federation in 2017

Electricity supply and demand dynamics in Russian Federation⁽¹⁾

TWh



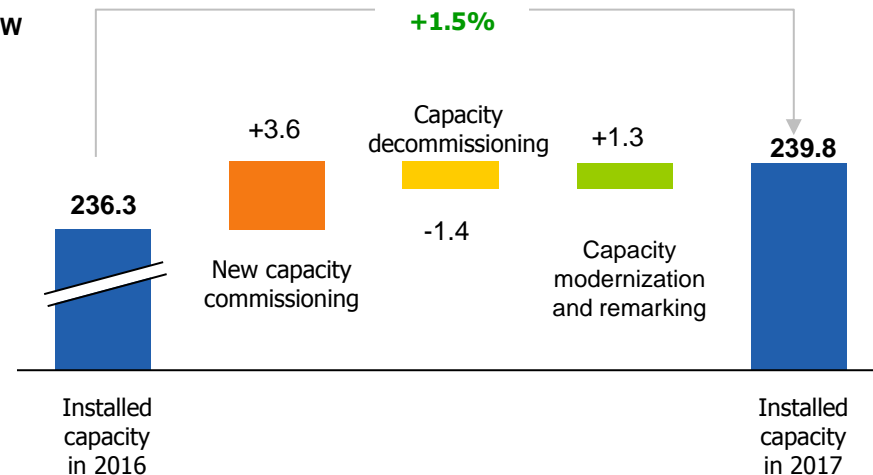
Load breakdown dynamics of power plants in Russian Federation⁽²⁾



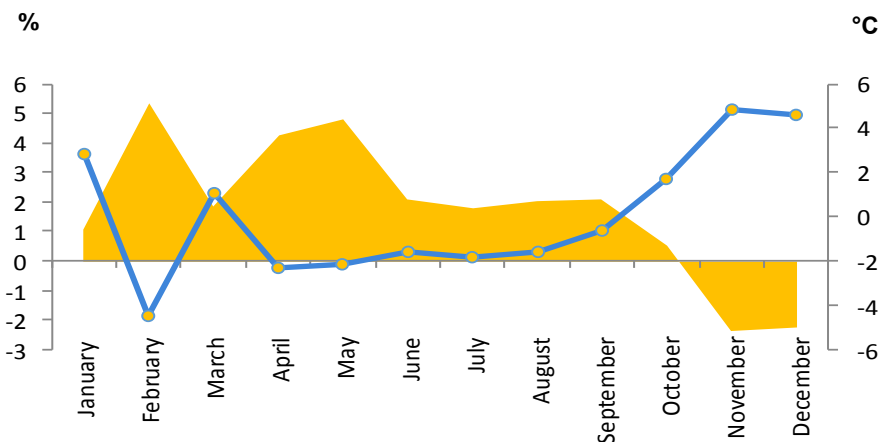
Electricity production dynamics by type of power plant

Commissioning and decommissioning of power generating capacity in United Energy System of Russian Federation⁽¹⁾

GW



Temperature factor influence⁽¹⁾



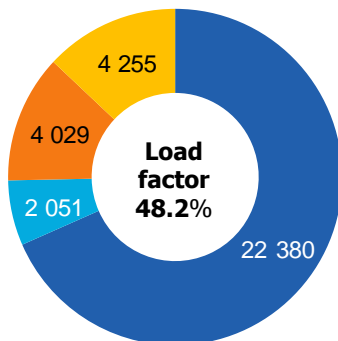
(1) System Operator of United Energy System of Russian Federation

(2) Ministry of Energy of Russian Federation

Electricity and Heat Generation

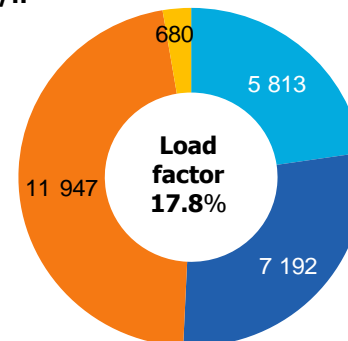
Installed Electric Capacity

Total: 32 715 MW



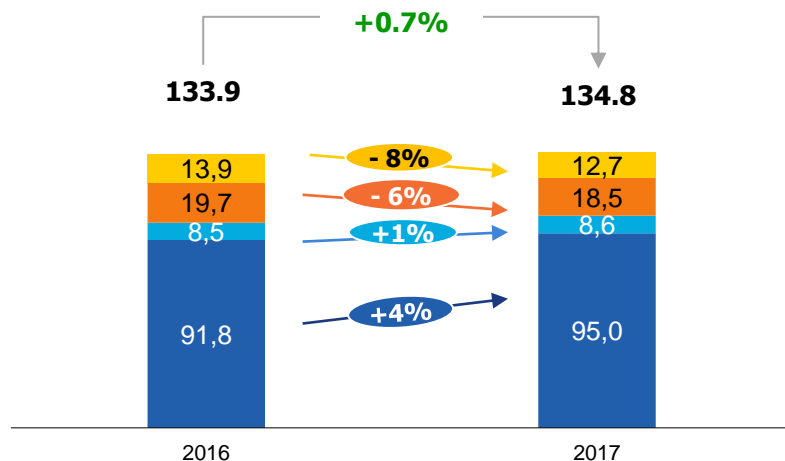
Installed Heat Capacity

Total: 25 632 Gcal/h



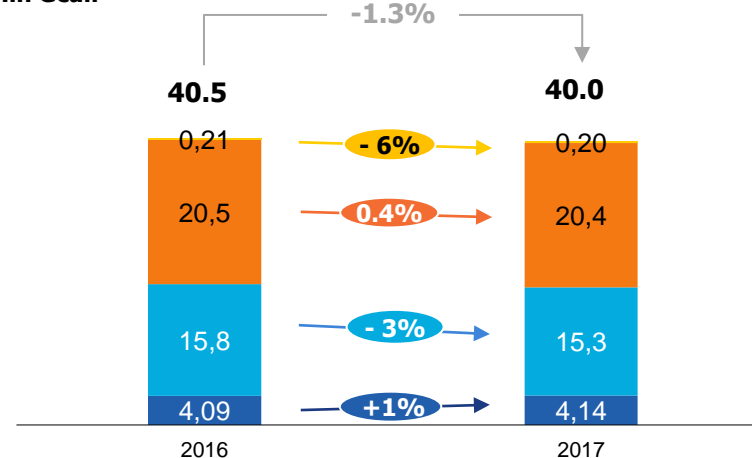
Electricity generation

TWh



Heat generation

Mln Gcal.



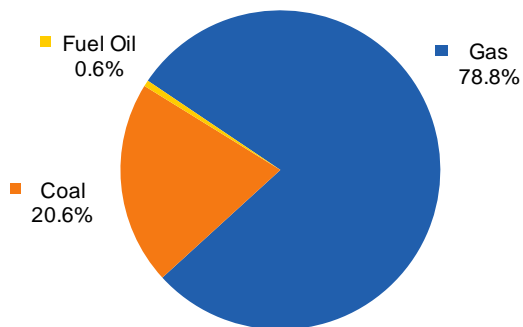
■ INTER RAO – Electricity Generation Group ■ TGK-11 Group¹ ■ BGC Group ■ Foreign Generation — #% — Electricity/heat production dynamics

Electricity generation decreased due to optimization of inefficient generation assets and decommissioning of inefficient generation equipment of Inter RAO Group

(1) Includes TGK11 and Tomsk Generation Group

Optimization of Fuel Costs

Fuel Mix



Gas consumption at Inter RAO Group reached 30.0 bcm

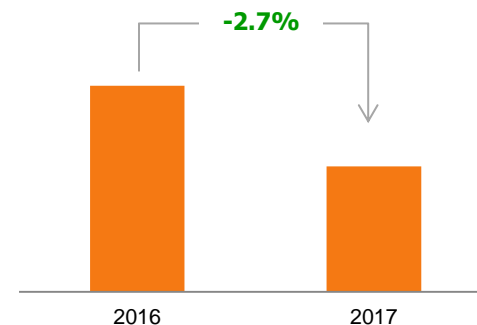
Coal consumption at Inter RAO Group reached 15.9 mln tons

Effective cooperation with gas suppliers

- Since 1 January 2016, Inter RAO Group has been purchasing natural gas for its plants from an independent supplier – Rosneft Oil Company at a discount to the regulated industrial consumer price

Decline in Coal Purchase Prices*

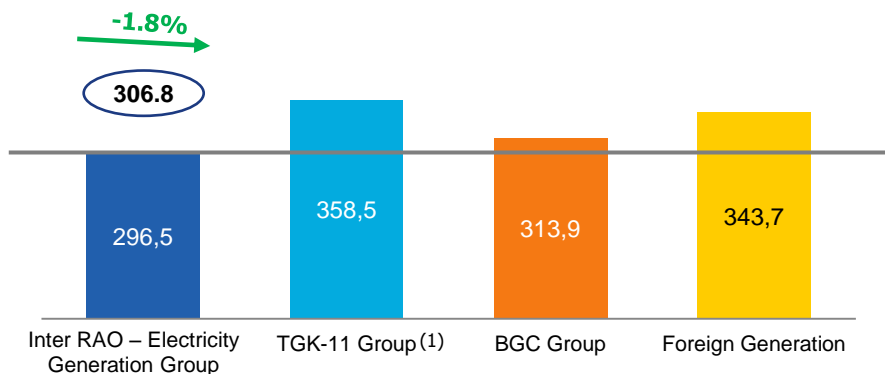
RUB/ton



* Across Russian assets of Inter RAO Group

Fuel Consumption in Electricity Generation

g/kWh



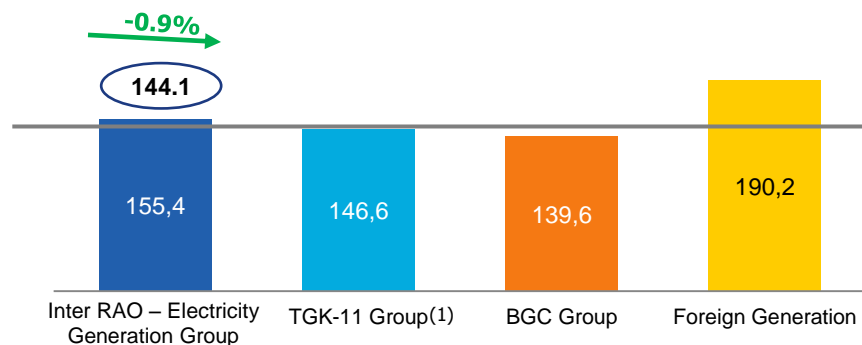
- Electricity generation fuel efficiency for Inter RAO Group

x% - Year-on-Year change

(1) Includes TGK11, Tomsk Generation, Omsk RTS, Tomsk RTS

Fuel Consumption in Heat Generation

kg/Gcal

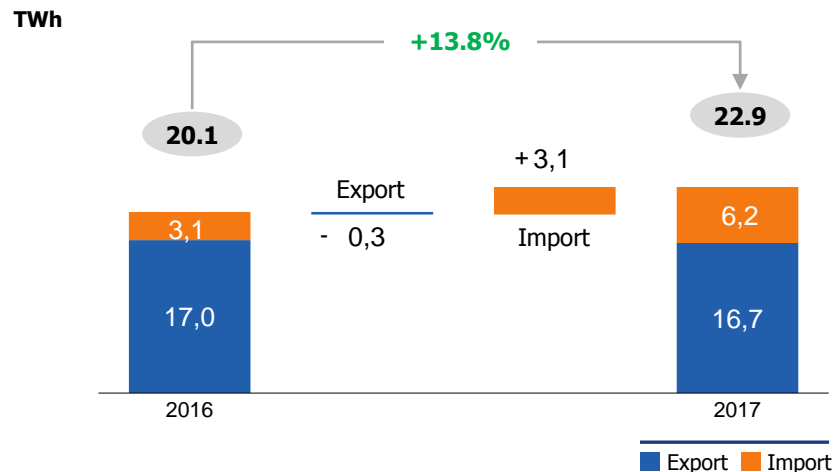


- Heat generation fuel efficiency for Inter RAO Group

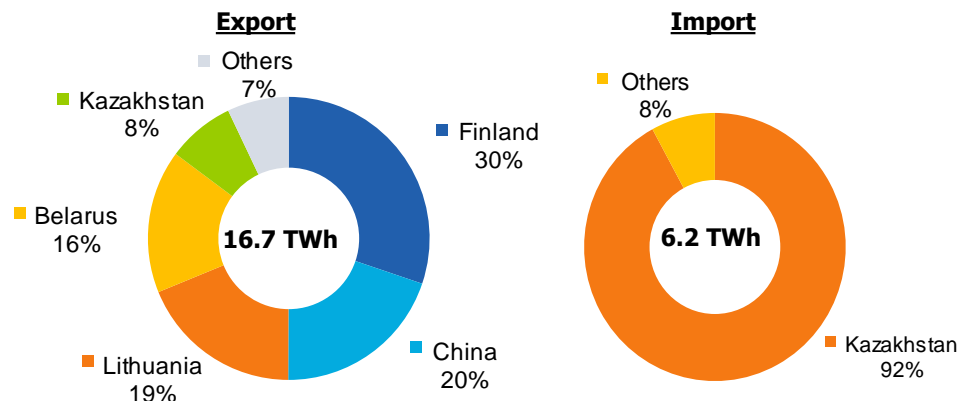
x% - Year-on-Year change

Trading business

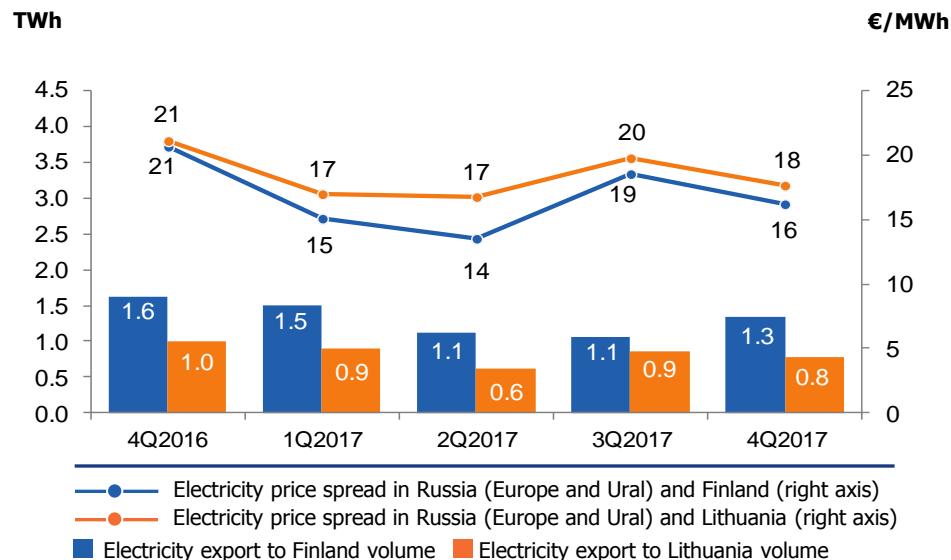
Export/Import volumes



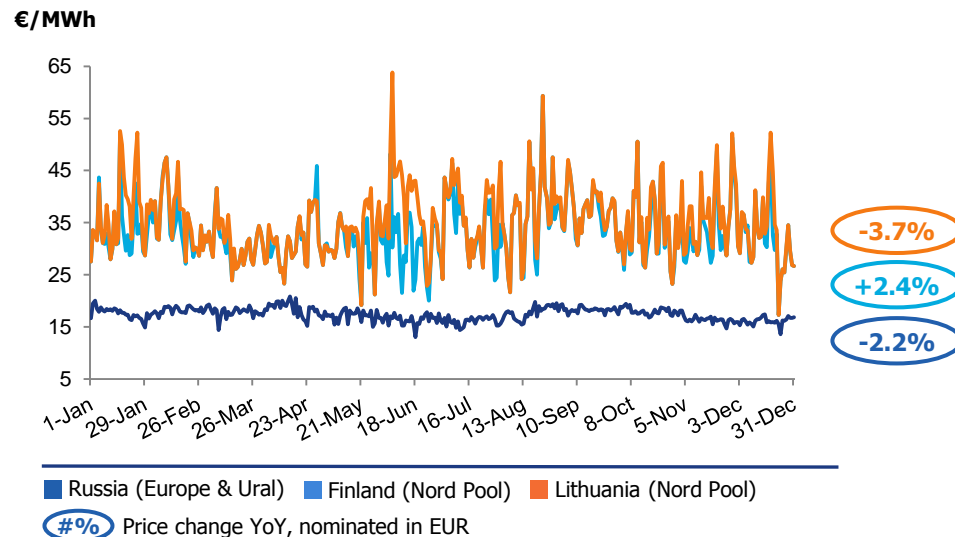
Export/Import breakdown for 2017



Electricity export dynamics and price spread



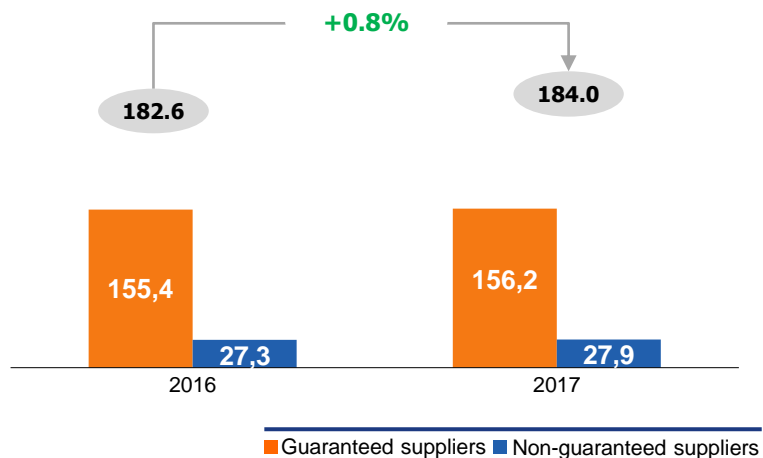
Electricity spot prices



Supply business

Electricity sales to customers*

TWh



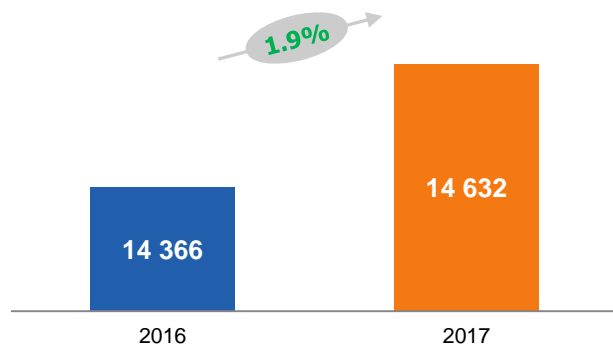
*Data includes Bashkir Supply company (for 2016)

Supply companies' regions of operation

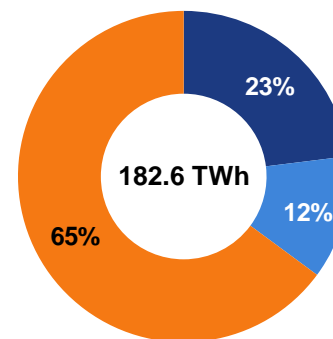


Number of Customers

Thousands customers



Retail Electricity Sales Breakdown



■ Households and equated groups of customers ■ Loss compensation ■ Other customers



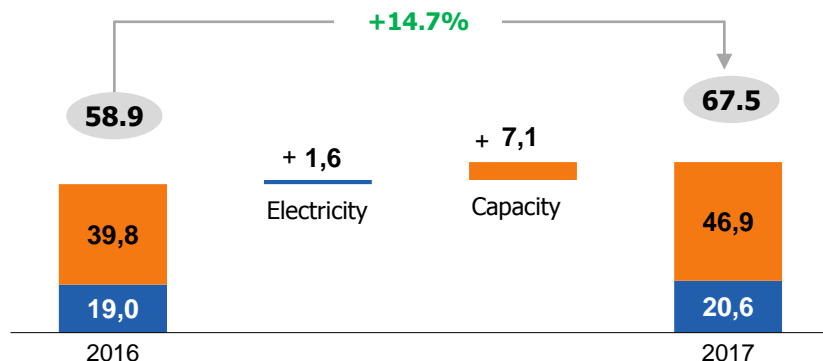
II. Operational Efficiency Increase



Operating efficiency increase of electricity generation⁽¹⁾

Revenue bridge from CDA units ⁽²⁾

RUB bn



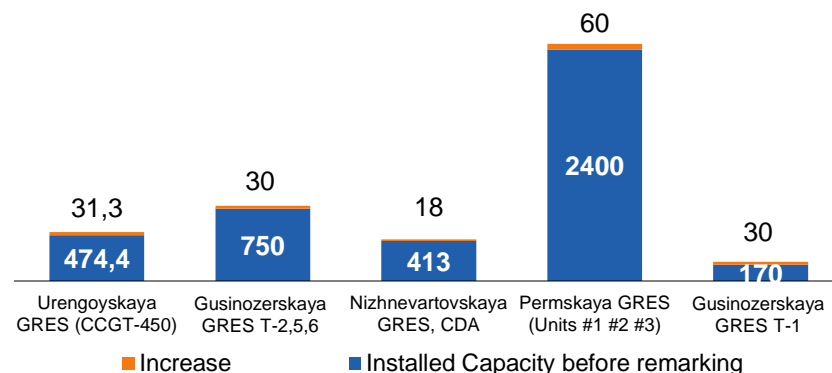
(1) Includes «IRAO – Electricity Generation» and «Nizhnevartovskaya GRES»

(2) Revenue from CDA objects is represented as a balance of purchased and sold electricity and capacity

Equipment remarking 2016-2017

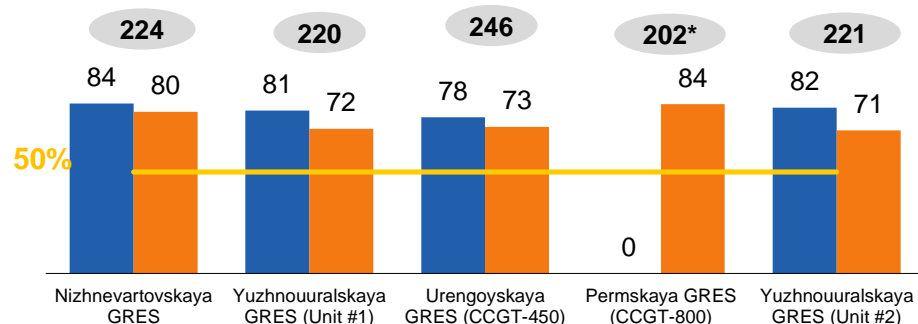
MW

Combined effect on the profit from equipment remarking stands at **RUB 431 mln**
Installed capacity growth as a result of remarking: **173.8 MW**



Efficient Load of New High-Margin Power Units

MW



■ Load factor, 2016

■ Load factor, 2017

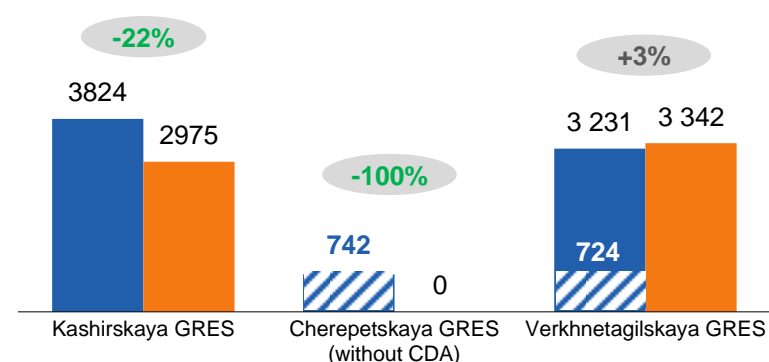
— Average Load Factor Inter RAO Generation in Russia 2017

g/kWh Fuel efficiency rate for electricity generation

* Fuel costs during commissioning period partially included in capital expenditures

Optimized Load of Low-Margin Generating Units

mln kWh



■ electricity generation, 2016

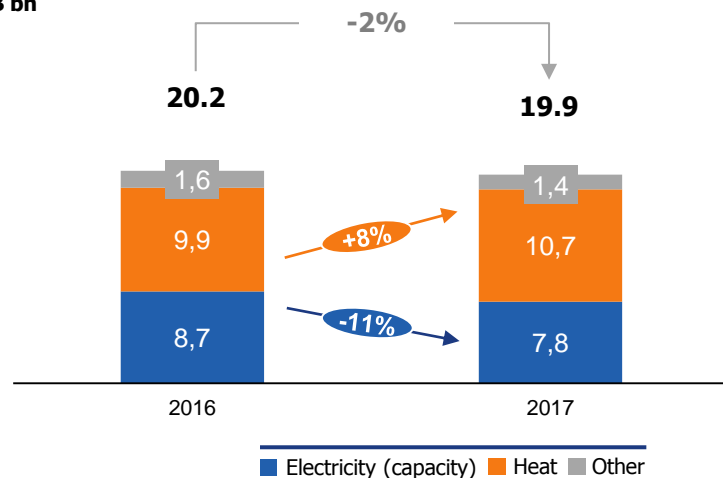
■ electricity generation, 2017

▨ Electricity generation of equipment decommissioned since 01.01.2017

Operating efficiency increase of heat generation

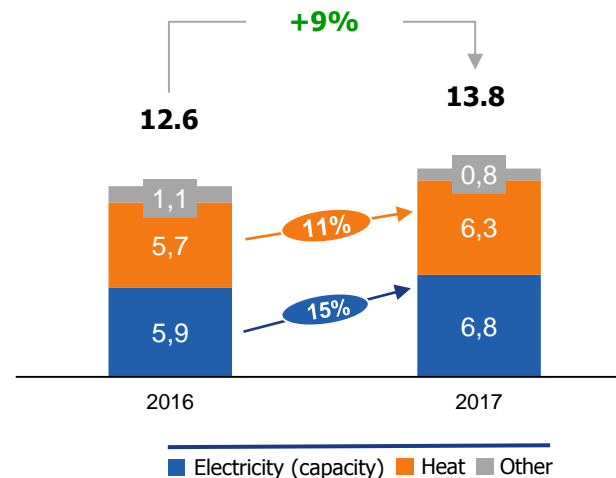
Marginal profit dynamics of BGC Group

RUB bn

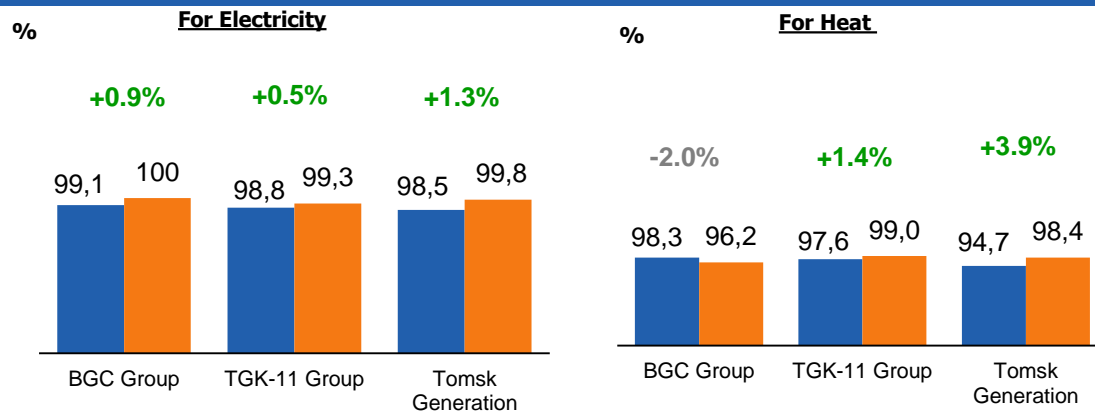


Marginal profit dynamics of TGK-11 Group*

RUB bn

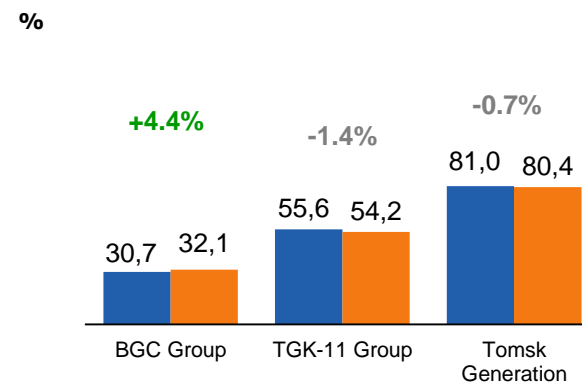


Payments collection



■ 2016 ■ 2017

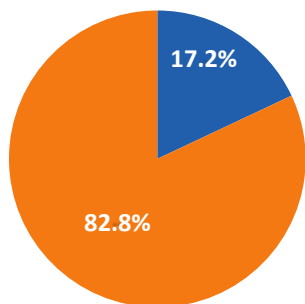
Electricity generation in cogeneration mode



*Includes BGC, BashRTS, TGK-11, Tomsk Generation, OmskRTS and TomskRTS

Operating efficiency increase of supply business

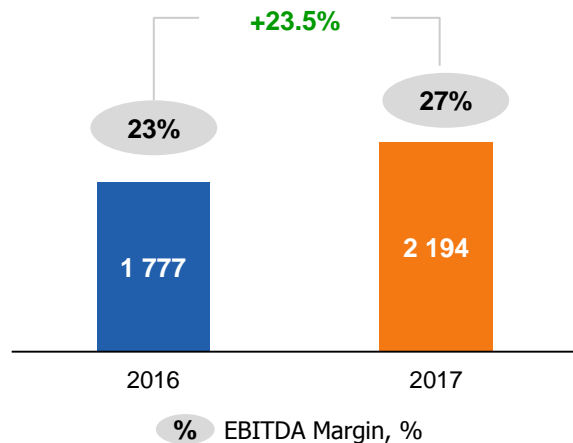
Market share of Inter RAO Group on the Russian retail electricity market



■ Inter RAO Group's Supply companies
■ Other Supply companies

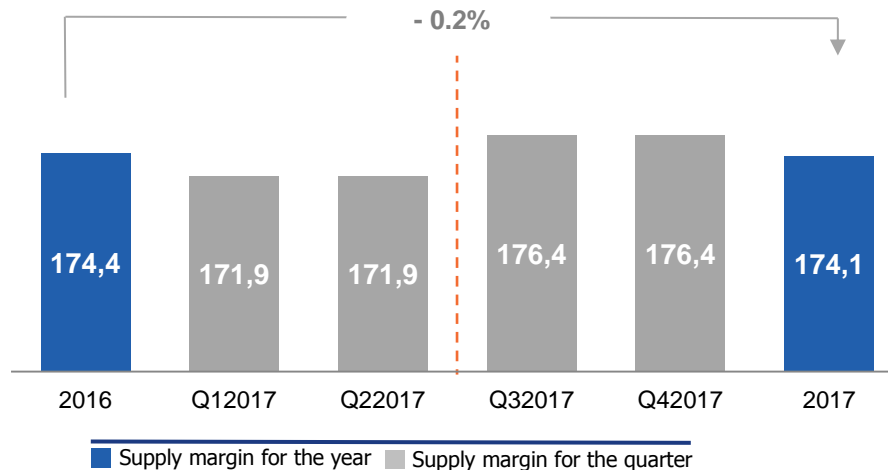
Marginal profit from EPS dynamics

RUB mln



Supply margin of guaranteed suppliers dynamics⁽¹⁾

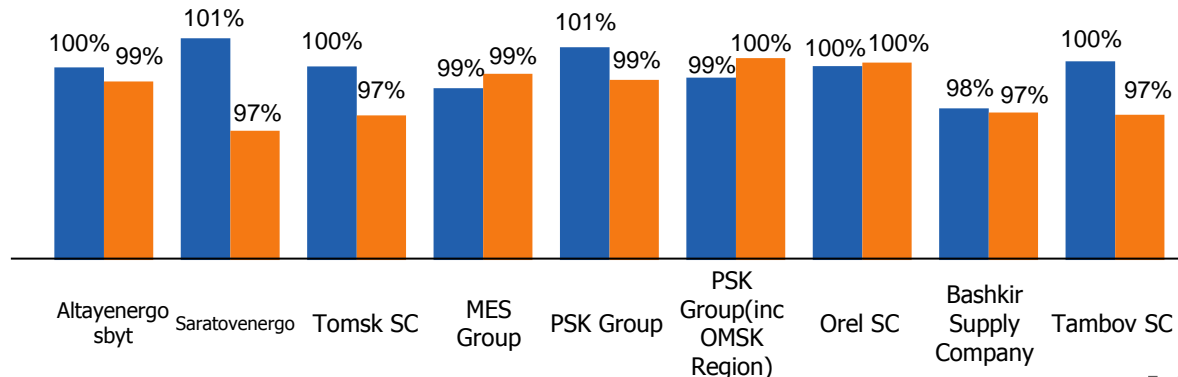
RUB/MWh



⁽¹⁾ Based on weighted average of supply margins of the Group's guaranteed suppliers

Payments collection for Guaranteed suppliers

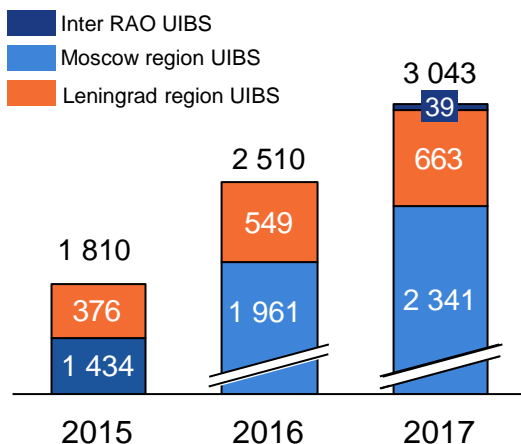
The average level of collection of payments for 2017 was 99,1%
*greater than the average level for Russia



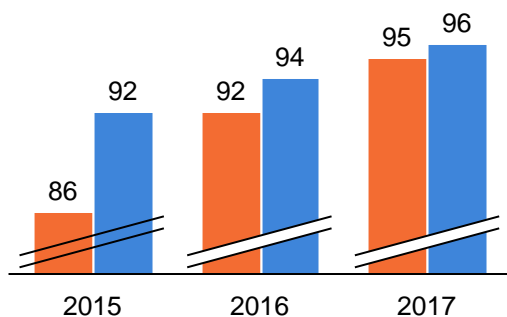
Development of Unified Information Billing System (UIBS)



Increase in clients' accounts (in thousands)



An increase in the level of payment of housing services, %



Background to the creation of the Unified Information Billing System

- Growing non-payments in the sphere of housing and communal services of Moscow and Leningrad regions
- Growth of the indebtedness of the Management Company to the Resource Supply Organizations and, as a consequence, an increase in the debts of housing and utilities enterprises to the Guaranteed Electricity Suppliers
- Regular bankruptcy of management companies and housing and communal services
- A large number of non-transparent settlement centers at the level of individual municipalities

Aim of creating the Unified Information Billing System

- Creation of a transparent system of settlements for housing and communal services in the regions
- Introduction of a convenient and understandable single payment document for the client
- Creation of a convenient and modern system of servicing and informing citizens
- Increase of payment discipline of citizens (especially for repeating non-paying customers)
- Reduction of the debt among resource-providing organizations for the supply of resources

Development Goals for 2018

01	SINGLE PAYMENT DOCUMENT	INCLUSION OF THE WHOLE RANGE COMMUNAL SERVICES INTO THE SINGLE PAYMENT DOCUMENT
02	ONLINE SERVICES AND PAYMENTS	DEVELOPMENT OF ONLINE SERVICES AND PAYMENT SYSTEMS
03	SELF-SUFFICIENCY OUTPUT	INCREASE OF EFFICIENCY AND EXPANSION OF OUR REGIONS OF PRESENCE
04	DEVELOPMENT OF (ADDITIONAL) PAID SERVICES	GROWTH OF SALES OF (ADDITIONAL) PAID SERVICES TO CUSTOMERS OF COMMUNAL SERVICES

Main focus on operational efficiency increase in 2018



1

Electricity Generation Business

- Commission the CDA facilities on schedule: Zatonskaya CHPP;
- Optimize the utilization of electricity generation facilities given the reduction of energy consumption at the low-margin power plants;
- Commission the Kaliningrad Power Generation objects;
- Optimization of the equipment repair activities (the "Repair" project) in order to allocate resources in the best way in order to maintain reliable operation of the equipment;
- Realization of the project "Lean production" in order to improve the efficiency of the equipment;
- Improve the efficiency of the Heat Generation Business within this segment



2

Heat Generation Business

- Continue implementing the measures to reduce level of heat distribution losses;
- Strengthen the claim administration efforts related to the heat market debtors;
- Implement the transition of multifamily dwelling / household owners to direct settlements with utility providers to avoid debt growth among public utility management companies;
- Increase output of heat energy, including heat distribution from collectors, via the market mechanism of contract prices;
- Update the heat distribution schemes in the same cities as the company's assets, confirm status of a single heat distribution company;
- Standardization of documentation for the purpose of developing and improving the internal regulatory system;
- Analyze the opportunities for entering into concession agreements relating to heat distribution with a view to modernize the assets and to reduce the losses of Inter RAO's companies.



3

Supply Business

- Complete "Unified Legal Entities Billing Project" in Bashkortostan Energy Supply Company LLC, Tambov Supply Company PJSC and Saratovenergo Supply company.
- Standardize the system of settlements with individuals under the "Unified Individuals Billing Project", develop and implement the Single Methodology for Dealing with Individual Consumers;
- Transfer the customers of Bashkortostan Energy Supply Company LLC to Inter RAO's unified contact center covering the European zone.
- Increase the payment discipline of PJSC Mosenergosbyt Clients who are in debt by implementing an innovative project that uses Artificial Intelligence software systems ("Clever Debt Collection") to detect and reduce account receivables.



III. IFRS Financial Results



Key Financials

(RUB bn)	2017	2016	Change
Revenue	917.0	868.2	5.6%
Operating expenses	869.5	830.0	4.7%
Operating profit/loss	56.1	77.3	-27.4%
EBITDA	95.5	96.3	-0.8%
Adjusted EBITDA⁽¹⁾	95.5	93.5	2.1%
EBITDA margin	10.4%	11.1%	-6.1%
Net Income/Loss	54.4	61.3	-11.2%
CAPEX	31.5	34.7	-9.3%

(RUB bn)	31.12.2017	31.12.2016	Изменение
Total assets	625.1	571.6	9.4%
Total equity	459.4	419.2	9.6%
Adjusted Debt⁽²⁾	16.4	17.8	-7.6%
Adjusted Net Debt⁽³⁾	-147.9	-78.2	-

Please note:

- hereinafter in this presentation all relative percentage changes are shown in accordance with calculations in mln. RUB

(1) Excludes from the composition of EBITDA 2016 the indicators of the assets sold in Armenia and Georgia, and also JSC Ekibastuz GRES-2 due to its reclassification into assets classified as 'held for sale'.

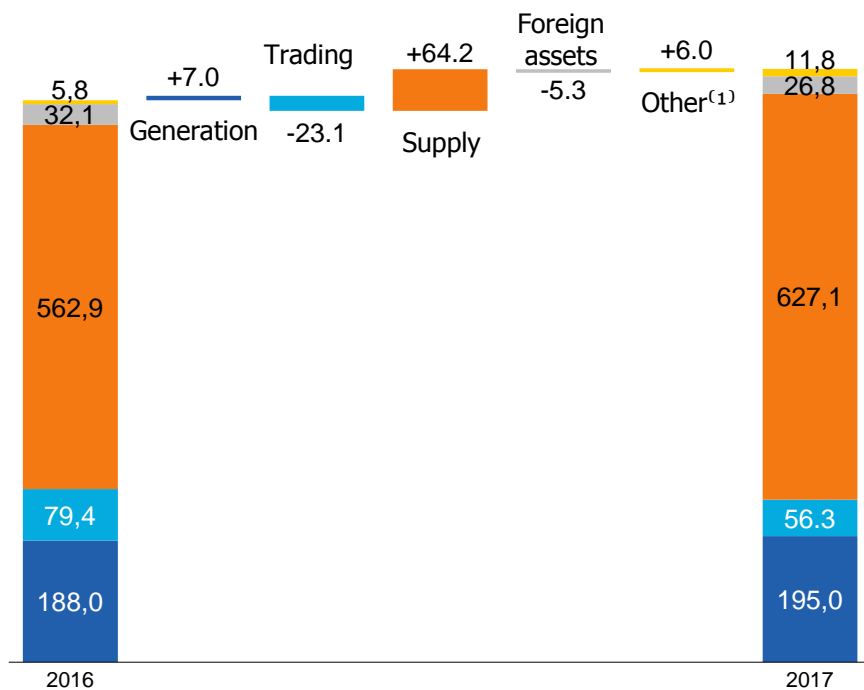
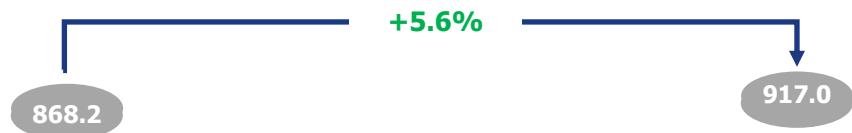
(2) Includes share in debt of joint ventures RUB 0.2bn as of 31.12.2016.

(3) Includes cash deposits (3-12 months) in the amount of RUB 22.3bn as of 31.12.2017. (as of 31.12.2016 – RUB 0.02 bn) and the share in debt of joint ventures in amount of RUB 0.2 bn as of 31.12.2016

Evolution of key financials

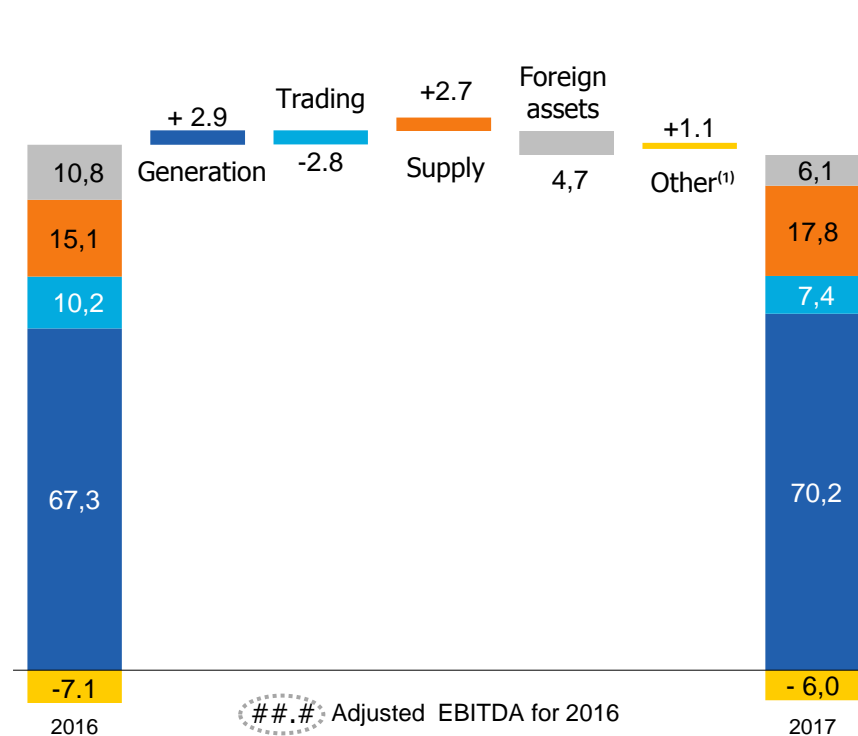
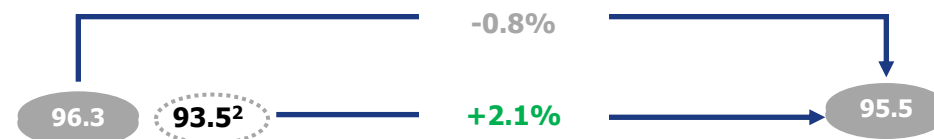
Revenue bridge

RUB bn



EBITDA bridge

RUB bn



Please note:

- Hereinafter the presentation, Generation includes financial results from the Electricity Generation and Heat Generation segments

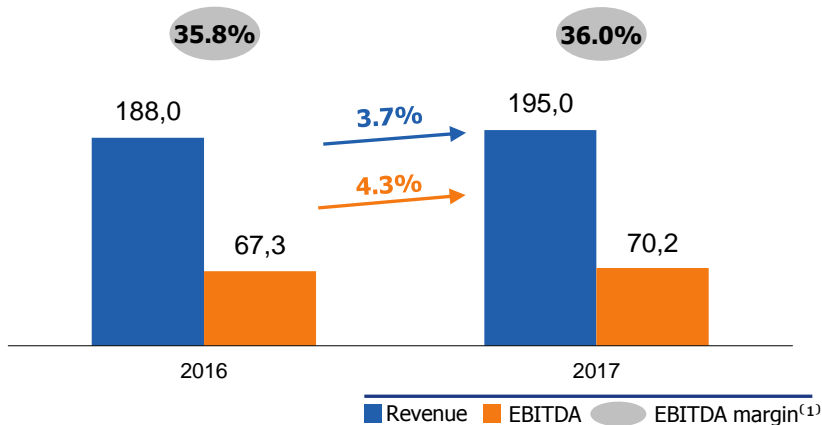
(1) Includes the segments Engineering and Corporate Centre

(2) Excludes from the composition of EBITDA for 2016 the indicators of the sold assets in Armenia and Georgia, and also JSC Ekibastuz GRES-2 due to its reclassification into assets classified as 'held for sale'.

Key Segments : Generation

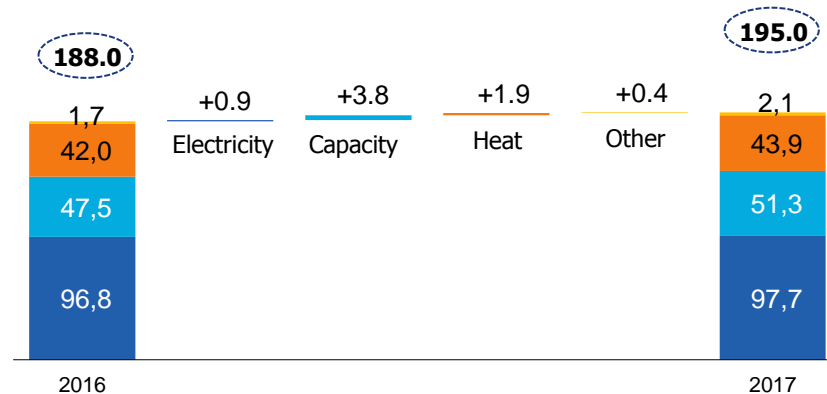
Revenue and EBITDA

RUB bn



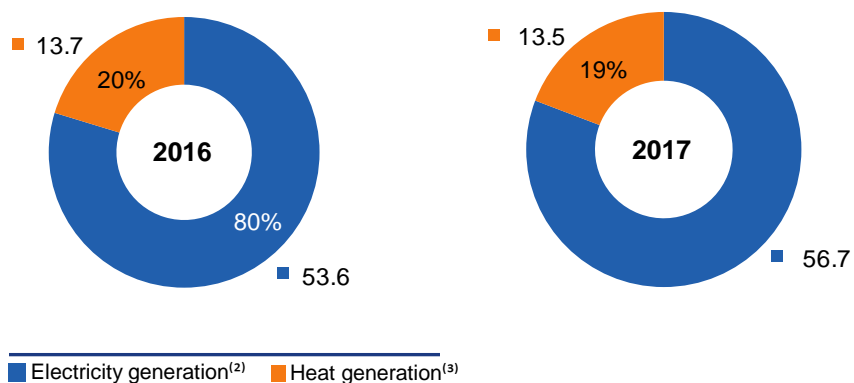
Revenue breakdown

RUB bn



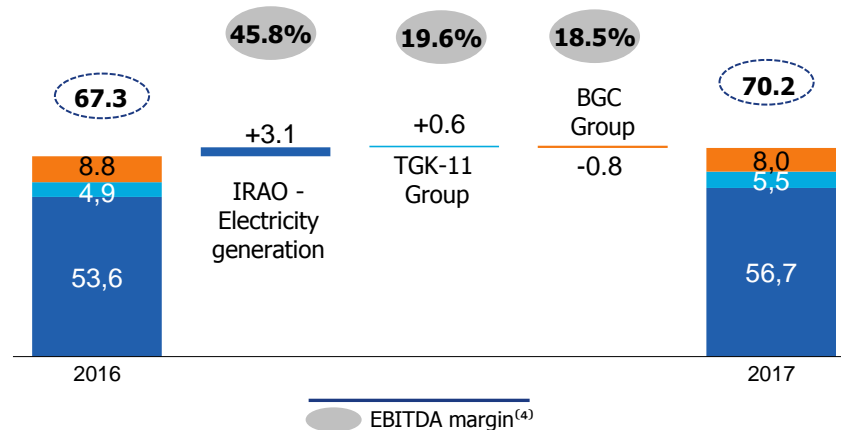
EBITDA structure

RUB bn



EBITDA contribution by company

RUB bn



(1) EBITDA margin calculation excludes inter-segment revenue (RUB 52.2 bn in 2016 and RUB 55.6 bn in 2017)

(2) Electricity generation sub segment includes financial results of Inter RAO – Electricity Generation Group

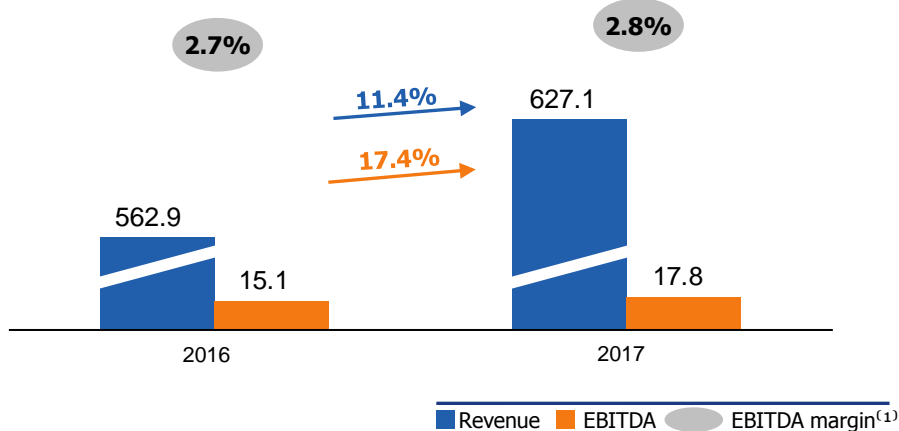
(3) Heat generation sub segment includes financial results of TGK-11 Group and BGC Group

(4) EBITDA margin calculation excludes inter-segment revenue in 2017 (Inter RAO – Electricity Generation Group - RUB 41.9 bn; TGK-11 Group - RUB 3.6 bn; BGC Group - RUB 10.1 bn.)

Key Segments: Supply

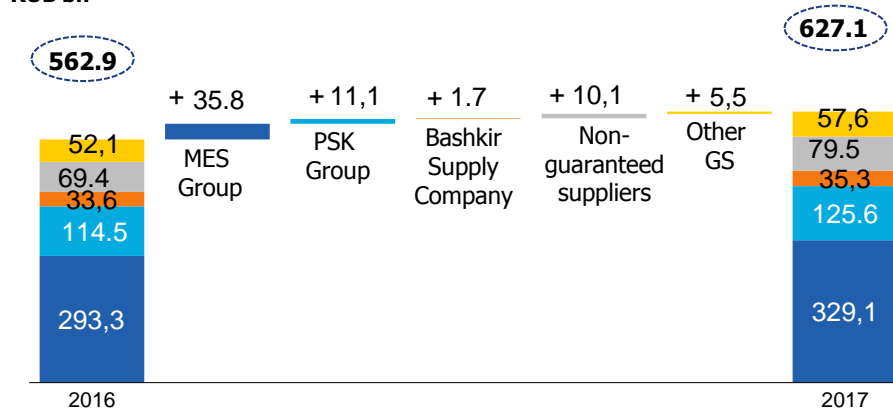
Revenue and EBITDA

RUB bn



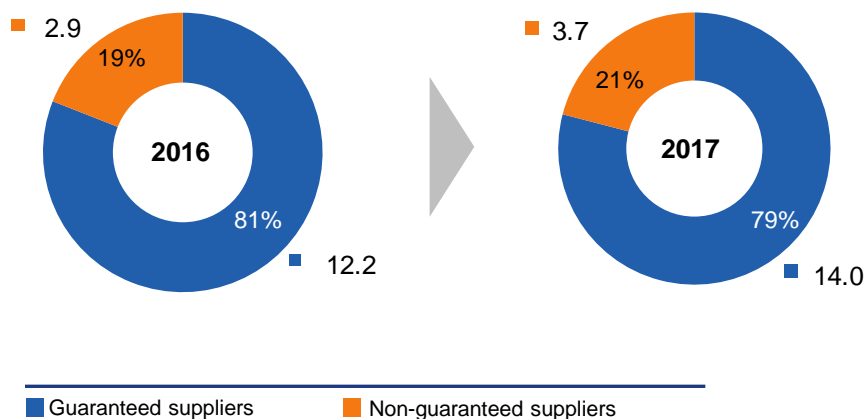
Revenue contribution by company

RUB bn



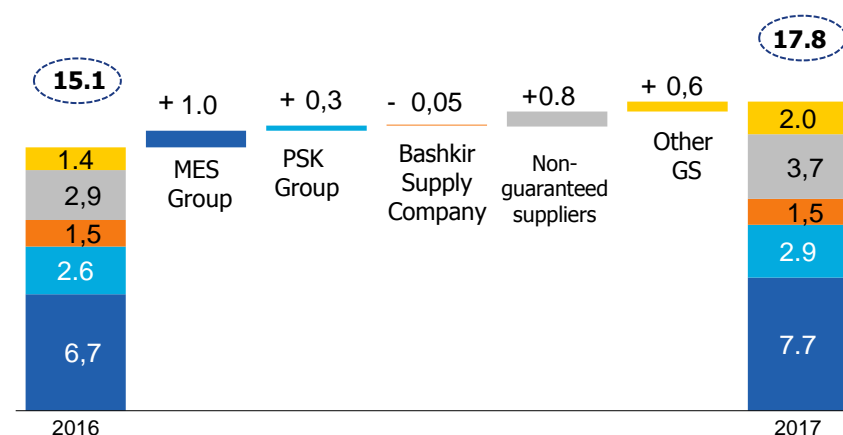
EBITDA structure

RUB bn



EBITDA contribution by company

RUB bn

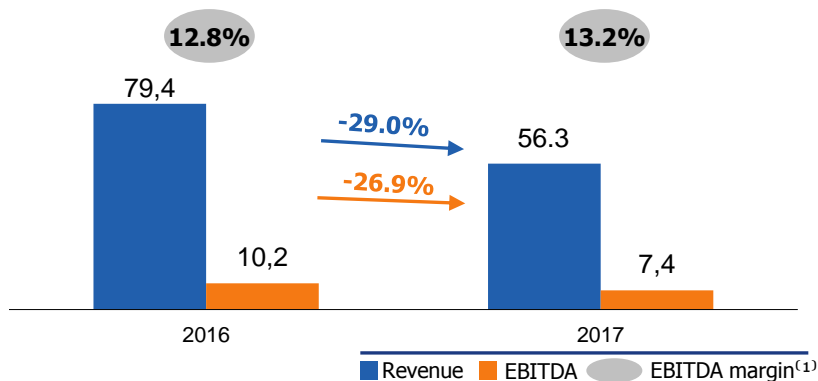


(1) EBITDA margin calculation excludes inter-segment revenue (RUB 1.4 Bn in 2016 and RUB 1.5 Bn in 2017)

Key Segments: Trading and Foreign Assets

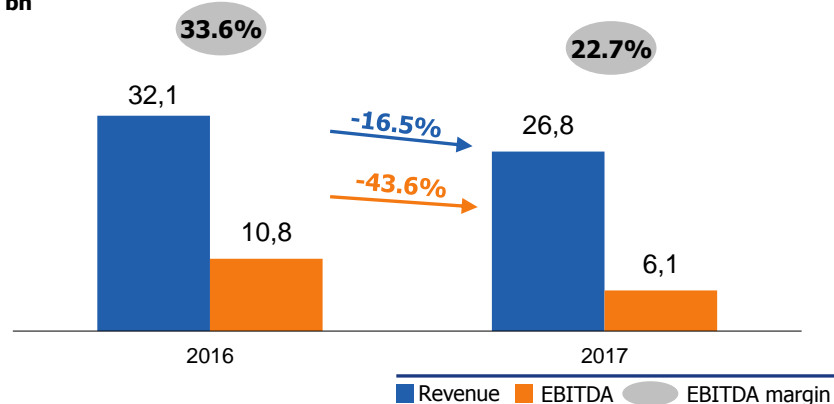
Trading: Revenue and EBITDA

RUB bn



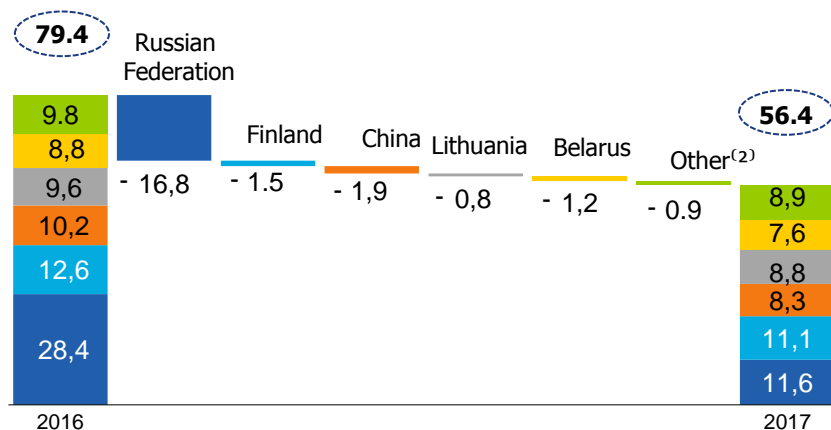
Foreign Assets: Revenue and EBITDA

RUB bn



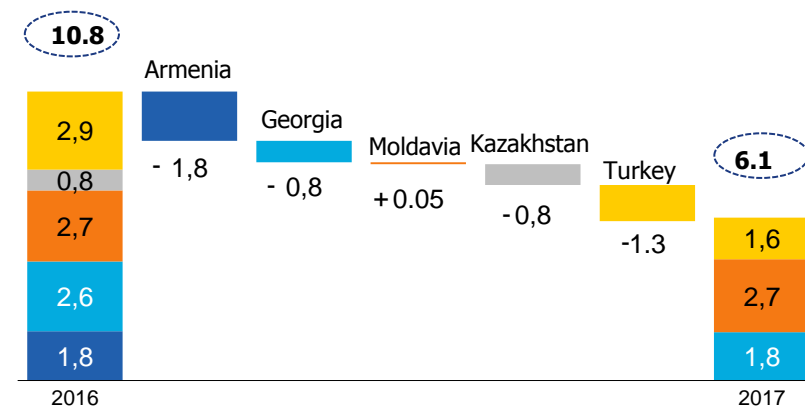
Trading: Revenue contribution by country

RUB bn



Foreign Assets: EBITDA contribution by country

RUB bn

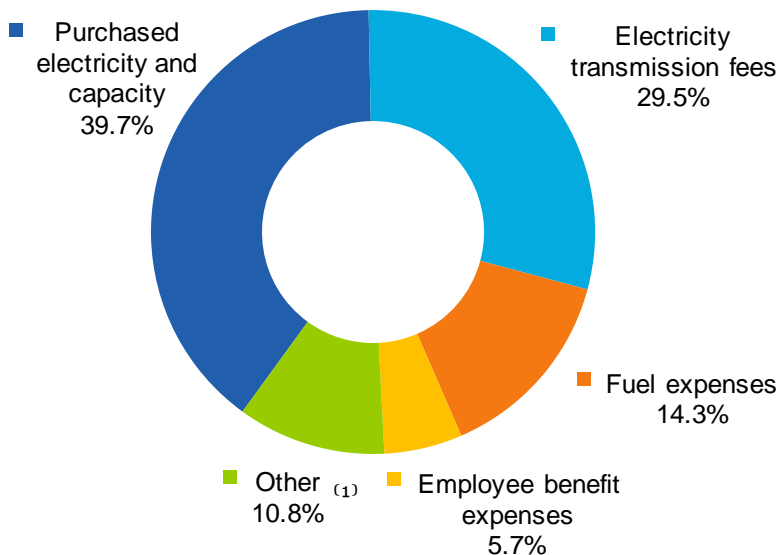


(1) EBITDA margin calculation excludes inter-segment revenue (RUB 1.6 bn in 2016 and RUB 2.3 bn in 2017)

(2) Kazakhstan, Georgia, South Ossetia, Azerbaijan, Mongolia, Norway, Latvia, Estonia and Poland;

Consolidated Operating Expenses

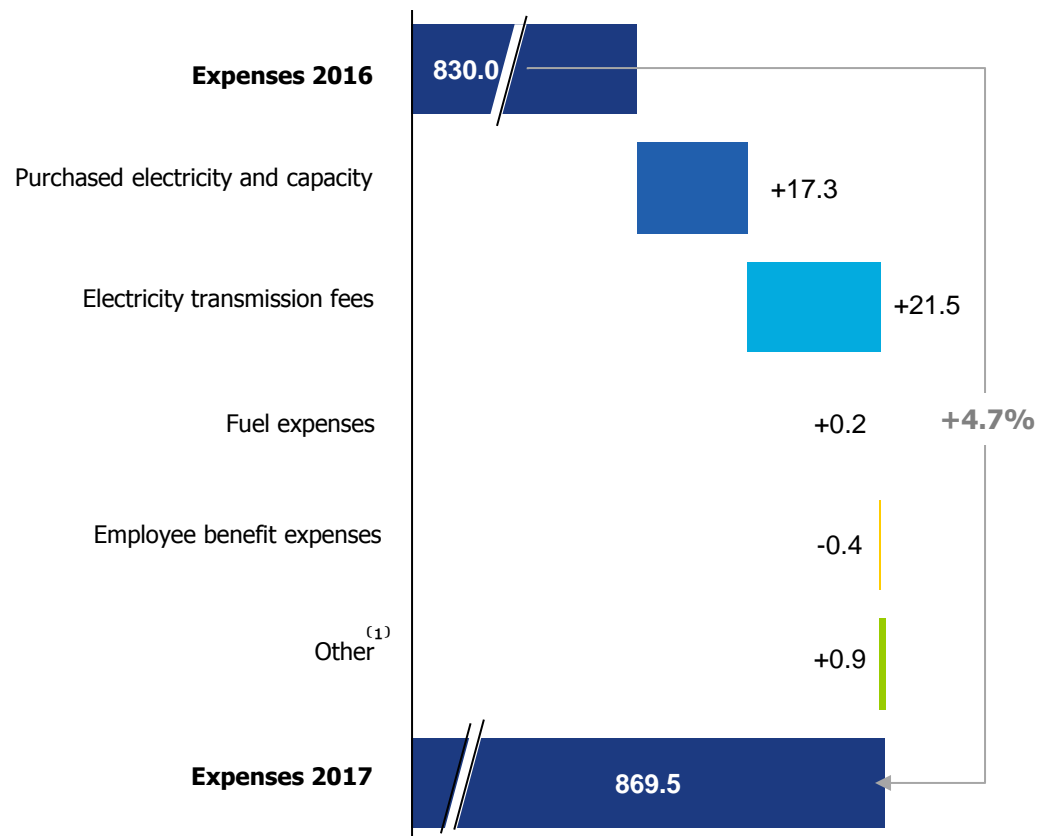
OPEX breakdown



Consolidated operating expenses of Inter RAO Group for the 2017 amounted to RUB 869.5 bn ⁽¹⁾

OPEX dynamics

RUB bn



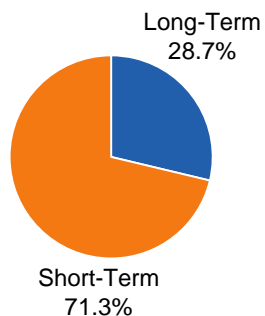
Consolidated revenue growth of Inter RAO Group for 2017 (+5.6% YoY) is exceeding the growth of consolidated operating expenses (+4.7% YoY)

⁽¹⁾ Other expenses include depreciation and amortization, provision for impairment of accounts receivables, impairment of PPE and intangible assets and other operating expenses

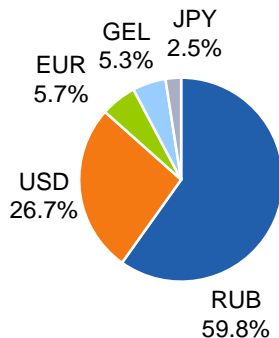
Debt and Liquidity Analysis⁽¹⁾

Debt Composition⁽²⁾

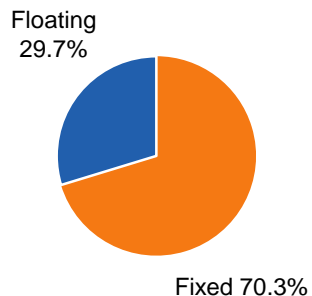
By maturity



By currency



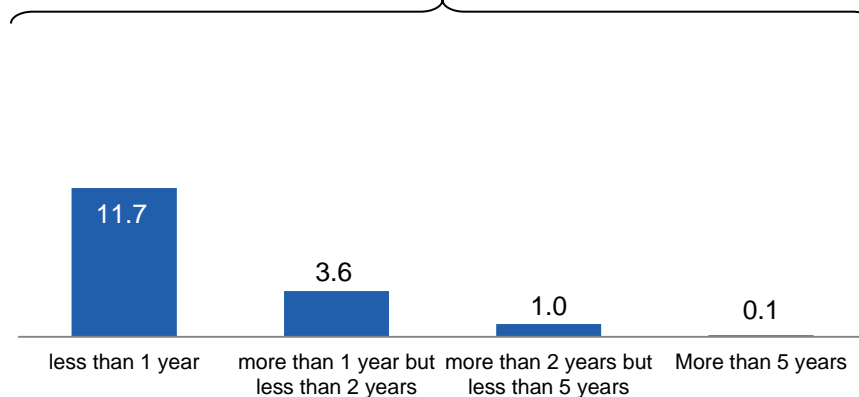
By percentage rate



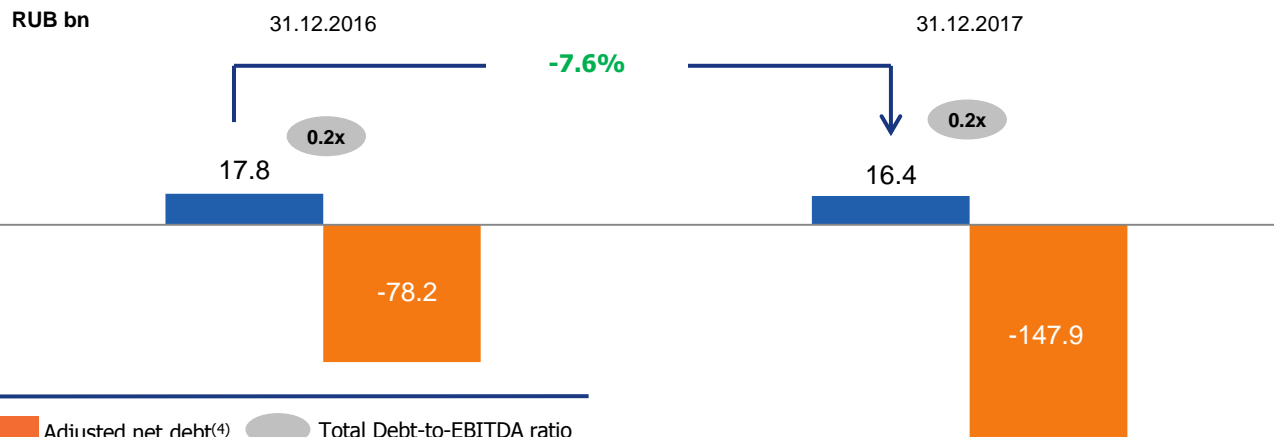
Debt Maturity profile ⁽²⁾

RUB bn

RUB 16.4 bn



Total Debt statistics⁽³⁾



(1) Includes financial lease

(2) Excluding share in debt of joint ventures

(3) Includes share in debt of joint ventures in the amount of RUB 0.15 bn as of 31.12.2016. No share in debt of joint ventures as of 31.12.2017

(4) Includes cash deposits (3-12 months)

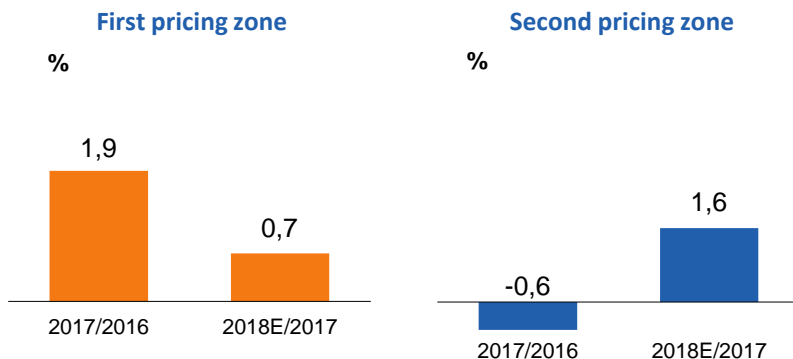


IV. Wholesale capacity market development

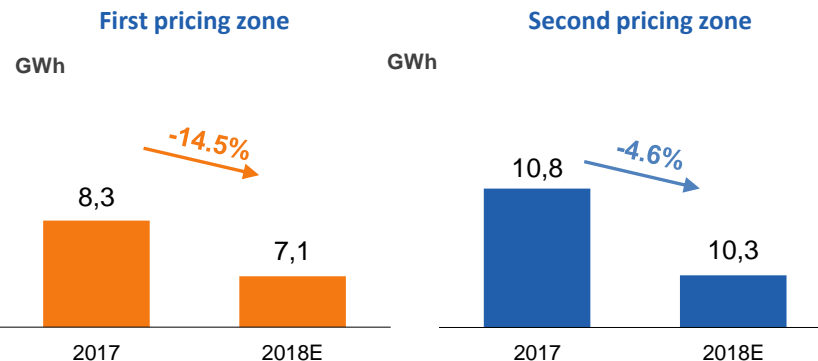


Electricity Market Dynamics for 2017-2018E*

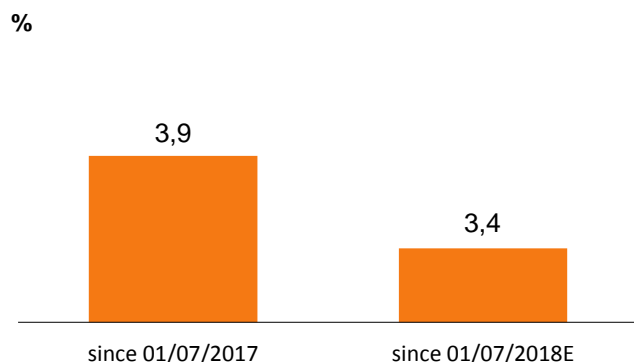
Electricity Consumption Dynamics in Russian Federation⁽¹⁾



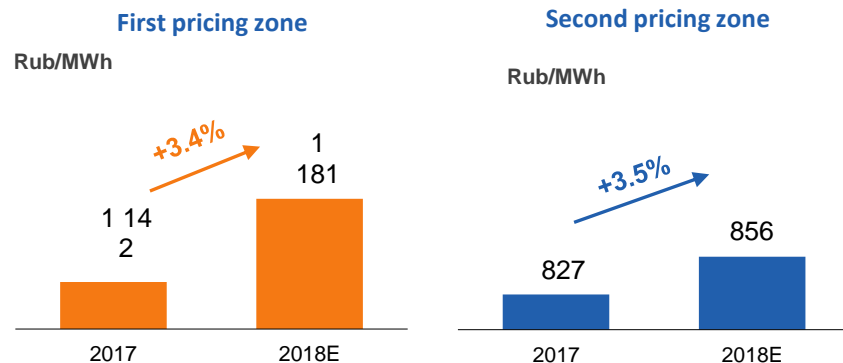
Average Hourly Output of HPPs



Gas Price Indexation



Day Ahead Electricity Price Dynamics⁽²⁾



Decrease in supply of hydroelectric power plants, increase in electricity consumption, coupled with increase in fuel prices, lead to the expected growth of the DAM prices by 3.4% in 1st pricing zone and by 3.5% in 2 pricing zone

(1) In accordance with the scheme and the development program of the UES of Russia for 2017-2023, approved by the Ministry of Energy Order No. 143 dated 01.03.2017

(2) In accordance with current forecasts of free (unregulated) prices for electricity (capacity) for the constituent entities of the Russian Federation for 2017 and 2018, the Association "NP Market Council"

* Expected forecast for Inter RAO Group made on 31.12.2017

Capacity payments increase for CDA units of Inter RAO Group

CDA capacity payments growth factors

DAM coefficient

- Represents share of expenses, compensated in capacity payments, taking into account forecasted profit from electricity sales
- DAMc is reviewed after year 3 and 6 of capacity delivery if deviation from the base exceeds 10%

Return on government bonds

- Is used to calculate the rate of return on invested capital for CDA objects;
- Defined as the average yield on government bonds with a maturity of 7-11 years

Delta CDA

- CDA payment component, that provides return on investment within 10 years, while the payback period is 15 years
- Delta payments are actually carried out from year 7 to year 10 of capacity delivery

Inflation (CPI)

- Is used for indexation of the base amount of operating costs in the calculation of the CDA payment

DAM coefficient review

	Before 2016	From 2016	Change
Yuzhnouralskaya GRES (Unit 1)	0.71	0.84	+0.13
Cherepetskaya GRES (Unit 8)	0.80	0.94	+0.14
Urengoykaya GRES (CCGT)	0.71	0.86	+0.15
Kashirskaya GRES (Unit 3)	0.85	0.99	+0.14

	Before 2017	From 2017	Change
Yuzhnouralskaya GRES (Unit 2)	0.71	0.88	+0.17
Cherepetskaya GRES (Unit 9)	0.80	1.00	+0.2
Nizhnevartovskaya GRES (Unit3)	0.71	0.90	+0.19

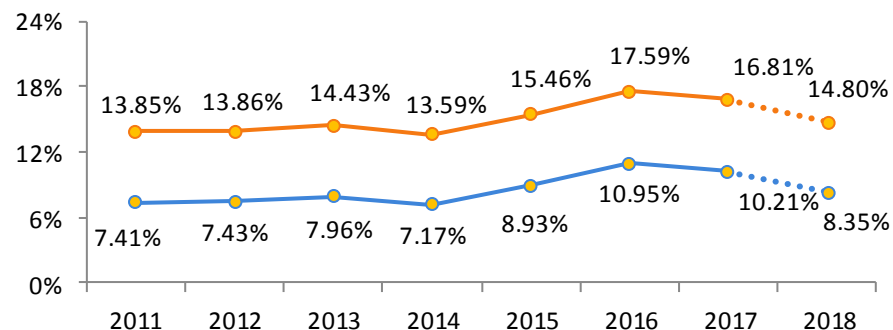
	Since 2017	From 2018	Change
Ivanovskie CCGT (Unit 2)	0.71	0.83	+0.12

FORECASTED REVENUES FROM CDA AGREEMENTS WILL INCREASE BY 7.9 BILLION ROUBLES IN 2018

(1) In accordance with basic return level of 15% (not accounting for extra emissions)

(2) Since October 2018

Returns on government bonds and invested capital dynamics



— Average government bond return, used for ROIC calculations
— ROIC for CDA objects⁽¹⁾

Delta CDA payments

2017	
Kashirskaya GRES (Unit 3)	330 MW
Sochinskaya TPP (Unit 3)	82.5 MW
Tomskaya GRES (TG-2)	50 MW

2018	
Kashirskaya GRES (Unit 3)	330 MW
Sochinskaya TPP (Unit 3)	82.5 MW
Tomskaya GRES (TG-2)	50 MW
Ivanovskie CCGT (Unit 2)	325 MW
Gusinozerskaya GRES (TG-4)	210 MW
Kharanorskaya GRES (Unit 3)	235 MW
Urengoykaya GRES ⁽²⁾	505.7 MW

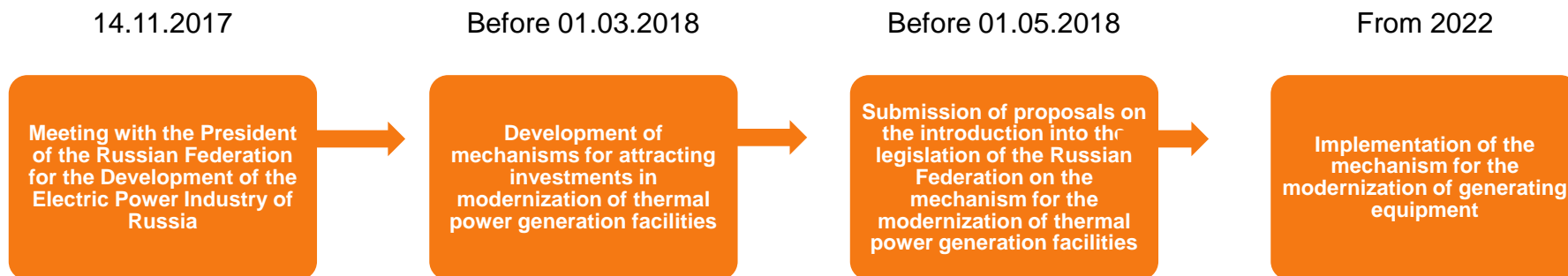


V. Modernization of Generation equipment

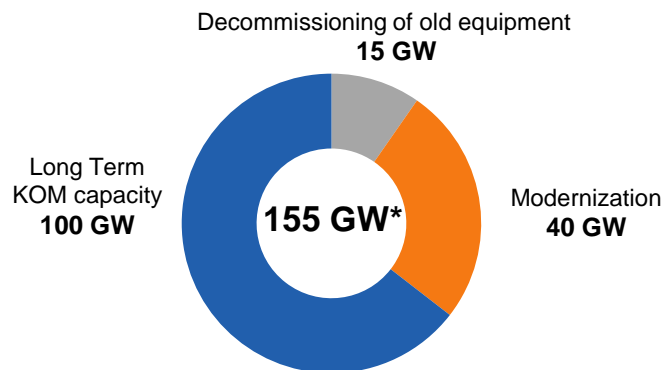


Modernization of Generation equipment

Timing of the implementation of the mechanism for the modernization of generating equipment



Program for conservation and development of installed capacity

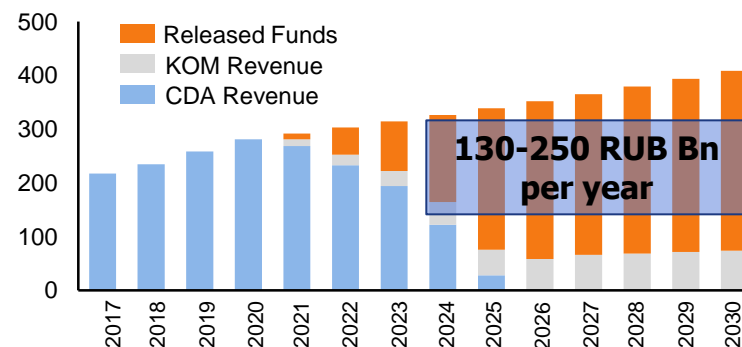


For the time period from 2022 until 2035

*Total capacity of TPPs as of December 31, 2017

Revenue bridge from CDA TPPs units

RUB bn



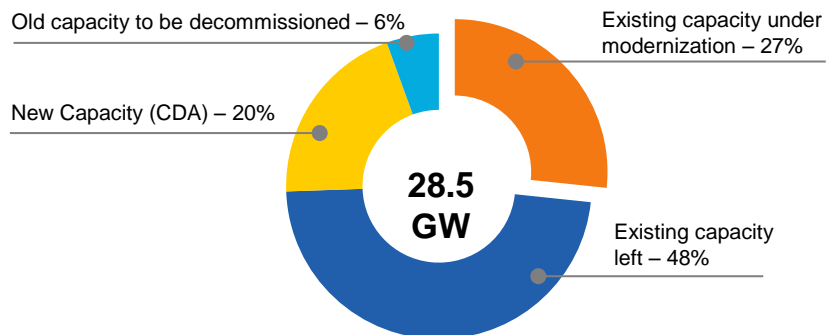
The total Modernization cost from 2021 to 2035 is 2.5 trillion RUB. (1.5 trillion RUB up until 2030) **

** using 2021 prices

Several different mechanisms are being considered for the modernization of existing generating equipment.

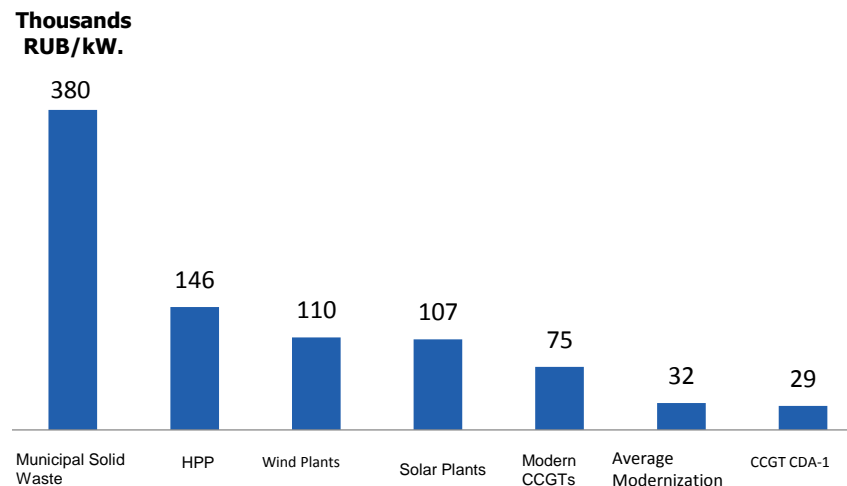
Modernization of Generation equipment for the Group

Inter RAO installed Capacity Breakdown



Possible Installed Capacity modernization amounts to 7.6 GW

Comparison of the specific capital costs for the construction of 1 kW of power



Basic principles of the competitive auction mechanism for the selection of modernization projects for 2021-2030

Who is involved? Only TPPs with the following criteria

- ✓ Participation in the selection of heating and condensing power plants with an operating time of 100,000 - 200,000 hours;
- ✓ the demand factor (coefficient) for the last 2 years is higher than on average for the pricing zones;
- ✓ for non-block equipment of TPPs (boiler, generator), the service life is not less than 40 years, for the last 2 years the Load factor has exceeded the market average

Selection procedure

- Competitive auction mechanism selection of projects is carried out according to the following principles:
- ✓ the projects with the lowest unit cost are selected taking into account volume and cost limitations;
 - ✓ Projects are selected with the best technical and economic indicators while increasing fuel efficiency;
 - ✓ The final list of selected objects is approved by the decision of the Government of the Russian Federation.

Basic components for forming the price for Installed Capacity

- ✓ Return on investment for 15-20 years
- ✓ Return on CAPEX with an estimated yield is similar to the CDA return;
- ✓ OPEX corresponds to the price of KOM.

(1) Forecast of the change in TPP capacity by 2035 in the centralized zone of Russia's energy supply in accordance with the approved General Scheme (Approved by the RF Government Order No. 1203-r dated 09.06.2017)
 (2) Inter RAO assumption

The Map of Equipment Modernization

- Where modernization is more of a priority
- Where modernization is less of a priority
- Modernization [Additions to CCGT/new constructions]

High priority projects include facilities located in the Orenburg region, the Perm region, the Republic of Bashkortostan, the Omsk region, and the Tomsk region.

Low priority projects include facilities located in the Kostroma Region, the Perm Territory, the Republic of Bashkortostan, the Omsk Region, the Perm Territory, the Khanty-Mansi Autonomous Area.

Modernization [Additions / new construction]: Republic of Bashkortostan, Kostroma Region, Orenburg Region, Sverdlovsk Region, Zabaikalsky Krai, Khanty-Mansi Autonomous Area.





VII. Q&A session

