

# **Inter RAO Group 2016 Consolidated Financial and Operating Results**

1 March 2017



# **Key Factors Affecting Group's Financial Performance**

1

### **GENERATION IN THE RUSSIAN FEDERATION:**

- Commissioning of 445 MW new and modernized power generation capacity under the Capacity Delivery Agreements (CDA);
- Decommissioning of 835 MW old inefficient power generation capacity;
- Capacity payments for CDA objects grew on average 27.7% 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 objects after the 7<sup>th</sup> year of capacity delivery
- KOM's capacity prices on the wholesale market increased by 16.5% YoY
- Electricity price appreciation on the day-ahead market (DAM) in the 1<sup>st</sup> pricing zone (by 4.0%) and an unfavorable pricing environment in the 2<sup>nd</sup> pricing zone (5.7% YoY decline in electricity prices);
- Heat tariffs across Russian assets of the Group increased on average 9.6% YoY;
- Optimization of fuel purchase prices across Russian assets of the Group.

2

### **SUPPLY IN THE RUSSIAN FEDERATION:**

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

3

### TRADING:

- Electricity export increase to Finland by 56.1% and to Belarus by 13.0% while exports to Kazakhstan decreased by 24.5%, respectively, alongside with discontinued operations with Ukraine under commercial contracts;
- Weakening of the Russian national currency against the currencies of major export power supply contracts: 10.0% YoY against USD , and 9.5% 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.





# **I. Operational Performance Results**

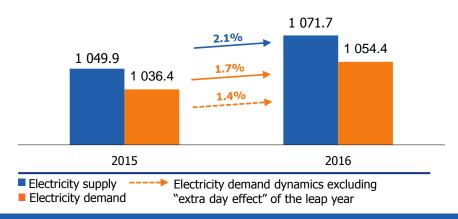




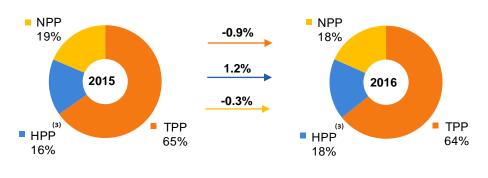
# **Electricity market conditions in Russian Federation in 2016**

### Electricity supply and demand dynamics in Russian Federation<sup>(1)</sup>

### TW\*h

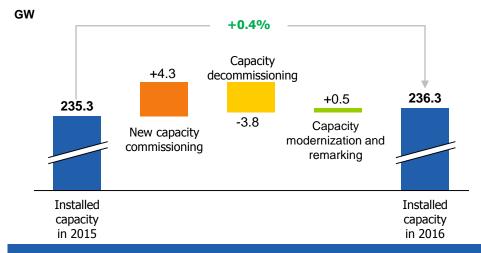


### Load breakdown dynamics of power plants in Russian Federation<sup>(2)</sup>

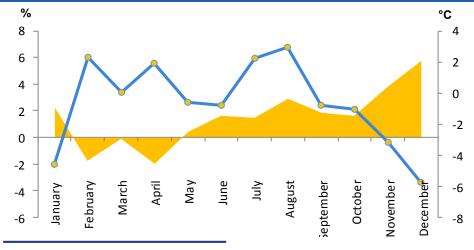


- Electricity production dynamics by type of power plant
- (1) System Operator of United Energy System of Russian Federation
- (2) Ministry of Energy of Russian Federation
- (3) Electricity produced from renewable sources is included into HPP production

# Commissioning and decommissioning of generating power capacity in United Energy System of Russia<sup>(1)</sup>



### Temperature factor influence(1)

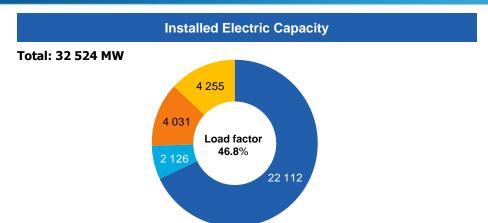


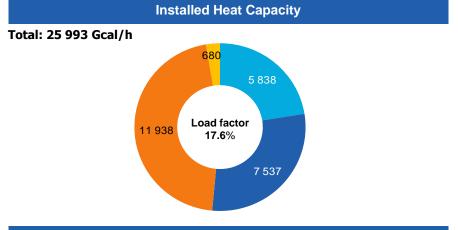
Relative change of electricity demand volumes in %, 2016/2015

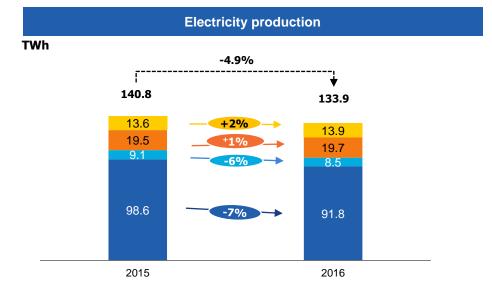
— Monthly average temperature difference (°C) 2016/2015

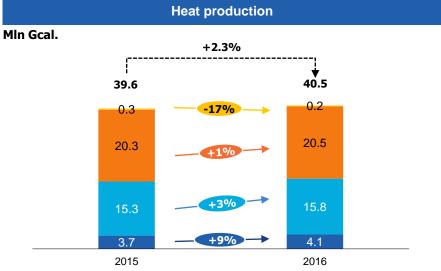


# **Electricity and Heat Production**









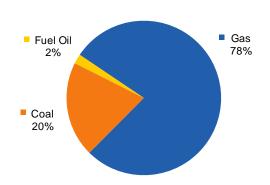
■INTER RAO – Electricity Generation Group ■TGK-11 Group¹■ BGC Group ■Foreign Generation —#%→ Electricity/heat production dynamics Electricity production decreased due to optimization of inefficient generation assets and decommissioning of inefficient generation equipment of Inter RAO Group

<sup>(1)</sup> Includes TGK11, Tomsk Generation, Omsk RTS, Tomsk RTS



# **Optimization of Fuel Costs**





Gas consumption in Inter RAO Group reached 30.0 bcm

Coal consumption in Inter RAO Group reached 15.7 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
- Under the contract, Rosneft supplies gas at a discount to the regulated industrial consumer price

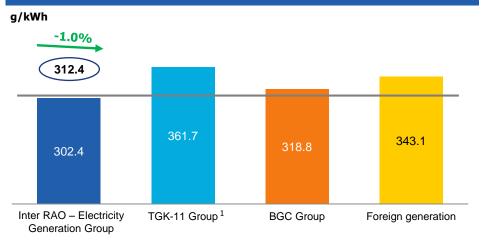
### **Decline in Coal Purchase Prices\***

### RUB/ton

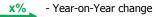


<sup>\*</sup> Across Russian assets of Inter RAO Group

### **Fuel Consumption in Electricity Generation**

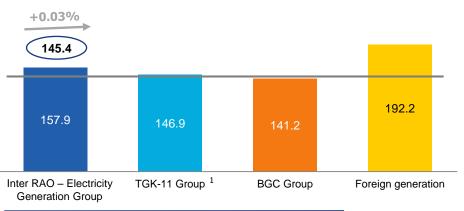


### - Electricity production fuel efficiency for Inter RAO Group



### **Fuel Consumption in Heat Generation**

### kg/Gcal



#

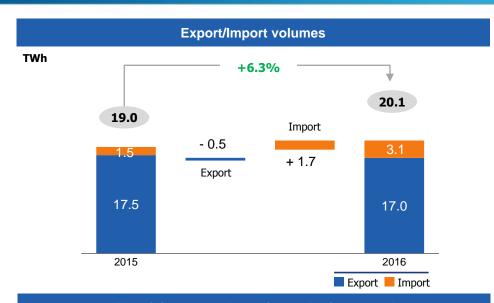
- Heat production fuel efficiency for Inter RAO Group

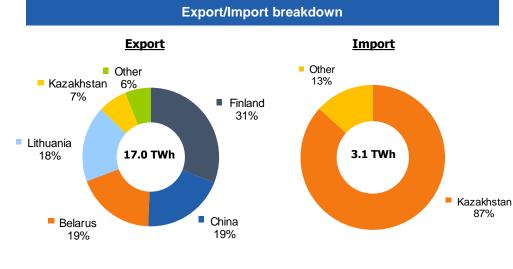
x%

Year-on-Year change

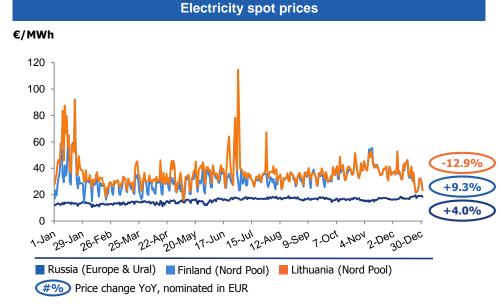


# **Trading business**





### **Electricity export dynamics and price spread TWh** €/MWh 4.5 35.0 31 4.0 30.0 3.5 24 25.0 3.0 20 21 19 21 17 20.0 2.5 15 15 14 2.0 15.0 1.5 10.0 1.5 1.0 0.9 5.0 0.5 1.0 0.9 0.8 0.0 0.0 4Q2015 1Q2016 2Q2016 3Q2016 4Q2016 Electricity price spread in Russia (Europe and Ural) and Finland (right axis) Electricity price spread in Russia (Europe and Ural) and Lithuania (right axis) ■ Electricity export to Finland volume ■ Electricity export to Lithuania volume

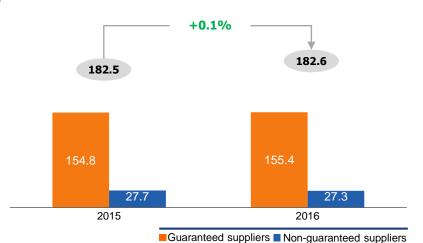




# **Supply business**

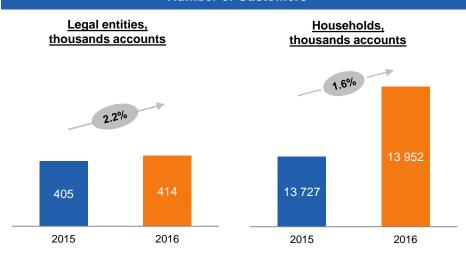
### **Electricity sales to customers\***

### **TWh**



\*Data includes Bashkir Supply company (2015-2016)

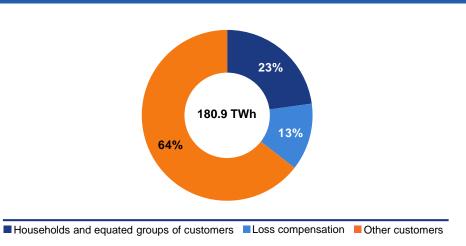
### **Number of Customers**



# Supply companies' regions of operation



### **Retail Electricity Sales Breakdown**





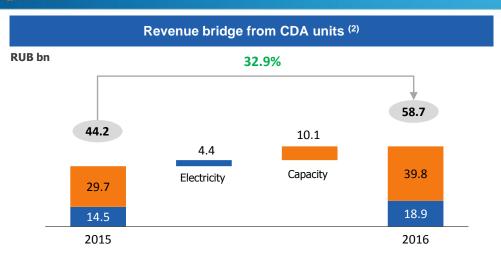


# II. Operational Efficiency Increase

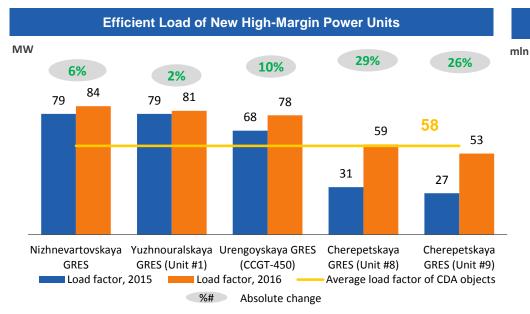




# Operating efficiency increase of electricity generation(1)



- (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



### Inefficient capacity decommissioning

MW

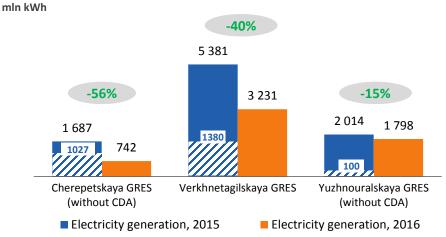
Combined effect on the profit from equipment decommissioning stands at RUB 0.8 bn\*
Fuel efficiency improved by 3.58 g/kW\*h



Cherepetskaya GRES TG 1,2,3 Vrekhnetagilskaya GRES TG Yuzhnouralskaya GRES TG-4 1,4.5,6

- Installed capacity of equipment decommissioned since 01.01.2016
- \* Depreciation adjusted

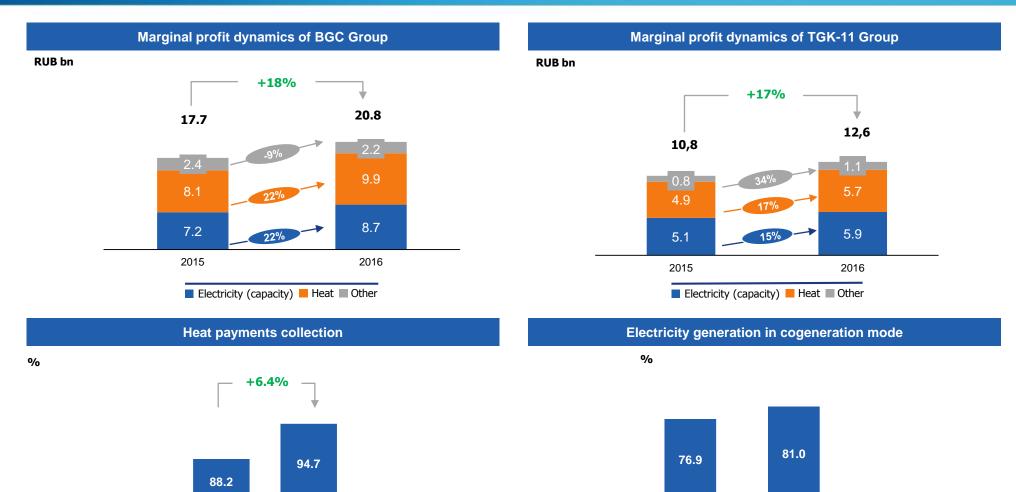
### **Optimized Load of Low-Margin Generating Units**



Electricity generation of equipment decommissioned since 01.01.2016



# Operating efficiency increase of heat generation(1)



**Economically justified and fair heat tariffs helped to increase the profitability of Inter RAO Group's heat business** 

2015

2016

«Tomsk generation»

2015

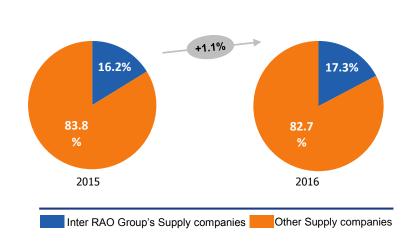
«TomskRTS»

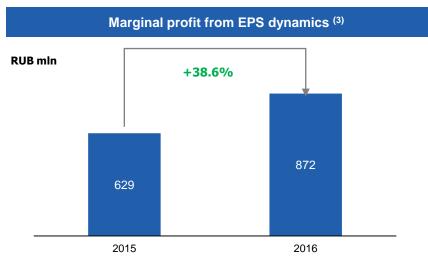
2016



# **Operating efficiency increase of supply business**

Market share of Inter RAO Group on the Russian retail electricity market<sup>(1)</sup>

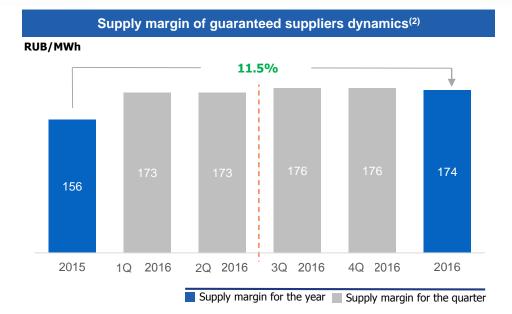




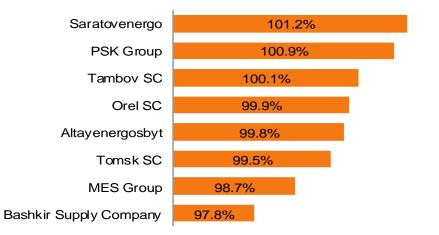


<sup>(2)</sup> Based on weighted average of supply margins of the Group's guaranteed suppliers

3) Data includes Bashkir Supply company (2015-2016)









# Main focus on operational efficiency increase in 2017



# **Electricity Generation Business**

- Commission the CDA objects on schedule: CCGT-420 at Verkhnetagilskaya GRES and CCGT-800 at Permskaya GRES, increasing the installed capacity above the CDA parameters;
- Optimize the utilization of electricity generation facilities given the reduction of energy consumption at the low-margin power plants;
- Decommission 1,195 GW of inefficient generating capacity at Verkhnetagilskaya GRES and Cherepetskaya GRES;
- Continue to optimize timing at the sites under repair without compromising the scope of repair and maintenance work, move the repair of high performance facilities from the high marginality periods;
- Re-classify (increase the paid-up capacity) 60 MW Permskaya GRES into 64 MW, and 4 MW Yuzhnouralsksya GRES-2
- Optimize fuel expenses (by setting up the company's own transport company to reduce the costs for coal transportation, searching for alternative suppliers, conducting test burning).



### Heat Generation Business

- Commission the CDA facilities on schedule:
   Zatonskaya CHPP and Omskaya CHPP (TG-10);
- Expand the geographic footprint by construction of a new thermal plant in Zaton urban district in city of Ufa;
- 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 growth of debt of 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;
- 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.



# Supply Business

- Maintain the same level of payment collection in the retail market segment;
- Improve the customer oriented approach in the Group's power supply companies (operation of front offices and introduction of loyalty programs)
- Implement the Single Corporate Billing Project's milestones in St. Petersburg Retail Company JSC and Tambov Energy Retail Company PJSC;
- Standardize the system of settlements with individuals under the "Unified Individuals Billing Project", develop and implement the Single Methodology for Dealing with Individual Consumers;
- Develop new products for the additional services segment (the metering devices installation, energy saving programs), and scale-up the best practices across Inter RAO's companies;
- Increase the sales margin in the additional services segment;
- Integrate Bashkortostan Energy Supply Company LLC in the Supply Business of Inter RAO Group;
- Transfer the customers of Bashkortostan Energy Supply Company LLC to Inter RAO's unified contact center covering the European zone.





# **III. IFRS Financial Results**





# **Key Financials**

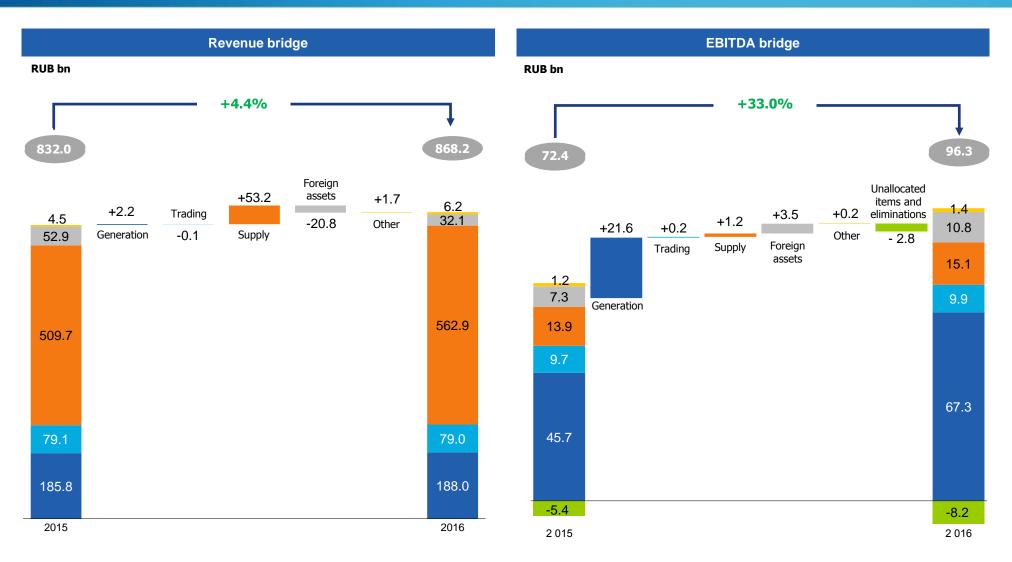
(RUB bn)	2016	2015	Change
Revenue	868.2	832.0	4.4%
Operating expenses	830.0	815.0	1.9%
Operating profit/loss	77.3	25.7	3.0 times
EBITDA	96.3	72.4	33.0%
EBITDA margin	11.1%	8.7%	27.4%
EBIT	73.4	48.8	50.4%
Net Income/Loss	61.3	23.8	2.6 times
Free Cash Flow (FCF)	45.6	33.7	35.4%
CAPEX	34.7	29.0	20.0%
(RUB bn)	31.12.2016	31.12.2015	Change
Total assets	571.6	569.0	0.5%
Total equity	419.2	366.2	14.5%
Adjusted Debt <sup>(1)</sup>	17.8	92.1	-80.7%
Adjusted Net Debt <sup>(2)</sup>	-78.2	8.0	

### Please note

- hereinafter in this presentation all relative percentage changes are shown in accordance with calculations in mln. RUB
- hereinafter in this presentation EBITDA is calculated in accordance with the new methodology adopted by Inter RAO Group
- (1) Includes share in debt of joint ventures RUB 0.2 bn as of 31.12.2016 (RUB 13.9 bn as of 31.12.2015)
- (2) Includes cash deposits from 3 to 12 months in the amount of RUB 0.02 bn as of 31.12.2016 (RUB 17.8 bn as of 31.12.2015) and includes share in debt of joint ventures RUB 0.2 bn as of 31.12.2016 (RUB 13.9 bn as of 31.12.2015)



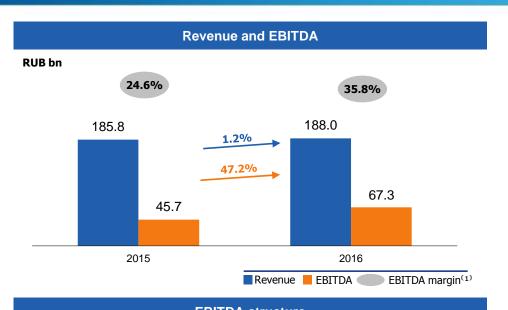
# **Evolution of key financials**

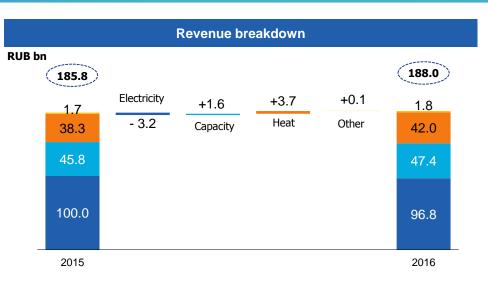


# **EBITDA** increased mainly in the Generation segment

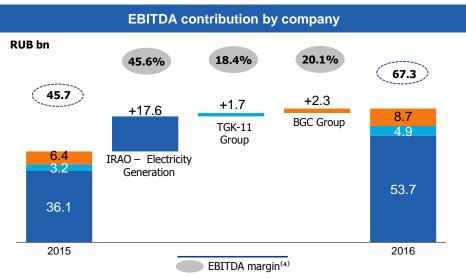


# **Key Segments: Generation**





# RUB bn 9.6 2015 2015 36.1 Electricity generation<sup>(2)</sup> Heat generation<sup>(3)</sup>

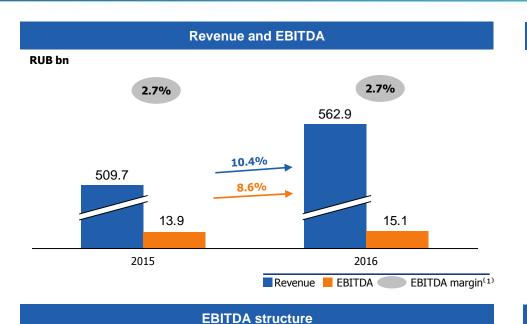


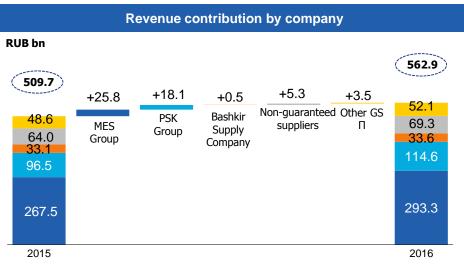
- (1) EBITDA margin calculation excludes inter-segment revenue (RUB 42.6 bn in 2015 and RUB 52.2 bn in 2016)
- (2) Electricity generation sub segment includes financial results of Inter RAO Electricity Generation Group (3) Heat generation sub segment includes financial results of TGK-11 Group and BGC Group
- 4) EBITDA margin calculation excludes inter-segment revenue in 2016 (Inter RAO Electricity Generation Group RUB 38.8 bn; TGK-11 Group –RUB 3.4 bn; BGC Group RUB 10.0 bn.)



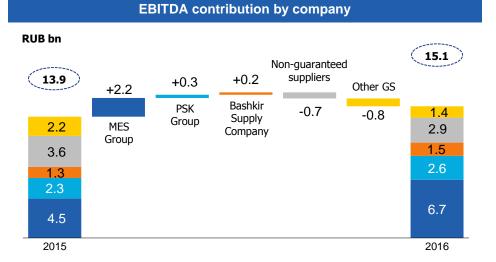
# **Key Segments: Supply**

12.2





# 2015 2016 81%



Non-guaranteed suppliers

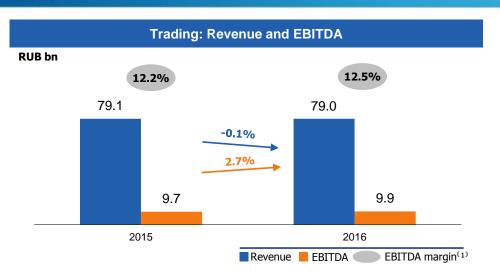
Guaranteed suppliers

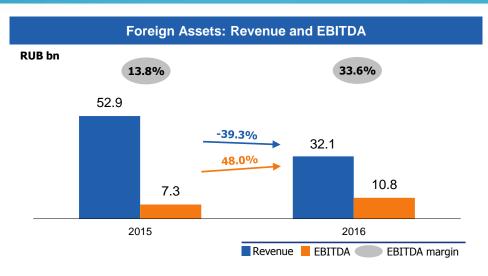
10.3

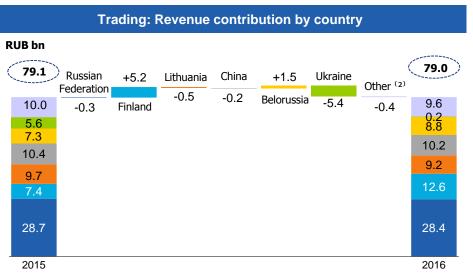
<sup>(1)</sup> EBITDA margin calculation excludes inter-segment revenue (RUB 1.4 Bn in 2015 and RUB 1.4 Bn in 2016)

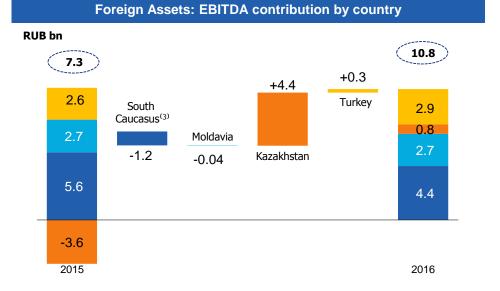


# **Key Segments: Trading and Foreign Assets**





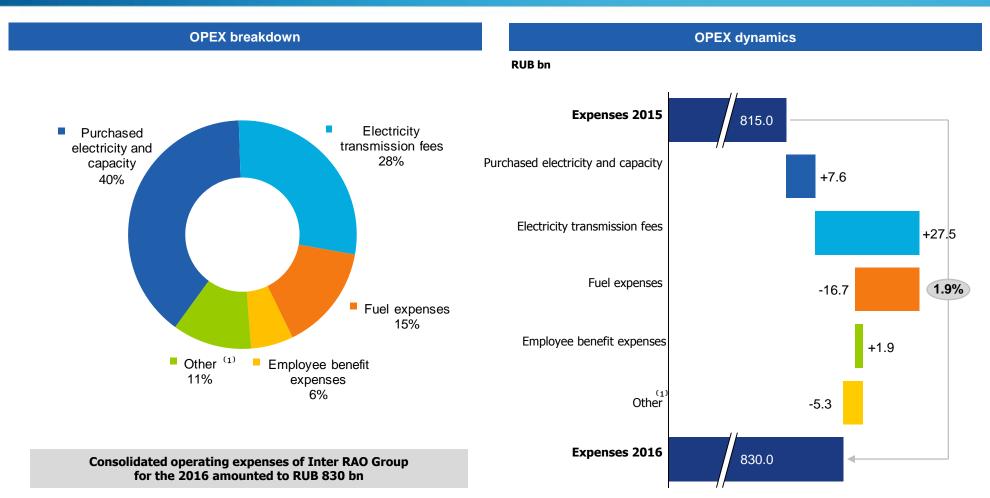




- (1) EBITDA margin calculation excludes inter-segment revenue( RUB 1.5 bn in 2015 and RUB 1.6 bn in 2016)
- (2) Kazakhstan, Georgia, South Ossetia, Azerbaijan, Mongolia, Norway, Latvia, Estonia and Poland;
- 3) South Caucasus segment includes financial results of Georgia and Armenia



# **Consolidated Operating Expenses**

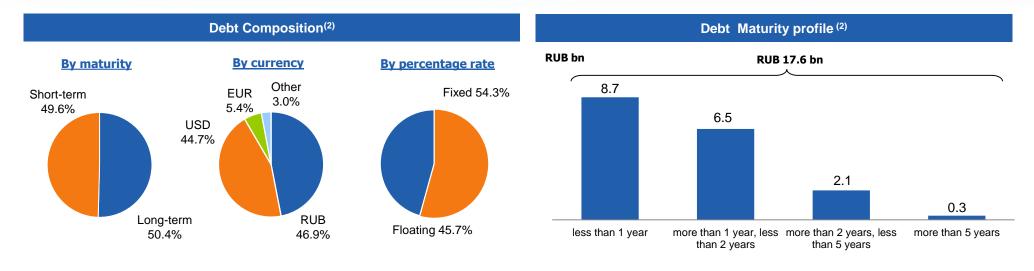


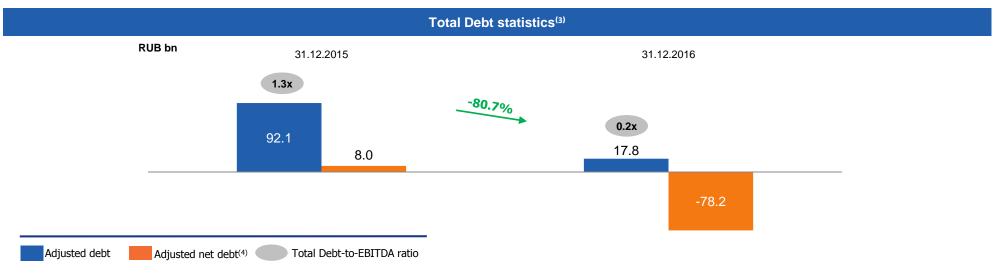
Consolidated revenue growth of Inter RAO Group for 2016 (+4.4% YoY) is exceeding the growth of consolidated operating expenses (+1.9% YoY)

<sup>(1)</sup> 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)





- (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 0.2 bn as of 31.12.2016 (RUB 13.9 bn as of 31.12.2015)
- 1) Includes cash deposits (3-12 months)





# IV. Wholesale capacity market development





# Capacity payments increase for CDA objects 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%

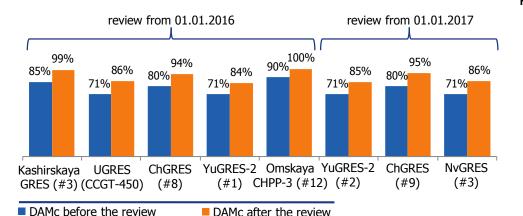
# Return on government bonds

- 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

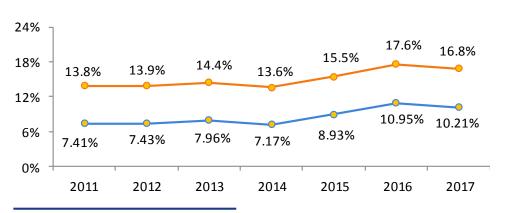
# Inflation (CPI)

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

### **DAM** coefficient review



### Returns on government bonds and invested capital dynamics

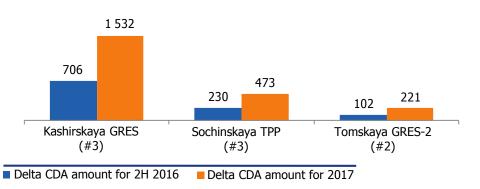


Average government bond return, used for ROIC calculations

——— ROIC for CDA objects<sup>(1)</sup>

### **Delta CDA payments**

RUB mln.



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



# Main points that need to be improved in legislative framework



# Modernization of old generation capacity

- There is no source of financing modernization of old generation capacity under the current market model;
- In particular, 31 K-300 units of Inter RAO Group with installed capacity of 9.3 GW amount to more than 30% of installed capacity of the Group's generation assets in Russian Federation. 28 out of 31 of these units are in operation beyond their economic lifetime;
- Ministry of Energy of Russian Federation is supporting generators' initiative on necessity of implementing and financing modernization programs;
- There are a couple of possible mechanisms to finance modernization:
  - competitive selection of investment projects (e.g. state-guaranteed investment mechanism SIM);
  - Changes to KOM model;
  - «CDA-2»;
- The most preferable out of these three would be «CDA-2» mechanism, that should be developed as a centralized program that takes account to regional development forecasts into accord.

# 2

# CDA capacity payments increase

- At the moment, when delta CDA for the delivery years 11-15 is calculated it does not take into account that capacity sold should exclude capacity used for own purposes; this does not represent the capacity sales forecast correctly and lowers the CDA delta;
- Ministry of Energy of Russian Federation started developing amendments to the Decree of the Government of Russian Federation, that would allow to eliminate the abovementioned gap.

### 3

«Allowance to put a cap on the amount of penalties» for equipment that is not ready for operation

- The current version of paragraph 55 of the Rules of the wholesale market from January 1 2018 envisages growth of
  coefficients that reduce capacity payments in the case of the equipment not being ready to produce electricity, which will
  increase the price of under-delivered capacity;
- To avoid this situation two possible methods for determining the unavailability of equipment were developed in 2016 (by Ministry of Energy and Ministry of Economic Development), suggesting the absence of penalties growth (in the case of the Economic Development Ministry might even drop from the current levels) in the case that equipment's accident rates are low and capacity utilization is high;
- In December 2016, the Government of the Russian Federation has approved the concept developed by Ministry of Economic Development. Until the end of 2017, the appropriate changes should be finalized and submitted to the rules of the wholesale market.





# V. Q&A session

