Government Regulation of Prices (Tariffs) For Electric Power (Capacity) in the Russian Federation

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Abstract: This article provides an overview of how prices are set for electric energy, transmission, distribution and other related services are determined within the Russian Federation. In doing so, it describes how jurisdiction over electric power industry prices is divided between the Russian Federation’s central government and the Russian Federation’s constituent entities. Pricing regulation is described for four broad electric power sectors: (1) technological infrastructure (transmission, operational dispatch, selection of providers, and payment for services); (2) wholesale market commercial infrastructure (trade facilitation); (3) technological connection to power grids; and (4) retail electric markets (electric energy residential consumers and equivalent consumer categories, electric energy in areas with technologically isolated regional energy systems, electric energy sales by suppliers of last resort, distribution services, and technological connection to distribution systems).

Keywords: commercial operator, distribution, electric and thermal power tariffs, electricity (capacity) prices (tariffs), grid connection fee, hydropower, market council, methodological guidelines, must-run providers, natural monopolies, nuclear power, operational dispatch management, power grid, power purchase agreement, price-cap, pricing zones, retail electricity markets, sales surcharges, social standard for power consumption, suppliers of last resort, system operator, system reliability, technological connection, transmission, wholesale electricity markets

Prices (tariffs) for electric power (capacity) in the relevant market have been regulated in Russia through Federal Law 41-FZ dated 14.04.1995 On Government Regulation of Electric and Thermal Power Tariffs in the Russian Federation\(^1\) since 1995 originally designed to regulate the entire electric power (capacity) in the country.

A gradual liberalization of prices for electricity started during a transition period of energy sector reform, and since January 1, 2011, the prices have been set for electricity to be delivered to households, as well as in some other instances specified in the power sector legislation.

The Russian Federation established special government authorities\textsuperscript{2} to regulate electricity (capacity) prices (tariffs). The list of regulated prices, principles and methods for government regulation and regulators’ jurisdiction depend on the type of a market segment where such regulation takes place.

The Russian Federation differentiates between wholesale and retail electricity markets, where a wholesale market breaks down into several pricing zones with varying regulating mechanisms.

1. A wholesale market pricing zone where government regulation concerns the amount of electricity (power) to be supplied to the residential sector (and equivalent thereof);
2. Areas uncovered by the pricing zones of a wholesale market where electricity (capacity) prices are 100% regulated;
3. Technologically isolated zones where electricity prices are 100% regulated

Pursuant to Federal Law 35-FZ \textit{On Electric Power Industry}\textsuperscript{3}, dated 26.03.2003, the wholesale market of electric power and capacity is the area where specific commodities are traded: electricity and capacity.

The concept of a specific commodity was proposed by Federal Law 35-FZ \textit{On Electric Power Industry} adopted on 26.03.2003, and the first transition model of a power market was launched on July 1, 2008. Government regulation of prices for electricity and power was not retained in all cases.

\textsuperscript{2} Izotova, A.V. \textit{Legal Basis for Creation and Operation of a Price Regulation System in the Power Sector}. Energy Law Journal # 1 (20) 2013

\textsuperscript{3} Federal Law dated 26.03.2003 No. 35-FZ \textit{On Electric Power Industry} (Collection of Laws of the Russian Federation, 2003, No. 13, Article 1177; 2004, No. 35, Article 3607; 2005, No. 1 (Part 1), Article 37; 2006, No. 52 (Part 1), Article 5498; 2007, No. 45, Article 5427; 2008, No. 29 (Part 1), Article 3418; No. 52 (Part 1), Article 6236; 2009, No. 48, Article 5711; 2010, No. 11, Article 1175; No. 31, Article 4156; No. 31, Article 4157; No. 31, Article 4158; No. 31, Article 4160; 2011, No. 1, Article 13; No. 7, Article 905; No. 11, Article 1502; No. 23, Article 3263; No. 30 (Part 1), Article 4590; No. 30 (Part 1), Article 4596; No. 50, Article 7336; No. 50, Article 7343, 2012; No. 26, Article 3446; No. 27, Article 3587; No. 53 (Part 1), Article 7616; 2013, No. 14, Article 1643).
The Federal Tariff Service (FTS) of Russia directly regulates capacity prices by setting prices for power. Specifically, it sets forth the following:

- Power tariffs for must-run providers,
- Power price for the most expensive providers;
- Power price for those customers who have not signed the power purchase agreements,
- Power price for new hydropower and nuclear power plants.

Indirect price regulation may be exercised through an application of a price-cap measure. Some interchange (cross-flow) areas\(^4\) rely on a price-cap regulation. The ceiling value for a price-cap is defined by the Government of the Russian Federation based on the proposal of the Federal Tariff Service\(^5\).

In addition to electricity and capacity price regulation, service tariffs (subscription fees) are also subject to price regulation in the wholesale market, when it comes to service providers and some other entities supporting the operations of a technological and commercial infrastructure of the wholesale power market.

1. Natural monopolies form the backbone of a technological infrastructure of a power market.

Such technological infrastructure entities include the Federal Grid Company of the Unified Energy System of Russia (FGC UES), other grids and a system operator, a joint stock company SO Unified Energy System of Russia (SO UES).

The FGC UES and other grids provide power transmission services, while SO UES is responsible for operational dispatch management, and in accordance with Federal Law 147-

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\(^4\) Federal Antimonopoly Service (FAS) is given the authority to determine the cross-flow zones. See FAS Order \#457 dated 21.06.2011 On Identification of Cross-Flow Zones where a competitive selection of cap-price for 2012 is based in the marginal cost principle (registered with the Ministry of Justice under ID 21261 on July 4, 2011, Rossiyskaya Gazeta No. 148, 11.07.2011.

\(^5\) See para 104 Guidelines for the Wholesale Market of Electricity and Power approved by the Russian Government Resolution on 27.12.2010 under No. 1172 (Collection of Laws of the Russian Federation, 2011, No. 14, Article 1916; No. 42, Article 5919; 2012, No. 4, Article 504, No. 4, Article 505; No. 20, Article 2539; No. 23, Article 3008; No. 28, Article 3906; No. 44, Article6022; 2013, No. 1, Article 68; No. 6, Article 565; No. 8, Article 825; No. 22, Article 2817; No. 23, Article 2909).
On Natural Monopolies

6 Federal Law dated 17.08.1995 No. 147-FZ On Natural Monopolies (Collection of Laws of the Russian Federation, 1995, No. 3, Article 3426; 2001, No. 33 (Part 1), Article 3429; 2002, No. 1 (Part 1), Article 2; 2003, No. 2, Article 168; No. 13, Article 1181; 2004, No. 27, Article 2711; 2006, No. 1, Article 10; No. 19, Article 2063; 2007, No. 1 (Part 1), Article 21; No. 43, Article 5084; No. 46, Article 5557; 2008, No. 52 (Part 1), Article 6236; 2011, No. 29, Article 4281; No. 30 (Part 1), Article 4590; No. 30 (Part 1), Article 4596; No. 50, Article 7343; 2012, No. 26, Article 3446; 2012, No. 31, Article 4321; No. 53 (Part 1), Article 7616).

7 Article 7 of the Federal Law from 26.03.2003 No. 35-FZ On Electric Power Industry (Collection of Laws of the Russian Federation, 2003, No. 13, Article 1177; 2004, No. 35, Article 3607; 2005, No. 1 (Part 1), Article 37; 2006, No. 52 (Part 1), Article 5498; 2007, No. 45, Article 5427; 2008, No. 29 (Part 1), Article 3418; No. 52 (Part 1), Article 6236; 2009, No. 48, Article 5711; 2010, No. 11, Article 1175; No. 31, Article 4156; No. 31, Article 4157; No. 31, Article 4158; No. 31, Article 4160; 2011, No. 1, Article 13; No. 7, Article 905; No. 11, Article 1502; No. 23, Article 3263; No. 30 (Part 1), Article 4590; No. 30 (Part 1), Article 4596; No. 50, Article 7336; No. 50, Article 7343, 2012, No. 26, Article 3446; No. 27, Article 3587; No. 53 (Part 1), Article 7616; 2013, No. 14, Article 1643).

FZ On Natural Monopolies6, adopted on 17.08.1995, all these services fall under the category of natural monopoly services. This feature determines the process of price regulation for services provided by natural monopolies.

1.1. Tariff for services on transmission of electricity via the national Unified Energy System – for the entity managing the nation-wide energy grid (FGC UES)

The Federal Grid Company of the Unified Energy System of Russia (FGC UES) is the provider of services related to transmission of electricity (power) via the unified nation-wide power grid.

Owners and other legal possessors of power grid facilities integrated in the unified nation-wide power grid are incapacitated in some of their rights7 including the right to enter into contracts for power transmission services using the unified nation-wide power grid facilities.

This way the Federal Grid Company of the Unified Energy System of Russia (FGC UES) may use grids owned by other entities incapacitated in some rights, in addition to its own grids (the unified nation-wide power grid), when providing services on transmission of electricity (power).
The Federal Tariff Service approves the prices/tariffs for electricity (power) transmission services for all owners of the unified nation-wide power grid facilities including the Federal Grid Company.

The government regulation of prices (tariffs) for these services, however, is not the same for the Federal Grid Company and other owners. The Federal Grid Company may charge prices that are regulated through setting the long-term tariffs based on the long-term parameters for regulation of this type of entities\(^8\), following the methodological guidelines\(^9\) approved by the Federal Tariff Service.

As far as other owners of the nation-wide power grid facilities are concerned, the law does not call for the mandatory nature of the long-term regulation requirement. Their prices (tariffs) are governed by a different set of guidelines\(^10\).

1.2. Tariff for services on operational dispatch management – for a system operator (SO UES)

Prices (tariffs) set for the System Operator’s services include:

- prices (tariffs) on operational dispatch management services in the form of scheduling operations of power generators and power loads at the consumer end, as well as support of technological infrastructure for wholesale and retail markets of electric power(capacity);

The above service is provided to wholesale market suppliers.

- prices (tariffs) for operational dispatch management services in terms of power supply reliability support through selection of vendors and charges for system reliability services, for the UES emergency response and for services related to availability of the reserve capacity.

The above services are provided to the wholesale market consumers.

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\(^8\) Novikov S.G., *Russia has a more advanced approach to RAB Methodology Implementation*, Energy Market Journal, #8 (103) 2012

\(^9\) *Methodological Guidelines on Tariff Regulation Using RAB Method*, as approved by Order 228-e, adopted by the FTS of Russia on 30.03.2012 (registered with the Ministry of Justice 10.04.2012, Registration No. 23784), Rossiyskaya Gazeta No. 82, 13.04.2012.

\(^10\) Methodological Guidelines on estimation of tariff rates for the power transmission services via the unified nation-wide power grid, approved by Order 56-e of the FTS of Russia on 21.03.2006 (registered with the Ministry of Justice 17.04.2006, Registration No. 7704).
This is the case when the FTS of Russia sets a price-cap while SO UES defines a specific price (tariff) not to exceed the ceiling price.

1.3. Tariffs for the Services on Selection of Providers and Payment for Services Delivered by the Energy Sector Facilities – for the SO UES

The System Operator\(^{11}\) (SO UES) shall select service providers to:

- ensure system reliability;
- ensure emergency response if the UES fails; \textit{and}
- provide a capacity redundancy.

The System Operator’s services are subject to FTS regulation in accordance with the Methodological Guidelines\(^{12}\) and include facilitation of the provider selection process, service contract execution, oversight of service delivery, coordination of service providers and payment for service delivery.

2. Wholesale market commercial infrastructure

A wholesale market commercial infrastructure functions due to the support of the following organizations:

- a self-regulating organization – a market council;
- a wholesale market commercial operator;
- other entities responsible for commercial infrastructure support functions, as per the market council decision, under the contract for wholesale market trading system accession.

A commercial operator (ATS – Administrator of Trading System) is an infrastructure entity whose prices (tariffs) are regulated by the government.

ATS provides services on facilitation of trade in the wholesale market, related to signing and implementation of contracts on trading of electricity (capacity) and other goods

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\(^{12}\) Methodological Guidelines on calculation of prices (tariffs) for the services to support system reliability approved by the FTS Order 201-e/1 dated 31.08.2011 (registered with the Ministry of Justice 07.10.2011, Registration No. 21998), Rossiyskaya Gazeta No. 231, 14.10.2011.
allowed to be traded in the wholesale market. FTS of Russia assigns tariffs to the ATS by
indexation method.

3. Services on technological connection to the power grids managed by the Unified
Nation-Wide Energy System (UNES).

The UNES grid connection fee\textsuperscript{13} is set on a case by case basis for an individual
applicant (a specific fee level) or through a formula (where a grid company would estimate a
fee level on its own)\textsuperscript{14}.

**Price Regulation of Retail Electricity Market**

Currently, the scope of tariff regulation in power retail market is specified in Federal
Law No. 35-FZ *On Electric Power Industry*, of 26.03.2003, and Federal Law No. 36-FZ,
dated 26.03.2003, *On Specifics of Power Sector Operations during the Transition Period,
and Implementation of Amendments in Some of the Russian Federation Laws, and
Recognition of Some Russian Federation Laws as No Longer Effective due to the
Implementation of the Law ‘On Electric Power Industry’*.

Retail electricity market regulation allows for two levels of regulation – federal and
national, a distinct difference from the wholesale market regulation which is always done at
the federal level.

\textsuperscript{13} Grid connection — a set of measures to ensure connectivity of energy receivers at the consumer end, as well
as power generation facilities, and utilities in the ownership of power grid organizations and other entities, to the
power grid.

\textsuperscript{14} For further detail see *Government Price Regulation in the Electricity and Capacity Markets* edited by
1. Price regulation at the federal level.

The FTS of Russia determines marginal prices (ceiling and bottom levels) for the tariffs on:

- Electrical energy (power) supplied to the residential consumers and equivalent categories;
- Electrical energy (power) supplied to other buyers (apart from residential consumers) in the non-regulated areas.

Tariff limits are based on the yearly socio-economic forecasts for the Russian Federation, and the ceiling and bottom prices prescribed by the FTS of Russia shall correlate with the Russian Government projected parameters for socio-economic development.

The prescribed prices become effective on January 1 of any given year and shall be set for every calendar period.

2. Price regulation by the Russian Federation constituent entities.

The executive authorities of the Russian Federation constituent entities are empowered to regulate the tariff rates for:

- electrical power (capacity) delivered to the residential consumers and equivalent consumer categories;
- electrical power (capacity) to all consumers in the non-regulated areas.

The executive authorities of the Russian Federation constituent entities are competent to make such decisions within the tariff limits as established by the FTS of Russia.

- sales surcharge of the suppliers of last resort;
- services at the power retail market.

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15 Rules for government regulation (review/application) of prices (tariffs) in the power sector are endorsed by the Russian Federation Resolution No. 1178 dated 29.12.2011 (Collection of Laws of the Russian Federation, 2012, No. 4, Article 504; No. 16, Article 1883; No. 20, Article 2539; No. 23, Article 3008; No. 24, Article 3185; No. 28, Article 3897; No. 41, Article 5636; 2013, No. 1, Article 68; No. 21, Article 2647; No. 22, Article 2817).

16 The regional authorities of the Russian Federation shall seek endorsement from the FTS of Russia for their decision on rates above or below the maximum or minimum levels as set by the FTS of Russia.

17 Supplier of last resort – a commercial entity with a universal service obligation, i.e. designated to sign power purchase agreements with any power consumer or its agent willing to buy power.
Government price regulation follows the Pricing Framework and Rules for Government Regulation in Electric Power Industry approved by the Russian Federal Government.\textsuperscript{18}

FTS of Russia approves the guidelines for calculation of regulated prices including the rates to be set by the Russian Federation constituent entities.

\textit{2.1. Price (tariff) regulation for electrical energy (power) provided to the residential consumers and equivalent consumer categories.}

The list of equivalent consumer categories was approved by Order 655-e of the FTS of Russia on 31.12.2010, confirming eligibility of this group to get power at the regulated prices.

The government regulates the prices (tariff rates) for the social standard level of power consumption\textsuperscript{19} and above it\textsuperscript{20}.

Regional regulatory authorities may apply a reducing factor to the power tariffs for the electricity (power) sold to households:

- residing in the urban areas in the buildings equipped with electric stoves for cooking food and (or) electric heaters;
- residing in the rural areas.

\textit{2.2. Price (tariff) regulation for energy (power) sold to other consumer groups in retail markets in the areas uncovered by the regulated price zones of a wholesale market}

The above tariffs for power sold to consumers (apart from residential users and their equivalent groups) shall be set within the limits prescribed by the FTS of Russia and shall

\textsuperscript{18} Resolution No.1178 of the Government of the Russian Federation dated 29.12.2011 On Regulated Pricing in the Power Sector (Collection of Laws of the Russian Federation, 2012, No. 4, Article 504; No. 16, Article1883; No. 20, Article 2539; No. 23, Article 3008; No. 24, Article 3185; No. 28, Article 3897; No. 41, Article 5636; 2013, No. 1, Article 68; No. 21, Article 2647; No. 22, Article 2817).

\textsuperscript{19} Social Standard for Power Consumption – a specified quantity (volume) of energy (power) consumed by the residential sector and equivalent categories of users, eligible for a regulated price (tariff) that differs from a regulated price applied to the quantity (volume) of energy (power) supplied above this standard. (Article 3 of Federal Law 35-FZ dated 26.03.2003 On Power Industry).

\textsuperscript{20} Lipatov, Grishchenko, Social Standard for Power Consumption: Legal Aspects. Energy Law Journal, No.1 (20) 2013
differ for various groups in accordance with taxonomy of user groups specified by the FTS of Russia.

There are special rules for calculation of tariff levels for such areas approved by the FTS of Russia.\textsuperscript{21}

### 2.3. Price regulation in the areas under jurisdiction of the Russian Federation constituent entities where technologically isolated regional energy systems are located.

These are the areas where a regulating authority may exercise its right to set:

- prices (tariffs) unadjusted for voltage levels and capacity use factors;
- electrical power (capacity) tariffs for every power plant owned by a relevant retail marketer;
- average weighted price (tariff) for electrical power (capacity) in general for a constituent entity of the Russian Federation.

### 2.4. Government regulation of sales surcharges imposed by suppliers of last resort.

Sales surcharges imposed by last resort suppliers differ for 3 groups of users:

- residential consumers;
- network organizations (transmission providers) purchasing power to set off losses;
- other consumers.

Other consumers are broken down into further subgroups eligible for various sales surcharges depending on the power ratings of their energy receivers (loads). Sales surcharges are defined by a formula developed for the ‘other consumers’ subgroups.

The level of a sales surcharge depends on regional and other performance parameters of last resort suppliers as advised by the guidelines on computation of sales surcharges to be charged by last resort suppliers\textsuperscript{22}.

\textsuperscript{21} FTS of Russia issued Order No.364-e/4 on 30.10.2010 to adopt the Rules for using prices(tariffs), calculation of energy (power) cost when power is sold in the retail markets at a regulated price, payment for any deviations of actual output sold from the contractual amounts, and recovery of costs incurred due to changes in contractual consumption levels of energy (power) in the areas beyond the regulated zones of a wholesale market (registered with the Ministry of Justice on 27.01.2011, Registration No. 19594), Rossiyskaya Gazeta No. 20, 02.02.2011.

\textsuperscript{22} Methodological Guidelines on calculation of sales surcharges for suppliers of last resort and the profitability levels of last resort suppliers, approved by Order 703-e of the FTS of Russia on 31.10.2012 (Registered with the Ministry of Justice on 29.11.2012, Registration No. 25975), Rossiyskaya Gazeta No. 280, 05.12.2012.
3.5. Services provided in the retail market of electrical power (capacity):

3.5.1. Power transmission by regional distribution networks/systems.

The federal level sets the lowest and/or highest tariff levels for power transmission services in the Russian Federation constituent entities.

The regional level sets fixed tariffs for power transmission services over distribution systems\(^2\)3.

Federal Law No.250-FZ On Introduction of Amendments to Certain Legislation of the Russian Federation Due to Implementation of Measures to Reform the Unified Energy System of Russia, adopted on November 4, 2007, provided the opportunity for government regulation of power tariffs on the basis of long-term regulated performance parameters of the relevant entities for the duration of at least five years (or three years, if the said tariffs or their limits are set for the first time).

The Pricing Framework has introduced a new method for long-run tariff regulation – the long-term indexation method for required gross revenues.

Long-run regulation methods do not apply to network organizations, if

- this is the first time when their tariffs are subject to regulation, and
- these organizations operate in the technologically isolated energy systems.

The choice of a regulation method is left for the discretion of a regulator in respect of each regulated entity.

\(^2\) Since 2008 the above tariffs have been regulated by ‘boiler’ (comingled accounts) method. Pursuant to Paragraph 42 of the Rules On Non-Discriminatory Access to Power Transmission Services and Delivery of Such Services, adopted by Resolution 861 of the Russian Federation Government on 27.12.2004 No. 861 (Collection of Laws of the Russian Federation, Collection of Laws of the Russian Federation, 2004, No. 52 (Part 2), Article 5525; 2006, No. 37, Article 3876; 2007, No. 14, Article 1687; No. 31, Article 4100; 2009, No. 8, Article 979; No. 9, Article 1103; No. 17, Article 2088; No. 25, Article 3073; No. 41, Article 4771; 2010, No. 12, Article 1333; No. 21, Article 2607; No. 25, Article 3175; No. 40, Article 5086; 2011, No. 10, Article 1406; 2012, No. 4, Article 504; No. 23, Article 3008; No. 41, Article 5636; No. 49, Article 6858; No. 52, Article 7525), the rates of power transmission tariff are set with consideration of the need to ensure that equal tariffs are in place for all users of power transmission service located in the area of a relevant regional authority, where they belong to the same group (category) eligible for power tariff rate differentiation as provided by the Russian law. A ‘boiler’ holder is commonly a distribution company.
Executive authorities of the Russian Federation constituent entities responsible for government regulation of tariffs shall define the fee level for technological connection of regional network organizations to the power grids.

Guidelines issued by the FTS of Russia\(^{24}\) require them to approve:

1) for the purposes of calculation of a connection fee to access regional distribution systems for the period under regulation:
   a. standardized tariff rates;
   b. a rate per maximum capacity unit (RUB/kW);
   c. a technological connection fee formula;

The fee shall be calculated by regional organizations on their own using the above rates as the guidance.

2) a fee for a technological connection of individual consumers and power generation facilities, as well as a connection based on a custom-made design (individual fee) to a regional distribution grid at the voltage level of 35kV or above and at least 8,900 kW maximum power load at the receiving end.

An executive authority of a Russian Federation constituent entity responsible for government regulating of tariffs shall set the fee level for technological connection as a function of voltage levels and/or maximum connected power load; it may set varying connection fees for different municipalities and districts.

Starting January 1, 2011, a technological connection fee shall not include an investment component to recover costs associated with the development of the existing infrastructure, including interties between regional distribution facilities and the national grid\(^{25}\).


\(^{25}\) The above expenses are incorporated in the tariff for services associated with power transmission.
The fee shall exclusively incorporate expenses for construction of power grid facilities from existing facilities to power receivers and/or power facilities that are meant to be connected.