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ELECTRICITY TARIFFS IN GEORGIA

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ABSTRACT

Article discusses electricity tariff setting methods, such as: «Rate of Return Regulation», «Price Cup Regulation», «Return Assets Base (RAB)» and «Cost Plus». Meet the interests of electricity producers and consumers are one of the indicators of the health of the electricity sector. At present, the Georgian electricity market is striving to harmonize with EU standards and established electricity tariff methodology should be use the best method to encourage investors to invest in the field and expand their infrastructure while ensuring the reliability and efficiency of electricity supply.

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Introduction. Achieving sustainable energy development depends on a set of measures that encompass a range of different resources in Georgia. It is very difficult to imagine any large-scale private investment in a situation where the investor has no idea of its legal status. In high-risk investment environments, such as the construction and operation of a hydropower plant, private investment is always preceded by clear legal regulation.

The tariff methodology is the legal basis for tariff setting in any country in the world. There are several methods of pricing. Many European countries use either according to the method of the rate of profit – «Rate of Return Regulation» or by the upper limit of the price, named «Price Cup Regulation» [1].

1. The method «Rate of Return Regulation» is one way in which the government (in the form of a regulatory commission) sets a fair price and aims to protect consumers from unjustly high prices that a monopolist may impose. It is well known that in a market economy, electricity prices are regulated. This type of regulation is common in countries such as Canada, Japan, the United States and countries of European Union.
2. The price set by the «Price Cup Regulation» method is consistent with the dynamics of the inflation rate each year and provides incentives to increase the efficiency of an enterprise's operations and optimize enterprise costs.
3. The purpose of the «Return Assets Base (RAB)» method is to attract investment and expand infrastructure, currently used in Russia. The main principle of the RAB method is the longevity of the established tariff, which naturally reduces the risk of investment and allows the investor to attract long-term loans. This method guarantees the preservation of investment and is also an incentive for businesses, and at the same time, it provides fair returns for regulated organizations. With the actual enactment of the RAB methodology, the Regulatory Commission is empowered by law to study, establish, and enforce a reasonable long-term investment-related tariff for companies under the business plan of these companies. The power company expects a guaranteed return on investment and a return on investment in sufficient quantities to pay off the loan and make a profit. The risks of the investment must be calculated under uncertainty and it is possible to use the decision

tree method [2]. In addition, the energy company has an incentive to reduce costs, while providing customers with reliable power and high quality service.

Depending on local conditions in each country, different types of tariffs can be used, such as Short-term or long-term, Stepwise, Average, Marginal, Seasonal, Peak, Zoning and more.

Research results. The following measures are required for the sustainable development of energy:

- Steps towards mobilizing financial resources, transferring technology, increasing potential and disseminating environmentally safe technologies;
- Incorporate energy and social considerations into social and economic programs, including energy efficiency and affordability;
- Develop and disseminate alternative energy use technologies to increase the share of renewable energy sources in energy production and consumption, as well as enhance energy efficiency and use of advanced energy technologies, including cleaner fossil fuel technologies;
- Diversification of energy supply sources, advanced, environmentally clean, cost-effective and economically efficient energy technologies through the development, including fossil fuels and renewable energy sources;
- Developing and utilizing national energy sources, infrastructures at local level, supporting the involvement of rural populations in the development and utilization of renewable energy technologies to meet their daily, simple and local energy demand;
- Develop internal energy efficiency programs;
- Develop, disseminate and use cleaner and more accessible energy saving technologies to increase energy efficiency, especially the transfer of these technologies to developing countries;
- Support for growing research and scientific activities in various fields of energy technologies, including renewable energy, energy efficiency and advanced energy technologies, including cleaner fossil fuel technologies;
- Promoting education to enable the population to access information on available energy sources and technologies;
- Support measures aimed at improving supply, demand and demand for energy, transparency and information on both supply and demand markets, providing greater stability and reliable, affordable, economically viable, socially acceptable and environmentally safe energy services.

The process of creating the tariff methodology in Georgia is led by the Georgian National Energy and Water Supply Regulatory Commission. After disintegration of Soviet Union, The first methodology for determining electricity tariffs adopted in 1998, that was based on the «Cost Plus method». It was changed by Resolution No.8, 2011, according to which the tariff was calculated as a Return on Assets Base (RAB) method. In 2014, with the joint efforts of the Georgian National Energy and Water Supply Regulatory Commission and the Austrian regulators, a new tariff setting methodology entitled «Approval of Electricity Tariff Calculation Methodology» was developed. The mentioned Resolution No.14 contains three annexes:

1) Methodology for calculation of tariffs for electricity distribution, dispatch and consumption;
2) Methodology for calculation of tariffs for electricity generation, transmission, scheduling and electricity market operator services;
3) Norms of depreciation of regulated activities of enterprises subject to tariff regulation.

This methodology was launched in January 1, 2015 and is still valid (2019). The purpose of this tariff calculation methodology is to determine the rules and principles of tariffs for electricity distribution, transmission and consumption in accordance with the requirements of the Law of Georgia on Electricity and Natural Gas. With this methodology, tariffs are calculated again in accordance with the «Costs plus» principle. It calculates individually the tariffs for electricity generation, transmission, dispatch, distribution, consumption and electricity market operator services. Georgian National Energy and Water Supply Regulatory Commission also adjasts household waste management issues [3].

In This methodology so called «Building Blocks» approach is used to determine the «Adjustable Cost Base, ACB» structure of an enterprise. It is the income required by the enterprise to cover expenses and make a profit and consists of several parts, these are:

1. Capital expenditure;
2. Controlled operating expenses;
3. Uncontrolled operating expenses;
4. Costs for filling normative losses in the electricity distribution network.

For example, to calculate the power plant production tariff for particular year, the enterprise's «Adjustable Cost Base» should be divided by the amount of electricity delivered by the power plant and is calculated as follows:

$$T_{gener}=\frac{ACB}{Egener} * 100 \left(\frac{Tetri}{kWh}\right)$$

Where T_{gener} is one kWh electricity tariff, generated by the power plant (Tetri/kWh); ACB - Adjustable Cost Base for particular year, GEL; E_{gener} - amount of electricity, generated by the power plant, kWh.

Tangible and intangible assets used in an enterprise's activities participate in the calculation of the tariff and their depreciation also occupies an important place. According to the latest methodology, assets created or acquired after January 1, 2014 have to use the "linear accrual" method and norms provided in methodology. As regards assets created or acquired before January 1, 2014 may be used depreciation norms according to the Tax Code of Georgia.

Within the energy sector, state legislation already has regulatory norms that serve to raise public awareness. In some countries, for example, there is a law requiring manufacturers and retailers of specific electrical equipment to label each of these devices, indicating their average power consumption and efficiency levels according to a specific test procedure [4].

Conclusions. Meet the interests of electricity producers and consumers are indicators of the health of the electricity sector. Currently, Georgia's electricity market is a vertically monopolized market model that will eventually be harmonized with EU standards by 2019-2020 and consumers should have freedom of choice between suppliers [5-7]. The free market means that the state will not be able to regulate generation and tariffs in the generation facilities, which mean that goods must enter the market without a CUP price, the trading will be conducted according to demand and supply in a market of free competition condition.

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