



Cost allocation during the tariff approval process

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- Law on Natural Gas
- *Regulated tariffs..., including tariffs differentiated according to pressure level in natural gas pipelines to which are connected the gas installation, are determined and approved by ANRE, according to an existing methodology*
- Law on electricity
- *Regulated tariffs..., including tariffs differentiated according to voltage level of the electricity networks to which are connected the electrical installations, are determined and approved by ANRE, according to an existing methodology*

According to the Law, one of the basic objectives of the tariffs methodologies is as follows:

✓ each category of consumers should cover the real costs related to purchase of electricity (or natural gas), cost of transmission service, technological consumption of electricity (natural gas) in transmission and distribution networks (pipelines), consumptions and costs related to distribution and supply of electricity (natural gas) up to boundary or consumption points of the final consumers according to voltage (pressure) level of the networks, to which are connected theirs electrical (natural gas) installations.

Ways of achieving the objective:

- *It is very important that allocation of costs, expenses and return between electricity distribution network of different voltage levels, or between natural gas pipelines of different pressure levels have to be done in the most correct way. ↓*
- *Fair and justified costs allocation between voltage levels, or in case of natural gas– pressure levels, represents the primary prerequisite to diminish and eventually to exclude the cross subsidies, which are still partially included in electricity and natural gas tariffs.*

Depreciation of fixed assets and amortization of intangible assets related to the distribution activity

a) Depreciation of fixed assets which are clearly related to the specific type of distribution network are determined directly, for each type of the network (high voltage, medium voltage and low voltage);

b) Depreciation of the distribution assets which can not be assigned to the specific type of the network, assets of the auxiliary subdivision (repair, exploitation, transport, etc.), commercial and administrative assets, are divided between distribution network of high, medium and low voltage proportionally to the book value of the assets which are directly related to each type of distribution network.

- **Distribution network maintenance costs:**
 - **labor costs,**
 - **material costs,**
 - **exploitation and maintenance costs.**
- *These costs can not be determined separately for each type of network, therefore it is stipulated that they are allocated proportionally to the book value of the assets which are directly related to the specific type of the distribution network (high, medium and low voltage).*

- **Metering costs of the electricity distributed through the network**

Allocation between distribution network of high, medium and low voltage is performed proportionally to the amount of electricity distributed to the final consumers whose electrical installations are connected to the respective voltage level.

- **Costs of electricity technological consumption and losses admitted in distribution network**

Are determined separately for each type of distribution network (high, medium and low voltage), based on the amount of electricity needed to be purchased in order to cover technological consumption and losses of electricity, admitted for tariffs purposes, and on the average purchasing price of electricity.

- **“Other consumptions and costs”:**
 - 1) **commercial and administrative costs;**
 - 2) **other costs.**
- *These costs are not directly related to the technological process of electricity distribution and are allocated between each type of network proportionally to the distributed electricity.*

- **Acquisition and supply costs:**
 - **costs related to natural gas acquisition**
 - **costs of natural gas transmission service**
 - **natural gas supply tariff (*natural gas supply process is identical for all categories of consumers*)**
- *These costs have to be covered by all categories of consumers, no matter the pressure level of natural gas pipelines to which are connected the consumers.*

- **Costs of natural gas technological consumption and losses admitted in distribution pipelines**
 - *Are determined separately for each type of distribution pipelines (high, medium and low pressure), based on the amount of natural gas needed to be purchased in order to cover technological consumption and losses of gas, admitted for tariffs purposes, and on the average purchasing price.*

- **Depreciation of fixed assets and amortization of intangible assets related to the distribution activity**
 - *These costs are determined directly, for each type of the network (high voltage, medium voltage and low voltage) based on value of the assets ascribed to specific natural gas distribution network.*

- **Costs related to natural gas distribution activity:**
 - material costs;
 - exploitation and maintenance costs;
 - labor costs.
- *Are allocated directly between three types of distribution pipelines, based on material norms and labor norms related to maintenance works, according to work plans approved separately for each type of distribution pipelines.*

- **General and administrative costs related to natural gas distribution activity**
 - *are allocated between natural gas pipelines of high, medium and low pressure proportionally to the volumes of distributed natural gas to final consumers which are connected to each type of these pipelines.*

❖ Value of return

- *Is allocated between pressure levels based on the total value of return included in tariff and the share of long-term asset value of each pipelines type in the total asset value of regulated utility.*

Costs allocation between types of energy produced in cogeneration regime



❖ Fuel costs allocation

- *During the allocation of costs related to fuel procurement it is considered that the efficiency of heat production in cogeneration regime can not be higher than maximum theoretical efficiency of heat production in heating plants (maximum yield that can be applied is equal to 100%).*
- *Fuel needed for electricity production is computed as the difference between the total volume of fuel consumed by the CHP and the fuel volume allocated to heat production.*

Costs allocation between types of energy produced in cogeneration regime



❖ **Allocation of operational activity costs and return on investments:**

- *Direct materials costs; direct costs of labor; indirect costs of production; commercial costs; general and administrative costs; and return on investments are allocated between electricity and heat proportional to the share of the costs of fuel used to produce one form of energy from the total costs of fuel used to produce both forms of energy*

Topics for discussions

- ❖ Which are the categories of natural gas and electricity consumers in the U.S. between which is performed cost allocation?
- ❖ Which are the principles underlying the costs allocation between categories of consumers?
- ❖ What method of cost allocation is used for cogeneration of electricity and heat in CHP plants?

Thank you !