

*National Agency for energy  
Regulation*

# **Tariff Methodologies in Energy Sector**

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# Basic Methodological Framework

- **Natural Gas Sector**

- Methodology for Calculation, Approval and Application of Natural Gas Tariffs, *approved by ANRE Administrative Board Decision no. 352 of October 1 2009;*
- Methodology for Determination, Approval and Revision of Prices for Auxiliary Services Provided by License Holders for Natural Gas Distribution, *Decision no. 316 of December 24, 2008.*

- **Electricity Production**

- Methodology for Determination, Approval and Application of Tariffs for Electricity and Heat Production and for Service Water, *Hot. nr. 147 din 25 August 2004.*

# Basic Methodological Framework (continued)

- **Electricity**

- Methodology for Determination, Approval and Application of Tariffs for Electricity Transmission and Dispatch Services, *Decision no. 114 of December 26, 2003*;
- Methodology for Tariff Calculation for Electricity Supplied to Consumers, *Decision no. 256 of August 10, 2007*;
- Methodology of Determination, Approval and Revision of Prices for Auxiliary Services, Provided by Electricity Distribution Companies, *Decision no. 245 May 2, 2007*;
- Methodology for Determination of Binomial Type of Tariffs for Electricity Supply to end Users, *Decision no. 194 of October 4, 2005*

- **Heat**

- Methodology for Calculation, Approval and Application of Heat Supply to End Users, *Decision no. 147 of August 25, 2004*.

# Other Methodological Acts

- **Renewable Energy**
  - Methodology for Determination, Approval and Application of Tariffs for Electricity Produced from Renewable Sources and Biofuel, *Decision no. 321 of January 22, 2009*
- **Oil Product Market**
  - Methodology for Calculation and Application of Prices for Oil Products, *Decision no. 263 of October 5, 2007*
- **Public Utility Services**
  - Methodology for Determination, Approval and Application of Tariffs for Public Water Supply Services, Sewerage Systems and Waste Water Treatment, *Decision no. 164 of November 29, 2004*

# Tariff Methodologies provide for:

- (I) Composition of consumption and costs, included in tariff calculation;
- (II) Formulas for calculation of tariff components and integral tariffs for the supply of natural gas, electricity and heat to consumers;
- (III) Methods for calculation of return on investments made by companies;
- (IV) Method of the calculation, approval and application of tariffs;
- (V) Method of tariff adjustment for the period of validity of those methodologies.

# General Methodological Principles of Tariff Determination

- Viable supply of electricity, heat, natural gas at actual costs, strictly necessary for their production (procurement, transmission, distribution and supply) to consumers;
- Covering the consumption and costs incurred by companies for their normal regulated activity (buying energy resources, costs of production, transmission, distribution and those of fixed assets maintenance), ensuring security in the industry and environmental protection;
- Allowing investors to recover their investments (to establish a fair level of return from investments - depending on investments in development, renovation and reconstruction, which would allow production capacities and networks to be developed in terms of productivity growth and / or useful service life);

# General Methodological Principles of Tariff Determination (*continued*)

- Efficient use of energy resources, material and human resources in the sector (enhance management efficiency of energy companies, optimize costs and reduce technical and commercial losses);
- Services must become increasingly more qualitative and be provided to consumers at reasonable prices, based on stability, fairness, simplicity and equity (each group of consumers must pay by means of tariffs only those costs, which are necessary for the provision of a particular service to a particular consumer group);
- Tariffs will be established taking into consideration the country's energy security and market situation, the state policy in production, import and export of energy resources.

# Main Factors Influencing Quantum of Tariffs for Energy Resources

- Cost of imported energy resources (electricity, natural gas, fuel oil, coal)
- Exchange rate of national currency against USA dollar;
- Consumption and costs necessary for production, transmission and distribution of electricity and natural gas;
- Volumes of natural gas, electricity and heat produced and supplied to consumers.



# Calculation of Tariffs for Electricity supplied to end users

- Cost of electricity and tariff of transmission is reflected directly in the final tariff for every year
- For the entire validity period of the Tariff Methodology, the basic costs are established (for the first year), which, for the next years, are updated as follows:

## **A. Costs for labor remuneration:**

- Index of consumption prices of the Republic of Moldova
- Index of company's economic efficiency

# Calculation of Tariffs for Electricity supplied to end users (*continued*)

## **B. Material costs:**

- Index of retail prices of USA
- Index of company economic efficiency
- Modification of number of consumers
- Index of modification of national currency exchange rate

## **C. Costs of network operation and extension**

- Index of retail prices of the Republic of Moldova (inflation)
- Index of company economic efficiency
- Modification of number of consumers

# Calculation of Tariffs for Electricity supplied to end users (*continued*)

## **D. Commercial Costs**

- Index of retail prices of Republic of Moldova (inflation)
- Index of company economic efficiency
- Modification of number of consumers

## **E. Revolving fund costs**

- Need for revolving fund expressed in days
- Cost of electricity provision to consumers
- Rate of return, equal to WACC

## **F. General and administrative costs**

- Index of retail prices of Republic of Moldova (inflation)
- Index of company economic efficiency

# Determination of Regulated Profitability

- The rate of return is equal to weighted average cost of capital, is calculated annually based on several parameters (for 2010 - 14.98%)
- Rate of return is applied to net long-term assets, consisting of two components:
  - (1) – existing net asset value before privatization, equivalent to costs of purchased shares (for privatized enterprises) or existing net asset value at 01. 01. 2003 (for mainly state-owned enterprises);
  - (2) - net value of long-term new assets (in service after privatization, or since 2003).

# Method of Tariffs Determination, Adjustment and Application

- Term of adjustment – annually, after the presentation of the financial report for the preceding year and the materials needed for the adjustment
- Special adjustment - During the year, provided there exist objective factors that can not be controlled and which may lead to 3% (for natural gas – 5%) deviation of the cost of the established tariff
- Financial deviations (*the difference between parameters planned for determining the tariffs and the actual ones recorded in the preceding regulatory timeframe*) – a tool meant to reduce the frequency of tariff adjustments (in subsequent tariffs reimbursed to consumers, where positive, or, reimbursed by consumers to company, where negative)
- Initiators of tariff adjustment – official request of company or initiative of relevant public authority