

Pursuant to Article 15, paragraph 1, item 2 of the Energy Law (*Official Gazette of the Republic of Serbia*, No. 84/2004) and Article 12 of the Statute of the Energy Agency of the Republic of Serbia (*Official Gazette of the Republic of Serbia*, No. 52/2005),

at the 21<sup>st</sup> Council Session held on 21 July 2006, the Council of the Energy Agency of the Republic of Serbia passed the following

**DECISION ON  
THE NATURAL GAS PRICING METHODOLOGY FOR TARIFF CUSTOMERS**

1. The Methodology specifying tariff elements for pricing natural gas for tariff customers is attached to this Decision and makes an integral part thereof.
2. This Decision shall be published in the Official Gazette of the Republic of Serbia.

Council of the Energy Agency of the Republic of Serbia  
President

No. 511/4

Belgrade, July 21, 2006

Ljubo Macic

**NATURAL GAS PRICING METHODOLOGY  
FOR TARIFF CUSTOMERS**

*(The Methodology was published in the Official Gazette of the Republic of Serbia,  
No. 68, August 9, 2006)*

**I. SCOPE OF THE METHODOLOGY**

This Methodology shall establish the method of setting tariff elements for natural gas pricing for tariff customers, including also service prices for tariff customers.

**II. METHODOLOGY APPROACH**

The methodology is based on a mechanism controlling prices of services provided to tariff customers by using the regulatory "cost plus" method whereby the maximum revenue in the regulatory period, i.e. the price which enables coverage of justified operating costs, is set for energy entities performing trade in natural gas for the purpose of supplying tariff customers (hereinafter: wholesale supply) and retail in natural gas for the needs of tariff customers (hereinafter: retail supply).

The maximum allowed revenue of the energy entity shall be allocated to tariff elements on the basis of:

- 1) the forecast of natural gas consumption by tariff customers, and
- 2) the share of variable and fixed costs in the total costs of the energy entity.

The revenue of energy entities earned during the regulatory period on account of conducting energy activities, which are regulated according to this Methodology, shall be calculated based on the values of tariff elements. Values of tariff elements are tariff system parameters for billing tariff customers for natural gas delivered to them.

### III. TERMS AND DEFINITIONS

The terms used in this Methodology shall have the following meanings:

Revenue allocation	Allocation of revenue to tariff elements;
m <sup>3</sup>	Cubic metre of natural gas with the lower calorific value of 33,338.35 kJ at the temperature of 288.15 K (15°C) and pressure of 1.01325 bar;
Maximum allowed revenue	Maximum amount of revenue of an energy entity in a regulatory period which covers all justified costs incurred by performance of a regulated energy activity;
Location of cost	Physical or other location within the energy entity at which a specific cost is incurred;
Tariff elements	Tariff system parameters whereby performance of regulated energy entities is quantified and prices of such performance calculated.

Other terms used in this Methodology shall have the same meanings as in the Energy Law.

### IV. SETTING THE MAXIMUM ALLOWED REVENUE

The maximum allowed revenue is calculated for each of the energy activities separately based on energy entity's justified operating costs incurred in the course of conducting the energy activity for which the maximum allowed revenue is being set and on an appropriate return on assets employed for conducting the activity.

In case justified operating costs initially used to set the maximum allowed revenue of an energy entity increasingly diverge from actual costs over the regulatory period as a result of objective reasons (a change in the Energy Balance of the Republic of Serbia, or a significant change in the price of imported electricity, in dinars, of more than 3%), the maximum allowed revenue may be adjusted for the relevant regulatory period.

#### IV. 1. Common Costs and Assets

Common costs are costs that enable an energy entity performing two or more energy activities, or an extra non-energy activity, to operate as a whole, but which cannot be directly linked to any specific location of cost.

Common assets are assets of the energy entity which cannot be directly allocated to specific activities (e.g. land, building structures, vehicles, equipment and the like).

Common costs and assets are allocated to the energy activity for which maximum allowed revenue is being calculated in accordance with this Methodology (wholesale or retail supply) and to other energy and non-energy activities according to transparent rules (formulas) established in accordance with accounting standards and objective criteria.

The appertaining part of the common costs allocated to the energy activity for which maximum allowed revenue is being calculated in accordance with this Methodology, is included in the calculation of the maximum allowed revenue of the energy entity on account of conducting that activity.

## **IV. 2. Wholesale Supply**

The maximum allowed revenue of the energy entity conducting wholesale supply is calculated according to the following formula:

$$MAR_t = OPEX_t + D_t + NGP_t + TUoS_t + SUoS_t + ARCR_t + CF_t$$

where:

t = regulatory period,

$MAR_t$  – maximum allowed revenue of the energy entity conducting wholesale supply in the period t (dinar),

$OPEX_t$  – operating expenditure in period t (dinar),

$D_t$  – depreciations costs over the period t (dinar),

$NGP_t$  – costs of procuring natural gas, including all associated costs, for supply to tariff customers over the period t (dinar),

$TUoS_t$  – natural gas transmission use of system charges over the period t (dinar),

$SUoS_t$  – use of system charges relating to natural gas storage over the period t (dinar),

$ARCR_t$  – charge for accounts receivable collection risk in the period t (dinar),

$CF_t$  – correction factor over the period t (dinar).

Costs that are included in the calculation of the maximum allowed revenue of the wholesale supplier are determined on the basis of data on the total natural gas quantity required by tariff customers as stated in the Energy Balance of the Republic of Serbia, or on the basis of natural gas quantity data from the annual natural gas demand forecast for tariff customers he supplies energy with.

### **IV. 2.1. Operating Expenditure**

Operating expenditures are justified costs incurred by conducting natural gas wholesale supply, and consist of:

- 1) cost of materials,
- 2) salaries, contributions and other related staff expenses,
- 3) costs of production services, and
- 4) intangible costs.

Cost justification is verified on the basis of the nature of a particular cost by analyzing the reasons for which it was incurred, the quantity, and the prices, and by benchmarking data on costs in the previous period, and costs of energy entities conducting the same energy activity.

#### IV. 2.2. Depreciation Costs

Depreciation costs are costs of depreciation of the assets operating to provide natural gas wholesale supply.

Depreciation costs comprise costs of depreciation of existing assets and costs of depreciation of new assets to be put into service during the regulatory period in question.

Depreciation costs of existing assets and new assets that will be put into service during the regulatory period in question are calculated by using the pro rata method over the estimated useful life of assets.

Depreciation costs of new assets to be put into service during the regulatory period in question are calculated on the base consisting of 50% of the value of intangible investments initiated, immovables, plant and equipment under construction, and advance payments made towards procurement thereof.

Depreciation costs shall be calculated according to the following formula:

$$D_t = D_{EA_t} + D_{NA_t}$$

where:

$D_t$  = depreciation costs in the period t (dinars),

$D_{EA_t}$  = depreciation costs of existing assets in the period t (dinars),

$D_{NA_t}$  = depreciation costs of new assets to be put into service during the period t (dinars).

#### IV. 2.3. Costs of Procuring Natural Gas for Supply to Tariff Customers

The costs of procuring natural gas on account of supplying tariff customers are equal to prices set in accordance with the natural gas procurement contract multiplied by the forecasted quantity of natural gas to be procured on an annual basis on account of supplying tariff customers.

Procurement costs of natural gas also include all associated costs of natural gas procurement presented in accordance with International Accounting Standards.

#### IV. 2.4. Charge for the Accounts Receivable Collection Risk

Under this methodology, the accounts receivable collection risk charge is the cost of bad debt provisions which is calculated according to the following formula:

$$ARCR_t = n * NGP_t$$

Where:

$ARCR_t$  = accounts receivable collection risk over the period t (dinar),

n = the percentage of the accounts receivable collection risk charge over the period t (%),

$NGP_t$  = procurement costs of natural gas including associated costs on account of supplying tariff customers (dinar).

The percentage of the charge to be paid for the risk associated with the wholesale supplier's accounts receivable collection may be 0,3 at the maximum.

#### IV. 2.5. Correction Factor

The correction factor is a (monetary) value correcting the maximum allowed revenue for the next regulatory period by the difference between the actual revenue and the revenue calculated according to this Methodology, on the basis of actual quantities of natural gas, justified costs, and other actual revenues in the previous regulatory period.

Under the calculation of maximum allowed revenue for the first regulatory period, the correction factor shall be zero.

### IV. 3. Retail Supply

An energy entity's maximum allowed revenue associated with retail supply is calculated according to the following formula:

$$MAR_t = OPEX_t + D_t + NGP_t + DUoS_t + ARCR_t + CF_t$$

Where:

t = regulatory period,

$MAR_t$  = maximum allowed revenue associated with retail supply in the period t (dinars),

$OPEX_t$  = operating expenditure over the period t (dinars),

$D_t$  = depreciation costs in the period t (dinars),

$NGP_t$  = costs of natural gas procurement including also associated costs, in the period t (dinars),

$DUoS_t$  = distribution use of system charges in the period t (dinars),

$ARCR_t$  = charge associated with accounts receivable collection risk over the period t (dinars),

$CF_t$  = correction factor in the period t (dinars).

The costs included in the calculation of the retail supplier's maximum allowed revenue are determined on the basis of quantitative data on natural gas required by tariff customers of the retail supplier as stated in the Energy Balance of the Republic of Serbia, or on the basis of data on the natural gas requirements from the annual natural gas demand forecast for tariff customers he supplies natural gas with.

#### IV. 3.1. Operating Expenditure

Operating expenditures are justified costs incurred by conducting natural gas retail supply consisting of:

1. cost of materials,
2. salaries, contributions and other related staff expenses,
3. costs of production services, and
4. intangible costs.

Cost justification is verified on the basis of the nature of a particular cost by analyzing the reasons for which it was incurred, the quantity, and the prices, and by benchmarking data on costs in the previous period, and costs of energy entities conducting the same energy activity.

#### IV. 3.2. Depreciation Costs

Depreciation costs are costs of depreciation of assets operating to provide natural gas retail supply.

Depreciation costs consist of costs of depreciation of existing assets and costs of depreciation of new assets that will be put into service during the regulatory period in question.

Depreciation costs of existing assets and new assets that will be put into service during the regulatory period in question are calculated using the pro rata method over the estimated useful life of assets.

Depreciation costs of new assets that will be put into service during the regulatory period in question are calculated on the base consisting of 50% of the value of intangible investments initiated, immovables, plant and equipment under construction, and advance payments made towards procurement thereof.

Depreciation costs are calculated according to the following formula:

$$D_t = D_{EA_t} + D_{NA_t}$$

where:

$D_t$  = depreciation costs in the period t (dinars),

$D_{EA_t}$  = depreciation costs of existing assets in the period t (dinars),

$D_{NA_t}$  = depreciation costs of new assets to be put into service during the period t (dinars).

#### IV. 3.3. Procurement Costs of Natural Gas

Procurement costs of natural gas are equal to regulated prices multiplied by the forecasted quantity of natural gas to be procured on an annual basis for sale to tariff customers. These costs are costs of the retail supplier when procuring natural gas from the wholesale supplier.

The procurement costs of natural gas shall also include all associated procurement costs of natural gas presented in accordance with International Accounting Standards.

#### IV. 3.4. Charge for the Accounts Receivable Collection Risk

Under this methodology, the accounts receivable collection risk charge is the cost of bad debt provisions which is calculated according to the following formula:

$$ARCR_t = n * MAR_t / (1 - n)$$

Where:

$ARCR_t$  = accounts receivable collection risk charge over the period t (dinar),

n = the percentage of the accounts receivable collection risk charge over the period t (%),

$MAR_t$  = maximum allowed revenue over the period t that is calculated without taking into account the accounts receivable collection risk charge (dinar).

The percentage of the charge to be paid for the risk associated with the retail supplier's accounts receivable collection may be 2% at the maximum.

#### IV. 3.5. Correction Factor

The correction factor is a (monetary) value correcting the maximum allowed revenue for the next regulatory period by the difference between the actual revenue and the revenue calculated according to this Methodology, on the basis of actual quantities of natural gas, justified costs, and other actual revenues in the previous regulatory period.

Under the calculation of maximum allowed revenue for the first regulatory period, the correction factor shall be set at zero.

### V. ALLOCATION OF MAXIMUM ALLOWED REVENUE TO TARIFF ELEMENTS

## V. 1. Wholesale Supply

The maximum allowed revenue of the wholesale supplier is allocated to the following tariff elements:

- Capacity, expressed in m<sup>3</sup>/day/year, and
- Energy carrier, expressed in m<sup>3</sup>.

The 'capacity' tariff element is determined at all points where natural gas is delivered from the transport system by adding metered maximum daily consumption figures from the previous year and derived maximum daily natural gas consumption figures where daily reading is not possible together.

The derived maximum daily natural gas consumption is determined for points of delivery where daily reading is not possible, and it is calculated on the basis of the maximum monthly consumption metered at that relevant point of delivery in the previous year, translated into a daily value, increased by 20, and rounded off.

The 'energy carrier' tariff element is the total annual quantity of natural gas sold to retail suppliers.

The revenue allocated to the 'energy carrier' tariff element is calculated according to the following formula:

$$R_{ECt} = MAR_t - T_{Ct}$$

Where:

$R_{ECt}$  – revenue allocated to the 'energy carrier' tariff element over the period t (dinar),

$MAR_t$  – revenue of the energy entity trading in natural gas to supply tariff customers over the period t (dinar),

$T_{Ct}$  – costs of the wholesale supplier on account of the 'capacity' tariff element for transmission and storage use of system services procured over the period t (dinar).

Revenue that is allocated to the 'capacity' tariff element ( $R_{Ct}$ ) is equal to the costs of the wholesale supplier's on account of the "capacity" tariff element for procurement of transmission and storage use of system services over the period t, i.e.

$$R_{Ct} = T_{Ct}$$

The value of the "capacity" tariff element shall be given in dinar per m<sup>3</sup>/day/year and calculated by dividing the revenue allocated to the "capacity" tariff element by the aggregated amounts of the maximum daily consumption that is metered or derived at points where gas is delivered from the transportation system.

The value of the "energy carrier" tariff element is given in dinar per m<sup>3</sup> and calculated by dividing the revenue allocated to the "energy carrier" tariff element by the total annual quantity of natural gas for sale.

## V. 2. Retail Supply



The maximum allowed revenue of the retail supplier is allocated to the following tariff elements:

- Capacity in m<sup>3</sup>/day/year,
- Energy carrier, in m<sup>3</sup>, and
- Point of delivery, expressed in number of delivery points.

The “capacity” tariff element is as the sum of the maximum daily consumption metered in the previous year and the maximum daily consumption of natural gas derived where daily reading was not possible, at all transportation and distribution system points where natural gas is being delivered/received.

The maximum daily consumption of natural gas is derived at points where metering of natural gas delivered/received is not possible and calculated on the basis of the maximum monthly consumption that is metered in the previous year at the relevant reception/delivery point, translated into the daily value, increased for 20%, and rounded off.

The “energy carrier” tariff element is the total annual quantity of natural gas for sale to tariff customers.

The portion of the maximum allowed revenue of the retail supplier associated with the costs of procuring natural gas on account of the “capacity” tariff element and with the costs of using the natural gas distribution system on account of the “capacity” tariff element, is allocated to the “capacity” tariff element.

The portion of the maximum allowed revenue of the retail supplier associated with the costs of procuring natural gas on account of the “energy carrier” tariff element, the costs of using the natural gas distribution system on account of the “energy carrier” tariff element, and with the costs of the accounts receivable collection risk charge, is allocated to the “energy carrier” tariff element.

The portion of the maximum allowed revenue of the retail supplier is allocated to the “point of delivery” tariff element after deducting the costs of natural gas procurement, costs of using the natural gas distribution system, and the cost of accounts receivable collection risk charge.

## **VI. REGULATORY PERIOD**

The first regulatory period shall commence on January 1, 2007.

The length of the regulatory period is set at one year.