

Pursuant to Article 15, and in connection with Article 36 of the Energy Law (Official Gazette of the Republic of Serbia, No. 84/04), and Article 12 of the Statute of the Energy Agency of the Republic of Serbia (Official Gazette of the Republic of Serbia, No. 52/05),

The Council of the Energy Agency of the Republic of Serbia, at the Council Session held on December 16, 2008, passed the following

## **DECISION**

### **on Amendments to the Decision on Establishing the Access to and Use of System Charging Methodology - Natural Gas Distribution**

*(This Decision was published in the Official Gazette of the Republic of Serbia No. 116/2008  
on December 22, 2008)*

1. In the Decision Establishing the Access to and Use of System Charging Methodology - Natural Gas Distribution (Official Gazette of the Republic of Serbia, No. 68/06, 1/07, and 100/08), in the Access to and Use of System Charging Methodology - Natural Gas Distribution, Section III. TERMS AND DEFINITIONS, after paragraph 2 a new paragraph 3 is added and reads as follows:

“When calculations are done according to formulae defined in this methodology, all values expressed in percentages shall be divided by 100.”

2. In Section IV. SETTING MAXIMUM ALLOWED REVENUE, after paragraph 2 a new paragraph 3 is added and reads as follows:

“Cost justification shall be assessed on the basis of the nature of a particular cost by analyzing the reasons for which it was incurred, the quantity, and the prices driving a particular cost, and by benchmarking data on costs of energy entities in the previous period and costs of energy entities conducting the same energy activity in the country and the region.”

3. Section IV.1. **Common operating costs, assets, and other revenues** is amended and reads as follows:

#### **“IV.1. Common operating costs, assets, depreciation costs, and other revenues**

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

Common assets are assets of an energy entity that are necessary for an energy entity conducting two or several energy entities or an extra non-energy activity to function, and which cannot be directly allocated to any specific activity (intangible investments, except goodwill, immovables, plant, and equipment).

Common depreciation costs are depreciation costs of common assets incurred to enable an energy entity conducting two or several energy activities or an extra non-energy activity to function, and which cannot be directly linked to any specific location of cost.

Other common revenues are other revenues earned by employing common energy entity's assets that cannot be directly allocated to any specific activity.

Common operating costs, assets, depreciation costs, and other revenues are allocated to energy activities for which maximum allowed revenue is set in accordance with this methodology (natural gas distribution or natural gas distribution system operation), and to other energy and non-energy activities, based on transparent rules (formulae) specified in line with accounting standards and objective criteria.”

4. In Section IV.2. **Natural Gas Distribution**, in paragraph 1, in the explanation of the formula, the wording:” WACC = the rate of return on the regulated asset base calculated as the weighted average costs of capital (in %)” is replaced with the wording:” WACC = the rate of return on the regulated asset base (%),”.

In Subsection IV.2.1. *Operating Expenditure*, in paragraph 1 at the end of item 3) the word: “and” is deleted and a new item 4) is added which reads as follows:

“4) part of reservations for contributions and other staff benefits, paid during the regulatory period,”

The item 4) becomes now item 5).

The paragraph 3 is deleted.

In Subsection IV.2.2. *Depreciation Costs*, paragraph 2 is amended to read as follows:

“Depreciation costs comprise costs of depreciation of existing assets at the beginning of the regulatory period and costs of depreciation of new assets to be put into service during the regulatory period.”

In Subsection IV.2.3. *Regulatory Asset Base*, paragraph 1, second bullet, the word: “value” is replaced with the wording:” net value”.

In paragraph 2, third bullet is amended and reads as follows:

“-harmonization of investments with the annual programme, business plan and development plan of the energy entity.”

In paragraphs 5, in the explanation of the formula, the wording:” CWIP<sub>0t</sub> = opening value of intangible investments” is replaced with the wording:” opening net value of intangible investments”.

Paragraphs 6 is amended to read as follows:

“Closing value of the regulated asset base is calculated according to the following formula:

$$cRAB_t = oRAB_t - D_{RAB_t} + \Delta Capex_t - Disposals_t - \Delta CC_t - \Delta CWIP_t$$

Where:

$D_{RAB_t}$  – depreciation costs of the regulatory asset base, excluding depreciation costs of assets funded by capital contributions over the period calculated according to this methodology (in dinar),

$\Delta\text{Capex}_t$  – change in the value of intangible investments (except goodwill), immovables, plants, and equipment under construction, and advance payments made towards procurement thereof over the period t, increased by the net value of intangible investments (except goodwill), immovables, plants, and equipment under construction, which will be commissioned over the period t, and of advance payments for their procurement at the beginning of the regulatory period, (in dinars),

$\text{Disposals}_t$  – net value of assets that have been disposed of and/or permanently withdrawn from use in the period t (dinars),

$\Delta\text{CC}_t$  – change in the value of assets funded by capital contributions over the period t (dinars),

$\Delta\text{CWIP}_t$  – change in the value of intangible investments (except goodwill), immovables, plants, and equipment under construction, which will not be commissioned over the period t, or which are not justified nor/or efficient, and of advance payments made towards procurement thereof (dinars).”

Subsections IV.2.4. *Rate of Return on RAB*, IV.2.5 *Other Revenues*, and IV.2.6. *Correction Factor* are amended and read as follows:

“IV. 2.4. *Rate of Return on RAB*

The rate of return on the regulatory asset base is determined as the weighted average real cost of capital of an energy entity performing natural gas distribution.

The weighted average real cost of capital is the weighted average of rate of return on equity capital and weighted average rate of return on debt capital calculated according to weight factors of 40% for equity and 60% for debt capital, and is calculated on a pre-tax basis according to the following formula:

$$\text{WACC} = (\text{equity portion} * \text{cost of equity, after-tax, real}) / (1 - \text{tax rate}) + \text{debt portion} * \text{cost of debt}$$

Where

$$\text{equity portion} + \text{debt portion} = 1$$

Where:

WACC = rate of return on the regulatory asset base (%),

Equity portion = the equity portion in funding the regulatory asset base (%),

Cost of equity, after-tax, real = real cost of equity capital after taxation (%),

Tax rate = corporate tax rate in line with regulations in force (%),

Debt portion = the debt portion in funding the regulatory assets base (in %),

Cost of debt = weighted average real cost of debt capital (%).

The real cost of the equity after taxation shall reflect the specific risk of the company, risk of the country and prevailing terms of acquiring capital on the financial market over the regulatory period.

The debt capital in the context of this subsection is equal to the sum of long-term liabilities and short-term financial liabilities used for financing the regulatory asset base.

The real cost of debt capital is calculated as the weighted average real interest rate on total debt, whereas the weight factors are the shares of debt in total debt capital. The real cost of debt capital is acceptable to the level of cautiously and reasonably borrowed assets.

#### IV. 2.5. Other Revenues

Other revenues, except for revenues earned on account of system use, are revenues earned by employing assets intended for conducting the natural gas distribution, and may be: revenue earned from use of own products and merchandise, revenue from sale of assets, and other revenues.

#### IV. 2.6. Correction Factor

The correction factor shall be a (monetary) value whereby the maximum allowed revenue for the regulatory period (t) is decreased or increased by the difference between the actual revenue according to the annual financial report of the energy entity for t-2 regulatory period and the justified revenue for t-2 regulatory period calculated in accordance with this Methodology on the basis of the actual energy parameters and the value of justified costs and other revenues earned in the t-2 regulatory period or in previous regulatory periods for which adjustments were not made.

The correction factor is calculated according to the formula below:

$$CF_t = (JR_{t-2} - AR_{t-2}) * (1 + CPI_{t-2})$$

Where:

t = regulatory period,

CF<sub>t</sub> = correction factor over period t (dinars),

JR<sub>t-2</sub> = justified revenue associated with conducting the energy activity over period t-2 and calculated in line with this Methodology on the basis of actual energy parameters and values of justified costs, and other revenues (dinars);

AR<sub>t-2</sub> = actual revenue associated with conducting the energy activity over period t-2 (dinars),

CPI<sub>t-2</sub> = Consumer price index in the Republic of Serbia in the period t-2 in line with data published by the relevant statistics office (in %).

In the case mentioned under paragraphs 1 and 2 of this subsection, the correction factor shall not apply to the calculation of the maximum allowed revenue for the first two regulatory periods.

In case the energy entity has data on actual energy parameters and financial reports for t-1 regulatory period at the time the price act proposal is submitted, the correction factor calculation shall be based on data from the t-1 regulatory period or earlier regulatory periods for which correction was not done. In this case, the correction element is not applied to the maximum allowed revenue calculation for the first regulatory period.

In case regulated prices are not implemented at the beginning of the first regulatory period, the correction factor shall be calculated only for the part of the first regulatory period with implemented regulated prices, provided that the energy entity has the financial report for the part of the first regulatory period with regulated prices implemented. Where the energy entity does not have the financial report for the first part of the regulatory period with implemented regulated prices, the actual revenue is calculated for the part of the first regulatory period during which the regulated prices were not implemented, by applying regulated prices.

The first regulatory period in the context of this subsection is the calendar year during which, in line with the Energy law, implemented access to and use of system prices (regulated prices) of the relevant energy entity are determined according to this Methodology.”

5. In Section IV.3 **Natural Gas Distribution System Operation**, in the introductory part, in the formula explanation, the wording:” WACC – the rate of return on the regulatory asset base that is calculated as weighted average cost of capital (%)” is amended to read as follows: “WACC – the rate of return on the regulatory asset base (%)”.

Subsection IV.3.1. *Costs of Covering Losses* is amended to read as follows:

“IV. 3.1. Costs of Covering Losses

The level of costs of covering losses within the natural gas distribution system is based on the formula below:

$$CCL_t = L_t * CNG_t$$

Where:

t = regulatory period,

CCL<sub>t</sub> = costs of covering losses over the period t (dinar),

L<sub>t</sub> = quantity of natural gas required to cover losses within the natural gas distribution system over the period t (m<sup>3</sup>),

CNG<sub>t</sub> = justified weighted average cost of procuring natural gas, including all associated justified costs of procuring natural gas to cover losses in the period t (dinar/m<sup>3</sup>).

Quantity of natural gas required to cover losses within the natural gas distribution system over period t is calculated according to the formula below:

$$L_t = G1_t + G2_t$$

Where:

G1<sub>t</sub> = quantity of natural gas required for coverage of losses within the network under p < 6 bar over the period t (in m<sup>3</sup>),

G2<sub>t</sub> = quantity of natural gas required for coverage of losses within network under pressure of 6 ≤ p < 16 bar over the period t (in m<sup>3</sup>).

For a network under p < 6 bar pressure, the natural gas quantity required for coverage of losses in the period t is:

$$G1_t = QD1_t * LR1_t / (1-LR1_t)$$

Where:

QD1<sub>t</sub> – natural gas quantity for delivery from a network under p < 6 bar over period t (in m<sup>3</sup>),

LR1<sub>t</sub> – justified rate of loss of natural gas within a network under p < 6 bar over period t (in %).  
Quantity of natural gas for delivery from a network under p < 6 bar is a sum of quantities delivered to customers with facilities connected to a network under p < 6 bar, to producers, or for own energy entity's consumption.

Natural gas quantity taken from the distribution system is equal to the sum of natural gas quantities taken from: the transportation system, the distribution system from a network under pressure of 6 ≤ p < 16 bar of the same or other energy entity, and from domestic gas fields which are connected to the network under p < 6 bar.

The justified rate of natural gas loss within the network under p < 6 bar over the period t is determined on the basis of: the actual rate of loss of natural gas in the previous three years, system state analysis, benchmarking of the actual rate of losses of energy entities conducting the same activities in the country and in the region, and by taking into account the age and material of distribution networks and natural gas quality, the loss reduction plan and results of implemented reduction measures, while, however, the justified rate of losses may not exceed the actual rate over the period t-1 (in%).

The actual annual rate of natural gas losses is calculated on the basis of actual annual quantities by dividing the difference between supplied and delivered quantities from the network under p < 6 bar by the natural gas quantity supplied.

For a network under pressure of 6 ≤ p < 16 bar, the natural gas quantity required for coverage of losses over the period t is:

$$G2_t = QD2_t * LR2_t / (1-LR2_t)$$

Where:

QD2<sub>t</sub> – natural gas quantity to be delivered from the natural gas distribution system from a network under pressure of 6 ≤ p < 16 bar (in m<sup>3</sup>),

LR2<sub>t</sub> – justified rate of losses of natural gas within the network under pressure of 6 ≤ p < 16 bar in the period t (in %).

The natural gas quantity supplied to the network under pressure of 6 ≤ p < 16 bar is equal to the sum of quantities of natural gas supplied from the transportation system, from the network under pressure of 6 ≤ p < 16 bar of other energy entity distributing natural gas, and from domestic gas fields connected to a network under pressure of 6 ≤ p < 16 bar.

Natural gas quantity delivered from the network under pressure of 6 ≤ p < 16 bar is the sum of the quantity delivered: to customers with facilities connection to the network under pressure of 6 ≤ p < 16 bar, into the network under the same pressure of other distribution system, into the network under p < 6 bar of the same or other distribution system, to a producer, and the quantities for own energy entity's consumption.

The justified rate of natural gas loss within a network under pressure of 6 ≤ p < 16 bar for the period t, is determined on the basis of: actual rates of natural gas losses in the previous three

years, benchmarking of actual rates of losses of energy entities conducting the same activity, and by taking into account the age of the pipeline and the quality of natural gas, and the loss reduction plan and results of implementation of reduction measures, while, however, the justified rate of loss may not exceed the actual rates over the period t-1 (in %).

The actual annual rate of natural gas loss is calculated on the basis of actual annual quantities by dividing the difference between supplied and delivered natural gas quantities from the network under pressure of  $6 \leq p < 16$  bar by the quantity of supplied natural gas.

For distribution systems with networks under  $p < 6$  bar and  $6 \leq p < 16$  bar with partially available metering equipment at points of delivery between those networks, distribution of losses among networks working under different pressures is estimated on the basis of metered parameters at points of delivery between networks with metering equipment available, so that the sum of losses must be equal to the total of losses on the distribution system.”

6. In Section VI. REGULATORY PERIOD, at the end of paragraph 2 the full stop is deleted and the following wording is added:” (calendar year). Documentation and data based on which the maximum allowed revenue of the energy entity is calculated, shall be submitted to the Energy Agency of the Republic of Serbia, as a rule, 45 days before submission of the price act proposal for opinion.”

7. This decision shall be published in the Official Gazette of the Republic of Serbia and apply as of January 1, 2009.

No. 703/2008-D-I/6  
Belgrade, December 16, 2008

**The Council of the Energy Agency of the Republic of Serbia**

Council President  
Ljubo Macic