

## **ENERGY REGULATOR AUTHORITY**

### **Methodology for tariff calculation of natural gas transmission and distribution network.**

#### **Part I – General Provisions**

##### **1. Authority**

This gas grid tariff Methodology is drafted according to the Law on Natural Gas Sector No. 102/2015.

##### **2. Purpose and Scope**

The purpose of this Methodology is to establish rules for setting of tariffs for access to and use of the gas transmission and gas distribution grid of Albania and for the services rendered by the Network Operator in line with the tasks set out in article 32, paragraph 1 of the Law On Natural Gas Sector Nr. 102/2015 (grid tariffs). The grid tariffs shall be set by the Gas Network Operator in accordance with this Methodology. This Methodology does not cover the tariffs for access to and use of the Trans-Adriatic-Pipeline (TAP).

##### **3. Terms used in the Methodology**

Standard terms used in this Methodology are established in the Law On Natural Gas Sector Nr. 102/2015. Terms used in this Methodology have the following meanings.

3.1 “Regulatory period” Combined means the business year of the operator of the gas transmission and gas distribution grid over a period of 12 months and is equivalent with the calendar year;

3.2 “Combined Network Operator” means when the same Company is licensed both in transmission, distribution and GNL and/or storehouse Plant Operator;

3.3 “Network” means the entirety of gas transmission and gas distribution grids;

3.4 “Network Operator” means the operator of gas transmission an/or gas distribution grid in Albania.

Other terms used in this Methodology have the same meaning as in the Law “On Natural Gas Sector” No. 102/2015.

#### **4 Basic principles of tariff setting**

- 4.1 Setting of grid tariffs according to this Methodology is based on the rate-of-return regulation method. Network Operator is allowed to recover justified grid operation costs and a regulated return of investment.
- 4.2 Combined Network Operator shall abide by the rules of the Methodology when setting tariffs by ERE. ERE shall approve the grid tariffs when the conditions and the principles of this Methodology are fulfilled. Grid tariffs approved by the ERE are valid for one calculation period (1 year).
- 4.3 Non-compliance with any part of this Methodology may result in a rejection by the ERE of the Network Operator’s tariff application.
- 4.4 The grid tariffs shall be calculated by ERE on the basis of the grid costs which are to be identified and compiled in accordance with sections 7 to 12 of this methodology. The costs and grid tariffs shall be calculated on the basis of the data derived from the previous business year of the Network Operator (in accordance with section 80 of the Law On Natural Gas Sector Nr. 102/2015) ; reliable information regarding the planning year may be also taken into account.

The grid costs will be calculated as follows:

$$GC_t = C_{t-2} + D_{t-2} + ROC_{t-2} - CRI_{t-2} + OCP_t$$

Where:

- GC<sub>t</sub>        The annual grid cost for the planning year (t)
- C<sub>t-2</sub>        Current outlay cost items of the year (t-2) in accordance to section 8.
- D<sub>t-2</sub>        Imputed depreciations of the year (t-2) in accordance to section 9.
- ROC<sub>t-2</sub>      Imputed return on capital of the year (t-2) in accordance to section 10.
- CRI<sub>t-2</sub>      Cost-reducing revenue and income of the year (t-2) in accordance to section 11.
- OCP<sub>t</sub>        Offsetting across calculation periods in the planning year (t) in accordance to section 12.

4.5 The setting of grid tariffs has to be based on the following principles:

1. Grid tariffs shall be cost-reflective;
2. Grid tariffs shall be calculated in a way that by the end of the regulatory period the real costs incurred from the network operator and those planned closely match each other.
3. There should be no cross-subsidies between customer classes;

4. Grid tariffs should reflect the actual cost of service for each customer and shall be attributed as fairly as possible;
5. Grid tariffs should provide proper price signals for the efficient use of the network;
6. Expenses included in the grid tariff should be transparent to all stakeholders;
7. Grid tariffs should allow the Network Operator to earn the ERE-approved allowed rate of return on the ERE-approved regulated asset base;
8. Grid tariffs should be stable over time.

## **5 Calculation period**

**5.1** This Methodology foresees a short-term calculation period instead of a long-term regulatory period. The calculation period enables Network Operators to adapt grid tariffs annually. This shall ensure that high and volatile costs that are necessary for the establishment of the necessary grid infrastructure in Albania can be included in the grid cost calculation.

**5.2** The calculation period is consistent for transmission network services and distribution network services as stated in this methodology.

## **6. Separate documentation regarding transmission and distribution activities**

**6.1** The network operator that operates both the transmission and the distribution grid should keep separate accounts and documentation regarding assets, liabilities, revenues or costs regarding transmission and distribution activities on annual basis. This documentation shall be part of the Company's annual financial statements.

**6.2** Separate annual documentation for transmission should include all assets, liabilities, revenues or costs regarding transmission activity.

**6.3** Separate annual documentation for distribution should include all assets, liabilities, revenues or costs regarding distribution activity. The allocation of assets, liabilities, revenues and costs should be fairly attributed.

## **Part II – Calculation of grid tariffs**

### **7. Principles underlying the calculation of grid costs**

Financial statement costs and imputed costs of the Network Operator shall be taken into account only insofar as such costs correspond to costs that would be incurred by an efficient and well-managed Network Operator, which avoids wasteful expenditures. The ERE has the right to investigate cost levels reported by the Network Operator.

7.1 Based on the profit and loss accounts relating to the gas supply for the last completed business year, an imputed calculation shall be drawn up in order to determine the grid costs. As mentioned in this paragraph, the grid costs shall consist of the current outlay costs pursuant to section 8, the imputed depreciations pursuant to section 9, the imputed return on capital pursuant to section 10 and adjustable income pursuant to section 11.

7.2 Network Operator shall only consider only those cost items that cover the most needed third party services for running the activity, the same like they will deliver those services themselves. The grid operator should obtain supporting documentation for each and every cost item.

7.3 In case extraordinary items (expenses and income) affect the grid costs they will be reported to ERE with no delay.

### **8. Current outlay cost items**

Current outlay costs shall be indicated in the profit and loss accounts drawn up for gas transmission and gas distribution and shall be taken into account in the determination of the grid costs. Current outlay cost within this meaning are, for example, direct operating costs (personnel costs and material costs), indirect operating costs (maintenance costs, service costs, and adjustment costs) and general expenses (rental costs, insurance costs, and energy costs). Financial depreciation and interest on borrowed capital shall not be indicated as current outlay costs because those costs are replaced by imputed costs in accordance with section 9 and 10. ERE will assess if these costs are fair or not.

### **9 Imputed depreciations**

9.1 To ensure an efficient and reliable grid operation in the long run, the reduction in the value of the fixed assets necessary for grid operation as set out in subsections 2 to 4 shall be taken into account in the calculation of the grid costs (imputed depreciations). In cost-accounting and revenue accounts, imputed depreciations therefore take the place of the corresponding depreciations shown in the profit and loss accounts for reporting purposes.

9.2 The imputed depreciations of the assets shall be determined on the basis of the

respective historical acquisition and production costs applying the straight-line depreciation method.

- 9.3 The imputed depreciations for each asset shall be effected each year on the basis of its respective useful economic life. The useful economic life assigned to each asset shall remain unchanged for the remaining period of its imputed depreciation. The imputed depreciations shall be determined on a yearly basis. For calculation purposes, any new asset purchased during a calculation period shall be considered as fixed asset only for that part of the calculation period it has been in operation. The useful economic lives to be applied are specified in Annex 1.
- 9.4 After the completion of the originally specified depreciation period, the imputed residual value of an asset shall amount to zero. A reactivation of imputed residual values is inadmissible.

## 10 Imputed return on RAB

- 10.1 The return on total RAB shall be calculated as follows:

$$\text{RAB}_t = \text{RV}(t-2) + \text{Ca}(t-2) + \text{L}(t-2) + \text{AUC}(t-2) \\ - \text{P}(t-2) - \text{AP}(t-2) - \text{TP}(t-2) - \text{OL}(t-2)$$

Where

RV(t-2) the imputed residual value of the tangible fixed assets in the base year (t-2) necessary for grid operation valued at historical acquisition and production costs

CA(t-2) the balance sheet values of the current assets in the base year (t-2) necessary for grid operation

L(t-2) land stated at acquisition cost in the base year (t-2).

AUC (t-2) p repayments and assets under construction in the base year (t-2)

P(t-2) provisions in the base year (t-2)

AP(t-2) advance payments received and down payments from customers in the base year (t-2)

TP(t-2) non-interest bearing trade payables in the base year (t-2)

OL(t-2) other liabilities to the extent that the funds are available to the Network Operator on a non-interest bearing basis in the base year (t-2).

In each case, the average of the start-of-year and end-of-year data is to be taken into account.

Provisions within the meaning of this paragraph are liabilities of uncertain timing or amount. A provision is measured at the amount that the entity would rationally pay to settle the obligation at the end of the reporting period or to transfer it to a third party at the time. Risks and uncertainties are taken into account in the measurement of a provision.

The current assets within the meaning of this paragraph should only be taken into account to the extent necessary for grid operation. The Network Operator is obliged to submit to ERE a

study of the funds required to maintain a suitable level of material and supplies and the cash required to meet current obligations and to maintain minimum back accounts. In absence of the study, the Network Operator may provide an estimate of the current assets with written evidence justifying such an estimate. In any case, the current assets must not exceed 1/12 of OPEX for one calculation period.

10.2 The Network Operator is required to submit the necessary evidence and proof.

10.3 The imputed return on total capital shall be determined on the basis of the weighted average cost of capital (WACC). The regulatory asset base shall be multiplied by the weighted average capital cost rate of interest rates for equity and borrowed capital. The calculation shall be based on 40% equity ratio and 60% debt ratio. The weighted average cost of capital shall be calculated as follows:

$$\text{WACC} = [\text{ES} * \text{ARoE} / (1 - \text{T})] + (\text{DS} * \text{CoD})$$

$$\text{ES} + \text{DS} = 1$$

Where:

ES	Target for equity ratio of the RAB amounting to 0.4
T	Corporate Tax Rate
ARoE	Allowed return on equity after tax
DS	Target for debt ratio of the RAB amounting to 0.6
CoD	Cost of Debt

10.4 The allowed return on equity after tax consists of a base interest rate and a premium for grid operation specific risks. The base interest rate corresponds to the 5-year average value of the weighted average of bond coupons of Albanian government bonds published by the Bank of Albania.

10.5 In particular, the following facts shall be taken into account in calculating the premium necessary to cover the business risks associated with the grid operation:

1. The situation on the national and international gas markets and the valuation of gas Network Operators on these markets;
2. The average return on equity of gas Network Operators on foreign markets;
3. Actual and quantifiable business risks.

10.6 ERE shall decide on the allowed return on equity after tax. For the first time, this decision has to be taken and to be published at the beginning of the year in which network operation is supposed to start and subsequently in intervals of three years.

10.7 The average rate of interest for borrowed capital used for the calculation of the imputed return on total capital (WACC) corresponds to the 5-year arithmetic average value of annual average interest rates of new loans to private non- financial corporations for real estate in ALL published by the Bank of Albania.

## **11. Cost-reducing revenue and income**

Other revenue and income shall be deducted from the grid costs to the extent that this other revenue and income can be adequately attributed to the grid operation and if they are referred to, in particular, in the items

1. Own work capitalized
2. Interest income and investment income,
3. Grid connection costs
4. Other income and revenue as stated in the loss/profit account after they've been observed by ERE (other revenues related to the licensed activity)

## **12. Offsetting across calculation periods**

Following the completion of a calculation period, the Network Operator shall determine the difference between:

1. The revenues obtained from the grid tariffs during this calculation period;
2. Required Revenues underlying this calculation period.

If the revenues pursuant to no. 1 exceed the revenues pursuant to no. 2, the differential amount plus an appropriate interest on the average amount of these differences should be subtracted from the obtained revenues based on the tariffs in a cost-reducing manner.

If the revenues pursuant no. 1 are below the revenues pursuant to no. 2, the differential amount plus an appropriate interest on the average amount of these differences, a rate within the meaning of section 10 paragraph 7 is to be taken into account in a cost-increasing manner.

Offsetting (in a cost increasing or cost decreasing manner) shall be effected over three consecutive calculation periods. The amount committed shall be the average of the difference between the revenues obtained and the costs to be covered during respective periods.

## **PART III – Transmission grid tariffs**

### **13 Calculation of transmission network costs**

13.1 TSO should calculate transmission network costs according to sections 7 – 12 of this methodology.

13.2 Calculation of transmission network costs should be done on the basis of separated accounts for the transmission activity as stated in section 6 of this methodology.

13.3 Calculation of transmission network costs shall also include assets and liabilities associated with metering activity in the transmission network. Metering activity in the transmission network consists in metering and overhead costs which will be fairly attributed.

## **14 Special rules for setting of transmission grid tariffs**

- 14.1 The transmission network capacity tariff will fully cover the costs of the transmission network.
- 14.2 TSO will apply capacity tariffs on annual, semiannual, quarterly, monthly and daily basis and if applicable on intraday basis. The tariff for a certain product will include the cost of all the ancillary services related to it.
- 14.3 Capacity based products will be calculated according to the reference price method. The same reference price methods will be applied in all the entry and exit points of the transmission grid. Application of such reference price methods should be in accordance with the principles stated in section 4.5 of this methodology.
- 14.4 The tariff for entry- and exit points of the transmission grid consists of a capacity tariff in ALL/kW. Capacity tariffs shall be published for firm and interruptible capacity. The price of interruptible capacity shall reflect the probability of interruption.
- 14.5 Tariffs shall be set separately for every entry point into or exit point out of the transmission system.
- 14.6 The tariff will not depend on the pressure or the distance from the entry point to the exit point of the transmission grid.
- 14.7 Metering charges shall be set for all entry- and exit-points of the transmission grid. The metering charges cover installation, maintenance and exchange of meters (including capital costs), reading and processing of the data. The calculation of the metering charge shall be cost-reflective.
- 14.8 The Network Operator shall keep detailed records of their method of calculating tariffs in a manner that is comprehensible for a qualified third party, and the records shall be presented upon request of the ERE.

## **Part IV - Distribution Grid Tariffs**

### **15 Calculation of distribution network costs**

- 15.1 DSO should calculate transmission network costs according to sections 7 – 12 of this methodology.
- 15.2 Calculation of distribution network costs should be done on the basis of separated accounts for the distribution activity as stated in section 6 of this methodology.
- 15.3 Calculation of distribution network costs shall also include assets and liabilities associated with metering activity in the distribution network. Metering activity in the distribution network consists in metering and overhead costs which will be fairly attributed.

### **16 Special rules for setting of distribution tariffs**

- 16.1 The distribution network capacity tariff will fully cover the costs of the distribution network.



- 16.2 The grid tariff for exit points of the distribution grid shall consist of an annual demand rate in ALL/kW and an energy rate in ALL/kWh. The tariff for annual demand is obtained by multiplying the relevant annual demand rate by the maximum annual demand – in kW – at the exit point in the billing year. The energy tariff shall be calculated by multiplying the relevant energy rate by the relevant annual energy consumption – in kWh – off-taken in the billing year.
- 16.3 For off-take without load profiling in the distribution grid, an energy rate in ALL/kWh shall be determined instead of a demand rate and an energy rate. To the extent that a monthly basic price in ALL/month is determined additionally, the basic price and the energy rate shall be in reasonable proportion to each other. The tariff resulting from the basic price and the energy rate has to be in reasonable proportion to the tariff that would be payable in the context of a load-profiled withdrawal based on the figures of demand and energy in accordance with the standard load profile of the grid user.
- 16.4 30% of the costs of the distribution grid shall be covered by the energy rate and 70% of the costs of the distribution grid shall be covered by the demand rate. The demand rates may depend upon the maximum annual demand and the energy rates on the annual energy consumption.

## **Part V – Final Provisions**

### **17 Deadlines for submitting the applications and the approval process**

- 17.1 Based on this Methodology, the Network Operator shall submit to the ERE a request for the approval of grid tariffs for the following calculation period no later than six months before they become effective (t-1).
- 17.2 When submitting the application to ERE, the Network Operator shall provide all relevant data on grid costs and grid tariffs of the preceding year with finalized and audited financial statements.
- 17.3 Once the decision is taken ERE shall notify the Network Operator of its decision until the end of November of that year. The Network Operator publishes the tariffs on its website three days after the notification. ERE will also publish the decision on its website.

### **18 Publication Requirements**

- 18.1 The Network Operator should publish the new grid tariffs on its website and it should provide information in writing upon request.
- 18.2 Furthermore, the Network Operator shall publish the following structural characteristics of its grid on its internet site on 1 April of each year:
1. The length of the gas pipelines, broken down by low-, medium- and high-pressure level as of 31 December of the previous year,

2. The length of the gas pipelines at high-pressure level broken down by pipeline diameter classes
3. The annual energy (in kilowatt-hours or cubic meters) off-taken in the previous year by distributors and final consumers,
4. The number of entry and exit points for all pressure levels and
5. The simultaneous maximum annual demand of all points of withdrawal in megawatt or cubic meters per hour and the time of each occurrence.

## **19 Documentation**

19.1 Upon finalization of the setting of tariffs, the Network Operator shall immediately draw up a report on the calculation of grid tariffs. The report shall comprise:

1. An overview of the cost and revenue situation of the completed calculation period,
2. An exhaustive overview of the method of calculating the grid tariffs and other aspects that is relevant for the grid tariffs.
4. The full audit report of the financial statements as well as their supplements.

19.2 This report shall be retained for 10 (ten) years.

## **20 Monitoring, evaluation and entitlements of ERE.**

20.1 ERE constantly monitors the tariff setting by the Network Operator. Five years after this Methodology becomes effective, ERE evaluates the appropriateness and functioning of the tariff Methodology and publishes a report regarding the further development of the tariff Methodology. The report contains the relevant information about the investment activities of the Network Operator, the efficiency of the Network Operator and the measure to avoid barriers to investment.

20.2 In the report, the ERE can make proposals regarding, inter alia,

1. The removal of barriers to investment,
2. The further development and advancement of the existing tariff Methodology,
3. The development of further rules of transparency regarding the tariff Methodology,
4. The conception of a new tariff Methodology (e.g., incentive regulation),
5. The conception of separate tariff methodologies for the operation of the transmission and the distribution grid.

## **21 Transitional provisions**

21.1 If and to the extent the tariffs calculated on the basis of this Methodology exceed average amounts of grid tariffs in neighboring countries and do not allow for end consumer gas prices that are competitive with other sources of energy, the calculation of grid tariffs according to section 14 & 16 can be done on the basis of a comparative analysis of grid tariffs in neighboring countries. The Network Operator can only make

use of this exemption for five years after entry into force of this Methodology. The Network Operator shall provide a survey of average amounts of grid tariffs in neighboring countries including an estimate regarding competitiveness of end consumer gas prices in Albania with written evidence justifying such an estimate. These documents shall be prepared annually and shall be attached to the request for the approval of new grid tariffs pursuant to section 17.1. ERE shall explicitly approve the application of this exemption pursuant to section 17.3.

- 21.2 If and to the extent there is no data from previous business years within the meaning of section 4.4 for the first calculation period after this Methodology becomes effective, the Network Operator shall base its application on an estimate with written evidence justifying this estimate.
- 21.3 The network operator shall submit its first application no later than December 4, 2017.
- 21.4 Any amendments of the Law on Natural Gas Sector Nr. 102/2015 regarding the setting of gas grid tariffs or the coverage of gas grid costs remain unaffected by the rules of this Methodology.

## **22 Final provisions**

The Gas Tariff Calculation Methodology was approved by ERE's Board of Commissioners by Decision No. 178 dated on 8 November 2017.

## Annex 1

	Lower limit	Upper limit
	Years	Years
Plots of Land	∞	∞
Properties, Buildings for Transport	25	35
Company buildings	50	60
Administrative Buildings	60	70
Railway track facilities, railway carriages	23	27
Office equipment (without EDP, tools, devices)	8	10
Tools/devices	14	18
Storage facility	14	25
Hardware	4	8
Software	3	5
Light vehicles	5	5
Heavy-duty vehicles	8	8
Gas container	45	55
Natural gas compressor facilities		
Natural gas compression	25	25
Gas purification facilities	25	25
Piping and fittings	25	25
Gas measurement / metering facilities	25	25
Safety installations (natural gas compression facilities)	25	25
Control and energy control technology (natural gas compression facilities)	25	25
Ancillary facilities (natural gas compression facilities)	25	25
Buildings, transport infrastructure (natural gas compression facilities)	25	25
Pipelines/ house connection pipes (steel pipes – PE coating)	45	55
Pipelines/ house connection pipes (steel pipes – cathode protection)	55	65
Pipelines / house connection pipes (steel pipes - bituminized)	45	55
Pipelines / house connection pipes (grey cast iron; DN > 150)	45	55
Pipelines / house connection pipes (ductile cast)	45	55
Pipelines / house connection pipes (polyethylene PE-HD)	45	55
Pipelines/ house connection pipes (polyvinyl chloride PVC)	30	40
Pipelines/ house connection pipes (fittings/ fitting stations)	45	45
Pipelines/ house connection pipes (pig launcher)	45	45

Pipelines/ house connection pipes (safety installations)	45	45
Measuring, control and metering systems (gas meters)	8	16
Measuring, control and metering system (gas pressure regulator)	15	25
Measuring, control and metering systems (measuring equipment)	45	45
Measuring, control and metering systems (control equipment)	45	45
Measuring, control and metering systems (safety installations)	20	30
Measuring, control and metering systems (control and energy technology)	10	30
Measuring, control and metering systems (compressors in gas mixing systems depending on the duration of use)	15	30
Measuring, control and metering systems (ancillary systems)	15	30
Measuring, control and metering systems (buildings)	60	60
Tele control systems	15	20