



Republika e Kosovës
Republika Kosova - Republic of Kosovo

ZYRA E RREGULLATORIT PËR ENERGJI
REGULATORNI URED ZA ENERGIJU
ENERGY REGULATORY OFFICE



Thermal Energy Pricing Rule

July 2016



Contents

Chapter I	General Provisions	
	Error! Bookmark not defined.	
Article 1		3
	Scope and Purpose	3
Article 2	Definitions and Interpretations	4
Chapter II	Regulation of Revenues and Tariffs	5
Article 3	General Principles	5
Article 4	Procedure for Applying for Approval of Maximum Allowed Revenues and Tariffs	6
Article 5	Appeal	7
Chapter III	Maximum Allowed Revenues	7
Article 6	General Principles	7
Article 7	Allowed Operating and Maintenance Costs	8
Article 8	Allowed Depreciation	9
Article 9	Allowed Return on Assets	9
Article 10	Allowed Network Losses	9
Article 11	Adjustment Mechanism	10
Article 12	Allowed variable Heat Generation Costs of thermal energy(heating)	11
Article 13	Pass-Through Costs	11
Article 14	Allocation of Costs into Fixed and Variable Components	12
Chapter IV	Thermal Energy Tariffs	12
Article 15	General Principles	12
Article 16	Tariff Structure and Invoicing	13
Chapter V	Transitional and Final Provisions	14
Article 17	Publications	14
Article 18	Language and Interpretation	14
Article 19	Amendments	14
Article 20	Repeal	15
Article 21	Entry into force	15



Chapter I General Provisions

Article 1 Scope and Purpose

1. Thermal Energy Pricing Rule (further in the text “the Rule”), in accordance to the Articles 9(1), 15, 26(1) and Chapter IX (Articles 45, 46, 47, 48, 49 and 50) of the Law 05/L-084 on the Energy Regulator, sets forth the principles for calculation and approval of maximum allowed revenues and regulated tariffs, as well as procedures for submission of application, review, adjustment, and approval of the tariffs and prices of heat in the regulated thermal energy sector.
2. This Rule shall apply to enterprises having the license for heat production, distribution and supply.
3. This Rule sets:
 - a) The basic principles and the Methodology for the determination of maximum allowed revenues that may be earned by regulated thermal energy enterprises in order to allow them to recover the reasonable costs of operating, maintaining and investing in their generation and network facilities for the purposes of supply of heat to customers in accordance with the Law on the Energy Regulator;
 - b) The process by which applications for such maximum allowed revenues shall be submitted, reviewed and approved; and
 - c) The process and the Methodology used by which heat tariffs to recover the maximum allowed revenue are determined.
4. The principles and methodologies described in this Rule shall ensure:
 - a) the transparent and non-discriminatory performance of regulated thermal energy activities which are subject to public service obligations;
 - b) that the interests between customers and thermal energy enterprises are adequately balanced;
 - c) stable and predictable conditions for enterprise operation when performing regulated businesses;
 - d) that tariffs for regulated thermal energy activities are calculated in a reasonable, objective and clear manner;
 - e) security of supply of heat through maintenance and construction of necessary generation and distribution capacities;
 - f) protection of customers through promoting transparent and open access to information related to participation in public consultation and decision-making regarding pricing and tariffs.



Article 2

Definitions and Interpretations

The terms used in this Rule shall have the same meanings as in the Law on Energy, the Law on the Energy Regulator and the Law on Thermal Energy.

“Actual regulated revenues” means the revenue recovered by a regulated enterprise through tariffs for the provision of heat measured on an accruals basis.

“Adjustment mechanism” means the mechanism applied for regular adjustment of the maximum allowed revenue. The adjustment is undertaken after each year after each regulatory period respectively before next tariff review, as described in Article 111.

“Allowed depreciation” has the meaning given in Article 88.

“Allowed operating and maintenance costs” have the meaning given in Article 77 and are comprised of a fixed part and variable part in accordance with the provisions of the same article.

“Allowed rate of the return on the regulatory asset base” is defined in Article 99 and equals to the Weighted Average of Cost of Capital - WACC.

“Annual review” is the process performed by the Energy Regulatory Office to review the data provided by the regulated enterprise and to establish the maximum allowed revenue.

“Bad debt” – a reasonable cost allowed by ERO for the decrease in revenues caused by the inability for collecting the payments from customers, which is further defined in Article 111, paragraph 5.

“Distribution network” means the thermal energy network for transporting thermal energy from the generation plants to customers.

“Asset lifetime” means the asset lives used to calculate allowed depreciation on the regulatory asset base.

“Fixed costs” are costs that do not vary with the heat volume supplied by the thermal energy system and are thus considered to be fixed.

“Forecasted revenue” is equal to the maximum allowed revenue determined prior each regulatory period that was planned to be recovered via tariffs assuming forecasted costs and heat supply.

“Heating season” is the period of thermal energy provision and ranges from October 15 of actual year to April 15 the forthcoming calendar year if not extended or shortened according to Article 6 of the Rule on General Conditions of Energy Supply issued by Energy Regulatory Office.

“Implementation Plan and Timetable” is an accompanying document to this Pricing Rule prepared and published by ERO in advance to the regulatory period.

“Maximum Allowed Revenues (MAR)” means the maximum amount that can be recovered during a regulatory period by the regulated thermal energy enterprise through its tariffs, the formulae given in Schedule 1 of this Rule.



“Metered” means metered quantity of thermal energy as measured by a meter installed for such a purpose.

“Pass-through costs” mean the costs established in accordance with 13.

“Rate-of-return” regulation is a method for establishing the maximum allowed revenue by adding a specific rate of return applied on the regulated asset base to the allowed costs of the regulated enterprise.

“Regulatory asset base” is a regulatory value of the thermal energy enterprises fixed assets considered to be used and useful in the provision of thermal energy and determined as prescribed by Schedule 2.

“Regulatory period” will include the heating season in line with the definition given in Article 3.

“Transportation network” includes the pipelines specifically build to connect a co-generation or other plant to the thermal energy distribution network.

“Variable costs” are costs that vary with the heat volume produced and supplied by the thermal energy system and are thus considered to be variable.

“ERO” - Energy Regulatory Office.

Chapter II Regulation of Revenues and Tariffs

Article 3 General Principles

1. The maximum allowed revenues of the regulated thermal energy enterprise as well as consumer tariffs shall be set through the process of annual tariff reviews as described in this Rule.
2. Each review shall be equal to one year, starting on October 15 of actual year until October 14 of the forthcoming year, which includes a heating season from October 15 of actual year to April 15 of the forthcoming calendar year.
3. Prior each annual tariff review, ERO may decide to apply multiyear tariff, and through public consultation process ERO will determine also duration of the regulatory period. If Regulatory period is not determined from ERO, then duration of the regulatory period is same as yearly tariff review.
4. The formulae for calculating maximum allowed revenue are given in Schedule 1 whereas the principles for determining consumer tariffs are in Chapter IV.
5. For each change of prices in production, distribution and supply of thermal energy, ERO will make public consultation according to the Law on Energy Regulator, Article 27.



Article 4

Procedure for Applying for Approval of Maximum Allowed Revenues and Tariffs

1. By the deadline set forth in the Implementation Plan and Timetable as prepared and published by ERO in advance to the annual tariff review, the thermal energy enterprise shall submit to the ERO a written application for approval of maximum allowed revenue and associated heat tariffs for the upcoming regulatory period.
2. The application shall include a proposal for the maximum allowed revenue and tariffs for the heat delivered to the final customers as well as the associated documents as defined in Schedule 4.
3. The ERO shall verify and examine all data listed in the application and perform an annual review according to the process defined in Schedule 5.
4. After receipt of application of thermal energy enterprises for maximum allowed revenues and tariffs, ERO shall publish all relevant documents whether issued by ERO or those of the concerned energy enterprises (excluding confidential information), and shall publish any other draft Rule, draft individual act, or draft decision. Also, ERO should meet with licensed energy enterprises to discuss submissions and responses and hold a public consultation.
5. Based on its verification and examination of the application, and after a consultation period set forth in the Implementation Plan and Timetable, ERO shall:
 - a) Either approve the maximum allowed revenue and tariffs as proposed by thermal energy enterprise if these are in conformity with the principles of maximum allowed revenue and tariff calculation as stipulated in this Rule; or
 - b) Refuse to approve the maximum allowed revenue and tariffs as proposed by thermal energy enterprise, and instead calculate and determine the allowed revenues and the tariffs for the regulatory period, according to the principles defined in this Rule.
6. The ERO shall refuse to approve the proposed tariffs, if they are not in conformity with the principles of tariff calculation as stipulated in Chapter IV of this Rule. The refusal shall be justified in a written form and shall be objective, non-discriminatory and duly substantiated.
7. The ERO will communicate in written form to thermal energy enterprise the value of its allowed revenues and tariffs for each year, within a specified timeframe set forth in the Implementation Plan and Timetable. Determination of allowed revenues will be accompanied by an annex – regulatory report with analytical explanation of the methodology for determination of allowed revenues and full justification of such determination.
8. The decision on tariffs in printed form shall be delivered to the applicant or to its authorized representative, and shall be published (without the annex mentioned in paragraph 7) on ERO's official web site before starting of the heating season.



Article 5 Appeal

1. Thermal energy enterprises have the right to appeal to the competent court of jurisdiction regarding determination of allowed revenues and the decision of the tariff approval.
2. The appeal must include full justification of its basis.
3. The appeal referred to in paragraph 1 of this article, may be filed to the competent court of jurisdiction within 30 days from the receipt of the final decision on the tariff approval.
4. The appeal shall not prevent implementation regarding the determination of allowed revenues and decision on tariff approval, in accordance to the Article 49 of the Law on Energy Regulator.

Chapter III Maximum Allowed Revenues

Article 6 General Principles

1. The maximum allowed revenue is the upper income limit allowed to the regulated thermal energy enterprise to be achieved during a regulatory period.
2. Maximal allowed revenues will be determined based on Tariff Methodology adopted by ERO.
3. In accordance to the principles of the Tariff methodology, the maximum allowed revenues shall enable the thermal energy enterprise to recover the justified reasonable costs required for performing the regulated business activities.
4. The maximum allowed revenue comprises of:
 - a) Allowed operating and maintenance costs (Article 77);
 - b) Allowed depreciation (Article 88);
 - c) Allowed return on the regulatory asset base (Article 99);
 - d) Allowed cost of losses (Article 1010); and
 - e) Adjustment (Article 11).
5. In determining reasonable costs, ERO shall refer to, but is not bound by or limited to:
 - a) Past volumes, cost and service quality information relating to the regulated thermal energy enterprise;
 - b) Projected volumes, costs and service quality relating to the regulated enterprise;
 - c) Comparisons with similar utilities and activities in Kosovo and countries elsewhere in Europe, taking into account the similarities between the thermal energy sector in those countries and that of Kosovo.



6. The resulting reasonable costs shall be allocated between fixed costs and variable costs, with the former being recovered from capacity charges and the latter from energy charges, as described in Article 144.

Article 7

Allowed Operating and Maintenance Costs

1. In submitting its estimates of operating and maintenance costs required to be recovered through maximum allowed revenues for any forthcoming regulatory period, the regulated enterprise shall only seek to recover costs that can be reasonably attributed to the regulated thermal energy activity.
2. Allowed operating and maintenance costs shall include relevant costs of the generation and the distribution and supply business activities. Corporate or common costs should be allocated to generation, distribution and supply using normal and customary accounting practices.
3. Allowed operating and maintenance costs will include also the cost of bad debt which will be calculated by applying allowed level of bad debt according the formulas in annex 1. Level of the allowed bad debt will be and approximate evaluation of the reasonable bed debt that an enterprise might have. Allowed level of bad debt will be determined from ERO prior to each tariff review.
4. Allowed operational and maintenance costs consist of fixed and variable part.
5. The fixed part of operating and maintenance costs consists of:
 - a) Repairs and maintenance;
 - b) Materials and services;
 - c) Overhead and administration costs;
 - d) Staff costs;
 - e) Sales and other related administrative expenses;
 - f) Fixed component of the payments for external heat purchases, and other fixed costs, if applicable.
6. The variable part of allowed operating and maintenance costs is defined as those costs that vary with the units produced / supplied and would not be incurred if the units produced / supplied were to be zero.
7. The variable part of allowed operating costs of the generation activity comprises of the following components (their calculation prescribed in Article 122):
 - a) Costs of own generation of heat only;
 - b) Costs of heat from own cogeneration;
 - c) Costs of heat purchases from external cogeneration and/or other heat generation sources;
 - d) Annual licensing fee (which is based on the quantities of thermal energy produced according to the Rule on taxes issued by ERO).
8. The variable part of allowed operating and maintenance costs of the generation activity is net of costs of heat for covering network losses and transportation losses as defined in Article 1010.



9. The variable part of allowed operating and maintenance costs of the distribution and supply activity consists of the operating and maintenance costs that vary with the amount of heat distributed through the network.

Article 8 Allowed Depreciation

1. Allowed depreciation costs shall be calculated on a straight-line basis as a function of asset lifetimes and the regulatory asset base for different asset classes as described in Schedule 2.
2. The allowed depreciation shall include depreciation of regulated existing assets (considered used and useful for the regulated activity), of new investments on assets, including assets financed by capital contributions – i.e. grants and subsidies.

Article 9 Allowed Return on Assets

1. The allowed return on assets shall be calculated as a product of the regulatory asset base (as defined in Schedule 2) and the allowed rate of return.
2. The regulatory asset base represents the value of the thermal energy enterprise's assets considered to be used and useful for the regulated activity, including new investments if approved by the ERO, and is net of assets financed by capital contributions – i.e. grants and subsidies (details are described in Schedule 2).
3. The allowed rate of return shall be equal to the Weighted Average Cost of Capital (WACC) and determined based on the capital asset pricing model as described in Schedule 3.
4. The allowed rate of return applied for the thermal energy business activity is determined by the ERO and may be the same for the whole thermal energy sector in Kosovo.

Article 10 Allowed Network Losses

1. The thermal energy enterprise shall make continuous efforts to reduce the network heat losses in accordance with a plan setting out targets and measures to be taken for the coming regulatory periods as part of the development (investment) plan.
2. The allowed cost of losses shall be included explicitly in the maximum allowed revenue of the distribution activity and deducted from the variable operating and maintenance costs of the generation activity.
3. The loss allowance represents the share of variable generation costs for providing heat to cover the allowed amount of network losses. The allowed cost of losses is calculated as the allowed amount of network losses divided by the total generation of heat entering the network



multiplied by the total variable costs of generation. The calculation of the cost of losses is further specified in schedule 1.

4. ERO may set for each regulatory period an allowed level of network losses expressed in MWh/year and/or percentage.
5. Network losses are the sum of technical losses in the transportation and distribution network and are calculated according to the following principles:
 - a) Transportation losses (if applicable): The difference between amount of heat entering the transportation network and amount of heat exiting the transportation network at the boundaries between transportation and distribution network.
 - b) Distribution losses: The difference between amount of heat entering the distribution network (either from transportation or directly from generation facilities) and amount of heat exiting the distribution network at the boundaries between the distribution network and the customers (as defined in the Thermal Energy Law). As far as possible, the latter shall be based on recorded values in metered sub-stations.
6. In setting the allowed level of network losses, the ERO shall take into account:
 - a) The actual level of network losses for the most recent regulatory period (based on metered and estimated values);
 - b) A loss reduction that is reasonable and achievable based on the regulated enterprise's investment plan;
 - c) Efficiency measures for loss reduction implied by ERO.
7. The allowed level of network losses shall be determined such as to encourage the regulated thermal energy enterprise to reduce losses but not impose financial risk for the enterprise.
8. The method for measuring and setting the actual level of network losses may be reviewed prior to each regulatory period. Consistency with the methodology prescribed in paragraphs 1 to 6 of this article shall be ensured.

Article 11

Adjustment Mechanism

1. The adjustment mechanism shall account for under- or over-recovery of the maximum allowed revenues on basis of deviations between forecasted and realized revenues as well as a bad debt allowance.
2. The under- or over-recovery of the maximum allowed revenue in one year, mentioned in paragraph 1 of this Article, will be reflected in allowed revenues for the next regulatory period as follows:
 - a) Differences between forecasted and actual supply / consumption shall be accounted for in the variable part of the reviewed revenues; and
 - b) If the regulated enterprise fails to supply customers with heat, the fix part of reviewed revenue shall be decreased accordingly.



3. The forecasted revenues are the maximum allowed revenues that have been approved by ERO in the existing annual review for forthcoming regulatory period.
4. Adjustment of revenues is based the fixed and variable cost components that are adjusted for:
 - a) The differences between actual and allowed fix and variable costs that are not controllable by the regulated enterprise; and
 - b) Differences between allowed and actual amount of heat generated or heat consumed.
5. Adjustment of revenues will take to consideration also the allowed bad debt, which is decrease in realized revenues, incurred by the inability to collect payments from costumers and is calculated as percentage of the maximal allowed revenues.

Article 12

Allowed Variable Costs for Generation of Thermal Energy (Heat)

1. The allowed costs for generation thermal energy (heat) are calculated according to the following:
 - a) For items mentioned in Article 77, paragraph 6, point a) the costs are calculated as the sum of fuel costs, and other expenses including chemicals and water, electricity and directly attributable staff costs.
 - b) For item mentioned in Article 77, paragraph 6, point b) the costs are calculated as the share of the sum of fuel costs, other expenses including chemicals and water and directly attributable staff costs that are allocated to heat of the cogeneration unit. The calculation principles for allocation of the variable costs to heat are described in Schedule 7.
 - c) For item mentioned in Article 77, paragraph 6, point c) the costs comprise of the variable component of the payments for external heat purchases.
2. Fuel costs shall be determined as expected amount of fuel consumption multiplied by allowed fuel price.
3. The allowed fuel price shall be determined by the Energy Regulatory Office with reference to:
 - a) The actual costs of fuel supplies; and
 - b) Current national, regional and international fuel prices.
4. The expected amount of fuel consumption shall be determined with reference to the specific consumption of fuel, which is estimated based on expected amount of heat generated by that fuel.

Article 13

Pass-Through Costs

The regulated thermal energy enterprise shall be allowed to fully pass-through the annual license fee or any other administrative fees (expenses) that are prescribed by the applicable law within its



operating and maintenance costs. The enterprise shall be allowed to pass-through any other cost that is caused as a result of respective legislative changes.

Article 14 **Allocation of Costs into Fixed and Variable Components**

1. The maximum allowed revenue shall be allocated to a fixed and a variable cost component.
2. The variable component of maximum allowed revenue comprises of the variable part of the allowed operating and maintenance costs as defined in Article 77 paragraphs 6, 7 and 8, as well as network losses as defined in Article 1010.
3. The fixed component of maximum allowed revenues consists of:
 - a) Fixed part of the allowed operating and maintenance costs as defined in Article 77 paragraph 4;
 - b) Allowed annual depreciation as defined in Article 88; and
 - c) Allowed return on assets as defined in Article 99.
4. ERO may reallocate at its discretion a certain share of the fixed cost component to the variable component of the maximum allowed revenue or vice versa, in order to ensure an adequate ratio of the fixed and variable tariff components.

Chapter IV **Thermal Energy Tariffs**

Article 15 **General Principles**

1. The tariffs shall reflect the cost causation principle and tariff groups shall be distinguished according to the following criteria:
 - a) Thermal energy system;
 - b) Metering devices installed and operational at substation of connection;
 - c) Consumption pattern; and
 - d) Fixed and variable cost character.
2. The maximum allowed revenue and associated tariffs shall be determined separately for each thermal energy system.
3. The thermal energy enterprise shall work continuously to upgrade all sub-stations with metering devices and submit a meter roll-out plan (including associated costs) to ERO, which shall be considered in determination of allowed revenues and tariffs.
4. The tariff structure as set in paragraphs 4 to 7 of this Article and in Article 166 shall be applied after a transition period as determined by ERO, before which the previous tariff structure shall be continued.



5. Depending on the metering infrastructure in place, customers shall be invoiced according to the metered or un-metered tariff as follows:
 - a) Customers connected to a sub-station with metering devices installed and functional, irrespective of the number of customers connected to this substation, (further “metered customers”) shall be invoiced according to the metered tariffs – based on measured consumption of thermal energy;
 - b) Customers connected to a substation without functioning metering devices (further “un-metered customers”) shall be invoiced according to un-metered tariffs – based on the surface of heated area.
6. Un-metered customers shall be further divided into two sub-groups corresponding to their consumption pattern:
 - a) Residential / household customers; and
 - b) Commercial and institutional customers.
7. The thermal energy tariffs for both metered and un-metered customers shall consist of a fixed and variable tariff component such that:
 - a) Within each regulatory period the revenues that the regulated enterprise expects to earn from fixed tariffs are equal to the fixed part of maximum allowed revenues approved by the ERO provided that heat was available to customers;
 - b) Within each regulatory period the revenues that the regulated enterprise expects to earn from variable tariffs are equal to the variable part of maximum allowed revenues approved by the regulator.
8. The calculation principles are prescribed in Schedule 6.

Article 16

Tariff Structure and Invoicing

1. For metered customers (as defined in paragraph 4 of Article 155) tariffs shall be as follows:
 - a) Fixed tariff component: monthly capacity charge based on contracted heat capacity [€/kW per month];
 - b) Variable tariff component: monthly energy charge based on metered heat supply [€/MWh or cent€/kWh];
 - c) If more than one customer is connected to one substation, then the metered consumption at this substation shall be allocated to each of the connected customers according to their heated area [m²].
2. For un-metered customers (as defined in paragraph 4 of Article 155) tariffs shall be as follows:
 - a) Fixed tariff component: monthly capacity charge based on an approximate value for heat capacity per square meter of heating area [€/m² per month];
 - b) Variable tariff component: monthly energy charge based on an approximate value for heat consumption per square meter of heating area [€/m² per month];



- c) The estimated values for heat capacity and heat consumption per square meter of heating area shall be different for residential and commercial/institutional customers and reflect their specific consumption pattern;
 - d) The approximate values for heat capacity and heat consumption per square meter of heating area shall be set by ERO based on their analysis.
3. The invoice from the regulated thermal energy enterprise to its customers shall be issued monthly for each of the six months of the heating season and include the tariffs as specified in paragraph 1 and paragraph 2 of this article.

Chapter V Transitional and Final Provisions

Article 17 Publications

1. Decisions on approved tariffs shall be published on the official website of ERO.
2. Submissions and other documentation received in relation to a price review, and regulatory reports as annexes to the decisions issued by ERO shall be published on its official website, excluding any material identified as being commercially confidential by the submitting entity and accepted as such by the ERO.
3. Thermal energy enterprises shall publish the approved regulated tariffs in at least one daily newspaper circulated within Kosovo within 5 working after ERO's announcement and publication of the decision on the ERO's official website.

Article 18 Language and Interpretation

1. This Rule is issued in the Albanian, Serbian and English languages. In case of any discrepancy, the Albanian version shall prevail.
2. The application and all documents submitted to the ERO shall be in one of the languages officially in use in Kosovo.
3. If during implementation of this Rule any uncertainty on interpretation of its provisions may appear, Board of ERO will issue clarifications respectively valid interpretation on respective provisions.

Article 19 Amendments

1. ERO retains the right to amend or modify any provision of this Rule.
2. Procedures for amendment or modification of this Rule will be the same as for its approval. The ERO will provide appropriate opportunities for consultation with licensees and other interested parties.



Article 20 Repeal

This Rule repeals the "Temporary Instruction I_07_2008 on the Principles of Calculation of Tariffs and Prices in the Thermal Energy Sector in Kosovo for the Heating Season 2008/2009" approved by the Board of the ERO on June 14, 2008.

Article 21 Entry into force

This Rule enters into force upon its adoption by the ERO Board and will be published in the official website of ERO.

ERO Board

Enver Halimi, Chairman

Krenar Bujupi, Member

Arsim Janova , Member

Qemajl Mustafa, Member

Besim Sejfijaj, Member



SCHEDULES

Schedule 1

Maximum Allowed Revenues Calculation

1. This schedule sets out the formulas for calculating the maximum allowed revenue of the regulated thermal energy enterprises.
2. In line with the principles prescribed in Article 66 of this Rule, the maximum allowed revenue shall be calculated for each regulatory period using the following formula:

$$\mathbf{MAR = OPM + DEP + RTN + CLOSS + ADJ}$$

Where:

MAR	Maximum Allowed Revenue;
OPM	Allowed operating and maintenance costs (in line with the provision of Article 77);
DEP	Allowed depreciation (in line with the provision of Article 8);
RTN	Allowed return on assets (in line with the provision of Article 99);
CLOSS	Cost of network losses for the network activity (in line with the provision of Article 10);
ADJ	Revenue adjustment factor (in line with the provision of Article 1111);

The calculation of the cost of network losses and the revenue adjustment factor is specified in detail in paragraphs 3 and 4 of this Schedule. The calculation of the allowed depreciation and the allowed return on assets is described in Schedule 2.

3. The allowed cost of losses is calculated as the allowed amount of network losses divided by the total generation of heat entering the network multiplied by the total variable costs of generation according to the formula below:

$$\mathbf{CLOSS = (LOSS_{ALLOW} / GEN_{TOTAL}) * GENCOSTS_{VAR}}$$

Where:

CLOS	Cost of network losses for the network activity (€);
LOSS_{ALLOW}	Allowed quantity of losses (MWh);
GEN_{TOTAL}	Total generation of heat entering the network (MWh);
GENCOSTS_{VAR}	Variable costs of generation (€).

4. The revenue adjustment factor is calculated in line with stipulations of Article 11 of this Rule and is based on the difference between allowed revenue and the actual revenue, and the allowed bad debt according to the expression below:

$$\mathbf{ADJ = (1 + R_{ADJ}) * (AAR_{n-1} - MAR_{n-1} + R_{BD} * MAR_{n-1})}$$

Where:



ADJ	Revenue adjustment factor (€);
R_{ADJ}	Interest rate for adjustment item (%);
AAR_{n-1}	Actual Allowed Revenue in the previous regulatory period (€);
MAR_{n-1}	Maximum Allowed Revenue in the previous regulatory period (€);
R_{BD}	Allowed level of bad debt during relevant year determined by ERO as percentage (%).

5. For the purpose of determining regulated thermal energy tariffs, the maximum allowed revenue shall consist of a fixed revenue part and a variable revenue part in line with provisions of Article 144 and as follows:

$$\mathbf{MAR = R_f + R_v}$$

Where:

MAR	Maximum Allowed Revenue
R_f	Fixed part of the allowed revenue
R_v	Variable part of the allowed revenue

Schedule 2

Depreciation, Regulatory Asset Base and Return on Assets

1. This schedule describes the determination of the regulatory asset base for the purpose of calculating the allowed depreciation and the allowed return on assets.
2. The total regulatory asset base shall be used for determining the allowed depreciation and shall be the regulatory value of the thermal energy enterprises' fixed assets considered to be used and useful in the provision of thermal energy but excluding unjustified investments.
3. The self-financed regulatory asset base shall be used for determining the allowed return on assets and shall be the regulatory value of the thermal energy enterprises' fixed assets considered to be used and useful in the provision of thermal energy but excluding:
 - a) Assets acquired from capital contributions (grants, subsidies); and
 - b) Unjustified investments
4. For the purpose of establishing the regulatory asset base and determining depreciation, the asset classes and corresponding regulatory asset lifetime should be determined. It is on ERO-s competence to determine the regulated asset lifetime accordingly to asset categories based on international best regulatory practices.
5. For already existing used assets, which have not been fully depreciated, the remaining useful lifetime of each asset or group of assets shall be assessed.
6. The value of the regulated assets prior to the start of the first regulatory period shall be the aggregate of individual book keeping values of fixed assets used and useful for the regulated business.
7. The total allowed regulatory asset base shall be updated prior to each regulatory period as follows:



$$RAB_t^{end} = RAB_n^{start} + INV_n - DIS_{n-1} - DEP_{n-1} + WC_n$$

Where:

RAB_n^{end}	Allowed regulatory asset base end value in the relevant regulatory period 'n';
RAB_n^{start}	Allowed regulatory asset base starting value in the relevant regulatory period 'n';
INV_n	Allowed new investments / capital expenditures in the relevant regulatory period 'n';
DIS_{n-1}	Disposals in the previous regulatory period 'n-1';
DEP_{n-1}	Depreciation in the previous regulatory period 'n-1';
WC_n	Allowed working capital in the relevant regulatory period 'n'.

8. Working capital typically includes the value of necessary fuel stocks and spare parts as well as the difference between the value of invoices sent to customers (accounts receivable) and the payment received from customers. The working capital allowed cannot exceed the average allowed revenue of one month, i.e. 1/12 of the yearly allowed revenue.
9. The self-financed allowed regulatory asset base, $RAB_{t,sf}^{end}$, shall be the total allowed regulatory asset base net of assets funded by capital contributions.
10. The allowed rate of return is calculated based on the self-financed allowed regulatory asset base according to the formula:

$$RTN = RAB_{t,sf}^{end} * WACC$$

Where:

RTN	Allowed rate of return(€);
RAB_{t,sf}^{end}	Allowed self-financed regulatory asset base end value in year t (€);
WACC	Weighted average cost of capital (%) – Described in schedule 3.

11. The treatment of new investments and inclusion into the regulatory asset base shall comply with these principles:
 - a) Allowed capital expenditure shall be added to the regulatory asset base as from the date when the asset is put into service and at the cost allowed by the Energy Regulatory Office in the investment plan.
 - b) The Energy Regulatory Office shall include the actual rather than the allowed cost of a new investment in the regulatory asset base upon request of the regulated enterprise and only if the enterprise can clearly demonstrate that the difference between allowed and actual costs is due to factors out of the control of the regulated enterprise and best efforts were made to minimize cost increases.
 - c) If a new investment in the approved investment plan is not put into service in the current regulatory period, its allowed cost shall not be added to the regulatory asset base and any revenues earned from it in the current regulatory period shall be deducted from revenues in the following regulatory period.

Schedule 3 Weighted Average Cost of Capital



1. The Weighted Average Cost of Capital (WACC) shall be calculated on a pre-tax basis according to the following formula:

$$\text{WACC} = (1 - g) * R_E / (1 - t) + g * R_D$$

Where:

WACC	Weighted average cost of capital (%);
g	Gearing or debt level defined as percentage of the total capital: debt/(equity + debt) (%);
R_E	Return on equity (%);
R_D	Return on debt (%); and
t	Corporate income tax in Kosovo.

2. The values for the components of the WACC shall determined by the Energy Regulatory Office in consultation with the regulated enterprises.
3. The gearing (g) shall be a value between 0 and 1, and shall represent the share of debt in total financing. The value shall be determined based on a balanced consideration of the current financing mix of the regulated enterprises and the financing mix that might be expected to be achievable now and in future taking account of the financing mix of similar utilities.
4. The return on equity shall be calculated based on the Capital Asset Pricing Model (CAPM) according to the following formula:

$$R_e = r_f + \beta * ERP$$

Where:

r_f	Risk-free rate;
β	Equity beta; and
ERP	Equity risk premium.

5. The risk-free rate is defined as equal to the cost of non-concessionary sovereign debt in Kosovo (in real terms) or countries with a similar credit rating as Kosovo.
6. The equity beta expresses the systemic risk and is the covariance between the return on the individual equity asset and the return on the market.
7. The equity risk premium is defined as a variance between the average income of risky investments and the risk free rate.
8. The return on debt shall be guided by the average interest rate of existing long-term loans (exceeding one year) to the regulated enterprise, expressed in real terms and weighted according to the value in Euros of each loan.
9. The ERO may set the same WACC for all of the thermal energy sector if considered reasonable.

Schedule 4 **Application for Allowed Revenues and Tariffs**



1. An application for approving revenues and tariffs of heat shall specify:
 - a) The name of the applicant, the address of the main office, the name of the contact person, the business registration certificate, and the tax registration number of the applicant;
 - b) A proposal and full justification for the requested revenues and tariffs; and
 - c) The application should be signed by the authorized person representing the applicant.

2. Together with application, the applicant shall submit to ERO following documents:
 - a) The annual statutory financial statements (income statement, balance sheet, and cash flow statement) for the previous year with attachment; the auditor report if the annual financial statements of the applicant was subject to independent financial auditing.
 - b) Detailed description of available funds and/or sources of funding for performing the thermal energy activity, and evidence of the availability of such funds/sources of funding.
 - c) Detailed calculations, evidence and justification for the calculation of each separate element of the tariffs in accordance with the requirements of this Rule.
 - d) Information regarding the estimated revenue for the sales of heat to final customers, the total forecasted costs of production, distribution and supply of heat, investment/development plan (if any) and the forecasted financial statements (forecasted Income Statement, Balance Sheet and Cash Flow Statement), the total heat capacity contracted, and the total yearly forecasted heat production in MWh – this information should cover the period from 15 October of actual year until 14 October of forthcoming year.
 - e) Detailed breakdown of cost items, and the accompanying explanation and documentation as to justify and clarify stated forecasted information.
 - f) A technical statement explaining the status of certain issues. This includes the status and plans for installation of meters in un-metered sub-stations, a calculation and assessment of energy losses in the distribution network, and a plan with intended measures aimed at reducing network energy losses.
 - g) A list of all submitted documents.

3. If the applicant intends to implement a long-term investment project, in addition to the documents specified in paragraph 2 of this schedule, it shall submit:
 - a) A financial model for the period of the project;
 - b) A description of important parameters of the financial model;
 - c) The signed agreements which govern the implementation of the project and the principles of pricing (if any);
 - d) Full justification of the reasons for such investment.

Schedule 5
Procedure for Verification and Formal Examination



1. Where an application complies with the provisions of this Rule, ERO shall examine all the data listed in the application and in the attachments and documents thereto.
2. ERO may verify on its own initiative the stated data and circumstances, may contact heat enterprises and ask for additional documents or information.
3. The thermal energy enterprises shall provide documents and information to ERO, in accordance with Article 4 of this Rule.
4. Within a timeframe specified in the Implementation Plan and Timetable, following the receipt of the application, the ERO shall examine the submitted application, attachments and required documents.
5. In case of non-compliance or if the required documents are not attached, ERO shall notify the applicant. The written notification shall invite the applicant to rectify his application within a timeframe specified in the Implementation Plan and Timetable from the date of notification.
6. In case the applicant fails to rectify the non-compliance of his application, attachments or required documents within the period stipulated in paragraph 5 of this schedule, the ERO shall reject the application and notify the applicant in writing within a timeframe specified in the implementation plan and timetable from the date set forth in paragraph 5.
7. In the case of failure of applicant to comply with requirements set forth in paragraph 6, the ERO shall impose fines in accordance to Article 57 of the Law on Energy Regulator until the fulfillment of the requirements stipulated in paragraph 5, and will set the heat tariffs based on the existing information and its best estimations.

Schedule 6 Details of Tariff Calculation

1. Revenue requirements shall be allocated to tariffs for different customer groups in compliance with the principles defined in Chapter IV of this Rule.
2. Customers shall be divided into customer groups for tariff purposes according to Article 15 paragraph 4 and 5 of this Rule.
3. The allocation shall be determined by the ratio of engaged heat capacity for the fixed part of the revenue and by the ratio of heat demand / consumption for the variable part of the revenue as follows:

$$R_f^i = R_f * HP^i / \sum HP, \text{ and}$$

$$R_v^i = R_v * HD^i / \sum HD$$

Where:

R_f^i Share of fixed part of revenue for customer group 'i' (€);



R_f	Fixed part of maximum allowed revenue (€);
HPⁱ	Engaged heat capacity of customer group 'i' (kW);
ΣHP	Total aggregated engaged heat capacity for both customer groups (kW);
R_vⁱ	Share of variable part of revenue for customer group 'i' (€);
R_v	Variable part of maximum allowed revenue (€);
HDⁱ	Season heat demand of customer group 'i' (MWh); and
ΣHD	Total season heat demand (MWh)

4. The engaged heat capacity of a customer group shall be equal to the contracted heat capacity of this group or calculated as follows:

$$HP^i = CD^i * HS^i / 1000$$

Where:

HPⁱ	Engaged heat capacity of customer group 'i' (kW);
CDⁱ	Specific heat demand of customer group 'i' (W/m ²);
HSⁱ	Heated space of customer group 'i' (m ²).

5. The specific heat capacity demand represents the estimated heat capacity demand per square meter (defined as maximum load demand per square meter for designed outdoor temperature) for every customer group.
6. The season heat demand shall be equal to the metered consumption or calculated using the following formula:

$$HD^i = CD^i * LH^i * HS^i * 10^6$$

Where:

HDⁱ	Season heat demand of customer group 'i' (MWh);
CDⁱ	Specific heat demand of customer group 'i' (W/m ²);
LHⁱ	Nominal full load hours of customer group 'i' (h); and
HSⁱ	Heated space of customer group 'i' (m ²)

7. The nominal full load hours for heating are based on the specific requirements regarding continuity of supply and are calculated as the ratio between annual heat supplied to customers and contracted heat capacity for each customer group.
8. The end-consumer tariffs shall be calculated as follows:
- a) For non-metered customers as defined in Article 155:

$$t_f^{nm} = R_f^i / HP^i * CD^i / 6; \text{ and}$$

$$t_v^{nm} = R_v^i / HD^i * CD^i * LH^i / 1000 / 6$$

Where:



t_f^{nm}	fixed tariff / capacity tariff for non-metered customer group 'i' (€/m ² per month);
R_f^i	share of fixed part of revenue for customer group 'i' (€);
HP^i	engaged heat power (capacity) of customer group 'i' (kW);
CD^i	specific heat demand (capacity) of customer group 'i' (kW/m ²);
t_v^{nm}	variable tariff / energy tariff for non-metered customer group 'i' (€/m ² per month);
R_v^i	share of variable part of revenue for customer group 'i' (€);
HD^i	season heat demand of customer group 'i' (MWh); and
LH^i	nominal full load hours of customer group 'i' (h)

b) For metered customers as defined in Article 155:

$$t_f^m = R_f^i / HP^i / 6; \text{ and}$$

$$t_v^m = R_v^i / HD^i$$

Where:

t_f^m	fixed tariff / capacity tariff for metered customer group 'i' (€/kW per month);
R_f^i	share of fixed part of revenue for customer group 'i' (€);
HP^i	engaged heat power of customer group 'i' (kW);
t_v^m	variable tariff / energy tariff for metered customer group 'i' (€/MWh per month);
R_v^i	share of variable part of revenue for customer group 'i' (€); and
HD^i	season heat demand of customer group 'i' (MWh).

9. Where metering is in place, the metered values shall always be preferred over the estimated or calculated values for tariff determination purposes.

Schedule 7 **Cost Allocation Methodologies for Cogeneration of Heat and Electricity**

The benefit distribution method is applied for cost allocation to electricity and heat for own cogeneration. In this method, the fuels used in cogeneration production are allocated to electricity and heat in the proportion of fuel consumption for the alternative energy supply forms. The alternatives used are condensing power production and heat-only boilers with the same fuel and energy output capacities as the cogeneration plant. The fuel consumption of the alternative forms of energy supply, F'_e for electricity and F'_h for heat can be calculated according to the equations below:

$$F'_e = E/\eta_e$$

$$F'_h = H/\eta_h$$

Where:

E	electricity production in the cogeneration plant;
η_e	efficiency of the alternative form of electricity production (condensing power);
H	heat production in the cogeneration plant; and
η_h	efficiency of the alternative form of heat production (heat-only boiler).

The standard values used for the efficiency of the alternative production are:



$$\eta_e = 0,4$$

$$\eta_h = 0,9$$

The fuel consumption in the cogeneration plant, F , is divided between electricity and heat in accordance with the ratio of the fuel consumption of the alternative electricity and heat supply forms F'_e and F'_h as follows:

$$F_e = F'_e / (F'_e + F'_h) * F$$

$$F_h = F'_h / (F'_e + F'_h) * F$$

The variable costs are allocated to electricity and heat by using the same ratio which is used above for allocating fuel consumption for heat and electricity.