

Based on Article 19, line 4 of the Energy Law (“Official Gazette of the Republic of Macedonia” no. 63/06, 36/07 and 106/08), the Energy Regulatory Commission of the Republic of Macedonia, on the session held on 31st December 2008, adopted the present:

RULEBOOK ON THE METHOD AND CONDITIONS FOR ELECTRICITY PRICE REGULATION

I. GENERAL PROVISIONS

Article 1

The present Rulebook shall regulate the method and conditions for price setting, approval and control (hereinafter: price regulation) that would provide for revenue recovery required for performing the following regulated activities:

1. generation and purchase of power, electricity and ancillary services, as well as secure of transmission capacity by the regulated electricity generator (hereinafter: regulated activity electricity generation), necessary for:
 - meeting electricity demand of retail suppliers for captive consumers;
 - meeting electricity demand of consumers directly connected to the transmission grid which perform activity of public interest;
 - covering losses in the transmission and distribution grids in the quantity approved by the Energy Regulatory Commission;
2. electricity transmission, electricity system operation and operation and organization of the electricity market on the territory of the Republic of Macedonia (hereinafter: regulated activity electricity transmission);
3. operation of electricity distribution system and electricity distribution on the territory of the Republic of Macedonia (hereinafter: regulated activity electricity distribution);
4. electricity retail supply for captive consumers (hereinafter: regulated activity retail electricity supply).

Provisions from the present Rulebook shall govern legal entities which - on the basis of licenses issued by the Energy Regulatory Commission of the Republic of Macedonia - perform the regulated activities referred to in paragraph 1 of this article (hereinafter: regulated companies).

Article 2

Objectives

Pursuant to the method and procedure stipulated in the present Rulebook electricity price regulation shall aim at:

- creating stable and predictable conditions for the operation of regulated companies in the performance of regulated activities referred to in Article 1 from the present Rulebook;

- providing protection from regulated companies dominant and monopoly position abuse;
- balancing mutual interests of regulated companies' performing the regulated activities referred to in Article 1 from the present Rulebook and of regulated activities' users;
- providing incentives for regulated companies' efficient operation;
- creating conditions for development and maintenance of existing and construction of new electricity generation, transmission and distribution facilities;
- securing non-discriminatory treatment of regulated companies and application of objective criteria and transparent methods and procedures for electricity price regulation;
- covering costs incurred by regulated companies for performing the regulated activity and appropriate return on capital;
- providing and upgrading reliability of supply, as well as safe, continuous and high quality electricity generation, transmission, distribution and supply;
- improving energy efficiency, energy saving, efficient utilization of energy resources;
- providing environmental protection when performing the regulated activities.

Article 3

Regulatory Period and Duration

Regulatory period shall be a period of one or more years for which the regulated company shall be set maximum regulated revenue required for performing the regulated activities in compliance with the provisions from the present Rulebook.

Regulatory period duration and date of initiation for each of the regulated activities referred to in Article 1 from the present Rulebook separately, shall be set as follows:

- for the regulated activity electricity generation, the regulatory period shall be set at one year starting from 1st January 2009, and then on every 12 months;
- for the regulated activity electricity transmission, the regulatory period shall be set at three years starting from 1st January 2009;
- for the regulated activity electricity distribution, the regulatory period shall be set at three years starting from 1st January 2009;
- for the regulated activity retail electricity supply for captive consumers, the regulatory period shall be set at one year starting from 1st January 2009, and then on every 12 months.

Article 4

Accounting Standards

Companies performing two or more regulated activities and despite the regulated activity performing other activities which in the sense of the present Rulebook are not considered as regulated activity, are obliged in their internal accounting to keep separate books on each of the activities performed, as well

as consolidated financial reports for other activities and financial reports indicating the revenue, expenditure and performance outcomes for each of the activities separately, in compliance with the Law.

Article 5

Regulated companies shall perform their accounting in compliance with the International Accounting Standards.

For the purpose of price regulation, regulated companies are obliged to submit the Energy Regulatory Commission price approval application referred to in Article 16, paragraph 1 from the present Rulebook, accompanied with data pursuant to spreadsheets and tables provided in Annex 6, which is integral part of the present Rulebook.

On the request of the Energy Regulatory Commission, regulated companies are obliged to submit other data and information required for price regulation, including insight in the investment and technical documents on new facilities.

Article 6

Cost Allocation

Cost and asset allocation within the regulated company shall be performed in compliance with the provisions provided under Item 1 from Annex 5, which is integral part of the present Rulebook.

II. METHOD AND CALCULATION OF MAXIMUM REGULATED REVENUE

Article 7

Price Regulation Method

Prices, i.e., tariffs shall be regulated by setting revenue cap allowed for the regulated company to be earned in one calendar year (hereinafter: maximum regulated revenue), through the regulated average prices, i.e., tariff rates in compliance with the relevant Tariff Systems.

The maximum regulated revenue shall be set at a level that would enable the regulated company to:

- cover operational costs and depreciation of regulated assets base incurred within standardized costs for achieving stipulated quality of regulated activity performance,
- achieve particular return on capital, which includes investments that would enable capacity for providing services, sustainable development and affordability of services provided for all electricity consumers on the territory of the Republic of Macedonia.

The maximum regulated revenue referred to in paragraph 2 of this article shall include revenue that the regulated company has earned during the performance of the regulated activity.

Return on capital from the performance of regulated activity retail electricity supply shall be provided by setting a supply margin in compliance with the provisions from the present Rulebook.

Article 8

Regulated Average Prices, i.e., Tariff Rates

Regulated average price for the activities referred to in Article 1 from the present Rulebook shall be a single price obtained as the result of the maximum regulated revenue set for the relevant year from the regulatory period divided by the relevant quantity of electricity generated, purchased, transmitted or distributed in the same year.

Tariff rates referred to in Article 7, paragraph 1 from the present Rulebook shall be set for the activities electricity transmission and electricity distribution in the Tariff Systems on relevant regulated activity and should provide the maximum regulated revenue set for the regulated company.

For the activity regulated generation, regulated contracts – in compliance with the regulated average price, shall stipulate the conditions and prices for which the ancillary services and electricity shall be delivered.

Article 9

Regulated Activity Electricity Generation

Electricity generation as regulated activity contains the responsibility for public service provision, which in compliance with the Energy Law shall be consisted of:

- provision of necessary electricity quantities from own generation facilities, and when necessary from other electricity generators and/or electricity traders;
- delivery of capacity and electricity for covering overall demand of captive consumers in the volume that the retail supplier for captive consumers has decided not to purchase from the market, excluding the electricity losses in the transmission and distribution systems;
- provision of ancillary services, including electricity required for covering technical losses in the transmission and distribution systems, in the quantity approved by the Energy Regulatory Commission, respectively.

The maximum regulated revenue for the regulated activity electricity generation should cover the costs of:

- operation of own generation facilities for providing electricity for the demand of captive consumers, as well as technical losses in the transmission and distribution systems, in the quantity approved by the Energy Regulatory Commission, respectively;
- maintenance of generation facilities, reconstruction, modernization and superstructure of existing and construction of new generation facilities;
- electricity purchase from other electricity generators and/or electricity traders, when it cannot meet the demand of captive consumers from own generation;
- provision of ancillary services for the demand of the power system operator;
- connection to the transmission and distribution systems, and
- environmental protection.

The maximum regulated revenue for performing the regulated activity referred to in paragraph 1 of this article should provide return on capital set in compliance with the present Rulebook.

Article 10

Regulated Activity Electricity Transmission

Regulated activity electricity transmission shall contain the responsibility for public service provision in compliance with the Energy Law, and in particular:

- provision of reliable, safe and high quality delivery of electricity via the transmission grid from the receipt point to the delivery point;
- provision of transmission grid development and maintenance for the purpose of reliable and efficient operation of the transmission grid;
- provision of power system operation in the Republic of Macedonia;
- electricity transmission and transit via the transmission system of the Republic of Macedonia on a non-discriminatory and transparent basis;
- provision of simultaneous operation of the power system of the Republic of Macedonia with the neighbouring power systems;
- provision of data on the available transmission capacity on interconnecting points with the neighbouring countries;
- connection to the transmission grid in compliance with the Electricity Transmission Grid Code;
- operation and organization of the electricity market.

The maximum regulated revenue for performing the activity referred to in paragraph 1 of this article should cover costs of:

- transmission system management, operation and maintenance;
- transmission system development that would enable long-term, uninterruptible electricity transmission free of overload;
- electricity purchase from preferential generators utilizing renewable energy resources and highly efficient co-generators;
- electricity purchase for covering allowed technical losses in the transmission grid, in the quantity approved by the Energy Regulatory Commission;
- ancillary services purchase;
- utilization of interconnection systems of other states for electricity transit in their systems in cases of energy import in/export out of the Republic of Macedonia, in compliance with the obligations assumed on international level, and
- environmental protection.

The maximum regulated revenue for performing the activity referred to in paragraph 1 of this article should provide return on capital set in compliance with the present Rulebook.

Article 11

Regulated Activity Electricity Distribution

Regulated activity electricity distribution shall contain the responsibility for public service provision in compliance with the Energy Law, and in particular:

- provision of reliable, safe and high quality electricity distribution and delivery via the distribution grid, with a quality pursuant to the Conditions for supply of electricity;

- provision of distribution grid development and maintenance for the purpose of providing efficient and reliable operation of the distribution system;
- connection of distribution grid users in compliance with the Distribution Grid Code;
- distribution system operation;
- electricity distribution on non-discriminatory and transparent basis;
- reliable and safe operation of the distribution system;
- maintenance and development of the distribution operation and supervision systems.

The maximum regulated revenue for performing the regulated activity electricity distribution should cover costs of:

- distribution system management, operation and maintenance;
- distribution system development that would enable reliable, safe and high quality electricity distribution for consumers connected to the distribution system;
- technical losses incurred in the process of electricity distribution, in the quantity approved by the Energy Regulatory Commission, which the regulated electricity generator should deliver from the transmission grid and the regulated generator's grid;
- reading, recording and invoicing consumed electricity;
- metering devices' maintenance, installation, control, repair and replacement; and
- environmental protection.

The maximum regulated revenue for performing the activity referred to in paragraph 1 of this article should provide return on capital set in compliance with the present Rulebook.

Article 12

Regulated Activity Retail Electricity Supply

Regulated activity retail electricity supply shall contain the responsibility for public service provision in compliance with the Energy Law, and in particular:

- capacity and electricity purchase from the regulated electricity generator, electricity traders and other electricity generators, as well as distributed generators at prices approved and published by the Energy Regulatory Commission;
- capacity and electricity purchase from the regulated electricity generator for meeting the overall demand of captive consumers in the volume that it has decided not to purchase on the market, excluding electricity losses in the transmission and distribution systems;
- capacity and electricity purchase from other electricity generators and/or electricity traders, only when market conditions and market prices are more favourable than the conditions and prices set for the regulated electricity generator, in a clearly defined, transparent and non-discriminatory manner that would guarantee equal access to all domestic and foreign legal entities. This purchase should be approved by the Energy Regulatory Commission ;
- necessary transmission and distribution capacity and regulated services purchase for meeting the demand of captive consumers connected to the distribution grid at prices approved and published by the Energy Regulatory Commission;

- invoicing delivered electricity and capacity based on performed metering at tariff rates approved by the Energy Regulatory Commission, in compliance with the Tariff System.

The maximum regulated revenue for performing the activity retail electricity supply for captive consumers connected to the distribution grid should cover costs of:

- operational costs and depreciation;
- electricity purchase;
- provision of transmission and distribution capacity and regulated services;

The maximum regulated revenue for performing the activity referred to in paragraph 1 of this article should provide yield by means of supply margin, which shall be set by the Energy Regulatory Commission on the basis of data contained in financial reports (balance sheet and profit and loss account, cash flows, capital turnover and accounting policies and explanatory notes), and auditor's report on the financial report for the activity retail electricity supply, in compliance with the present Rulebook.

Article 13

Technical Losses in the Transmission Grid

The Energy Regulatory Commission shall determine the cost of electricity purchase for covering technical losses in the transmission grid by approving an appropriate electricity quantity expressed in kWh.

Electricity quantity for covering allowed technical losses in the transmission grid shall be approved up to 3% from the total quantity of electricity entering the transmission system in the Republic of Macedonia from domestic generation and import, as well as the electricity quantity transiting the transmission grid of the Republic of Macedonia, set in compliance with item 3 of Annex 2 from the present Rulebook.

Article 14

Technical Losses in the Distribution System

The Energy Regulatory Commission shall determine the cost of electricity purchase for covering technical losses in the distribution system by approving an appropriate electricity quantity expressed in kWh.

Electricity quantities for covering allowed technical losses in the distribution system shall be approved up to 11% from the total quantity of electricity entering the distribution system, set in compliance with item 3 of Annex 3 from the present Rulebook.

III METHOD ON MAXIMUM REGULATED REVENUE ALLOCATION PER TARIFF ELEMENTS

Article 15

Revenue Allocation

The maximum regulated revenue for the regulated activity shall be calculated in compliance with Annexes 1 to 5 from the present Rulebook, and shall be allocated per tariff rates, which shall be set for the regulated activity in the corresponding Tariff Systems, whereas for the activity regulated generation it shall be set by means of regulated contracts that would stipulate conditions on ancillary services and/or electricity delivery.

As an exception from paragraph 1 of this article, in the period up to the adoption of Tariff Systems on electricity transmission, i.e., electricity distribution, the maximum regulated revenue for the regulated activity electricity transmission, i.e., electricity distribution, shall be earned through regulated average price.

IV. METHOD AND PROCEDURE ON MAXIMUM REGULATED REVENUE AND REGULATED PRICE APPLICATION SUBMISSION AND APPROVAL

Article 16

Application Submission and Required Data

Regulated companies shall submit the Energy Regulatory Commission revenue and price approval applications in compliance with the present Rulebook (hereinafter: application).

Regulated companies shall submit their applications to the Energy Regulatory Commission at least 60 days prior to the expiration of the regulatory period.

The application shall be submitted by the regulated company's manager or director, upon previously obtained consent from the management body.

Following data concerning the company's performance should be attached to the application:

1. decision on company's registration at the Trade Register, accompanied with all annexes and the company's Statute in original or notary-certified copies;
2. financial reports for the base year, accompanied with all annexes in compliance with the requirements from the International Accounting Standards, audited by a certified auditor;
3. trial balance for the base year and every next year, up to the day of application's submission;
4. financial and accounting information prepared in Excel that enables processing by the Energy Regulatory Commission, in compliance with Annex 6, which is integral part of the present Rulebook;
5. data on electricity quantity generated, purchased, transmitted, distributed and sold, presented in the appropriate spreadsheets from Annex 6, which is integral part of the present Rulebook;
6. data on the number of consumers according to the applicable Tariff System;
7. investment program and plan on the construction of new facilities, reconstruction and revitalization of existing facilities, covering the regulatory period, for each year separately, accompanied with a description and explanation on the economic and energy justifiability of each investment separately, that would confirm the improvement of electricity supply

- reliability and public service quality, as well as data on the degree of investments' implementation up to the day of application's submission;
8. other data relevant for performing the regulated activity, on the request of the Energy Regulatory Commission in the course of the procedure up to the decision adoption.

Regulated companies are obliged to attach the Declaration of reliability to the application, as well as data related to the same, signed by the company's responsible person. The content of the Declaration is provided in Annex 7, which is integral part of the present Rulebook.

The application and data referred to in paragraph 4 of this article shall be submitted in four copies, where the application and data referred to under Items 3, 4, 5 and 6 from paragraph 4 of this article shall also be submitted in electronic form, which should enable processing by the Energy Regulatory Commission.

Article 17

Proceedings upon Application's Submission

The procedure on approving the maximum regulated revenue and price shall be initiated on the day of the application's receipt at the archive of the Energy Regulatory Commission.

In a period of 30 days from the day of the application's receipt, the Energy Regulatory Commission shall reconsider and analyse the application and if it determines that certain data and documents are missing, it shall adopt a conclusion on obliging the regulated company to submit requested data and documents within a stipulated deadline. Prior to the adoption of the conclusion, the Energy Regulatory Commission can summon the company on a joint meeting for obtaining additional information and clarifications related to the submitted application.

Should the regulated company fail to act on the request for providing additional data and documents within the deadline referred to in paragraph 2 of this article, the Energy Regulatory Commission shall implement the procedure by utilizing data submitted and other data available.

In compliance with Article 18 from the present Rulebook, the Energy Regulatory Commission shall initiate the procedure on collecting opinions and suggestions from interested legal entities and natural persons concerning the submitted application within a period of 30 days from the day of application's submission the latest.

Article 18

Application's Notification

The Energy Regulatory Commission shall determine the application's text and shall publish it on its website, while on the cost of the regulated company, it shall publish it in two daily newspapers, one of which is published in Macedonian language and one published in the language spoken by at least 20% of citizen who speak an official language different from the Macedonian language.

The Energy Regulatory Commission is obliged to publish the text referred to in paragraph 1 of this article within a period of 5 days from its adoption, while the deadline for collecting opinions and suggestions from interested natural persons and legal entities cannot be longer than 10 days from the day of its announcement.

Based on data submitted together with the application, as well as on the basis of the analysis of opinions submitted by interested natural persons and legal entities, the Energy Regulatory Commission

shall draft the Decision with Rationale, which shall be the subject of discussion on the preliminary session of the Energy Regulatory Commission.

Article 19

Preliminary Session

Upon the drafting the Decision referred to in paragraph 3 of Article 18, the Energy Regulatory Commission is obliged to schedule a preliminary session, which should be held by the expiration of the fiftieth day from the procedure's initiation the latest. The invitation shall be submitted together with the draft Decision and opinions obtained from interested natural persons and legal entities.

The authorized representatives from the applicant, institutions and organizations, as well as interested companies shall be invited to attend and participate in the discussion on the preliminary session.

Article 20

Regular Session

Within a period of 10 days from the preliminary session the latest, the Energy Regulatory Commission is obliged to hold the regular session on adopting the Decision based on the price alteration application.

Article 21

Application of the Energy Regulatory Commission's Book of Operation

The provisions from the Rules of procedures no. 01-171/1 from 29th December 2003 of the Energy Regulatory Commission of the Republic of Macedonia shall be applicable in the organization and holding of preliminary and regular sessions of the Energy Regulatory Commission.

Article 22

Setting Transmission and Distribution Prices for the Second and Third Year from the Regulatory Period

For the regulatory period starting on the day the present Rulebook enters into force, the Energy Regulatory Commission - upon the submission of the first application in compliance with Article 16 from the present Rulebook - shall adopt a decision on setting the base regulated revenue (BR_t) for each year from the regulatory period, as well as the 2009 maximum regulated revenue (MAR_t) and maximum regulated price for regulated companies performing electricity transmission and distribution.

Decisions on maximum regulated revenue and maximum regulated price for the second and third year from the regulatory period shall be adopted by the Energy Regulatory Commission by 25th December in the current year the latest for the next regulatory year, while regulated companies referred to in paragraph 1 of this article are obliged to submit their regulated price applications to the archive of the Energy Regulatory Commission by 30th November in the current year for the next regulatory year.

Regulated companies shall submit the following attached to the application referred to in paragraph 2 of this article:

- data required for determining cost of electricity purchase intended for covering approved technical losses in the transmission, i.e., distribution grid (L_t);
- data required for determining specified pass-through costs (SPT_t);
- trial balance for the current year, up to the day of application's submission;
- data on electricity quantity transmitted, i.e., distributed, presented in the appropriate spreadsheets from Annex 6, which is integral part of the present Rulebook;
- data on the number of consumers in compliance with the applicable Tariff System;
- other data relevant for the regulated activity performance, on the request of the Energy Regulatory Commission in the course of the procedure up to the decision's adoption.

As part of the procedure referred to in paragraph 1 of this article, the submitted application shall be published by the expiration of the fifth day of December, the deadline for submitting proposals by interested natural persons and legal entities cannot be longer than seven days, the preliminary session shall be held by the expiration of the twentieth day of December, and the decision adopted on the regular session of the Energy Regulatory Commission shall be applied from the first day of January the next year.

V. PROCEDURES ON SUBMITTING REGULATED TRAIFF ALTERATION APPLICATION IN THE COURSE OF THE REGULATORY PERIOD

Article 23

Alteration of Approved Maximum Regulated Revenue

If in the course of any year from the regulatory period, operational costs have increased by more than 5% from the approved operational costs as a consequence of circumstances that could not have been anticipated at the time of maximum regulated revenue and price approval, the regulated company can submit the Energy Regulatory Commission an application on increasing maximum regulated revenue and regulated average prices or the corresponding regulated tariffs for the current year and for the remaining portion of the regulatory period whose duration shall be determined in compliance with Article 4 from the present Rulebook.

If in the course of any year from the regulatory period, operational costs have decreased by more than 5% from the approved operational costs as a consequence of circumstances that could not have been anticipated at the time of maximum regulated revenue and price approval, the regulated company shall be obliged to submit the Energy Regulatory Commission an application on decreasing maximum regulated revenue and regulated average prices or corresponding regulated tariffs for the current year and for the remaining portion of the regulatory period whose duration shall be determined in compliance with Article 4 from the present Rulebook.

If the regulated company fails to proceed in compliance with paragraph 2 of this article, the Energy Regulatory Commission shall adopt a conclusion on the initiation of the procedure on decreasing maximum regulated revenue and regulated average prices or corresponding regulated tariffs, and shall inform the regulated company thereof.

The conclusion referred to in paragraph 3 of this article shall set the deadline for undertaking separate actions in the procedure, as well as the required documents to be submitted by the regulated company.

Attached to the application referred to in paragraphs 1 and 2 of this article, the regulated company should submit financial-accounting and technical data in compliance with Annex 6 from the present Rulebook with identified changes and additions concerning the previously submitted data attached to the application on setting maximum regulated revenue and regulatory period price, as well as a Declaration on the reliability of data submitted in compliance with Annex 7 from the present Rulebook.

The Energy Regulatory Commission shall adopt a decision pursuant to paragraphs 1, 2 and 3 of this article within a period that cannot be longer than 30 days from the application's receipt, i.e., the day from the submission of the conclusion referred to in paragraph 3 of this article.

When adopting the decision on the application submitted in compliance with paragraph 1 of this article, the Energy Regulatory Commission should take into consideration the fact whether the approved alteration of the maximum regulated revenue could significantly harm the price stability for captive consumers.

VI. TRANSITIONAL AND FINAL PROVISIONS

Article 24

Regulated companies are obliged to submit to the Energy Regulatory Commission applications on setting maximum regulated revenue and price for the regulatory period determined in Article 3 from the present Rulebook by 28th February 2009.

The procedure upon the application submitted by the deadline referred to in paragraph 1 of this article shall be completed within a period of 60 days from the day of the application's submission.

Until decisions based on applications submitted in compliance with paragraphs 1 and 2 of this article are adopted, the following decisions made by the Energy Regulatory Commission shall be applied:

1. Decision on setting the price of electricity provided by the regulated electricity generator AD Elektrani na Makedonija – Skopje for meeting the demand of captive consumers for the period from 1st November until 31st December 2008 ("Official Gazette of the Republic of Macedonia" no.135/08),
2. Decision on setting the price for the service transmission, transmission system operation and organization of electricity market provided by AD MEPSO – Skopje for the period from 1st November until 31st December 2008 ("Official Gazette of the Republic of Macedonia" no.135/08),and
3. Decision on approving maximum regulated revenue and price for the activities distribution and distribution system operation and electricity supply for the year 2008 and the average price of electricity at which EVN Makedonija shall supply retail captive consumers for the period from 1st November until 31st December 2008 ("Official Gazette of the Republic of Macedonia" no.135/08 and 136/08).

Article 25

On the day when the present Rulebook enters into force, the Rulebook on the method and conditions for electricity price regulation (“Official Gazette of the Republic of Macedonia” no. 95/04, 5/05 and 134/07) shall be cancelled.

The present Rulebook shall enter into force on the day of its publication in the “Official Gazette of the Republic of Macedonia”.

No. 01-2264/1
Skopje, 31.12.2008

PRESIDENT
Slave Ivanovski

ANNEX 1

Methodology on Calculating Maximum Regulated Revenue for the Regulated Activity Electricity Generation

1. Maximum Regulated Revenue

Maximum regulated revenue that a regulated electricity generator can earn from performing the regulated activity electricity generation in the regulatory period shall be calculated by applying the following formula:

$$MAR_t = CG_t + CPT_t - K_t$$

Where:

- MAR_t - maximum regulated revenue, for the year t, (MKD)
- CG_t - generation cost, in the year t, (MKD)
- CPT_t - specified pass-through costs, for the year t, (MKD)
- K_t - correction factor, for the year t, (MKD)

2. Generation Costs

2.1 Generation Costs

Generation costs for the year t shall be calculated by applying the following formula:

$$CG_t = \sum_i CGP_t^i$$

Where:

- CG_t - generation costs, for the year t, (MKD)
- CGP_t^i - cost of the generation facility (i) for the year t, where (i) shall concern any of the generation facilities TPP Bitola, TPP Oslomej and all HPPs, (MKD)

2.2 Cost of Generation Facility

Costs of generation facility (i) for the year t shall be calculated by applying the following formula:

$$CGP_t^i = AP_t^i (1 - obp_t^i / 100) + EP_t^i$$

Where:

- CGP_t^i - cost of generation facility (i), for the year t, (MKD)
 - AP_t^i - availability payment for generation facility (i), in the year t, (MKD)
 - obp_t^i - outage bonus/penalty for the generation facility (i), in the year t, (%)
 - EP_t^i - cost of electricity generated by generation facility (i), in the year t, (MKD)
- Facility (i) - generation facility TPP Bitola (minus the mine) and TPP Oslomej (minus the mine) and all HPPs, (MKD).

2.3 Availability Payment

Availability payment for the facility (i) for the year t shall be calculated by applying the following formula:

$$AP_t^i = FO_t^i + D_t^i + RA_t^i$$

Where:

FO_t^i - fixed operational and maintenance costs of the generation facility (i), in the year t, as defined in Annex 5, (MKD)

D_t^i - depreciation of generation facility (i), in the year t, as defined in Annex 5, (MKD)

RA_t^i - return on regulated assets for the generation facility (i) in the year t, as defined in Annex 5, for the year t (MKD)

Facility (i) - generation facility TPP Bitola (minus the mine), TPP Oslomej (minus the mine) and all HPPs, (MKD).

2.4 Outage Penalty

Outage penalty for the generation facility (i) in the year t shall be calculated by applying the following formula:

$$obp_t^i = \rho(afor_{t-1}^i - pfor_{t-1}^i)$$

Where:

obp_t^i - outage penalty percentage for the generation facility (i), in the year t, (%)

ρ - factor with a value between 0.5 and 1.0

$afor_{t-1}^i$ - actual forced outage rate for generation facility (i), in the previous year, (%)

$pfor_{t-1}^i$ - planned forced outage rate for generation facility (i) determined by the Energy Regulatory Commission for the previous year, (%)

The Energy Regulatory Commission shall determine $afor_{t-1}^i$ according to the outage events in the previous two years.

2.5 Energy Payments for TPP Bitola and TPP Oslomej

Energy payments for the electricity delivered per generation facility (i) for the year t shall be calculated by applying the following formula:

$$EP_t^i = AVO_t^i \times QTL_t^i$$

Where:

EP_t^i - energy payment for electricity delivered by generation facility (i), in the year t, (MKD)

AVO_t^i - average variable operational and maintenance costs, as defined in Annex 5 per kWh delivered from the generation facility (i) in the year t, for the year t, (MKD/kWh)

QTL_t^i - planned energy quantity to be delivered by the generation facility (i), in the year t, (kWh)

Facility (i) - shall refer to TPP Bitola and TPP Oslomej

2.6 Energy Payments for All HPPs

Energy payments for electricity delivered from the hydro power plants for the year t shall be calculated by applying the following formula:

$$EP_t = AVO_t * QTL_t$$

Where:

- EP_t - energy payment for electricity delivered by all HPPs in the year t, (MKD)
- AVO_t - average variable operational and maintenance costs, as defined in Annex 5 per kWh delivered from all HPPs in the year t, in the year t price-base, (MKD/kWh)
- QTL_t - planned electricity quantity to be delivered by all HPPs in the year t, (kWh)

3. Specified Pass-Through Costs

Specified pass-through costs for the year t from the regulatory period shall be calculated by applying the following formula:

$$CPT_t = CN_t + CG_t + CI_t - RSE_t$$

Where:

- CPT_t - specified pass-through costs for the year t, (MKD)
- CN_t - cost of total payments for TPP Negotino in the year t, (MKD)
- CG_t - cost of electricity purchase from other generators and/or traders in the year t, (MKD)
- CI_t - cost of purchasing interconnection capacity in the year t, (MKD)
- RSE_t - revenue from the sale of excess electricity under market conditions, in the year t, (MKD)

4. TPP Hegotino

4.1 Total Costs

Total costs for TPP Negotino in the year t from the regulatory period shall be calculated by applying the following formula:

$$CN_t = AP_t + EP_t$$

Where:

- CN_t^i - total costs for TPP Negotino for the year t, (MKD)
- AP_t - availability payment for TPP Negotino in the year t, which shall be calculated by appropriate application of the formula under Item 2.3 of this Annex, where all explanations for the generation facility (i) shall be replaced with an explanation for TPP Negotino, (MKD)

EP_t - energy payment for the electricity delivered by TPP Negotino in the year t (MKD)

4.2 Energy Payments for TPP Negotino

Energy payments for the electricity delivered by TPP Negotino for the formula year t shall be calculated in compliance with the following formula:

Energy payments for electricity delivered by generation facility (i) for the year t shall be calculated by applying the following formula:

$$EP_t^i = (AVO_t^i + AFC_t) * QTL_t^i + SUC_t + SOC_t$$

Where:

EP_t^i - energy payment for electricity from the generation facility (i) for the year t, (MKD)

AVO_t^i - average variable operational and maintenance costs, as defined in Annex 5 per kWh delivered from the generation facility (i) in the year t, (MKD/kWh)

AFC_t - average price of oil for TPP Negotino in the formula year t, in the year t price-base, (MKD/tonne)

QTL_t^i - planned energy quantity to be delivered by the generation capacity (i) in the year t (kWh)

SUC_t - start-up costs for TPP Negotino in the year t, (MKD)

SOC_t - shut-down costs for TPP Negotino in the year t, (MKD)

4.3 Start-up and Shut-Down Costs

When determining start-up and shut-down costs for TPP Negotino for the year t standards proscribed by the equipment manufacturer shall be taken into account.

4.4 Correction Element for TPP Negotino

Correction element for TPP Negotino for the year t shall be calculated by applying the following formula:

- for the year t = 1 from the second and third regulatory period,

$$K_t^N = \text{zero}$$

- for the year t = 1 from the fourth and subsequent regulatory periods,

$$K_t^N = CN_{t-2} - CNK_{t-2}$$

Where:

K_t^N - correction element for Negotino in the year t, (MKD)

CN_{t-2} - availability payment and cost of generation for TPP Negotino in the year t-2, as defined under Item 4.1 of this Annex and calculated by using initial forecasted values for all variables, (MKD)

CNK_{t-2} - availability payment and cost of generation for TPP Negotino in the year t-2, as defined under Item 4.1 of this Annex and re-calculated by using actual (rather than forecasted) values of energy payments for TPP Negotino, i.e., term EP_t (MKD)

5. Correction Element for the Regulated Activity Electricity generation

Correction element for the year t from the regulatory period shall be calculated by applying the following formula:

- for the year t = 1 from the second and third regulatory period (i.e., 2009 and 2010),

$$K_t = \text{zero}$$

- for the year t = 1 from the fourth and subsequent regulatory periods (i.e. 2011 onwards),

$$K_t = (R_{t-2} - MARK_{t-2}) * (1 + ir_{t-1}/100) * (1 + ir_{t-2}/100)$$

Where:

- K_t - correction element for the year t, (MKD)
- R_{t-2} - actual revenue earned in the year t-2 by the regulated electricity generator from the provision of electricity generation public service, (MKD)
- $MARK_{t-2}$ - maximum regulated revenue for the provision of electricity generation public service in the year t-2, as defined under Item 1 of this Annex and re-calculated by using justified actual (instead of forecasted) values for all formula elements for the maximum regulated revenue excluding the availability payments for each generation facility (i), as defined under Item 2.2 of this Annex, (MKD)
- ir_{t-1} - average passive interest rate announced by the National Bank of the Republic of Macedonia, for the year t-1, (%).

6. Revenue Allocation

6.1 Ancillary Services

Ancillary services payment (AS_t) made by the power system operator in compliance with the regulated contract signed between the regulated generator and the power system operator:

- shall cover cost of ancillary services provision, as defined under Article 2 from the present Rulebook, excluding the cost of primary control reserve and primary control provision, as defined under Article 2 from the present Rulebook;
- shall be determined by the Energy Regulatory Commission and shall be equal to annual lump-sum payment in MKD.

Ancillary services are services provided by generators and necessary for the provision of reliable and safe system operation in compliance with the UCTE Rules (Union for Coordination of Transmission of Electricity) and Electricity Transmission Grid Code, such as:

a) operational control frequency reserve with:

- primary control reserve;
- secondary control reserve;
- tertiary control reserve.

- b) voltage regulation;
- c) ability for black-starting generation facilities.

6.2 Electricity Price for Transmission Grid Technical Losses

Electricity price at which the regulated electricity generator shall sell the electricity for covering the approved quantity of technical losses in the transmission grid in the year t (RGP_t^{TL}) shall be calculated by applying the following formula:

$$RGP_t^{TL} = BEGP_t$$

Where:

- RGP_t^{TL} - electricity price for allowed technical losses in the transmission grid, in the year t (MKD/kWh)
- $BEGP_t$ - base electricity generation price pursuant to Item 6.6, in the year t (MKD/kWh)

6.3 Electricity Price for Distribution Grid Technical Losses

Electricity price at which the regulated electricity generator shall sell electricity for covering the approved quantity of technical losses in the distribution grid in the year t (RGP_t^{DL}) shall be calculated by applying the following formula:

$$RGP_t^{DL} = BEGP_t$$

Where:

- RGP_t^{DL} - electricity price for allowed technical losses in the distribution system, in the year t, (MKD/kWh)
- $BEGP_t$ - base electricity generation price pursuant to Item 6.6, in the year t, (MKD/kWh)

6.4 Electricity Price for Consumers Directly Connected to the Transmission Grid and Performing Activity of Public Interest

Electricity price at which the regulated electricity generator shall sell electricity to consumers directly connected to the transmission grid and performing activity of public interest in the year t (RGP_t^{PI}) shall be calculated by applying the following formula:

$$RGP_t^{PI} = BEGP_t + UTN_t$$

Where:

- RGP_t^{PI} - regulated electricity price for consumers performing activity of public interest, in the year t, (MKD/kWh)
- $BEGP_t$ - base electricity generation price pursuant to Item 6.6, in the year t, (MKD/kWh)
- UTN_t - transmission price, as defined in Annex 2 from the present Rulebook, in the year t, (MKD/kWh)

6.5 Electricity Price for the Retail Supplier for Captive Consumers

Electricity price at which the regulated electricity generator shall sell electricity to the retail supplier for captive consumers in the year t (RGP_t^{RS}) shall be calculated by applying the following formula:

$$RGP_t^{RS} = BEGP_t$$

Where:

- RGP_t^{RS} - regulated electricity price for the retail supplier in the year t, (MKD/kWh)
- $BEGP_t$ - base electricity generation price pursuant to Item 6.6, in the year t, (MKD/kWh)

6.6 Base Electricity Generation Price

Base electricity generation price in the year t shall be calculated by applying the following formula:

$$BEGP_t = (\text{MAR}_t - \text{AS}_t) / (\text{QRG}_t^{TL} + \text{QRG}_t^{DL} + \text{QRG}_t^{PI} + \text{QRG}_t^{RS})$$

Where:

- $BEGP_t$ - base electricity generation price for the year t (MKD/kWh)
- MAR_t - maximum regulated revenue for the year t, (MKD)
- AS_t - ancillary services payment for services provided by the regulated electricity generator in the year t, (MKD)
- QRG_t^{TL} - electricity quantity for covering technical losses in the transmission grid set in compliance with Article 13 from the present Rulebook, in the year t, (kWh)
- QRG_t^{DL} - electricity quantity for covering technical losses in the distribution grid set in compliance with Article 14 from the present Rulebook, in the year t, (kWh)
- QRG_t^{PI} - electricity quantity for meeting the demand of consumers directly connected to the transmission grid and performing activity of public interest, in the year t, (kWh)
- QRG_t^{RS} - electricity quantities for meeting the demand of the retail electricity supplier for captive consumers, in the year t, (kWh)

Electricity quantities generated from preferential generators utilizing renewable energy resources and high-efficiency co-generators should be taken into account when determining total electricity quantities which AD ELEM should provide in compliance with its legal obligations

ANNEX 2

Methodology on Calculating Maximum Regulated Revenue for Regulated Activity Electricity Transmission

1. Maximum Regulated Revenue

Maximum regulated revenue (MAR) which the subject performing the regulated activity electricity transmission can earn from performance of regulated activities electricity transmission, electricity power system operation and organization and operation of the electricity market on the territory of the Republic of Macedonia for the relevant year from the regulatory period shall be calculated by applying the following formula:

$$MAR_t = BR_t + L_t + SPT_t - K_t$$

Where:

- MAR_t - maximum regulated revenue for the year t, (MKD)
- BR_t - base revenue (revenue necessary for covering operational costs and return on capital), in the year t, (MKD)
- L_t - cost of purchasing electricity for covering allowed technical losses in the transmission grid, in the year t, (MKD)
- SPT_t - specified pass-through costs in the year t, (MKD)
- K_t - correction element for the year t, (MKD)

2. Base Revenue

2.1 Base Revenue for Year 0

Base revenue for year 0 (for this regulatory period shall be 2008), hereinafter BR_0 , shall be calculated by applying the following formula:

$$BR_0 = (O_{-1} + D_{-1}) * (1 + CPI_0) + RA_0$$

Where:

- BR_0 - base revenue for year 0, (MKD)
- O_{-1} - justified operational and maintenance costs for the year 2007 (base year), excluding electricity purchase for covering allowed technical losses in the transmission grid, as well as specified pass-through costs (SPT_t), as defined under Item 4 of this Annex, (MKD)
- D_{-1} - depreciation for the year 2007, (MKD)
- RA_0 - return on regulated assets for the year 0, (MKD)
- CPI_0 - Consumer Price Index for the year 0, announced by the State Statistical Office, in (%).

2.2 Base Revenue for the Year t

Base revenue for every year t (BR_t) from the regulatory period shall be calculated by applying the following formula:

$$BR_t = BR_{t-1}(1 + CPI_t) * (1 - SX / 100)$$

Where:

- BR_t - base revenue for the year t, (MKD)
- CPI_t - measure of the Consumer Price Index from the act that determines the macroeconomic policy in the Republic of Macedonia
- SX - smoothing factor X for the regulatory period, determined by the Energy Regulatory Commission in the Decision on maximum regulated revenue and price for the regulatory period, which shall be determined in the following manner:

$$\sum_{t=1}^3 \frac{ABB_t}{(1 + WACC / 100)^t} = \sum_{t=1}^3 \frac{BR_t(1 - SX / 100)}{(1 + WACC / 100)^t}$$

Where:

SX shall be expressed as a percentage (%)

- ABB_t - annual building blocks revenue for the formula year t, in the year 0 price-base (MKD)
- $WACC$ - weighted average cost of capital for the regulatory period (%)

2.3 Annual Building Blocks Revenue

Annual Building Blocks Revenue projected by the regulated company for each year t from the regulatory period shall be calculated by applying the following formula:

$$ABB_t = O_t + D_t + RA_t$$

Where:

- ABB_t - annual building blocks revenue projected by the regulated company for the year t, (MKD)
- O_t - operational and maintenance costs, as defined in Annex 5, for the year t, (MKD)
- D_t - depreciation, as defined in Annex 5, for the year t, (MKD)
- RA_t - return on regulated assets, as defined in Annex 5, for the year t, (MKD)

3. Costs of Electricity Purchase for Covering Allowed Technical Losses

Cost of electricity purchase for covering technical losses in the transmission grid (L_t) for the year t from the regulatory period shall be calculated by applying the following formula:

$$L_t = (alr / 100) * T_t * BEGP_t$$

Where:

- L_t - cost of purchasing electricity for covering allowed technical losses in the transmission grid, in the year t, (MKD)
- Alr - allowed loss rate in the transmission grid, as defined in Article 13, paragraph 3 from the present Rulebook, (%)
- T_t - total electricity quantity entering the transmission grid from domestic generation and from import, including the transit electricity quantity via the transmission grid, in the year t, (kWh)
- $BEGP_t$ - base electricity generation price at which the regulated generator shall sell electricity for covering the allowed quantity of technical losses in the transmission grid, in the year t, (MKD/kWh)

4. Specified Pass-Through Costs

Specified pass-through costs (SPT_t) for the year t from the regulatory period shall be calculated by applying the following formula:

$$SPT_t = TF_t + AS_t + ITC_t + EPP_t - RITC_t - RAI_t - RCO_t$$

Where:

- SPT_t - specified pass-through costs for the year t, (MKD)
- TF_t - regulatory fee, cost of concession fees, environmental tax and property taxes in the year t, (MKD)
- AS_t - cost of ancillary services purchase in the year t, (MKD)
- ITC_t - any payment made under the Inter-TSO Compensation process (ITC procedure) in the year t, (MKD)
- EPP_t - energy payments for electricity generated by preferential generators and electricity payments for electricity generated by high-efficiency co-generators, in the year t, (MKD)
- $RITC_t$ - any revenue received under the Inter-TSO Compensation process (ITC procedure) , in the year t, (MKD)
- RAI_t - revenue earned by the transmission system operator and market operator from the allocation of interconnection capacity, for the year t, (MKD)
- RCO_t - any connection charges aimed at recovering cost of connection assets maintenance and operation and other revenues from sources other than the transmission grid use, for the year t, (MKD)

5. Correction Element

Correction element for the third year from the regulatory period (t=3) shall be calculated by applying the following formula:

$$K_t = (R_{t-2} - MARK_{t-2}) * (1 + ir_{t-1}/100) * (1 + ir_{t-2}/100)$$

Where:

- K_t - correction element for the year t, (MKD)
- R_{t-2} - revenue earned in the year t-2 from performing regulated activity electricity transmission from relevant tariffs levied on public service users, in the year t, (MKD)
- $MARK_{t-2}$ - maximum regulated revenue from performing the regulated activity electricity transmission, for the year t-2, re-calculated by using approved values instead of forecasted in order to determine the correction element (MKD)
- ir_{t-1} - average passive interest rate, announced by the National Bank of the Republic of Macedonia, for the year t-1, (%).

6. Maximum Regulated Revenue Allocation

Maximum regulated revenue for performing the regulated activity electricity transmission for the year t from the regulatory period shall be allocated for the establishment of transmission grid use tariff, by applying the following formula:

$$UTN_t = MAR_t / Q_t^T$$

Where:

- UTN_t - regulated average price for the transmission grid use, for the year t, (MKD/kWh)
- MAR_t - maximum regulated revenue for the year t, (MKD)
- Q_t^T - electricity quantity exiting the transmission system, delivered to consumers connected to the transmission grid and to the distribution system, excluding the transit quantity, (kWh)

ANNEX 3

Methodology on Calculating Maximum Regulated Revenue for the Regulated Activity Electricity Distribution

1. Maximum Regulated Revenue

Maximum regulated revenue (MAR) which the company performing the regulated activity electricity distribution can earn from performing regulated activities distribution system operation and electricity distribution on the territory of the Republic of Macedonia, for the relevant year t from the regulatory period shall be calculated by applying the following formula:

$$MAR_t = BR_t + L_t + SPT_t - K_t$$

Where:

- MAR_t - maximum regulated revenue for the year t, (MKD)
- BR_t - base revenue (revenue necessary for covering operational costs and return on capital), in the year t, (MKD)
- L_t - cost of electricity purchase for covering allowed technical losses in the distribution system, in the year t, (MKD)
- SPT_t - specified pass-through costs, in the year t, (MKD)
- K_t - correction element for the year t, (MKD)

2. Base Revenue

2.1 Base Revenue for the Year 0

Base revenue for the year 0 (for this regulatory period shall be the year 2008), hereinafter BR_0 , shall be calculated by applying the following formula:

$$BR_0 = (O_{-1} + D_{-1}) * (1 + CPI_0) + RA_0$$

Where:

- BR_0 - base revenue for the year 0, (MKD)
- O_{-1} - approved operational costs for the year 2007 (base year), excluding cost of electricity purchase for covering allowed technical losses in the distribution system and specified pass-through costs (SPT_t), as defined under Item 5 of this Annex, (MKD)
- D_{-1} - depreciation for the year 2007, (MKD)
- RA_0 - return on regulated assets for the year 0, (MKD)
- CPI_0 - Consumer Price Index for the year 0, announced by the State Statistical Office, in (%).

2.2 Base Revenue for the Year t

Base building blocks revenue projected by the regulated company for each year t (BR_t) from the regulatory period shall be calculated by applying the following formula:

$$BR_t = BR_{t-1}(1 + CPI_t) * (1 - SX / 100) * QA_t$$

Where:

- BR_t - base revenue for the year t, (MKD)
- CPI_t - Consumer Price Index from the act that determines the macroeconomic policy of the Republic of Macedonia, in (%)
- SX - smoothing factor X for the regulatory period, determined by the Energy Regulatory Commission in the Decision on maximum regulated revenue and price for the regulatory period, which shall be set in the following manner:

$$\sum_{t=1}^3 \frac{ABB_t}{(1 + WACC / 100)^t} = \sum_{t=1}^3 \frac{BR_t(1 - SX / 100)}{(1 + WACC / 100)^t}$$

Where:

SX shall be expressed as percentage (%)

- ABB_t - annual building blocks revenue for the formula year t, in the year 0 price-base (MKD)
- $WACC$ - weighted average costs of capital for the regulatory period (%)
- QA_t - electricity quantity adjustment term, for the year t.

2.2 Distributed Electricity Quantity Adjustment Term

Distributed electricity quantity adjustment term (QA_t), for the year t from the regulatory period shall be calculated by applying the following formula:

$$QA_t = \left[1 + \alpha \left(\frac{E_t - E_{t-1}}{E_{t-1}} \right) + \beta \left(\frac{N_t - N_{t-1}}{N_{t-1}} \right) \right]$$

Where:

- QA_t - quantity adjustment term for distributed electricity, for the year t,
- E_t - electricity quantity distributed in the year t, (kWh)
- N_t - number of existing connections at the end of the sixth-months of the year t
- α, β - factor of electricity consumption share (α) and factor of consumers' number share (β), where $\alpha = 0,5$ and $\beta = 0,5$.

2.4 Annual Building Blocks Revenue

Annual building blocks revenue projected by the regulated company for each year t from the regulatory period shall be calculated by applying the following formula:

$$ABB_t = O_t + D_t + RA_t$$

Where:

- ABB_t - annual building blocks revenue projected by the regulated company, for the year t, (MKD)
- O_t - operational costs, as defined in Annex 5, for the year t, (MKD)
- D_t - depreciation, as defined in Annex 5, for the year t, (MKD)
- RA_t - return on regulated assets, as defined in Annex 5, for the year t, (MKD)

3 Cost of Electricity Purchase for Covering Allowed Technical Losses

Cost of electricity purchase for covering allowed technical losses in the distribution system (L) for the year t from the regulatory period shall be calculated according to the following formula:

$$L_t = (alr/100) * D_t * LP_t$$

Where:

- L_t - cost of electricity purchase for covering allowed technical losses in the distribution grid, for the year t, (MKD)
- $alr/100$ - allowed loss rate for the distribution system, as defined in Article 14, paragraph 2 of the present Rulebook, (%)
- D_t - electricity quantity entering the distribution system, delivered by the regulated generator, in the year t (kWh), which shall be calculated according to the following formula: $D_t = Q_t^D / (1 - alr/100)$
- LP_t - electricity price at which the regulated electricity generator shall sell electricity, including the transmission service, for covering allowed quantity of technical losses in the distribution system, in the year t, (MKD/kWh)

4 Specified Pass-Through Costs

Specified pass-through costs (SPT_t) for the year t from the regulatory period shall be calculated by applying the following formula:

$$SPT_t = TF_t - RCO_t$$

Where:

- SPT_t - specified pass-through costs for the year t, (MKD)
- TF_t - regulatory fee, cost of concession fees, environmental tax and property taxes in the year t, (MKD)

RCO_t - any connection charges aimed at recovering the costs of connection assets maintenance and operation and other revenues from sources other than the distribution grid use, in the year t, (MKD)

5 Correction Element

Correction element for the year t from the regulatory period shall be calculated by applying the following formula:

$$K_t = (R_{t-2} - MARK_{t-2}) * (1 + ir_{t-1}/100) * (1 + ir_{t-2}/100)$$

Where:

- K_t - correction element for the year t, (MKD)
- R_{t-2} - revenue earned in the year t-2 from the performance of the regulated activity electricity distribution per relevant tariffs levied on public service users, (MKD)
- $MARK_{t-2}$ - maximum regulated revenue earned from the performance of the regulated activity electricity distribution, for the year t-2, re-calculated by using approved values instead of forecasted in order to determine the correction element, (MKD)
- ir_{t-1} - average passive interest rate, announced by the National Bank of the Republic of Macedonia, for the year t, (%).

6 Revenue Allocation

Maximum regulated revenue from performing the regulated activity electricity distribution, for the year t from the regulatory period shall be allocated for establishing distribution grid use tariff, by applying the following formula:

$$UDN_t = MAR_t / Q_t^D$$

Where:

- UDN_t - regulated average price for distribution grid use, for the year t (MKD/kWh)
- MAR_t - maximum regulated revenue for the year t, (MKD)
- Q_t^D - electricity quantity exiting the distribution system, delivered to end users connected to the distribution system, for the year t (kWh)

ANNEX 4

Methodology on Calculating Maximum Regulated Revenue for the Regulated Activity Retail Electricity Supply

1. Maximum Regulated Revenue

Maximum regulated revenue (MAR) which the retail electricity supplier can earn from performing the regulated activity retail electricity supply for the relevant year from the regulatory period shall be calculated by applying the following formula:

$$MAR_t = O_t + D_t + M_t + E_t + DNC_t - K_t$$

Where:

- MAR_t - maximum regulated revenue for the year t, (MKD)
- O_t - operational and maintenance costs, for the year t, as defined in Annex 5, (MKD)
- D_t - depreciation for the year t, as defined in Annex 5, (MKD)
- M_t - margin for the regulated activity retail electricity supply, in the year t, (MKD)
- E_t - cost of electricity purchase and transmission grid services for supplying captive consumers in the year t, (MKD)
- DNC_t - cost of purchasing distribution system services for supplying captive consumers, in the year t, (MKD)
- K_t - correction element for the formula year t, (MKD)

2. Margin

Margin for the regulated activity retail electricity supply in the year t shall be calculated by applying the following formula:

$$M_t = \mu / 100 * MARP_t$$

Where:

- M_t - margin on the retail electricity supply activity, in the year t, (MKD)
- μ - margin percentage approved by the Energy Regulatory Commission,
- $MARP_t$ - maximum regulated revenue, as defined under Item 1 of this Annex, for the year t, excluding the margin (M) and the correction element, (MKD)

3. Cost of Electricity Purchase and Transmission Service

Cost of electricity purchase and transmission service for supplying retail captive consumers in the year t from the regulatory period shall be calculated by applying the following formula:

$$E_t = E_t^{RG} + E_t^{NC} + E_t^T + E_t^{ROT} + E_t^{DP}$$

Where:

- E_t - cost of electricity purchase and transmission service for supplying retail captive consumers, in the year t, (MKD)
- E_t^{RG} - cost of electricity purchase from the regulated electricity generator, in the year t, (MKD)
- E_t^{NC} - cost of electricity transmission, in the year t, (MKD)
- E_t^T - cost of electricity purchase from other electricity generators and/or traders, only when market conditions and prices are more favourable than the conditions and prices set for the regulated electricity generator, in a clearly defined, transparent and non-discriminatory manner, in the year t, (MKD)
- E_t^{ROT} - cost of electricity purchase from HPPs encompassed by the ROT Contract, in the year t, (MKD)
- E_t^{DP} - cost of electricity purchase from distributed generators at AD ELEM's regulated price, in the year t, (MKD)

4. Correction Element

Correction element for the year t from the regulatory period shall be calculated by applying the following formula:

$$K_t = (R_{t-2} - MARK_{t-2}) * (1 + ir_{t-1}/100) * (1 + ir_{t-2}/100)$$

Where:

- R_{t-2} - revenue earned in the year t-2 from performing the regulated activity retail electricity supply, in the year t, (MKD)
- $MARK_{t-2}$ - maximum regulated revenue earned from performing the regulated activity retail electricity supply, for the year t-2, re-calculated by using approved values instead of forecasted in order to determine the correction element, (MKD)
- ir_{t-1} - average passive interest rate, announced by the National Bank of the Republic of Macedonia, for the year t-1, (%).

5. Revenue Allocation

Maximum regulated revenue from the regulated activity retail electricity supply for the year t shall be earned by applying the tariff system for sale of electricity.

ANNEX 5

Methodology on Calculating Revenue- and Cost-Setting Elements Required for Performing Regulated Electricity Activities

1. Cost Allocation

AD MEPSO when submitting data on regulated assets and costs, attached to the application, should present them by regulated activities in compliance with obtained licenses, and in particular:

- electricity transmission;
- power system operation; and
- organization and operation of electricity market.

AD ELEM, as the regulated generator, when submitting data on regulated assets and costs attached to the application, should present them by generation facility, as follows:

- TPP Bitola;
- TPP Oslomej, and
- all HPPs.

2. Operational Costs (O)

2.1 Definition of operational costs

Operational costs cover costs of regulated company's operation and maintenance of regulated assets used by the company to perform the regulated activity, in compliance with the applicable laws, regulations, standards and technical norms, as well as the obligations set in the licenses issued.

2.2 Standardized Costs

During the regulatory period for each regulated activity, operational costs shall be the standardized costs necessary for performing the regulated activity, and shall be calculated according to the following guidelines:

1. cost of materials, energy, spare parts and small inventory, based on the purchase norms and average purchase prices on the market in the procurement period;
2. cost of running assets maintenance, repair and servicing up to 25% of the calculated annual depreciation rate level;
3. cost of construction buildings and equipment insurance shall be acknowledged in compliance with the insurance premium paid by the company;
4. gross salaries per employee up to the level of average gross salary per employee achieved in the economy in the Republic of Macedonia in the current year, increased by 30%, as a reflection of the qualification structure and complexity of the regulated activity;
5. management salaries and management bonuses, in normalized amounts, according to the efficiency increase and decisions of the company's management bodies;
6. other services, up to level of three years average share (%) in the cost of materials, energy, spare parts and small inventory (item no. 1);
7. other and extraordinary costs, up to 10% of costs referred under items 1; 2; 3, 4 and 6.

2.3. Depreciation

Calculation of regulated assets' depreciation in the year t (D_t), used for performing the regulated activity shall be made in compliance with applicable minimum annual depreciation rates, and shall include:

- depreciation of regulated assets base, excluding the land; and
- depreciation of assets obtained with grants (D_t^{CC}).

3. Regulated Assets Base

3.1 Definition of Regulated Assets

The Regulated assets shall be those used for performing the regulated activity, which shall not include the following in the calculation of regulated assets base value:

- assets acquired from capital contributions such as grants and connection charges;
- imprudent investments.

3.2 Opening Value of Regulated Assets Base for the Year t=1 from the Regulatory Period

The Opening value of regulated assets base for the regulated period (RAB_t^{start}) shall be calculated on the basis of the net book-keeping value of assets on 31st December 2007, corrected for the value of newly obtained assets in the year 2008.

3.3 Opening Value of Regulated Assets Base for the Years t=2 and t=3 from the Regulatory Period

The Opening value of regulated assets base in the years t=2 and t=3 from the regulatory period shall be calculated by applying the following formula:

$$RAB_t^{start} = RAB_{t-1}^{end}$$

Where:

RAB_t^{start} - opening value of regulated assets base in the year t, (MKD)

RAB_{t-1}^{end} - regulated assets base value at the end of the year t-1, (MKD)

3.4 Closing Value of Regulated Assets Base

Closing value of regulated assets base at the end of the year t from the regulatory period shall be calculated by applying the following formula:

$$RAB_t^{end} = RAB_t^{start} + NI_t - CC_t - D_t + D_t^{CC} - RAB_t^{out}$$

Where:

RAB_t^{end} - closing value of regulated assets base at the end of the year t, (MKD)

RAB_t^{start} - opening value of regulated assets base in the year t, (MKD)

NI_t - approved investments, including the investments financed by grants, as well as

- connection assets transferred in ownership to the relevant grid operator, in the year t, (MKD)
- CC_t - approved investments financed by grants and connection charges, in the year t, (MKD)
- D_t - depreciation, for the year t, (MKD)
- D_t^{CC} - depreciation of assets financed by capital contributions for the year t, (MKD)
- RAB_t^{out} - written-off regulated assets in the year t, (MKD)

3.5 Average Value of Regulated Assets Base (RAB_t^{av})

Average value of regulated assets base in the year t from the regulatory period shall be calculated by applying the following formula;

$$RAB_t^{av} = \frac{(RAB_t^{start} + RAB_t^{end})}{2}$$

Where:

- RAB_t^{av} - average value of regulated assets base in the year t, (MKD)
- RAB_t^{start} - opening values of regulated assets base in the year t, (MKD)
- RAB_t^{end} - closing value of regulated assets base at the end of the year t, (MKD)

Prudent Investments

Criteria for prudential planned investments:

1. summary with economic efficiency indicators, return period, net present values, internal rate of return and profitability index for all investments except for individual investment in the value lower than 100.000 EUR calculated in MKD counter value according to the average exchange rate of the National Bank of the Republic of Macedonia on the day of the application's submission, which would require a summary with economic efficiency indicators. At the same time, the regulated company cannot present other identical individual investment (with the same purpose, same or similar technical features, i.e., investment for which the same depreciation rate is applied) in the same calendar year.
2. investments should provide higher safety, reliability of supply, reduction of technical losses in the electricity system, strengthening interconnection capacities, and should also provide quality of electricity delivered to end consumers in compliance with applicable standards.

On the request of the Energy Regulatory Commission, the regulated company is obliged to submit additional information, data and clarifications related to the benefits from the planned investment.

4. Return on Regulated Assets

4.1 Return on Regulated Assets

Return on regulated assets in the year t from the regulatory period shall be calculated by applying the following formula:

$$RA_t = WACC * RAB_t^{av}$$

Where:

- RA_t - return on regulated assets, in the year t, (MKD)
- $WACC$ - weighted average cost of capital of the regulated company, applied in the regulatory period (%)
- RAB_t^{av} - average value of regulated assets base, in the year t, (MKD)

5. Weighted Average Cost of Capital

5.1 Weighted Average Cost of Capital (WACC)

Weighted average cost of capital (WACC) for any regulated activity shall be calculated for the regulated company on a real basis (excluding the inflation rate) and prior to taxation by applying the following formula:

$$WACC = \frac{(1 - Debt) * K_e}{(1 - T_p)} + Debt * K_d$$

Where:

- $WACC$ - weighted average cost of capital on real basis and prior to taxation, (%)
- $Debt$ - long-term debt as share in the total capital (equity + debt), (%)
- K_e - cost of equity, (%)
- K_d - cost of debt, (%)
- T_p - profit tax, (%)

5.2 Debt's Share in Total Capital

Value of the long-term debt as share of the total capital ($Debt$) shall be calculated based on regulated company's balance sheet data.

5.3 Cost of Debt

Cost of debt shall be calculated based on average interest rates of loans used by the regulated company for performing the regulated activity, while the crediting conditions and interest rates announced by the National Bank of the Republic of Macedonia shall be the basis for the control.

5.4 Cost of Equity

Cost of equity shall be calculated by using the Capital Assets Pricing Model (CAPM) and by applying the following formula:

$$K_e = R_f + \beta(MRP)$$

Where:

- K_e - cost of equity (%)
- R_f - risk-free rate of return, set as equal to the yield from the bonds issued by the Government of the Republic of Macedonia (%)
- β - equity beta, (market portfolio) set as equal to 1 (one).
- MRP
($MRP = R_m - R_f$) - market risk premium set as the difference between the "average revenue from risk investments (R_m) and non-risk investments (R_f)".
- R_m - average interest rates of long-term loans (in EUR, USD and MKD), approved for companies in the Republic of Macedonia, and announced by the National Bank of the Republic of Macedonia, (%)

ANNEX 6
Spreadsheets

ANNEX 7

Declaration of Reliability of Data Submitted by the Regulated Company

D E C L A R A T I O N

of the responsible person from the regulated company

(Regulated company name)

submitting the price and revenue approval application

Under criminal, material and moral responsibilities, I hereby declare that the material and financial data presented in the attachment to the price and revenue approval application submitted to the Energy Regulatory Commission and concerning the regulated company are precise and reliable, and fully reflect the actual situation of the applicant.

Date: _____

Responsible person
(person authorized to act on behalf of and
represent the regulated company)

Place: _____

(Name and Surname, handwritten signature)