



Republika e Kosovës
Republika Kosova - Republic of Kosovo

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



ERO_Rule No.13/2017

Rule on Capital Projects Assessment in Transmission and Distribution Network

May 2017

Table of Contents

CHAPTER I GENERAL PROVISIONS	3
ARTICLE 1 SCOPE AND PURPOSE	ERROR! BOOKMARK NOT DEFINED.
ARTICLE 2 DEFINITIONS AND INTERPRETATIONS	3
CHAPTER II SUBMISSION OF PROPOSED INVESTMENT PLANS.....	ERROR! BOOKMARK NOT DEFINED.
ARTICLE 3 SUBMISSION AND REVIEW TIMETABLE	4
ARTICLE 4 CONTENTS OF THE FIVE-YEAR INVESTMENT PLAN.....	5
ARTICLE 5 ASSESSMENT AND APPLICATION	6
CHAPTER III DEFINED OUTPUTS.....	7
ARTICLE 6 DEFINITION OF OUTPUTS	7
ARTICLE 7 REPORTING OF PERFORMANCE.....	8
CHAPTER IV COST-BENEFIT ANALYSIS OF PROJECTS AND PROGRAMS	8
ARTICLE 8 PURPOSE AND APPROACH TO CBA.....	8
ARTICLE 9 ESTIMATION OF COSTS AND BENEFITS.....	9
ARTICLE 10 CRITERIA AND INPUT VALUES.....	10
CHAPTER V PROJECT PRIORITIZATION	11
ARTICLE 11 PRIORITIZATION FACTORS	11
CHAPTER VI TRANSITIONAL AND FINAL PROVISIONS.....	13
ARTICLE 12 INTERPRETATION.....	13
ARTICLE 13 AMENDMENT	13
ARTICLE 14 ENTRY INTO FORCE	13

The Board of Energy Regulatory Office, pursuant to the authority given by Law on Energy Regulator No. 05/L-84, Article 9, paragraph 1, sub-paragraph 1.7 and Article 26, paragraph 1, sub-paragraphs 1.1 and 1.2, in a session held on 10.05.2017, adopted :

Rule on Capital Projects Assessment in Transmission and Distribution Network

CHAPTER I GENERAL PROVISIONS

Article 1 Scope and Purpose

1. This Rule sets out:
 - 1.1 The process of submission by the licensees such as: Transmission System Operator, Market Operator and Distribution System Operator of their proposed investment plans, the cost of which are to be recovered from regulated tariffs, as part of each Multi-Year Tariff Review.
 - 1.2 The data, evidence and justifications to be submitted by the above-mentioned licensees to support their proposed investment plans.
 - 1.3 Evaluation by the Regulator, regarding the justification of the investment plants, prior to their approval within Periodic Review.

Article 2 Definitions and Interpretations

1. The following terms are used in this Rule and have the following meanings:
 - 1.1 **Ten-Year Network Development Plan or 10YNDP**- ten (10) year planning of the need for investments in transmission or distribution capacities, with the purpose of fulfilling the needs of the electricity system and provision of supply to customers, which is approved by the Regulator.
 - 1.2 **Five-Year Investment Plan (5YNIP)**- the compilation of the five (5)-year plan for the development of the transmission and distribution network within the current year for a five (5) year period which shall be in compliance with the Ten-Year Investment Plan of Transmission and Distribution Network, the documentation of spatial planning and the five (5) year plan for the development of transmission and distribution network, which is approved by the Regulator.
 - 1.3 **Distribution System Operator or DSO** - a natural or legal person responsible for operating, ensuring the maintenance of and, if necessary, developing the distribution system in a given area and, where applicable, its interconnections with other systems and for ensuring the long-term

ability of the system to meet reasonable demands for the distribution of electricity;

1.4 Transmission System Operator or TSO- a natural or legal person responsible for operating, ensuring the maintenance of and, if necessary, developing the transmission system in a given area and, where applicable, its interconnections with other systems, and for ensuring the long-term ability of the system to meet reasonable demands for the transmission of electricity;

1.5 Cost-Benefit Analysis or CBA- the process of determination of costs and benefits of a project during a certain period and its alternatives within the same period, in order to have a reasonable degree of comparison for a fair evaluation;

1.6 European Network of Transmission System Operators for Electricity or ENTSO-E;

1.7 Regulatory Period- Determination of Maximum Allowed Revenues for a regulatory period which are set during Periodic Reviews;

1.8 Net Present Value or NPV;

1.9 Value of Lost Load or VOLL- the evaluation of the willingness from the customers side to pay additional costs in order to improve the supply quality;

1.10 Energy Regulatory Office- is an independent agency in energy sector, established by Law on Energy Regulator;

2. Other terms used in this Rule shall have the same meaning as given in Law on Energy Regulator, Law on Electricity or Law on Energy.

CHAPTER II SUBMISSION OF PROPOSED INVESTMENT PLANS

Article 3

Submission and Review Timetable

1. Transmission System Operator and Distribution System Operator shall submit to the Regulator a Preliminary Five-Year Network Investment Plan (SYNIP) no later than 15 March of the year preceding the Periodic Review. The contents of the Five-Year Network Investment Plan are specified in Article 4.

2. No later than 5 May of the same year, the Regulator shall identify any additional information or data required to complete its review of the submitted Preliminary Five-Year Network Investment Plan.
3. No later than 1 June of the same year the licensees (TSO/MO and DSO) shall submit to the Regulator a Five-Year Network Investment Plan as per contents specified in Article 4 and taking into account additional information or data requested by the Regulator after it has conducted the preliminary review.
4. A summary of the Five Year Network Investment Plan shall be published on the official website of the Regulator. Commercially confidential information may be redacted from the published summary.
5. No later than 15 August of the same year, the Regulator shall identify any additional information or data required to complete its review of the submitted Five-Year Network Development Plan. Licensees shall submit any such identified additional information or data by 31 August of the same year.
6. Licensees may be requested to present the submitted Five-Year Network Development Plan to the Regulator at a public hearing as part of the assessment process.

Article 4

Contents of the Five-Year Investment Plan

1. The Five-Year Investment Plan to be submitted to the Regulator must be in compliance with the Ten-Year Development Plan and shall contain, at least, the following:
 - 1.1 An explanation of the process used to prepare the Five-Year Network Investment Plan and how the requirements of network users have been identified and incorporated into the plan.
 - 1.2 A summary of the Five-Year Investment Plan showing expected expenditures and values of assets commissioning in each year of the regulatory period.
 - 1.3 A set of defined outputs to be delivered by the Five-Year Investment Plan, against which the performance of the licensee can be assessed.
 - 1.4 A listing of all individual large projects to be undertaken under the Five-Year Investment Plan, accompanied by a summary of technical description, cost estimates, implementation plan and justification of the need for the project including a discussion of alternatives considered.
 - 1.5 A listing of all programs of multiple smaller projects to be undertaken under the Five-Year Investment Plan, accompanied by a summary technical description, cost estimates, implementation plan, technical justification.

- 1.6 Where a project or program exceeds the defined threshold, an economic cost-benefit analysis (CBA) for that project or program shall be submitted by the Regulator.
- 1.7 In case there is a difference between the Five-Year Investment Plan and the last approved Ten-Year Investment Plan (10YNDP), the licensee shall include the reasonability of eventual differences;
- 1.8 A priority ranking of the projects and programs included in the Five-Year Investment Plan;
- 1.9 A description of the key risks to delivery of the Five-Year Investment Plan and how the licensee intends to mitigate or otherwise manage these.
2. All projects and set of small projects to be included in the Five-Year Investment Plan should have completed a pre-feasibility or feasibility study. These studies may be excluded following the submission of a justification request by the licensee and its approval by the Regulator.
3. For the purposes of Clause 1.5 of this Article , a 'large' project in the transmission network shall be defined as one with an estimated capital cost equal to or exceeding €300,000 or such other limit as the Regulator may notify the licensees from time-to-time.
4. For the purposes of Clause 1.5 of this Article , a 'large' project in the distribution network shall be defined as one with an estimated capital cost equal to or exceeding €100,000 or such other limit as the Regulator may notify the licensees from time-to-time.
5. For the purposes of Clause 1.7 of this Article, the threshold for an individual project or program of multiple projects related to which a Cost-Benefit Analysis must be conducted shall be set above €1 million. The Regulator may request the Cost-Benefit Analysis from the Licensee also for projects or set of small projects below €1 million .

Article 5

Assessment and Application

1. No later than 30 September of the same year, the Regulator shall publish its assessment report for each submitted Five-Year Investment Plan (5YNIP), which shall identify:
 - 1.1 which projects and programs the Regulator proposes to include into the allowed revenues to be recovered over the next Regulatory Period and the level of expenditures per year.
 - 1.2 which projects and programs will not be included into the allowed revenues and which will be included at a different capital cost to that included in the submitted Five-Year Investment Plan with an explanation of the reasons in each case.

2. While the assessment report shall be an input to the calculation of allowed revenues to be recovered under the next Regulatory Period, it shall not commit the Regulator to include or exclude any individual project or program from these allowed revenues or to the capital cost attached to any included individual project or program.
3. The final investment plan will be determined as part of the final Tariff Review for the Regulatory Period following the process of public consultation and the analysis of proposed allowed revenues and shall be published on the Regulator's website alongside that decision.
4. Following the publication of the final investment plan, licensees will be expected to implement this in full except where, during the regulatory period, individual projects or programs are identified as being no longer necessary or can be substituted by alternatives that deliver equivalent outputs at a lower lifetime cost.
5. The licensees will report annually to the Regulator on progress on implementation of the investment plan, identifying any delays or deviations from the plan and explaining the reasons for these.
6. The licensees will also report annually on total capital expenditures by individual project and program and in aggregate against those in the final investment plan, identifying and explaining any significant divergences between the plan and actual values.
7. The Regulator will take into account this performance against the final investment plan when undertaking its review of the Five-Year Investment Plan and allowed revenues under the next regulatory period.

CHAPTER III DEFINED OUTPUTS

Article 6 Definition of Outputs

1. As part of the submitted 5YNIP, the licensee shall submit a set of proposed outputs for monitoring the delivery of the expected benefits from the investment plan.
2. These outputs shall be quantifiable and verifiable from either published data or data collected by the licensee.
3. The outputs shall include measures of the reliability, security and quality of the licensee's network as well as such other outputs as may be considered appropriate. At a minimum, the outputs shall include:

3.1 Frequency and duration of network faults;

- 3.2 Energy not served as a result of the unavailability of the licensee's network;
 - 3.3 Level of electricity losses on the network;
 - 3.4 Measures of the condition of network assets.
4. For each output, the licensee shall define in the submitted Five-Year Investment Plan:
 - 4.1 A baseline value, representing current performance.
 - 4.2 The target value at the conclusion of the next regulatory period if the submitted Five-Year Investment Plan is implemented;
 - 4.3 The projected value at the conclusion of the next regulatory period if the submitted Five-Year Investment Plan is not implemented;
 - 4.4 An explanation of how these target and projected values have been derived.
 - 4.5 A description of how performance under each output can be measured and verified.

Article 7 **Reporting of Performance**

1. Prior to the conclusion of each regulatory period, the licensee shall report actual performance against each output relative to that projected in the Five-Year Investment Plan.
2. The Regulator shall take account of differences between actual and projected performance in delivering outputs in:
 - 2.1 Assessing the reasonableness, justification and risks associated with proposed projects and programs included in the submitted Five-Year Investment Plan for the next regulatory period.
 - 2.2 Determining whether to apply any claw-back or other adjustments to allowed revenues under the next regulatory period due to any failures to deliver the approved investment program for the current period.

CHAPTER IV COST-BENEFIT ANALYSIS OF PROJECTS AND PROGRAMS

Article 8 Purpose and Approach to CBA

1. In this Chapter, the term 'project' is used to refer to both individual large projects and to programs of multiple smaller projects to which CBA is applied.
2. The purpose of the CBA is to demonstrate that:
 - 2.3 For discretionary projects, defined as those not undertaken to meet legal obligations, the proposed project has a positive net social benefit and that it offers the highest net social benefit of any of the alternatives considered.
 - 2.4 For mandatory projects, defined as those undertaken to meet legal obligations, the proposed project is the least-cost of the alternatives considered.
3. The legal obligations referred to in Clause 2 are legal requirements to meet specific environmental, social, health or safety standards or obligations imposed under international agreements to which Kosovo is a signatory.
4. Projects undertaken to comply with obligations for the connection and/or utilisation of designated renewable energy projects in accordance with legal requirements and the policy of the Government of Kosovo shall be considered to be mandatory projects for the purposes of Clause 2 above.
5. The Regulator may, on review of the submitted 5YNIP, determine that proposed projects for which a CBA is provided, be reclassified from discretionary to mandatory or vice-versa and that the CBA be accordingly recalculated and resubmitted.
6. For discretionary projects, the CBA compares the net present value (NPV) of the social benefits of the project less the total costs of the project to the identified alternatives.
7. For mandatory projects, the CBA compares the present value of the total costs of the project to the identified alternatives.
8. Appropriate sensitivity analysis should be included, showing, at a minimum, the impacts of changes from the base projections in:
 - 8.1 Demand forecasts and project utilization;
 - 8.2 Contribution of renewable energy sources;
 - 8.2 Commissioning date of the project

9. Where any aspect of these guidelines as regards CBA is unclear or incomplete, the licensee shall refer to the *ENTSO-E Guideline for Cost-Benefit Analysis of Grid Development Projects*.

Article 9

Estimation of Costs and Benefits

1. Total costs of the project, as used in the CBA, include:
 - 1.1 The capital investment required including interest during construction and other financing costs and excluding taxes;
 - 1.2 An appropriate allowance for physical and price contingencies;
 - 1.3 The projected operating and maintenance costs over the shorter period of the lifetime of the project or the evaluation period including any rehabilitation or major overhaul costs;
 - 1.4 Any quantifiable negative environmental or social impacts resulting from the project, valued at the willingness of residents of Kosovo to pay to avoid such costs.
2. Total benefits of the project, as used in the CBA, include:
 - 2.1 Any reductions in capital investment and/or operating and maintenance costs of the transmission or distribution system resulting from the project;
 - 2.2 Any reductions in system losses resulting from the project, valued at the projected cost of purchasing wholesale energy;
 - 2.3 Any reductions in projected Energy Net Served resulting from the project, valued at the approved Value of Lost Load (VOLL);
 - 2.4 Any reduction in the costs of electricity supply to electricity customers located within the territory of Kosovo resulting from reduced system constraints or greater market integration, valued at the resulting cost savings;
 - 2.5 Any reduction in the costs of procuring or otherwise providing ancillary services;
 - 2.6 Any quantifiable positive environmental or social benefits, other than reductions in Greenhouse Gas emissions, resulting from the project, valued at the willingness of residents of Kosovo to pay for such benefits;
 - 2.7 Any reductions in Greenhouse Gas emissions resulting from the project, valued at the social cost of carbon defined as below;

- 2.8 Any other benefits identified by the licensee, with accompanying justification for their inclusion;
- 2.9 For the project alternatives with $NPV < 0$, ERO will decide on its technical necessity based on the technical criteria from Article 6. In the case of the project(s) necessity, the project(s) with the lowest negative NPV is to be selected as the most appropriate.
3. Calculations shall be conducted in real terms using prices for the year in which the Five-Year Investment Plan is submitted (ie, inflation is not to be considered).
4. [A template to be used for the CBA calculation is provided in Annex 1 to this Rule.]

Article 10 **Criteria and Input Values**

1. The Regulator shall establish the following criteria and input values by no later than 31 December of each year.
 - 1.1 Discount rate (used for NPV calculations);
 - 1.2 Period for evaluation;
 - 1.3 Value of Lost Load.
2. When no value has been established then the most recent established values shall apply.
3. When the Regulator has not previously established a value, then the following default values shall apply:
 - 3.1 Discount rate: The most recent published value to be used for economic appraisal by the Government of Kosovo. Where no value has been published, the value applied by ENTSO-E in its *Guideline for Cost-Benefit Analysis of Grid Development Projects* shall be used.
 - 3.2 Period for evaluation: From the year in which the Five-Year Investment Plan is submitted until 10 years after the planned commissioning date of the project.
 - 3.3 Value of Reduced Load: Estimates published for other members of the Energy Community, with preference given to those in closest geographical proximity to Kosovo.

CHAPTER V PROJECT PRIORITIZATION

Article 11 Prioritization Factors

1. Licensees shall include in the Five-Year Investment Plan a priority ranking of projects and programs, for the purposes of assisting the Regulator in selecting which to include in the regulatory period investment program.
2. All mandatory projects and programs, defined using the criteria established in Article 8 above are ranked as high-priority.
3. Other projects and programs shall be classified as one of:
 - 3.1 High priority – essential;
 - 3.2 Medium priority – highly desirable
 - 3.3 Low priority - desirable.
4. The classification shall be based on:
 - 4.1 The technical necessity of the project or program, with projects and programs with higher technical justifications being assigned a higher priority;
 - 4.2 The net benefits of the project or program as calculated by the CBA (where applicable), with projects and programs with higher net benefits being assigned a higher priority;
 - 4.3 The level of risks associated with implementation of the project or program, with projects and programs with lower risks being assigned a higher priority.
 - 4.4 Such other factors as the licensee considers relevant.
5. The final priority ranking shall be a weighted average of the rankings against each individual criterion, except for the necessary projects for provision of electricity supply.
6. The licensee shall include in the submitted Five-Year Investment Plan a description of the criteria used for priority ranking, how a priority has been assigned for each project and program against each criterion, how the weights used to determine the final priority ranking have been determined and shall show the final ranking and the ranking against each individual criterion for each project and program.

CHAPTER VI TRANSITIONAL AND FINAL PROVISIONS

Article 12 Interpretation

If there is uncertainty about the provisions of this Rule, the Board will issue a clarification.

Article 13 Amendment

- (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.

Article 14 Entry into force

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

Board of the Regulator:

Krenar Bujupi, Acting-Chairman

Arsim Janova, Member

Besim Sejfijaj, Member