TRANSMISSION CONNECTION CHARGING METHODOLOGY

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CONTENTS

1 INTRODUCTION

1.1 Purpose

This document sets out the methodology for calculating of the new connections charges (costs, etc) for the new connections to the transmission system and increasing of existing connection.

1.2 Scope

This document treats:

- Principles of charging new connection to the transmission network;
- Charge calculation of **Application Fee**
- Calculation method of the Maintenance Charge;
- Forms of specimens where the necessary equipment for connection and asset prices (including the cost of works, supply and installation of power lines, metering systems) of indicative costs, which may be required for connection purposes (at entry and exit points) Of the transmission system for which connection charges may be paid and, as far as possible, include indicative taxes against any item on the list or, if this is not possible, the basis on which these taxes will be charged
- The basis on which taxes will be calculated against the extension or reinforcement of the transmission system
- Base on which taxes will be calculated where the provision of electricity lines or power plant that have to be installed are greater capacity than is needed for the needs of the Applicant
- Base on which the taxes will be calculated in relation to the de-energization of the connection point from the TSO system and removal of the New Transmission Assets
- criteria on which the decision of the TSO is taken to refuse the connection into the system, which will be objective and technically and economically feasible
- Content of the **Connection Offer** and Connection Agreement and
- Resolving complaints process;

This document does not cover detailed technical matters related to technical standards of equipment, operation and planning of new connection, etc. – these are covered in the Connection Code of Grid Code and requirements of the other technical codes in force.

1.3 Legal and Regulatory Requirements

This Methodology takes into consideration the requirements under:

- Law of Energy No 05/L-081
- Law on Electricity No. 05/L-085;
- Law on the Energy Regulator No. 05/L-084.

This methodology has also been prepared in accordance with the following documents:

- Rule on Transmission System Operator and Market Operator Pricing (TSO/MO Pricing Rule);
- Rule on General Conditions of Energy Supply;
- Principles on determination of transmission and market use of system tariffs and connection taxes .
- Grid Code - Connection Code

2 DEFINITIONS

Any defined terms not listed below, could be found in the Laws, in the Grid Code, Metering Code, Market Rules, Rule on Transmission System Operator and Market Operator Pricing and in the Rule on General Conditions of Energy Supply.

Defined terms:

Application Fee is the payment at the time of the Connection Application which covers the expenses of the: **design study** anr/or **Feasibility Stady, Connection Offer**, and drafting of the Connection Agreement. During the preliminary discussions with the applying party before the Connection Application is submitted, **KOSTT** will confirm the number of days required to process the Application.

Asset Life is the defined life of transmission assets operation.

Compensation Costs are the costs that should be paid by the **Applicant** to the landowner, right of way access and for any eventual damage during project implementation.

Applicant means a natural or legal person who request to TSO to make a connection or to modify the existing connection to the transmission network..

Connection Fee it is the fee that will be payed by Applicant to be connected to the Transmission Network

Coonection Agreement means the agreement between the Transmission System Operator and system users, which describes the connection procedure, connection fee, connection initiation process, maintenance, operation and termination of the connection into the system.

Connection Application is the application submitted by a **Applicant** for a new connection or an increase in an old connection to the Transmission System.

Connection Application Form is a connection application form for generation, distribution, respectively an eligible customer as shown in Appendix 2.

Connection Capacity shall mean the electrical capacity measured in MW offered at the connection application.

Connection Point is the physical connection point of a system user with the transmission system

Connection Date is the date from which the Connection Assets are or were deemed to be fully connected to the Transmission Network and **KOSTT** is able to provide the Connection Capacity.

Connection Offer is an offer to connect to the Transmission System provided from KOSTT for Applicant.

Connection Responsible Party is the party being the **Applicant** or **KOSTT** who takes responsibility as defined in Article 4.9 of this Methodology.

Basic Design as main part of the engineering design process, is design prepared by the contractor in the initial implementation phase of the project. Focuses on establishing of the general framework for the implementation of the project and on the overall configuration of **New Transmission Assets** and, as needed, **Infrastructure Reinforcement Assets**, schemes, diagrams and relevant situations and other parameters that are needed to define the structure of New Transmission Assets and, as needed, **Infrastructure Reinforcement Assets**.

Detail Design as main part of the engineering design process, is design prepared by the contractor in the implementation phase of the project. It will be based on Basic Design and focuses on detailed and clear description of New Transmission Assets and, as needed, **Infrastructure Reinforcement Assets**, including various schemes and diagrams, which then lead to the manufacture, construction, installation, commissioning and entry into operation of those assets.

Design Study presents a detailed analysis of the opportunities (options) of connection to the transmission network, prepared by KOSTT for an Applicant after the Applicant submitting a Connection Application **.**

DSO means Distribution System Operator

Effective Capacity means the total capacity at each point of the network which is available for use by the users without prejudice to the technical limitations of the network operation. It can be classified by reference to any relevant technical criteria or standards in force including but not limited to current transmission capacity, short-circuit capacity, voltage limits or stability limits.

Engineering Costs are the costs that Applicant pays to KOSTT, in relation to the responsibilities and activities of the tender and construction process of the New Transmission Assets and, as needed, **Infrastructure Reinforcement Assets** and depending on the responsibility as the responsible party shall be calculated as:

- 1.5% of the New Transmission Assets and, as needed, **Infrastructure Reinforcement Assets** when Applicant is Connection Responsible Party

- 5% of the New Transmission Assets and, as needed, **Infrastructure Reinforcement Assets** when KOSTT is Connection Responsible Party.

ERO means Energy Regulatory Office

Feasibility Study is a detailed study of technical and economics of a project based on technical calculations of the relevant project. This study will be realized by a contracted party because of the complexity and size of the project..

Regulated Asset Base are all the transmission assets on which **KOSTT** is allowed to charge through TUoS Charges.

Infrastructure Asset Base are the transmission assets where Aplicant must be connected

KOSTT means Kosovo Transmission System Operator and Market Operator

New Transmission Assets include all relevant assets from existing transmission system assets border until to the Applicant border.

Infrastructure Reinforcement Assets are the assets required to reinforce the system solely for the implementation of the relevant connection.

Initial Cost is an asset cost estimation based on **KOSTT**'s knowledge of the current cost of purchasing, building, installing; testing, putting into operation and oversight of **New Transmission Assets** and, as needed, **Infrastructure Reinforcement Assets**.

Modern Equivalent Asset Value (**MEAV**) is the current replacement cost of a transmission asset. This is used in calculation maintenance charges.

New Connection is line, generator, substation, switchyard connected to existing Transmission Network in connection point/node defined with MVA at nominal voltage level.

Offer Time Limit is the number of days after a **Connection Application** is submitted by which **KOSTT – Transmission System Operator** is required to submit a **Connection Offer**.

System User or **User** are natural or legal persons who supply or be supplyed through the transmission or distribution system.

Standard Rate is the rate, agreed by the **ERO** and published on **KOSTT**'s web-site in €/day, part of this document for work performed by KOSTT's staff to cover Engineering costs.

Transmission Development Plan means the document Transmission Network Development Plan approved from ERO.

3 BASIS FOR CHARGES

3.1 Rule on Transmission System Operator and Market Operator Pricing (TSO/MO Pricing Rule)

This Rule determines conditions applied for connection. Based on this, TSO determines charges for connection, defines elements that will be included in determining the cost of connection, obliges that this methodology to define border between costs that covered from the connection charges and costs that covered from TSO/MO Charges.

3.2 Rule on General Conditions of Energy Supply 2011

The Rule on General Conditions of Energy Supply determines the general conditions of energy supply to customers, and the duties and obligations of energy enterprises and customers. It described the general principles of connections and use of the system, reading, metering, billing and collection and unauthorized use of energy.

3.3 Connection Code

The Connection Code is part of the Grid Code and covers the engineering and technical requirements of a connection. It also requires that **KOSTT** put in place Connection Charging Methodology and give **Connection Offers**. Also defines border between **KOSTT** and **DSO.**

3.4 Transmission System Operator License.

Article 5, Operation of the Transmission System, requires that **KOSTT** will perform the efficient, economic and coordinated operation on the Transmission System, in accordance with the provisions of the Law on Energy, Rule on Principles of Calculation of Tariffs in the Electricity Sector and Tariff methodology for the Electricity Sector, Law on Electricity and the Grid and Distribution Code.

In the connection terms the Licence obligation on KOSTT to offer terms for connection and setting its tariffs and charges for connection to and use of the transmission system, the Licensee shall provide appropriate and non-discriminatory pricing signals and ensure that such tariffs and charges:

a) encourage competition in the power sector and facilitate new entrants into the market; and

b) are in accordance to the Rule on Transmission System Operator and Market Operator Pricing

4 PRINCIPLES OF THE CHARGING CALCULATIONS

4.1 Definition of the Connection Charge Type

All connection applications to the transmission system depending on their type and conditions set forth in this methodology will be taxed as a "deep connection" or "shallow connection". These connections are defined as follows:

- “deep connection” means that the applicant will provide with his own cost or pay costs of assets required to connect to the nearest suitable point of connection on the existing Transmission System plus any indirect costs arising from works associated with the reinforcement, extension or reconfiguration of the existing network which are caused as a direct consequence of the operation of the connection point. These costs were added and other costs included in paragraph 6.4 (Connection Fee) of this Methodology.

- “shallow connection” means that the applicant will provide with its own expense or will pay only those costs caused by the creation of a new connection, at the nearest appropriate point of the existing transmission network determined by the Transmission System Operator. These costs were added and other related costs (costs in point 1 and 2) included in paragraph 6.4 (Connection Fee) of this Methodology.

4.2 Determination of the Connection Fee

- **Generation Connections**

Applicants for the connection of new generation and applicantsfor increasing of the existing generation capacity will pay deep connetion fee

- **Load Connections**

Connection Fee for the applicant that belongs load category will be determined as:

a) **deep connection**, where:

i. new load or an increase in load exceeds 3% of the existing effective capacity at the connection point of the transmission network.

ii. the connection is not foreseen in the Transmission Development Plan, and

iii. the indirect costs of work associated with the reinforcement, extension or reconfiguration of the existing network and which have been caused as a direct consequence of the creation of a new connection which exceeds for ten times the expected revenues of the TSO / MO from the relevant connection charges.

b) **shallow connection**, where:

i. a new load or an increase in load does not exceed 3% of the existing effective at the connection point of the transmission network

ii. the connection is foreseen in the Transmission Development Plan, or

iii. the indirect costs of work associated with the reinforcement, extension or reconfiguration of the existing network and which have been caused as a direct consequence of the creation of a new connection which does not exceeds for ten times the expected revenues of the TSO / MO from the relevant connection charges.

Costs of works and New Transmission Assets, related to the shallow connection, KOSTT will cover through transmission use of system charges (TUoS Charges).

In accordance with the Grid Code and good engineering practices, to identify the level of costs related to reinforcement for any connection application, **KOSTT** will appreciate the required level of transmission reinforcement.

4.3 Technical and commercial border between parties

Is the border that defines ownership of assets between KOSTT and transmission system users and commercial metering point between parties. Technical border will be defined depending on the categories of the transmission system users and legislation in force. So, this means that the border will be special type for Generators, DSO and industrial customers.

4.3.1 Technical and commercial border TSO-Generator

4.3.1.1 Technical border between TSO and Generator is connection point:

a) Between the high voltage busbar system and the transformer field of the step-up transformer;

b) In case the Generator utilizes the transmission line for own uses, the technical boundary between the TSO and the Generator shall be treated as an industrial consumer as in paragraph 4.3.3.

4.3.1.2 The commercial boundary is in line with the technical boundary between the TSO and the Generator.

4.3.1.3 In case where the Generator is comprised of a group of separate generation units and are connected to the same transmission connection point, then, in addition to the metering systems at the technical/commercial boundary shall be installed also metering units at the output of each licensed generation unit.

4.3.2 Technical and commercial border TSO-DSO

4.3.2.1 Technical border between TSO and DSO is connection point of:

a) transformer field of the power transformers 220/35/10 (20) kV and 110/35/10 (20) kV to 35 kV, 10 (20) kV busbars,

b) field for their own expenses (35 kV, 10 (20) kV) in medium voltage busbars 35 kV, 10 (20) kV

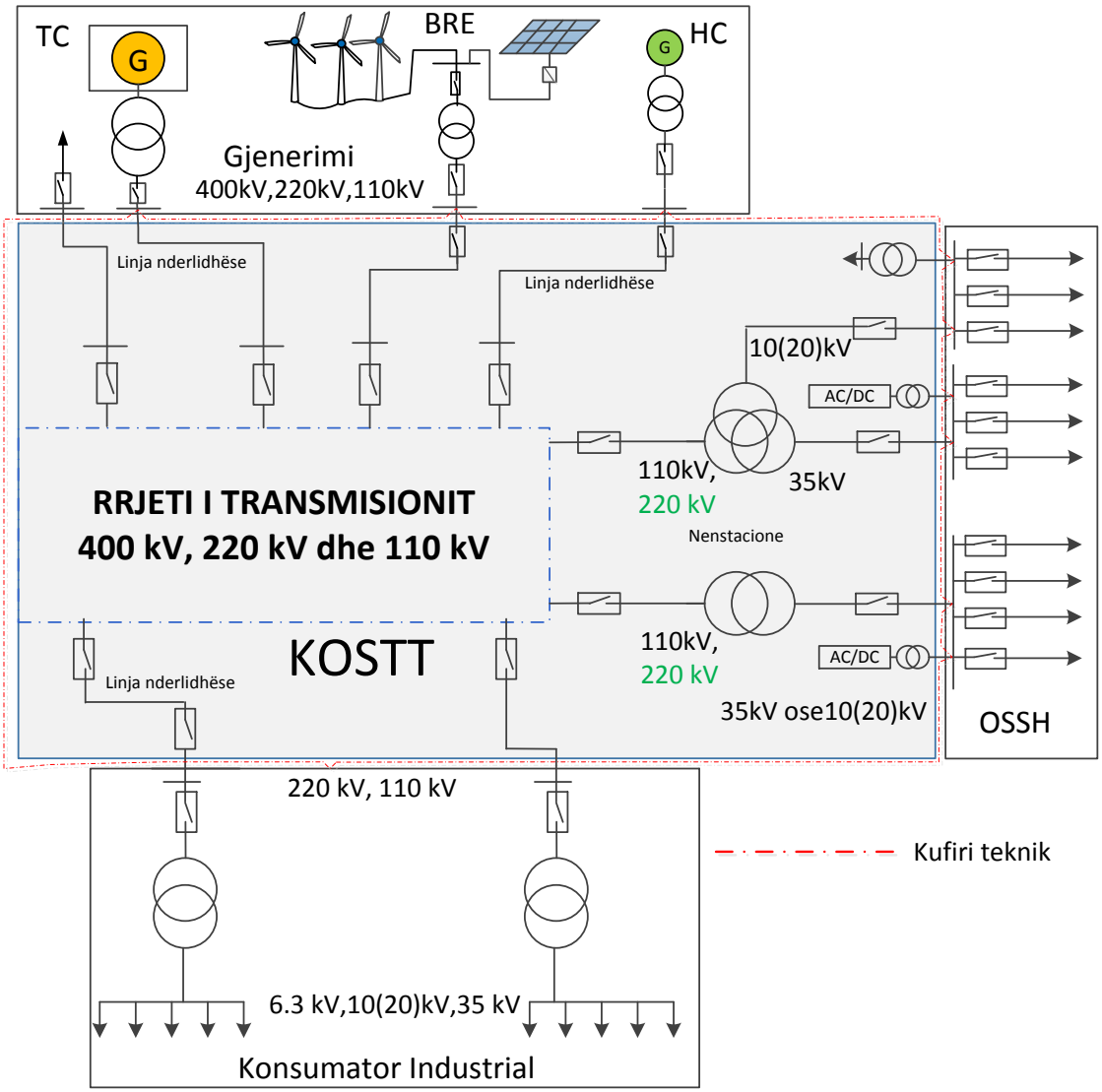
4.3.2.2 Commercial corder is in line with technical border between TSO and DSO.

4.3.3 Technical and commercial border KOSTT-industrial customer

4.3.3.1 Technical border TSO – Industrial customer is the end of the chain insulator connected to the end portal of the transmission lines.
In cases where the industrial customer wants that except assets which are defined through technical border to transfer the other assets to KOSTT, then this will be determined in the **Connection Agreement** through a separate chapter within it.

4.3.3.2 The commercial boundary is in line with the technical boundary between the TSO and the Industrial Consumer

Below for a clearer definition is the figure that present technical border between KOSTT and parties.



4.4 Shared Connections

In case when in busbars are connected generator, distribution load or industrial consumers connected through a direct line, then the border shall be determined acording to the paragraph 4.3.3, depending on the categories of parties to which borders are set. This means that we can have two different points of border between **KOSTT** and **parties**.

The technical losses for the part of the network that both parties will use, will be divided based on the amount of power flows measured in the relevant meters.

4.5 Relationship between TUoS Charges and Connection Fee

New Transmission Assets and **Infrastructure Reinforcement Assets** paid by a system users in accordance with technical border between parties (paragraph 4.3) and in accordance with the type of connection fee applicable to the parties, will be transferred to the ownership of **KOSTT**.

In the case of connections of substations 110/x kV step-down transformers, any improvement of these assets to meet load growth in the distribution system will not be included in the connection fees unless deep connection charges should be applied.

Similar condition would apply if a new sub-station were required to supply the licensed distribution system and for that not required to have transmission grid reinforcement as a result of increased load without planned in capacity and time. In this regard, it is noted that a requirement for new substations or to increase the capacity of existing substation in distribution system normally will be included in the Transmission Development Plan to supply the licensed distribtuion system would normally be included in the Transmission Development Plan.

Further details of **KOSTT**'s TUOS charge methodology are set out in the Methodology on Determination of System Operator Tariffs, Methodology on Determination of Market Operator Tariffs , Methodology on Determination of Transmission System Operator Tariffs published by **KOSTT**.

4.6 Emergency Connections

Where due to unforeseen circumstances it is necessary to provide and emergency transmission connection (i.e. outside the timescales in the Connection Code) then the following will apply:

- Derogation from the Connection Code, approved by **ERO**;
- **KOSTT** will give a best estimate of the costs;
- The **Applicant** will pay this estimate in advance;
- The current costs will be adjusted/reconciled after the emergency connection is completed.

4.7 Maintenance

The maintenance costs for the **New Transmission Assets** and for the **Infrastructure Reinforcement Assets** of the **User** shall be charged through Transmission System Operator Tariffs (TUOS).

The **New Transmission Assets** and **Infrastructure Reinforcement Assets**, funded by the Generators or **New Transmission Assets** funded by the Load shall be treated as donation to KOSTT. KOSTT is entitled to connect new users in these assets and will apply the form of compensation, as in the following Article 7.7.

4.8 Connection Standards

The security standard in the **Connection Offer** will be in accordance with the Grid Code and other relevant technical codes requirements and good engineering practice.

4.9 Connection Responsibilities between KOSTT and Industrial Customer or Generator

The **Applicant** in the **Connection Application** will define the **Connection Responsible Party** that will be responsible for tendering and construction of the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**. This party can be the **Applicant** or **KOSTT**:

1) If the **Applicant** is the **Connection Responsible Party** then**:**

- **KOSTT** prepares Terms of References and Technical Specification for the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**
- The **Applicant** prepares tender dossier and announces tender;
- The **Applicant** selects the tender winner (**KOSTT** may participate in the evaluation of offers);
- The **Applicant** will pay the tender cost and contract cost;
- **KOSTT** takes responsibility for reviewing and approving the **Basic Designs** for **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**
- The **Applicant** takes responsibility for supply, construction and installation of the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets;**
- **KOSTT** supervises the construction works and electrical and mechanical installation works, pursuant to the terms of the construction permit;;
- **Applicant** takes responsibility to obtain necessary permits in compliance with all applicable laws in Kosovo, or KOSTT with request of applicant through a bilateral agreement, may be engaged on behalf of the applicant to implement all procedures in compliance with all applicable laws in Kosovo, in: obtaining relevant permits for New Transmission Assets, for the procedures for expropriation / servitude of immovable property required for the construction of new transmission assets. The applicant shall be charged a fee for services. Regarding these services, **KOSTT** does not take responsibility for possible delays caused by the process of expropriation and obtaining relevant permits from government authorities. The **Applicant** assumes the responsibility for the payment of compensation for the expropriation / servitude of immovable property where the **New Transmission Assets** are to be constructed.;
- The **Applican**t takes responsibility for performing of all tests of the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets** (factory tests and terrain tests) in the presence of **KOSTT**, while KOSTT takes responsibility for approval of those tests;
- The Applicant takes responsibility for **KOSTT**'s staff training (in terrain at the place where the equipment will be install) for the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets;**
- The **Applicant** takes responsibility for the commissioning, while **KOSTT** participate in the supervision of commissioning and relase operation of the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**
- The **Applicant** will pay the **Engineering Costs** to **KOSTT**

2) If **KOSTT** is the **Connection Responsible Party** then:

- **KOSTT** prepares Terms of References and Technical Specification for the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets;**
- **KOSTT** prepares tender dossier and announces tender;

- **KOSTT** and **Applicant** select the tender winner;
- The **Applicant** pays the cost of the contract for the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**, **KOSST** takes responsibility for reviewing and approving of the basic and detailed designs for the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**
- **KOSTT** takes responsibility for issuing necessary permits for construction of the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets** regarding enforcement of Kosovo Laws. **KOSTT** will not take responsibility for possible delays caused by the process of expropriation and obtaining relevant permits from government authorities. The **Applicant** assumes responsibility to carry out compensation payments for the expropriation/servitude of immovable property where the **New Transmission Assets** are to be constructed.
- **KOSTT** takes responsibility for supply construction and installation, testing, commissioning and release operation of the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets;**
- The **Applicant** will pay the **Engineering Costs** to **KOSTT**

4.10 Connection responsibilities between KOSTT and DSO

- KOSTT prepares Terms of References and Technical Specification for the New Transmission Assets
- KOSTT prepare terms of reference and technical specifications for transformative fields 35, 10 (20) kV and self spending fields 35, 10 (20) kV and delivers to DSO for tender;
- KOSTT prepare the tender dossier, announces tender and select the winner of the tender for the New Transmission Assets except transformative fields 35, 10 (20) kV and self spending fields 35, 10 (20) kV;
- DSO prepare terms of reference and technical specifications for New Distribution Assets and submit to KOSTT for reviewing;
- DSO prepare the tender dossier, announce the tender and select winner of the tender for the New Distribution Assets including transformative fields 35, 10 (20) kV and self spending fields 35, 10 (20) kV;
- New Transmission Assets and New Distribution Assets that will be installed inside the substation must meet IEC, IEEE, ISO standards and should be from international renown producers;
- KOSTT will pay the cost of tendering and contract costs for New Transmission Assets. Payment for transformative fields 35, 10 (20) kV and self spending fields 35, 10 (20) kV will be from KOSTT to DSO according to KOSTT's internal policies;
- DSO will pay tender cost and the cost of the contract for New Distribution Assets including costs for transformative fields 35, 10 (20) kV and self spending fields 35, 10 (20) kV;
- Transfer of transformative fields 35, 10 (20) kV and self spending fields 35, 10 (20) kV from **DSO** to **KOSTT** will take place immediately after putting substation into operation;

- Supply Dynamic Plan, installation, commissioning and putting into operation of New Distribution Assets must be harmonized with supply dynamic master plan, installation, commissioning and operation plan of the New Transmission Assets
- KOSTT takes responsibility for reviewing and approving of the basic and detailed designs for the New Transmission Assets
- KOSTT takes responsibility for issuing necessary permits of the New Transmission Assets regarding enforcement of Kosovo Laws;
- DSO takes responsibility for reviewing and approving of the basic and detailed designs for New Distribution Assets, DSO takes responsibility for issuing necessary permits of the New Distribution Assets regarding enforcement of Kosovo Laws
- KOSTT takes responsibility for the supply, construction, installation, testing, commissioning and putting into operation of the **New Transmission Assets**. . For transformative fields 35, 10 (20) kV and self spending fields 35, 10 (20) kV, **KOSST** will participate in the commissioning and release into operation. **DSO** takes responsibility for the supply, construction, installation, testing, commissioning and release into operation of the **New Distribution Assets** including transformative fields 35, 10 (20) kV and self spending fields 35, 10 (20) kV.

It is possible to have more than one **Connection Responsible Party.** In such cases an alternative solution will be applied, based on these Methodology principles.

When the **DSO** receives a request from an applicant for connection to the distribution network at 35, 10 (20) kV that are releted with transmission assets, then the **DSO** is obliged that this application firstly to examine with **KOSTT** in order to see the impact of that application in the safety and reliability of the transmission system.

If estimated that it has negative impact on safety and reliability of the transmission system, then KOSTT will require to Applicant to do reinforcement of the transmission network and as a result for the Applicant will apply deep connection charge in accordance with this methodology

4.11 Hand - Over of New Transmission Assets and Infrastructure Reinforcement Assets

With completion of construction **KOSTT** and **Applicant** will make hand-over of the relevant assets within the border **KOSTT** - **Applicant**. Guarantee period of the assets submitted by the Applicant to **KOSTT** will be the responsibility of **Applicant.**

5 INDICATIVE CHARGES

This section sets out indicative costs that covers **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**. Indicative costs for **New Transmission Assets** and **Infrastructure Reinforcement Assets** are detailed in Annex 4 of this document

Defining of the indicative costs for **Infrastructure Reinforcement Assets** it is not necessary to be done since these vary significantly with load size, location and year of connection.

5.1 Basis of costing

The initial estimate of connection costs will be based on **KOSTT**'s current purchase knowledge of **New Transmission Assets and Infrastructure Reinforcement Assets** and build costs as applicable in Kosovo. After evaluating the approximate cost of connection, it is the responsibility of the Applicant if he wants to continue or not with connection process

KOSTT for Applicant will issue a Connection Offer within which will be included costs for connection to any type of asset (**New Transmission Assets and Infrastructure Reinforcement assets** (if necessary))

Subject to negotiation, the offer may include terms for the payment of interest for failure of either party to complete its part of any necessary works or to provide any necessary consents and which leads to delays and costs for the other party.

6 CONNECTION PROCESS

6.1 Preliminary Discussions and Design Studies

Applicants are invited to have initial discussions with **KOSTT** regarding potential connections. As part of these discussions **KOSTT** will provide indicative cost estimates for potential connection. These preliminary discussions will not in themselves form a **Connection Application**, but they will be under full confidentiality. Such preliminary Discussions will be free of charge.

KOSTT will normally perform the necessary **Design Studies**. This will allow **Applicants** to understand the cost of the proposed connection after a **Connection Application** is made. The **Design Study** will be undertaken on a time-and-materials basis. **KOSTT** staff time will be charged at the standard rate shown in Appendix 3 and will be paid as part of the **Application Fee**. Where **KOSTT** believes it necessary to involve external consultants, this will be agreed with the **Applicant** who will pay the external consultancy costs.

6.2 Application fee

Application Fee is assigned before the application and its cost is based on the number of days worked and the **Standard Rate**. Typical examples are detailed in Appendix 3 of this document.

If during the initial consultation between **KOSTT** and Applicant, the application is considered to be complex then will be applied the tendering process for preparing of **Feasibility Study** in conformity with applicable laws of Kosovo. **Feasibility Study** and all other administrative costs will be paid by the **Applicant**. Selection of bidders will be from **Applicant** in cooperation with **KOSTT.**

6.3 Connection Application

All **Connection Applications** shall be treated on a first come first served basis. **Applicant** should submit **Connection Application** to **KOSTT** for connection of load or generation to the Transmission System or to increase the size of an existing connection.

This is done by completing and submitting a **Connection Application Form** together with the payment of the **Application Fee**.

Application by the **Applicant** will trigger the connection timetable requiring **KOSTT** to respond conform **Connection Application** which will be as follows:

- KOSTT within 30 calendar days from the date of received of the **Connection Application** submitted by the **Applicant**, gives the Applicants an answer for this application

- Connection offers will normally be issued and delivered to the **Applicant** within 90 calendar days from the date of delivery of the application for connection. The offer will contain the date by which the connection works will be completed. The **Applicant** shall, within 30 days, replay to **KOSTT** for the acceptance or refusal of the **Connection Offer**, otherwise the connection application process shall be repeated from the beginning

- The 90 calendar days period for the submission of connection offers may be extended in the event of a difficult connection, requiring a prior technical, economical and financial study of a network extension or any similar reason according to the provisions of the Grid Code or Distribution Code or other applicable codes. **KOSTT** within 30 calendar days from the finalization of the **Feasibility Study, Connection Offer** will be delivered to **Applicant** .

- In the event of a dispute over the terms of a connection offer, the **Applicant** may conduct their own technical study at their own cost. **KOSTT** will facilitate any such study through the provision of the necessary information.

The above are maximum time limits and **KOSTT** will respond as promptly as possible to the **Applicant**.

Where the **Applicant** wishes to implement the connection as a set of stages over time then the **Applicant** may just decide to implement the first stage with a **Connection Application**. This is not recommended as it would undoubtedly be suboptimal. It is better to either:

- Formally apply for the first stage and with information on all stages including the expected timetable. This approach is appropriate where the further stages are dependent upon demand growth; or

- Formally apply for the all stages with the preferred timetable for the commissioning of each stage. This approach is appropriate for a power station where the individual generators will be commissioned on a staged planned basis over time.

If the **Connection Offer** is accepted and the Connection Agreement is signed, the **Connection Charge** must be paid by **Applicant** excluding the **Application Fee,** which is paid in advance.

6.4 Connection Charge

The connection charge will consist several separate items (depending on application of deep or shallow connection charge):

1. **Application Fee**
   - **Design study**, evaluation of **Initial Cost** and drafting of the Connection Agreement;

2. **Engineering Cost**
   - is the cost paid by the **Applicant** to **KOSTT**, depending on its responsibilities for the tendering and construction process in relation to the **New transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**

3. Costs of **New Transmission Assets**
   - Costs of purchasing and building the required **New Transmission Assets**

4. Costs of **Infrastructure Reinforcement**
   - Costs of purchasing and building the required **Infrastructure Reinforcement Assets**;

5. **Compensation and depreciation costs**
   - Costs associated with depreciation and land access and for any eventual damage during project implementation

6. **Maintenance costs**
   - Costs associated with the maintenance of the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**

The **Application Fee** (component 1) is to be paid with the **Connection Application**. Payment of the **Engineering Cost**, and the costs of the Assets (Components 2, 3, 4 and 5) are to be paid as specified in the **Connection Agreement**, and is a prerequisite to the commencement of work. The **Applicant** can decide that the implementation of the components 3, 4 and 5 to be done by KOSTT or to execute itself. In this case applied quality standards are the same and defined in Section 4.8 of this document. The Maintenance charge (Component 6) is to be paid at 12 monthly intervals or once a year.

Regarding to the **Engineering Cost**, **KOSTT** may require payment of a deposit, not exceeding 10.000€, to be refunded when the **Applicant** pays the costs of the **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets**.

KOSTT has the right to ask for a termination fee but will normally waive this right until termination of connection actually occurs.

6.5 Service Fee

Service Fee includes the costs of **KOSTT**'s staff engagement, according to the bilateral agreement between **KOSTT** and the Applicant, for services related to the process of obtaining the relevant permits,

for the procedures for the expropriation/servitude of immovable property, required for the construction of new transmission assets.

Service Fee shall be based on the number of working days and the number of staff engaged by **KOSTT.** The calculation is presented in more details in Annex 4 of this document.

KOSTT shall publish on its web site the current Service Fee structure.

6.6 Connection Offer

KOSTT will provide a **Connection Offer** to the **Applicant** within the **Offer Time Limit.** This **Connection Offer** will remain valid for 30 days from the day of delivered to the Applicant.

The **Connection Offer** will contain:

- The work required to connect an **Applicant** to the existing transmission network and getting the required consent for this purpose; named as "shallow connection" as defined in this document
- Works required to connect a system user to existing transmission network and for the obtaining of any consents necessary for such purpose in case where it is required for the extension or reinforcement of the transmission network to accommodate the expected demand or capacity requirements of the applicant; named as the “deep connection” as is defined in this document
- **Standard Rate** of connection determined in accordance with this document for applicants to be supplied by a specified voltage level and falling within the limits of the load and the maximum distance assigned by the existing transmission network;
- Data on the installation of metering systems - suitable meters that enable the measurement of electricity by the system operator at the inbound or outbound points
- Data for installation of such switchgears or other equipment as may be required
- Data for installation, where required, of interval meters with telemetry or data processing equipment for the purpose of enabling applicants who are required to do so to comply with the Market Rules
- Results of the **design study**,
- **Connection Capacity,**
- **Connection Date**,
- **Connection Responsible Party**,

- **Connection Fee** that has to be paid.

Where the **Connection Application** is staged over time the **Connection Offer** will take this into account.

6.7 Connection Agreement

This agreement includes the:

- **Connection Application**
- **Connection Offer**
- **Acceptance Connection Offer letter**
- **Design Study**
- **Connection Responsible Party**
- **Connection Capacity**;
- **Connection Date**;
- Connection process including timetable;
- **Connection Fee** and payment conditions (if its necessary);
- Ongoing operation of the connection; and.
- Use of system conditions;
- Solution of disputes and terms of termination of the agreement;

- Standards and minimum safety requirements, requirements regarding the sealing of the measuring devices and the sealing of the site where the circuit breakers are placed, measuring devices, transformers and measuring circuits;

- Obligation to the Applicant to bring electricity purchase agreement, before testing and energizing of the connection point in the transmission network, and

- Any other relevant document that fulfills the **Connection Agreement**

Draft Connection Agreement (in electronic format) will be attached to the **Connection Offer. Connection Agriment** must be signed within 30 days after writing answer of the acceptance of the **Connection Offer** from the **Applicant**.

6.7.1 Validity Duration of the Connection Agreements

6.7.1.1 The Connection Agreement will be issued for two (2) years or until the extension of the construction authorization by ERO. If within this period, the Applicant does not start the project implementation (construction) process, then the Connection Agreement signed by KOSTT and the Applicant will be considered not valid and the process will return to the initial stage which means that the Applicant must re-apply for connection. The applicant before the expiration and within the validity period of the CA has the right to request an extension for six (6) months of the validity of the Connection Agreement explaining in writing the reason of the request for extension of CA. If the Applicant within the additional time fails to start the project, or does not have a construction authorization issued by ERO the process returns to the initial stage and the Applicant must re-apply for connection.

6.7.1.2 Applicants who have a Transmission Network Connection Agreement issued before the entry into force of the amendment of this Methodology, will be treated according to the Transmission Network Connection Charging Methodology (Version 2.9) approved by the ERO Board, with Decision V_1015_2018 dated 12.07.2018, and will remain in force unchanged.

7 IMPLEMENTATION ISSUES

7.1 Equal Treatment

In accordance with **TSO** Licence all **Applicants** will be treated on the non-discriminatory basis. This methodology differentiates between the charges applied for Generators and Load, as these are considred as a different class of **Applicant**, whereas the same class of **Applicant** will have equal treatment pursuant to the provisions of this methodology and other relevant legal document.

7.2 Confidentiality

All discussions between an **Applicant** and **KOSTT** will be fully confidential. **KOSTT** will not discuss matters with third parties unless given written permission by the **Applicant**. This ncludes other **Applicants** whose applications are submitted close in time and position on the network.

ERO may be involved at any point in time during the connection process, from the application until commissioning of the connection.

7.3 Refusal to connect

KOSTT will only refuse a connection if there are technical reasons to do so as described in the Grid Code - Connection Code and other technical codes. Given that the **Applicant** is required to pay upfront, there should not be any financial reasons for refusal.

7.4 Connection Failure

Any party (including Distribution Operator) wishing a **new connection** to the Transmission System is required to pay the **connection charge** up front. Hence there is no direct risk on **KOSTT** if the project does not complete and the connection is unutilized. If the project is cancelled part way through the construction process some costs can be saved by stopping further work. In addition if assets that were purchased can be reused there will be a rebate when they are reused.

7.5 Connection Upgrades (increasing capacity)

Reinforcements or capacity increases of a connection point or application that is in the review process will be treated as follow:

- When the load is **3%** greater than **Existing Effectiv Capacity**, KOSTT will ask to user to expand the capacity of the connection point, through the appropriate application.

- In cases where an Applicant immediately after has done Connection Application and up to the project implementation phase requires to change capacity of the connection point more than 3% of the capacity submitted in the current Application (which is under analysis process), then the process will be terminated and the process starts from the beginning, which means that the Applicant will proceed with a new Connection Application

- Every application for an upgrade of the capacity at the connection point that is greater than 3% will be considered as new connection and the relevant procedures for new connections for the difference will be applied.

- In cases where the **Applicant** in the **Connection Application** requires that capacity of electric lines or any other electrical equipment to be greater than the total capacity of the generating units or base load, then the **Application Fee** will be designed based on the capacity of the electric lines or other electrical equipment

System driven upgrades will trigger new charges. If a generator is connected near the site of an upgrade and the fault levels are increased so that the existing circuit breakers are no longer safe the new **User** will upgrade its own circuit breakers and pay for the upgrade of the **New Transmission Assets.**

7.6 Donor Paid Assets

Where **New Transmission Assets,** are paid for by a donor these will be treated as part of **KOSTT**'s main transmission system.

This means that **KOSTT** will recover costs associated with these through TUoS Charges.

7.7 Rebates

If a **Applicant w**ithin a period of 15 years (from the date of asset entry into operation) wishes to connect to existing transmission assets or utilize the **Infrastructure Reinforcement Assets** initially financed from existing **User**, than existing **User** will have a right to a rebate from the **Applicant**.

This rebate should be proportional with the part of ekzisting connection assets that intended to be exploited by the **Applicant**.. During calculation of the compensation, **KOSTT** will consider those conditions:

- Original cost of the existing assets
- Depreciation of the existing assets
- Annual asset cost indexation by consumer index price
- Proporcional share according maximal capacity of **Applicant** in MW

Compensation process from **Applicant** to existing **User** will be realized through **KOSTT**

7.8 Termination (end) of Connection

Where a **Applicant** wishes to terminate the Connection Agreement they must give **KOSTT** one year notice.

KOSTT has the right to charge for engineering work to make the equipment site safe and secure

7.9 De-energisation and Decommissioning of connection

De-energisation of the connection including isolating and locking out does not count as termination of the Connection Agreement.

Where a **User** is de-energised for failure to pay or technical non-compliance with the Grid Code the Connection agreement remains in place and TUuS charges including Maintenance charge are still in force.

A **User** may request to be de-energised for a period of time after connection date. This request will be complied, but but the **User** will still be liable for any outstanding TUoS charges and for maintenance charges until ERO decides that this charge to be paid through TUoS charges. De-energisation of the connection will be without any cost to **User** for this service.

The responsibility for decommissioning of the **New Transmission Assets** will be determined by agreement between the parties. With request by the **User**, **KOSTT** may be responsible for decommissioning these Assets. However, the User will be responsible party for all costs arising from the decommissioning process of these assets. If **KOSTT** will be the responsible party for decommissioning, then the process will go through an open and transparent tender (with the participation of the **User**) where all public procurement rules will be applied.

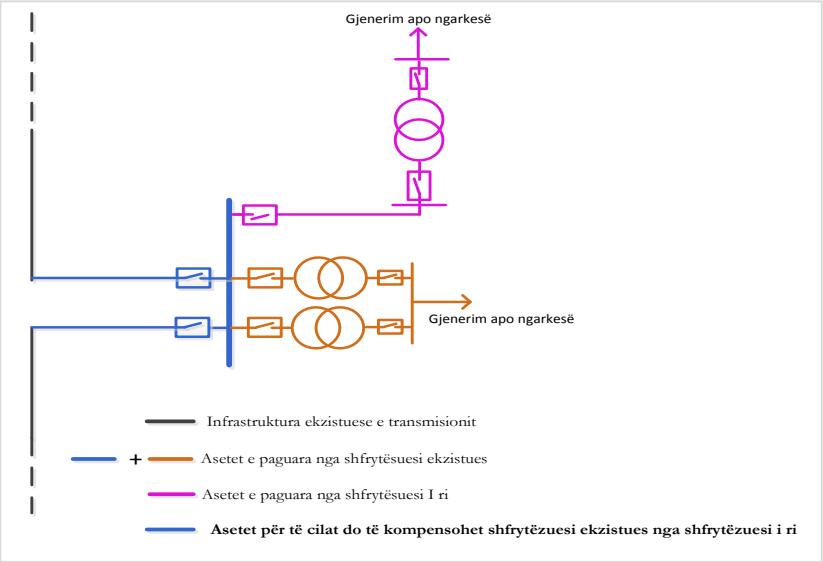
Decommissioning of **New Transmission Assets** can not be done until the **Connection Agreement** is into force.

7.10 Appeals

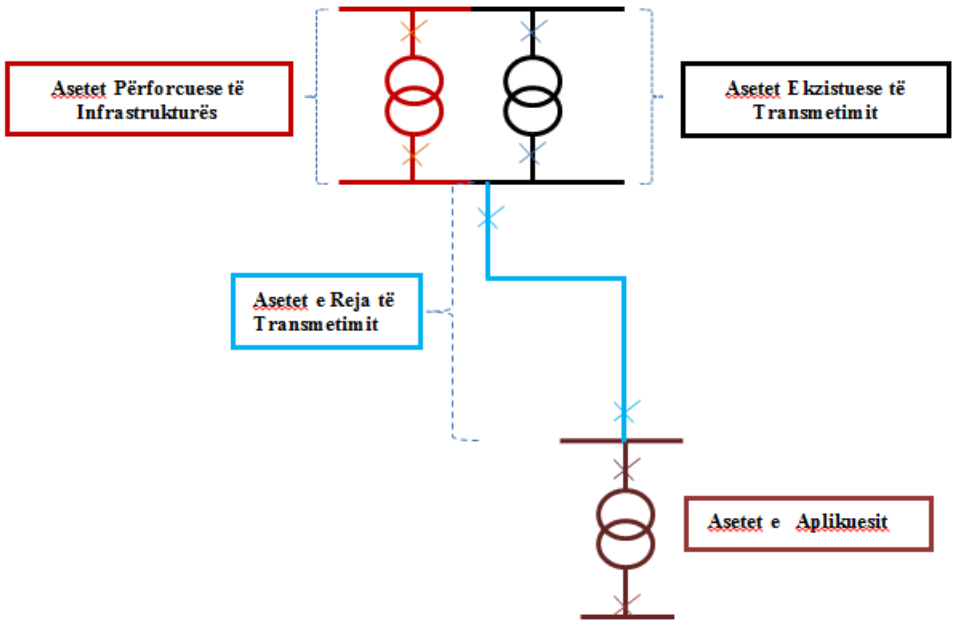
Applicant has the right to appeal the **Connection Offer** to **ERO** under the “Rule on Dispute Settlement Procedure in the Energy Sector”.

APPENDIX 1:

a) Example of rebate



b) Example of Deep Connection



APPENDIX 2: CONNECTION APPLICATION FORM

CONNECTION APPLICATION FORM – LOAD "L"

When completed send this application form to:
Contact Person[1]
KOSTT
St. Isa Boletini no.: 39
10000 Prishtina
Republic of Kosovo

Applicant	
Contact person	
Applicant's contact details	
Proposed substation location *Attach site map*	
Requested completion	
Proposed number of transformers *Attach sketch of proposed substation layout*	
Maximum load to be supplied (MW) within 10 years from the time of connection	
Maximum leading power factor and maximum lagging power factor	
Connection Responsible Party	
Please supply relevant technical information as required under the Grid Code	
Please supply any other relevant	

[1] If you have questions about your Connection Application please contact 2nd Contact Person

information that will assist the design study	
Attached Application Fee payment	

I the undersigned hereby affirm that all the information supplied above is accurate to the best of my knowledge. I shall advise **KOSTT** of any significant changes to this data as soon as I am aware of it.

Applicant:

Name and Position: _____
Signature: _____
Date: _____

CONNECTION APPLICATION FORM – GENERATION "G"

When completed send this application form to:
Contact Person[2]
KOSTT
St. Isa Boletini no.: 39
10000 Prishtina
Republic of Kosovo

Applicant	
Contact person	
Applicant's contact details	
Proposed substation location *Attach site map*	
Requested completion date	
Is the connection requirement staged *Attach timetable details*	
Fuel Type	
If Hydro attach full hydrological details If Wind attach metrological information If photovoltaic system attach metrological information	
Proposed number of generators and sizes (MW) *Attach sketch of proposed substation layout*	
Maximum generation (MW)	
Minimum Stable Generation (MW)	
Maximum leading MVArs and maximum lagging MVArs	
Connection Responsible Party	

[2] If you have questions about your Connection Application please contact 2nd Contact Person

Please supply relevant technical information as required under the Grid Code	
Please supply any other relevant information that will assist the design study	
Attached Application Fee payment	

I the undersigned hereby affirm that all the information supplied above is accurate to the best of my knowledge. I shall advise **KOSTT** of any significant changes to this data as soon as I am aware of it.

Applicant:

Name and Position: _____
Signature: _____
Date: _____

APPENDIX 3: APPLICATION FEE, STANDARD RATE AND ENGINEERING COST

The table below shows typical examples of the number of days required to process an Application to connect to the Transmission System.

No.	Type	Power in MW	Number of days
1.	Load	≤ 20	8
		> 20 and ≤ 100	12 or (*)
		> 100	(*)
2.	Generation	≤ 20	12
		> 20 and ≤ 100	20 or (*)
		> 100	(*)

* presents the necessary feasibility study, which includes the cost of the contracted price + administrative fee

The estimated number of days is approximate and is dependent on location and difficulty of connection. The actual number of days worked will be charged at the **Standard Rate** inclusive of site visit.

Standard Rate is the rate that will be made on daily basis at 70 € per day

Application Fee will be calculated as below:

Application Fee = **Standard Rate** x numbers of working days.

Engineering Cost will be calculated as below:

- 1.5 % of the costs of **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets** when the **Applicant** is the **Connection Responsible Party**
- 5% of the cost of **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets** when **KOSTT** is the **Connection Responsible Party**

Example:

Connection Application for to the Transmission Network.
Type of connection is Load with a capacity of 80 MW and the final cost for implementation of **New Transmission Assets** and as needed also for **Infrastructure Reinforcement Assets** will be 2 million € then:

Standard Rate = 70 €

Application Fee = 70 € x 12 working days = 840 €

If the **Applicant** is connection **Responsible Party**:

Engineering Cost = 2 000 000 € x 0.015 = 30 000 €

If **KOSTT** is connection **Responsible Party**:

Engineering Cost = 2 000 000 € x 0.05 = 100 000 €

APPENDIX 4: Service Fee

Service Fee = **Standard Fee** x number of days x number of engaged staf

a) Example of Service Fee calculation

If we consider that the 110kV Voltage Grid, which is an integral part of the New Transmission Assets, is 10 km long and the process of obtaining the relevant permits, expropriation/servitude, etc. for this asset has taken 80 working days, then the Service Fee is calculated as follows:

Service Fee = 70 € x 80 days x 4 engaged staf = 22400€

Service Fee shall be paid according to the process based on the provisions set forth in the Bilateral Agreement for Services

APPENDIX 5: Indicative costs for new transmission assets and potential infrastructure reinforcement assets

Estimated cost for New Transmission Assets		
Object	**Unit**	**Unit price € (without VAT)**
ATR 300 MVA, 400/115 kV	pcs	3,200,000.00
ATR 150 MVA, 220/115 kV	pcs	1,500,000.00
ATR 31.5 - 40MVA	pcs	500.000 deri 700 000
OHL 400kV – single, 490/65 mm2, ACSR	km	350,000.00
OHL 400 kV - doulbe, 490/65 mm^2, ACSR	km	520,000.00
OHL 220 kV - single, 360/57 mm^2, ACSR	km	170,000.00
OHL 220 kV – double, 360/57 mm^2, ACSR	km	250,000.00
OHL 110 kV - single, 240/40 mm^2, ACSR(with OPGW)	km	120,000.00
OHL 110 kV - double, 240/40 mm^2, ACSR(with OPGW)	km	160,000.00
OHL 110kV - underground single - cable (three phase)	km	370,450.00
OHL 110kV - underground double - cable (three phase)	km	420,000.00
Field of OHL 110 kV complete with equipment (Circuit breaker, shunt relay protectors, insulators, over voltage discharger, earthing)		400,000.00
Transformer field 110 kV (Circuit breaker, shunt protectors, insulators, over voltage discharger, earthing)		400,000.00
Transformer field 35kV		76,605.70
Metering Systems		110,000.00
Telecomunication system		100,000.00
SCADA system		250,000.00

(End of the Document)