

ELERING AS METHODOLOGY FOR CALCULATING CONNECTION CHARGE AND CHARGE FOR AMENDMENT OF CONSUMPTION OR PRODUCTION CONDITIONS

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Pursuant to Section 73(1) of the Electricity Market Act (hereinafter: EMA), the network operator shall coordinate with the Competition Authority the methodology for calculating the connection charge and the charge for amendments in connection conditions referred to in § 71(1)(1) and (2) of the EMA (hereinafter: the Methodology). Section 72 of the EMA sets out the key principles that must be taken into account in the Methodology when connecting to the existing transmission network. Pursuant to Section 74(7) of the EMA, the transmission system operator shall publish on its website the connection charges established by the operator based on the Methodology.

In this Methodology, the terms are used with the meanings set out in the Electricity Market Act (EMA), the regulations established under the EMA, and in the document “Elering AS Standard Terms and Conditions for Connection to the Electricity Transmission System” (hereinafter: Connection Terms), unless the methodology provides otherwise.

1. Principles for the Formation and Application of the Connection Charge

- 1.1 For connection to the transmission network in the consumption or production direction, the connection charge or the charge for amendment of consumption or production conditions (hereinafter: Connection Charge) consists of:
 - 1.1.1 In the existing transmission network, the following components:
 - 1.1.1.1 the cost of increasing the transmission capacity of the network for the capacity to be connected to the transmission network, which the transmission system operator determines as a fixed amount in euros per megavolt-ampere. The fee is determined in accordance with the principles set out in Section 1.2.1 of this Methodology, and the unit prices are published in the transmission system operator’s price list (hereinafter: Network Hardening Fee). The network hardening fee does not apply to consumption-direction connection capacity, except for the contractual capacity of an existing network connection that has been reduced within the last twelve (12) months;

- 1.1.1.2 When establishing a new network connection or modifying the consumption and/or production conditions at an existing consumption site, the costs of designing and constructing the substation associated with the consumption site. These costs must be related to the amendment of consumption and/or production conditions at the existing connection point(s), or to the construction of new network connection(s) and connection point(s) in an existing or new substation, including the associated substation design and construction costs. These costs are determined as fixed amounts in euros in the transmission system operator's price list. Fees based on fixed cost components are calculated on the basis of the average costs of substation works in accordance with the principles set out in Section 1.2.2 of this Methodology and are published in the transmission system operator's price list (hereinafter: connection creation fee);
- 1.1.1.3 In an existing or new consumption site, the costs related to shortening the outage restoration time caused by a fault through the reconstruction of existing electrical installations and/or the construction of a new transmission line and its connection to the electrical network (hereinafter: **security of supply enhancement fee**), which consists of:
- 1.1.1.3.1 The cost of constructing a new transmission line, which includes the actual costs associated with the construction of the new power line (hereinafter: **line cost**);
- 1.1.1.3.2 The costs of network connection, which consist of the costs of new line sections required for connecting the new power line and the reconstruction works of the existing substation, calculated in accordance with the transmission system operator's connection creation fee prices;
- 1.1.1.4 Costs of carrying out works for the construction and renovation of network elements necessary for the execution of the connection agreement, the amount of which is determined in accordance with this methodology and published in the transmission system operator's price list (hereinafter: project management fee);
- 1.1.1.5 Costs related to the issuance of a connection offer prepared based on the connection application and the organization of its signing, the amount of which is determined in accordance with this methodology and published in the transmission system operator's price list (hereinafter: **processing fee**);
- 1.1.1.6 Costs related to the organization of activities pursuant to the concluded connection agreement, the amount of which is determined in accordance with this methodology and published in the transmission system operator's price list (hereinafter: **transaction fee**).
- 1.1.2 Outside the existing transmission network, of the following components:
- 1.1.2.1 the connection charge components listed in sections 1.1.1.1 through 1.1.1.6;
- 1.1.2.2 line costs;
- 1.1.2.3 the costs of line bays required for connecting a new transmission line and the associated new substation, according to the price list.
- 1.1.3 The costs of the connection charge components referred to in sections 1.1.1 and 1.1.2, excluding the line costs listed in sections 1.1.1.3.1 and 1.1.2.2, are fixed in the transmission system operator's price list. The fixed cost components in the price list are differentiated according to voltage level, connection capacity, and the type of electrical installation being constructed and connected to the network.

- 1.2 Principles for calculating the cost of connection charge components
 - 1.2.1 When determining the network hardening fee, the following shall be taken into account:
 - 1.2.1.1 The basis for determining the fee is the principles set out in Chapter 6 of the Electricity Market Act (EMA);
 - 1.2.1.2 The unit price of the network hardening fee is determined per 1 MVA in accordance with point 1.1.1.1 of this Methodology;
 - 1.2.1.3 In calculating the network hardening fee, the connection capacity requested by the client is multiplied by the unit price applicable to the corresponding voltage level as published in the price list;
 - 1.2.1.4 The estimated cost of network investments planned according to the transmission system operator's network development plan and the volume of new generation-oriented connections, which form the basis for calculating the unit price, are based on the network development plan published on 28 April 2025, "Estonia Transmission Network Development Plan 2025-2034";
 - 1.2.1.5 The projected additional generation capacity is 2055 MW, as specified in Chapter 9 of the document "Estonia Transmission Network Development Plan 2025-2034".
 - 1.2.1.6 The estimated cost of planned network investments per 1 MVA is calculated as the ratio of the average estimated network hardening cost of the scenarios to the estimated volume of new generation-oriented connections;
 - 1.2.1.7 The unit price of the network hardening fee is calculated as 50% of the forecasted cost of planned network investments per 1 MVA referred to in section 1.2.1.6;
 - 1.2.1.8 Based on the Methodology, the estimated costs of planned network investments per 1 MVA are determined separately for voltage levels below 110 kV, and for 110 kV and 330 kV;
 - 1.2.1.9 For networks with voltage levels below 110 kV and 110 kV, when calculating the estimated cost of planned network investments, the average network hardening cost is based on the optimized sub-scenarios 1.0; 1.1; 1.2; and 1.3 of the first scenario of the 110 kV network in Chapters 9.3 and 9.4 of the "Estonia Transmission Network Development Plan 2025-2034".
 - 1.2.1.10 For the 330 kV network, when calculating the estimated cost of planned network investments, the average network hardening cost is based on the optimized scenarios 3.0; 3.1; 3.2; and 3.3 of the 330 kV network in Chapter 9.4 of the "Estonia Transmission Network Development Plan 2025-2034".
 - 1.2.2 When determining the connection creation fee, the following is taken into account:
 - 1.2.2.1 The basis for the fee specified in the price list is the averaged unit prices of winning bids in tenders organized by the transmission system operator over the last three (3) years for the construction of new 110 kV and 330 kV high-voltage substations and the expansion of existing substations. The price list for the connection creation fee includes fees both for establishing connection point(s) in existing 330 kV and 110 kV high-voltage substations and for constructing a new 330 kV or 110 kV high-voltage substation for the purpose of the connection point(s). The amount of the connection charge depends on the number of connection points, voltage class, configuration of the electrical network, and the restoration time for outages caused by faults at the consumption site.
 - 1.2.2.2 The connection creation fee includes necessary and justified costs, including, but not limited to, costs related to the construction of new electrical installations and the reconstruction of existing electrical installations, as well as any other costs associated with the connection, including:
 - 1.2.2.2.1 costs related to surveys and approvals (including the preparation and approval of plans);

- 1.2.2.2.2 costs of the technical solution for the connection, including preparation of documentation;
- 1.2.2.2.3 costs associated with acquiring the substation site, including compensation for unavoidable damage to landowners during construction, costs of formalizing land use rights (notary fees, state fees, land purchase price, etc.), costs of tree removal and transportation in preparation of the site, etc.;
- 1.2.2.2.4 costs of electrical equipment and materials, as well as costs of design, construction, installation, and configuration;
- 1.2.2.2.5 costs of project documentation (tender documentation, execution drawings, as-built documents, etc.);
- 1.2.2.2.6 costs of buildings, structures, and access roads required for the operation, maintenance, and servicing of electrical installations;
- 1.2.2.2.7 costs resulting from outages of existing clients' connections due to reconstruction works related to the connection;
- 1.2.2.2.8 costs calculated pursuant to the regulation established under EMA Section 65(5), if such costs arise from outages of existing clients' connections caused by connection-related reconstruction;
- 1.2.2.2.9 costs of dismantling, transporting, and disposing of electrical installations to be removed from service;
- 1.2.2.2.10 Additional costs arising from changes in the technical solution or schedule of construction due to the client's actions or inactions;
- 1.2.2.2.11 other justified and direct costs specifically related to the connection (including soil surveys, soil restoration, commissioning expert opinions and assessment reports, construction of access roads, owner supervision, compliance control-related costs, etc.);
- 1.2.3 As part of the line cost, the connection applicant shall pay all justified and necessary actual costs of constructing, reconstructing, and performing associated works on the new transmission line (including installation of line optics and substation upgrades) (cost-based connection charge component), as well as any other costs related to line construction, including:
 - 1.2.3.1.1 costs related to surveys and approvals (including the preparation and approval of plans);
 - 1.2.3.1.2 costs of technical solution documentation, including preparation of the line pre-design;
 - 1.2.3.1.3 costs associated with acquiring the transmission line route, including compensation for unavoidable damage to landowners during construction, costs of formalizing land use rights (notary fees, state fees, land purchase price, etc.), costs of tree removal and transportation in preparation of the route, etc.;
 - 1.2.3.1.4 costs of electrical equipment and materials, as well as costs of design, construction, assembly, and configuration;
 - 1.2.3.1.5 costs of design documentation (tender documentation, execution drawings, as-built documents, etc.);
 - 1.2.3.1.6 costs of facilities and access routes necessary for the operation, maintenance, and servicing of the electrical installations;
 - 1.2.3.1.7 1.2.3.1.7 Necessary reconstructions of the transmission line in the TSO's electrical installations, including, if required, additional land purchase price for expansion of existing substations and other costs related to land acquisition, as well as potential costs arising from outages of existing clients' connections due to such reconstructions;

- 1.2.3.1.8 costs calculated pursuant to the regulation established under EMA Section 65(5), if such costs arise from outages of existing clients' connections caused by connection-related reconstruction;
 - 1.2.3.1.9 costs of dismantling, transporting, and disposing of electrical installations to be removed from service;
 - 1.2.3.1.10 Additional costs arising from changes in the technical solution or schedule of construction due to the client's actions or inactions;
 - 1.2.3.1.11 other justified and direct costs specifically related to the transmission line construction (including soil surveys, soil restoration, commissioning expert opinions and assessment reports, construction of access roads, owner supervision, compliance control-related costs, etc.).
- 1.2.4 The project management fee consists of the TSO's averaged costs on the cost components specified in Methodology sections 1.2.1, 1.2.2, and 1.2.3, which are necessary for organizing the activities required to execute the connection contract. The project management fee is expressed as a percentage and is added to the costs specified in Methodology sections 1.2.1, 1.2.2, and 1.2.3;
- 1.2.5 The processing fee includes the TSO's expenses, calculated based on actual averaged costs, for receiving, reviewing, verifying, and clarifying the connection applicant's request, consulting the applicant within the connection procedure, performing the calculations necessary for issuing the connection offer, and preparing the diagrams, connection charge calculation, and the connection contract.
- 1.2.6 The transaction fee includes the TSO's expenses, calculated based on actual averaged costs, for organizing the fulfillment of the TSO's obligations related to the connection applicant as set out in the connection contract. This includes, among others, updating the connection contract, reviewing the applicant's technical project, connecting the applicant's electrical installation to the network, and organizing energization operations, synchronisation of the generation module connected to the TSO's network, as well as compliance assessment activities in accordance with European Commission Regulation 2016/631 (RfG), the Electricity Market Act (ELTS), applicable regulations, and the connection conditions. This includes, in particular, carrying out a network fault-ride-through (FRT) test. The FRT test is conducted by an independent party, and accordingly, the operational fee includes third-party costs for organizing the test, measuring results, evaluating them, and performing other necessary activities. In case of failure of the FRT test caused by the applicant, the TSO shall charge an additional fee for each subsequent test according to the TSO's price list.
- 1.3 The connection charge shall be paid as follows:
- 1.3.1 The connection charge shall be paid to the TSO in accordance with the "Grid Code on the Functioning of the Electricity System," the Connection Terms, and the payment schedule agreed in the connection contract.
 - 1.3.2 The processing fee shall be paid upon submission of the connection application, and its amount depends on the type of application submitted. The transmission system operator distinguishes between two types of applications:
 - 1.3.2.1 connection of a consumer or a distribution system operator at a new connection point or the amendment of consumption and/or generation conditions at an existing connection point of a

- distribution system operator or the amendment of consumption conditions at an existing connection point of a consumer;
- 1.3.2.2 connection of generating units or mixed installations (within the meaning of the Connection Terms) to the Transmission System or amendment of generation and/or consumption conditions thereof.
 - 1.3.3 The transaction fee is paid in accordance with the procedure set out in the Connection Terms and in the amount specified in the price list. The amount of the transaction fee is differentiated into two types based on the volume of operations related to the establishment of the connection:
 - 1.3.3.1 connection of a consumer or a distribution system operator at a new connection point or the amendment of consumption and/or generation conditions at an existing connection point of a distribution system operator or the amendment of consumption conditions at an existing connection point of a consumer;
 - 1.3.3.2 connection of generating units or mixed installations to the Transmission System or amendment of generation and/or consumption conditions thereof.

2. Principles for the Transmission System Operator's Development Obligation

- 2.1 The principles set out in this chapter apply to the costs related to the construction of a new substation for which the connection creation fee under the connection contract is paid, which are not related to the construction of electrical network installations required for connecting the client's electrical installation (substation bay price where the connection point is located), the line cost, or the costs of connecting that line to the electrical network.
- 2.2 The connection charge does not include the fee for the construction and/or renovation of network elements necessary for the performance of the connection contract, if these investments are included in the list of specific investments published on the transmission system operator's website. The network connection parameters requested by the connection applicant will be ensured after the realization of such investments.
- 2.3 If the transmission system operator, on its own initiative, constructs electrical installations or equipment in the performance of the connection contract whose capacity or technical parameters exceed the minimum parameters specified in the transmission system operator's guidelines "Technical Principles and Solutions for Transmission System Operator's Electrical Installations" (hereinafter: Guidelines), the resulting cost increase of the electrical installation shall not be included in the connection charge payable by the connection applicant. To determine the amount of the connection charge payable for such an electrical installation, the transmission system operator shall conduct a procurement procedure, during which it shall request a price quotation for a technical solution that takes into account the transmission capacities or technical parameters of both the connecting client and the transmission system operator. The connection charge payable by the client shall include the cost of electrical installations or equipment whose transmission capacity or technical parameters correspond to the minimum parameters applied in the construction of the transmission system operator's grid as set out in the Guidelines.

- 2.4 If, in the performance of the connection contract, electrical installations or equipment with higher capacity or a more complex technical solution are constructed than those specified in the transmission system operator's list of specific investments, and the electrical installations or equipment built under the connection contract allow the transmission system operator to avoid implementing an investment listed in the specific investments list, only the costs resulting from the increased cost of such electrical installations shall be included in the connection charge payable by the connection applicant. In cases where the work falls under the scope of the connection creation fee price list, the cost of the work with the technical solution required to fulfil the connection contract, according to the price list, shall be reduced by the cost of the work with the technical solution corresponding to the specific investments list, and the difference shall be paid by the connection applicant as the connection charge. In situations where the connection charge includes line costs, the transmission system operator shall, to determine the portion of the connection charge payable by the connection applicant for such electrical installations, conduct a tender in which quotations are obtained for both technical solutions corresponding to the different capacities or technical parameters, and the connection applicant shall pay the difference in cost as the connection charge. The cost calculation described in this section is allowed only if:
- 2.4.1 the planned network element of the transmission system operator is included in the list of specific investments published on the transmission system operator's website; and
 - 2.4.2 the transmission system operator has concluded or will conclude a construction contract within five years from the issuance of the connection offer, including the year of issuance; and
 - 2.4.3 due to the modified scope of work, the completion date of the work listed in the transmission system operator's list of specific investments, including the electrical installation or equipment, does not change.

3. Principles of cost sharing for simultaneous connections

- 3.1 The principles set out in this chapter apply to costs related to the construction of a new or expandable substation included in the connection creation fee under the connection contract, excluding costs for electrical network installations necessary to connect the client's electrical installation (such as the cost of the substation bay where the connection point is located), as well as the determination of line construction costs and their connection to the electrical network
- 3.2 If, upon simultaneous connection of two or more connection applicants, the electrical installations to be designed and constructed under the connection applicants' connection contracts include the construction of the same new or extendable substation and/or new transmission line and its connection to the electrical network (hereinafter collectively referred to as simultaneous works), the cost of the joint construction works and related works included in such connection contracts shall be shared among the simultaneous connection applicants in accordance with the procedure and conditions set out in this section.
- 3.2.1 In the case of a new or extendable substation, this refers to the electrical installations to be designed and constructed to ensure the production and/or consumption conditions agreed in

the connection applicant's connection contract, which are included in the connection contracts of other simultaneous connection applicants. The cost of the connection point constructed for the client's connection, according to the transmission system operator's price list, is not included in the composition of the new or extendable substation included in the connection contracts of simultaneously connecting applicants.

- 3.2.2 The costs of a new transmission line shall include the line cost, and the costs necessary for connecting the new electrical line shall include the costs of new line bays and the reconstruction works of the existing substation, in accordance with the transmission system operator's connection charge price list.
- 3.2.3 In determining simultaneous works when preparing a connection contract offer, those connection applications submitted for connection to the transmission network that have been accepted no later than the applicant's own connection application shall be taken into account.
- 3.2.4 Simultaneous connection shall mean a situation where, during the preparation of a connection contract offer, it is identified that the connection of the applicant requires works that are already being completed or planned in the pending connection processes of other connection applicants. For the purposes of this subsection, a connection process shall be deemed to be ongoing until all of the following conditions are fulfilled:
 - 3.2.4.1 the electrical installation that is the subject of the simultaneous works has been completed and energized;
 - 3.2.4.2 in cases where line costs are included in the connection charge, the previous connection applicant has paid the third installment of the connection charge.
- 3.2.5 In the case of simultaneous connection, the simultaneous connection applicants shall each pay 100% of the installment due for the jointly designed and constructed electrical installations. The shared costs of constructing the electrical installations shall be reconciled after the completion of the construction works, and each connection applicant shall be refunded the portion not attributable to them for payment in accordance with the calculation principles set out in section 3.2.6.
- 3.2.6 The distribution of costs for simultaneous works among the simultaneously connection applicant shall be carried out based on the following principles:
 - 3.2.6.1 Depending on the nature of the simultaneous work, simultaneous work is divided into substation and line work;
 - 3.2.6.1.1 Line works include the construction of new transmission lines resulting from the connection and the investments necessary to connect them to the network, as well as the reconstruction of existing transmission lines or measures to enhance supply reliability. Line works shall also include all related activities required for connecting the transmission line to the power system.
 - 3.2.6.1.2 Substation works shall be understood as all works necessary for the connection that involve the expansion or reconstruction of existing substations of the transmission system operator, as well as the construction of new substations.
 - 3.2.6.2 The share of the joint line works to be paid by the simultaneous connection applicants is determined based on the following principles:
 - 3.2.6.2.1 From the total joint costs of line works, each simultaneous connection applicant ($Liituja_x$) shall pay a portion corresponding to the ratio of the maximum absolute value of their production- or consumption-direction capacity ($|P_{max}|$) under their connection contract to the

sum of the maximum absolute values of the production- or consumption-side capacities of all simultaneous connection applicants ($\sum_{i=0}^x |P_{max}|$);

- 3.2.6.2.2 The share of the line works costs payable by each connection applicant shall be calculated using the following formula:

$$Liituja_x \text{ The share of line works costs for: } \frac{|P_{max}|_{Liituja_x}}{|P_{max}|_{Liituja_1} + |P_{max}|_{Liituja_2} + \dots + |P_{max}|_{Liituja_x}} \cdot 100\%.$$

- 3.2.6.3 From the total joint costs of substation works, each simultaneous connection applicant shall pay a portion corresponding to the number of bays required in the substation to fulfill their connection contract (line bays, bays for connecting the client's installation) relative to the total number of bays to be constructed or renovated in that substation to fulfill the connection contracts of all simultaneous connection applicants.
- 3.2.7 TSO shall decide on the composition, scope, and inclusion of joint works in simultaneous works, and such decision shall be binding on the connection applicant. At the request of the connecting client, the transmission system operator shall provide the decision together with written justifications.
- 3.3 The network operator shall verify the scope of simultaneous works included in the connection contract offer calculation and the amount of the connection charge either:
- 3.3.1 before the announcement of the first tender for the construction and design of the simultaneous works; or
- 3.3.2 before issuing the invoice for the second installment of the connection charge, in cases where line costs are included in the connection charge.
- 3.4 If the transmission system operator determines that the calculation of the connection charge has changed significantly, it shall propose to the connecting client an amendment to the connection contract.

4. Methodology for reducing connection creation fee

- 4.1 The principles set out in this chapter apply only to the determination of the connection creation fee included in the connection contract.
- 4.2 The methodology for reducing the connection creation fee is based on the principle of minimizing the total costs to society. The decision to allow a reduction of the connection creation fee is made at the discretion of the transmission system operator on a case-by-case basis, and only one of the three available options can be applied at any given time.
- 4.2.1 The transmission system operator may reduce the connection creation fee in the connection contract offer if the construction (or reconstruction) of electrical installations reduces the TSO's operational, investment, or other costs.
- 4.2.1.1 The achieved cost savings shall be shared equally between the connecting applicant (50%) and the transmission system operator (50%), and the connection creation fee shall be reduced by the portion attributable to the connection applicant.
- 4.2.2 The transmission system operator may reduce the connection creation fee in the connection contract offer if the connection applicant waives existing connection points in the substation under the agreement to be concluded, where renovation is planned in the transmission system

operator's list of specific investments within five years following the issuance of the connection offer. A prerequisite for reducing the connection creation fee is that by waiving the connection points, the transmission system operator can forego the renovation of the substation and dismantle the substation. The application of the methodology shall be based on the following principles:

- 4.2.2.1 During the period of the approved investment budget, under the concluded agreement, the transmission system operator shall construct a new substation at the location requested by the connection applicant and ensure the construction of the connection applicant's new 110 kV connection points without charging a connection creation fee.
- 4.2.2.2 The number of 110 kV connection points to be constructed shall equal the number of 110/... kV power transformers used in the relinquished connection points, regardless of the actual number of connection points relinquished;
- 4.2.2.3 The connection applicant shall, however, pay for necessary network modifications (e.g., new overhead lines and their connections to the new substation) or other costs related to the construction of the substation that would not have occurred if the substation had been renovated at the existing location (e.g., purchase of the plot for the substation base at the new location).
- 4.2.3 The transmission system operator shall reduce the connection creation fee for a client connecting to a new substation built as the first substation in the vicinity instead of a non-expandable substation, provided that the new substation is constructed at a location designated by the transmission system operator that allows for future expansion. In such a case, the transmission system operator shall reduce, by 50%, the portion of the connection creation fee corresponding to the costs of line bays and associated facilities and equipment necessary to connect the new substation to the electrical network and to construct the substation.

5. Resolving Disagreements

- 5.1 The connecting client may submit a complaint to the transmission system operator regarding a breach of the Methodology, either in writing or in a format which can be reproduced in writing. The parties shall seek to resolve the complaint by mutual agreement where possible. The transmission system operator shall review the complaint within 30 calendar days of receipt and shall inform the connecting client of the possible resolution of the complaint or of the extension of the deadline for resolving the complaint.
- 5.2 If a party's action or inaction in applying the Methodology is contrary to the Electricity Market Act or legislation adopted thereunder, the other party may submit a written complaint to the Competition Authority.
- 5.3 Disputes arising from the application of the Methodology that the parties are unable to resolve through negotiation shall be settled in the court of the seat of the transmission system operator, i.e. the Tallinn Administrative Court or Harju County Court, unless otherwise provided by law.
- 5.4 Disputes arising from the Methodology concerning civil law matters (e.g. the amount of damage and its proof when applying subsections 1.2.2.3.3, 1.2.2.3.8, 1.2.3.1.3 and 1.2.3.1.7,

etc.) that cannot be resolved through negotiation shall be resolved between the parties in accordance with section 5.3.