

## Main grid connection fee principles

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## 1 Establishing a grid connection

### 1.1 Introduction

This document defines the connection fee principles regarding a new connection or a change to an existing connection for a customer (the Customer) establishing a grid connection in Fingrid Oyj's (Fingrid) electrical network (the Main Grid).

### 1.2 Connection agreement

Establishing a grid connection is agreed in a connection agreement concluded between the Customer and Fingrid, which defines the Customer's connection point in the Main Grid and the rights, responsibilities and obligations between the parties, as well as the connection fees, which are based on the terms and principles of this document.

### 1.3 Connection method and connection site definition

The connection method and connection site to the main grid will be defined on a case-by-case basis by taking into account the technical options available, the total costs of implementation, and the system security and transmission capacity of the surrounding main grid as well as environmental and land use considerations. Main grid connections must be implemented in accordance with Fingrid's technical conditions and requirements. The best way to ensure the availability and system security of the electrical network is to implement connections to switchyards. On a case-by-case basis, connections to 110 kV transmission lines are allowed, taking into consideration the available transmission capacity on the line and the technical conditions and requirements.

## 2 Connection fees and the applicable charging principles

For each new main grid connection, Fingrid charges a fixed connection fee, based on which the Customer receives the right to transmit electrical power amounting to the transmission capacity specified in the connection agreement through the main grid. These fees are based on Fingrid's average costs for corresponding connections of the same voltage. Fingrid continuously monitors whether the fees are appropriate and amends the fee as necessary. The connection fees are checked annually based on average costs and then published on the Fingrid website. The VAT applicable at any given time will be added to all connection fees. Once the connection is no longer needed, Fingrid will not refund any connection fees paid by the Customer.

The Customer and Fingrid will each be responsible for the construction, operating and maintenance costs of the network that they have built for their ownership for the new connection. In addition, Fingrid will be responsible for grid strengthening and any other changes required in other parts of the grid.

In cases where the Customer requests or the electricity supplied through the Customer's network is used in a manner that requires non-standard or higher electricity quality than

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currently provided, structures improving system security or special equipment, the Customer will be charged for any additional costs. The equipment and structures built will remain under Fingrid's control and ownership.

As long as the Customer's connection is actually being used and the connection agreement is in force, Fingrid will be responsible for the costs for using Fingrid's grid assets, the associated maintenance costs as well as any changes and replacements made at Fingrid's initiative that correspond to the Customer's original dimensioning.

## 2.1 Switchyard connection

- i. For 400 kV, 220 kV or 110 kV main grid switchyard connections, Fingrid will charge the Customer a connection fee that corresponds to the average cost of a circuit breaker bay based on that voltage level.
- ii. If the new connection requires the construction of a completely new switchyard that serves only the single Customer, Fingrid will charge the Customer the connection fee defined in the previous point i.) for each circuit breaker bay built for the new switchyard. If, in the above case, a new connection is built to the switchyard for use by either another Customer or Fingrid within ten years of construction, Fingrid will compensate the original Customer for a sum amounting to the original connection fees paid to Fingrid minus the connection fees in force at the time of connection corresponding to the number of connections being used by the Customer. No interest will be paid for the compensation component.

New 400 kV switchyards typically serve the transmission grid more widely, thus only the connection fee in accordance with point i.) will be charged in that case.

## 2.2 Transmission line connection

The technical conditions for the implementation of transmission line connections are defined in Fingrid's General Connection Terms (YLE). For connections made to a 110 kV main grid transmission line, Fingrid will charge a connection fee for a starting transformer nominal power of 25 MVA (ONAN) or 31.5 MVA (ONAF), however, a maximum of two connection fees per connection. The total transformer capacity may consist of several transformers. Electricity consumption of up to 30 MW<sup>1</sup> and/or electricity production of up to 30 MW<sup>2</sup> can be connected to the electrical network behind the transmission line connection with a single connection fee, as long as the power transmission capacity at

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<sup>1</sup> Average power measured with an energy meter

<sup>2</sup> Rated capacity  $P_{max}$  is defined in the Grid Code Specifications for Power Generating Facilities (VJV)

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the connection point does not exceed 30 MW at any time<sup>3</sup>. If the above power values are exceeded, Fingrid will charge a second connection fee.

No connection fee will be charged for backup and emergency connections used temporarily during disturbance or transmission outage situations at the actual connection point.

### 3 Changes to the Customer's existing connection

When the Customer's connection point changes due to measures taken by Fingrid, the Customer will be responsible for the changes to the Customer's network. Fingrid will compensate the Customer for the costs of the changes to the extent that the change to the connection is implemented at the same level technically and in replacement value as the part of the network to be replaced to the new connection point. The compensation amount is determined using the Energy Authority's currently valid regulation model applicable to the high-voltage distribution network and its unit prices. However, the compensation amount cannot exceed the actual cost of the changes. The compensation will be paid against the Customer's invoice when the changes to the Customer's electrical network have been implemented. The compensation calculation and breakdown must be approved by Fingrid before invoicing.

If the change or transfer of the Customer's connection point is caused by changes in the extent of the main grid resulting from the development of the main grid, it requires a main grid naming decision made by Fingrid for each regulatory period or, in the middle of a regulatory period, a decision to change the valid naming decision. In such cases, the cost allocation and compensations referred to in the previous paragraph do not apply, but the Customer and Fingrid will try to agree on the necessary measures and cost liabilities in case-by-case negotiations. Ultimately, Fingrid will make the change decision, which is submitted to the Energy Authority for approval.

#### 3.1 Switchyard connection

If there are changes to the network connected to the Customer's switchyard connection or the connection capacity changes, the Customer must agree on this with Fingrid. No connection fee will be charged for a change in connection capacity.

The Customer's existing switchyard connections may be transferred to another switchyard without connecting fee only in case the switchyard originally providing the connection is replaced with a new switchyard.

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<sup>3</sup> Average power measured with an energy meter

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## 3.2 Transmission line connection

If there are changes to the 110 kV electrical network connected to the Customer's transmission line connection or the connection capacity changes, the Customer must agree on this with Fingrid. The connection fee principles set out in section 2.2 are applicable to changes concerning transmission line connections.

If the Customer's existing 110 kV transmission line connection is relocated to the nearest main grid switchyard due to changes in customer needs or changes in the structure of the main grid, the Customer will be charged the switchyard connection fee valid at the time and will be responsible for the construction of the required connection line to the relevant Fingrid switchyard. However, if the Customer has paid a connection fee that became valid on 1 February 2012 or thereafter for its transmission line connection, the Customer needs only pay the difference between the previously-paid connection fee and the switchyard connection fee valid at the time.

The Customer will not be charged a new connection fee in cases where the Customer's 110 kV transmission line connection is moved to another site along the original transmission line or another line replacing the original line. This will apply only if the new transmission line connection replaces a previous connection and the amount of power consumed and/or supplied by the substation associated with the connection remains unchanged.