



Studies to analyse properties of a connection

Elia carries out connection studies to evaluate requests for connection to the high-voltage grid. An orientation study assesses the feasibility of the request, lists the various technical options for a connection and provides an estimate of the connection price. A detailed study incorporates the feasibility study and stipulates all the properties of the connection. This study contains a firm offer for the price of the works and stipulates how long it will take to make the connection.

I. Connection studies: principles

I.1. Connection request: preliminary stage

In the connection process the connection studies are the next logical step following the request submitted by an operator on the Belgian electricity market:

- which wants a new connection to the high-voltage grid;
- which wants to modify an existing connection;
- which has modified its facilities, with an impact on the security, reliability and efficiency of the Elia grid;
- which wants to change the operating methods for its connection or facilities.

The sheet "Connection to the Elia grid - a multi-stage process" details the process for connecting to the Elia grid.

I.2. Studies to assess the connection request

The components of the study that is part of the connection request - e.g. connection capacity, type of facilities to be connected, number of connection bays, location of the connection point, etc. - allow a decision to be made on which studies to carry out: an orientation study followed by a detailed study, or just a detailed study.

Orientation study

The customer requesting a connection can ask Elia for an orientation study. This study is a recommended but non-obligatory stage if there is a need to assess the feasibility of the request or compare a number of technical options for the connection: admissible connection capacity, choice of Elia substations for locating the connection point(s), and so on.

An orientation study assesses the feasibility of the connection to the grid and compares the various options. It also provides, for information purposes and a cost estimate together with an indicative assessment of how long it will take to make the connection capacity available, taking into account any upgrades of the Elia grid. All elements included in the study are non-binding for Elia.

Detailed study

A detailed study is an analysis focusing in on the technical option chosen. It contains a firm offer covering how much the connection works will cost and how long it will take to make the connection. It also gives various specific information:

- technical solutions essential to implementing the chosen connection option and their cost calculated on the basis of the connection tariffs;
- delimitation of the connection;
- the connection capacity for the energy taken from and/or injected into the grid, taking account of the capacity of the Elia grid to transmit electricity to the relevant location and the capacity of the facilities to be connected;
- details, drawn up in consultation with the applicant, of the way in which tasks will be distributed between Elia and the grid user, as regards completion and ownership of the connection as well as its operation and management;
- the time-frame for providing the connection capacity, taking into account any upgrades that are needed in the Elia grid to make the connection possible.

Minor modification

Requests for a connection modification or a modification of the applicant's facilities do not necessarily lead to a connection study; if Elia considers that the changes are not major, it can approve them without any other formalities being required.



II. Time-frame for completion, reservation of capacity and tariffs

II.1. Strict time-frame

The connection studies must be delivered to the applicant within the time-frame stipulated by the applicable grid code. However, for complex studies the time-frames may be extended by mutual consent between the applicant and Elia.

II.2. Reservation of capacity

Once Elia agrees to carry out a detailed study, reserved capacity is allocated to the applicant. The reservation covers a specific period and takes into account the capacity requested for the connection and its location. Reservation of capacity for connection of a production unit is subject to the award of the generation licence needed to be able to connect electricity generating units to the Elia grid. Such licences are granted by the Energy Minister, and licence applications have to follow the procedure given in the applicable royal decrees.

II.3. Tariff

The tariffs applied for the orientation study and the detailed study are approved by CREG and the details are published on Elia's website.

III. After the connection studies

Once the detailed study has been completed, the applicant can request a connection during the period given in the detailed study. In this instance, Elia draws up a connection contract between itself and the applicant. This contract contains, amongst other things, the offer made in the detailed study and stipulates the conditions under which the connection will be made. The connection contract also contains technical descriptions of the connection equipment as well as the rights and obligations of the two parties. The contract also naturally sets out the power put at disposal.

IV. Legal and contractual basis

Applicants can request connection studies from their Elia key account manager. The forms for requesting an orientation study or a detailed study can be downloaded from Elia's website. Elia draws up a price offer for these studies, based on the technical information provided. The offer describes the content of the study, its cost and its time-frame.

Connection studies in 4 key points

- After a connection request has been made but before the works are performed, Elia carries out a detailed study, which may be preceded by an orientation study.
- An orientation study examines the various connection options and their feasibility.
- A detailed study establishes, in consultation with the applicant, the technical properties of the connection and the way in which tasks will be distributed between Elia and the applicant, both as regards the completion of the connection and its operation. It contains a firm offer detailing how much the connection works will cost and how long it will take to make the connection.
- A request for a detailed study involves a reservation of capacity being made for the applicant. This reservation is limited in time.