



# Objective, transparent and regulated grid access tariffs

Elia's grid access package offers operation and development of the grid infrastructure, operation of the electric system, compensation of imbalances (in particular via the power reserves and black-start) and market integration. For all these services, Elia applies non-discriminatory, transparent and objective tariffs.

Its multiannual tariffs are based on the tariff structure laid down by the Commission for Electricity and Gas Regulation (CREG) in its tariff methodology. Tariffs are approved by CREG.

## I. Principles underlying tariffs for Elia services

### I.1. Features of Elia's tariffs

The tariffs Elia applies for the various services it provides are key to its ability to ensure the safe and reliable operation and development of the high-voltage grid and to offer an effective overall service, for the benefit of the electricity market players, including generators and consumers.

The tariffs for Elia services are based on the following principles:

- Output-based nature: the tariffs reflect the services offered by Elia using an objective, transparent and non-discriminatory approach;
- Transparency: the tariffs can be readily understood and are based on understandable and transparent data;
- Simplicity: there is a limited number of tariffs, there is only a limited amount of differentiation between tariffs among customer types, and tariff periods have only a limited impact;
- Elia tariffs are set for the individual years in a four-year period.

The regulated contracts (connection, access and ARP contracts) form the contractual basis for the collection of tariffs from the various market players involved.

### I.2. Categories of services offered by Elia

Elia uses three major categories of contractual relations regarding the organisation of its services. These categories are based on the following tariff types:

- **connection tariffs:** grid users wanting to connect a facility to the Elia grid or having an existing connection to the Elia grid are billed for these tariffs;
- **grid access tariffs:** the holders of an access contract are billed for these tariffs (with these parties then in turn, as appropriate, billing the end users). These tariffs relate to grid access services, i.e. operation and development of the grid infrastructure, operation of the electric system, compensation of imbalances (in particular via the power reserves and black-start) and market integration;
- **tariffs for maintaining and restoring the residual balance of individual access responsible parties:** the access responsible parties (ARPs) are directly billed for these tariffs or are credited for them respectively when Elia has to compensate imbalances or when these ARPs support Elia in this task.

Taxes, levies and public service obligations are also applied and have to be collected by Elia, as an intermediary, on behalf of the authorities.

### I.3. Publication of tariffs

In order to be as transparent as possible, all of the tariffs for services offered by Elia can be found in the following subsections of the Elia website: [www.elia.be](http://www.elia.be) > Products & Services > Connection; Access; and Balance.

Grid users or access holders can simulate their access invoices by entering their offtake and/or injection data in a single Excel file they can find online <sup>1</sup>.

<sup>1</sup> See the Elia website ([www.elia.be](http://www.elia.be)) and, more specifically, the following page to use the tariff simulator: Elia > Products & Services > Access > Tariffs for grid use and ancillary services.

## II. Criteria used to determine the applicable access tariffs

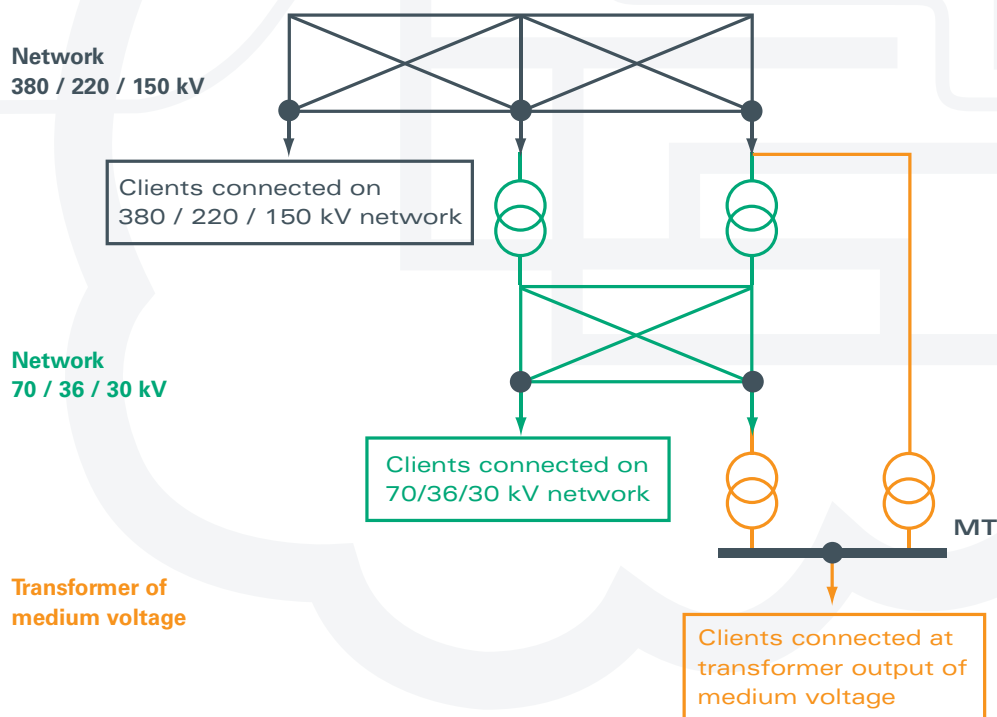
### II.1. Tariffs depending on the voltage level of the accessed grid

The right to exchange power and energy with the Elia grid is conferred, via the access contract, at access-point level. An access point corresponds to a physical location and to a voltage level from which the exchange of power and energy with the Elia grid can be carried out. An access point may correspond to one or more grouped connection points <sup>2</sup>.

The Elia grid access tariffs are based on three Contractual Infrastructure Levels (CILs), depending on the voltage at the relevant access point:

- CIL 1: access to the 380 kV, 220 kV or 150 kV network;
- CIL 2: access to the 70 kV, 36 kV or 30 kV network;
- CIL 3: access at the transformer output of medium-voltage (less than 30 kV).

*Tariff principles based on infrastructure level*



For each of these infrastructure levels, there is a specific set of tariffs reflecting the services provided, since not all the infrastructure levels benefit equally from all the services Elia provides, e.g.:

- a user connected to the grid at the transformer output to the medium-voltage facilities will benefit more from the grid infrastructure operation and development services than a user connected to the 380 kV network because the electricity offtakes via the medium-voltage grid will take a longer, more complex route, passing through more grid infrastructure equipment;
- furthermore, when all the infrastructure levels benefit from the electric system operation services provided by Elia's national control centre, the regional control centres concentrate for the most part on handling the lower infrastructure levels, meaning that there are also more services for operation of the electric system for the lower infrastructure levels;
- by contrast, as all the infrastructure levels benefit equally from the imbalance compensation services (in particular via the power reserves and black-start) and the market integration services, the same tariff is applied to these services for all the infrastructure levels.

### II.2. "Post stamp" tariffs: uniform prices for each infrastructure level

Uniform Elia grid access tariffs are applied in each of the three infrastructure levels. Regardless of their geographic location in relation to the grid, the tariff applied for access services will be the same for all the grid users connected to a single infrastructure level.

<sup>2</sup> For more information about connections, see the product sheet entitled "Connection to the Elia grid: a multi-stage process".

However, taxes, levies and public service obligations will differ depending on the applicable federal or regional legislation.

### II.3. Main and additional access points

When a grid user has various access points at the Elia grid for the same electrical facilities, one of these access points may be referred to as the main access point, whereas the others may be called additional access points. The main access point is the one with the highest 'power put at disposal' (in terms of offtake). To be eligible to be called a main access point, the power put at disposal at that access point must also be greater than or equal to the peak (over the past 12 months) for the relevant grid user's profile<sup>3</sup>.

The additional access point(s) may be used on an ongoing basis (standard operations) or on an occasional basis (as a reserve), with no time limit.

## III. Power and energy: key values for tariffs

### III.1. Power (kW/kVA) and energy (kWh)

Grid access services tariffs are calculated partly on the basis of power, with the remainder being calculated based on energy. For power, the offtake or injection peak realised over a set period serves as the reference. For energy, the volume of electricity offtake or injection is what is taken into account<sup>4</sup>.

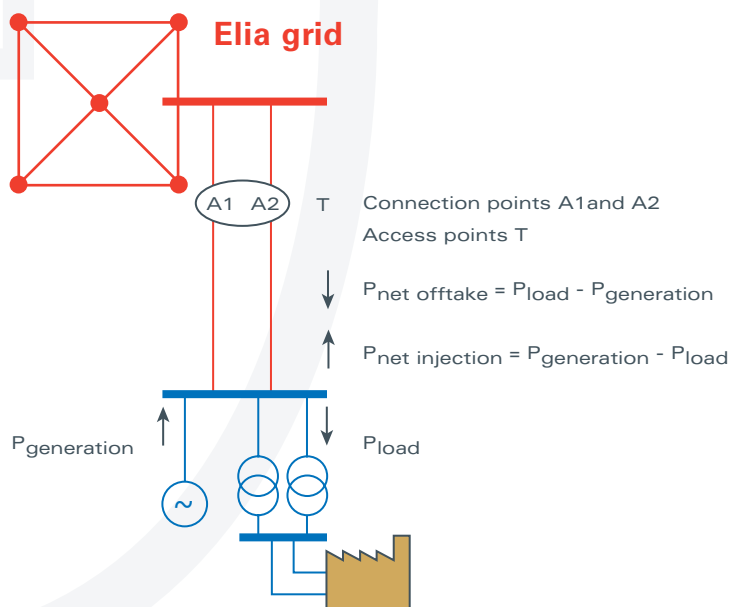
Overall, grid infrastructure operation and development services are billed on the basis of power, as this determines the dimensioning of the grid Elia will have to provide.

Meanwhile, electric system operation, imbalance compensation and market integration services are billed on the basis of energy, since the costs of these services depend on the volume of energy offtake from the Elia grid or energy injection to the grid. Taxes, levies and public service obligations are also calculated on an energy basis.

### III.2. Tariffs based on net power and net energy

In order to ensure maximum transparency and a simple tariff system, as well as to comply with the relevant tariff methodology, access tariffs are based solely on the net offtake and net injection, both for tariffs calculated on the basis of power and those calculated based on energy.

Diagram: Net power offtake and injection



<sup>3</sup> This profile is made up of the synchronous sum of the quarter-hourly offtakes measured at the main access point and the additional access points associated with them.

<sup>4</sup> The **injected energy** at a given access point is the value obtained by integrating, over the period under consideration, the injected power at that access point. The **offtake energy** at a given access point is the value obtained by integrating, over the period under consideration, the offtake power at that access point.

The **injected power** is the difference between the power injected by the generation unit(s) associated with a given access point and the power taken off by the load(s) at that access point. If the relevant difference is a negative number, then the injected power will be zero. The **offtake power** is the difference between the power taken off by the load(s) associated with a given access point and the power injected by the local generation unit(s) at that access point. If the relevant difference is a negative number, then the offtake power will be zero.

## IV. Grid access tariffs

### IV.1. Access services provided by Elia

The first access service is **operation and development of the grid infrastructure**. This service is provided based on three sets of tariffs: tariff for the monthly peak, tariff for the yearly peak and tariff for power put at disposal.

The second access service relates to **operation of the electric system**. The relevant tariffs are the tariff for operation of the electric system and the tariff for offtake of additional reactive energy.

The third access service is **compensation of imbalances**, with tariff relating to power reserves and to black-start.

The fourth access service is the one for **market integration**.

Finally, there are the tariffs for **taxes, levies and public service obligations**.

### IV.2. Tariffs for operation and development of the grid infrastructure

This category consists of three sets of tariffs, namely:

- tariff for the monthly peak;
- tariff for the yearly peak;
- tariff for power put at disposal.

#### a) Tariffs for the monthly peak (in €/kW of net offtake)

The monthly peak for offtake is determined each month as the maximum peak of the offtaken power during each quarter of the concerned month.

For grid users directly connected to the Elia grid, the tariff for the monthly peak for offtake applies to the 11<sup>th</sup> measured peak in the month.

This tariff applies to each access point, based on the infrastructure level to which the relevant grid user is connected.

In case a downward activation by Elia (in the scope of a CIPU contract) of tertiary power leads to an impact on the determination of the monthly peak for offtake for a given access point in the Elia grid, the monthly peak will be corrected based on the activations requested by Elia.

#### b) Tariff for the yearly peak (in €/kW of net offtake)

The yearly peak for offtake is determined ex-post as the maximum peak during the quarter-hours making up the yearly peak tariff period in the course of the past 12 months, i.e. the current invoicing month and the previous 11 months.

This period covers the period when the total load on the grid is statistically at its highest. The yearly peak tariff period covers the following period:

- the months from November to March;
- weekdays (excluding public holidays);
- from 5 p.m. to 8 p.m.

For the grid users directly connected to the Elia grid, the tariff for the yearly peak for offtake apply to the 11<sup>th</sup> peak <sup>5</sup> measured in the month.

As not all the quarter-hours are taken into consideration when determining the yearly peak tariff period, grid users may tailor, insofar as possible, their annual offtake profile accordingly.

This tariff applies to each access point, based on the infrastructure level to which the relevant grid user is connected.

In case a downward activation by Elia (in the scope of a CIPU contract) of non-reserved tertiary power leads to an impact on the determination of the yearly peak for offtake for a given access point in the Elia grid, the yearly peak will be corrected based on the activations requested by Elia.

#### c) Tariff for power put at disposal (the maximum authorised demand) (in €/kVA)

With this tariff, grid users contribute, in proportion to the apparent power that is made available to them (in other words, what is 'reserved' for them), to the general grid infrastructure operation and development services. It relates to a right of the grid user to make offtake and/or injection of apparent power from and/or to the grid upstream.

The apparent power put at disposal is set in Appendix 1 to each grid user's connection contract <sup>6</sup>.

A specific tariff is applied to power put at disposal at the **additional access points**, corresponding to 20% of the tariff for power put at disposal at a main access point.

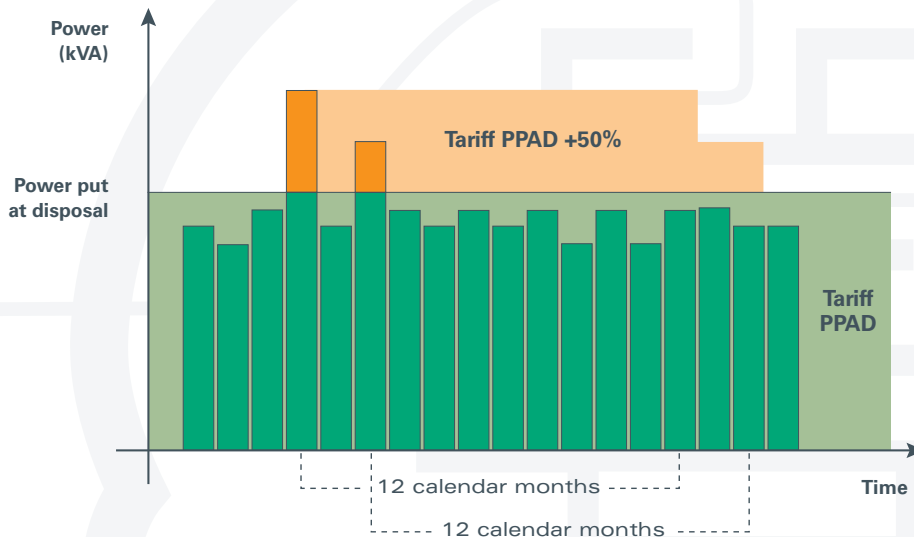
<sup>5</sup> The peak offtake is the maximum quarter-hourly power offtake at an access point for a given period.

<sup>6</sup> For more information about the power put at disposal, see the product sheet entitled "Connection to the Elia grid: a multi-stage approach".

**If the power put at disposal for offtake is exceeded**, a tariff will be applied to the excess part as measured in the month M for a period running from month M until month M+11. This tariff corresponds to the tariff for power put at disposal for offtake plus 50%. The point of reference used for the calculation of the excess part for the grid users directly connected to the Elia grid is the 11<sup>th</sup> peak of the month measured in kVA. If the power put at disposal for offtake is exceeded more than once during the 12-month period indicated above, this period is automatically extended, taking as its point of reference the highest peak (exceeding the power put at disposal) for the previous 12 calendar months.

This tariff applies to each access point, based on the infrastructure level to which the relevant grid user is connected.

Diagram: Exceeding the 'power put at disposal' (i.e. the maximum authorised demand)



### IV.3. Tariffs for operation of the electric system

This category is made up of two types of tariffs:

- tariff for operation of the electric system;
- tariff for offtake of additional reactive energy.

#### a) Tariff for operation of the electric system (in €/kWh of net offtake)

The electric system operation services comprise the monitoring and operation of energy flows in the Elia grid and of voltages, and so on.

This tariff applies to each access point, based on the infrastructure level to which the relevant grid user is connected.

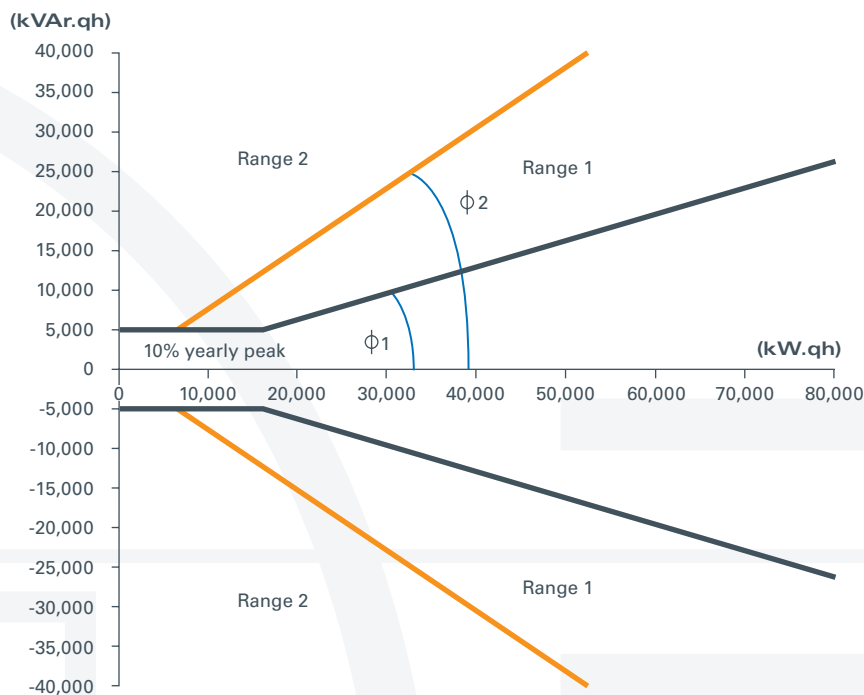
#### b) Tariff for offtake of additional reactive energy (in €/kVAh)

The grid users connected to the Elia grid have to comply with the grid codes, which stipulate their right to make offtake of a fixed amount of reactive energy in inductive regime and in capacitive regime. This comes to 32.90% of the amount of active energy taken off the grid in the same timeframe (on a quarter-hourly basis).

Given the challenges of voltage control on the Elia grid, the grid users making offtake are encouraged to respect the fixed amount of reactive energy that has been set by law. Therefore, if this specified amount is exceeded, the tariff for offtake of additional reactive energy assume an incentive-based character and depend on the exceeding level. The tariff levels are independent of the inductive or capacitive regime, tolerance thresholds also being agreed in capacitive regime.

In practice, the tariff has two ranges: range 1 for small exceedances, and range 2 for larger ones. Range 1 starts with quarter-hourly supplies of reactive energy that exceed  $\text{tg } \varphi = 0.329$  for each offtake point. Range 2 starts with quarter-hourly supplies of reactive energy that exceed  $\text{tg } \varphi = 0.767$  for each offtake point.

Diagram: Tariff for reactive energy



If the net quarter-hourly active offtake energy does not exceed 10% of the yearly peak at the offtake point under consideration, the offtake of additional reactive energy is defined in relation to 32.9% of 10% of the yearly peak at that offtake point.

This tariff applies to each access point, based on the infrastructure level to which the relevant grid user is connected.

The tariff for additional reactive energy is not applied to an access point for the quarter-hours when this point offers the voltage-control service.

#### IV.4. Tariffs for compensation of imbalances

This category consists of two types of tariffs, namely:

- tariff for the power reserves and black-start;
- tariff for maintaining and restoring the residual balance of individual ARPs, for which they are billed directly <sup>7</sup>.

The tariff for the power reserves and black-start is expressed in €/kWh of net offtake and €/kWh of net injection.

Frequency control and balance control using the power reserves is a service provided as an indivisible whole for the entire control area. The service providing for the possibility of a black-start is also a service which the entire system, without differentiation, benefits from. As a result, the relevant tariff is applied equally to each access point, regardless of the infrastructure level to which the relevant grid user is connected.

#### IV.5. Tariff for market integration (in €/kWh of net offtake)

The tariff for market integration is applied in a similar way to all the infrastructure levels, as the market integration services that give grounds for this tariff benefit all the infrastructure levels equally.

The tariff for market integration relates to services provided by Elia such as the development and integration of an effective and efficient electricity market, the operation of interconnections, coordination with neighbouring countries and the European authorities and publication of data as required by transparency obligations.

#### IV.6. Taxes, levies and public service obligations (in €/kWh of net offtake)

In recent years, the competent authorities have imposed on Elia various public service obligations along with applying taxes and levies. These costs are not directly associated with grid operation and so are added to the amounts billed by Elia.

<sup>7</sup> For more information about the tariff for maintaining and restoring the residual balance of ARPs, see the product sheet "Imbalance tariffs: compensation tariffs as an incentive for ARPs to maintain balance".

When calculating taxes and levies, pursuant to the Electricity Act, only the net cost is taken into account. In the case of public service obligations for which this Act, the decree or ordinance or their implementing decrees do(es) not provide for any specific compensation, Elia bills its customers for the net costs resulting with their implementation. These net costs comprise management costs and financial charges arising from these public service obligations.

## V. Legal and contractual bases

The tariff structure for grid access services is governed by article 12 of the Electricity Act of 29 April 1999 and the CREG decision laying down the tariff methodology <sup>8</sup>.

The tariffs for each regulatory period are established or reviewed in a rigorous procedure agreed between CREG and Elia. Under this procedure, CREG approves or rejects Elia's proposed tariffs after evaluating these proposals, and as the case may be, after adjusted proposed tariffs have been submitted.

### Grid access tariffs in 5 key points

- Tariffs reflect the services provided by Elia.
- The tariff structure is laid down by CREG, which also approves the tariffs.
- The access tariffs depend on the infrastructure level to which the grid user is connected.
- Power and energy serve as the basis for calculating access tariffs.
- The tariffs for Elia grid access services are transparent, objective and non-discriminatory.

<sup>8</sup> Decision (Z)141218-CDC-1109/7 of 18 December 2014 laying down the "tariff methodology for the electricity transmission grid and for electric networks having a transmission function".

