

Tariffs for maintaining and restoring the residual balance of the individual access responsible parties

The tariff for maintaining and restoring the residual balance of the individual access responsible parties in application on January 1, 2016, as stipulated by the decision of the CREG of December 3, 2015 is based on the costs incurred by Elia for maintaining balance between generation and consumption in the Belgian control area, at the considered quarter and is supposed to deliver the appropriate incentives to the grid users in order to bring their injection and their offtake in balance, as stipulated by art. 12 §5 10° of the Electricity Law of April 29, 1999 and by the paragraphs 4.2 2°, 4.4, 4.5 and 4.6 of the Annex 2 of the Tariff Methodology of December 18, 2014.

A. DEFINITIONS

The **Imbalance** of a given access responsible party is the quarter-hourly difference between:

- his total injections within his balance perimeter, namely injections at injection points within the Elia grid, injections in the Elia grid coming from any other system belonging to the balancing zone operated by Elia, imports, purchases from other access responsible parties; and
- his total offtakes within his balance perimeter, namely offtakes at offtake points within the Elia grid, offtakes from the Elia grid made in any other system belonging to the balancing zone operated by Elia, exports, sales to other access responsible parties, the losses attributed to this access responsible party

The **Grid Losses** for the considered period of this document that are attributed to an Access Responsible Party are the losses in the 380-150 kV grid and are set at **x % of the sum of:**

- the measured offtakes at offtake points attributed to this Access Responsible Party and
- the Distribution Offtake Positions (in case of net offtake) attributed to this Access Responsible Party.

As from January 1st 2016

- x% = 1,35% during "peak" hours (weekdays from 8 am till 10 pm)
- x% = 1,25% during "long off-peak" hours (weekdays from 10 pm till 8 am and weekends)

The **gross volume of upward regulation** (GUV) is, for a given quarter, the sum of the energy volumes activated by Elia for upward regulation for that quarter, including the volume of imported energy for the IGCC netting, as stipulated by the functioning rules of the market for the compensation of the quarterly hour imbalances¹.

The **gross volume of downward regulation** (GDV) is, for a given quarter, the sum of the energy volumes activated by Elia for downward regulation for that quarter, including the volume of exported energy for the IGCC netting, as stipulated by the functioning rules of the market for the compensation of the quarterly hour imbalances.

The **strategic reserve volume injected in the balancing control area** (SRV_{BCA}) is, for a given quarter, the difference between the volume of the activated strategic reserve and the volume of strategic reserve that has been assigned on Belpex SRM for that quarter, as stipulated by the functioning rules for strategic reserves².

The **Net Regulation Volume** (NRV) is defined on a quarterly basis and is the difference between:

- on one hand, the sum of the **gross volume of upward regulation** as ordered by Elia, for the considered quarter, for maintaining the balance in the Belgian control area, expressed in MW, and the **strategic reserve volume injected in the balancing control area** for the same quarter;
- and on the other hand, **gross volume of downward regulation** as ordered by Elia, for the considered quarter, for maintaining the balance in the Belgian control area, expressed in MW.

In what follows, a positive value of the NRV is referred to as a « **net upward regulation** » and a negative value of the NRV is referred to as « **net downward regulation** ».

The **marginal price for upward regulation** (MIP or HUP³) is, for a given quarter, the highest unit price of all upward activations ordered by Elia for maintaining the balance in the Belgian control area. The MIP is defined in detail in the functioning rules of the market for the compensation of the quarterly hour imbalances.

¹ According to the latest decision of the CREG and as mentioned on the website of Elia ([www/elia.be](http://www.elia.be) > Products & Services > Balance > Balance mechanism)

² According to the latest decision of the CREG and as mentioned on the website of Elia (www.elia.be > Users' Group > Task Force « Implementation Strategic Reserves » > Winter 20xx/20xx > Functioning rules for strategic reserves)

³ HUP as defined in the functioning rules of the market for the compensation of the quarterly hour imbalances; "Highest Upward Price"

The **marginal price for downward regulation** (MDP or LDP⁴) is, for a given quarter, the lowest price of all downward activations ordered by Elia for maintaining the balance in the Belgian control area. This price takes also into account the additional incentives applicable on the marginal price for downward regulation if the mutual emergency power between grid operators has been activated. The MDP is defined in detail in the functioning rules of the market for the compensation of the quarterly hour imbalances.

The **Area Control Error** (ACE) is, for a considered quarter and expressed in MW, the difference between the scheduled ("program") and measured values of the interchanges of the Belgian control area, taking into account the effect of frequency bias.

The **System Imbalance** is calculated by taking the difference between the Area Control Error (ACE) and the Net Regulation Volume (NRV). The System Imbalance is obtained by neutralising the activated means (NRV) – deployed by Elia for managing balance in the Belgian control area – out of the ACE.

A formal definition of the above described parameters GUV, GDV, MIP, MDP, NRV, ACE, as well as a description of the functioning of the market for the compensation of the quarterly hour imbalances, can be found on the website of Elia, where the functioning rules of the market for the compensation of the quarterly hour imbalance (or Balancing rules) as approved by the CREG have been published in a transparent way⁵.

A formal definition of the parameter SRV_BCA and all information on the indicators used to decide upon a situation of structural shortage, as well as the principles for activation of the strategic reserve of the grid operator, can be found on the website of Elia, where the functioning rules for strategic reserves as approved by the CREG have been published in a transparent way⁶.

⁴ LDP as defined in the functioning rules of the market for the compensation of the quarterly hour imbalances; "Lowest Downward Price"

⁵ www.elia.be > Products & Services > Balance > Balance mechanism

⁶ www.elia.be > Users' Group > Task Force « Implementation Strategic Reserves » > Winter 20xx/20xx > Functioning rules for strategic reserves

B. SETTING THE TARIFF FOR MAINTAINING AND RESTORING THE INDIVIDUAL BALANCE OF ACCESS RESPONSIBLE PARTIES IN APPLICATION ON JANUARY 1, 2012

The tariff for maintaining and restoring the individual balance of access responsible parties is established on the basis of computation formulas in the table below. These formulas relate to the quarterly imbalance of one given access responsible party (ARP), for one given quarter.

Prices for positive imbalance can either be positive or negative. A positive price for positive imbalance (injection exceeds offtake) means a payment from Elia to the access responsible party and a negative price for positive imbalance means a payment from the access responsible party to Elia.

Prices for negative imbalance (offtake exceeds injection) can either be positive or negative. A positive price for negative imbalance means a payment from access responsible party to Elia and a negative price for negative imbalance means a payment from Elia to the access responsible party.

		Net Regulation Volume (NRV)	
		Negative (net downward regulation)	Positive (net upward regulation)
ARP imbalance	Positive	MDP - $\alpha 1$	MIP - $\beta 1$
	Negative	MDP + $\beta 2$	MIP + $\alpha 2$

Where:

- o $\beta 1$ (€/MWh) = 0
- o $\beta 2$ (€/MWh) = 0
- o If the absolute value of the System Imbalance is smaller than or equal to 140 MW:
 - $\alpha 1$ (€/MWh) = 0
 - $\alpha 2$ (€/MWh) = 0
- o If the absolute value of the System Imbalance is bigger than 140 MW:
 - $\alpha 1$ (€/MWh) = average $\{(\text{System Imbalance}^{QH-7})^2, \dots, (\text{System Imbalance}^{QH})^2\} / 15.000$
 - $\alpha 2$ (€/MWh) = average $\{(\text{System Imbalance}^{QH-7})^2, \dots, (\text{System Imbalance}^{QH})^2\} / 15.000$

The value of the parameters $\alpha 1$, $\alpha 2$, $\beta 1$ and $\beta 2$ can change during tariff period.

The value of the tariff for maintaining and restoring the residual balance of the access responsible parties, while activation of the strategic reserves, is fixed at 4.500 €/MWh. The application terms of this tariff are defined in the functioning rules for strategic reserves.