

Interconnector BeDeLux

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Elia, Creos and Amprion are working on a project to couple their networks, called 'Interconnector BeDeLux'. The final goal is to achieve a higher security of supply in Luxemburg on one hand, and on the other hand to realize the first commercial coupling between the Belgian and German markets.

We have listed some **Frequently Asked Questions** on this project in the below section.

(FAQ's only available in English)

What is the project background?

In Luxembourg the public electricity distribution and transmission network is operated and owned by Creos. Creos is facing new future challenges, which require to review the appropriateness of the current network topology and to develop a sustainable expansion strategy of its transmission grid. The challenges include, but are not limited to the growing demand in Luxembourg, which require the expansion of the import capacities by reinforcements, and the envisaged restructuring of the 220 kV network by Amprion in the Trier-Luxembourg-Saar region, which affects the security of supply in Luxembourg. The required investments shall, besides increasing the security of supply, at the same time promote the further integration of the EU internal electricity market as requested by EC Regulation 714/2009.

Due to this, in 2009, Creos started a network development study to investigate an optimal long-term network strategy for the Luxembourgish grid. Creos in cooperation with neighbouring TSOs, in particular Elia, Amprion GmbH (Amprion) as well as RTE Réseau de Transport d'Electricité (RTE), analysed several potential long-term network solutions to ensure the Luxembourgish supply is safe and secure until 2030. The TSOs also investigated potential immediate measures to ensure a safe and secure operation of the grid in 2020 and to allow an expansion of the grid towards a sustainable long-term solution. As immediate measures, two variants were chosen that represent the least costly and at the same time easily and quickly implementable solutions: the pre-interim variant (First phase) and interim variant (Second Phase). These solutions will lead to the establishment of a new interconnection between Belgium and Luxembourg. In parallel, a reinforcement of the internal Luxembourg network is under construction in order to create a loop around Luxembourg city, the so called LuxRing, easing the transit flows between the countries.

What is the main goal?

The decision to implement a physical interconnection between Luxembourg and Belgium was mainly triggered by Luxembourgish security of supply considerations. Besides this, the new interconnection will contribute to the European electricity market integration by connecting at physical level the transmission grids of Elia and Creos and at market level the Belgian bidding zone with the DE/AT/LU bidding zone.

What is meant by the 'First Phase'?

The first phase of the project consists of two main deliverables:

- It starts with the commissioning of the phase shifter transformer (PST).
- Elia and CREOS will reuse existing infrastructures to create the new interconnection.

This approach was chosen as it allows with a very short lead time a significant increase of the Luxembourgish security of supply. At the same time, the interconnection will contribute to the CWE market integration by connecting the Belgian bidding zone with the DE/AT/LU bidding zone. In this first phase, the interconnection is made of a single line which is not N-1 secured.

What is the current connection between the Belgium, Luxemburg and German market?

Creos is part of the German bidding zone. There is no market border defined between the Belgium and German bidding zone.

After completion of the First Phase, what will the connection between the Belgium, Luxemburg and German market be like?

The market situation for the three concerned TSOs (Amprion, Creos and Elia) will change.

At physical level, there will be an interconnector (BE-LU interconnection) between the countries Belgium and Luxembourg via the interconnection point located at the PST in Schifflange.

At market level, there will be an interconnection between the German/Austrian/Luxembourgish (DE/AT/LU) bidding zone and the Belgian bidding zone.

Will there be a new bidding zone in Luxembourg?

The interconnector will connect the Belgian and DE/AT/LU bidding zones and, like today, no Luxembourgish bidding zone will be created.

How will the day ahead capacity be calculated?

Regarding the day ahead capacity methodology which will be applied on the BE-LU interconnection, Elia and Creos make reference to the CWE flow-based Market Coupling solution. Consequently, the available capacity will be calculated according to the flow-based calculation methodology that takes into account that electricity can flow via different paths and which optimizes the available capacity in highly meshed grids. The cross-border capacity is therefore calculated in a coordinated manner by the TSOs.

What is the current status of the project?

The targeted commercial go-live date of 31/03/16 of the First Phase of the project is not feasible anymore and therefore the new interconnection will not be commercialized as of April 2016.

Interconnector BeDeLux proved more challenging, mainly in real-time operation, than originally assessed. This is due to the high volatility of production and load, which complicates the discussion on PST coordination (ENTSO-E wide) in a flow-based environment and which can be eased by awaiting the technical closure of the LuxRing.

The project team is currently discussing and agreeing with all dependent stakeholders such as the CWE TSO project, APX/EPEX, TSOs affected by the PST coordination, etc. to obtain a reliable planning.

When is the next communication to Market Parties?

A new planning of the First Phase of the project will be communicated in July 2016.