



PRESS RELEASE | Brussels, 25 June 2021

## Elia publishes its adequacy and flexibility study for the period 2022-2032

- The study confirms the urgent need for additional domestic capacity in order to be able to cope with the planned phase-out of nuclear power.
- Current markets will not provide the sufficient stimulus required, making the creation of a CRM the solution of choice.
- In addition to tackling pressing issues in the run-up to 2025, Belgium must prepare for its transformation into a carbon-neutral society by 2050.
- Electrification will not only help decarbonise parts of society, but will also enable flexibility to be built into the whole system.

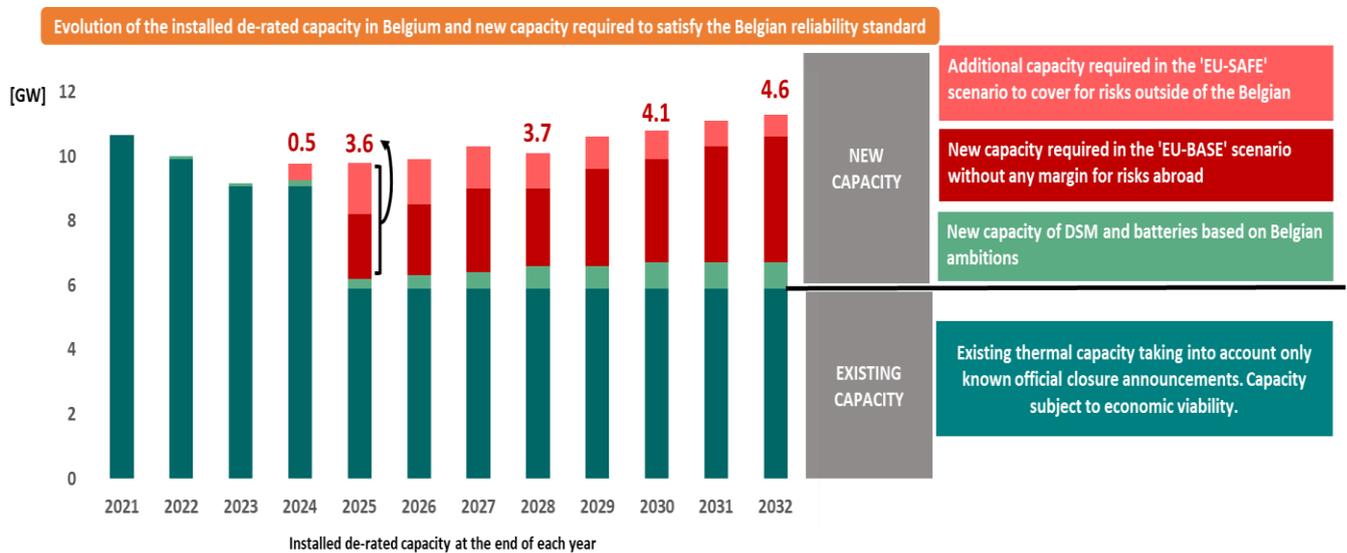
**Brussels | 25 June 2021.** On Friday, as required by law, Elia published its most recent biennial study on Belgium's adequacy and flexibility needs for the coming decade. The adequacy assessments were performed using new European methodologies and the study was prepared in close collaboration with different authorities from the energy sector. To ensure Belgium's security of supply during the period 2022-2032, attention must be paid to the impact of the gradual phase-out of nuclear power (as required by law) and the changes brought about by the European Green Deal. Based on the numerous calculations we performed and the various scenarios we examined, Elia has identified three key messages: there is an urgent need for new capacity; there is a need for a supporting mechanism; and Belgium must prepare to become a carbon-neutral society.

*“Alongside tackling Belgium's nuclear exit in the run-up to 2025, Belgium also needs to prepare for its transition towards a carbon-neutral society by 2050. It cannot achieve this on a standalone basis, as the renewable potential of our country is too limited to cover all of its needs. Therefore, it is important that our federal government plans out cooperation agreements with other countries now, in such a way that our complementary strengths can be optimally used to establish a low-carbon economy.”*

**Chris Peeters, CEO Elia Group**

## MESSAGE 1: URGENT NEED FOR NEW CAPACITY

This study confirms the urgent need for additional domestic capacity in order to be able to anticipate the needs created by the planned phase-out of nuclear power. As Belgium is highly dependent on imports, the country is vulnerable to events occurring abroad. Belgian politicians must take this into account in their decision-making in order to maintain a reliable energy system. With significant investments required by 2025, the timetable for undertaking them is extremely tight.



### 3.6 GW of capacity required by 2025

To cope with the phase-out of nuclear power in Belgium by 2025, 3.6 GW of additional capacity (assuming 100% availability) will be needed; this figure is 300 MW less than was estimated in our previous study, which was published in 2019. This small difference can be attributed to changes in the methodology used, revisions made to Belgian supply and demand projections and updates to the assumptions made for neighbouring countries. In fact, the calculation of this 3.6 GW shortfall takes into account significant short-term uncertainties relating to Belgium's neighbouring countries (amounting to around 1.6 GW), over which Belgium has no control.

### Existing capacity must be maintained in the market

Any existing capacity that might unexpectedly leave the Belgian market before 2025 could create adequacy risks for the country. Total vigilance is required. During the winter of 2024-2025, shortages could also occur if the high-risk events that have occurred abroad in recent years happen again. This situation should be closely monitored, as it might be necessary to consider putting transitory measures into place during that period.

### **Availability of surplus generation in Europe under pressure**

Belgium's geographical location and the profound changes undergone by the European electricity system have accentuated our country's dependence on electricity imports in recent years. While this dependence on imports might not be problematic in and of itself, it may result in additional risks which could impact the adequacy of our electricity system. These risks are related to two key areas: the availability of surplus generation in Europe at times of need in Belgium; and the availability of the cross-border transmission capacity needed to bring this energy to Belgium. In other words, political choices in Belgium and other European countries will determine the extent to which Belgium is able to mitigate the uncertainties and risks it faces in terms of maintaining its adequacy.

## **MESSAGE 2: A SUPPORTING MECHANISM IS NEEDED**

Although there is a lasting need for capacity, current markets will not provide sufficient stimulus for the necessary investments. Therefore, the need for a supporting mechanism, such as the capacity remuneration mechanism (CRM) which has now been implemented in Belgium, is clear. Compared to other measures, the CRM will have the best positive impact on socioeconomic prosperity. It will also have many valuable knock-on effects on the investment climate and promote a more stable energy market.

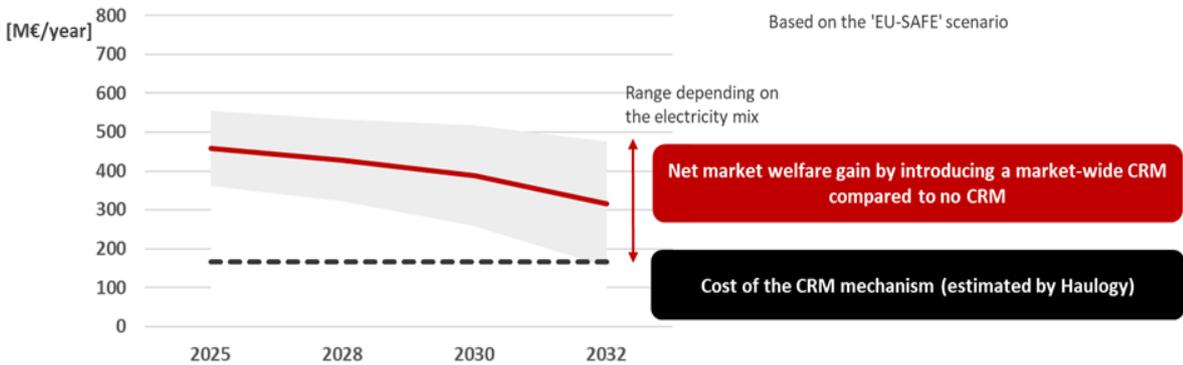
### **Confirmed need for a supporting mechanism**

As part of this study, the economic viability of new and existing capacities was assessed under different scenarios. This study concludes that of the 3.6 GW of additional capacity which is required, only a very small proportion will be viable via the energy-only market by 2025. System-level intervention is therefore required to ensure that all replacement capacity is available on time. Consequently, holding a first CRM auction in 2021 to ensure that the full replacement capacity is available on time is crucial.

### **The CRM will bring stability to Belgian society.**

This study demonstrates that a market-wide CRM will ensure security of supply and bring prosperity to the market. Indeed, the cost of the capacity remuneration mechanism should be offset by a drop in wholesale prices for Belgian consumers. This will translate into an estimated annual benefit of between €100 and €300 million over the next ten years, compared to a scenario with no CRM.

### How much does the consumer need to pay ?



## MESSAGE 3: PREPARING FOR A NET-ZERO SOCIETY

Belgium must also prepare for its transformation to a net-zero society by 2050. To that end, action must be taken now in terms of market design, the development of renewable energy sources and international cooperation. Incorporating a growing share of renewable production into the system will require greater flexibility and a constant monitoring of adequacy. Electrification will not only help to decarbonise parts of society, but will also enable flexibility to be built into the whole system. Current estimates predict that nearly 1.5 million electric vehicles and 200,000 electric heat pumps will arrive on the Belgian market over the next decade. To fully unleash this flexibility and improve adequacy, digitalisation must be accelerated and the market design must be changed.

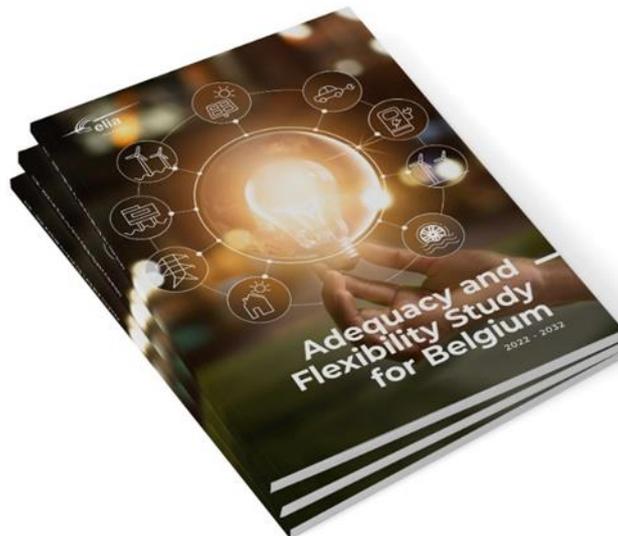
### Impact of managing the increased electrification after 2025



While working towards decarbonisation, each country will see its energy mix change significantly. Patterns of dependence between countries in terms of adequacy will become more volatile, which will reinforce the need for coordinated political decisions regarding reliability. Since the resources available to Belgium for the generation of power from renewable energy sources (RES) are limited, it will also be important to focus on partnerships with countries that have structural surpluses of renewable energy in order to transform Belgium into a carbon-neutral society. Since implementing such joint projects takes years, Belgium must focus on building key partnerships today.

## State-of-the-art methodologies and close collaboration with the energy sector

This study uses methodologies which meet new European requirements (such as the European Resource Adequacy Assessment, or ERAA, methodology) and is aligned with the Clean Energy for All Europeans package. The scenarios explored in this study were taken from the Belgian National Energy and Climate Plan 2021-2030 and the Interfederal Energy Pact. The study was carried out in close collaboration with the Federal Public Service (FPS) Economy and the Federal Planning Bureau, and in consultation with the Commission for Electricity and Gas Regulation (CREG). A public consultation was held in November 2020, during which stakeholders had the opportunity to learn about the data and methodology used and the different scenarios explored in the study.



## About Elia Group

### One of Europe's top five players

Elia Group is active in electricity transmission, ensuring that generation and consumption are balanced at all times. We supply 30 million end users with electricity and manage 19,271 km of high-voltage power lines via our subsidiaries in Belgium (Elia) and north-east Germany (50Hertz). As such, our Group is one of Europe's top five system operators. With a reliability level of 99.999%, we give society a robust power grid, which is important for socio-economic prosperity. We also aspire to be a catalyst for a successful energy transition towards a reliable, sustainable and affordable energy system.

### We make the energy transition happen

By expanding international high-voltage connections and integrating ever-increasing amounts of renewable energy, Elia Group promotes both the integration of the European energy market and the decarbonisation of our society. The Elia Group is also innovating its operational systems and developing market products so that new technologies and market parties can access our grid. In this way, Elia Group is making the energy transition happen.

### In the interest of society

As a key player in the energy system, Elia Group is committed to working in the interest of society. We are constantly adapting our transmission grid to the rapidly changing energy mix, incorporating ever more renewable energy. We also ensure that investments are made on time and within budget and guarantee maximum safety. When we carry out our projects, we manage stakeholders proactively by establishing two-way communication with all affected parties from the outset. We also offer our expertise to our sector and relevant authorities to help build the energy system of the future.

### International focus

In addition to its activities as a transmission system operator, Elia Group provides various consulting services to international customers through its subsidiary Elia Grid International (EGI). Elia is also a member of the Nemo Link consortium, which operates the first subsea electricity interconnector between Belgium and Great Britain.

The Elia Group operates under the legal entity Elia Group, a listed company whose core shareholder is the municipal holding company Publi-T.

**FOR MORE INFORMATION: [eliagroup.eu](http://eliagroup.eu), [elia.be](http://elia.be)**



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