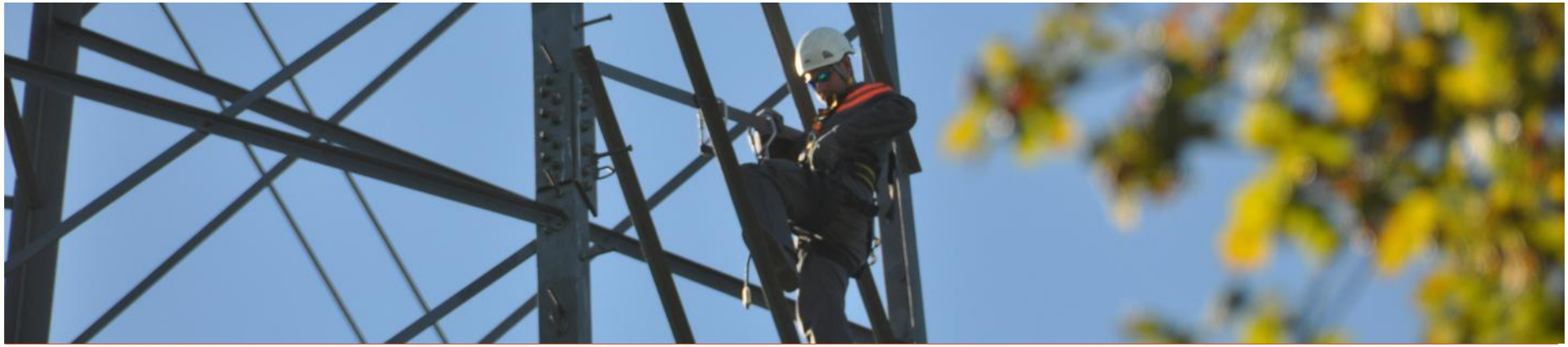


ENTSO-E Winter Outlook

WG System Operations

Kristof Sleurs

ENTSO-E Winter Outlook

Current status & timeline:

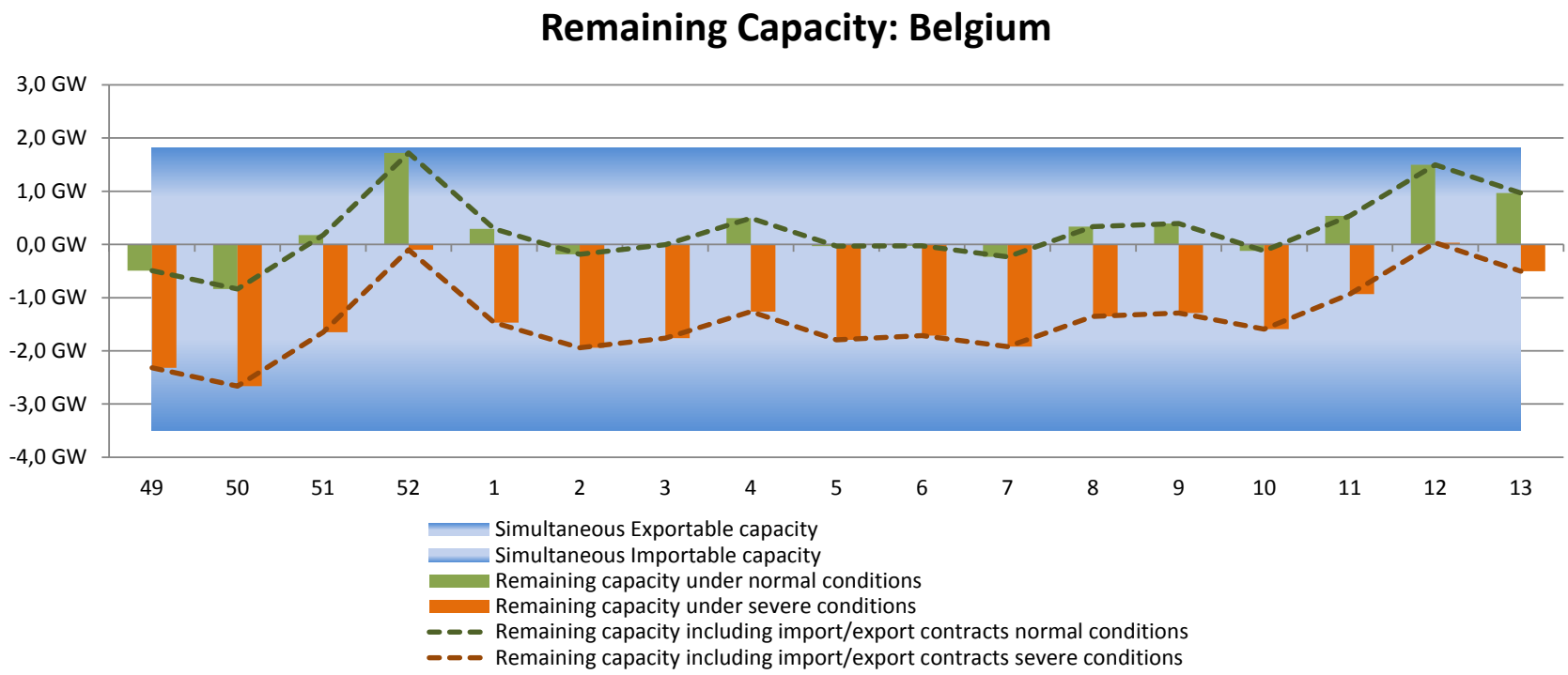
- Under Assembly approval until Friday 23 November 2012
- Tentative publishing date: 30 November 2012 on ENTSO-E website

Presentation overview:

- A (concise) view on the Belgian situation
- A first view on the European situation
- Actions undertaken by Elia to follow-up the Belgian situation during winter

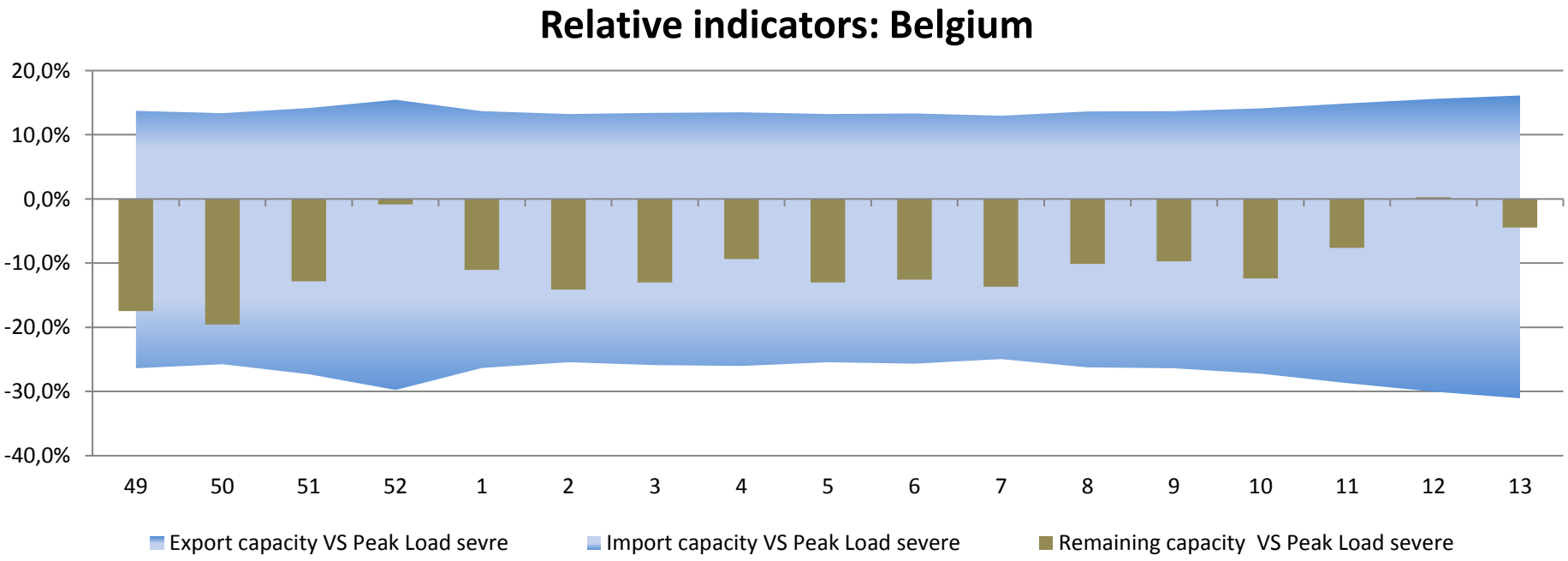
A view on the Belgian situation

- For the ENTSO-E Winter Outlook, a deterministic assessment of the forecasted Belgian situation for the coming winter was performed;
- The assessment is NOT a market study. The goal is to detect every country's and the European capability to cope with a possible energy shortage.



A view on the Belgian situation (2)

- Main driver for the tense situation in Belgium is the additional unavailability of ca. 2000 MW of nuclear power compared to last winter;
- This results in a structural dependence of Belgium on imports, especially when high-load conditions occur.



A first view on the European situation: Main factors of risk for the European System

On generation and load balance

- Load sensitivity to climatic conditions, cold spells.
- Hydrologic conditions.
- Fuel availability (especially gas).
- Constraints on generation capacity.

Unavailability of nuclear generation capacity in Belgium

- esp. in case of elevated demand in the region, limiting availability of energy on the regional market

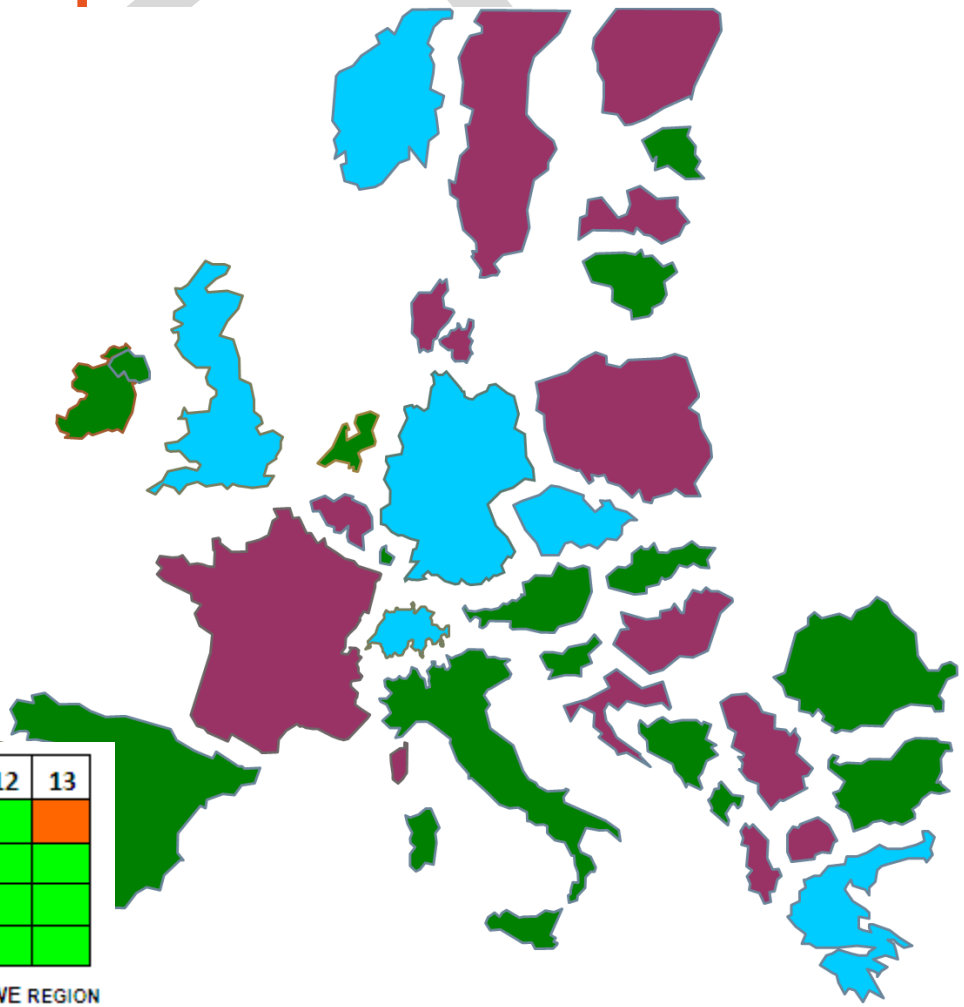
On network security

- **Significant unscheduled flows .**
- Climatic conditions.
- Congestions in the internal grid, including local voltage regulation problems.
- External generation/load imbalances.
- Wind feed in.

A first view on the European situation: Remaining capacity versus peak load

Example: last week of January 2013 (Week 5)

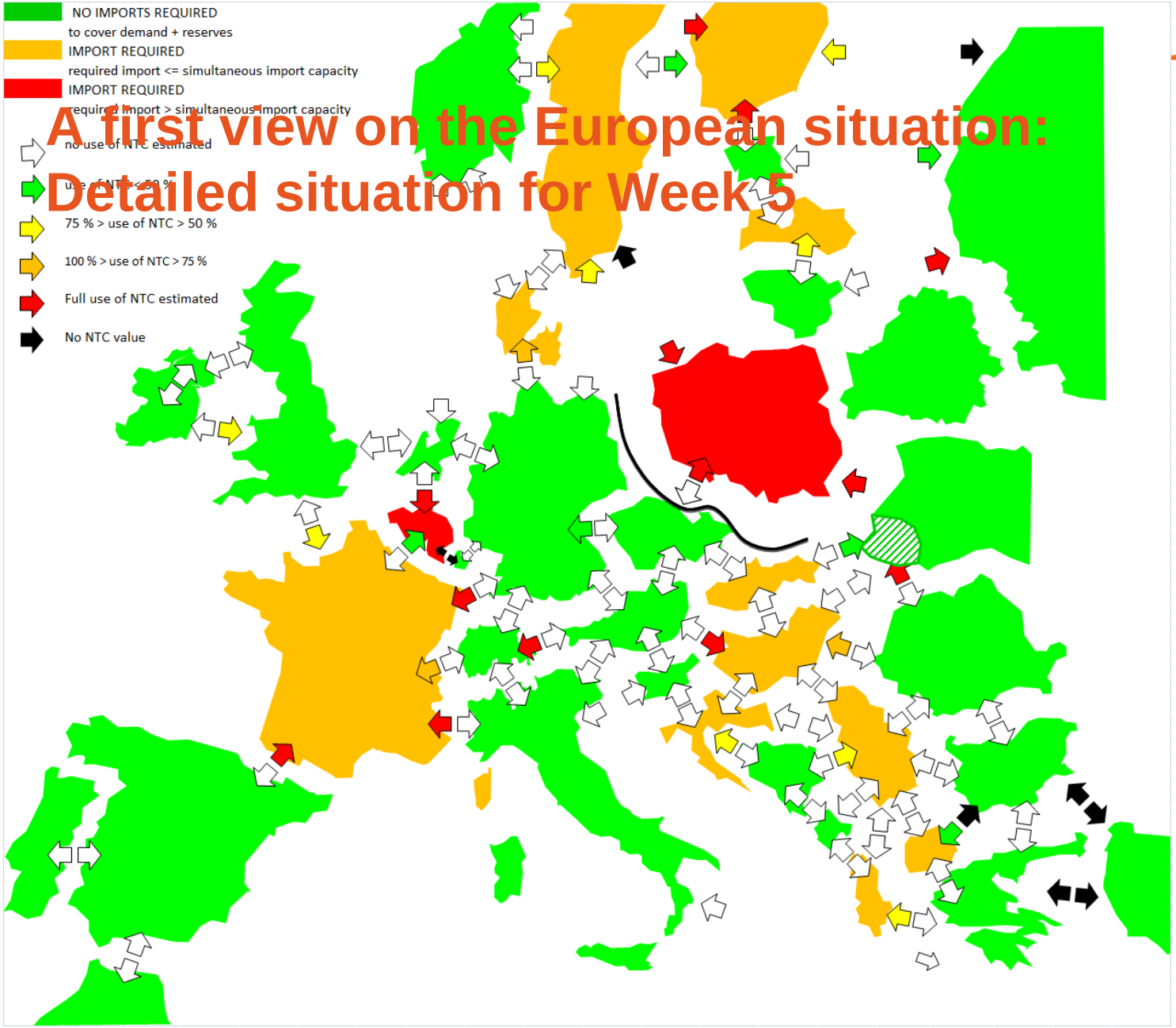
- **Violet: negative national remaining capacity**
- **Blue: remaining national capacity less than 10% of peak load**
- **Green: more remaining national capacity**



Severe	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13
BE																	
DE																	
FR																	
NL																	

TABLE 3: OVERVIEW OF THE ADEQUACY INCLUDING CROSS-BORDER EXCHANGES FOR THE CWE REGION

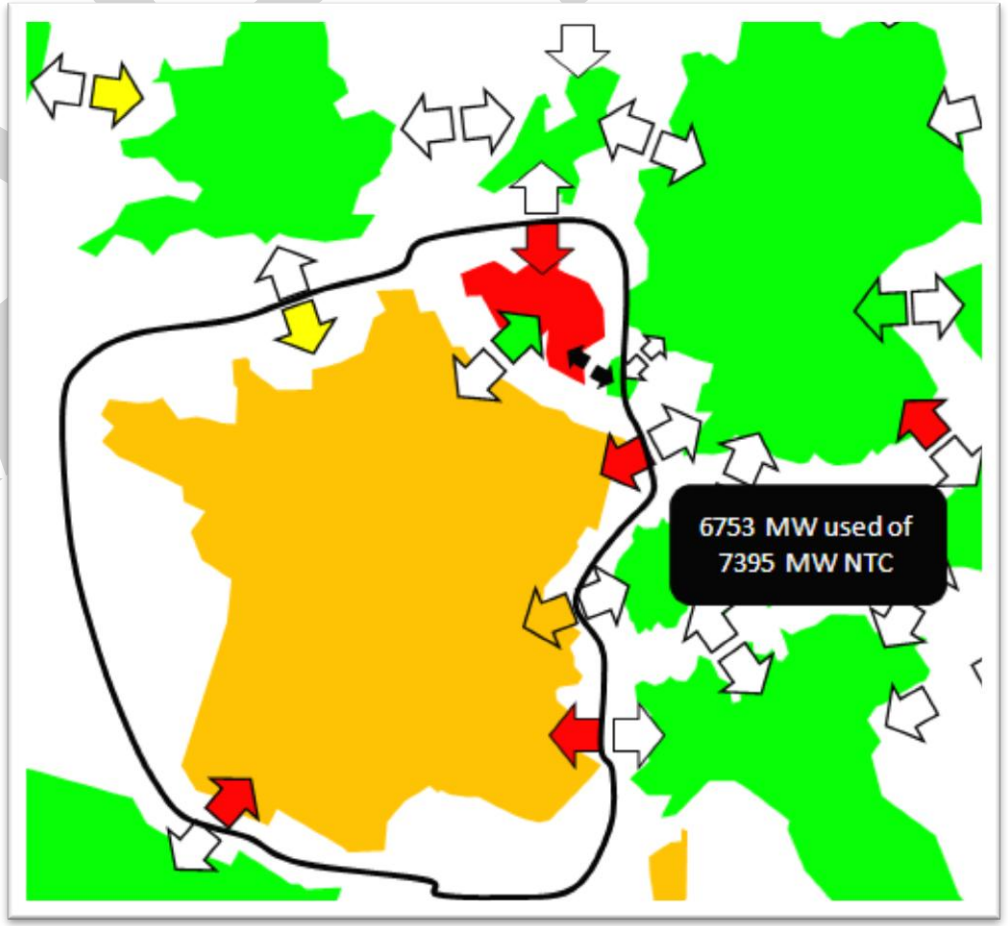
A first view on the European situation: Detailed situation for Week 5



Example: last week of January 2013 (Week 5)

A first view on the European situation: Detailed situation for Week 5

In case of high simultaneous importing needs for Belgium and France, the risk of non-manageable physical flows on the Belgian grid becomes significant, leading to additional – possibly demand-limiting – actions to be taken.



Follow-up of the Belgian situation during winter

- **Systematic internal processes for monitoring the real-time and previsional scarcity issues;**
- **This assessment uses a combination of several indicators, including:**
  - Temperatures
  - Net positions of CWE countries
  - Forecasted remaining margin for Belgium
  - Physical power flows on crucial interconnectors
  - Day-ahead market prices
- **A general scarcity indicator (real-time and previsional) will be published on the Elia website and on the government's website**

Thank you for your attention