

Uitdagingen van de energietransitie

Flux 50

15/11/2022



Elia Group: one of Europe's top 5 TSOs

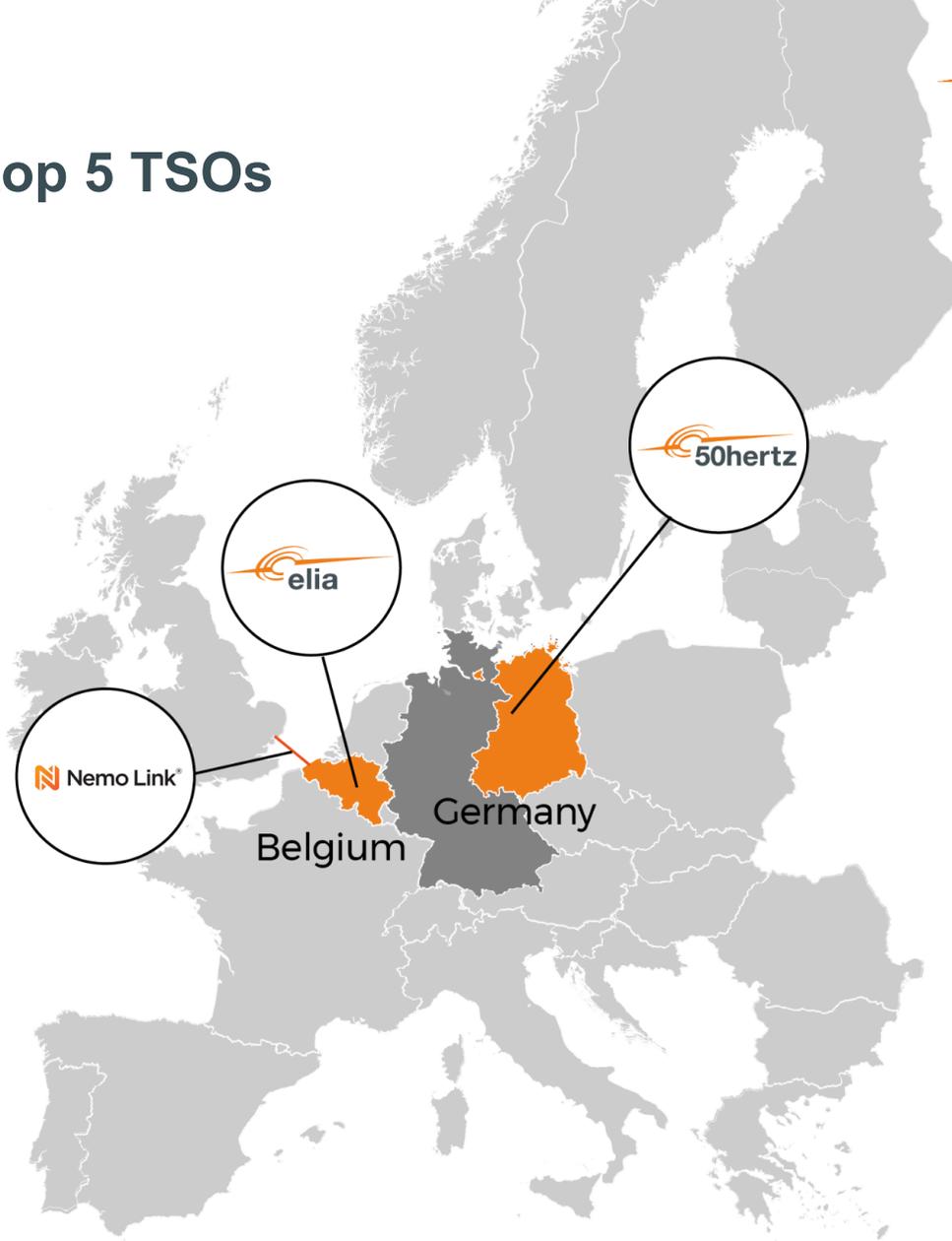
Elia Group is active in electricity transmission.

It encompasses two leading TSOs strategically located in two European regions:

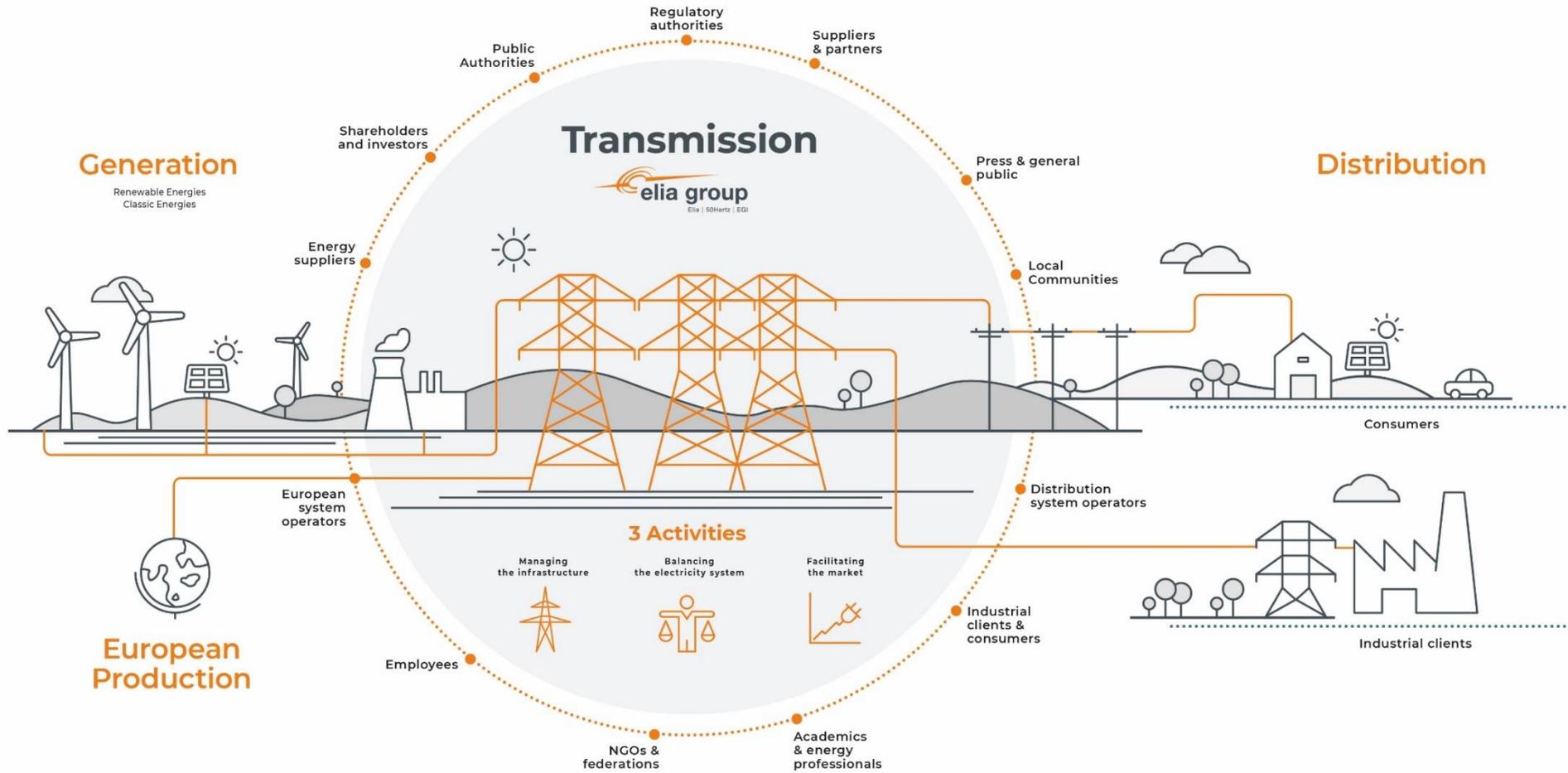
- Elia in Belgium
- 50Hertz in Germany

Additionally:

- EGI
- re.alto



We connect generation and distribution



Our core tasks



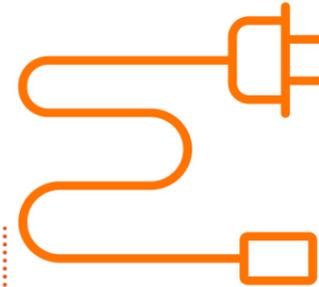
Grid Ownership

We prepare to deliver the infrastructure of the future



System control

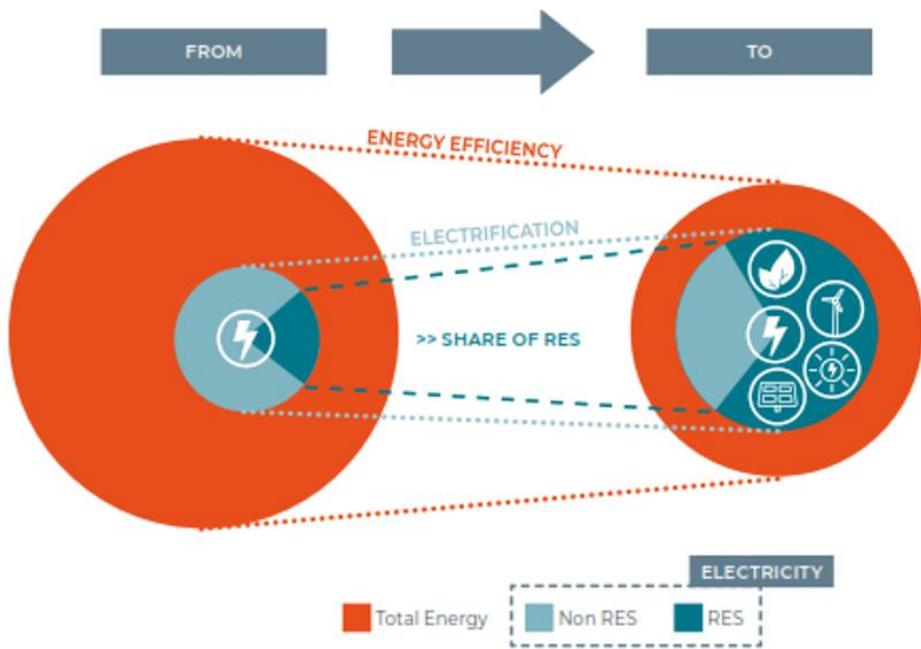
We maintain the balance



Market Facilitation

We are part of the European integrated market

Increasing electrification and RES integration are main building blocks in the roadmap for a net zero society



RES deployment
To achieve the 2030 targets



38-40%
of RES at EU by 2030

Electrification of uses
Sustainable and Smart Mobility Strategy



100 European cities
Will be climate neutral by 2030

30 million
Electric vehicles in Europe by 2030

Digitalization & connectivity
EU Smart metering Benchmark



92%
smart meter penetration by 2030

17%
Annual growth of IoT devices

A challenging energy crisis

Trends Rubriques ▾ Le magazine Avantages pour abonnés [Abonnez-vous](#)

OPINION

Prix du gaz et de l'électricité : quand notre gouvernement prendra-t-il une mesure pour bloquer les prix ?

20/09/22 à 09:00 Mise à jour à 09:03 Source : Trends-Tendances



De Tijd – 07/09/2022



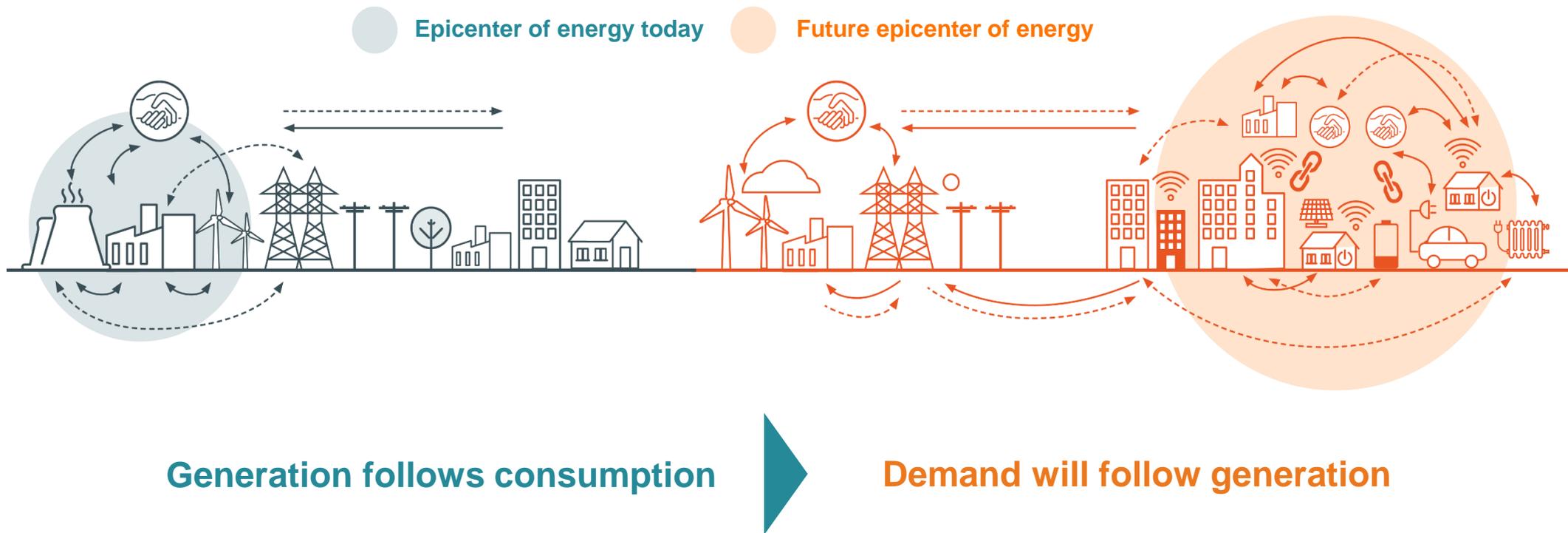
Le Soir – 9/11/2021

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Doel 3 is dicht: heeft kernenergie nog een toekomst in ons land?

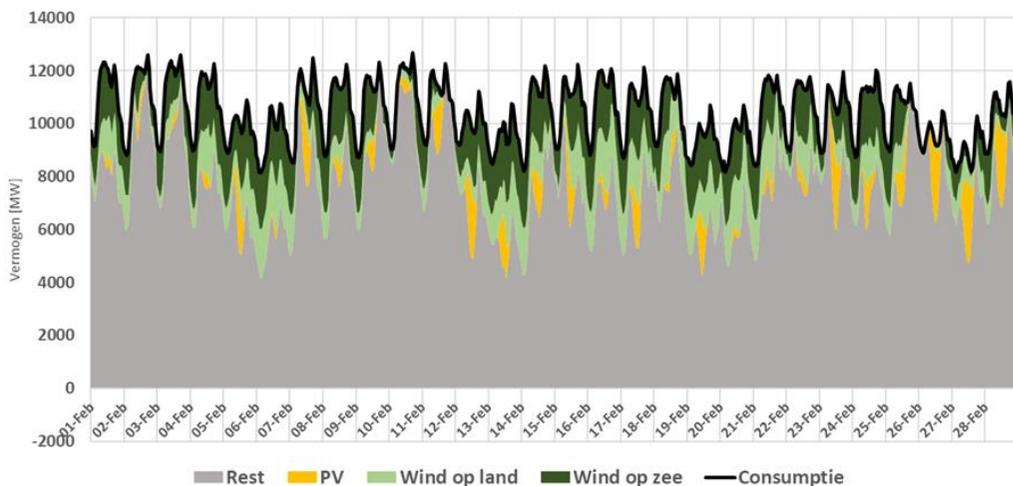
De Standaard – 29/09/2022

The roadmap to net zero implies a paradigm shift

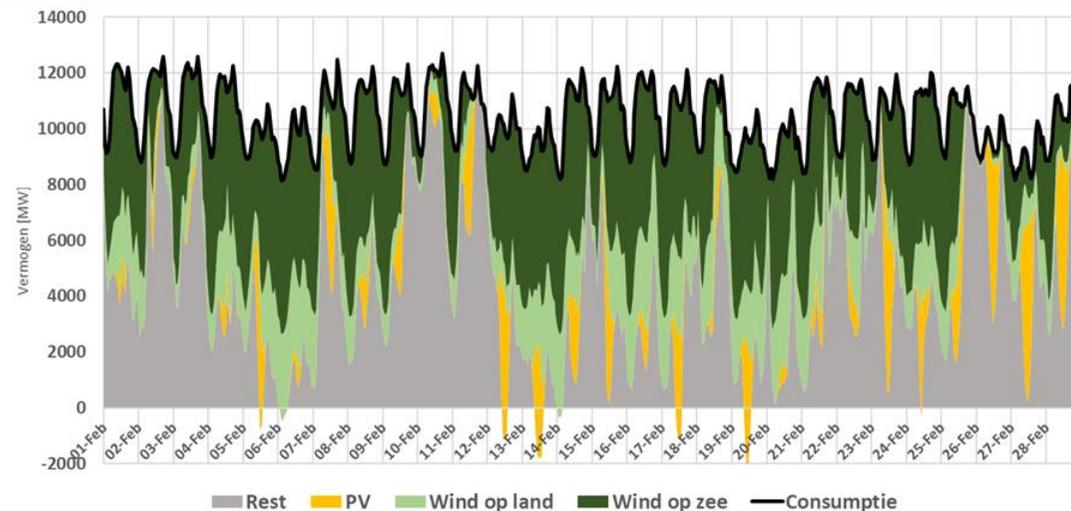


Rising RES variability and increasing need for flexibility 2022 vs. 2028

Februari 2022



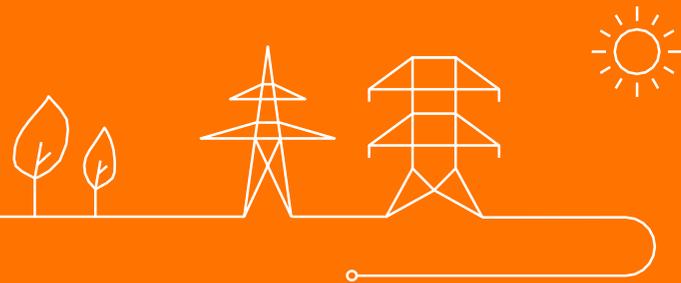
Februari 2028





**Potential
has not been fully
unlocked**

How to valorize your flexibility?



How to valorize your flexibility?

Your (upcoming) flexibility sources

From your **processes**:

- Load Shedding
- Load Shifting

+

From your local

- **Production** units
- **Storage** facility



Energy Markets revenue

Spot market revenue

- Day ahead , intraday market, imbalances prices
- Upwards / Downwards possible
- You or through an optimizer / partner

Balancing Services to Elia

- Upwards / Downwards possible
- Through a Balancing Service Provider

Capacity Remuneration yearly fix revenue

- Incentive mechanisms for **Upwards flexibility** (less consumption / more production)
- New projects are surely welcome and may be granted of multi-year fix remuneration
- Auction / Low Carbon Tender* in 2022, 2023, 2024
- For Effective delivery as of 2025 (2024*)

* Low Carbon Tender: to be determined possible one-shot mechanism for 2024-2025 (WG Adequacy 13/09)

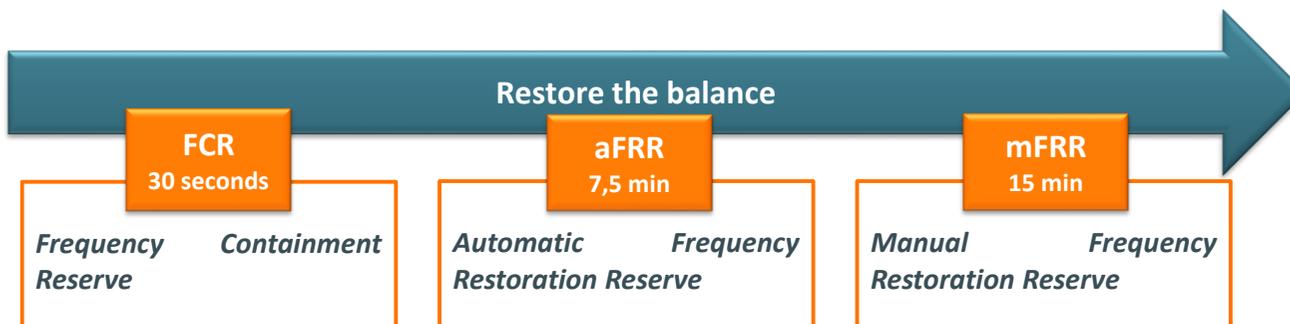
Balancing Services

A question of balance

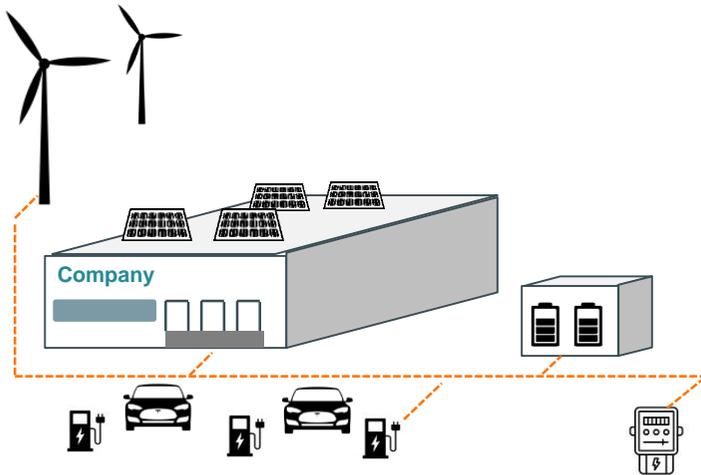


...Between injection and offtake

- Balance Responsible Parties (BRP) are in charge of taking all required actions to maintain their **portfolio in balance**
- Elia is responsible for the **residual imbalance** in real-time leading to activation of Balancing Services provided by the Balancing Service Providers (BSP)



Create a significant additional revenue stream by participating to the balancing market



- ✓ **Grid user** or **third party**
- ✓ **Any technology** that can on its **own** or **pooled** deliver the service

FCR

Batteries – EV Flex

Average reservation fee: 20 – 30 €/MW/h

No activation remuneration

Batteries – Wind turbines – Solar Park – EV Flex – Electrolyzer

Average reservation fee:

Upwards: 30 – 130 €/MW/h

Downward: 25 – 100 €/MW/h

Activation remuneration capped at ±1.000 €/MWh

aFRR

mFRR

Industrial process – Back-up generators

Average reservation fee:

Upwards: 20 – 60 €/MW/h

Downward: no reservation

Activation remuneration capped at ±13.500 €/MWh

Introduction to the Capacity Remuneration Mechanisms: CRM & Low Carbon Tender

Belgian Authorities Capacity Mechanism(s)

- To secure the supply/demand balance after 2025 (2024*)
- **Target: capacities** playing an upwards role
= less consumption *or* more production
- How: **financial support** granted in an Auction following your capacity (/project) prequalification

Service to deliver?

- **Flex being available** and reactive
- Only in case of **high day ahead market (DAM) prices**

Who participates?

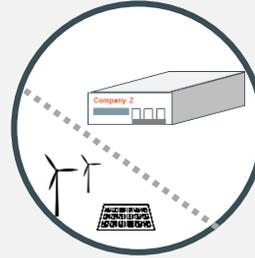
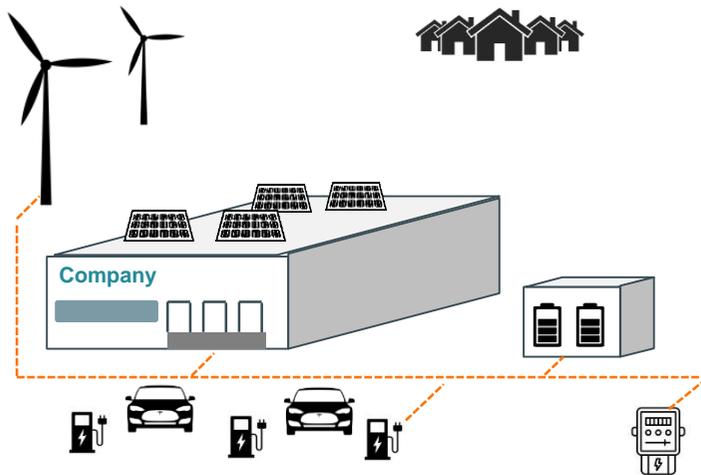
- The **grid user or mandated partner** with:
 - New demand response
 - New storages
 - New local production
 - Existing flexibilities (CRM only)

CRM yearly fix revenue

- **On top of all Energy Market revenues**
- Max 75k€/MW/y (2022 figure)
- Max 20k€/MW/y for existing unit (2022 figure)
- No combination with // Green variable supports

How can I benefit from the capacity remuneration mechanisms (CRM) & Low Carbon Tender Features?

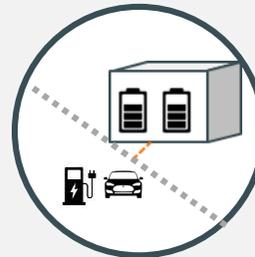
- ✓ Obtaining **a fix revenue** on top of the other energy market
- ✓ For **my existing assets** and for **my new projects**



A fix revenue for my existing assets

Existing assets of a site (Demand Side Response, local production, ...) can be granted of a one-year contract for being available in the market

E.g. Auction 2022, a flexibility of 20MW max 2h/day could be awarded for one year (2026) **up to 180k€**.



A fix revenue for my new projects

New assets on a site (Demand Side Response, local production, Storages) can be granted of a multi-year contract for being available in the market

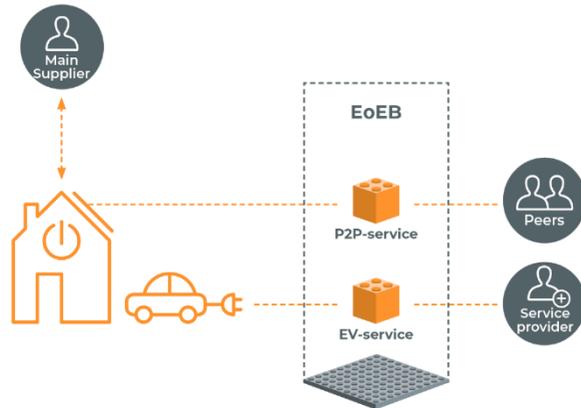
E.g. Auction 2022, a flexibility of 20MW max 4h/day could be awarded for 8 years 2026-2034 period **up to 4,03 M€**. (3, 8 or 15 years possible)

How does a consumer-centric market design make unlock flexibility?

Two key features

Exchange of energy blocks

A decentralized exchange of energy blocks between consumers and many other parties, **on & behind the meter**



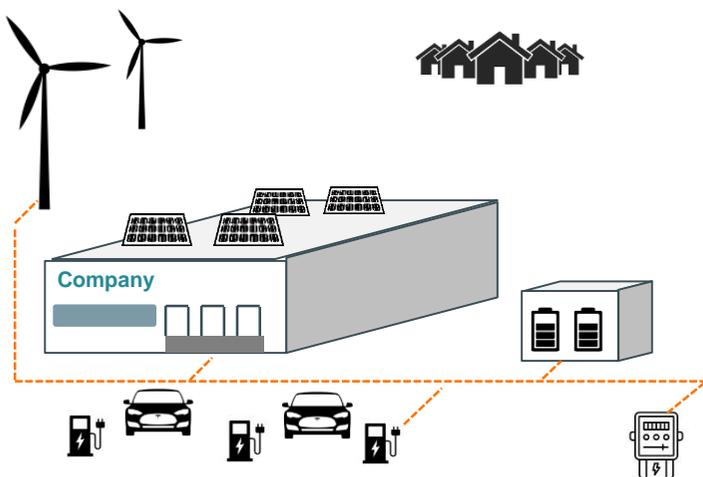
A real-time market price

to reveal the true **value of flexibility** to consumers

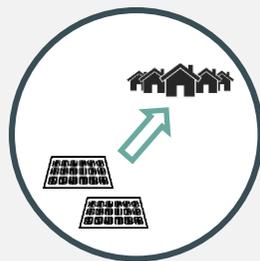


Facilitating the **development of additional flexibility** should come **together** with the development of a clear incentive, the **real-time price**

How can I benefit from these upgraded market features?



- ✓ **optimize** my energy profile
- ✓ **valorize** my flexibility
- ✓ define my **tailor-made solution**

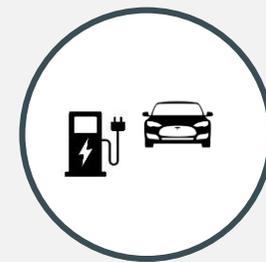


Valorization of your own renewable production

Sharing your solar energy between different access points or with other grid users (eg. residential area) through an energy community

Valorization of your employee's EV flexibility in balancing services

Steer your employees' EV to help Elia balance the grid without impacting your supplier or your employees' comfort

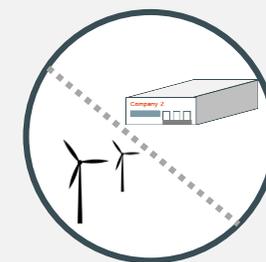


Contract a dedicated supplier for your battery

Keep your current supply contract for your baseload and optimize your flexible assets through a new supply contract sensitive to market prices

Let investors build a wind park on your site without affecting your supply contract

Investors can appoint their own supplier and avoid financial risks on your own supply contract by splitting responsibilities



EXCITING TIMES



Q&A

