

Agenda

Keynote address by Kadri Simson, European Commission

Session One: Impact of the Covid-19 Pandemic on the Energy Sector

Presentations by Jean-Laurent Lastelle, CEER & Mechthild Wörsdörfer, International Energy Agency

Panel discussion

Jiří Jaromír Klemeš, Brno University of Technology
Matthew Vickers, Ombudsman Services & NEON
Marie-Pierre Fauconnier, Sibelga
Moderator: Jean-Laurent Lastelle, CEER

Session Two: Sector coupling and the energy transition

Presentations by Pedro Verdelho & Christine Materazzi-Wagner, CEER

Panel discussion

Miklos Gaspar, European Commission
Uroš Salobir, ELES
Jorgo Chatzimarkakis, Hydrogen Europe
Moderator: Wolfgang Urbantschitsch, CEER

Closing remarks & preview new CEER Strategy for 2022-2025 by Annegret Groebel, CEER President

CEER Annual Conference 2021

CEER White Papers on Long-term storage, Regulatory Treatment of Power-to-Gas and When and how to regulate hydrogen networks?

Pedro Verdelho, GWG Chair

Christine Materazzi-Wagner, EWG Chair



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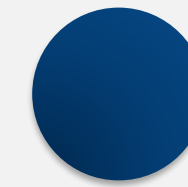
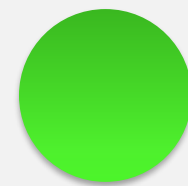
How we started:

- 1, 2, 3 Packages
- Liberalisation
- Unbundling
- Internal energy market
- New EU entities & NCs



Where we are going:

- New actors
- Energy system integration
- Carbon-neutral society
- Hydrogen
- Energy efficiency

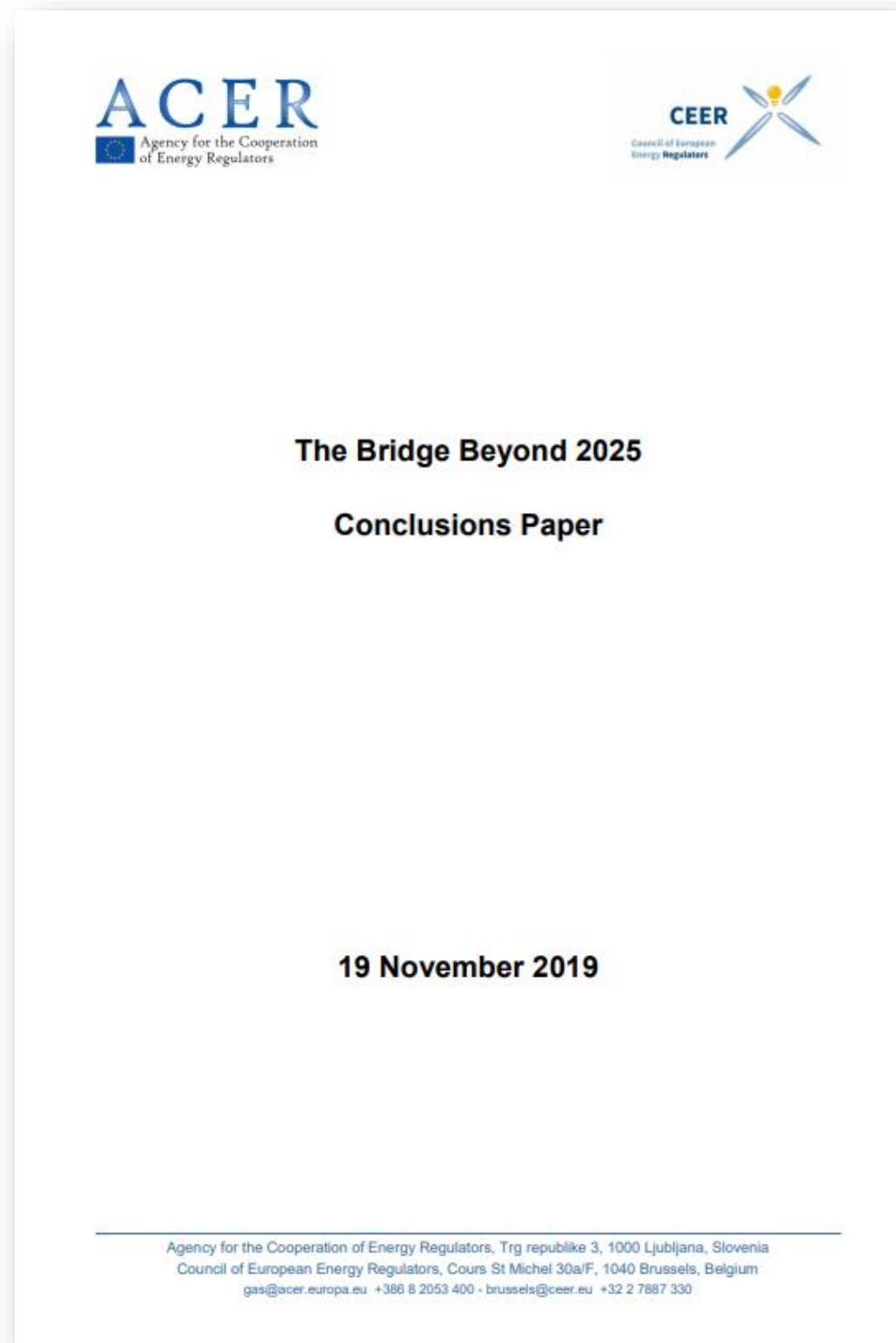


Where we stand:

- Clean Energy Package
- Decentralisation
- Prosumers
- Energy efficiency



The Bridge Beyond 2025



- Access and market monitoring
- Governance of infrastructure and oversight of existing and new entities
- Dynamic regulation for new activities and technologies
- Transmission tariffs and cross-border capacity allocation

Further reflections:

White Paper on Hydrogen

White Paper on Power-to-Gas

White Paper on Long-term storage

You can find the papers [here](#).

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Views on how to regulate hydrogen networks



1. Consider a **gradual approach to the regulation of H2 networks** in line with market infrastructure development



2. **Apply a dynamic regulatory approach** based on periodic market monitoring



3. **Clarify the regulatory principles** from the outset



4. **Foresee temporary regulatory exemptions** for existing and new H2 infrastructure development as B2B networks



5. **Value the benefits of repurposing of gas assets** for H2 transport



6. **Apply cost-reflectivity** to avoid cross-subsidisation between the gas and H2 network users

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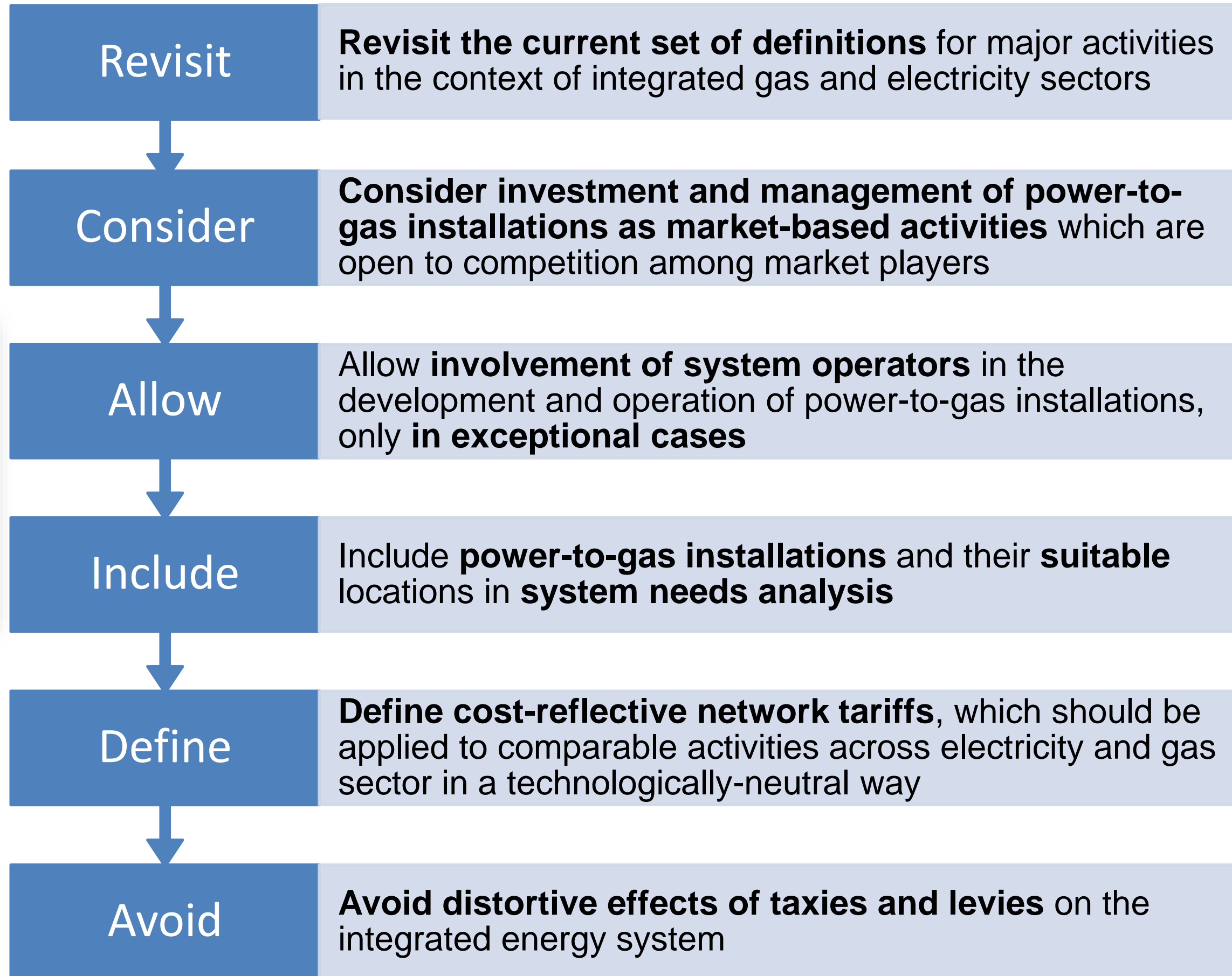
When and How to Regulate Hydrogen Networks?

“European Green Deal” Regulatory White Paper series (paper #1)

relevant to the European Commission’s Hydrogen and Energy System Integration Strategies

9 February 2021

Views on how to regulate Power-to-Gas



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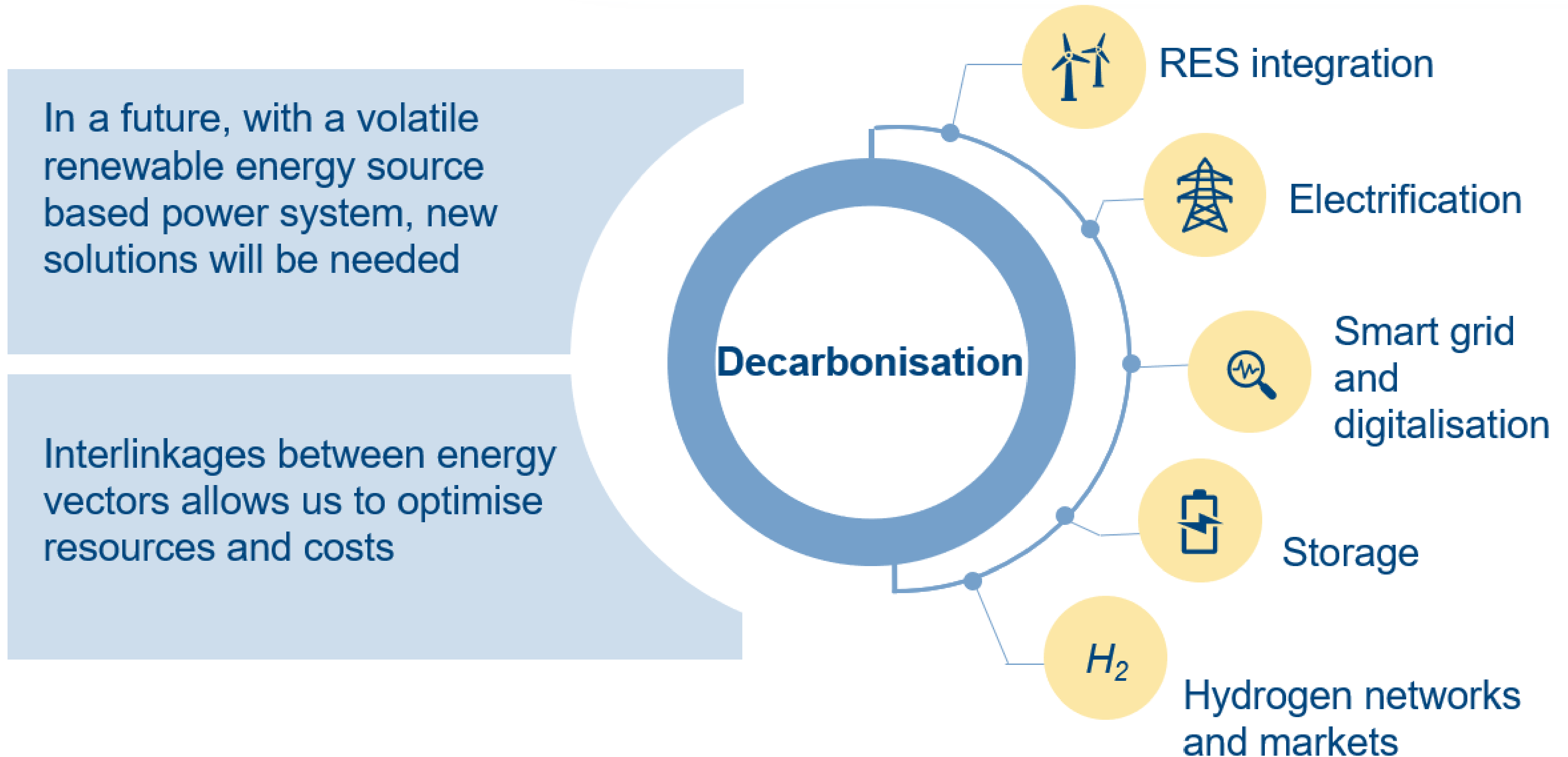
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Regulatory Treatment of Power-to-Gas

“European Green Deal” Regulatory White Paper series (paper #2)
relevant to the European Commission’s Hydrogen and Energy System Integration
Strategies

11 February 2021

Energy System Integration has several dimensions

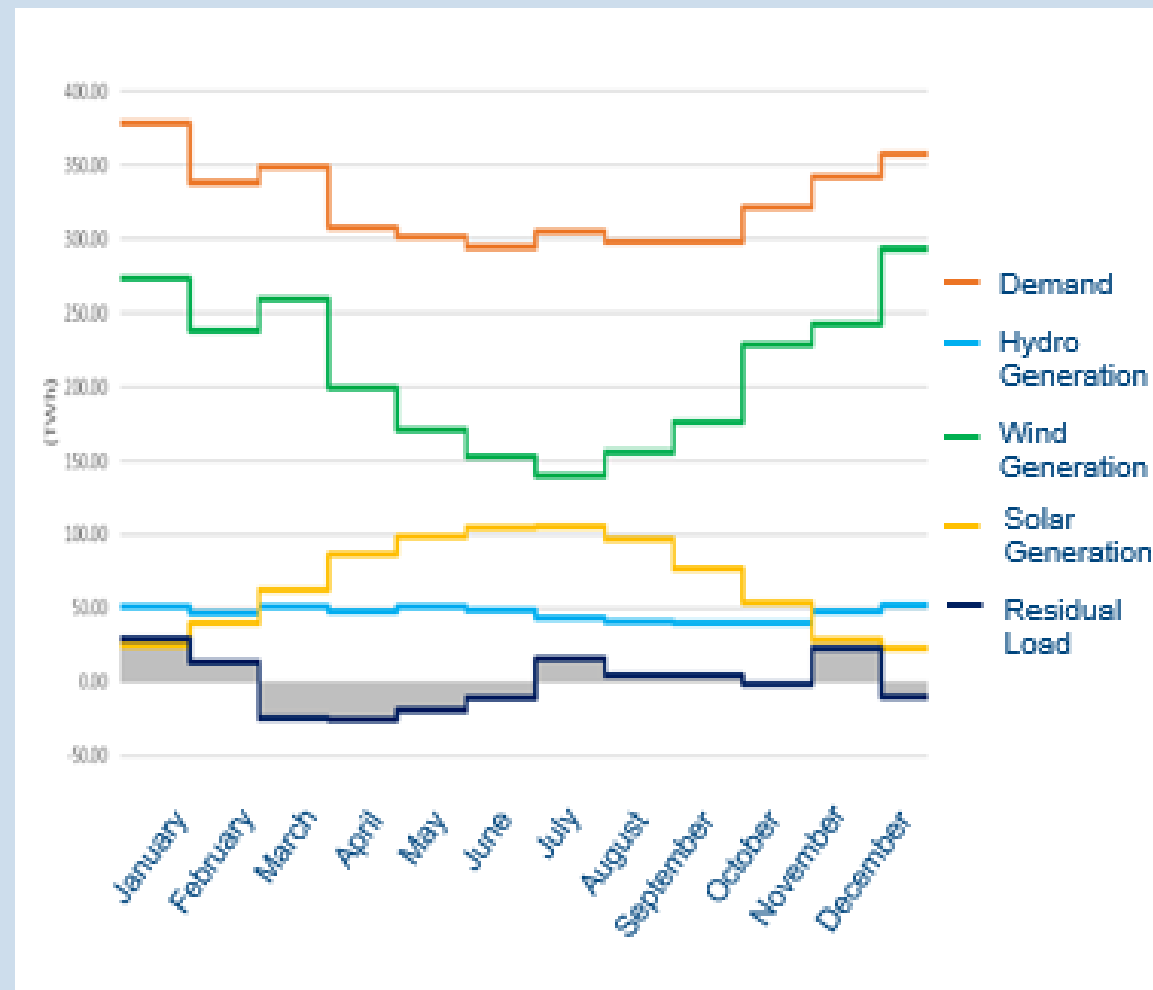


Why may Long-Term Storage be relevant?

Seasonal adequacy solutions

- Interconnections
- Excess RES
- Market-based curtailment
- Flexible demand
- Long-term storage (hydro and gas)

100% RES 2040 scenario



Annual storage need
100% RES

75 - 94 TWh

Storage analysis

Average
annual gas
storage need

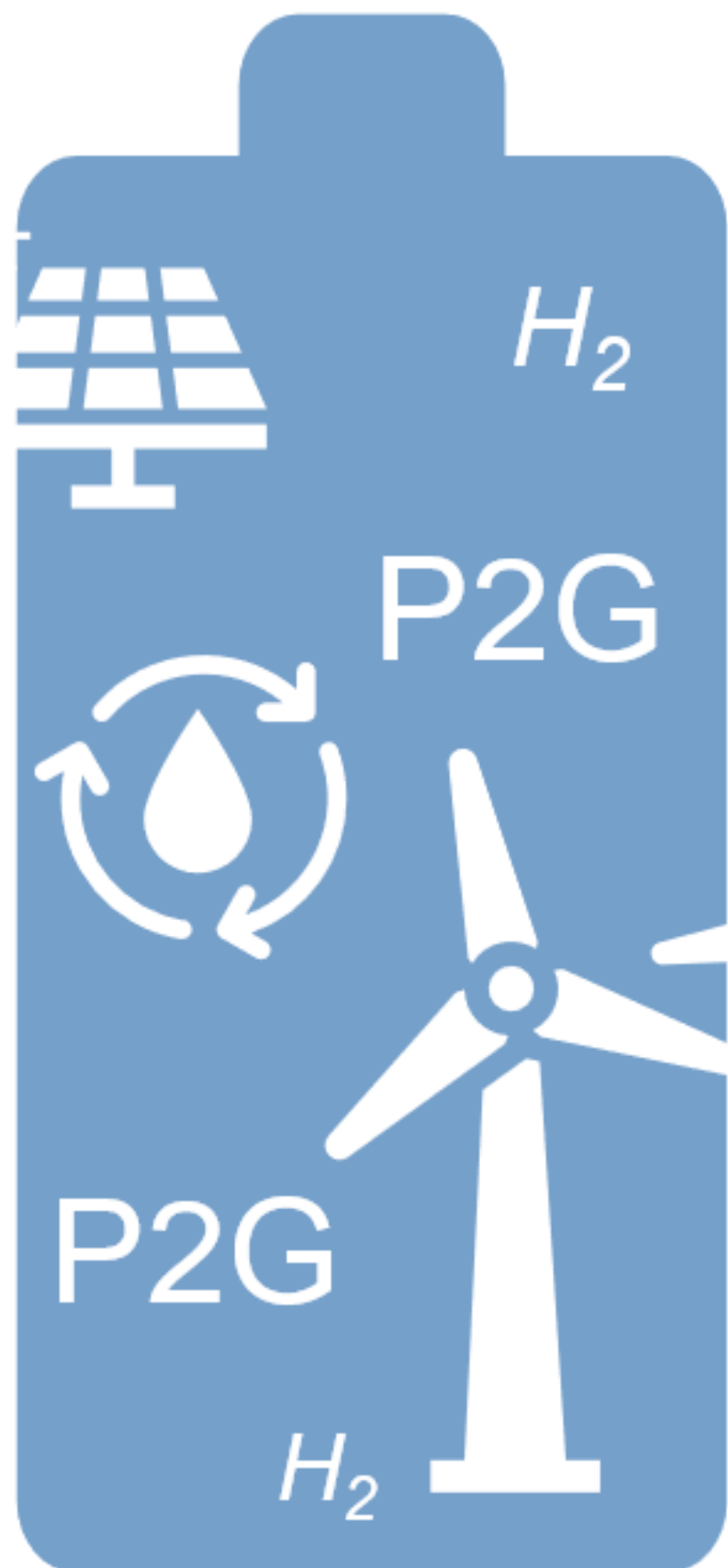
741
TWh

Gas storage
currently
installed

1020
TWh

14 / 54
TWh

Pumped hydro storage
currently installed /
technological potential



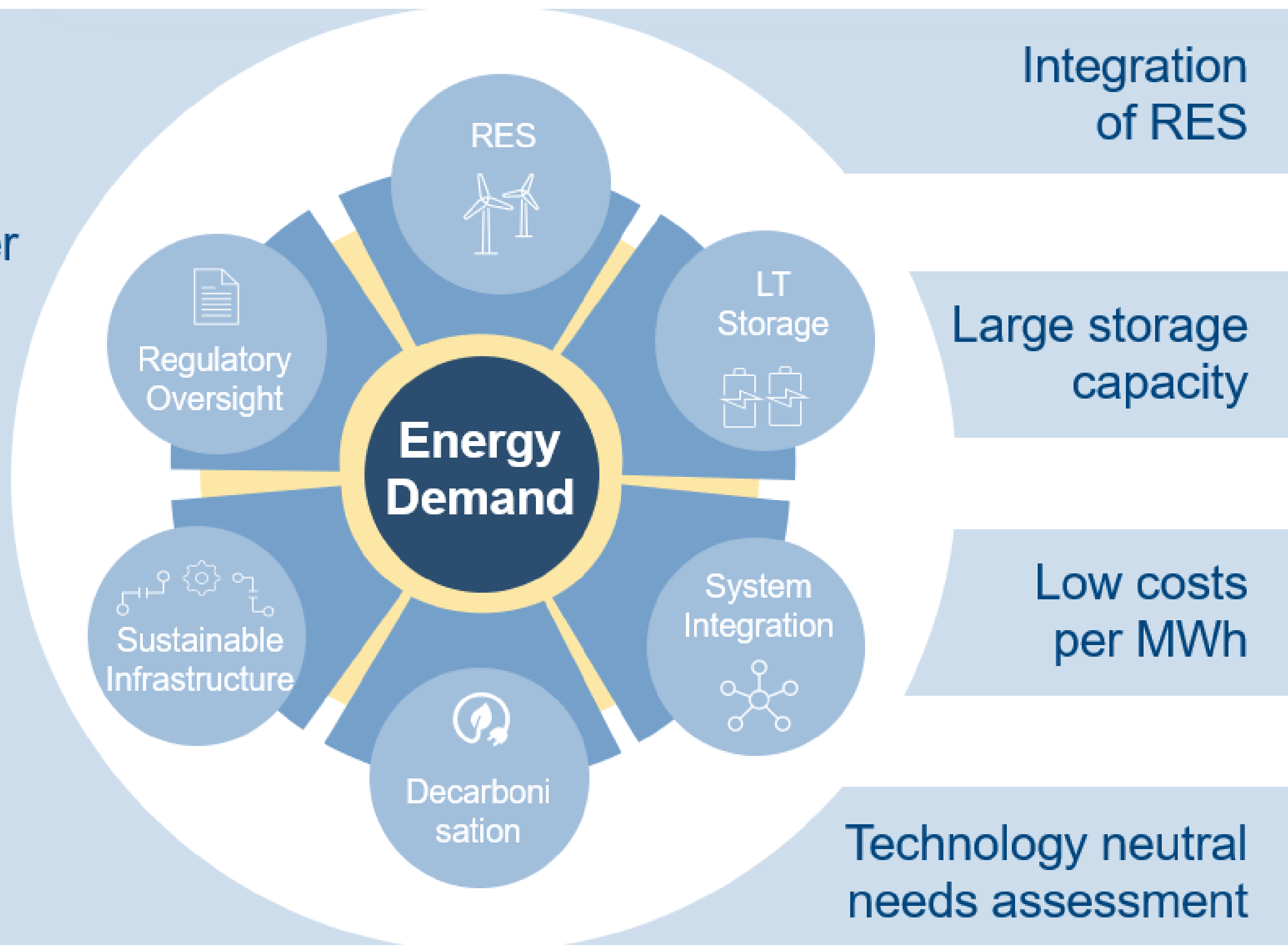
- Today the only mature technologies are pumped hydro storage and gas storage
- Limited amount of pumped hydropower potential
- Current gas storage capacity widely exceeds the potential electricity side demand for storage until 2040
- No significant additional demand for long-term electricity storage until 2040
- The ratio between installed PV and wind power capacities has a significant impact

Cornerstones needed for Long-Term Storage



Level playing field between long-term storage and other seasonal adequacy approaches

Storage and sector coupling technologies should be integrated in a detailed way in planning models



Session Two: Sector coupling and the energy transition

Miklos Gaspar, DG ENER, EC

Uroš Salobir, Director of the Strategic Innovation
Department ELES

Jorgo Chatzimarkakis, Secretary General Hydrogen Europe

Moderator **Wolfgang Urbantschitsch**, CEER Vice President

TSO innovation for a climate-neutral European energy system

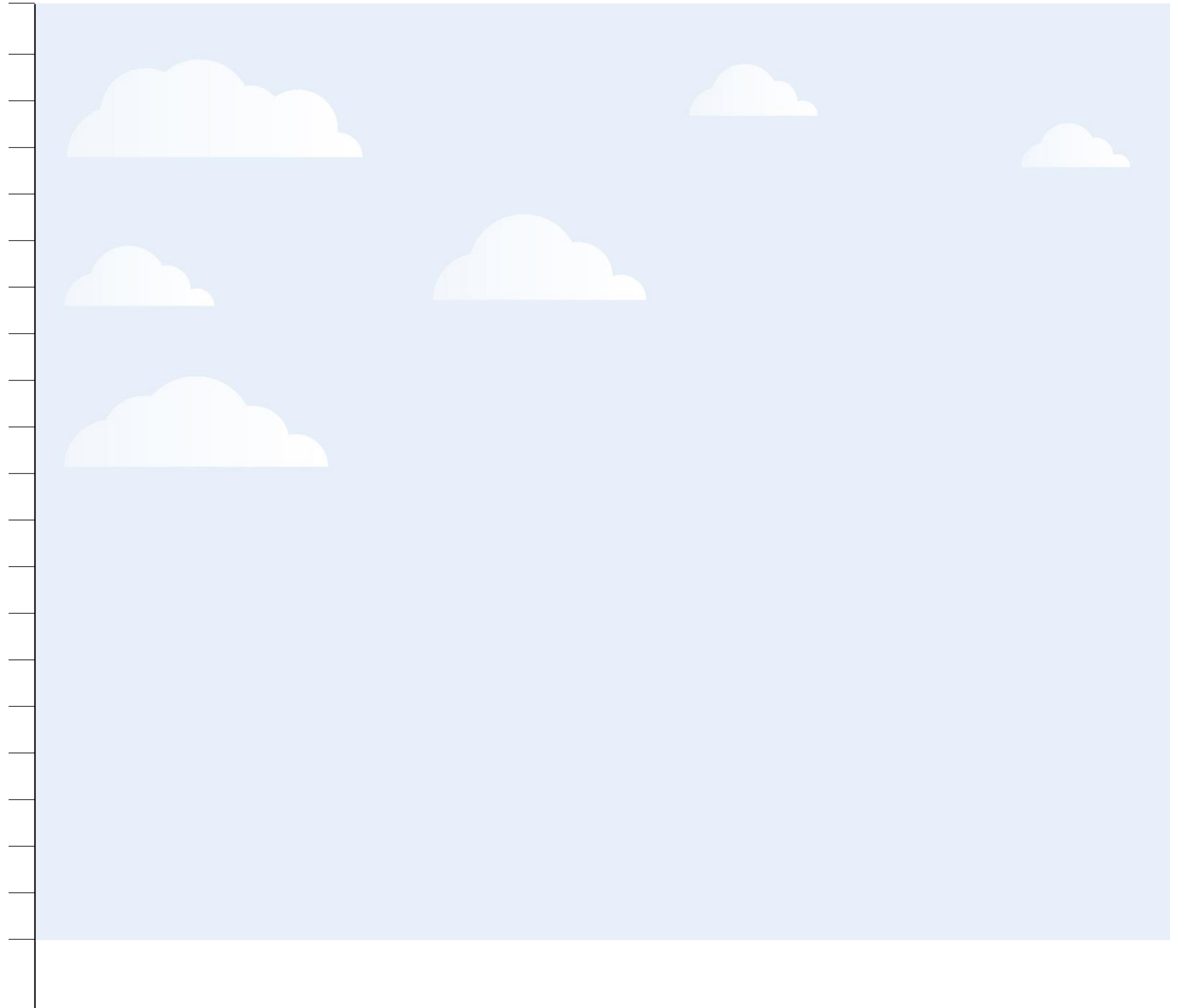
Uroš Salobir,

Director of the Strategic Innovation Department

ELES

Sector coupling will be the key to keeping energy prices low in the long-run

Network charges in EUR/kWh



Sector coupling will be the key to keeping energy prices low in the long-run

Network charges in EUR/kWh

~0.15

Today



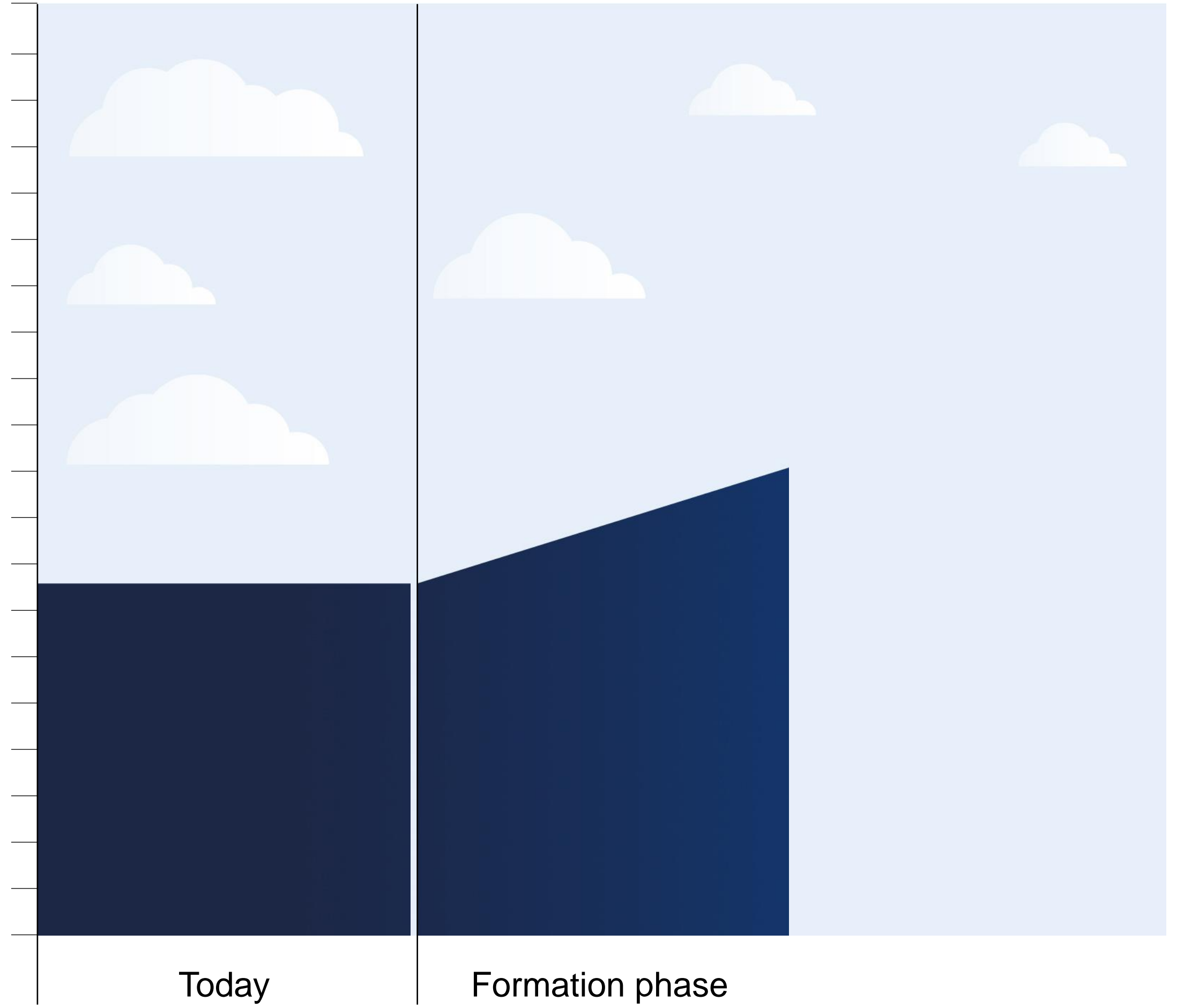
Sector coupling will be the key to keeping energy prices low in the long-run

Network charges in EUR/kWh

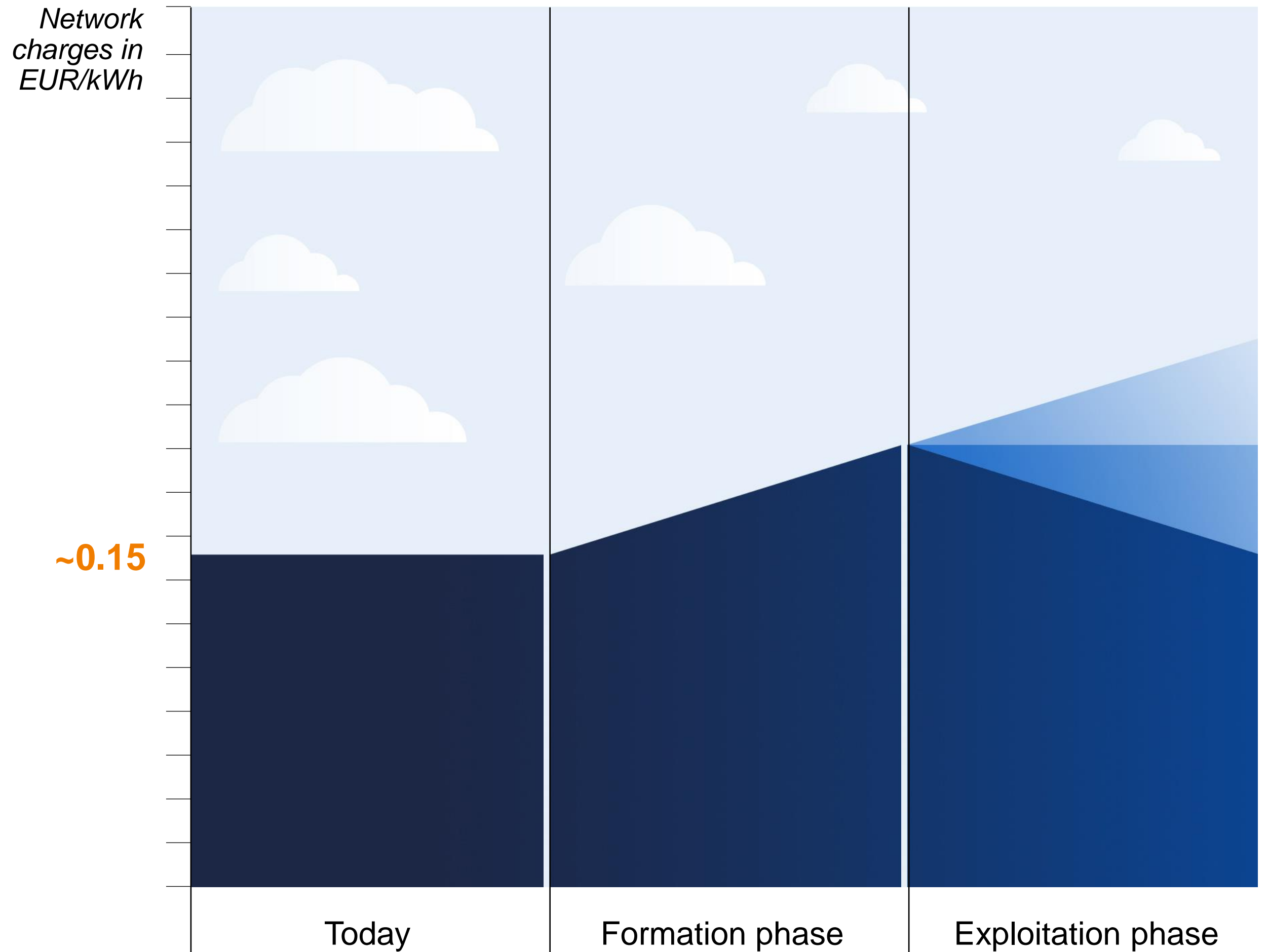
~0.15

Today

Formation phase



Sector coupling will be the key to keeping energy prices low in the long-run



The sector coupling will
require efficient cooperation
on cross-sector investments

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1

Building up **new roles and responsibilities**

Connecting utilities from electric, gas, oil, heating, and transport sectors

Connecting market and non-market stakeholders

Connecting utilities and end-users



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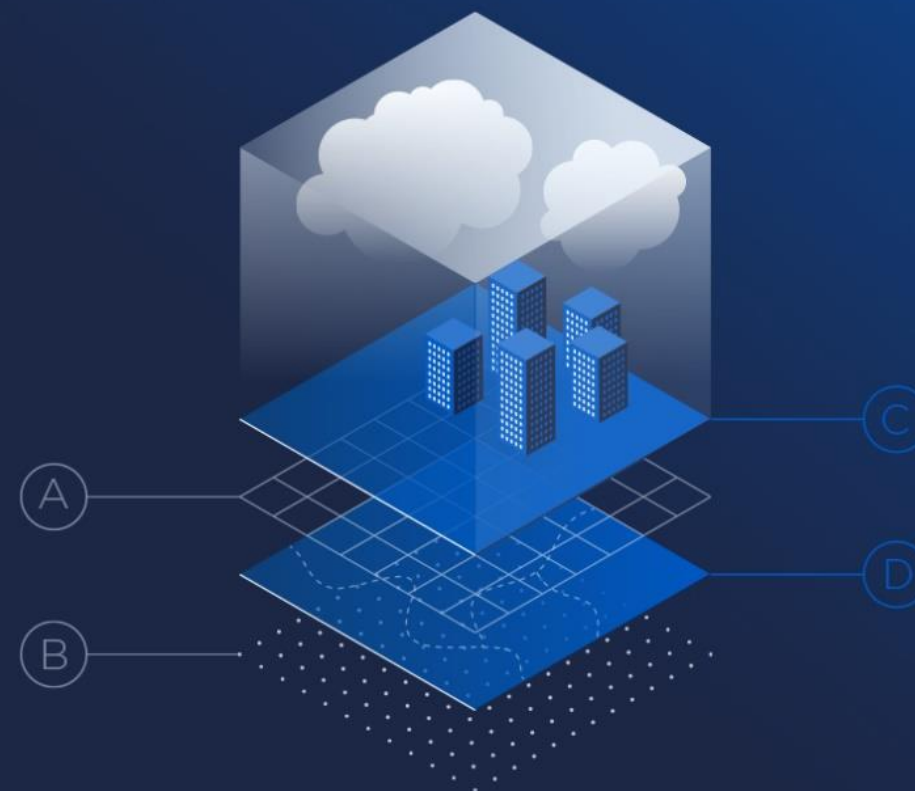
Connecting market and non-market stakeholders

Connecting utilities and end-users



2

Joint development of **cross-sector digital twins**



The sector coupling will require efficient cooperation on cross-sector investments

1

Building up **new roles and responsibilities**

Connecting utilities from electric, gas, oil, heating, and transport sectors

Connecting market and non-market stakeholders

Connecting utilities and end-users



2

Joint development of **cross-sector digital twins**



3

Initiation of cross-sector **investment projects**



CEER 2021 Annual Conference
Tuesday 30th March 2021

HYDROGEN EUROPE

Jorgo Chatzimarkakis, Secretary General

9 PRINCIPLES

1

Hydrogen: from innovative niche technology to system element.

2

Hydrogen's key role in delivering climate neutrality means it merits a dedicated framework .

3

Clean Hydrogen definition: Clean Hydrogen is EU Climate Law compliant hydrogen. Carbon content as currency; science based definitions, clear LCA methodology and thresholds.

4

Hydrogen Act focuses on infrastructure and market aspects, describing 3 phases of development: kick-start, ramp-up & market-growth.

5

Making hydrogen part of 'smart' energy system integration system, including through the use of ledger technologies.

6

In order to meet the 2024 and 2030 targets, the kick-start phase will require exceptions and derogations from existing EU rules, e.g. relaxation and/or reform of state aid rules.

7

Different tools can be utilised to incentivise market uptake and functioning, on the production side and the demand side.

8

Need for a certification scheme that is Trackable, Traceable, Transparent, Transportable and ultimately Trustworth.

9

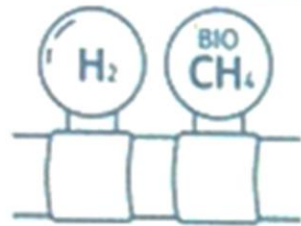
Hydrogen Act should contribute to framing Hydrogen Europe's "replacement strategy" of fossil carriers.

REGULATION OF HYDROGEN NETWORKS

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Findings on blending and recommendations on pure H2



Blending of H2 and biogas injection

1. Blending readiness differs across EU
2. Pilot projects drive developments
3. NRAs support EU-wide approach to H2 limits
4. Pure H2 and blending could co-exist
5. Gas quality standards need revision to ensure interoperability
6. NW plans to focus on repurposing
7. Limited regulatory change needed (under gas legislation)

Regulation of pure H2 network

1. Regulate gradually
2. Monitor H2 sectoral development
3. Clarity on key regulatory principles
4. Allow temporary exemptions
5. Assess NW repurposing
6. Keep cost-reflectivity

- EC has shown its intentions in TEN-E: separate h2 networks.
- The development of the h2 market will not develop in the same way as the gas market did.
- The unbundling models may not strictly speaking be the same as in the gas market.
- Market tests to assess the different situations across Europe.
- Close alignment between ACER / Hydrogen Europe recommendations on hydrogen infrastructure regulation presented in H2 Act paper, our gas grid paper (2019) as well as our input to the LBST/Trinomics study on Hydrogen Regulation.
- Clear distinction in approach to blending of hydrogen and pure hydrogen.

HYDROGEN GUARANTEES OF ORIGIN

Guarantees of origin should be

TRACKABLE,

TRACEABLE,

TRANSSPARENT, and

TRADEABLE

TRUSTWORTHY

- We promote hydrogen as a distinct energy carrier. Blends belong in the gas world but pure hydrogen is meant for pure hydrogen consumers.
- A market for hydrogen will emerge; hydrogen GOs should transparently reflect GHG intensity of the hydrogen.
- EC FASTGO project: *“the hydrogen sector unanimously and strongly reacted to the stakeholder consultation, asking for separate hydrogen GOs that would acknowledge that hydrogen is a separate energy vector to other gases.”*
- Synergies of GO system with funding/incentive mechanisms.
- Use of ledger technologies e.g. blockchain, to facilitate traceability.
- GOs for imports to be implemented.

Our mission – zero emission!

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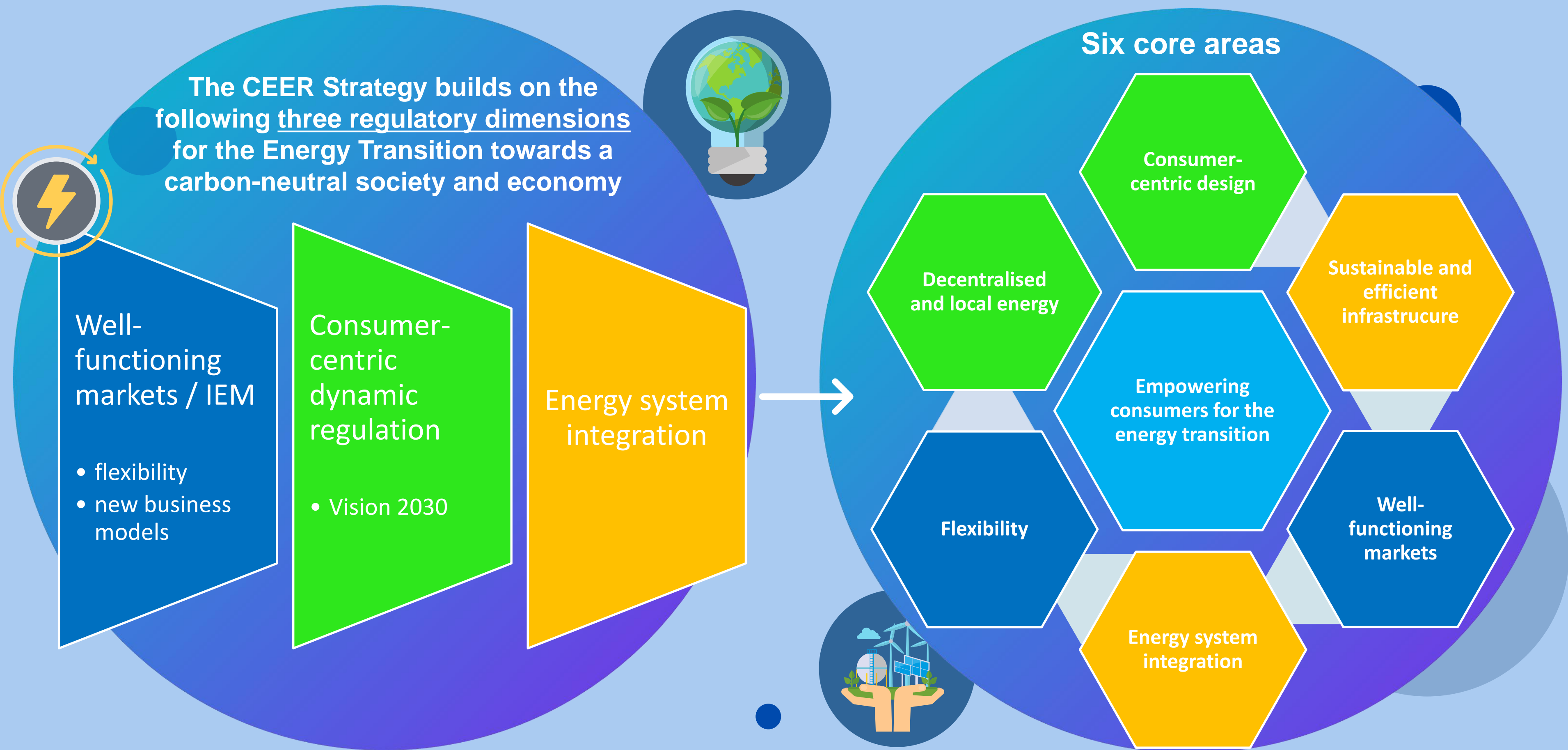


- **Introduction to CEER's draft strategy**
- **Conclusions and wrap up of the conference**

Annegret Groebel, CEER²⁶ President

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CEER Empowering Consumers for the Energy Transition Strategy for 2022-2025



The public consultation
is open until 30 April

YOUR FEEDBACK IS
MUCH APPRECIATED!

You can find the
strategy and
questionnaire here:
www.ceer.eu/public-consultation-on-new-strategy



Thank you for attending!



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