



# ACER



European Union Agency for the Cooperation  
of Energy Regulators

# The role of regulation in ‘unlocking’ the hydrogen economy

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Portugal’s Presidency of the Council of the EU  
*‘Hydrogen in Society – Bridging the Gaps’*  
Conference on 7 April 2021 in Lisbon

# Kick-starting a nascent market

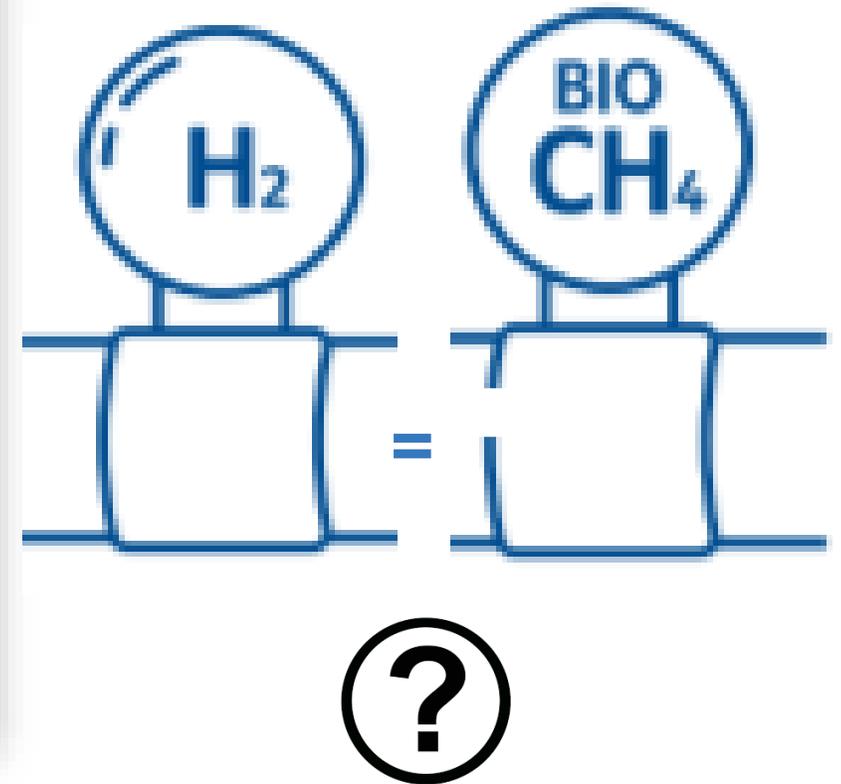


# Whilst early intervention avoids lock-in ...



**Here, taking lessons from early gas market integration efforts across Europe ...**

# ... Over-regulation may risk or halt developments



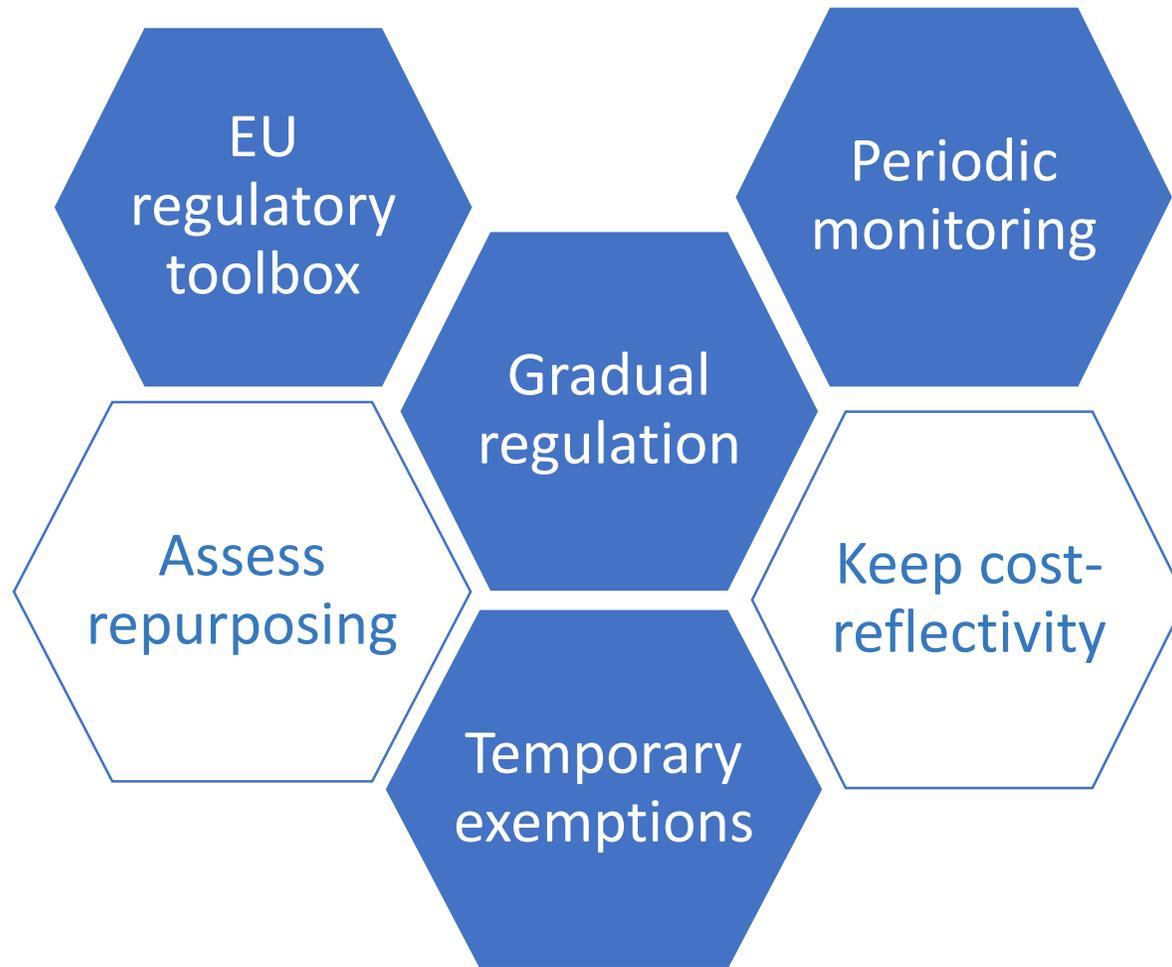
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## ACER and CEER recommend when and how to regulate pure hydrogen networks

09.02.2021

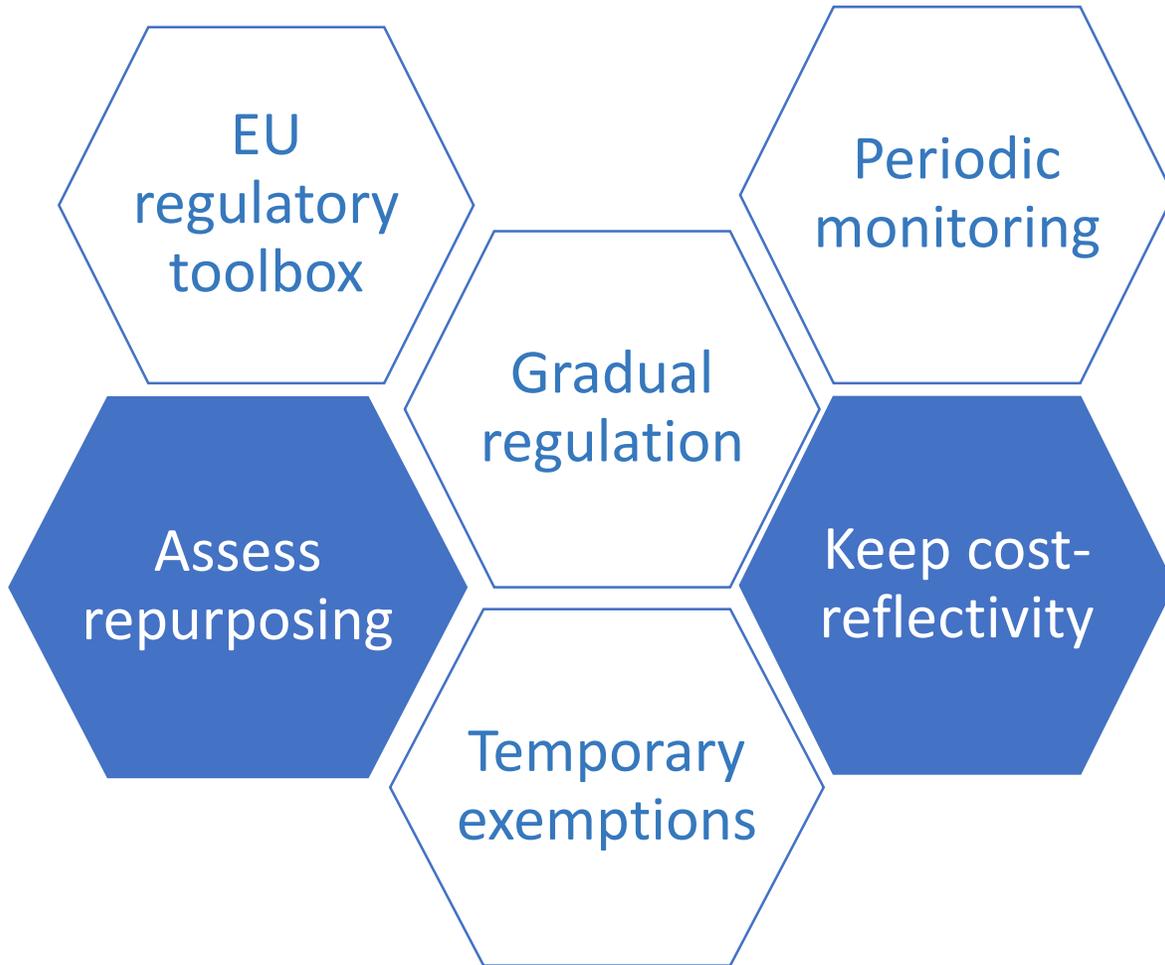


# Relying on an EU-wide regulatory approach (1)



- **Gradual regulation** → offering sufficient certainty to investors, but flexibility for different stage of developments
- **Periodic monitoring** → with a focus on competition and key EU metrics
- **EU regulatory toolbox** → retain key basic principles:
  - NRAs supervision
  - Third-party access
  - Non-discrimination
  - Transparency
  - Customer protection
  - Unbundling
- **Temporary exemptions** → for business-to-business networks

# Relying on an EU-wide regulatory approach (2)



- **Assess repurposing** → To optimise investments
  - Repurposing can give value to potentially underutilised gas pipelines
  - Develop advanced cost-benefit analyses (CBAs) to incorporate societal values and avoided cost (e.g. for addressing electricity network congestion)
- **Keep cost-reflectivity** → avoiding cross-subsidisation
  - The gas/hydrogen network costs should be paid by their respective users
  - Sound practical rule: Don't make users 'pay twice' for the same pipe (once for gas, then again for hydrogen)

# *(On repurposing: Perspectives may well differ)*



**Avoiding higher gas transmission tariffs & risks of stranded assets**

*versus*

**Level-headed approach to 'sunk costs' & integrated network planning**

# Allowing a strong role for market design

- **Driver: reducing CO2 emissions** → A fit-for-purpose **ETS** (Emissions Trading Scheme) to higher competitiveness for cleaner fuels, such as hydrogen
- **Driver: ensuring a level playing field, supporting trade** → Guarantees of origins (**GO**) allowing credible carbon accounting alongside technological neutrality
  - Allowing for example 'green' hydrogen production to compete with alternatives such as pyrolysis and steam methane reforming with CCUS
- **Driver: ensuring the highest economic efficiency** → Various outcomes possible as regards future networks; thus allowing for evolution down the line
  - Blending vs. dedicated (separate) networks vs. decreasing re-separation costs etc.

# Future financing vs. *existing* network challenges



- **ACER findings:** Current Projects of Common Interest (PCI) regime contains multiple shortcomings such as perennial **delays**, unclear **sustainability** assessment, insufficient **cross-sectoral** planning; lack of credible regulatory **oversight** etc.



Hence, future-proofing Hydrogen networks is also about improving the TEN-E regulation, currently under Council / European Parliament negotiation

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**Regulatory treatment of  
Power-to-Gas: second  
Paper in the ACER/CEER  
European Green Deal  
Regulatory Winter Paper  
series**

11.02.2021



***Contributing our regulatory considerations  
for your key priorities***

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**ACER and CEER  
recommend when and  
how to regulate pure  
hydrogen networks**

09.02.2021

**Position Papers on TEN-E revision**



*Thank you.  
Looking forward to further discussions.*



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# *BACK-UP SLIDES*



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## A few sobering quotes ...

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*“Without **robust policy action**, the energy system of 2030 will be more akin to that of 2020 than a reflection of what is needed to achieve climate neutrality by 2050 ...”* (The European Commission’s Energy System Integration Strategy, 8 July 2020)

*“Energy will increasingly become a **cross-border business** and cooperation across the borders of organisations and countries is the key to a successful energy transition ...”* (Manon van Beek, CEO of TenneT, 15 December 2020)

*“**Fossil companies** like it because it will be derived from fossil fuels for the next decade or more. **Gas grid operators** and **gas boiler manufacturers** see hydrogen as their only survival route as fossil fuel burning is being phased out. And the **power utility companies** also like it as they’ll be able to sell more power thanks to hydrogen inefficiencies ...”* (Tom Baxter in *The Conversation*, 31 March 2021)