ACER-CEER White Papers on Hydrogen and Power to Gas

35th Madrid Forum, 29 April 2021
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
Recommendations on regulation of H2 networks

- **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

**EU regulatory toolbox**

- Assess repurposing
- Gradual regulation
- Keep cost-reflectivity
- Periodic monitoring
- Temporary exemptions

ACER: European Union Agency for the Cooperation of Energy Regulators

CEER: Council of European Energy Regulators
Recommendations on regulation of H2 networks

- **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)
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
Recommendations on regulatory treatment of power-to-gas

- **Review of definitions** → in the context of integrated gas & elect sectors and with respect to the use of the respective networks
- **Investment and management of P2G as market based activities** → which are open to competition
  - TSOs/DSOs should as a rule be precluded from investing in and running P2s
- **Exceptional involvement of system operators** → allow involvement only in exceptional cases
  - Derogations limited in scope, scale and time and only under strict conditions:
    - If P2G is needed for secure, reliable, network efficient operation and no market interest
    - Take into account the level of unbundling
    - NRAs can set requirements for regulated TPA

Ensure energy traceability
Define cost-reflective network tariffs
P2G in system needs analysis
P2G as market-based activity

SO involved only as exception
Avoid distortions from taxes & levies

Review definitions

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Include P2G in system needs analysis → to give locational signals to investors
   - Using cross-sectorial CBA and with close cooperation between electricity and gas SOs
   - TSOs/DSOs to be subject to an open data obligation

Define cost-reflective network tariffs → apply to comparable activities across the elect & gas sectors
   - Do not use tariffs for subsidization;
   - A tariffs' technology mapping would be useful

Avoid distortions from taxes & levies → by revising and harmonising the current frameworks for energy-based taxes

Ensure energy traceability → across the integrated energy system
   - Set definitions and criteria for RES & low-carbon gases
   - Improve the H2 “colour labelling” and trace renewable across the whole chain