





#### When and How to Regulate Hydrogen Networks?

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

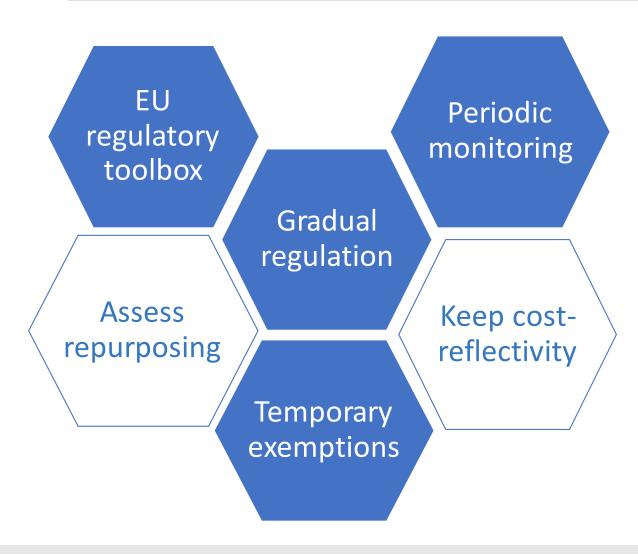
relevant to the European Commission's Hydrogen and Energy System Integration Strategies

9 February 2021





### Recommendations on regulation of H2 networks

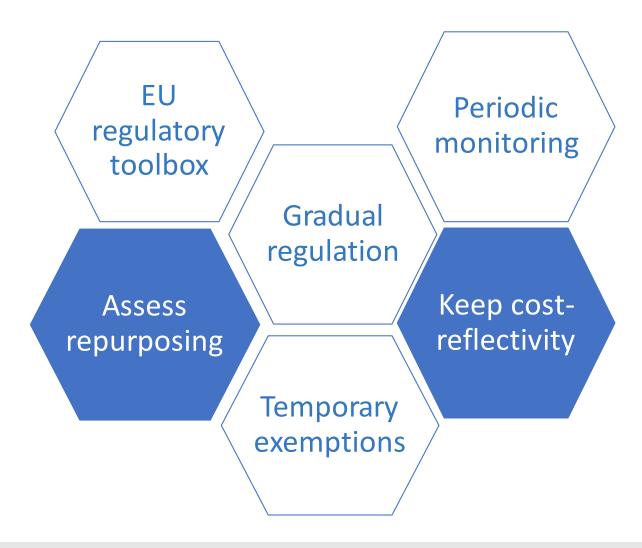


- Gradual regulation → offering sufficient certainty to investors, but flexibility for different stage of developments
- Periodic monitoring → with a focus on competition and key EU metrics
- EU regulatory toolbox → retain key basic principles:
  - NRAs supervision
  - Third-party access
  - Non-discrimination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





### 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 crosssubsidisation
  - 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

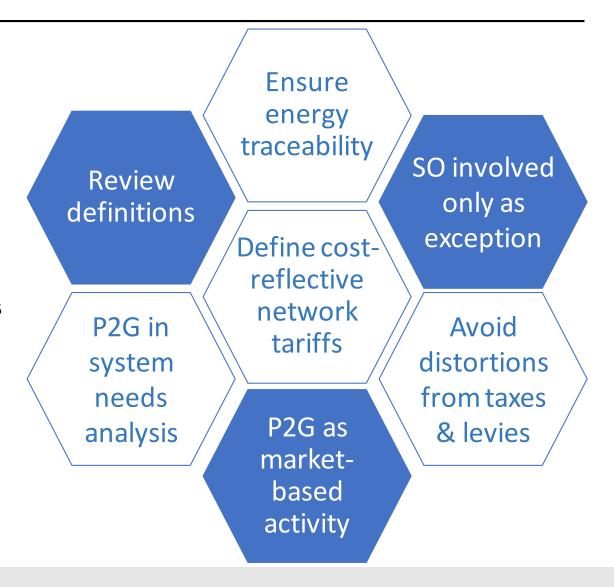
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# Recommendations on regulatory treatment of power-to-gas

- 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







## TSOs/DSOs to include P2G in national development plans

- 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

