





Potentials of sector coupling for decarbonisation - Assessing regulatory barriers in linking the gas and electricity sectors in the EU

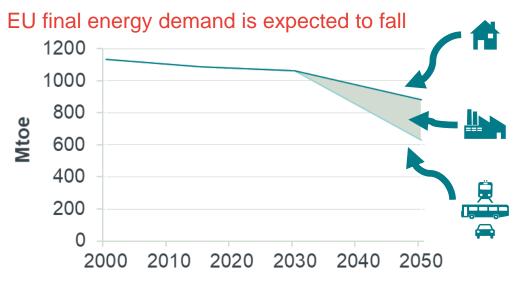
Madrid Forum 2019

6 June 2019

Confidential

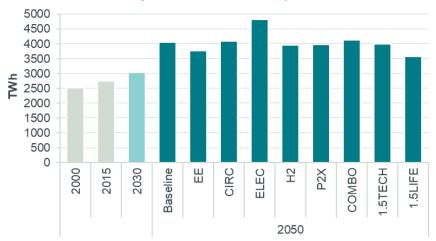


Despite the uncertainties, scenario studies consistently find a long-term role for gases...



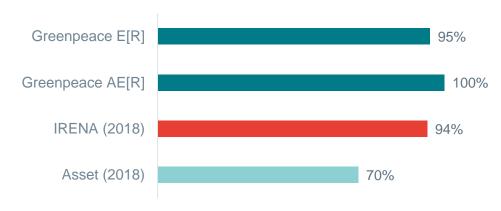
Source: Frontier Economics and CE Delft, based on EC (2018)

While electricity demand is expected to increase



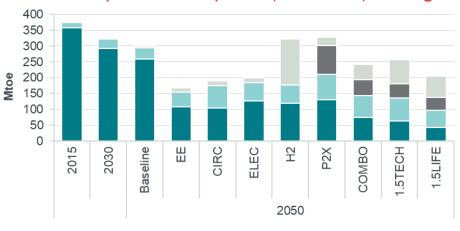
Source: Frontier Economics, based on EC (2018)

With renewable electricity accounting for a high share of the mix by 2050



Source: Frontier Economics, based on sources indicated.

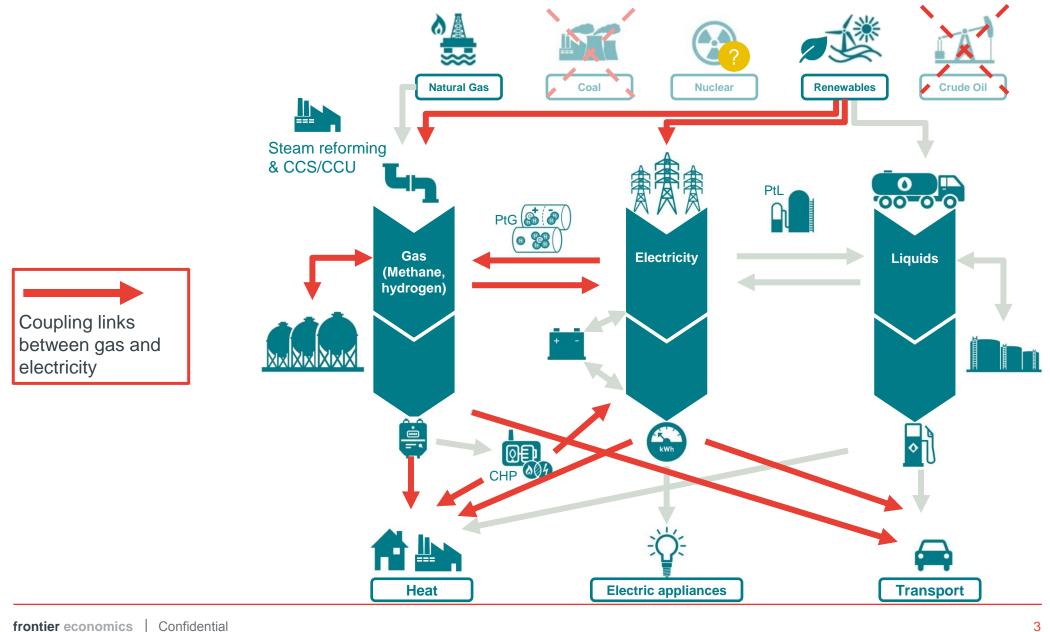
Gases help with transport / (seasonal) storage needs



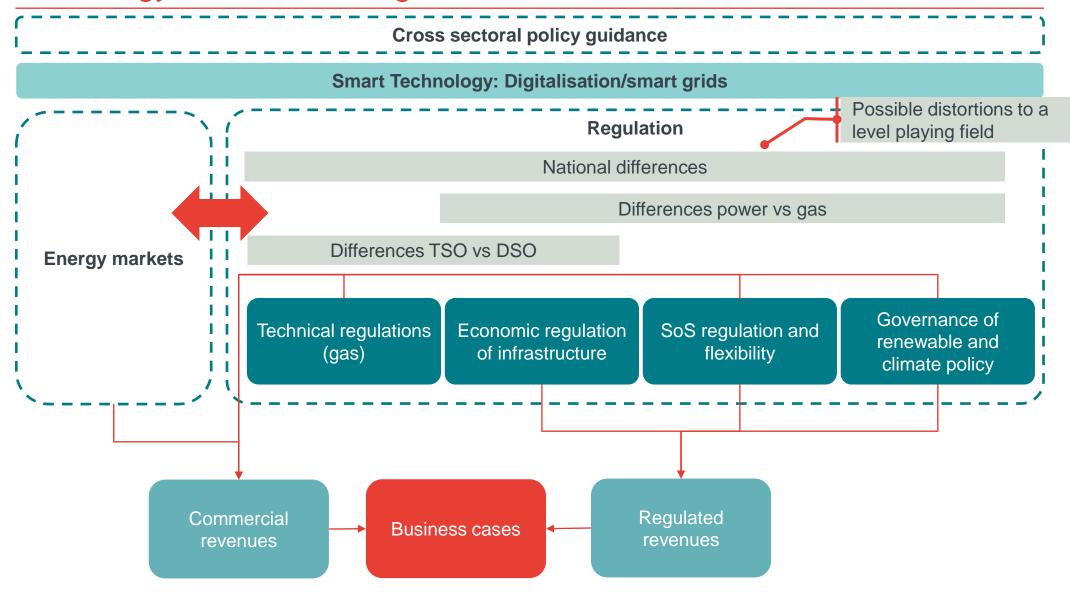
■ Natural gas ■ Biogas and waste gas ■ Synthetic methane ■ Hydrogen

Source: Frontier Economics and CE Delft, based on EC (2018)

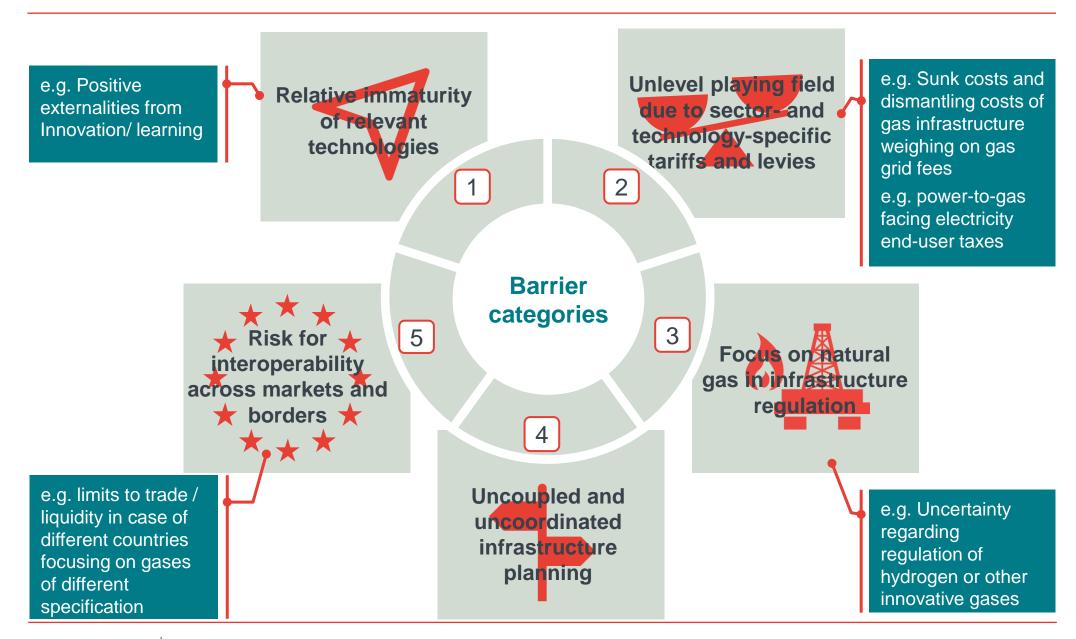
... and increasing interaction between electricity and gas, as well as between different types of gases



Market design and regulation therefore need to be consistent and technology neutral in a range of areas



Barriers and gaps can be grouped into five categories



A range of solutions will be required to address the barriers and gaps identified

Barriers

- 1 Relative immaturity of relevant technologies
- 2 Unlevel playing field due to sector- and technology-specific tariffs and levies
- 3 Focus on natural gas in infrastructure regulation
- 4 Uncoupled and uncoordinated infrastructure planning
- 5 Risk for interoperability across markets and borders











Solutions recommendations

Climate / renewable policy and support for innovation



Regulatory toolbox to address cost recovery issues



Fit for purpose market design and charging arrangements



Clarity on access to infrastructure



Co-ordinated infrastructure planning and decommissioning



Regulatory clarification – role of grid operators in PtG for R&D/pilots

Clarify who is best placed to bear the cost of stranded assets (and other legacy costs, e.g. for RES support)

Clarify under what conditions Gas Directive rules on TPA / unbundling apply to hydrogen (and other gases)

Thank you for your attention!



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