Gas Infrastructure Europe

Hydrogen Transition: Why the EU gas infrastructure is essential

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Gas Infrastructure Europe: supporting the blooming of H2

- 70 members - 26 EU countries
- Pipelines, underground storages and LNG terminals
- Provides more than 50 000 jobs in the EU
- Responsible for almost 25% of EU's primary energy consumption
- Ensures energy security while delivering climate neutrality by 2050
- it is crucial to support the deployment of low-carbon & renewable H2 technologies. GIE members are developing several key pilot projects in the EU

Gas storages, a cross-sectoral flexibility tool

Gas Infrastructure Europe

At **10%** reduction
> **Gas** demand curtailment

ENTSOG-GIE exercise

Quantitative
results

2017 **Gas storage market failures**
Pöyry study

2018 **Sensitivity analysis on storage WGV reduction Impact on gas demand**
ENTSOG-GIE exercise

2018 **Measures for a sustainable gas storage market**
FTI-CL study

2019 **Value of the gas storage infrastructure for the electricity system**
Artelys study

Qualitative
Studies

Beyond **10%** reduction
> **Electricity** demand curtailment
Artelys study

OPEX 1B€/y Eletricity demand curtailment

E.g. at 30%

Extra cost in the electricity system
- 23 GW CAPEX 55B€ + OPEX 8B€/y
- The variability of power prices doubles

Artelys study

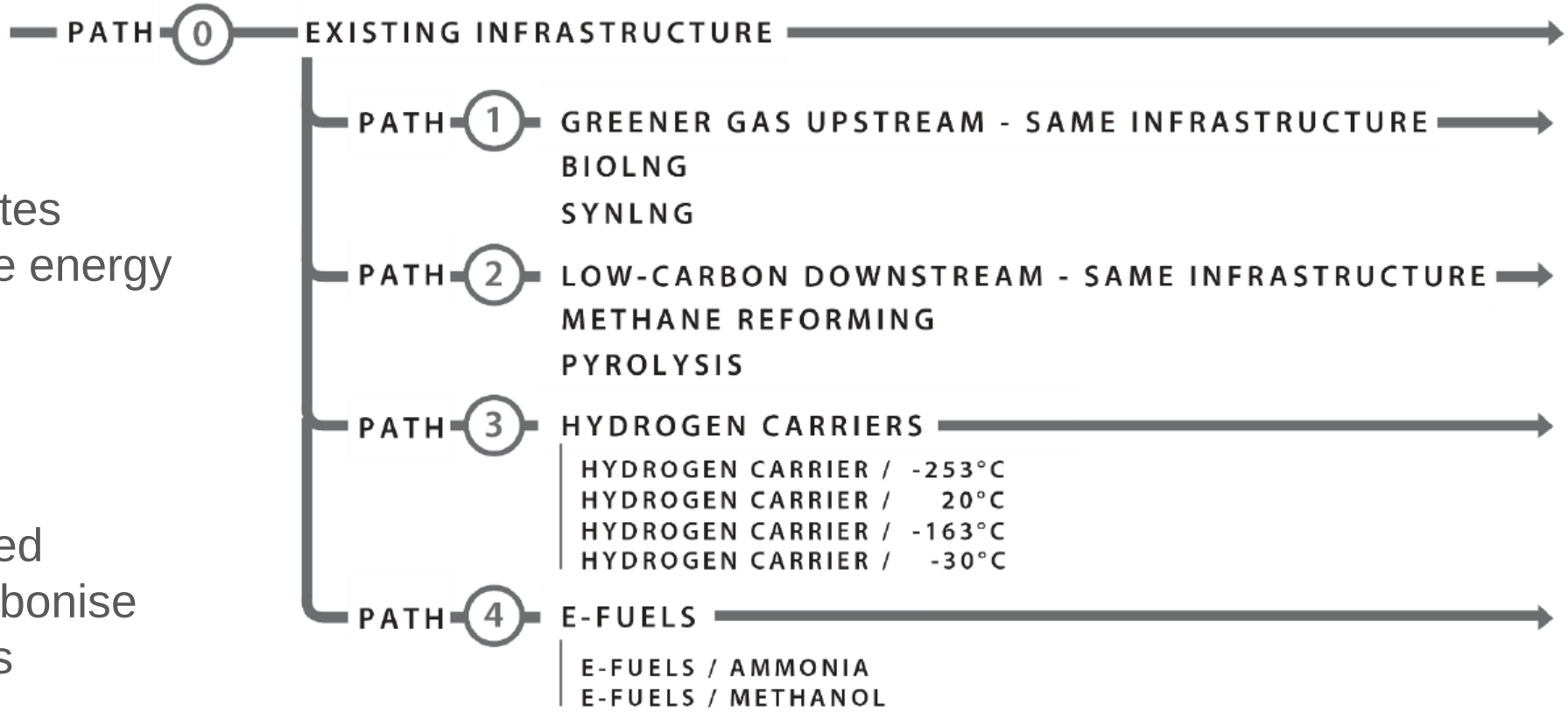
LNG Terminals: the entry door to liquified H2

1

Future import gates
for liquefied renewable energy
such as H2

2

GIE has identified
4 pathways to decarbonise
LNG Terminals



Stay tuned – 2 studies on the way:

1. **Regulation** – barriers and policy actions to unlock the potential of the pathways
2. **Technical** – what are the challenges and costs to make the pathways a reality

To release H2 potential, GIE calls for:

- A **common terminology** via clear, accurate & science-based definition of renewable & low-carbon gases, including H2
- A **set of national binding consumption targets** for renewable & low-carbon gases, including H2, which consider technological developments of Member States
- An **EU-wide credible documentation of the green value of renewable & low-carbon gases**, including H2, such as Guarantees of origin (GOs), with a technology-neutral approach & compatible with the EU ETS
- The **adjustment of levies, grid charges & taxes to reflect societal benefits** provided by the gas infrastructure & the avoidance of double charging
- The **need for a coordinated network** planning, including storage, to **optimise the costs** of the energy transition
- The **amendments of relevant EU legislation (e.g. TEN-E regulation)** to enable network owners to operate several categories of gases, including H2, & **providing them with incentives to adapt their infrastructures** to cope with the coexistence of different gases
- The **alignment of the Hydrogen Strategy** with upcoming policy measures, particularly the **Strategy for Energy System Integration** & the **sustainable finance taxonomy**, to ensure a fully integrated market in view of the development of renewable & low-carbon gases, including H2
- The **upcoming Offshore Wind Strategy** as an opportunity to rework how overall system efficiency gains can be achieved by looking at the optimal way to bring hydrogen from supply source to demand area (i.e. offshore conversion).

Thanks!

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