

Role of gas in decarbonizing EU energy sector

ENTSO-G perspective

EU-Russia Gas Advisory Council - WS2

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Some quantification of the gas potentials

Further quantification and scenarios work pending

Cost efficiency with green gases vs. full electrification in studies:

- Pöyry 2018 Decarbonisation Study estimates 94 B€/y savings for EU
- Ecofys 2018 "Gas for Climate" study estimates 138 B€/y savings for EU
- Frontier Economics 2017 Green Gas Study estimates 12B€/y savings for Germany

European-wide exchange and storage of renewable energies via the gas infrastructure



1 000 GW
cross-border capacities
>100% of EU demand



270 GW
EU wind & solar
capacity



1 100 TWh
EU Gas storage capacity



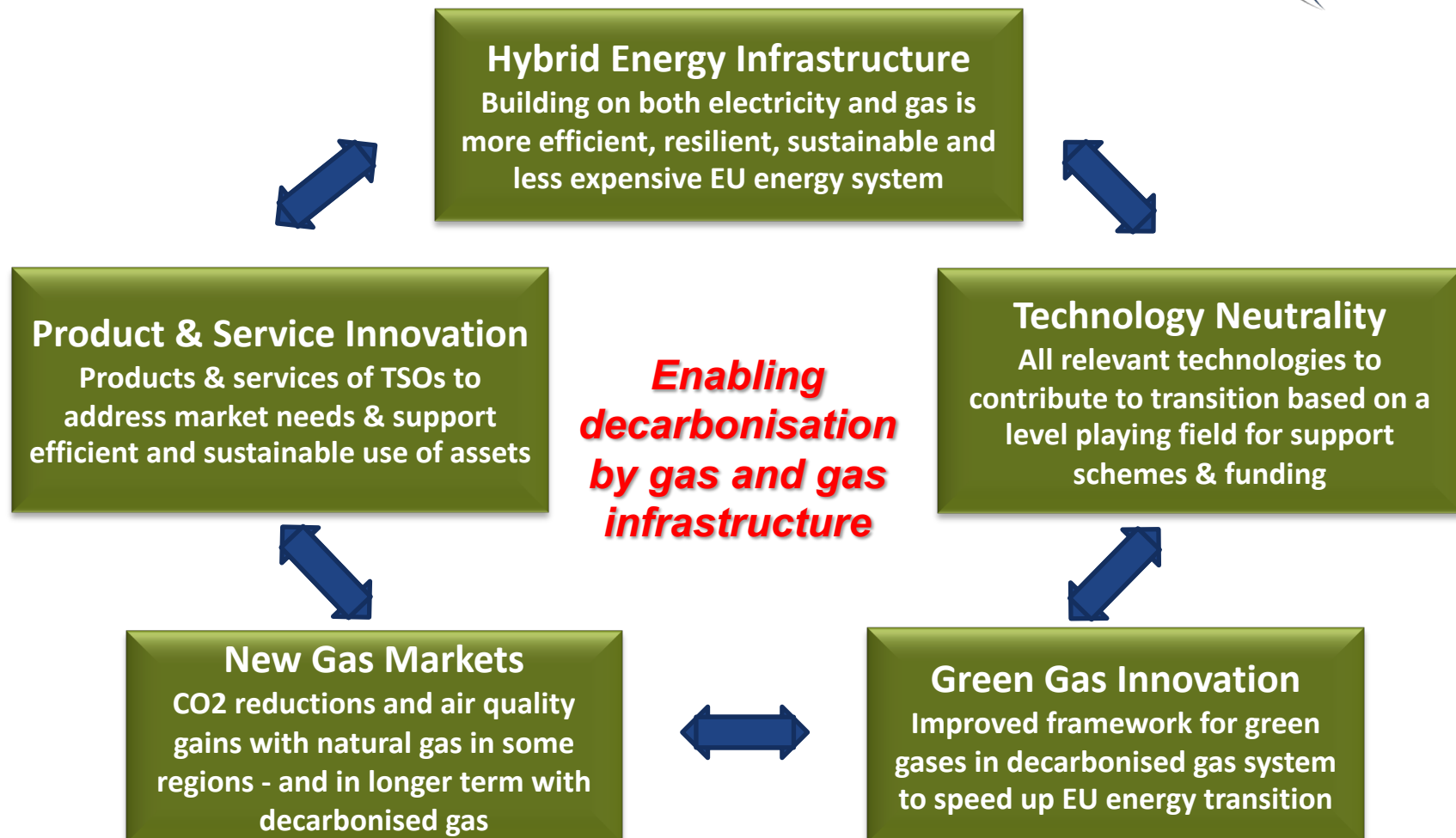
372 TWh
EU wind & solar
generation 2016

Gas cross-border transmission capacity equals more than 3x current wind/solar capacity

Gas storages equals 3x annual energy production from current variable e-RES



ENTSOGs Themes for Gas Package 2020



Solutions to be driven by need for & contributions to decarbonisation
- and should include sector coupling, energy efficiency and digitalisation



ENTSOG Messages for Gas Package 2020



BUILD ON SYNERGIES

- *Political acceptance/support at EU and MS level for a hybrid energy carrier system - utilizing electricity and gas assets efficiently and obtaining improved flexibility and security of supply*
- *Improve sector integration between electricity and gas, also including transport and heat*
- *Obtain better regulatory coordination between electricity and gas on both EU and MS level*
- *Ensure level playing field for green energy technologies, including green gas support schemes*

INNOVATE WITH GAS

- *Promote and support innovation decarbonizing the gas sector*
- *Establish consistent terminology for renewable/decarbonised/climate-neutral gases*
- *Establish EU-wide green gas certification for trustworthy tracking and efficient cross-border trading of green gases*
- *Incentivize TSO product/service innovation - meeting needs to decarbonize EU energy system*
- *Clarify role of gas grid operators in facilitating decarbonizing of EU energy system – including scaling up R&D/pilot projects, investing & operating P2G biogas facilities etc.*
- *Establish risk-reward scheme for gas-related innovation ensuring sufficient investments/R&D*

ENTSOG will contribute actively and constructively to the Gas Package 2020 process



Evolving discussion on decarbonization

Evolution of discussion on gas infrastructure:

From stranded assets and decommissioning

To optimal usage of existing assets

Through support for concept of Hybrid energy infrastructure

CONDITION: decarbonization of gas infrastructure

Evolution of discussion on gas demand:

From full electrification path

To sector coupling and more open strategy with more stable gas position

Through realistic roll-out plan for decarbonized and renewable gases

CONDITION: decarbonization of gas and methane leakage prevention



New ENTSG Website

www.entsog.eu - to be launched 12 December

FUTURE OF GAS INFRASTRUCTURE



Including ENTSG
response to EU Long-
term strategy for GHG
Emission Reduction

MEMBERS INNOVATIVE ACTIVITIES



Including 60 projects
with direct
involvement of EU
TSOs



Thank You for Your Attention

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