

Recent developments in EU legislation Green/Renewable gas and the 2020 Package

GERG

Brussels – 14 June 2018

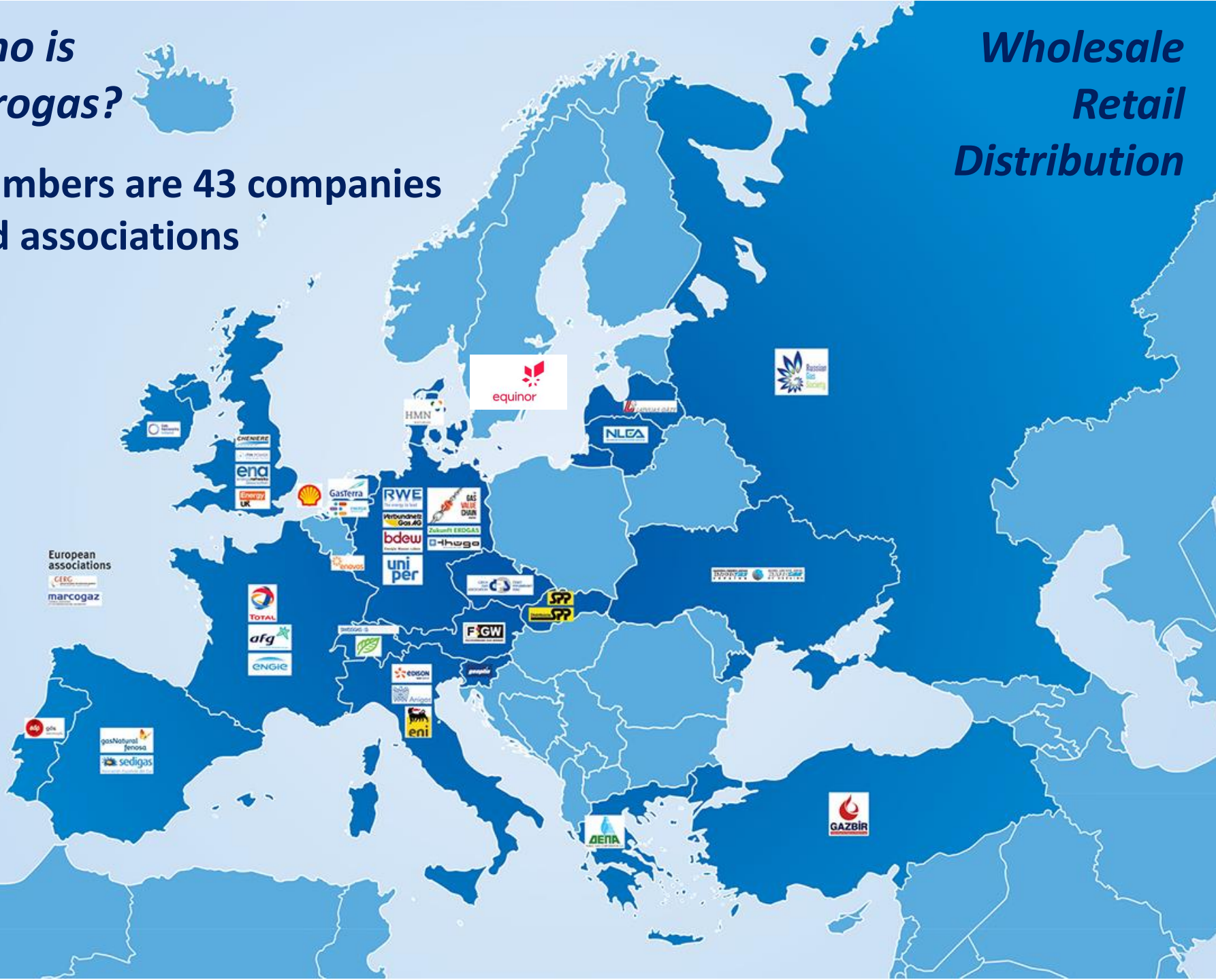
Nicolas Jensen

EU Affairs Officer

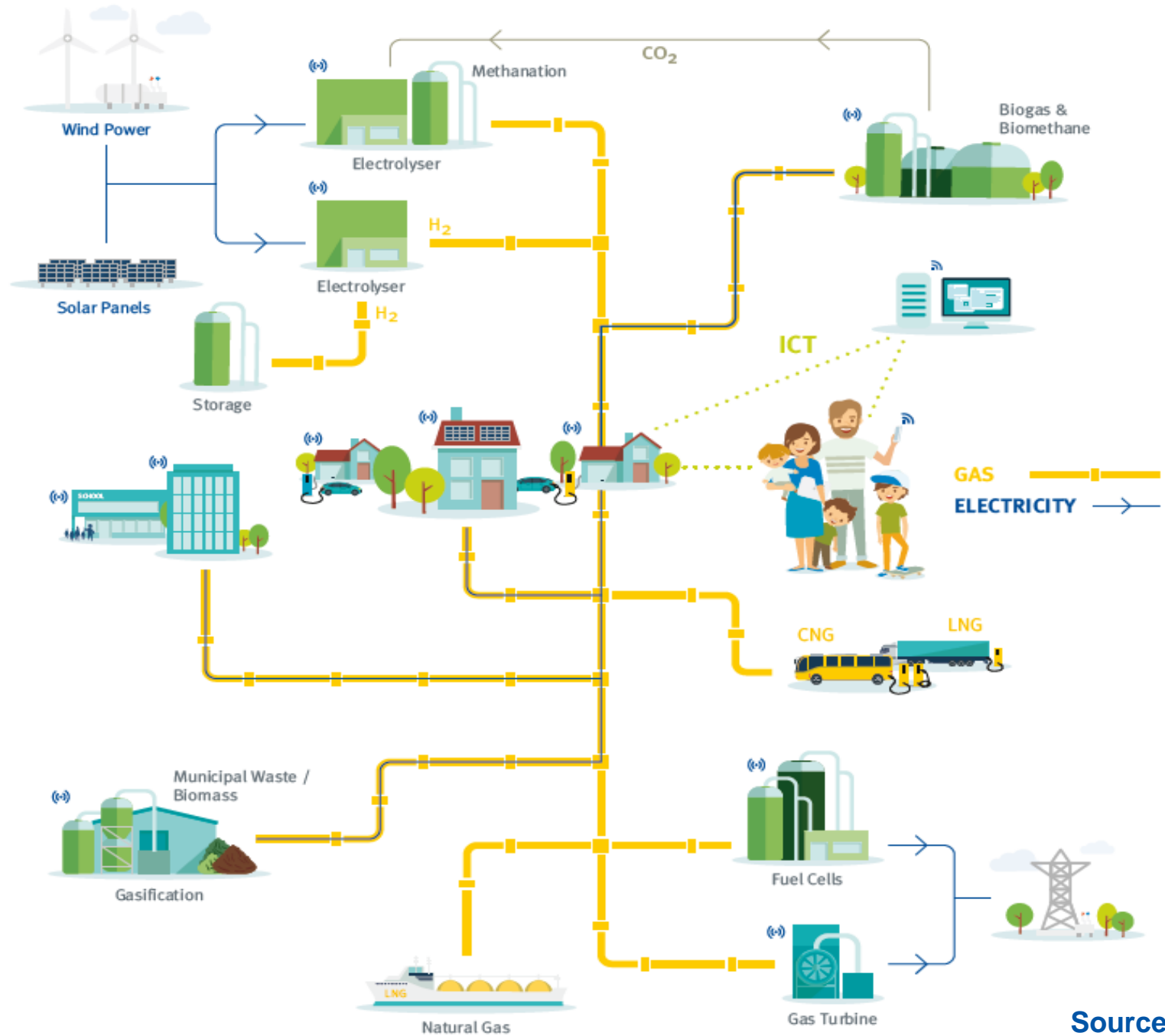
Who is Eurogas?

Members are 43 companies and associations

Wholesale
Retail
Distribution



INTEGRATING RENEWABLE GAS IN A SMART & CLEAN ENERGY SYSTEM



Source: Eurogas

The Clean Energy Package: “Current” legislative framework and targets for 2030

- Initial proposal “27/27/40” in 2030
- Energy Efficiency: 27% initially in the proposal now will probably be increased to 30-35%
- Renewable energy in the energy mix: 27% now will probably be increased to 30-35%. Targets will no longer be national and binding.
- **Update 14 June, 3am, 32% RES with 14% transport objective**
- Reduction in GHG emissions: 40% maybe 45% in future revision

Focus on Hydrogen

- REDII:
 - ReFuNoBiOs: “renewable liquid and gaseous transport fuels of non-biological origin”, means liquid or gaseous fuels other than biofuels whose energy content comes from renewable energy sources other than biomass, and which are used in transport”
 - Can count towards the renewable energy target, but only in transport or as electricity, which can create issues in terms of traceability (Guarantee of origin).
 - Hydrogen produced from a renewable electricity unit that is not connected to the grid can be considered renewable electricity in the global calculations which may create opportunity to avoid grid investments
- EPBD: Possibility to account for renewable hydrogen produced off-site and include it in the building RES calculation “‘technical building system’ means technical equipment for space heating, space cooling, ventilation, domestic hot water, built-in lighting, building automation and control, on-site electricity generation, or a combination of such systems, including those systems using energy from renewable sources, of a building or building unit””
- CEP: What of “blue” hydrogen?

Focus on Hydrogen: RED II sub-target for transport

Part B: Minimum shares of energy from advanced biofuels and biogas produced from feedstock listed in Annex IX, renewable transport fuels of non-biological origin, waste-based fossil fuels and renewable electricity, as referred to in Article 25(1)

Calendar year	Minimum share
2021	1.5 %
2022	1.85 %
2023	2.2 %
2024	2.55 %
2025	2.9 %
2026	3.6 %
2027	4.4 %
2028	5.2 %
2029	6.0 %
2030	6.8 %

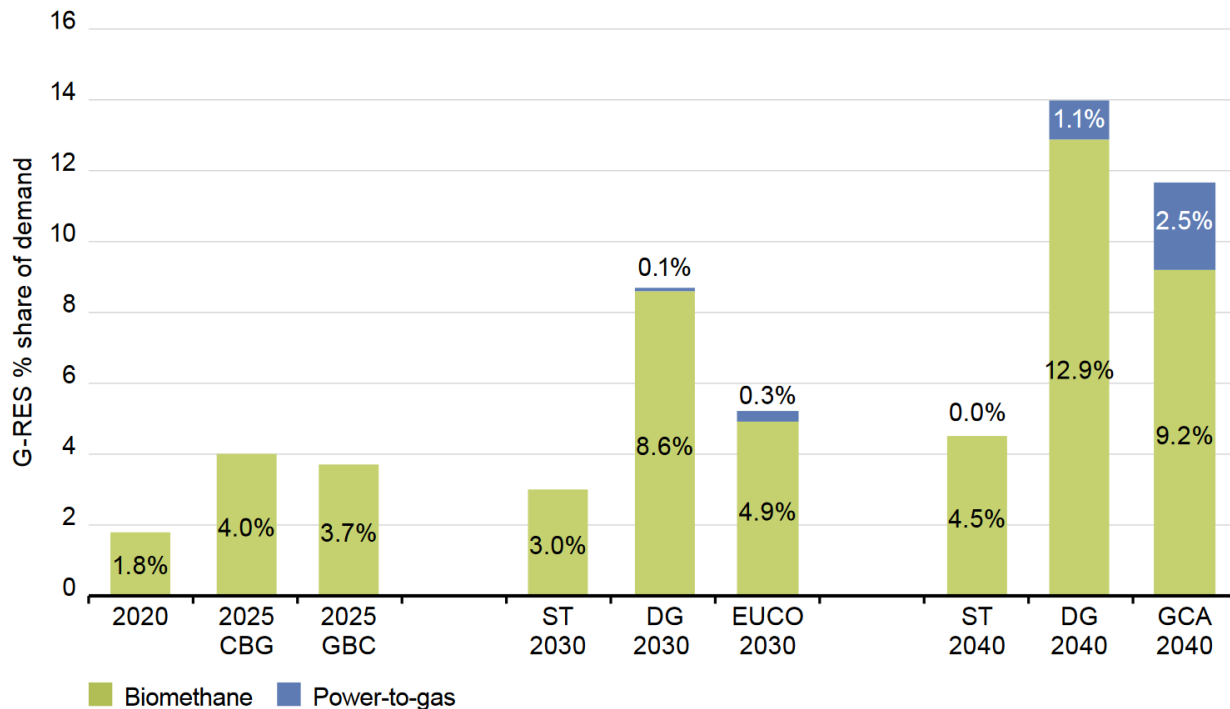
Part C: Minimum shares of energy from advanced biofuels and biogas produced from feedstock listed in Part A of Annex IX as referred to in Article 25(1)

Calendar year	Minimum share
2021	0.5 %
2022	0.7%
2023	0.9 %
2024	1.1 %
2025	1.3 %
2026	1.75 %
2027	2.2 %
2028	2.65 %
2029	3.1 %
2030	3.6 %

Renewable gas - What is the potential in the EU?

- **ENTSOG in 2017 for 2040:**
 - 25 bcm of biomethane + 5 bcm power-to-gas in the best scenario
 - The updated scenarios foresee between 4.5% and 14% of renewable gas in 2040 vs 65 to 81% renewable electricity

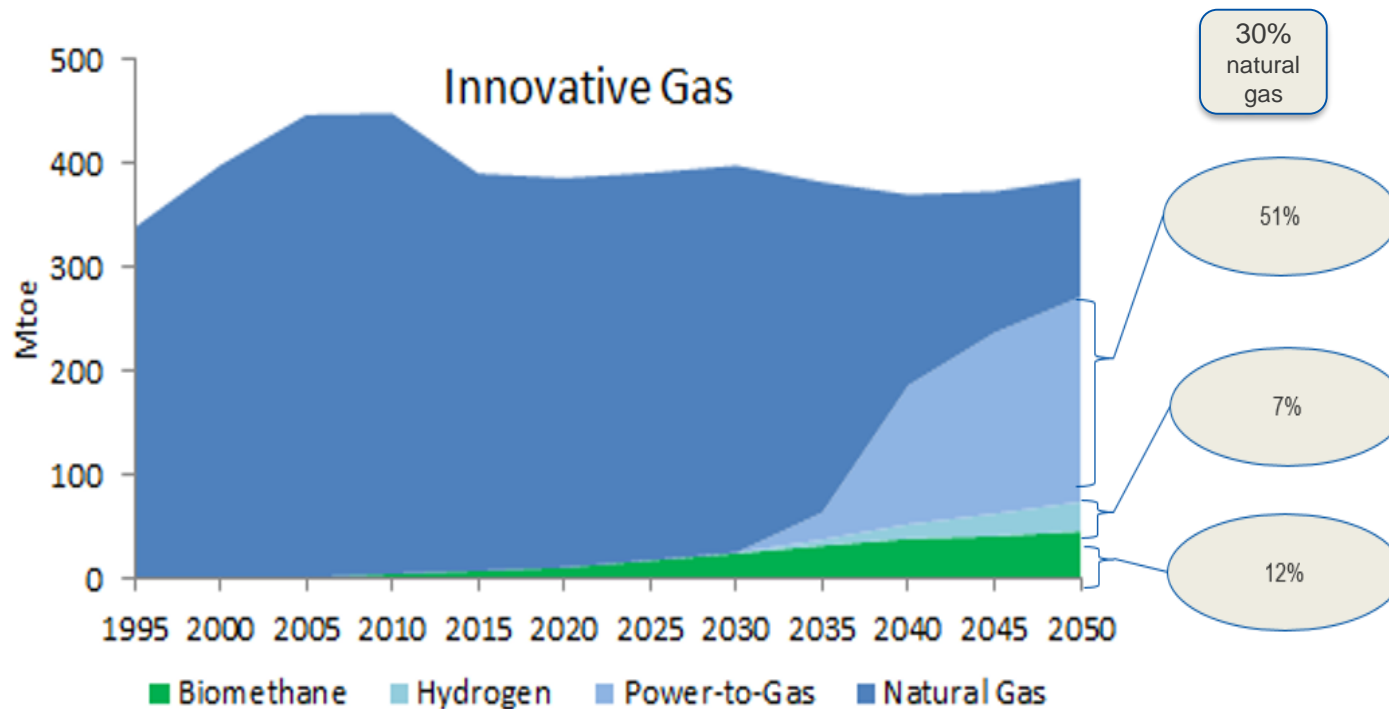
Figure 12: Percentage share of green gas supplying total gas demand by scenario



Renewable gas - What is the potential in the EU?

- **Ecofys study in 2018 for 2050:**
98 bcm of methane + 24 bcm of renewable hydrogen by 2050 + 20 bcm from UA + BY
- **PRIMES scenario in 2016 for 2050:**
220 bcm synthetic gas + 45 bcm biomethane
+ 35 bcm hydrogen + (120 bcm natural gas)
- **Ongoing Commission study on 2050 infrastructure includes a hydrogen storyline for the long-term outlook**

Composition of gaseous energy in the European gas mix



PRIMES assumptions are on the price of technology and cost of production. The scenario is based on a limited role of nuclear energy on the long-term (baseload provision). Our suggestion is for adequate support to help the development of all these technologies.

Next steps: gas Package 2020

Klaus-Dieter Borchardt – studies and Gas package 2020

- KdB foresees three pillars in his 2020 gas package
 - Mirroring
 - **technologies/infrastructure focused on sector coupling, flexibility and storage**
 - Renewable gas production and its promotion
- Observations
 - His **focus is on P2G and the interdependencies between both systems, for him this is why we still need a dual system**. He insists on the fact that this dual system would only exist if gas is able to become renewable

Foresees three challenges

Network Code implementation is paramount as well as consolidation of the content

Getting the preparatory work for legislative proposal underway and get it right. Join forces and speak with one voice as a sector. **An electricity-only world couldn't deliver on sustainable secure and affordable energy: the EU needs dual or at least hybrid system.**

Digitalisation will hit both energy sectors, it is therefore important to optimise network operation, data management and looking into new business opportunities on the retail market

EUSEW session on H2:

Outstanding questions and next steps

- Tudor Constantinescu, principal advisor to the DG of DG Energy:
- *Statement: Lower cost in wind and solar can help decarbonise other sectors which have not seen as big an increase in uptake of RES as the electricity sector has.*
- Q: What final use should be pushed?
- *Statement: Mix of up to 15% in gas distribution*
- Q: How much H2 can be blended with natural gas?
- *Statement: Adaptation of the gas grid to take in green hydrogen and other green gases*
- Q: Can existing pipelines accommodate 100% hydrogen? If not how much would “lining” of pipelines cost?
- *Statement: Standardization and work on network codes, such as work on access to storage will need to be developed*
- Q: What other issues (pressure, transport by LH2 ships, virtual pipeline, etc..) would need to be addressed?
- *Statement: 1MW electrolyser running 24h can produce only half a ton of hydrogen a day*
- Make sure that the potential for H2 production is accounted for in the scenarios and studies currently underway

Thank you for your attention!

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