MADRID FORUM

Session 02.B
Initial discussion on common terminology for gases

Align gas terminology
Gas industry proposal

6/6/2019
PROCESS

Who?
7 gas industry associations

Why?
✓ Need to align used terminology in view of future debate on energy transition
✓ Need to integrate ambitious decarbonization goals in the new gases terminology
✓ Need to align different work streams in view of developing new gases markets
✓ Need to agree on interpretations of RED II and identify missing elements

When?
Initiative started in October 2018
First proposal communicated to DG ENER on 17 December 2018
Second proposal for Madrid Forum sent to DG ENER on 9 April 2019
Roundtable with stakeholders on 8 May 2019.
Gas terminology alignment proposal

• In support of EU commitments to a Paris Agreement compatible energy system in 2050

• Establish a starting point → Industry proposal, as start of an open exchange with all stakeholders, and for further expert discussion

• Take stock and visualise multiple potential technologies and gas categories based on renewable character and on GHG reduction potential (expressed in % of CO2 reduction compared to conventional technologies)

• Agree on common language on how Renewable and Decarbonized Gases
  - are driving the decarbonization of the gas sector and
  - contribute to a cost-effective pathway to deliver decarbonization of energy systems.
Gas terminology alignment proposal

- **Renewable gases**
- **Decarbonised gases**
  - > 90% decarbonized *
- **Low carbon gases**
  - > 60% decarbonized *
- **Natural gas**

* GHG reduction potential, expressed in % of CO₂ reduction
Natural gas or other hydrocarbons

Renewable gases

- Biogas / Biomethane
- Renewable hydrogen

Decarbonised gases

- Synthetic gas
- Hydrogen > 90% decarbonisation

Low-carbon gases

- Hydrogen > 60% decarbonisation

ENERGY SOURCE
- RES (cf. RED II)
- Electricity from RES

PROCESS *
- Anaerobic digestion / Gasification
- Pyrolysis / Gasification
- Power-to-gas (P2G) / Electrolysis
- Photo catalysis

PRODUCT
- Synthetic gas
- Methanation RES-based CO₂ + Air capture
- Methanation non-RES-based CO₂

* Disclaimer: This overview is based on existing processes and known technologies and evidently does not preclude new technological developments.
# First Roundtable 28/5

## Stakeholder contributions

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<th>Questionnaire REPLY</th>
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First Roundtable results

Do you agree that a common terminology is useful?

• Useful for future debates on the role of gases in the energy transition?
  **YES**
  Positive reaction from every respondent.

  WHY? “common understanding of same set of categories”, “efficient discussions to achieve consensus”, “customer trust”, “investor trust”, “transparency regarding environmental impact”, “need for sound legal basis for decarbonized and low-carbon gases”, “clear and simple regulation”.

• Useful for the integration of different types of gases in national, regional and EU markets?
  **YES**
  Positive reaction from almost all respondents.

  WHY? “EU market harmonisation”, “avoid local definitions for local markets”, “for policy development on targets, certificates and GOs”, “no blending without identifying components”, “identification of gases compatible with decarbonization targets”, “harmonized cross-border trade and infrastructure planning”.

First Roundtable results

Requested changes → Clarifications

• “Precise the objectives”
  - Initiative aims to: streamline language used / integrate commitment to decarbonize
  - Initiative does not aim to: define processes / determine certificate & GO regimes / set timing

• “Definition and details of the gas categories”
  - “> 60 %” reduction of the current CO₂ footprint of 91g/MJ₇H₂, which corresponds to current Best Available Techniques – economically feasible (cf. CertifHy results)
  - “> 90 %” reduction of the current CO₂ footprint of 91g/MJ₇H₂, which corresponds to future highly ambitious level - technologically feasible
  - Certification of production processes and achieved CO₂ reduction

• “Restriction on technologies used ?”
  - Technologies presented = based on current knowledge → Disclaimer !
  - Technical questions on the processes level are not relevant for the grid side

• “Process ?”
  - General appreciation but mixed feedback on initiative by industry → EC guidance ? JRC support ?
First Roundtable results

Are you interested to stay involved?

Are you interested to stay involved in the exchange of views that was launched today?

YES

Positive reaction from all respondents.
NEXT STEPS

- Presentation at Madrid Forum June 2019:
  proposal + lessons learned from first Roundtable

- Next Roundtable(s) in preparation of Madrid Forum October 2019?

- Continuation of the process according to the Madrid Forum conclusions and with the engagement of certification authorities, NGO community and other interested experts and stakeholders.