E22058-TG

KONINKLIJKE

vemw

Kenniscentrum en belangenbehartiger
van zakelijke energie- en watergebruikers

Market structuring Hydrogen

NL Government Internet Consultation

1 March 2022

General Assumptions

- **VEMW position paper (6 May 2020)**
- **Leidraad ACM Network Companies and alternative energy carriers (2019) → no role in production (electrolysis)**
- **Public network operator (now: Gasunie HyNetworkServices: GU HNS)**
- **Private initiatives (direct line) as an option; opt-in for existing assets**
- **Regulated rTPA (no nTPA) on monopoly net infrastructure**
  - Where possible and desirable in line with the Gas Act
  - Conditions (connection and connecting procedure)
  - Costs (tariffs)
  - Quality and pressure
- **Regulation and standardisation from the start, not too severe (prevent hindering realisation of the backbone)**
- **Transition start: regulation criteria at the starting phase**

General Assumptions

- **Ministry EZK geographical integration and costs (framework for large-scale generating installations) (pipeline easier than (E)HS-route)**
  - Ability to steer towards efficiency
- **Quality:**
  - Broad band gives more market parties access → stimulates liquidity
  - Small band (with high quality) stimulates green (electrolysis)

Consultation by Article

1.2/3.3 role of government in geographical set of instruments framework of large-scale generating installations

2.1/2.2 Which criteria required to realise rTPA?

what does 'regulated access' imply?

- Where possible and desirable use the Gas Act principles
- Conditions (connection en connecting procedures)
- Costs (tariffs)
- Quality and pressure

2.3 what is an *integral transmission network*?

room for private networks (B2B = cost+)

belief in a liquid gas market → enhance attractiveness for connectivity

Re-used natural gas pipelines have largely been written off

What will happen when the roll-out plan does not fit 1:1 to GU HNS plansn?

Consultation by Article

3.1 TYNDP – II3050

PES/TIKI/MIEK/Investment programs (IP)

challenge of tariff regulation, pre-investments, ….

3.2 H2 ≠ NH3. Hence, H2-backbone ←→ NH3 private B2B at cost+?

4. Undergroud Storages (UGS) of H2

Private companies (i.e. Shell, Nobian) are also involved in UGS.

Plea for natural gas model: open access for all parties, no GU HNS monopoly.

Distinction between day/hour (balancing the grid) and season UGS (HNS close to TSO-role!)

GU HNS only when market failure is shown

Use all flex options: UGS, import, line pack, production

Consultation by Article

4.3/4.4 UGS locations

Role of government in geographical planning

however: not too many options (salt caverns)

investment incentives?

timing (no backbone available yet)

Other options: NH3-spherical tanks + import?

5. Terminals

5.1 is to the market (more market players than in UGS)

5.2 Open to all market parties; only in case of market failure: HNS

role of NH3 and LOHC in new system: nTPA → rTPA in time

Consultation by Article

6. Quality

H2 suitable for use. Trade off between high quality (for the players that need such a quality) and liquid market development (access for as many players as possible with a lower quality standard). Look at business case (extra costs in business case or system) and efficiency (energy loss in treatment).

7. Blending

Blending offers outlet valve for production tail gases (flexibility in operations, sustainability). Conditions:

- Rather 2 percent H2 blended in natural gas than 5 percent
- Variability in WI (delta) 3,7 MJ/m3 instead of 7 MJ/m3
- Do mind impurities in tail gases

Blending offers kick off for starting a H2 market and supply system

Consultation by Article

8. Off shore

More research is required.

- Required volumes/capacity in time?
- Desired market model with operator(s) grid at sea?
- Different from oil&gas regulation:
  - oil&gas lots are assigned by government
  - wind lots are allocated by tendering process

Industry position under construction!