Council of the European Union
General Secretariat

Interinstitutional files:
2021/0424 (COD)
2021/0425 (COD)

Brussels, 18 July 2022

WK 10587/2022 INIT

LIMITE

ENER

This is a paper intended for a specific community of recipients. Handling and further distribution are under the sole responsibility of community members.

MEETING DOCUMENT

From:	General Secretariat of the Council
To:	Working Party on Energy
Subject:	Hydrogen and gas markets decarbonisation package - presentation

Following the Working Party on Energy on 14 July, delegations will find attached the presentation on the Hydrogen and gas markets decarbonisation package.

European Commission

Hydrogen and gas markets decarbonisation package

Energy Working Party, 14 July

Scope of the Directive and Regulation

Gas Directive & Gas Regulation

Natural gas system

Transmission sytems
Distribution sytems
LNG terminals
Storage facilities

Hydrogen system

Hydrogen networks
Hydrogen terminals
Hydrogen storage

„Natural gas“

- “gases that primarily consist of methane, including biogas and gas from biomass, in particular biomethane”
- “other types of gas, that can technically and safely be injected into and transported through the natural gas system”

„Hydrogen“

“hydrogen of a high grade of purity”

Today's agenda

Regulation

- Chapter 2, Section 1: General rules (Articles 3-14)

Directive

- Chapter IV, Sections 1,2,3: Third party access (existing natural gas network and dedicated hydrogen networks)
- Chapter VII: Rules applicable to dedicated hydrogen networks
- Chapter VIII: Integrated network planning

Regulation Chapter II, Section 1: General rules

- Separation of regulated asset base (hydrogen system)
  Article 4
- General third party access rules (natural gas system and hydrogen system)
  Articles 5-7
- Market assessment for renewable and low carbon gases by LNG and storage system operators
  Article 8
- Capacity allocation and congestion management (natural gas and hydrogen system)
  Article 9-10
- Certification (natural gas and hydrogen system)
  Article 13

General principles (Article 3 Regulation)

- Overarching principles that shall guide the operation of the gases markets:
  - **prices** for gases shall be formed **on the basis of demand and supply**;
  - **tariffs** shall **contribute to market integration**, enhancing security of supply and promoting the interconnection between gas networks;
  - undertakings active in the same entry-exit system shall exchange gas at the **virtual trading point**;
  - **market rules** shall **foster** the emergence and functioning of **liquid trading** for gases, fostering price formation and price transparency
  - **barriers to cross-border gas flows**, if existing, between entry-exit systems **shall be removed**

Separation of regulatory asset bases (Article 4 Regulation)

Regulatory asset base = all network assets used for provision regulated service (e.g. transmission of gas). Basis for calculating network tariffs.

Why?

Principle of separate asset bases retained as most cost-efficient in the long-run. But temporarily allowing cross-subsidisation of hydrogen networks via revenues gas network activities is expected to accommodate investments in repurposing pipelines for hydrogen transport.

How?

- Default rule: Separation of regulatory assets bases (e.g. networks for gas and hydrogen)
- But, Member States can temporarily allow cross-financing between network assets, subject to NRA approval, under following criteria:
  - ✓ Collection of levies on domestic exit points of networks only;
  - ✓ Financing only for infrastructure with tariff revenues; no over-funding
  - ✓ Limited duration: max. 1/3 of depreciation period (consequently, cross-financing after 2030 remains possible)
- ACER to issue bi-annually recommendations on methodologies to implement the rules on RABs

Third Party Access rules for hydrogen networks (Article 6 Regulation)

Art. 6 Regulation provides high-level rules in relation to H2 TPA (also applicable to nTPA):

- Principle of non-discrimination
- Obligation to offer maximum capacity
- Maximum duration of capacity bookings (15/20 years for existing/new infrastructure)
- Use of congestion-management procedures
- Operators to assess capacity demand

As from 2031 (regulated TPA becomes mandatory), additional rules apply:

- Hydrogen networks organised as entry-exit systems
- Rules on natural gas tariffs in Article 15 Regulation apply, BUT no tariffs at interconnection points
- Rules for gas TSOs on TPA, capacity allocation and balancing in Articles 5, 9 and 12 become applicable

Facilitating access for all gases into LNG terminals and storages (Articles 7, 8 and 10 Reg.)

Measures to facilitate access to gas storages and LNG terminals for **renewable and low-carbon gases**.

Article 8

- Market demand/screening obligations for LSOs
- Development plans (every 2 years) for new gases

- Biomethane or synthetic methane meets the gas quality specifications, no changes are needed, in principle, in LNG terminals.
- Regarding **hydrogen**, the physical and chemical differences between methane and hydrogen do not allow using existing LNG infrastructure as such and require its adaptation.

More transparency and better use of free capacities at LNG terminals and gas storages allowing more flexible gas trade and use of the terminals and storages.

Article 7 and 10

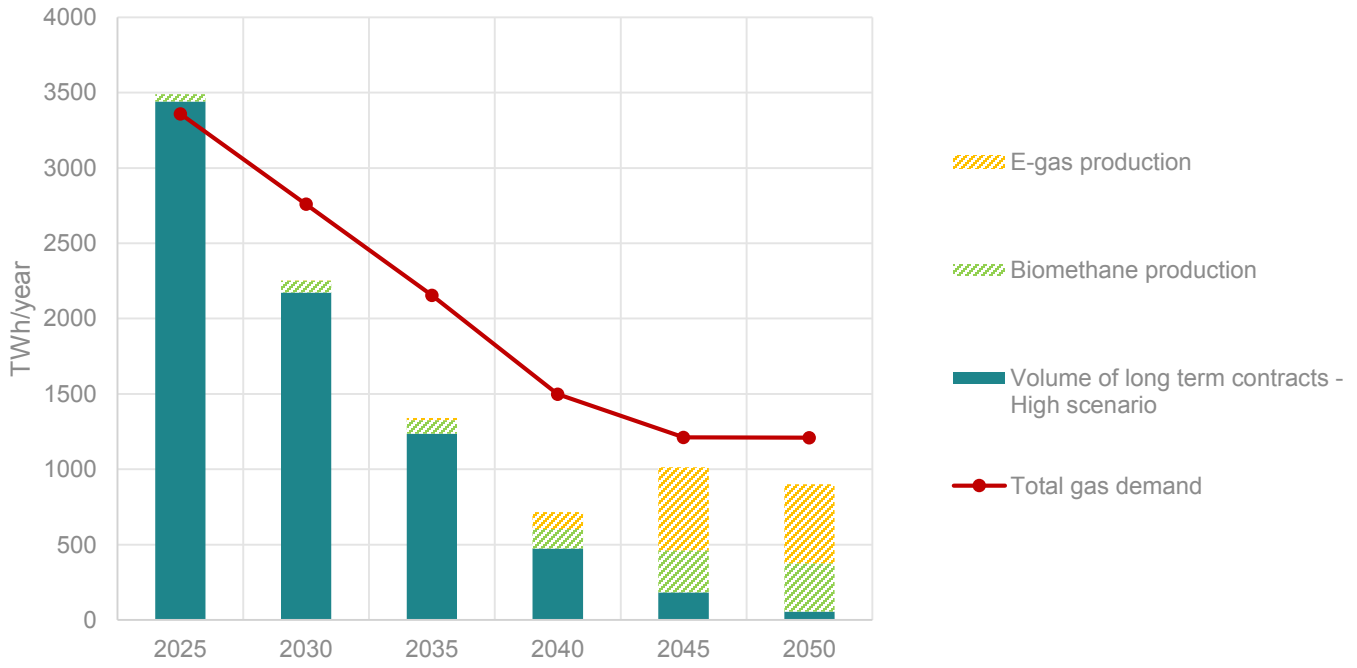
- Booking platform(s) for secondary capacity
- Flexible products (bundled and unbundled)

Directive Chapter IV, Sections 1-3

- Third party access rules for natural gas infrastructure: Article 27-30
- Third party access rules for hydrogen infrastructure: Article 31-33
- Refusal of access and connection (natural gas and H2 infrastructure): Article 34

Long-term contracts (Article 27 Directive)

Gas long term contracts overview



Source: Cedigaz database, calculations Artelys, IA.

- Long Term Contracts (LTCs) for fossil gas account for the majority of total supplies in the EU gas market.
- Ban for LTCs for unabated fossil gas by the end of 2049.
- Short term supply, with contracts below one year, important for security of supply and market liquidity reasons will still be allowed with a duration beyond 2049.

European Commission

Third-party access and network tariffs for dedicated hydrogen infrastructure (Art. 31-33)

Networks

- Scope: (repurposed) hydrogen transport pipelines

Regulatory regime until 2030

- Member States can choose **negotiated TPA**
- Tariffs agreed bilaterally between operator and network user

Regulatory regime after 2030

- **Regulated TPA** mandatory
- Tariffs set or approved by NRA
- No tariffs on interconnectors between MS.

Hydrogen Storage facilities

- Scope: large scale underground storage facilities
- Easily replicable storage facilities not in scope
- Scarcely available (risk of natural monopoly) & important systemic function

Regulated TPA from the start as well as after 2030

Hydrogen Terminals

- Scope: installation dedicated to transformation of imported liquid hydrogen or ammonia into gaseous hydrogen for injection in dedicated hydrogen network.

- Expected competition not only among terminals but in particular among means of hydrogen import

Negotiated TPA from the start as well after 2030

Directive Chapter VII: Rules applicable to hydrogen networks

- Tasks of H2 system operators: Article 46
- Existing hydrogen networks: Article 47
- Geographically confined hydrogen networks: Article 48
- H2 interconnectors with third countries: Article 49
- Confidentiality for operators of hydrogen networks, hydrogen storage facilities and hydrogen terminals: Article 50

Regulatory derogations for hydrogen networks (Article 47 & 48 Directive)

Why?

Existing networks and future local hydrogen networks could benefit from simplified regulatory requirements during the ramp-up phase of the hydrogen market if competition concerns are less likely.

How?

- Temporary exemptions for **existing private networks** until they are extended or become part of an interconnected hydrogen network
- Temporary derogations for **geographically confined hydrogen networks** to reduce the regulatory burden on these local clusters during the market ramp-up and in situations where competition concerns are less likely

➢ Existing private networks (Article 47):
- For networks belonging to a VIU at entry into force of the Directive
- Derogation from unbundling and third-party access
- Expires in 2030 or before if network is extended/connected

➢ Geographically confined networks (Article 48):
- For geographically confined networks with one entry point
- Derogation from unbundling → rules on third-party access apply
- Expires after 2030 if network is connected or a renewable hydrogen producer requests access to network

H2 interconnectors with third countries (Article 49 Directive)

Why?

- Envisaged role of (gaseous) hydrogen imports in the EU (Repower EU target 10 Mton)
- Ensure legal certainty on pipeline operation and avoid conflicts of law

How?

- Hydrogen interconnectors with third countries are subject to the rules for hydrogen networks.
- Conclusion of Union-level intergovernmental agreements where deemed necessary to ensure application of EU energy law.
- Content can also include provisions to set out how compliance with EU sustainability requirements will be ensured.

Directive Chapter VIII: Integrated network planning

- Network development and powers to make investment decisions (natural gas system): Article 51
- Hydrogen network development reporting: Article 52
- Financing cross-border hydrogen infrastructure: Article 53

Network development and powers to make investment decisions (Article 51)

- **Aim:** Better horizontal alignment between electricity (and in future hydrogen) and vertical alignment between national and European level
- **How?** National plans in each Member State, joint scenario as starting point for planning. **Note**: Network plans will still be sectorial, with flexibility for Member States for further integration if feasible.

Other key new elements

- Information on decommissioning
- Cooperation and information sharing requirement between different infrastructure operators

Role and responsibility regulatory authorities

- Regulatory authorities may amend the network development plan and need to check for consistency with TYNDP (Art. 51 (5)), link to Art. 72 (1) (dd) and (ee)

Network planning hydrogen (Articles 52, 53 Directive)

Article 52: hydrogen network development reporting

- **Why?** create transparency on development H2 network for potential users and foster energy system role hydrogen infrastructure
- **How?** *Separate* H2 network development *report*. More flexibility in publication sequence + light(er) instrument corresponds to ramp-up nature and uncertain development H2-infrastructure.

Role and responsibility regulatory authorities

- No regulatory approval of H2 network development report as tariffs for the use of the hydrogen network are not regulated (until 2030).
  Why? No requirement to execute (new) network investments that serve as basis to set/regulate tariffs (as for n-gas, art 51b)
- Requirement regulator to take 'energy-economic necessity' into account (52.4)
  Why? To ensure potential needs electricity system are considered (hydrogen as potential means to solve electricity grid congestion).
- Information on H2 infrastructure capacity needs (52.1) should support regulatory authorities in its assessment of 'dedicated charges' to co-fund (new) hydrogen infrastructure (art. 4 Regulation)
- **Flexibility:** Opportunity for MS with high H2-ambitions and fast development of H2 network opportunity to apply the requirements of article 51 (full fledged plan approved by regulator)

Article 53: financing cross-border hydrogen infrastructure

- Cost sharing mechanism for cross-border hydrogen infrastructure should provide financial incentives for market participants to develop H2 cross-border interconnectors in absence of cross-border tariffs.

Back-up slides

Certification of TSOs and hydrogen network operators (HNOs) (Article 13 Regulation)

- Existing rules for natural gas require certification of TSOs to establish compliance with unbundling
- The same requirement and procedure applies to hydrogen network operators
- No changes for gas TSOs!

Tasks of H2 system operators (Article 46)

- Tasks hydrogen infrastructure operators inspired on tasks natural gas network operators.
- 2 elements to flag:
  - H2 network operators responsible for monitoring and preventing hydrogen leakages
  - H2 system development and population of H2 end-users will differ per MS → Competence MS to decide whether costs of H2 quality management should be borne by end-users with specific quality requirements or to spread these costs among all H2 users by making network operator responsible

Confidentiality requirement for hydrogen infrastructure operators (Article 50)

Why?

- Aimed at protecting commercially sensitive information obtained by operators. Contributes to upholding principle of vertical unbundling.

How?

- Mirrors confidentiality obligations on gas TSOs (art. 36) and DSOs (art. 43)
- Within vertically integrated undertakings, obligation applies vis-à-vis all parts of the undertaking but main purpose to is prevent flow of information from operator to producer/supplier level