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General Secretariat

Brussels, 08 February 2022

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MEETING DOCUMENT

From:	General Secretariat of the Council
To:	Working Party on Energy
Subject:	Hydrogen and Gas Markets Decarbonisation Package

Delegations will find in the annex the presentation on the Hydrogen and Gas Markets Decarbonisation Package.

European Commission

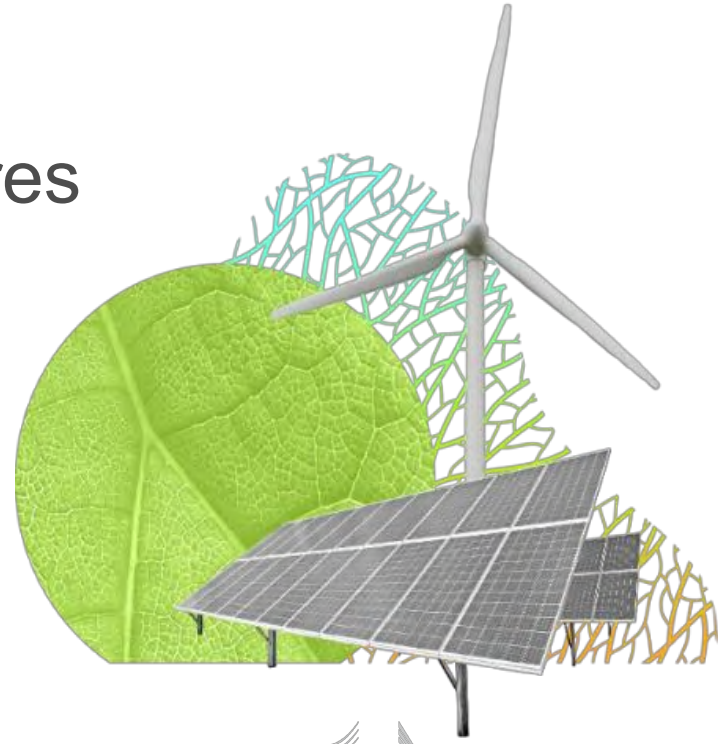
Fit for 55 package

HYDROGEN AND GAS MARKETS DECARBONISATION PACKAGE

Energy Working Party
7 February 2022

Agenda

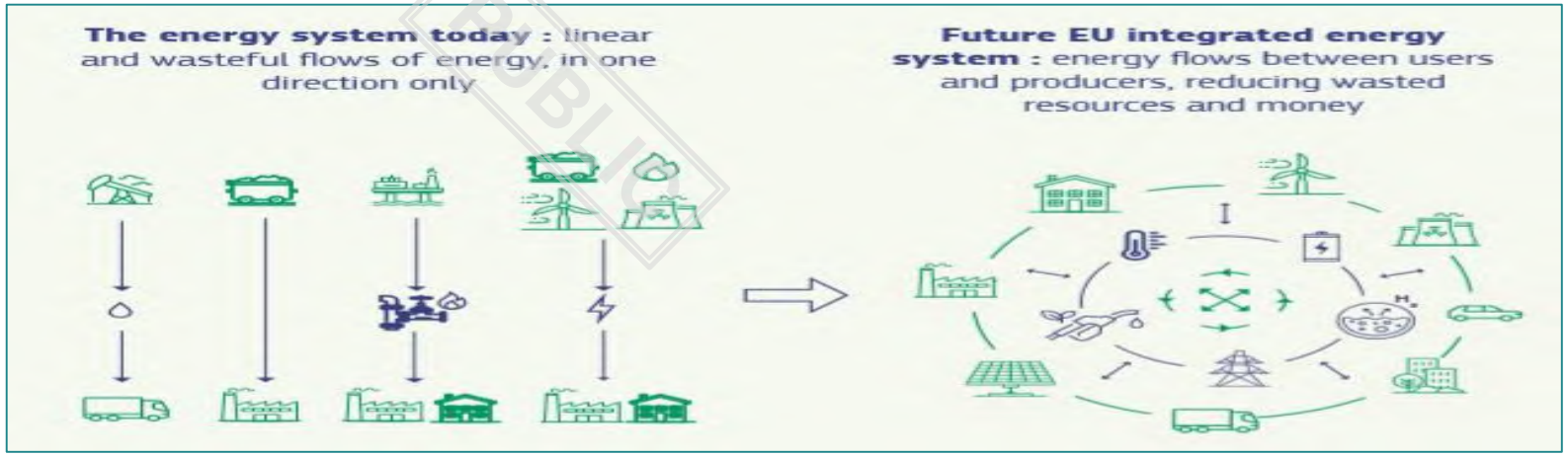
1. Introduction – context of the proposal
2. Architecture of the package
3. Overview of the 5 policy aims and key measures

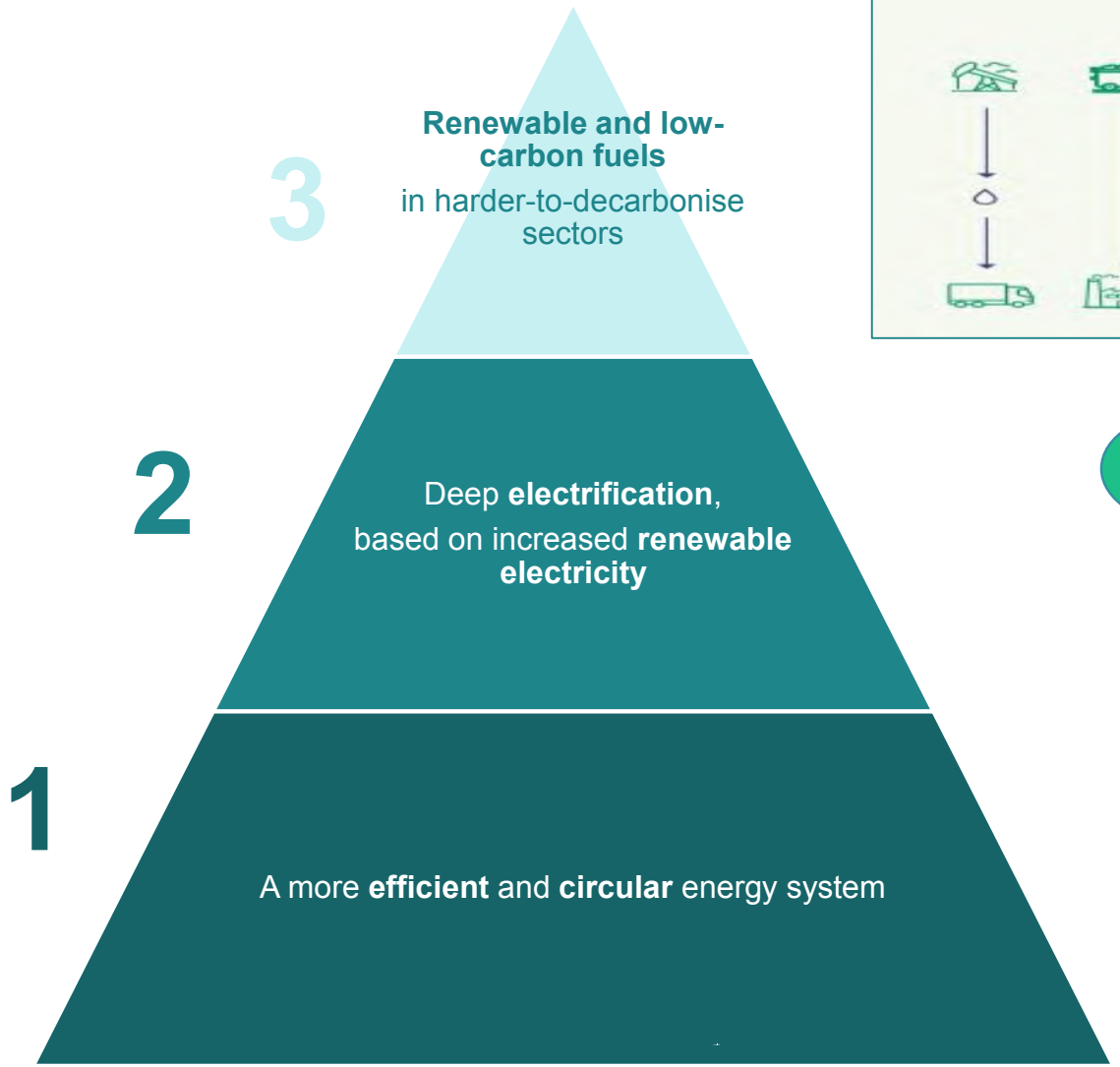


Introduction – context of the proposal

European Commission

Transforming our energy system





2025

- **6 GW** of renewable hydrogen electrolysers
- Replace **existing hydrogen production**
- Regulation for liquid hydrogen markets
- Planning of hydrogen infrastructure

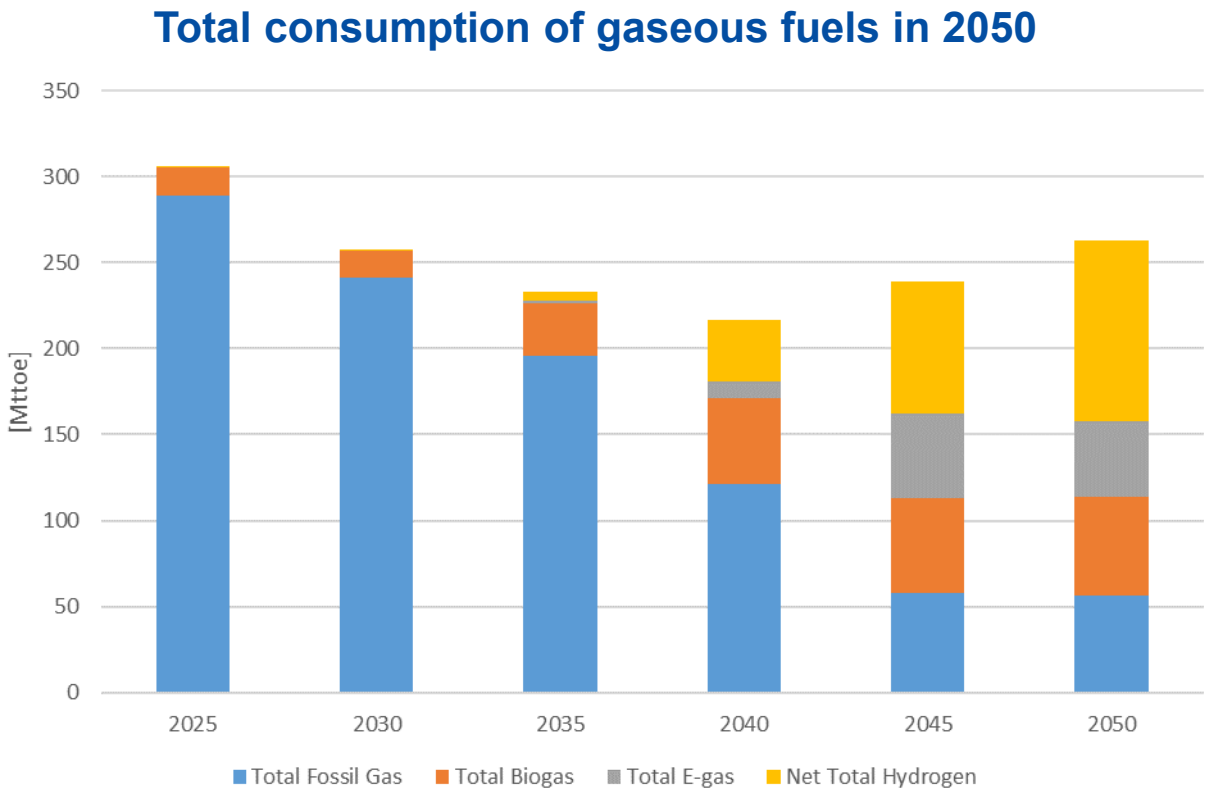
2030

- **40 GW** of renewable hydrogen electrolysers
- New applications in **steel and transport**
- Hydrogen for electricity balancing purposes
- Creation of “Hydrogen Valleys”
- Cross-border logistical infrastructure

2050

- Scale-up to **all hard-to-decarbonise sectors**
- Expansion of hydrogen-derived **synthetic fuels**
- EU-wide infrastructure network
- An open international market with € as benchmark

Expected changes in the composition of gaseous energy carriers in the EU towards 2050



- Gaseous fuels will represent approximately 20% of final energy consumption in 2050
- Shift from unabated fossil gas towards renewable and low-carbon gases
- Gaseous fuels in 2050 to include mainly biogas, bio-methane, renewable and low-carbon hydrogen as well as synthetic methane

Source: EC PRIMES MODEL, MIX H2 scenario. This scenario takes strategic targets European hydrogen strategy into account and considers options of promoting RFNBOs in industry and transport.

Policy context: interlinkages package with Fit-for-55 proposals

Relevant proposals	Impact of respective proposal on HGMDP	Impact of HGMDP on respective proposal
RED	RED promotes the uptake of renewable fuels, such as renewable hydrogen in industry and transport, with additional targets.	Will enable the emergence of infrastructure enable deployment of renewable hydrogen in industry and transport. Certification rules for low-carbon gas and its derivatives will complement the certification schemes for renewable fuels and gases proposed in the RED.
EED & EPBD	EED and EPBD affect the level and structure of gas demand. As gaseous fuels are currently dominating the European heating and cooling supply and the cogeneration plants, their efficient use stays at the core of the energy efficiency measures.	The proposed package is coherent with the energy efficiency first principle by focusing hydrogen deployment in hard-to-abate-sectors
ETS	ETS-scheme increases the price of using fossil fuels relative to renewable and low-carbon gases and, thus, fosters the demand for such gases and investments in related production technology.	All hydrogen production facilities are included in the proposal for the new emissions trading system for road transport and buildings. This aims to make hydrogen marketable, which is supported by investments from the Innovation Fund.
ETD	Under the ETD, products are ranked according to their environmental performance and it sets the minimum level of tax to renewable and low-carbon hydrogen fuels. This supports the HGMDP's objective of creating a level playing field between low-carbon and renewable fuels, and natural gas.	The proposed package seeks to foster efficient markets for gaseous energy carriers in which market participants can take operational and investment decisions based on price signals.
TEN-E Regulation	The regulation introduces hydrogen infrastructure as a new infrastructure category for European Network Development.	The proposed package is complementary as it focuses on alignment of the national plans with the requirements of the European Network Development plan
Alternative Fuel Infrastructure Directive	Aims at infrastructure investments in publicly available refuel and recharging stations for alternative fuel vehicles and vessels (such as hydrogen). But not part of infrastructure of infrastructure operated by network operator. AFID requires hydrogen refueling stations.	Focus on network infrastructure, which could be used to accommodate (largest part of) hydrogen supply to hydrogen refuel and recharging stations

Architecture of the package

European Commission

Hydrogen and gas markets decarbonisation package: 5 policy aims

I. Enabling development of **dedicated hydrogen infrastructure** and market

II. Facilitate access of **renewable and low-carbon gases** to existing gas network

III. Fostering **network planning** electricity, gas and hydrogen

IV. Promote **consumer protection and engagement** in renewable and low-carbon gas markets

V. Improve **resilience and security of supply**

Legal structure: 2 legal acts and further amendments

EUROPEAN COMMISSION

Brussels, 15.12.2021
COM(2021) 803 final

2021/0425 (COD)

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on common rules for the internal markets in renewable and natural gases and in hydrogen

{SEC(2021) 431 final} - {SWD(2021) 455 final} - {SWD(2021) 456 final} - {SWD(2021) 457 final} - {SWD(2021) 458 final}

[Old Gas Directive 2009/73]

EUROPEAN COMMISSION

Brussels, 15.12.2021
COM(2021) 804 final

2021/0424 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the internal markets for renewable and natural gases and for hydrogen (recast)

{SEC(2021) 431 final} - {SWD(2021) 455 final} - {SWD(2021) 456 final} - {SWD(2021) 457 final} - {SWD(2021) 458 final}

[Old Gas Regulation 2009/715]

THIRD ENERGY PACKAGE

Further amendments to:

SoS Regulation (EU) 2017/1938

ACER Regulation (EU) 2019/942

REMIT Regulation (EU) No 1227/2011

European Commission

Overview of the measures

European Commission

I. Enabling development of dedicated hydrogen infrastructure and market

Regulatory approach hydrogen infrastructure and market

- Point of departure: hydrogen value chain = immature.
- Phased approach on introduction market and network regulation
  - Centred around proven regulatory principles electricity and gas networks: TPA, unbundling, tariff regulation
  - Flexibility in application of these regulatory principles until 2030.
  - BUT application main regulatory principles for mature markets (after 2030) is defined upfront.
- 'Main regulatory principles now' => investor certainty, better rules at lower regulatory costs/ avoidance of high costs of ex-post interventions and flexibility to define details later (if needed).
- Importance of ensuring convergence of regulatory treatment of initially dispersed hydrogen network elements (private networks, geographically confined networks, hydrogen backbone)

Vertical unbundling of hydrogen networks (separation from energy production and supply) Art. 62 Gas Directive, Annex 6 Table 33 Impact Assessment

- Default rule: ownership unbundling, i.e. no participation of hydrogen network operators in energy production/supply
- NB: no changes for gas and electricity T/DSOs → production/supply of hydrogen remains prohibited (exception: rules on energy storage for electricity TSOs and DSOs)
- Rules do not imply divestitures of networks by currently vertically integrated undertakings (e.g. natural gas ITO/DSO's aiming to pursue H2 network activities, existing private hydrogen companies)

➢ Exceptions until 2030:
  - ISO/ITO model for Vertically Integrated Undertakings (VIUs) at entry into force legislation
  - Vertically integrated networks (for VIUs at entry into force)
  - For geographically confined networks

➢ Exceptions after 2030:
  - ISO (for VIUs existing at entry into force)
  - For geographically confined networks (conditional)

Horizontal unbundling of hydrogen networks (separation from other energy network activities) Art. 64 Gas Directive, Annex 6, Table 34 Impact Assessment

- Legal unbundling for different types of energy networks (separate subsidiary, but no functional unbundling, i.e. no rules on independence of management etc.)
- Combined operatorship possible for hydrogen networks, storages and terminals
- However, accounts unbundling for different infrastructure operation activities

  => Operational synergies between hydrogen and natural gas network operations can be retained
- NB: Separation of regulatory asset bases applies (see slide 15)

Separation of regulatory asset bases

Art. 4 Gas Regulation, Annex 6 Table 45 and pp. 172-182 Impact Assessment

- Regulatory asset base = all network assets used for provision regulated service (e.g. transmission of gas). Basis for calculating network tariffs.
- Default rule: Separation of regulatory assets bases (e.g. networks for gas and hydrogen)
- Member States can temporarily allow cross-financing between network assets subject to NRA approval:
  - ✓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 recommendation on methodologies

=> Principle of separate asset bases retained as most cost-efficient in the long-run. However, barriers to network development during initial ramp-up phase addressed.

Third-party access and network tariffs for dedicated hydrogen infrastructure

Networks: Art. 6 Regulation, 31 and 53 Directive, Annex 6, Table 35 Impact Assessment
Storage and Terminals: Articles: 2(6), 2(8), 32 and 33 Directive, Annex 6 table 36 and 37 Impact Assessment

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.
- Financial compensation mechanism cross-border infrastructure (Art 53)

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

Regulatory derogations for hydrogen networks

Art. 47 & 48 Gas Directive, Annex 39 & 40 Impact Assessment

- Existing private networks:
  - 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:
  - 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

⇒ Regulatory convergence:

- of all existing and new networks on main regulatory principles by 2030
- if part of an interconnected system

Definition and certification of low-carbon hydrogen

Article 8 Directive, Annex 6 Table 43 Impact Assessment

➢ Definition of low-carbon hydrogen:

- Greenhouse gas emission savings are at least 70%, to be reviewed if threshold should be raised for installations starting operations as of 2031.

➢ Objective of the certification system:

- Ensure consistent and robust certification of low-carbon hydrogen (in addition to the certification already applicable to renewable hydrogen under the Renewable Energy Directive) across Europe and for imports.
- Certification based on the existing good practices of voluntary and national certification schemes already developed under the Renewable Energy Directive.
- Applying a life-cycle emission approach in line with the Hydrogen Strategy.
- The exact methodology to assess emissions for low-carbon hydrogen will be developed through a Delegated Act adopted by the end of 2024.

Rules for hydrogen interconnectors with third countries

Article 49 Directive, Annex 6, Table 44 Impact Assessment

- 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.

European Network of Network Operators for Hydrogen (ENNOH)

Articles 40-46 and Recitals 48-49 Regulation

European Network of Network Operators for Hydrogen (ENNOH) to ensure EU level coordination of hydrogen network operators:

- Composed of certified hydrogen system operators;
- With mandate for all hydrogen topics, incl. H2 TYNDP, H2 network codes, etc.;
- Working in cooperation with the other ENTSOs and consulting relevant stakeholders; and
- Financed by hydrogen network operators (NRA can take the costs into account in calculation of tariffs).

A separate **ENNOH**:

- Underpins the role of hydrogen in decarbonisation, equal footing with ENTSO-E and ENTSOG;
- Ensures dedicated approach to better target the development of hydrogen networks to the real needs of the hydrogen market;
- Takes into account that the use of hydrogen and thus the hydrogen infrastructure needs are expected to differ from the current gas market;
- Managed gradual transfer of infrastructure planning tasks from ENTSOG to ENNOH.

Transition period: platform, ENNOH and ENTSOG tasks

Article 41 Regulation

2023

ENTSOG
Infrastructure planning and development tasks under current TEN-E

Hydrogen Platform (under EC lead with ACER and all stakeholders)
Scoping/developing topics, including:
- Market operation (e.g. capacity allocation, balancing, cyber security)
- Technical issues (e.g. interoperability, quality standards)
- Network codes scoping
- Security of supply issues

2024

ENTSOG
Infrastructure planning and development tasks under revised TEN-E

ENNOH
Network codes and technical specifications on:
- Market operation (e.g. capacity allocation, balancing, cyber security, data protection, energy efficiency)
- Technical rules (e.g. interoperability, quality standards)
- Security of supply
- Outlooks, monitoring/reporting and cooperation tasks

2026 onwards

ENNOH
- Infrastructure planning and development tasks under revised TEN-E, hydrogen TYNDP
- Network codes and technical specifications (e.g. capacity allocation, balancing, cyber security, data protection, energy efficiency) and technical rules (e.g. interoperability, quality standards)
- Security of supply
- Outlooks, monitoring/reporting and cooperation tasks

Hydrogen quality management in the hydrogen network

Articles 46 and 72 Directive, Articles 39, 42, 48, 50-51, 54 and 65 Regulation and Annex to Regulation, table 38 Impact Assessment

- The quality of hydrogen (purity and contaminants) varies depending on production technology and mode of transportation.
- But, a number of hydrogen end-users have specific quality requirements, in particular industry and fuel cell applications.
- In an interconnected hydrogen network quality management can become more complex and costly.
- The aim is to ensure system integrity, cross-border interoperability and delivery of the required quality to end-consumers in a cost-efficient manner.

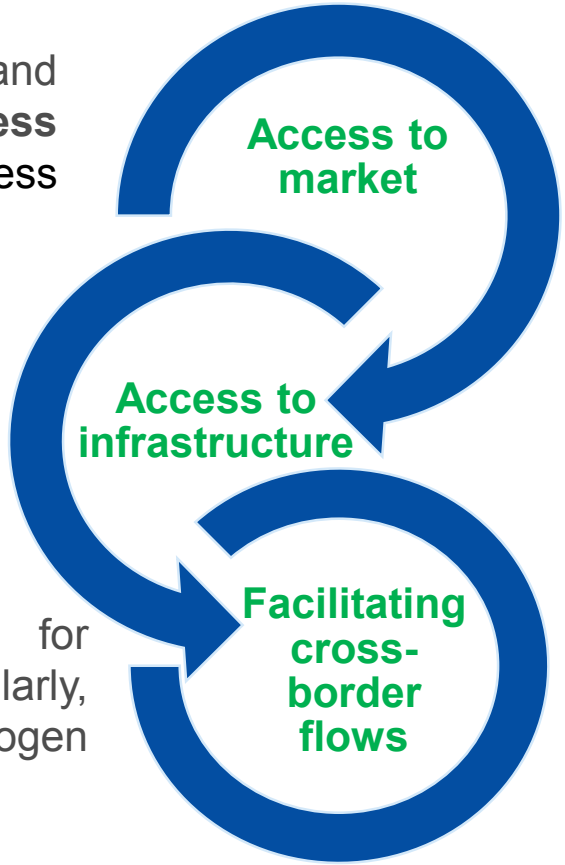
Therefore, the proposal consist of three main elements:

- Harmonised approach to hydrogen quality management in the Member States;
- Cross-border coordination on hydrogen quality problems; and
- Hydrogen quality standardisation.

II. Facilitate access of renewable and low-carbon gases to existing natural gas network

Facilitating access of renewable and low-carbon gases into the existing natural gas network

- ✓ Allowing and promoting renewable and low-carbon gases **full market access** including: wholesale market access physical flexibility - revers flows.
- ✓ Measures to facilitate **gas storages and LNG terminals** to **receive** renewable and low-carbon gases
- ✓ **Removing cross-border tariffs** for renewable and low-carbon gases. Similarly, in the future for dedicated hydrogen network.



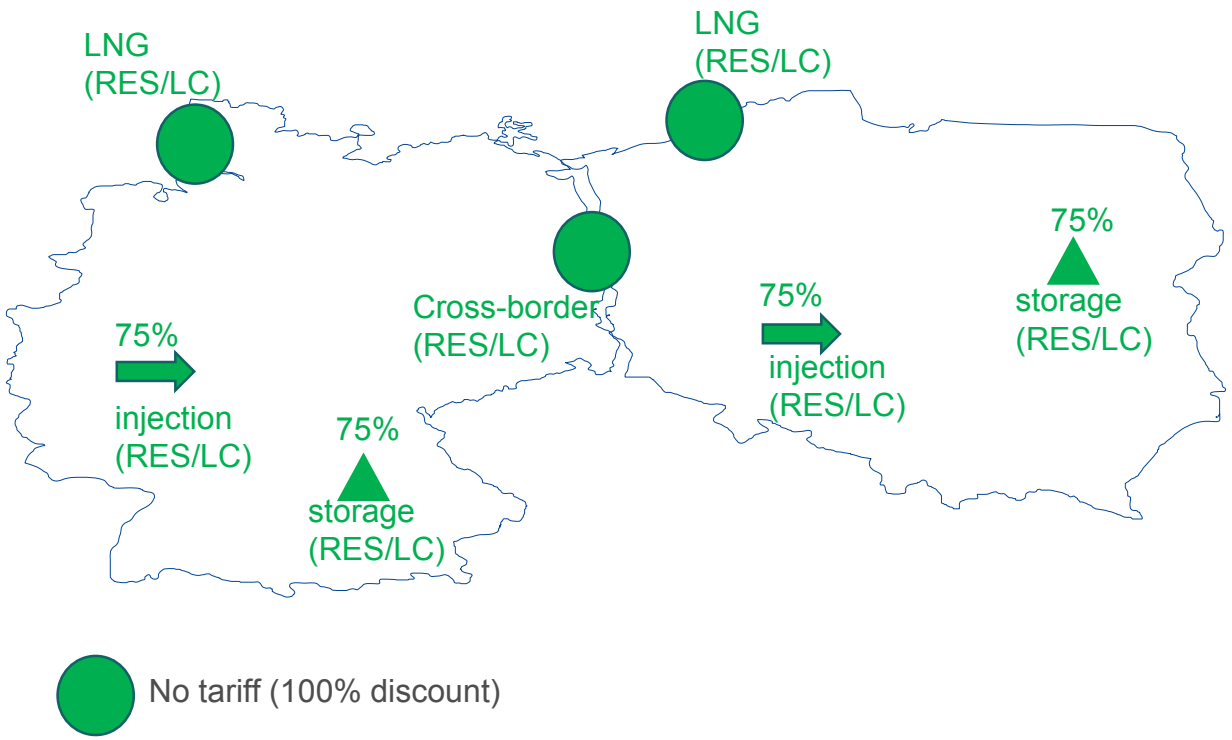
- ✓ More **transparency and better use** of free capacities at **LNG terminals and gas storages** allowing more flexible gas trade and use of the terminals and storages.
- ✓ **75% tariff discount** for the **injection** and connection of renewable and low-carbon gases.
- ✓ Introducing a **5% cap for hydrogen blends** at interconnection points between Member States to avoid cross-border flow restrictions due to differences in blending, which network operators must accept. No blending obligation; voluntary agreements for higher blends possible.

- ✓ **Ban for Long-Term Contracts 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.

European Commission

Tariff discounts for renewable and low carbon gases

Articles 15-17 Gas Regulation; Annex 7, tables 46-47 of Impact Assessment



New mandatory tariff discounts for renewable and low carbon gases:

- Removing (100% discount) the **cross-border tariffs** and for **entry tariffs from LNG terminals** to the grid.
- 75% discount **on entry points (injection) production facilities** (e.g. biomethane or hydrogen) for the purposes of scaling-up these gases.
- 75% entry points from and exit points to **storage** facilities

European Commission

LNG and storage provisions: market access and transparency

Articles 8, 10, 31 Gas Regulation; Article 31 Gas Directive Annex 7, table 52 of Impact Assessment

Measures to facilitate (gas storages and) LNG terminals to receive **renewable and low-carbon gases**.

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

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.

- Congestion management rules
- EU central transparency platform
- Booking platform(s) (secondary capacity)
- Tariff publication (including exempted/negotiated)
- LNG-storage cooperation

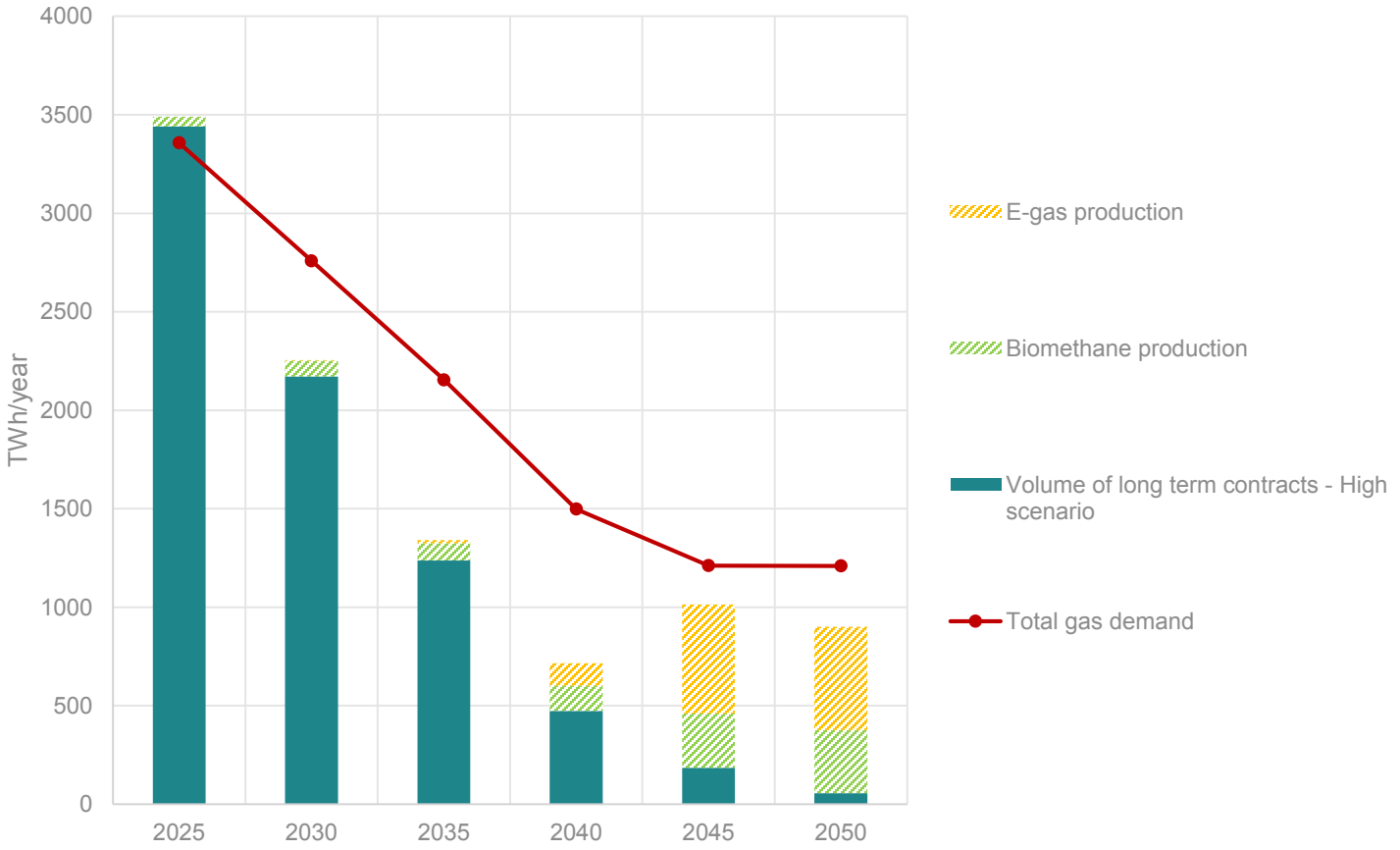
Import potentials:

- Biomethane or synthetic methane
- Liquid hydrogen (alternatively: ammonia and methanol)

Long-term supply contracts for unabated fossil gas

Articles 27, 72 Gas Directive; Annex 7, table 48 of Impact Assessment

Natural gas long term contracts overview



Source: Cedigaz database, calculations Artelys, IA.

- **Ban for LTCs for unabated fossil gas by the end of 2049** (in line with climate neutrality objective).
- Long Term Contracts (LTCs) for fossil gas amount today to some 80% of the total supplies in the EU gas market.
- Short term supply, with contracts below one year, important for security of supply and market liquidity reasons will still be allowed.

European Commission

Gas quality management in the natural gas system

Articles 35, 40 and 72 Directive, Articles 19, 20, 23, 30, 35, 38 and 65(16) Regulation and Annex to Regulation; table 49 of IA

- The quality of gases transported and consumed in Europe is changing due to increased injection of renewable and low-carbon gases (incl. biomethane and hydrogen).

- Harmonised rules on gas quality management will ensure system integrity and interoperability and delivery of gas to end-consumers in the quality they require (e.g. for industry processes) in a cost-efficient manner.

Therefore, the proposal foresees a two-tier approach:

- harmonised rules on roles and responsibilities for gas quality management:
  - TSOs will be responsible for gas quality management in their networks (Art. 35 Gas Directive)
  - DSOs can be mandated with gas quality management task where this is necessary due to volumes of renewable and low-carbon gases injected at distribution level (Art. 40 Gas Directive);
  - TSOs, ENTSOG as well as DSOs and EU DSO entity (where relevant) reporting on gas quality and its developments (Articles 23, 35 and 38 Gas Regulation); NRA and ACER monitoring gas quality aspects, incl. developments on hydrogen blending (Art. 72 Gas Directive and Art. 65(16) Gas Regulation); increased transparency (incl. on ENTSOG transparency platform, e.g. H2 and oxygen content) (Art. 30 Gas Regulation, points 3.1.2.1.c and 3.3.4 Annex to Gas Regulation).

- Cross-border coordination on gas quality problems (Art. 19 Gas Regulation and Art. 71 Gas Directive) and a 5% cap for hydrogen blends at interconnection points between Member States (Art. 20 Gas Regulation)

5% allowed cap for hydrogen blends at interconnection points

Articles 20, 65(7) Gas Regulation; Annex 7 and table 50 of IA

- It is a cap, not a blending obligation. It means that transmission system operators must accept at interconnection points max. blend of 5% to avoid market segmentation.
- Provides a process to agree on the practical implementation (technical solutions and financing) with clear roles for market participants and regulators.
- It applies at interconnection points between Member States. It does not set a cap for a Member State's domestic network.
- Voluntary agreements for higher blends at interconnection points between Member States remain possible.
- In line with the Hydrogen Strategy: reflects the priority to use hydrogen in its pure form.
- 5% was found by studies cost-efficient in terms of abatement and adaptation costs for end-users and infrastructure operators.

III. Fostering network planning electricity, gas and hydrogen

Fostering network planning: electricity, gas and hydrogen

Single network development plan at national level of all gas TSOs.

Gas network operators include information on infrastructure that can or will be decommissioned (and could potentially be repurposed for transport of hydrogen).

Alignment with National Energy and Climate Plans (NECPs) and Union wide Ten Year Network Development Plan.

Separate hydrogen network development *reporting* to ensure that construction of hydrogen system is based on realistic and forward looking demand projection.

Fostering integrated network planning

Articles 51-53 of the Directive; Annex 8, table 53 of Impact Assessment

EU Ten-Year-Network-Development-Plans

Alignment

National Network Development Plans

	EU-level	National level (current)	National level (proposed)
Scenarios	Joint scenarios (gas, electricity, poss. hydrogen)	Separate scenarios	Joint scenarios (gas, electricity, poss. hydrogen)
	Alignment with climate objectives		Alignment with climate objectives
	Involvement of relevant stakeholders		Involvement of relevant stakeholders (DSOs & others)
Network plans	Separate plans (gas, electricity, hydrogen)	Separate plans (gas, electricity, hydrogen)	Separate plans (gas, electricity, hydrogen)
	New Projects of Common Interest only for hydrogen	Investment in gas and possibly hydrogen infrastructure	Investment & decommissioning of gas infrastructure
			Location of power to gas assets
	All TSOs	Only ISO and ITO	All TSOs
	Every two years	Every year	Every two years

Separate hydrogen network development reporting

Article 52 Directive, Annex 8 table 53 of the Impact Assessment

- Lighter reporting approach corresponds with emergent development hydrogen network.
- No regulatory approval of report. Why? Under initial TPA-regime tariffs are negotiated between network users and operators and not set/approved by the regulator (on basis of required investments included in network development plan)
- Report should create transparency in development hydrogen network for stakeholders and facilitate H2 PCI-projects selection under revised TEN-E

IV. Promote consumer protection and engagement in renewable and low-carbon gas markets

Consumer Engagement and Protection: Why?
3 key drivers - IA par. 2.4.1

- The provisions in gas legislation on consumer engagement and protection **have not been adapted to the needs of the energy transition yet,** reflecting instead the situation of over a decade ago (Third Energy package).
- The main issues addressed in the impact assessment were:
  - Inadequate level of consumer protection;
  - Low consumer empowerment including for innovative and green products
  - Untapped competition potential in retail markets

Promote consumer engagement in renewable and low carbon gas markets – Options and selected "mirroring" approach: see IA par 5.5, 6.4, 6.5.4, 7.4, 8.4, Annex 9

Enable consumers to choose renewable and low-carbon gases

Mirroring consumer protection and empowerment provisions from Electricity Directive, whenever feasible and adaptable to the gas market

For hydrogen:

INCLUDED: Basic consumer rights

EXCLUDED: measures to foster retail/household market and encourage demand

Mirroring Electricity Directive provisions on regulated prices.

Allowed under specific conditions for:

1. Energy poor and vulnerable consumers
2. Households and microenterprises

Consumer Engagement and Protection

Switching (art.11)
Largely **mirroring** provisions from the Electricity Directive: - More detailed rights on switching gas suppliers and minimum switching periods to facilitate switching rates - E.g. possibility of mirroring 24 hour technical switching period (by 2026)
Potential to mirror right to collective switching
Targeted result: improved switching rates, stronger consumer empowerment, possibility to choose greener offers

Billing, contractual conditions (art 10, 15 & Annex I), PCTs (art.12), single point of contact (art 23) and dispute settlement mechanism (art. 24)
Largely mirroring electricity provisions on **billing**
Mirroring provisions on **contractual conditions and price comparison tools (PCTs):** - Stronger protection and more clarity on termination/exit fees - Explicit right for consumers to have access to PCTs, minimum requirements for PCTs
Targeted result: stronger consumer protection, well-informed consumers, comparability of offers to facilitate switching

Consumer Engagement and Protection
Active customer, energy communities

Active customers (art 13) & energy communities (art 14)
Mirroring electricity provision on active customers (with focus on renewable gas) **Mirroring** electricity provision on citizen energy communities (renewable gas focused)
Enables consumers to become active on the market, store renewable gas, buy renewable gases irrespective of their geographical location; brings benefits to the local economy; increases public acceptance of renewable gas; and mobilises private household capital investments.

Consumer Engagement and Protection
smart metering & access to data

Smart meters + access to data (articles 16-21)

- **Data management: mirroring** electricity provisions
  - EU common rules for non-discriminatory and transparent access to data + data interoperability
- **Smart metering: partial mirroring** while taking into account **gas specificities**
  - Member States still decide based on a cost-benefit analysis; regular reviewing of negative assessments
  - enhanced smart metering, incl rollout to cases that help quickly reap net benefits
  - right to a smart meter at own expense

Facilitate data sharing within the EU – at sector level, and beyond

Good for new market entrants, innovative services, consumer engagement, and competition

Consumer Engagement and Protection
Market based supply price

Retail price regulation (art.4)
Mirroring electricity provision on retail price regulation: (1) Possibility for price regulation for energy poor and vulnerable households, and, (2) Possibility (transitionary) for price regulation for households and micro-enterprises;
Good for new market entrants, availability and uptake of green products, increased competition, consumer engagement, carefully crafted conditions reflecting the Electricity Directive

Consumer Engagement and Protection
Energy Poverty and Vulnerable Customers

Vulnerable consumers (art. 25) and energy poor
Mirroring electricity provisions on **vulnerable consumers** - Protection from disconnections - Supplier of last resort - Poss. price regulation
Part of broader legislative framework on **energy poverty** - No specific article, as Energy Efficiency Directive referenced to as well as Energy and Climate Governance Regulation - Poss. price regulation

Consumer Engagement and Protection – To sum up

Problem:

No effective access to renewable and low carbon gas for consumers

Consumers not able to actively participate in market

Drivers:

- High levels of market concentration
- Limited renewable gas offers on retail markets
- Lack of clear information & tools for consumers to actively engage in the market
- Low levels of energy communities operational on the green gas market
- Lack of “smart metering”, little innovation
- Confusing & incomplete billing
- Inadequate level of consumer protection

Solution/ preferred option:

Aligning gas legislation with the treatment of electricity in clean energy package on:

- rules to facilitate switching supplier,
- effective and trustworthy price comparison tools,
- accurate and fair billing,
- access to data and using new smart technology, as relevant for gas
- rules that allow for distant collective consumption and levels the playing field for energy communities, active customers
- regulated prices
- extending the framework on vulnerable consumers from the electricity directive to gas

Gas Security of Supply Regulation revision

Article 67 ➔ modified articles: 1, 2, 7, 8, 9, 13, 19; new articles: 7a, 7b, 7c, 7d, 7e, 8a; new annex IX

- Adaptation to the energy transition
- Adaptation to new risks
- Making solidarity operational
- **More effective use of gas storage**
- **Joint procurement of reserve stocks**

energy prices communication

Adaptation to the energy transition
Articles 1, 2

- **Why?**
  - Future-proofing gas SoS
- **How?**
  - Extend scope of the Regulation to renewable and low carbon gases

definition of gas ➔ art 2 Gas Directive

Adaptation to new risks: cybersecurity
Article 8a

- **Why?**
  - Future-proofing gas SoS
    - *New evolving risks → cybersecurity*

- **How?**
  - Member States to include cybersecurity measures in preventative action plans and emergency plans.
  - Establish gas sector-specific rules for cybersecurity aspects of cross-border flows *(~ electricity)*

Art 8(a).3: "The Commission may adopt a delegated act…"

Making solidarity effective (I)

Article 13, Annex IX

- **Why?**
  - Ensure effective solidarity mechanisms in case of extreme gas situations

- **How?**
  - Addressing difficulties met by Member States in their recent negotiations.
    - *When?*
      - *Solidarity requires declaration of emergency*
    - *How?*
      - *"By default" solidarity arrangements…*
      - *…with "set" compensation (price) arrangements*

Making solidarity effective (II)

Article 13, Annex IX

"A solidarity measure shall be a last resort measure…"

"…declared an emergency state…" (art 13.3(a))

"…exhausted all market-based [and] non-market based measures…" (art 13.3(c))

"…notified an explicit request…" (art 13.3(d))

CONDITIONS

"…ex-post control by the Regulatory Authority and/or the Competition Authority of the Providing Member State, within three months… Conclusions … shall be transmitted to the Commission…" (art 13.10)

CONTROL

Art 10.14: "…if Member States fail to agree… Annex IX shall apply…"

Annex IX

DEFAULT

Storage
Article 7a, 7b, 7c

- **Why?**
  - Draw lessons from current situation and enhance SoS role of storages *(← energy prices communication)*

- **How?**
  - New article on "**preventive and emergency measures**"
    - *Storage part of risk assessment (no one-size-fits-all)*
    - *Regional approach (for assessment and for measures)*
      - *if regional risk → storage measures (obligation, tender, etc…)*

  - RISK ASSESSMENT + REGIONAL = EFFECTIVE EUROPEAN APPROACH

Storage: Preventive and emergency measures

Article 7a

"Member States shall take preventive and emergency measures [taking into account] the most recent Union-wide simulation of disruption scenarios…"

"…measures need to address the risks in the common and national risk assessments…"

Art 7.4: "…risks relating to the control of infrastructure relevant to the security of gass suppy to the extent that they may involve, inter alia, risks of underinvestment, undermining diversification, misuse of existing infrastructure, including hoarding of existing infrastructure, or an infringement iof Union law"

Storage: Efficient and join use of infrastructures and gas storage (I)

Article 7b

Art 7b.1: "…ensure the use of the existing infrastructure at national and regional level…in an efficient way"

WHAT?

Art 7b.2: "…analysis of the adequacy of the capacity of storage facilities available in the region… and their contribution to SoS… including risks related to control of storage of infrastructure…by third party entities"

HOW?

Art 7b.2: "…compare…with alternative measures suchs as investments in energy efficiency and renewables""

EE/RES 1st!

Art 7b.2.a: "obliging gas storage users to store a minimum volume of gas in underground storage..."

Art 7b.2.b: "tendering, auctioning or equivalent..."

Art 7b.2.c: "…TSOs to purchase and manage strategic stocks..."

POSSIBLE MEASURES

"Where…there is a risk…that cannot otherwise be addressed… Member States shall consider…"

Storage: Efficient and join use of infrastructures and gas storage (II)

Article 7b

Art 7b.5: "…agree…on the targeted level of stocks in the region…"

Art 7b.5: "…agree…on joint financing schemes… allocation of costs shall be fair..."

Art 7b.5: "…Commission may adopt non-binding guidance [if disagreement]..."

Art 7b.6: "…agree…on a common coordinate procedure to withdraw the gas…"

Art 7b.2.a: "obliging gas storage users to store a minimum volume of gas in underground storage..."

Art 7b.2.b: "tendering, auctioning or equivalent..."

Art 7b.2.c: "…TSOs to purchase and manage strategic stocks..."

POSSIBLE MEASURES

"Where…there is a risk…that cannot otherwise be addressed… Member States shall consider…"

European Commission

Joint procurement
Article 7c

- **Why?**
  - Enable (define parameters) for voluntary joint procurement of reserve stocks where needed

- **How?**
  - Voluntary joint procurement of stocks as part of the coordinated preventive measures

  - Possible use in case of regional or Union emergency

Joint procurement
Article 7c

Art 7c.1: "…as a part of the preventive measures…"

Art 7c.1: "…can be used as a part of the actions coordinated by the Commission in case of…emergency"

Art 7c.1: "…open to all TSOs…"

Art 7c.2: "…shall notify to the Commission…
…volume of gas to be purchased…
..duration…
…governance…
…conditions for activation…"

Art 7c.3: "The Commission may issue an opinion…within three months…"

Art 7b.2.c: "…TSOs to purchase and manage strategic stocks..."

POSSIBLE MEASURES

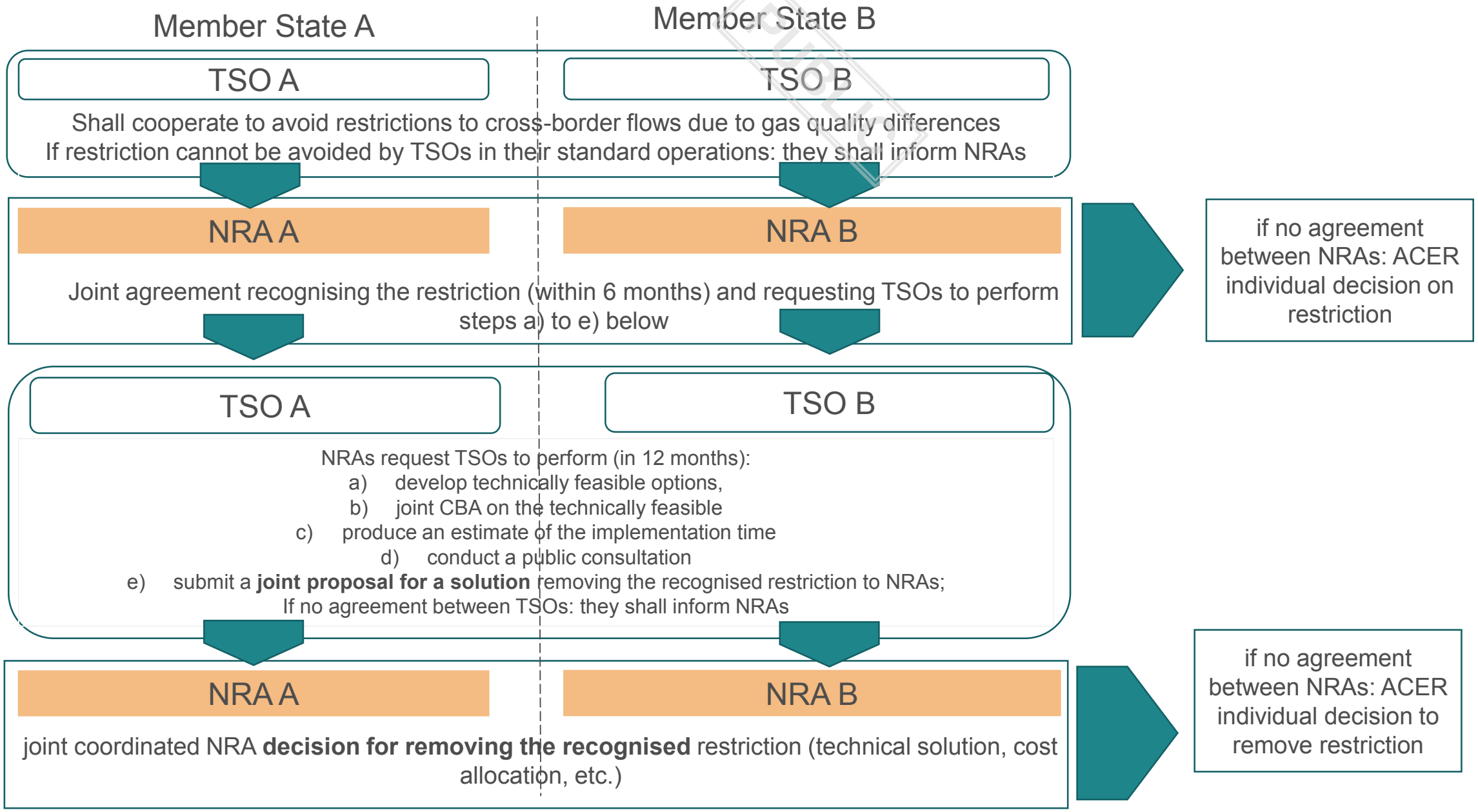
"Where…there is a risk…that cannot otherwise be addressed… Member States shall consider…"

European Commission

Back-up slides

Cross-border coordination on gas quality

Article 19 Regulation; Article 71 Directive, table 49 of IA



Institutional framework for the hydrogen system – Role of NRAs

Articles 72 Directive, 16 Regulation

Extension of NRA tasks for the hydrogen system (Article 72 Directive), including:

- Ensure compliance with obligations under the Directive and Regulation as regards the hydrogen system;
- Monitor implementation of rules relating to the roles and responsibilities in the hydrogen system, incl. monitoring hydrogen network operators (under all unbundling models);
- Power to issue binding decisions, carry out investigations, require information, impose penalties;
- Powers in relation to terms and conditions for connection and access to hydrogen infrastructure, including tariffs (fixing or approving tariffs for hydrogen network access or their methodologies, or both); for tariff discounts NRAs may set discounts at lower rates, monitor and assess impact of discount on IPs on tariff stability;
- Examining and assessing the development of hydrogen transport infrastructure;
- Ensuring compliance of ENNOH with its obligations, with network codes and guidelines and other relevant Union law;
- Monitoring hydrogen quality and quality management by HNOs, including the development of costs related to the management of hydrogen quality; for cross-border coordination on hydrogen quality NRAs to agree on recognizing / removing restrictions.

Institutional framework for the hydrogen system – Role of ACER

Articles 4, 39, 42, 65 Regulation, Annex 1 to Regulation.

New tasks attributed to ACER as regards hydrogen markets and infrastructure, incl.

- ACER to issue opinions and recommendations also addressed to ENNOH, and entities established by hydrogen network operators;
- ACER opinion on draft statutes, list of members, draft RoP of ENNOH; ACER to monitor execution of tasks of ENNOH. ACER may provide opinion to ENNOH on network codes, on draft TYNDP, and other relevant documents (Art. 42(1) Regulation).
- ACER's participation in NC development and implementation monitoring extended to hydrogen;
- ACER shall issue recommendation to NRAs related to RAB (Article 4(4) Regulation);
- ACER may issue recommendation to NRAs on allocation of costs of solutions for restrictions to cross-border flows due to hydrogen quality differences (Art. 39(8) Regulation);
- New monitoring and reporting tasks: ACER shall submit opinions providing a harmonised format for the publication of technical information on access to hydrogen networks pursuant (Annex I to Regulation);
- Annual wholesale and retail market monitoring report extended to cover hydrogen.

Better access to the market

Articles 2(53) Gas Directive; Annex 7, table 46 of Impact Assessment

- Many biomethane producers connected to distribution grid & without equal market access
- ✓ **Proposal:** revised entry-exit system definition

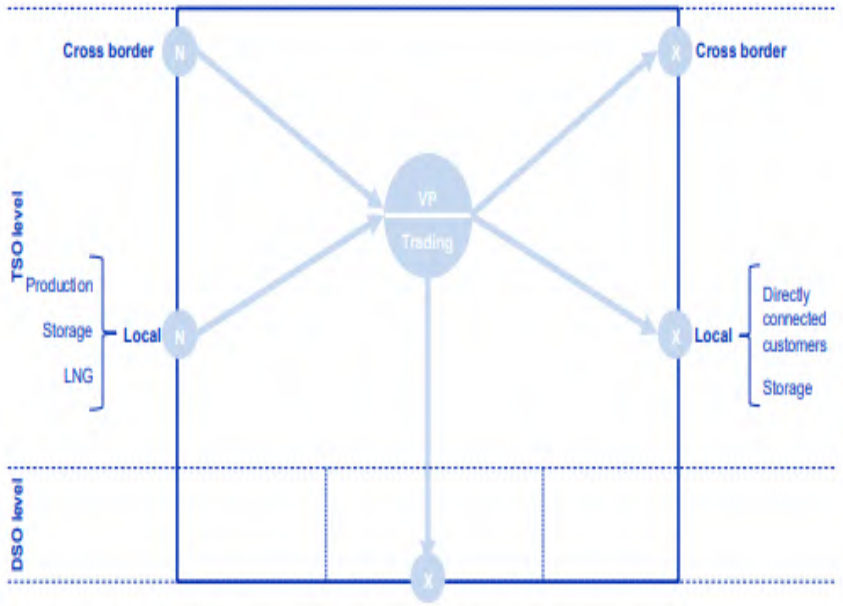


Figure 1: Schematic Representation of a 'Full' Entry-Exit System

- Production of small renewable gas producers limited by demand on local grid
- ✓ **Proposal:** Member States to consider reverse flows and other forms of flexibility