

EFET response to the Hydrogen and Gas Markets Decarbonisation Package

Recent exceptional events have obscured the successes of the European gas market in the last 20 years and its ongoing importance to achievement of the Fit for 55 objectives. New provisions are necessary to establish the conditions for a European internal hydrogen market to develop and to facilitate the role of natural gas in the transition to a decarbonised energy sector. While we recognise that certain temporary measures are being proposed in parallel in order to address the emergency situation, it is important that the package establishes a long-term framework that facilitates the necessary investments and operation with reliable price signals.

EFET welcomes the European Commission's proposals for such a framework and commends many of the principles included therein. There are also points that would benefit from further consideration and clarification. In our response below, we highlight first some general comments on market design that we strongly recommend should be addressed by the legislative proposals, and in response to the Explanatory Memorandum. In the annex, we have additionally provided comments related to specific articles in the proposed Directive and Regulation.

General comments

Critical Items

- Separation of environmental characteristics as tradable independently of the underlying physical commodity would be a significant step forward, but is not clearly stated:
 - It would allow for the establishment of a consolidated hydrogen market without fragmentation of liquidity between renewable and non-renewable hydrogen, while leaving the consumer the choice in terms of the origin of the commodity
 - It would facilitate access of biomethane and synthetic methane to the established wholesale natural gas market, and achieve liquidity in trading both more effectively.
 - It would provide for a value to be established for environmental characteristics that is needed both by investors and the authorities assessing appropriate levels of financial or other support.
 - Even when consumers are located in regions without access to the integrated gas system, they should have the opportunity to support the production of their choice. Through the acquisition of a Guarantee of Origin (GO), they could manifest their preference and contribute to decarbonisation immediately and in their current location.
- EFET has concerns over the establishment of the Union Database (UDB) and its potential to introduce processes that are incompatible with the operation of the internal energy market. Implied rules for tracking of molecules and certificates and

their registration in the UDB do not reflect how gas flows are optimised within a networked system. In this response we suggest ways in which proposals could be clarified, where compliance might be made possible. Nevertheless, this could still be undermined by national systems based on different requirements, such as are already being introduced.

- The European natural gas and hydrogen grids can be treated as a single system for the purposes of mass balancing provided that a physical links exists between the two facilities – such approach would considerably simplify trading of RES&LC gases, especially in conjunction with the separation of environmental characteristics from the underlying commodity as described above:
 - Commingling of gases in grids and storage facilities, together with optimisation of grid operation involving substitution and backhaul, mean that it is impossible to track molecules physically from production to consumption. However, we can measure inputs and offtakes of gas and their environmental characteristics contractually and commercially.
 - The UDB can ensure that certificates issued for production match those claimed for offtake and consumption, without the need to track intermediate transactions retraded bilaterally and through platforms. This will help to prevent double-counting and greenwashing, which will be essential for consumer confidence and uptake in the system.
 - The UDB could also facilitate a “soft landing” whereby temporal matching of production and consumption could be relaxed to help promote liquidity and investment.
 - In order to properly recognise the value of RES&LC gases for the overall EU energy mix, the certificates scheme needs to be capable of reflecting the ability for these commodities to be stored in storage facilities and other infrastructure. This implies that a volume of RES&LC gases that is stored should have the corresponding certificate reissued upon withdrawal with a new validity date.
 - A central database such as UDB will be helpful in establishing a common pan-EU scheme, and avoid risks of partitioning the internal gas market by product and/or by sector, associated with the establishment of uncoordinated national schemes and quotas for certificates, which are only redeemable in one or a limited number of Member States.
- The development of the RES&LC gases market should not be financed via cross-subsidisation either of tariffs or network investments. If additional support for the rollout of this market is found to be required, it should rather take the form of incentives for production and consumption (such as grants, contracts for differences, etc.) and/or public funding for network construction.
- The proposed scheme to offer tariff discounts for RES&LC gases does not reflect use of the physical system, discriminates in favour of imported rather than EU-

produced gases, constitutes a form of cross-subsidisation and may be unenforceable at interconnection points.

- The use of discounts contradicts TSO obligations to run efficient grids in part by ensuring that tariffs are cost-reflective, and requires a move away from the fundamental principle of non-discrimination. Where support mechanisms are necessary, they should be targeted at production and consumption rather than transportation.
- EFET also fears that this may contribute to a proliferation of uncoordinated national schemes that would hinder cross-border trading and fragment the single internal market.
- Should a tariff discount scheme be chosen, limiting discounts to the first input and last exit point (and not at intermediate Interconnection Points) would be more achievable and aligned with the above proposals to focus on commercial rather than physical flows.
- Greater clarity on the relationship between GOs (which may be enhanced with additional information to GO+), Life Cycle Assessment and Sustainability Certificates would help avoid confusion in interpretation and possible conflict between the Gas Package and RED II/III.
 - Ultimately, EFET foresees convergence of different instruments to enable a strong price signal for characteristics that operates across technologies and sectors. This enables comparison of a wider range of investments for their environmental impact. However, this may not be initially possible. Where multiple instruments exist, a route to their convergence should be envisaged.
 - We should also ensure that this does not impinge on trading of emissions or carbon abatement. By keeping price signals for decarbonisation separate from its achievement through use of specific technologies, policymakers can ensure that these measures keep complementing each other on the way to achieving the Fit for 55 targets. This also requires that the technologies enabling energy production with no direct greenhouse gas emissions over their lifecycle and entitled to the respective certificates, automatically become freed from the obligation to acquire emission allowances.
- The establishment of a methodology for assessing greenhouse gas savings from Low Carbon Fuels (LCFs) needs to be prioritised and set out much sooner than is currently proposed in a Delegated Act at end 2024, or the opportunity for early investment will be lost.
- Inter-TSO compensation schemes in electricity have proved to be extremely complex, difficult to establish, and controversial. In gas, it would also represent a loss of sovereignty over revenue recovery and tariff setting that has previously been at Member State level. A common fund that can be used to promote infrastructure as it is also used to support production and consumption investments would be simpler and more transparent.

- In particular, where the package envisages cross-subsidisation in support of developing a hydrogen network, it does not appear to consider also that support may similarly be necessary to retain certain natural gas pipelines in the future as network utilisation drops. This may be advisable to maintain security of supply during the transition, but it may not be possible to recover the costs from a declining user base, never mind for these same users to subsidise construction of a hydrogen network.
- The number of exemptions foreseen, together with the intent to zeroise tariffs at intra-EU hydrogen IPs will also make it more difficult to finance additional infrastructure, and should be dropped.

Additional Recommendations

- Investment in physical reverse flow from DSO to TSO networks should only be required when it is economically justified and there is physical congestion. In many cases, virtual backhaul will be sufficient.
- The introduction of different rules for trading of LCFs in legislation separate from the one established for RES gases is a suboptimal solution that will lead to overlaps and loss of transparency. The absence of a framework for GOs that would mirror RED II is already an example of this.
- The imposition of RTPA after a period of time may not be necessary in all systems. An exemption regime by application should be considered on a case-by-case basis for both pre-existing isolated infrastructure and for future investments that would otherwise not take place.
- Similarly, the proposed unbundling obligations for hydrogen network operators, if strictly applied, may become a barrier to the repurposing of gas networks, and to the materialisation of synergies between gas and hydrogen operators. In the rollout of a hydrogen market, different unbundling models (such as ISO and ITO) should remain options in cases where there are well-founded concerns that the network would otherwise not be developed or converted in due course.
- While the package describes itself as a “recast”, its structure leaves unclear where provisions are intended to apply equally or differentially to all gases, to RES&LC gases or to hydrogen networks exclusively. For example, the proposed unbundling obligations may become a barrier to the repurposing of gas networks, and to the materialisation of synergies between gas and hydrogen operators.
- The definition of conditional capacity as a sub-category of firm capacity has far-reaching consequences for all subsequent regulations for which no impact assessment has yet been carried out. Unrestricted access to the virtual trading point for all network users and free allocability in an entry-exit-system is considered crucial for a well-functioning gas market. Conditional capacity should therefore only be defined as interruptible capacity and its application should be minimised as far as possible.

- Where production and consumption are in isolated systems, an equivalent book and claim system based on GOs for disclosing information on the volumes of RES&LC gases produced in such locations would enable these parties to gain access to the broader market, pending physical connection.
- The introduction of an entry-exit system that merges Transmission & Distribution levels may result in a number of issues that might not have been envisaged at this stage and should be removed or made optional at this time. The integration of the two levels would imply that small stakeholders would become subject to regulatory and reporting obligations currently imposed on wholesalers and are unlikely to have the capacity to comply with them. The integration could further have multiple implications to tariff, balancing and capacity allocation regimes, the identification of which would require further in-depth studies. At the same time, it needs to be stated that if the aforementioned integration is intended to ensure RES&LC gas access to the wholesale market, this can be done in a less distortive manner through ensuring virtual (or - where economically justified – physical) reverse flows from the distribution to the transmission level. Once sold at the virtual trading point, the gases input at the distribution level would become subject to the same rules as the gas traded through the high-pressure network and without the adverse consequence to existing and future market participants.
- Regulatory authorities should be granted oversight powers over the connection arrangements for renewable gas production facilities. These regimes must be based on common EU principles to ensure that connection costs don't constitute an undue barrier to the integration of renewable gas in the system.
- Clear definitions for the different types of RES&LC gases, including hydrogen, are required in order to properly integrate them into the EU policy and regulatory framework. However, no dedicated definition for renewable hydrogen was introduced, either in the review of the Gas Directive or in the review of the Renewable Energy Directive (RED III). We therefore request that a clear definition of renewable hydrogen is provided under the legislation.

Annex

Detailed comments on the Gas Directive

Whereas clauses

(9) EFET has previously commented that a comprehensive EU-wide certification scheme for renewable and low carbon energy should be gathered in a single instrument rather than split across different pieces of legislation. EU has stated that Low Carbon Fuels could not be included in the Renewable Energy Directive but has not indicated any intent to make the necessary amendments to detail a comprehensive scheme in a separate document covering all fuels. Although this paragraph states that the recast Directive is meant to fill the gap, the proposal diverges from the terms included in the RED (as amended). This risks that the scheme is fragmented rather than comprehensive. Further work to ensure parallel development is recommended to enable a common scheme across EU that avoids unnecessary operational complexity and potential barriers to cross-border trade.

(97) Virtual reverse flow from distribution to transportation networks could be introduced immediately on an interruptible basis; physical reverse flow should be required only where there is a demonstrated need, analogous to existing requirements for bidirectional flow at Interconnection Points. We note that further changes to definitions of entry-exit systems may be necessary to accommodate entry points in the distribution system.

Article 2 – Definitions

(1) Where hydrogen flows into a natural gas grid, it becomes natural gas for the purposes of transportation.

(6) Hydrogen storage: Proposals are expected to be unworkable for storage of hydrogen in depleted gas reservoirs. Hydrogen gas of a high degree of purity may be injected, but in the reservoir is likely to mix with pre-existing cushion gas which comprises methane, and will therefore no longer meet the required purity levels. It should be made clear that this will continue to be treated as natural gas.

(18) With new requirements for bidirectionality and possible flow of biomethane into transmission systems, the definition of distribution systems should include flow into other distribution or transportation systems.

(20) The definition of hydrogen networks should be extended to include linear pipelines such as the proposed “backbone” that deliver gas from one network to another.

Article 4 – Market based supply prices

As highlighted by the EC's REPowerEU Communication, regulated retail prices should not undermine wider objectives of EU energy policy such as competitive markets, consumer empowerment or greater energy efficiency. However, the current proposal mirrors the Electricity Directive on regulated prices. A deadline and verifiable criteria for an eventual abandonment of the period of application of regulated gas prices should be clearly defined. Technical guidance related to the measures, methodology and criteria used to end a transitional period could be laid down by ACER.

Article 5 – Public Service Obligations

The draft variously references “market” and “markets” for gases. It is envisaged that separate markets will develop for hydrogen and for methane rather than a single interchangeable market for energy (analogous to TTF). The draft should be clear to refer to “markets” for gases in recognition that hydrogen and methane will trade in different markets.

Article 8 – Certification of renewable and low carbon fuels

The title of this article and reference to RED Articles 29 and 30 indicate that it applies to gaseous transport fuels, but not where the same gaseous product may be used in sectors other than transport, for example where used as a chemical feedstock. In an entry-exit system where renewable and low carbon gases are traded at a virtual trading point, the precise end-use of the product is not known until offtake. It is not feasible to delay recognition under a particular taxonomy until this time.

The nature of operating gas grids means that the product conveyed is sufficiently homogenous in composition that TSOs are able to substitute gas in more convenient locations in order to optimise use of the system. It is not possible to guarantee the conveyance of particular molecules between entry and exit points in a network. Flows of renewable and low carbon gases can only be tracked contractually or commercially, not physically or operationally. The separation of environmental characteristics from the underlying commodity or energy value would allow buyers and sellers to have these rights and characteristics recognised in a networked system, without impeding the operation of the system, or requiring additional parallel pipeline networks to be built. An article that expressly provides for this, and lays down general guidelines for a common implementation across EU (perhaps subject to an Implementing Act) would better enable the development of useful price signals to investors for achievement of green deal objectives.

This will require certain safeguards if the introduction of a mass balance system is not to undermine the development of traded markets. For example, it will be necessary to reinterpret the term “consignment” as it applies in the referenced article in Directive EU 2018/2001.

Article 27 – Third-party access to natural gas distribution and transmission and LNG terminals

The proposed ban of long-term contracts beyond 2049 may be premature given current discussions on security of supply, depending on what exactly is meant by “unabated fossil gas” (e.g. whether or not this can be met by use of credits for the offset of CO₂ or abated by CCS).

Article 47 – Existing hydrogen networks

Private hydrogen pipelines have been built and operated exclusively for the supply of hydrogen to industry, based on individual contracts governing not only the production and transport but also the supply of hydrogen. Such private pipelines should be eligible for derogation from the regulatory requirements, on application, to be considered on a case by case basis, for example where they do not serve the public supply.

Article 48 – Geographically confined network

Private hydrogen pipelines have been built and operated exclusively for the supply of hydrogen to industry, based on individual contracts governing not only the production and transport but also the supply of hydrogen within industrial clusters. They should be eligible for derogation from the requirements of the Gas package, on application, to be considered on a case by case basis.

Article 51 – Network development and powers to make investment decisions

Separate plans for different energy carriers should be a minimum, but a combined plan should be encouraged.

Article 54 – unbundling of transmission systems and transmission system operators

EFET supports the position taken by the Commission on prohibition of electricity and gas TSOs from owning and operating electrolyzers.

Article 62 – unbundling of hydrogen network operators

Where TSOs are allowed to maintain electrolyzers under a grandfathering arrangement, the electrolyzers should be subject to Third Party Access rules.

Where a TSO operating a natural gas system wishes to convert it into a hydrogen network, and that TSO, has been operating under an ITO model, then a transitional period may be allowed before full ownership (or ISO model) unbundling should be required.

Article 63 – horizontal unbundling

Legal separation is supported, including accounting, however there may be advantages in permitting common management and operatorship, at least during initial stages.

Article 72 – Duties and powers of the regulatory authority

A single international entity owning or operating a pan-EU hydrogen network should be subject to regulation by ACER rather than the Regulatory Authorities of all the host countries.

Article 77 – Safeguard measures

Deleted provisions should be reinstated. Measures should not endanger market functioning except as a last resort.

Article 85 – Review and reporting

In view of other changes that should take effect from 2030, an earlier review would allow time for consideration of potential revisions. EFET suggests a review 5 years after implementation.

Gas Regulation

Whereas clauses

- (7) EFET supports that the principle of cost-reflective tariffs is maintained.
- (8) Support should be broadened to gas networks where necessary, including low usage and costs of decommissioning at end of useful life if terminated prior to full depreciation. Cross-subsidies are inefficient and are incompatible with the principle of cost-reflective tariffs, as the clause recognises. Where support for the development of hydrogen networks is needed, it should come from public funding.
- (13) Conditional products should be shown clearly to be regarded as interruptible and should not count towards firm capacity. Both the number of conditional capacity products and the quantities offered under them should be limited. Reasons for interruption of (conditionally firm) capacity should also specify if transportation capacity may be interrupted where injection would cause a breach of gas quality limits.
- (14) There should similarly be sufficient cross-border capacity to complete an internal market in hydrogen.
- (26) Non-discriminatory and transparent balancing systems should also be in place for hydrogen.

(33) TSOs should only be allowed to “book” storage capacity at the same terms as the market, not “reserve” which may imply that different access terms might prevail.

(35) Transparency should apply to all systems, not only natural gas.

(38) Discounts do not reference location later in the article. The reference to “economic locations” in the initial clause is therefore misleading and should be deleted.

(43) The assertion that blending is a less efficient use of hydrogen is misleading and unjustified. The market will determine where hydrogen is best used, for example, where it is necessary to maintain a consistent and reliable quality specification. This assertion should be removed.

(48) Joint plans for natural gas, hydrogen gas and electricity should be produced where possible, before and after the duty is taken on by ENNOH.

Article 2 – Definitions

(4) Capacity should be expressed in energy units per time period only.

(26) This clause should reference the energy quantity (kWh) rather than the volume (m³) of gas stored.

(30) Definition of an entry-exit system to include distribution systems is not necessary to accommodate production connected to distribution systems nor for pooling of balances; these can be achieved in other ways. It may, however, have consequences for tariffs, interactions between wholesale and retail markets, and capacity planning if TSO exit capacity is no longer booked. Further consideration should be given to the effect of mandating this broad definition.

(35) Conditional capacity is interruptible.

(36) Allocability can only be used under the conditions described in (35); the word “discretionary” is misleading and should be deleted.

Paragraph 2: It should be clear if this represents the entire list of facilities or whether (only) the definitions of hydrogen storage and hydrogen terminals should be included.

Article 3 – General principles

(d) Gas can also be traded in store and in tank at LNG/hydrogen terminals; “shall exchange” should be reduced to “may exchange” or “shall endeavour to exchange”.

Article 4 – Separation of regulated asset base

Paragraph 2 – We believe that direct subsidy measures (such as grants, contracts for differences, etc.) should be preferred over transfer of revenues between RABs of

different services. In any case, if they are to be included, then we recommend that financial transfers, dedicated charges, value of transferred assets (or at least the methodologies used to underpin them) should all be subject to consultation prior to regulatory approval. Financial transfers as cross-subsidies should be limited in size not least for protection of consumers in networks where such additional charges are applied. In the case of cross-border pipelines, some sharing of charge may be appropriate from exit points to final customers in both member states involved and even exit points to a third MS where there are further benefits downstream.

We should also be clear here and elsewhere that, where the package envisages cross-subsidisation in support of developing a hydrogen network, then transfers and cross-charging should also be possible to the benefit of natural gas networks in decline in order to safeguard remaining consumers (and especially where these networks are being retained for Security of Supply across the energy sector).

Article 5 – Third Party Access Services concerning TSOs

Paragraph 3 – the transfer of old capacity contracts should now imply a termination of these contracts: “should be applicable at the VIP” is preferred.

Article 6 – Third Party Access Services concerning Hydrogen Network Operators

This article provides for zero-priced interconnection capacity to be locked in a long-term contract for up to 20 years without commitment by the capacity holder. Provisions should be in place to prevent this or to deal with contractual congestion that will inevitably arise from the offer of free capacity.

Article 7 – Third Party Access Services concerning natural gas storage, hydrogen terminals, LNG facilities and hydrogen storage facilities

Paragraph 3 – bundled and unbundled services should only be offered “where it is efficient to do so”, and not become a means of overriding efficient utilisation of a terminal or provide a means of easily excluding others from access.

Article 16 – Tariffs for renewable and low carbon gases

Recalling the general comments above, EFET counsels against the use of selective discounts in order to promote specific technological solutions related to the production of gas. Network operators should be incentivised to run safe and efficient systems and tariff methodologies should be cost-reflective in order to achieve this. Where nascent technologies face a cost disadvantage over established technologies, which is expected to reduce over time, this should be addressed through national and EU assistance – for example through carbon pricing - rather than through tariff design for use of the gas network. To do otherwise is likely to result in unpredictable tariff swings for those classes of users who are not eligible for discounts, and perverse incentives for use of the network.

In the event that some form of discounting is to remain, we point out the following aspects that would be unworkable in the current draft:

- Where environmental characteristics are traded independently from the underlying commodity, it is unclear how the discounts will be calculated and applied
- Where a mass balance system is in place and precise transportation routes cannot be tracked, then the identification of interconnection points that are actually used is not possible; discounts could only be applied to the first entry and last exit point.
- Where the shortest route does not represent the most economic route or the route actually undertaken for a flow of gas because of capacity availability, then it is not clear how the discount would be calculated or applied.
- Discount structures are inconsistent between producers inside and out of EU
- EFET remains sceptical about the ease with which Inter-TSO Compensation mechanisms can be designed, agreed and implemented.
- In order to reflect the diminishing cost disadvantage any adjustments via discounts should be clearly indicated to be transitional or temporary with a suitable end date for phase out shown in the Regulation.

Article 17 – Revenues of gas transmission system operators

We support the introduction of transparency around the revenues of the TSOs along with the benchmarking of their relative cost-efficiency. This is a long-awaited amendment that has been identified as necessary under different studies by ACER and one that EFET has always supported.

Article 18 – Firm capacity for renewable and low carbon gases to the transmission system

This article is an example of the point raised above in reaction to opening clause no. 13 and article 2 of the Regulation, that conditional capacity should not be classified as firm, or this article would not provide the necessary incentives to ensure that truly firm capacity is made available according to the needs of system users.

Where a facility is to bear costs of ensuring firm capacity, this should be explicitly limited to capacity related to connection charges and should exclude deep reinforcement in downstream systems which would make such connections prohibitively costly.

Article 23 – Tasks of the ENTSO for Gas

EFET welcomes that blending hydrogen into the existing gas system should be explicitly allowed and that ENTSOG should develop codes and reporting mechanisms to aid the success of this approach.

Article 31 – Transparency concerning natural gas and hydrogen storage facilities, LNG facilities and hydrogen terminals.

Where data on individual points may reveal commercial behaviour of a market party, and are excused from publication, these data should be published in an aggregated form where possible, such that whole-system effects are still known but that confidentiality of individual parties is protected.

Article 33 – Firm capacity for renewable and low carbon gases to the distribution system.

As before, the costs related to ensuring firm capacity should be in respect of connection charges only and not deep reinforcement of the system.

Article 39 – Cross-border coordination on hydrogen quality

EFET supports that the general article appears to be aligned with the existing network code on interoperability.

Article 53 – Establishment of network codes and Article 43 – Establishment of network codes for hydrogen

Separation of these articles increases confusion. EFET recommends that the Regulation be recast to show more clearly where gases and/or networks are to be treated similarly and where differently.

Article 55 – Amendments to network codes

EFET supports the establishment of a modification process and recommends that ENNOH be required to put in place a formal procedure.

Article 58 – Provision of information and confidentiality

EFET recognises the right for member states to request information, but recommends that some limitations exist around this to ensure that such requests do not become unduly burdensome and a barrier to market entry. Requests should follow existing or standardised formats as much as possible to avoid inefficient reporting of information with unnecessarily different formats and better to allow comparison of results between member states.

Article 67 – Amendments to Regulation (EU) 2017/1938

In the light of new developments and proposals regarding gas storage and LNG, proposed amendments to this Regulation should be considered separately.