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BRIEFING

Gas Package Analysis: The Good, the Bad and the Ugly of the revised Directive and Regulation

Climate Action Network (CAN) Europe is Europe's leading NGO coalition fighting dangerous climate change. With over 185 member organisations active in 38 European countries, representing over 1,700 NGOs and more than 40 million citizens, CAN Europe promotes sustainable climate, energy and development policies throughout Europe.

Introduction

As part of the European Green Deal and its 'Fit for 55' package, the European Commission published a legislative proposal on 15 December 2021 to substantially revise the 2009 EU Gas legislations, including a directive and a regulation.

The "hydrogen and decarbonised gas market package", initially aimed at enshrining the **shift from fossil gas to renewable and low-carbon gasses, in particular biomethane and hydrogen,** and to **establish and regulate the upcoming market for hydrogen**, by creating the right governance and infrastructure structures.

The institutions reached a deal on the directive on 28 November 2023 and on the regulation on 8 December 2023. **Both texts are meant to be formally endorsed by the European Parliament in plenary on April 11th 2024**, followed by a final approval by Council and publication in the Official Journal. Implementation will start earliest in June 2024.

Overall assessment and timeline of implementation

The final outcome fails to include what would have been a major improvement from the Commission's initial proposal – a clear trajectory for fossil gas phase-out across sectors. A rather meager outcome, given the fact that the gas package was the main legislative file of the Fit For 55 package dealing with the fossil fuel that needs to be phased out by 2035 to achieve climate neutrality by 2040. Below you can find a summarised assessment of the main outcomes:

- Under the gas directive, the biggest improvement is the introduction of an obligation for **gas distribution operators to plan the decommissioning of their networks**. The implementation of these plans will need to be followed, as the distribution operators will have to start with this process as soon as the directive enters into force. Some interesting - but weak- language on “shifting away” from fossil gas has also been added.

- Under the Regulation, we won **horizontal unbundling** i.e. avoiding that gas Transmission System Operators (TSOs) will be in charge of designing future hydrogen transmission networks, with the **creation of an independent governance structure (European Network for Network operators of Hydrogen, ENNOH)**. Under the directive, however, the **unbundling rules for the transmission level have been weakened with exemptions**; and most importantly, they have **not been extended to the hydrogen distribution level**.

- In addition, a **split between hydrogen transmission and distribution networks** has been anchored as principle through the different network planning exercises. The split equals in copy-pasting the current gas infrastructure system to future hydrogen networks, without taking into account the specificity of hydrogen molecules and the need to prioritise its use to specific sectors. **This opens the door to gas distributors to deliver hydrogen through their local networks with the purpose for instance to heat homes**. There is a scientific consensus that it is much more efficient to electrify heat in buildings through heat pumps (fueled by renewable electricity) instead of burning costly hydrogen; moreover maintaining distribution gas grids to deliver hydrogen risks leading to overproduction of fossil gas based hydrogen, locking the EU into fossil gas dependency.

- Regarding the hydrogen market, interesting language on **priority use for hard to abate sectors has been integrated.** However, the directive and regulation do not offer any guarantees for the implementation of prioritizing the use of hydrogen to some key sectors only. On the contrary, opposite signals are being sent because of **uncertainties regarding the split between hydrogen transmission and distribution level and the need to separate hydrogen and gas system operators** (i.e. the unbundling and governance rules).

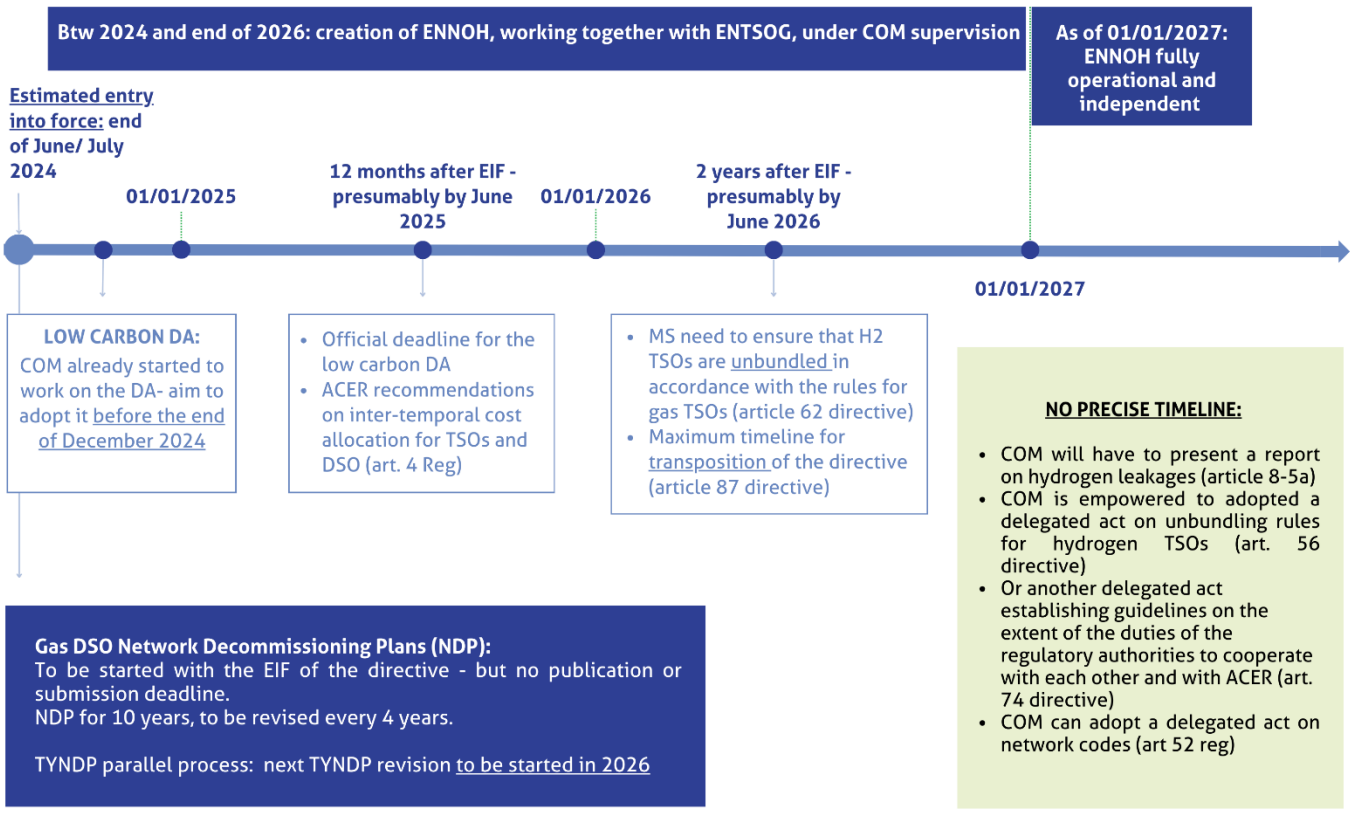
- Equally ambivalent is the **low carbon gas definition**, which needs to be strengthened to make sure that hydrogen produced from fossil gas is clearly differentiated from renewable gaseous molecules and phased out by 2035.

Overall, even if some language on the climate objectives, energy efficiency and energy system integration has been anchored in the revision, the reached agreement does not give enough guaranties to ensure the application of these principles because of opposite incentives through weak independence and unbundling rules or financial support via cross subsidies from the gas revenues to finance the hydrogen infrastructure.

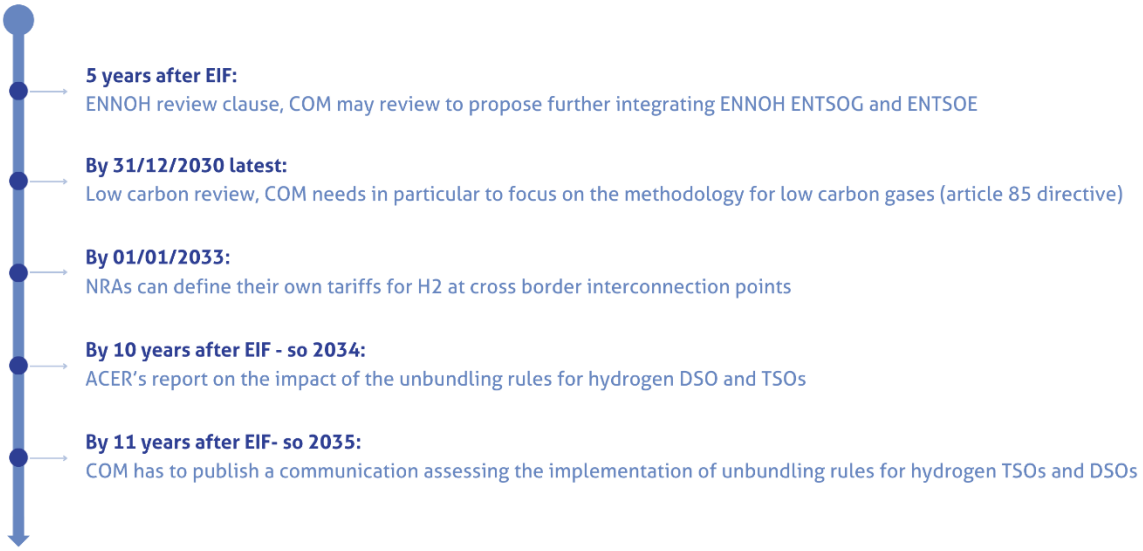
The implementation of the revised gas directive and regulation will need to be followed, in particular for:

- ➢ The definition of the methodology for the certification of low carbon gas in a delegated act, expected before the end of this year.
- ➢ Setting up the future European transmission network operator for hydrogen (ENNOH), to ensure its independence from ENTSOG.
- ➢ Monitor at national level the implementation of the Network Decommissioning Plans (NDPs) to be developed by gas distribution system operators (DSOs).
- ➢ Push forward an EU framework for decommissioning gas networks on distribution and transmission level.
- ➢ Ensure that the next Ten-year network development plan (TYNDP) is based on a comprehensive joint scenario with detailed information on the parts of the network that should be decommissioned, or repurposed.

Timeline of implementation



Long timeline



FOCUS ON SPECIFIC POINTS

1) Revising the existing gas market

a) The good

i) A concrete first step to phase out gas: Network Decommissioning Plans, NDPs (article 52b directive)

A framework for decommissioning of gas infrastructure and either repurposing of hydrogen infrastructure or stopping its utilization has been integrated via the planning exercises (article 51, 52 and 52b of the directive) for both the gas and hydrogen distribution and transmission level.

On the gas DSO level more precisely, **the directive foresees an obligation for gas DSOs to plan the decommissioning of their unused gas networks, "when a reduction in gas demand is expected"** (article 52b). This is a very concrete step to anticipate gas phase out and its impacts on infrastructure that will no longer be needed. Preliminary NECP analysis shows that the gas demand in four major gas consuming EU countries (Germany, France, Italy and Hungary) is projected to shrink by 30% by 2030. The NDPs need to cover a ten-year period and need to be updated every 4 years starting from entry into force in 2024. One exemption has been added:

DSOs could be exempted from doing this plan if they serve less than 45.000 connected customers.

Further criteria for the elaboration of these plans are specified:

- The plans need to be developed in close cooperation with hydrogen DSOs, DSOs for electricity and district heating and cooling operators
- Public consultation process involving all relevant stakeholders
- Member States can allow Gas DSOs and hydrogen DSOs to develop one joint plan if operating in the same area and parts of the network are to be repurposed
- NRAs will approve or reject the decommissioning plans

These plans need also to:

- Be in line with the ten-year network development plans (TYNDP)
- Promote the energy efficiency and energy system integration
- Take into account the local heating and cooling plans
- Be based on reasonable assumptions about demand and production of gas and hydrogen
- Identify required infrastructure adaptations, whilst demand-side solutions not requiring new infrastructure investments shall be prioritized
- Contribute to the achievement of the Union's energy and climate targets and be consistent with MS's NECP

This article has to be read in light of the other articles on integrated planning from the directives (article 51 and 52), which focus on gas and hydrogen transmission and distribution network plans. Overall, the Directive outlines strong requirements for the development, assessment, and approval of these plans, involving different stakeholders to adjust the future hydrogen network with the existing gas network. However, more integration can still be reached with a better integration of the electricity planning and the decommissioning and repurposing plans.

ii) An enhanced consumer protection and fight against energy poverty (articles 4, 11(a) and 25(a) directive)

The directive states, as a horizontal principle, that Member States are allowed to close part of their distribution system in order to phase out gas, but only under the condition that they foresee specific rules for the protection of vulnerable consumers.
Articles 4§4 and 11(a) in particular foresee that:

- Public intervention in price setting is allowed to protect vulnerable consumers but shall not hamper the gas phase out plans and the EU's climate neutrality objective.
- Member States need to ensure that specific needs of vulnerable consumers are taken into account when planning the gas phase out.

Article 25a, called “Energy poverty and decommissioning of the natural gas network” states that the Commission shall provide guidance on the protection of vulnerable customers affected by energy poverty when planning and carrying out the phase out of natural gas or when gas distribution networks are being decommissioned.

The regulation includes a number of safeguards, such as national schemes for preventing disconnections from happening (e.g. via financial support) especially in winter times and during court procedures; and for supplying customers who cannot afford a market-based offer (so called "**supplier of last resort regimes**"). Suppliers of last resort are tasked with ensuring gas supply to end customers in a timely and efficient manner during emergencies or supplier failures. They must adhere to consumer protection measures and regulatory requirements to safeguard the interests of consumers (see recital 74(a) regulation). ACER plays a role in monitoring and assessing the implementation of supplier of last resort regimes across Member States to ensure compliance with EU regulations and directives. This oversight aims to promote consistency, transparency, and effectiveness in managing supply disruptions and protecting consumers.

b) The bad - issues to keep an eye on

i) Limited blending authorized (article 19 regulation)

The regulation allows blending of hydrogen with fossil gas, but only to the limit “where the hydrogen content blended into the natural gas system exceeds 2% by volume”. This is an improvement compared to the initial proposition of the Commission, where the text allowed up to 5% hydrogen mix with fossil gas. This is a win for those end users that need very high purity levels of hydrogen (steel, cement) but still allows for fossil gas and hydrogen blends and therefore encourages the continuation of fossil gas use.

The main points that the regulation clarifies on blending rules are as follows:

- **Cross-Border Flows**: Transmission system operators are required to inform regulatory authorities promptly if restrictions to cross-border flows arise due to gas quality differences, including hydrogen blending. Regulatory authorities jointly decide on recognizing such restrictions and may request actions from operators to address them.
- **Hydrogen Content**: In cases where restrictions are recognized due to hydrogen blending, transmission system operators must accept natural gas flows with hydrogen content at interconnection points subject to specified procedures and actions within a defined timeframe.

- **Technical Feasibility**: Operators are tasked with developing technically feasible options to remove recognized restrictions without altering gas quality specifications. This may involve cooperation, flow commitments, natural gas treatment, and conducting cost-benefit analyses to define economically efficient solutions.
- **Regulatory Oversight**: The regulation ensures that regulatory authorities play a key role in overseeing the blending of hydrogen in natural gas systems, ensuring compliance with specified procedures and timelines for addressing restrictions related to hydrogen content.

ii) No biomethane target (Recital 14a Regulation - see articles 20b and 23(4) for more information).

During the negotiations process, the EP pushed to integrate the REPowerEU biomethane target of 35 bcm per year by 2030 and make it legally binding by integrating it into the Regulation. As the Commission and the Council stood against this proposition, the target did not make it to the text, and is **now only referenced in the recitals, as a non-binding biomethane objective**

iii) Solidarity measures (articles 13, 13(a) and 11 regulation)

In its amendments, the European Parliament proposed to integrate some of the emergency measures that were adopted after Russia's invasion of Ukraine, such as the 15% gas demand reduction objective or the measures in the new security of supply framework, i.e the default gas solidarity provisions in the absence of the so-called solidarity agreements between member states.

While the 15% gas demand reduction objective was not permanently adopted via the regulation (this provision has however been extended via a Commission recommendation on a voluntary basis)**, the default solidarity provisions in crisis situations will become part of the EU security of gas supply framework**, in articles 11, 13 and 13(a) of the regulation. In Article 11(7a), in case of a crisis declaration, Member States will be entitled to exceptionally take temporary measures to reduce the non-essential consumption of protected customers under strict conditions. By February 2025, the Commission will submit a report to the European Parliament and the Council on the implementation of these provisions. If appropriate, the report could be accompanied by a legislative proposal for a comprehensive revision of the Regulation on Security of Gas Supply.

c) The ugly

i) No real gas phase-out trajectory but a "shift away from fossil gas" under the directive (recitals 5 to 6 and article 4§4 directive)

The revision of the gas market doesn't at all propose gas phase out trajectories across sectors, as initially asked by civil society to make sure that the revision of the directive and regulation would lead to an adequate reform of the market, adapted to the climate-neutrality objective of the EU. Instead, **the texts barely mention the need to phase out gas and even specifies that long-term contracts for the supply of fossil gas can run until the year 2049** (recital 125 and article 27§2), which is in contradiction to the EU's international climate commitments under the Paris Agreement, which translates into the 2035 gas phase out objective.

Some interesting language was however added regarding the decarbonisation objective, the EU's obligation to cut CO2 emissions, it's climate neutrality objective and the shift away from fossil gas use – which is, as stated from recitals 5, 5(a) to (c) and recital 6 directive, one of the objectives of the revision. Otherwise, just a few references to gas phase out with regard to the framework allowing for refusal to access and possible disconnection of network users has been added and one interesting mention to avoid the gas lock in effect during the infrastructure planning (but only in the recitals -see recitals 6 and 24 directive).

ii) Diversification of Russian gas supplies under the regulation (recital 70a, article 5(6) regulation)

The regulation focused on the diversification of gas supplies and the integration of the emergency measures adopted after Russia's invasion of Ukraine and the decision taken under the REPowerEU Plan aiming at mitigating energy costs and stabilizing supply. The co-legislators agreed (in recital 70a together with Articles 5.6 and 7.7 regulation) that Member States will have the possibility to **take proportionate measures to temporarily restrict gas supplies, including LNG, from Russia and Belarus.** But these measures only aim at diversifying gas supplies with a view to phasing out dependence on Russian gas.

Amongst the other emergency measures proposed under the REPowerEU plan, the voluntary 15% gas demand reduction target was not anchored in the text. However, **the mechanism to enable voluntary demand aggregation and joint purchasing of fossil gas** has been made legally permanent under the regulation – on the voluntary basis and with exclusion of Russian gas supply (including LNG). The Russian gas exclusion is only valid until 31 December 2025 (Article 38 a. to g. - From 1 January 2026, by means of an implementing act, the Commission will be able to continue the exclusion).

2) Preparing the future hydrogen market

a) The good

i) Priority use of hydrogen as horizontal principle (Articles 1, 3 and 5a directive)

Priority use of hydrogen has been anchored in the text as a general horizontal principal, with strong wordings (recital 114, article 1, article 3 - 5a; under "GHG abatement potential") and as a specific element to take into account in network planning at transmission level (Article 51). See for example Article 3§5a: *"Member States shall ensure a customer-centered and energy efficient approach in the hydrogen market. The use of hydrogen shall be targeted for customers in hard-to-decarbonise sectors with a high greenhouse gas abatement potential where no more energy and cost-efficient options are available."*

However, it remains to be seen how this principle will be implemented because of the unclarities about future hydrogen needs (from the 10mt target in the REPowerEU plan to the 3 or 4mt under the 2040 Climate target impact assessment) and because of other elements that the revision anchors in the text with weak unbundling rules or the creation of a hydrogen distribution level, which could create an incentive to gas DSOs to take over the hydrogen distribution in sectors that are not made for hydrogen (see below for more details).

ii) An independent governance system: EU entity for Hydrogen Network Operators (ENNOH) (Articles 21-24, 26-29, 40-47 regulation)

After long negotiations and opposite positions between the Council and the European Parliament, the reached agreement will establish the future European Network of Network Operators for Hydrogen **(ENNOH) as a separate, independent entity from the European gas network operator, ENTSOG**. The Parliament pushed to merge both entities, but the reached agreement preserved the text as in the Commission's initial proposal and in the Council's general approach. **The compromise with the Parliament stipulates that ENTSOG and ENNOH will work together on the establishment of the Ten-Year Network Development Plan (TYNDP) for 2026.** A new article 43a provides for the transfer of integrated planning from ENTSOG to ENNOH. **From 2028, ENNOH will be solely responsible for the TYNDP in hydrogen.**

Provisions are added to ensure that all Member States planning to develop a hydrogen network are properly represented in ENNOH. In addition, no later than 5 years from the entry into force of the Regulation, the Commission **will review the functioning of ENNOH and may propose a legislative proposal for further integration of ENNOH, ENTSOG and ENTSOE**. The new article 43 (a) also goes in the direction of more integration between ENTSOG, ENNOH and ENTSOE.

Concretely, the creation of ENNOH will be implemented in a transition phase:

- ENNOH will be created as soon as the Regulation enters into force, so in 2024; but will only be fully operational in January 2027. Art 43.a allows transfer from ENTSOG to ENNOH until January 2027.
- Between 2024 and January 2026, ENNOH and ENTSOG will have to work together, so it means that the next TYNDP and the next PCI lists of 2025 and 2027 will be made jointly by ENTSO-G and ENNOH together, with COM supervision.
- From 2028 TYNDP and 2029 PCI, ENNOH will work alone on the hydrogen part, without influence of ENTSO-G.

This compromise is a win compared to the risks of conflict of interest in the case where ENSTOG would have been solely responsible for the planification of hydrogen network - however, with regard to the exceptions on horizontal unbundling rules on transmission level, the implementation and entry into force of ENNOH needs to be supervised. Furthermore, neither the directive nor the regulation give sufficient safeguards that ENNOH will be dealing with the transmission of renewable hydrogen only (on the contrary, with the openness of the low carbon gasses definition, other colors of hydrogen could be incentivized). There is also no guarantee about the limitation of the development and size of the future hydrogen network to ensure it adapts to specific hard to abate uses only. The opposite is true, during the transition period before the full operation of ENNOH, ENTSOG plays an important role - without the counterpart of ENTSO-E, which means a stronger hand of the gas industry in the development of hydrogen networks.

b) The bad - issues to keep an eye on

i) A week low carbon gasses definition and problematic low carbon financing (Articles 2(10) and (11), 8 and recital 9, 9(a) and 10(a) directive)

The low carbon gasses definition includes the addition of the fossil fuel comparator of 94 grCO2e/MJ, however the Council rejected having minimum thresholds for methane performance or carbon capture already defined in the certification methodology, as proposed by Parliament. A delegated act, to be adopted within 12 months after entry into force of the directive, should come to define the missing elements of the definition to specify the certification methodology. The European Parliament also had to drop most of the references that its position had included for a preferential treatment of renewable gas over low-carbon gas, or reduce them to biomethane only.

The definition only precises that **low carbon gasses are the gaseous fuels "*which meet the greenhouse gas emission reduction threshold of 70% compared to the fossil fuel***

comparator for renewable fuels of non-biological origin *set out in the methodology adopted according to Article 29a (3) of Directive (EU) 2018/2001"* (articles 2§10 and §11).

But article 8 on the certification mechanism doesn't foresee the methodology for assessing greenhouse gas emissions savings from low-carbon fuels itself, just recommendation on what the delegated act will have to take into account (to be read together with some recitals, such as 9, 9(a) and 9(b) directive):

- The methodology has to be **consistent with the Delegated Act on RFNBOs (Renewable Fuels of Non Biological Origin)**
- It shall cover the **life-cycle greenhouse gas emissions** and consider indirect emissions resulting from the diversion of rigid inputs.
- The methodology shall tackle the **full supply chain**, including upstream GHG emissions
- It should take into account **methane upstream emissions** and actual carbon capture rates
- Relevant maximum **hydrogen leakage rates** shall be included in the methodology + "*Where appropriate, the Commission shall submit a report to the European Parliament and to the Council that evaluates hydrogen leakage, including environmental and climate risks, technical specificities and adequate maximum hydrogen leakage rates*"

The review clause offers another guarantee for the delegated act: by 31/12/2030 latest, the certification has to become more stringent (assessment of whether facilities that begin operation from 1 January 2031 should demonstrate higher greenhouse gas emission savings) - art. 85 directive

Last, but not least, the parliament tried to add some safeguards on the risks of same financial incentives for low carbon and renewable gasses via the addition of the recital 10(a) in the directive, which made it through the negotiations: the support schemes, including financial support, for renewable or low-carbon fuels are linked to the objective of the Union to become climate neutral by 2050, which brings it back to financing renewable only.

ii) Consistency between hydrogen and gas network transmission and distribution plans, but no real integration of the planning exercise (articles 51 and 52 directive)

Article 51§1 of the directive foresees the rules for the Ten-Year Network Development Plan (TYNDP), which is revised every two years. Each member state will have to submit one TYNDP for gas, one for hydrogen and one for electricity. There is therefore no proposition for one single TYNDP including gas hydrogen and electricity network planning, but the text offers several safeguards to ensure a minimum of consistency between the plans and cooperation between the

operators:

- The gas and hydrogen transmission operators can, if they operate in the same area, submit one joint network development plan, but they can also submit two different plans, one for gas and one for hydrogen. In the case of two different TYNDPs, one for gas and one for hydrogen, the directive is offering some safeguards for a minimum coordination between the different operators, as member states will have the specific role to ensure that gas and hydrogen transmission operators are closely cooperating during the elaboration of the plans. In the case of a joint gas-hydrogen TYND, the two operators need to propose separate gas and hydrogen modeling to ensure that the regulatory authority can clearly identify the specific needs of the gas sector and the hydrogen sector that the plan is addressing.
- Hydrogen transmission operators also have to cooperate with electricity transmission system operators in order to coordinate joint infrastructure requirements.
- The elaboration process includes a wider stakeholder consultation, including all infrastructure operators (gas distribution level but also district heating for example)
- The TYNDPs will need to be based on a **joint scenario** developed every two years between the relevant infrastructure operators, including gas, hydrogen and electricity DSOs as well as district heating operators.
    - These scenarios should particularly take into account the needs of hard-to-decarbonise sectors and other greenhouse gas abatement potential and the energy and cost-efficiency options, and shall take into account demand-side solutions not requiring new infrastructure investments
    - The ESABCC can, on its own initiative, give an opinion on these joint scenarios

The TYNDP for hydrogen, in particular, will need to:

- Present detailed information on the main infrastructure needs, identifying the parts that can be repurposed;
- Identify demand side solutions not requiring new infrastructure investments and provide for a time frame for all investment and decommissioning projects
- Be in line with EU's climate targets and NECPs
- Include information on the location of end-users in hard-to-decarbonise sectors with a view to target the use of renewable and low-carbon hydrogen in those sectors
- Be based on the joint scenario and take into account the hydrogen distribution plan mentioned in article 52 and the gas distribution decommissioning plans mentioned in article 52b

- the hydrogen distribution network plan is submitted every 4 year, presenting the infrastructures that the distribution level is aiming to develop or repurpose

- To be approved by the NRAs. The NRAs evaluate the plans on their consistency with the most recent Union-wide scenario carried out by ENTSO-G; and can consult ACER for that.

Even if this planning exercise improves key elements for joint planning and stakeholder involvement, it is not enough for integrated planning. The TYNDP is supposed to map the infrastructure gap, which is then addressed by the Project of Common Interest List (PCI), but each lists and plans are still done by ENTSO-E, ENTSO-G AND ENNOH separately.

c) The ugly

i) The hydrogen DSO/TSO split

The directive unfortunately anchored as general principle a **differentiation between the hydrogen distribution and transmission levels**. Civil society had demanded no differentiation at all, to keep the future hydrogen network development and governance at a more general level, in line with targeted and limited uses for specific hard to decarbonate sectors only (the steel industry or long distance maritime transport or aviation). In this perspective **it does not make any sense to create a DSO network for hydrogen as the usage of this fuel will be very different from gas, i.e. it will not serve to heat buildings, one of the main end uses for gas on DSO level.**

But the negotiators on the text pushed for a different approach, **copy-pasting the existing gas operation system to the future hydrogen market.** The DSO/TSO split is anchored in the directive via various means, the most important being the network planning articles which foresee differentiated network plans between hydrogen, gas and electricity transmission networks, but also differentiated plans on the distribution level, with a hydrogen distribution plan, aiming at identifying the parts of the distribution network that should be repurposed for hydrogen transport (see article 52 directive), and a gas DSO decommissioning network plans (see article 52b directive).

This split has consequently repercussions on the unbundling rules under the directive and the governance rules under the regulation - at transmission level, the creation of ENNOH is a win and the interests of the hydrogen transmission operators are unbundled from the gas network operators, but with a certain numbers of limitations. At distribution level, however, the gas package does not offer any clear framework to differentiate between gas and hydrogen distribution operators - as they are not subject to horizontal unbundling, can submit joint network plans and there are no safeguards that they will concretely be different actors. The problem is that tasking gas DSOs with the development of future hydrogen distribution networks will create an uneconomic incentive to heat homes with hydrogen and result in increasing costs for already burdened end consumers. It also threatens the limited use of hydrogen to hard to abate sectors

only, as gas DSOs will be tempted to repurpose their infrastructure for hydrogen and continue business as usual, only with a different molecule, instead of decommissioning their network.

ii) Unbundling rules for hydrogen

Horizontal unbundling under the Directive, i.e. the need for a separation between hydrogen and gas system operators, has been significantly watered down during the negotiations. The purpose of horizontal unbundling is to ensure that gas grid operators are not directly involved in hydrogen infrastructure to avoid conflict of interests and ensure that hydrogen operators focus on building the hydrogen network we need for efficient hydrogen usage. **Under the directive, both vertical (Article 62) and horizontal (Article 63) unbundling rules are extended to hydrogen transmission networks operators, however the rules have been watered down with exceptions for hydrogen transmission operators, and with the exclusion of horizontal unbundling to hydrogen distribution operators.**

In particular:

- **In Article 62,** starting from very similar mandates, co-legislators agreed on the continuation of the gas unbundling model extended to hydrogen transmission and distribution level, in particular:
    - Member States are required to ensure that hydrogen transmission network operators are unbundled in accordance with the rules set out for natural gas transmission system operators.
    - For vertically integrated undertakings with hydrogen networks, a Member State may choose not to apply the unbundling rules. In such cases, an independent hydrogen transmission network operator must be designated in line with the rules for independent system operators for natural gas.
    - In situations where a hydrogen transmission network is owned by certified transmission system operators for natural gas or by vertically integrated undertakings involved in hydrogen production or supply, Member States may decide to designate an entity under the control of the transmission system operator(s) or the vertically integrated undertaking as an integrated hydrogen transmission network operator.
    - There is no end date to the unbundling model, contrary to what the Commission initially proposed.

- **In Article 63,** horizontal unbundling has been limited to hydrogen transmission operators (and not distributors), keeping it as the general rule; and then opening it for targeted derogations to be decided by national regulators and reassessed every 7 years. The exemptions are not listed, member states can just allow hydrogen transmission networks

to not be independent “at least in terms of legal forms” (horizontally unbundled) “*on the basis of a publicly available positive cost-benefit analysis*”. Some safeguards are proposed: when granting a derogation, the regulatory authority has to inform the Commission and publish an assessment of the derogation’s impact on transparency, cross subsidies, network tariffs and cross-border trade.
The limitation of the unbundling rules to transmission operators, excluding the hydrogen distribution level, is a huge concession to the gas industry as it basically is a greenwashing proposal for unbundling while not delivering on it. As hydrogen will be used most efficiently to serve hard-to-electrify end uses, this provision gives a free check for small scale gas DSOs to operate a fuel shift from gas towards hydrogen and to legitimize hydrogen in heating without further control or separation between the operators.

- **Revision:** ACER and the Commission will have to assess the implementation of this unbundling system 10 years after entry into force of the texts.

iii) Financial support mechanism for hydrogen

There are **different levels of financial incentives in both the directive and regulation to make sure that the price of hydrogen stays low enough to make it an interesting market to develop**. This however might have the opposite effect of **expanding the hydrogen network more than needed** - with the same gas industry actors taking over the development of the hydrogen network and beyond priority use sectors- while also **putting the burden of financing the network on end consumers**.

- **The cross subsidies issues (Article 4 Regulation):** The initial proposal aimed at allowing the hydrogen network to be paid by revenues of the gas industries; in other words the proposal allowed the gas industry to finance the future hydrogen infrastructure. While this mechanism still figures in the text, another ‘solution’ was integrated as a last resort option (needing to be approved by the national regulators). It is the so-called ‘intertemporal cost-allocation mechanism”, where the hydrogen operator could finance himself through the allocation of future revenue - concretely meaning for member states to cover the financial risk of the hydrogen operator. The financial burden is not supported directly by consumers in that situation, but they might be indirectly impacted.
- **The rules on tariffs (Article 6§7 Regulation):** The EU legislators wanting to facilitate as much as possible the integration and the development of hydrogen infrastructure, the rules to define a tariff to enter the EU market (at so-called cross-border interconnection points) have been simplified for the hydrogen market. The tariffs for hydrogen at interconnection points will be fixed based on the existing gas tariffs. The final text therefore proposes an exclusion of a defined tariff for hydrogen at cross-border interconnection points, at least until 2032. Only after the 1st January 2033, each national regulator will have to fix their own tariffs.

- **Pilot project for a voluntary demand aggregation and joint purchase platform for hydrogen (Articles 38.g and 38.k Regulation):** During the negotiations, the Commission and the European Parliament started to push to extend the joint gas-demand aggregation platform to hydrogen. As a compromise with the European Parliament, the Commission will be empowered to establish a pilot voluntary mechanism for support to market development for hydrogen. The objective of such a pilot project is to accelerate the hydrogen market development as well as demand and supply assessment for hydrogen to be implemented under the activities of the European Hydrogen Bank. **The mechanism will be temporary, until 31 December 2029, but the regulation is opening the door to extending this platform for a longer period.** Prior to the expiry of the pilot, the Commission will have to submit a report to the European Parliament and the Council prior to this end-date, that could be accompanied by a legislative proposal to anchor the project as a permanent platform for voluntary demand aggregation and joint purchasing of hydrogen.

These simplified mechanisms or financial incentives come on top of the **hydrogen pilot project on the demand aggregation platform** (the joint purchase mechanism extended to hydrogen, as a limited and experimental phase, but open to be extended by the Commission), the recently approved 6th PCI List, that approved funding and facilitated environmental procedures to 68 large scale fossil based hydrogen projects, all lead by the fossil gas industry, or the European Hydrogen Bank, which mandate to finance only renewable hydrogen projects might risk to be extended to low carbon hydrogen if the low carbon gasses definition from the DA to come is not strong enough. This global picture needs to be kept in mind when planning the future hydrogen network, as a large scale hydrogen backbone is not needed to fill the needs of hard to abate sectors.

Conclusion

In the last two years, triggered by the Russian invasion of Ukraine, EU policy making has seen a hard push for diversification of gas supplies and promotion of hydrogen, which instead of promoting the goal to decarbonize Europe's energy system, risks giving the fossil gas industry a life line extension. The adopted revision of the gas package is blurring the lines between the fossil gas and the hydrogen industries, via duplicating the gas system operating model to the future hydrogen market without taking in account the specificities of hydrogen and limiting use to key sectors only; by creating unclear unbundling rules, and giving financial incentives for hydrogen infrastructures.

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