

COMBINED EVALUATION ROADMAP/INCEPTION IMPACT ASSESSMENT

This combined evaluation roadmap/Inception Impact Assessment aims to inform citizens and stakeholders about the Commission's plans so as to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the current situation, identified problems and possible solutions and to make available any relevant information they may have, including on possible impacts of the different options.

TITLE OF THE INITIATIVE	Hydrogen and Gas markets Decarbonisation Package
LEAD DG (RESPONSIBLE UNIT)	DG ENER Unit C3 (PLAN/2020/8563 and PLAN/2020/8564)
LIKELY TYPE OF INITIATIVE	Legislative proposal Revision of Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC Revision of Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005
INDICATIVE PLANNING	Q4 2021
ADDITIONAL INFORMATION	–

This combined roadmap/Inception Impact Assessment is provided for information purposes only. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by this document, including its timing, are subject to change.

A. Context, Evaluation, Problem definition and Subsidiarity Check

Context

In line with the Green Deal Strategy, energy markets will need to transform to enable moving towards a net zero target, in line with the Climate Target Plan, and ensure that these objectives can be realised in a non-disruptive and cost-effective manner.

Natural gas, i.e. fossil methane, constitutes around 95% of today's gaseous fuels consumed in the EU. Next to being an energy carrier, gaseous fuels are also a key feedstock for industrial processes and are one of the sources of flexibility for an energy system increasingly based on variable renewable energy sources ('RES') generation.

Direct electrification is for most uses the most cost-effective and energy-efficient way to decarbonise final energy demand. Electrification coupled with increased contribution from RES and energy efficiency, will thus deliver a substantial part of the emission reductions across the energy system (buildings, transport, industry). In certain areas, where decarbonisation of current energy use through full electrification is unlikely to be technically or economically viable, gaseous fuels will remain present in the EU's energy system, also by 2050.

Gaseous fuels account for roughly 22% of total EU energy consumption today (including around 20% of EU electricity production, and 39% of heat production). According to the relevant scenarios used by the Climate Target Plan Impact Assessment, the share of gaseous fuels to total EU energy consumption in 2050 would be about 20%.

Biogas, bio-methane, renewable and decarbonised hydrogen as well as synthetic methane would represent some 2/3 of the gaseous fuels in the 2050 energy mix, with fossil gas with CCS/U representing the remainder.

In order to realize the increased climate ambition, the Commission's is working on a policy that facilitates a progressive phase out of unabated use of fossil gases via gradual replacement of natural gas and the uptake of renewable and low-carbon gases. The reforms should enable fair competition between smart electrification, energy efficiency, and renewable and low-carbon gases like hydrogen and bio-methane, or CCUS technologies in

achieving decarbonisation targets.

The EU Strategy for Energy System Integration¹ and the Hydrogen Strategy² already set out how the energy markets could contribute to achieving the goals of the European Green Deal, including the replacement of fossil gases by renewable and low carbon methane and hydrogen. In parallel, the recently proposed revision of the TEN-E regulation will contribute to creating cross-border infrastructure ready for decarbonised gases and CO₂ transportation. A review of the legislative framework to design competitive decarbonised gas markets is identified as an action in both strategies as a means to facilitate the gas sector's contribution to the overall energy system decarbonisation. The initiative also foresees measures to accommodate the increasing need for integrated infrastructure planning (*inter alia* considering the spatial distribution of producers and end users of hydrogen (e.g. refuelling stations for road and maritime transport) as well as an alignment of the regulatory framework for gas markets with the recently adopted Clean Energy Package. An efficient and sustainable development of renewable and low-carbon gases may require, among others, regulatory incentives for production and/or consumption. This initiative will be closely coordinated with other initiatives emanating from the European Green Deal relevant for the decarbonisation of gas, with the 'fit for 55' package, such as the review of the Renewables Directive, which will contribute to the further development and promotion of renewable and low carbon fuels including gases, the Energy Efficiency Directive, the EU Emissions Trading System ('ETS'), as well as initiatives following from the EU strategy to reduce methane emissions. It will also benefit from the analyses conducted for the Long-Term Strategy³ and the impact assessment for the Climate Target Plan.⁴

Furthermore, achieving the ambition of the European Green Deal will not be possible without comparable efforts of third countries, in particular in the EU neighbourhood, with whom the Member States share gas and electricity infrastructure. In this context, the initiatives aimed at implementing the external dimension of the European Green Deal, such as the Green Agenda for the Western Balkans or the Energy Community Treaty will be a platform to address the particular challenges arising in third countries.

Evaluation

In the context of developing this initiative, the Commission will conduct a back-to-back evaluation of the relevant gas market rules. The evaluation will assess the current effectiveness, efficiency, relevance, coherence and EU added-value of the Gas Directive and Regulation. The relevance of the current regulatory framework will be an important criterion in view of the structural changes in the consumption of gaseous fuels expected under any decarbonisation scenario. Policy coherence will also be an important criterion to assess, including in view of the potential implications of the initiative for the supplies of renewable and low carbon gases from third countries which can help to reach the EU Green Deal objectives.

This back-to-back evaluation will build upon the detailed evaluations of the functioning of the Internal Gas Market carried-out over the last years. These include the study "*Potentials of sector coupling for decarbonisation: Assessing regulatory barriers in linking the gas and electricity sectors in the EU*" that identified a number of market failures that a future reform may need to address⁵ and work by other EU institutions, notably the Agency for the Cooperation of Energy Regulators (ACER), that is also regularly reviewing the functioning of the EU's gas markets and, in its "*Bridge beyond 2025*", carried-out studies on shortcomings of the current gas market design⁶.

Problem the initiative aims to tackle

The areas where decarbonised gaseous fuels are expected to come into play include today's energy-intensive industry (e.g. refineries, fertilisers, steel making) and certain heavy duty transport sectors (maritime transport, aviation, long distance heavy vehicles). The objective of promoting renewable and low-carbon gases is to decarbonise these sectors, increase flexibility of the power system and, if needed, allow to store and produce again electricity. This allows linking various sectors of the economy, in conjunction with other forms of storage and flexibility, such as batteries and demand response. Next to renewable hydrogen, in the short and medium term other forms of low-carbon hydrogen can play a role, primarily to rapidly reduce emissions from existing hydrogen production and support the parallel and future uptake of renewable hydrogen.

Certain gas production facilities (be it for bio-methane, hydrogen or synthetic methane) might not be connected to any network at all. Gas could be consumed at the place of production (e.g. by small modular electrolyzers and in remote locations) or transported by other means (e.g. rail or road) to where it is used depending on e.g. the cost effectiveness and emissions associated with a particular means of transportation. The scope of the off-grid production compared to production connected to a network also depends on technological developments and

¹ https://ec.europa.eu/energy/sites/ener/files/energy_system_integration_strategy_.pdf

² https://ec.europa.eu/energy/sites/ener/files/hydrogen_strategy.pdf

³ https://ec.europa.eu/clima/policies/strategies/2050_en

⁴ https://ec.europa.eu/clima/policies/eu-climate-action/2030_ctp_en

⁵ https://ec.europa.eu/energy/studies/potentials-sector-coupling-decarbonisation-assessing-regulatory-barriers_en

⁶

https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/SD_The%20Bridge%20beyond%202025/The%20Bridge%20Beyond%202025_Conclusion%20Paper.pdf

market uptake.

However, the Gas Directive and Regulation are designed for the organisation and functioning of the current fossil-based natural gas sector. They do neither anticipate the emergence of alternative methane gases, such as bio- or synthetic-methane, or other gaseous fuels, such as hydrogen, nor different production patterns. For instance, they do not integrate the distributed production of renewable and low-carbon gases and they do not prevent disruptions caused by changing gas quality. This focus on natural gas may lead to a situation in which it is more difficult to switch consumption from natural gas to renewable and low-carbon gases leading to lock-in effects or delays in a more significant deployment of renewable and low-carbon gases.

Moreover, the increasing penetration of variable renewable energy sources requires the whole energy system, both markets and infrastructure, to be better integrated. The regulatory framework should allow for increasing liquidity, competition, and consumer protection to accompany the deployment of decarbonised gases.

This initiative addresses the following problem areas:

- 1) **Hydrogen infrastructure and hydrogen markets.** Renewable and low-carbon hydrogen is promising as an energy carrier and feedstock to support the EU's decarbonisation efforts with demand projected to take off in transport and industry and sizeable investment needed to take place already before 2030⁷. With increasing hydrogen demand, the need for infrastructure is expected to progressively increase (also if account is taken of decentralised production close to consumption). Business cases for supplying pure hydrogen would require dedicated hydrogen infrastructure. Infrastructure is particularly important for renewable hydrogen as: (i) favourable locations for high volume RES production are unlikely to be always located next to existing demand centres; (ii) pipeline transportation appears more safe and sustainable; (iii) it may prove to be a relatively low-cost option, in particular when existing pipelines are no longer needed for natural gas and barriers for their repurposing are removed. Infrastructure will thus need to be repurposed where possible, or new-built when needed where more cost effective and sustainable relative to other production patterns and means of transportation. Existing natural gas pipelines are however owned by network operators that are often not allowed to own, operate and finance hydrogen pipelines. In addition, hydrogen pipeline transportation is not properly addressed by the current regulatory framework, which risks creating non-regulated monopolies that hamper the entry of new players and competitive market outcomes. The integration of hydrogen production in other energy markets also needs to be assured. Early regulatory intervention may provide an opportunity to avoid the costs and sunk-investments created by ex-post harmonisation and create regulatory predictability for investors, in infrastructure and upstream and downstream markets alike, including the question whether gas TSOs should be allowed to operate electrolysers. It may also facilitate the development of infrastructure in third countries that is aligned with the EU regulation from early stages, thus avoiding stranded assets, facilitating the energy transition and enabling connection to the EU market for imports of renewable and low-carbon hydrogen to the EU.
- 2) **Access of renewable and low-carbon gases to the infrastructure and the market:** Elements of the existing gas rules, focusing on natural gas mainly imported from outside the EU, do not address the specific characteristics of decentralised renewable and low-carbon gases production within the EU. The vast majority of today's bio-methane plants in the EU are connected at the distribution level. However, the current regulatory framework does not anticipate decentralised gas injections, meaning that the tradability and access of renewable and low carbon gases to markets and the gas grid is not on a level playing field with fossil natural gas, affecting the business case of renewable and low carbon gases producers and the costs for achieving the EU's climate objectives. Likewise LNG terminals are not necessarily fit for receiving renewable and low-carbon gases and granting access in a transparent way.
- 3) **Consumer rights, competition and transparency:** In comparison to the electricity sector, the gas market framework lags behind on consumer protection. The growing volumes of bio-methane and hydrogen affect gas quality (i.e. the physical characteristic of gas) and thereby the design of gas infrastructure and end-user applications and entail the risk of market fragmentation.
- 4) **Lack of integrated energy markets, in particular through network planning:** The progressive integration and emergence of new energy markets means that infrastructure becomes more interdependent. This may require a more integrated approach to infrastructure network planning as opposed to the largely silo-based current approach of transmission system operators.

Basis for EU intervention (legal basis and subsidiarity check)

The planned measures are to be adopted on the basis of Article 194 (2) TFEU together with Article 114 (1) TFEU. In the field of energy, the European Union has a shared competence pursuant to Article 4 (2) (i) TFEU.

The objectives of this initiative cannot be achieved on a national level. The initiative aims at modifying existing EU legislation and creating a new framework for an internal hydrogen market, which is key to achieve a cost efficient

⁷ The EU Hydrogen Strategy contains more details as regards the trajectory of hydrogen production, consumption and transportation deployment towards 2030.

clean hydrogen economy.

The challenges cannot be addressed as efficiently by individual Member States as fostering more efficient and integrated EU markets for gases requires harmonised and coordinated approaches by all Member States; which can only be achieved by EU action. The initiative is also aimed at avoiding the distortive effects of uncoordinated, fragmented policy initiatives as many Member States develop national approaches e.g. with regard to hydrogen deployment.

EU action has significant added-value by ensuring a coherent approach across all Member States and towards third countries, as achieving the decarbonisation objectives of the EU may require imports of renewable and low carbon gases from third countries.

The initiative on decarbonised gases also contributes to achieving binding EU-level objectives. The EU has already committed to achieving a share of at least 32 % of renewable energy sources in total energy consumption by 2030 and has issued an ambitious strategy for the deployment of hydrogen to reach 40GW of installed electrolyser capacity by 2030. The European Commission has recently proposed to cut net greenhouse gas emissions even further by at least 55% compared to 1990 levels by 2030, up from the current target for 2030 of at least 40%. The greenhouse gas emissions reduction target of 55% is assessed to lead to a share of renewables of between 38% and 40 %. Gaseous fuels will continue to provide an important share of the energy mix also by 2050, requiring the decarbonisation of the gas sector via a forward-looking design for competitive decarbonised gas markets.

B. Objectives and Policy options

The overall objective of this initiative is to ensure a suitable market framework to support the achievement of the proposed increased EU climate ambition of 55% greenhouse gas emissions reduction by 2030 at least cost on the path to a net-zero emissions target by 2050. In addition, the revision of the Gas Directive and Regulation aims to translate into legal measures, where appropriate, some of the actions proposed across several initiatives, strategies and plans under the European Green Deal, notably the Energy System Integration Strategy and the Hydrogen Strategy.

The base-line scenario against which this initiative will be assessed is a scenario in which the current Gas Directive and Regulation are kept unmodified.

The specific objectives of the initiative are

- Ensuring the emergence of cost-effective hydrogen infrastructure and contestable hydrogen markets;
- Facilitating local and decentralised production of renewable and low carbon gases e.g. through facilitating access of bio- and synthetic-methane to the infrastructure (pipelines, storages and LNG terminals) and the market;
- Strengthening consumer rights, ensuring competition, transparency and security of supply;
- Ensuring more holistic and inclusive infrastructure planning, in particular for the gas, hydrogen, electricity and heating and cooling markets.
- To avoid that demand for natural gas is locked-in.

To achieve these objectives a combination of instruments needs to be considered of both legislative and non-legislative nature. Concerning legislative measures, they could include amendments to the following legislative acts depending also on the opinions and proposals expressed during the Public Consultation:

- Gas Directive;
- Gas Regulation;
- Network Codes in the area of gas;
- The hydrogen related elements of the initiative may either be addressed by a revision of the above instruments or by a new legal instrument.

The introduction of non-regulatory alternative policy instruments will be considered, either alone or in combination with regulatory options. This could encompass guidelines and exchanges on best practices.

No policy change (baseline scenario)

The Baseline Scenario will take account of both national and EU gas market related arrangements in place till the end of 2019 and reflect possible developments in the absence of new EU-level action. Investments in hydrogen infrastructure would be only privately financed and owned and investment incentives will mean that deployment will take place at a slow pace relative to a situation where investments are conducted by regulated entities. Any barriers for repurposing existing methane infrastructure, will remain unaddressed. Private and unregulated nature of hydrogen infrastructure would also imply no guarantees for non-discriminatory access, transparency and competitive market outcomes. The Gas Directive and Regulation will keep its focus on fossil-based natural gas. The regulatory treatment of decentralised injection of bio-methane is not changed. Rights of gas consumers remain non-aligned with those in other markets and risks stemming from an increasing variety of gases in the gas grid are not addressed. Infrastructure planning remains prepared and developed largely in silos. The existing Gas Directive and Regulation and accompanying network codes will continue to be enforced.

Rules fostering hydrogen infrastructure and markets.

Options will be explored for what, if any, rules are needed to:

- Secure competitive and contestable hydrogen markets. Various market models will be considered, including the current one based on 'competition for the market' and ensuring more 'competition in the market' e.g. through third party access and network access rules and guarantees for neutral hydrogen network operations;
- Allow a cost effective development, including through repurposing of existing natural gas infrastructure (taking into account the technical feasibility, safety and sustainability) of dedicated hydrogen networks;
- Building on the experience acquired in other energy markets,
 - o avoid the costs of ex-post harmonisation and ensure cross-border interoperability;
 - o foster the emergence of liquid hydrogen markets and their integration with other energy markets.
- Prepare for imports of hydrogen (in particular LNG terminals) and hydrogen storage;
- Foster planning for hydrogen networks coordinated with gas and electricity networks development plans.

Specific attention will be given to the technical and economic uncertainties and development phases of an EU hydrogen economy and the emergence of decentralised production patterns.

Integration of renewable and low-carbon gases in the existing gas infrastructure and markets

Options that will be explored to facilitate the integration of renewable and low-carbon methane gases into the energy system and ensure its resilience when a larger variety of gasses is injected. This may involve:

- The creation of a regulatory framework favourable for renewable and low carbon gases, taking into account more decentralised and domestic production alongside a short-term competition model among gases;
- Improving the functioning of the existing gas system, provided the changes benefit renewable and low carbon gases in the future. This may encompass an improvement of the regulatory framework applying to infrastructure (transportation, LNG terminals, storage, ...), for instance, rendering the operation of LNG terminals more transparent and accessible and therefore ready for imports of renewable and low carbon gases;
- Strengthening the rules on gas quality management, building on gas quality standardisation work undertaken in CEN/CENELEC;
- Some elements of the Clean Energy Package e.g. consumer protection, billing issues, and institutional elements (ENTSOs, ACER) which could also be relevant for the decarbonised gas market framework. The concept of local communities could be worked out and adapted to the realities of the gas world making local production, circular economy and inclusion of agriculture sectors more likely;
- Options will also explore whether and to what extent measures avoid a lock-in of demand for natural gas;
- Options to improve integrating of (national) infrastructure planning for gas, electricity, hydrogen and heating and cooling infrastructure will also be explored. Due consideration will be given, as relevant, to impacts of the measures on the LNG terminals and the interconnectors with third countries.

The options described above will consist of regulatory instruments complemented, where appropriate, with non-regulatory instruments. It may also be explored whether issues can be addressed by the network codes (delegated acts) provided that the secondary legislation contains a suitable legal basis. Commission communications clarifying existing legal provisions might also address some of the issues.

C. Preliminary Assessment of Expected Impacts

Likely economic impacts

A revision of the Gas Directive and Regulation is likely to have positive impacts on growth and investments, to reduce costs for achieving the EU's climate ambitions and, thus, benefit consumers and businesses.

Potentials for the production of renewable and low carbon hydrogen differ between and within the Member States, meaning that an EU market has important welfare and security of supply benefits.

Robust market signals and rules for hydrogen will facilitate market participants to make better informed choices about when and how to use or invest in hydrogen and create predictability needed for investments in production facilities, infrastructure and end-applications. This will lead to reduced costs and the sunk-investments associated with ex-post harmonisation. They also allow reducing overall energy system costs by enabling producers to decide whether and when to produce hydrogen, thus improving overall system flexibility. Enabling the repurposing of natural gas infrastructure for hydrogen (where technically possible, economically beneficial and sustainable) will have important cost benefits in comparison with new-build dedicated hydrogen infrastructure. Clear rules will provide the stability in which the EU hydrogen economy can develop and contribute to the EU's strategic interest as expressed in the Commission's New Industrial Strategy for Europe⁸ nurturing world-class companies within a competitive EU internal market.

Creating a regulatory framework favourable for renewable and low-carbon gases improves their competitiveness

⁸ COM(2020) 102

<p>relative to fossil methane, reducing the costs of the energy transition. Addressing risks of market fragmentation may avoid the costs of the decarbonisation pathway in which bio- or synthetic methane is replacing natural gas, to be less efficient in absence of an integrated methane market.</p> <p>In general, markets contribute to a more cost-effective production of energy and reduce the need for out-of-market support and, if well-coordinated, efficient investment decisions by those benefiting from out-of-market support.</p> <p>Better integrated infrastructure planning reduces overall investment needs and, thus, costs.</p> <p>Aligning consumer rights across closely connected markets will improve consumer confidence and reduce complexity. It may also support the reduction of energy poverty giving access to more affordable energy supply.</p> <p>Avoiding a lock-in of demand for fossil fuels will enable decarbonisation pathways and lower the costs of the transition towards 2050.</p> <p>SMEs will, <i>inter alia</i>, benefit from easily contestable hydrogen markets, reduced burden from administrative and regulatory entry requirements on gas wholesale markets, and strengthened consumer rights.</p> <p>The impacts of the legislative measures on imports of gases from third countries will also be considered to the extent EU Member States and the achievement of the EU decarbonisation objectives will be impacted significantly.</p>
<p>Likely social impacts</p>
<p>The decarbonisation of gas and creation of a hydrogen market will create new job opportunities in the EU. Building an EU hydrogen economy is recognised as being within the EU's strategic interest. Fostering renewable and low carbon gases will not only have a positive effect on jobs in the energy sector but also in the agriculture sector in particular by inclusion of waste management. Lowering the dependence on imported gas has the potential to increase security of supply. The evolution of prices of gases for final consumer will have to be evaluated, notably to understand possible impact on energy poverty and on more vulnerable customers facing barriers to invest in energy efficiency or alternative technologies.</p> <p>Other measures target improving consumer protection against unfair selling practices.</p> <p>Note that social and employment impacts will focus on the micro level, as the ones on the macro level (like GDP, health and employment) have been widely assessed in the Long Term Strategy and the impact assessment for the Climate Target Plan.¹</p> <p>The increase in demand for renewable and low carbon gases may lead to a crowding-out of imported natural gas. Unless the imports of natural gas are gradually replaced by imports of renewable and low carbon gases from third countries, EU consumption will shift increasingly towards EU domestic production. The impacts of the legislative measures on imports of gases from third countries will also be considered to the extent EU Member States and the achievement of the EU decarbonisation objectives will be impacted significantly.</p>
<p>Likely environmental impacts⁹</p>
<p>Greater use of energy from renewable and decarbonised gases, including clean hydrogen, would result in reduced emissions by avoiding GHGs from fossil fuel combustion. Shorter methane supply chains and the substitution by hydrogen will reduce methane emissions. Replacing fossil fuels with renewable and low-carbon energy sources will also reduce pollutants and have a beneficial impact on health.</p>
<p>Likely impacts on fundamental rights</p>
<p>The initiative is fully in line with Article 37 of the Charter of Fundamental Rights of the European Union, which requires that a high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.</p>
<p>Likely impacts on simplification and/or administrative burden</p>
<p>The proposal will consider measures to reduce the regulatory and administrative burden on market participants, such as reducing barriers for access to the wholesale markets.</p>
<p>D. Evidence Base, Data collection and Better Regulation Instruments</p>
<p>Impact assessment</p>
<p>The aim of the impact assessment is to support a legislative proposal to enable and reduce the costs for the higher climate ambition for 2030 necessary for a climate neutral European Union by 2050 and provides for targeted new actions following energy initiatives and strategies to adapt EU energy policy, notably the EU Strategy for Energy System Integration and the Hydrogen Strategy.</p> <p>The impact assessment will be prepared with the aim to underpin a proposal scheduled for Q4 2021.</p>

⁹ Certain sustainability related issues are also pursued in other initiative, notably the review of the RED and the EU strategy to reduce methane emissions.

It will benefit from the impact assessment carried out for the 2030 Climate Target Plan to increase the EU 2030 climate target to at least 50% and towards 55% in a responsible way, which assesses how climate and energy policies should interact to achieve an increased GHG reduction target and what changes to the existing 2030 climate and energy framework might be necessary.

Evidence base and data collection [max 10 lines]

Existing and planned/prepared econometric tools, existing and planned/prepared studies, and other data available inside and outside the Commission will be used. In addition, a number of specific studies have been/are being commissioned to support the build-up of the analytical basis of the work (including Impact assessment(s)).

A non-exhaustive list of studies contracted by Commission services:

- A Clean Planet for all A European long-term strategic vision for a prosperous, modern, competitive and climate neutral economy; In-depth analysis in support of the Commission Communication COM(2018) 773, https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_analysis_in_support_en_0.pdf
- Impact of the use of the bio-methane and hydrogen potential on trans-European infrastructure, April 2020, https://ec.europa.eu/energy/studies/impact-use-biomethane-and-hydrogen-potential-trans-european-infrastructure_en
- The role of trans-European gas infrastructure in the light of the 2050 decarbonisation targets, October 2018, https://ec.europa.eu/energy/studies/role-trans-european-gas-infrastructure-light-2050-decarbonisation-targets_en
- Potentials of sector coupling for decarbonisation: Assessing regulatory barriers in linking the gas and electricity sectors in the EU, December 2019, https://ec.europa.eu/energy/studies/potentials-sector-coupling-decarbonisation-assessing-regulatory-barriers_en
- DG ENER, ASSET study on sector integration, https://ec.europa.eu/energy/studies/asset-study-sectorial-integration_en
- Gas market upgrading and modernisation – Regulatory framework for LNG terminals <https://op.europa.eu/en/publication-detail/-/publication/efa4d335-a155-11ea-9d2d-01aa75ed71a1/language-en>
Upgrading the gas market - Regulatory and administrative requirements to entry and trade on gas wholesale markets in the EU <https://op.europa.eu/en/publication-detail/-/publication/14da8a5c-a155-11ea-9d2d-01aa75ed71a1/language-en/format-PDF/source-131057955>
- Study on regulatory framework for hydrogen (forthcoming)

Consultation strategy

A broad consultation process will be organised with different stakeholder groups (Member States, National Regulatory Authorities and other relevant public authorities, market players – including network operators and users, SMEs, industry networks and associations - NGOs and other representatives of civil society, relevant international/regional organisations such as the Energy Community, consultancies, academia and international organisations) in order to gather feedback and views on what changes are needed to ensure reaching the objectives of this initiative, including views regarding the evaluation of currently applicable legislation and forward-looking and new aspects of the initiative:

- This roadmap will be published and be open for comments for 4 weeks;
- A 12-week public consultation will be launched in Q2 2021 in accordance with Better Regulation rules. It will contain mostly closed questions and provide options for additional written comments, remarks and figures (replies in any of 24 EU official languages) covering a wide range of issues on the Gas Directive and the Gas Regulation and policy options. Once published, it will be possible to send replies via the Commission's central [public consultations page](#);
- A large stakeholder workshop will be organised with the relevant stakeholder groups to contribute to the impact assessment;
- The Commission will also take into account the valuable public feedback received during the preparation of the Energy System Integration and Hydrogen Strategies as well as on the inception impact assessment for the review of the Renewable Energy Directive;
- The Commission will seek targeted feedback in the context of the established regulatory fora such as the Gas Regulatory Forum (Madrid), the Electricity Regulatory (Florence), the Infrastructure Forum (Copenhagen) and the Citizens Energy Forum (Dublin);
- The Commission will seek the views of Member States (Council) and of MEPs (EP, in particular ITRE Committee).

A summary of the different contributions and views received during the consultation process will be published on DG ENER's external website (https://ec.europa.eu/energy/home_en)

Will an Implementation plan be established?

No implementation plan will be established. Modifications affecting natural gas are expected to be limited whilst those for hydrogen gas are likely to be largely based on known practises.

Once the amendments to Directive and the Regulation are adopted, efforts to ensure correct and timely transposition and implementation will include:

- guidance on new provisions
- discussions with Member States in committee and concerted action
- transposition/correlation tables