



Position Paper on the Key Regulatory Requirements to Achieve Gas Decarbonisation

20 December 2021

1. Introduction

The **urgency of decarbonisation** has been emphasised strongly in the United Nation's Intergovernmental Panel on Climate Change (IPCC) 6th assessment report¹ on climate change, urging policy makers to respond with urgent and decisive action.

The European Union's Green Deal² seeks to answer this call with reinforced decarbonisation ambitions. While policy makers can and must set these policy objectives, **regulators must address regulatory challenges in a way that supports the agreed policies and within their defined regulatory mandate.**

The **decarbonisation of the energy system introduces many new regulatory challenges.** While the current regulatory framework was designed to maximise the efficiency of the electricity and gas sectors and to promote market integration in relatively stable circumstances, regulation will now have to be applied to an industry undergoing profound changes. In particular, regulation previously assumed a sufficiently stable energy mix and growing energy consumption, which guaranteed the use of infrastructure for several decades. It is now clear that the most CO₂-emitting elements of the energy mix will have to be phased out. At the same time, we do not yet know what the optimal energy mix will be in order to meet the requirements of the energy transition.

Regardless of the profound changes triggered by the decarbonisation policies, in order for the transition to be politically acceptable, the **energy system will have to continue to fulfil the legitimate expectations of customers to have reliable and affordable energy services while making the transition.** ACER and CEER acknowledge these political requirements.

Against this background, the **regulation of the hydrogen sector will need to enable a sufficient level of flexibility and subsidiarity to allow innovation** to take place and to consider the heterogeneity of the current energy mixes across Europe. A gradual implementation would ensure that the challenges are addressed at the pace set by the policy objectives, with regulatory oversight and minimising the cost of 'getting it wrong'.

To preserve the high level of reliability of the energy system, **regulation must provide stability and security for investment.** Infrastructure-related developments taking place within (e.g. biomethane) or across supply chains (electricity, gas, hydrogen and heating) must be integrated in existing planning instruments to ensure the adequacy of the energy infrastructure, including wires, pipelines, storage, power-to-gas and other technologies, to allow the reliable delivery of energy services to all consumers.

To **preserve the affordability of energy services**, regulators promote the economic efficiency of the energy system mainly in two ways. Firstly, regulators build trust in the competitive market design by ensuring regulatory oversight on the effectiveness, integrity and transparency of the market. Secondly, regulators ensure efficient and non-discriminatory access, use and cost-recovery of the infrastructure that forms the physical backbone of the energy system.

Economic efficiency in the context of decarbonisation implies **using the scarce resources in the best way possible by saving energy** as much as possible, electrifying energy uses where technically feasible and economically convenient,

¹ <https://www.ipcc.ch/report/ar6/wg1>

² https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

producing electricity from Renewable Energy Sources (RES), and considering decarbonised alternatives where electrification is not a meaningful possibility. Moreover, it means **using the existing infrastructure in the best way possible**, leveraging and reinforcing the coupling between different energy vectors.

Regulators also work towards **putting the consumer at the centre of the energy transition** by promoting consumer awareness and protection. However, the concept of affordability extends beyond the regulatory powers to promote economic efficiency, and ultimately, in order to ensure the long-term sustainability and efficiency of the energy sector, affordability must be addressed through social policies that do not distort energy markets.

Structure of the paper

The present paper focuses on the key regulatory requirements needed to achieve a decarbonised gas sector. **Section 2** provides an overview of regulators' key recommendations, whereas the principles, concepts and ideas underlying these recommendations are developed in greater detail in sections 3 to 5. **Section 3** covers the recommendations regarding gradual and flexible regulation for hydrogen; **Section 4** covers recommendations to ensure a level-playing field in a decarbonised and integrated energy system; and **Section 5** covers recommendations on empowering and protecting energy consumers in the energy transition.

2. Overview of regulators' key recommendations

1. Adopt a gradual and flexible regulatory approach to facilitate the emergence of competitive hydrogen markets, by defining core market and regulatory principles, guaranteeing a level playing field, ownership unbundling, third-party access, transparency and regulatory oversight;
2. Monitor hydrogen markets periodically to identify their development and whether more regulation is needed;
3. Apply cost reflectivity and beneficiary-pays principles to hydrogen networks, avoiding cross-subsidies between energy carriers;
4. Ensure an integrated, liquid and interoperable EU internal gas market, including by foreseeing a more flexible approach to the application of relevant network codes with respect to specific cross-border charges;
5. Adopt a more integrated approach to infrastructure development, both in relation to different levels of the supply chain (vertical), and to the various energy carriers (horizontal), consistent with the revised TEN-E Regulation;
6. Guarantee consumer rights regardless of energy carrier;
7. Embed robust consumer protection, future innovation, technology developments and new market trends in decarbonisation policies, recognising the specificities of gas markets;
8. Ensure cost efficiency and affordability to safeguard inclusiveness and a just transition, including by promoting and facilitating energy efficiency measures and information; and
9. Provide consumers with clear and reliable information and support, as well as ensure effective enforcement of their rights and consumer-centric digitalisation rules to enhance their empowerment and trust in the energy transition.

3. Enabling gradual and flexible regulation for hydrogen

#1 Adopt a gradual and flexible regulatory approach to facilitate the emergence of competitive hydrogen markets, by defining core market and regulatory principles, guaranteeing a level playing field, ownership unbundling, third-party access, transparency and regulatory oversight

The regulation of the hydrogen sector³ presents great challenges as this sector, for a large part, is yet to be established. On the one hand, it is important to establish key regulatory principles, at an early stage, to reduce uncertainty for investors and provide protection to consumers. On the other hand, we must acknowledge that we do not know how the hydrogen sector will evolve in terms of consumption, production and consequentially network infrastructure. Therefore, ACER/CEER believes a **gradual approach to the regulation of the hydrogen sector**, in line with the evolution of the market and infrastructure, is best suited to enable the development of this sector⁴.

In an initial step, **the European Commission's Hydrogen and Decarbonised Gas Market Package⁵ should define the following core market and regulatory principles and may, on some aspects, include minimum requirements for all Member States⁶.**

- **Market principles:** preserve the longstanding European model for energy markets, by promoting an open, competitive and non-discriminatory level playing field for future renewable and low-carbon hydrogen markets that facilitates and attracts investment, distinguishing clearly between market-based (production/supply) and natural monopoly (transmission/distribution) activities.
- **Vertical unbundling rules:** uphold ownership unbundling as the target model for future dedicated hydrogen transmission infrastructure operators, by introducing unbundling separation between market-based and natural monopoly activities, with accounting separation as a minimum and working gradually towards the target model; the type of transitional unbundling should depend on the level of maturity of the hydrogen sector (with less stringent unbundling rules for small hydrogen network operators under a certain threshold), independently of types of unbundling used in the gas sector; temporary exemptions should only be used under very strict conditions to be assessed by the national regulatory authority (NRA).
- **Horizontal unbundling rules:** allow gas network operators to also become hydrogen network operators, subject to NRA approval and mandatory separate

³ By hydrogen sector, we mean the market and infrastructure for 'pure' hydrogen, not blended with natural gas.

⁴ The gradual approach for the development of the hydrogen sector was first presented in the [ACER/CEER White Paper "When and How to Regulate Hydrogen Networks?"](#), 9 February 2021.

⁵ https://ec.europa.eu/energy/topics/markets-and-consumers/market-legislation/hydrogen-and-decarbonised-gas-market-package_en – released on 15 December 2021, just as this paper was entering final steps for publication.

⁶ The [ACER/CEER White Paper on "When and How to Regulate Hydrogen Networks?"](#) proposes to allow temporary exemptions for existing and new local private hydrogen infrastructure that is operated and used similarly to the current situation (e.g. point-to-point connections between production and demand) and as long as there are no signs to consider this local infrastructure an essential facility with a possible risk of abuse of a dominant position.

accounting between gas and hydrogen infrastructure and activities in order to ensure transparency and efficient tariff-setting.

- **Third Party Access (TPA):** let Member States decide the type and implementation of non-discriminatory TPA for hydrogen infrastructure, in analogy to the current gas storage regulation (negotiated vs. regulated TPA).
- **Transparency:** ensure network users are informed by hydrogen infrastructure operators of the services offered and under which technical and commercial conditions (including the tariffs applied).

These market and general regulatory principles have delivered significant benefits to consumers in European energy markets over the last decade. Clarifying them from the outset also for the hydrogen sector would provide certainty and predictability regarding the type of network regulation that will be applied and under which market circumstances. This will help market participants in their investment decisions.

It is worth recalling that the development of the regulatory framework for the electricity and natural gas sectors, which were already mostly fully operational when the EU started to legislate on it, took place in an evolutionary, gradual and flexible way. Indeed, although the general regulatory principles were already defined in the first Gas Directive of 1998, regular reviews took place over the course of 10 years to refine the European energy sector regulation in detail.

Regulators recognise the need for flexibility and adaptability of regulatory principles in specific situations to facilitate decarbonisation and the emergence of a renewable and low-carbon hydrogen sector. A gradual and flexible regulatory approach could facilitate the development of hydrogen infrastructure initiatives in specific circumstances and could enable the mobilisation of financial and technical resources, in particular in the first phase of the hydrogen sector. Under this approach, **temporary exceptions to the core market and regulatory principles might be justified**. As regards TPA, NRAs could apply the following exemptions:

- **Exemptions for closed distribution systems** from regulated TPA (if this is applied) in analogy to Article 28 in Directive 2009/73/EC; and
- **Special provisions to require Member States to enable direct lines** in analogy to Article 38 (Direct lines) in Directive 2009/73/EC.

As regards unbundling, regulators underline the need **to safeguard a market-based approach** for production and supply activities. Ownership unbundling shall be the target model for hydrogen transmission network operation activities, requiring **NRA approval for any temporary and time-limited exemptions, under strict conditions** to be assessed by NRAs taking into account national market situations. NRAs could apply the following additional exemptions:

- Allow transmission and distribution system operators (**TSOs/DSOs**) to carry out **small-scale non-commercial innovative projects also in non-regulated activities** to support the development of the hydrogen sector;
- **Consider investment and management of power-to-gas installations as market-based activities open to competition** and only allow involvement of system operators for **efficient, reliable and secure network operations** in

development and operation of power-to-gas installations in exceptional cases in analogy to Article 36 and 54 in Directive (EU) 2019/994⁷; and

- Allow **temporary exemptions for ownership unbundled (OU) gas TSOs** regarding hydrogen production (for both blending and hydrogen-only networks), allowing the **holding company of an OU gas TSO to control a hydrogen production company for a limited time period only, under specific conditions to be decided by NRAs** taking into account the structure of the market and the willingness of the market to invest.

Given the fact that national market conditions may evolve differently between Member States as the development of a hydrogen sector may occur at different speeds, **Member States could further specify regulation according to national circumstances**. This should be closely related to and in line with the defined market and general regulatory principles at European level. Member States could include a section on hydrogen in their five-year revision of the National Energy and Climate Plans (NECPs) as these policy-maker plans serve to give the direction and pace of decarbonisation at national level. These plans would provide valuable input to monitor the development of the hydrogen sector.

#2 Monitor hydrogen markets periodically to identify their development and whether more regulation is needed

Careful market monitoring and analysis can help to keep track of the development and market circumstances of the hydrogen sector. **The development of the hydrogen sector should be periodically monitored** by NRAs to identify the possible need for adaptation of the regulatory framework. NRAs should also be empowered to **oversee the hydrogen sector in order to ensure compliance** with the unbundling, TPA and transparency provisions, as well as for the granting of exemptions and application of temporary provisions. NRAs should also be tasked to support Member States in the analysis of the type of TPA and unbundling to be applied. At European level, it is important that ACER monitors the hydrogen sector and to have a role in case of cross-border issues.

Market monitoring should also be able to catch abusive behaviour as defined in REMIT⁸ and that cannot be avoided by infrastructure regulation or market. For well-functioning markets, and to remain consistent with the Gas Directive⁹, hydrogen will need to be considered a wholesale energy product, just like electricity or gas.

4. Ensuring a level playing field in a decarbonised and integrated energy system

#3 Apply cost reflectivity and beneficiary-pays principles to hydrogen networks, avoiding cross-subsidies between energy carriers

⁷ For more details see [ACER-CEER Regulatory Treatment of Power-to-Gas “European Green Deal” Regulatory White Paper series \(paper #2\)](#), 11 February 2021.

⁸ Regulation (EU) 1227/2011 on wholesale energy market integrity and transparency.

⁹ 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.

ACER and CEER have always promoted the cost reflectivity and beneficiary-pays principles when setting network tariffs. Although cross-subsidies can be a tool to achieve certain policy goals, regulators' preference is typically towards non-distortive instruments, in particular, those financed by general taxation. While some forms of cross-subsidisation are explicitly aimed at reaching specific regulatory objectives (e.g. promoting a more efficient use of the network) and are thus less of a concern, the case for avoiding cross-subsidies is particularly strong when different types of users within the same sector, or between different sectors, are involved.

With particular regard to different energy vectors, regulators believe that such principles should also be applied to hydrogen networks, meaning that their **costs should only be borne by their respective users**. In the long-term, such an approach fosters the efficiency of infrastructure operators and reduces the risk of over-investment (by removing one possible form of undue socialisation of costs) and **creates a level playing field between different energy carriers by providing realistic price signals**. It is important to note that, under certain conditions (e.g. where hydrogen consumers are mostly industrial, while gas customers are mainly households), cross-subsidies between different energy carriers might also result in cross-subsidies between different types of users.

However, in order to foster the emergence of a decarbonised energy system, some form of support might be needed in the early phase of its development. As regards the hydrogen sector and considering its potential contribution to decarbonisation, Member States may decide to build hydrogen infrastructure in advance, i.e. before hydrogen demand and supply are fully developed. At such an early stage of sector development, recovering the cost of hydrogen infrastructure from hydrogen users only might be challenging, as it might lead to non-affordable prices and hinder the development of the sector.

An option to address the high initial unit costs would be to introduce inter-temporal cross-subsidies, i.e. designing mechanisms whereby a share of cost recovery would be shifted later in the future and be borne by later users of the hydrogen network.

In addition, to facilitate the financing of such infrastructure developments, instruments funded by general taxation that allow for an efficient and equitable distribution of costs could be adopted, given the environmental benefits of decarbonisation for society as a whole; resources coming from the EU Emissions Trading System (ETS), thus better reflecting the polluter pays principle, could also be used.

Furthermore, as a rule, **ACER and CEER consider that cross-subsidies between users of different networks (also referred to as cost mutualisation) should be avoided**.

If, nevertheless, policy makers opt for cross-subsidies to promote the development and deployment of hydrogen, their aim should be to reach the societal objectives of decarbonisation, energy efficiency and energy affordability as a whole, and their design should not jeopardise other policy goals such as ensuring security of supply or safeguarding vulnerable customers in the gas market. Given the significant burden that cross-subsidies would likely place, over time, on customers that remain connected to the gas network, ACER and CEER consider that **an appropriate regulatory framework for temporary derogations to the principle of avoiding cross-subsidies should be developed at the outset and enforced**. Such a framework should be based on specific

tools and conditions including at least **NRA oversight**, under strictly justified conditions, and **limited extension** in both scope and time, as well as:

- An **analysis methodology** to check if hydrogen infrastructure will also benefit the current gas consumers in the future and whether it will have a limited impact on household gas consumers;
- **Transparency** on the economic and policy rationale of the measure and, for each user of the network, on the amount of cross-subsidisation;
- **Application of an unbundling regime** between the network activities benefitting from subsidies and those contributing to the subsidisation (e.g. methane vs. hydrogen), in case they are performed by the same entity, to allow for the transparent identification of the respective costs; and
- **Allocation of costs** of hydrogen developments to ensure gas cross-border points are not impacted, to safeguard market integration. As regards hydrogen developments with a potential cross-border impact, the NRAs of adjacent Member States could agree on some forms of mutual cross-subsidisation based on a methodology similar to cross-border cost allocation, but in no case should such a decision impact the tariffs applied at gas cross-border points.

To perform the aforementioned analysis, it is important to identify the sectors and activity(ies) within the value chain that would benefit the most from support schemes, to improve the competitiveness of the decarbonised energy carrier (incentives granted for infrastructure development are one option, but other solutions such as support of production activities might prove to be more effective). An integrated system perspective is needed to find the optimal design for support schemes, while not producing unintended consequences or perverse incentives; e.g. the promotion of green hydrogen should not jeopardise the direct use of renewable energy in the electricity sector.

It should be decided which categories of users (e.g. industrial vs. households, gas vs. electricity) should contribute to the support schemes; also investigating if, and to what extent, such users might become beneficiaries in the future; e.g. if they are likely to switch their consumption from natural gas to hydrogen. In this respect, transparency about the economic and policy rationale, as well as on the amount of cross-subsidisation, is key. Also, the optimal form such cross-subsidies might take should be decided; e.g. as additional levies charged to network users or directly to customers or, in the case of repurposing, as an unmotivated deviation from the residual cost approach (the specific residual value in the Regulatory Asset Base – RAB) in setting the transfer value. The latter would entail a structural cross-subsidy between consumers of different networks, which is why ACER and CEER consider it a least-preferred option.

Homogenous cost-benefit analyses (CBA) conducted with an integrated energy system perspective are essential to the design of any cross-subsidy mechanism, while allowing a level playing field between various decarbonised energy carriers.

#4 Ensure an integrated, liquid and interoperable EU internal gas market, including by foreseeing a more flexible approach to application of relevant network codes regarding cross-border charges

In addition to fostering the emergence of renewable and low-carbon gases, the re-examination of the current gas market regulatory framework should also **ensure an**

integrated, liquid and interoperable EU internal gas market. In this respect, the current entry-exit system model, coupled with Regulation (EU) 2017/460 provisions on capacity-based charges to be applied at cross-border points, is designed to promote cost-reflectivity and makes regional market mergers the only currently available option to remove cross-border charging.

While regulators agree that cost reflectivity is a fundamental principle to design network tariffs, our view is that targeted deviations could be envisaged to allow for other policy objectives, such as fostering cross-border trade to be more effectively pursued. From a broader perspective, further market integration could be achieved through a **more flexible approach to the application of the relevant network codes with respect to cross-border charges**; e.g. allowing the reserve price in cross-border capacity allocation to be reduced, on the basis of an agreement between the concerned NRAs. Such an approach should acknowledge the significant relevance, in the design and evaluation of reference price methodologies, of the principle of ensuring that the resulting reference prices do not distort cross-border trade.

As regards regional market integrations, both in terms of market mergers and other types of cross-border arrangements, they require considerable efforts by the involved parties, with one main point of discussion being the allocation of costs previously recovered at cross-border points: as a consequence of market integration, one or more cross-border points become non-bookable; hence, TSO revenues have to be collected at other points, which leads to a potential redistribution across the involved Member States. The design of Inter-TSO Compensation (ITC) mechanisms is, therefore, a crucial step in the integration agreement, with key decisions including the share of revenues to be reallocated and the methodology for allocation. In this respect, **common principles for an effective ITC mechanism could be set.**

Concerning the share of revenues, **compensations via an ITC mechanism should be limited to revenues which were previously recovered from cross-border users at cross-border points**, as they can be clearly identified, in line with recent supranational mergers (e.g. between Estonia, Finland, and Latvia, and the merger between Belgium and Luxembourg).

Once the overall amount of revenues is defined, the ITC mechanism should determine the way in which it is allocated to each Member State, i.e. the amount of compensation for each party involved in the agreement. Options include setting the amount ex-ante based on common criteria, or relying on ex-post market dynamics (e.g. net cross-border flows) as a proxy to define the contribution of each Member State.

To foster regional market integration, it is crucial to **assess potential mergers not only by the effects on wholesale prices, but also from a wider perspective including benefits** for consumers in terms of, for example, lower transaction costs, increased market liquidity, and enhanced security of supply.

A CBA could be used as a basis to define the compensations between the newly integrated systems and could also serve as a tool to assess the impact on adjacent markets not involved in the agreement.

Lastly, regulators believe that efforts should be made in ensuring that infrastructures are efficiently utilised, with a view to providing a level-playing field between users of different types of infrastructure. In this respect, certain costs may be redistributed within the

system in a non-discriminatory manner, while ensuring that there are no cross-subsidies between transmission, distribution, storage, Liquefied Natural Gas (LNG) and supply activities.

#5 Adopt a more integrated approach to infrastructure development, both in relation to different levels of supply chain (vertical), and to various energy carriers (horizontal), consistent with the revised TEN-E Regulation

In addition to who should bear the cost of an infrastructure when it is used (see above #3 and #4), the development of new infrastructure projects in the gas and hydrogen sectors also raises the question of **who should bear the risks** related both to its commissioning and to demand not meeting expectations at the time of the investment decision.

Typically, in unregulated markets, such risk is mainly on the project promoter, which is compensated through higher remuneration when the demand materialises. In regulated markets, while there are cases where risk is on the project promoter (e.g. TPA exemptions) or on future users of the infrastructure (e.g. binding commitments), the solution typically adopted by regulators is to provide higher certainty/lower risk (to ensure the project is realised) and lower remuneration (to grant affordable tariffs), thereby shifting the burden to the final customers through revenue compensation mechanisms (this particularly holds for the transmission activity). Under such a framework, principles for infrastructure development and revenue-setting methodologies should be consistent, and **regulatory oversight is crucial to ensure a prudent and no-regrets approach, avoiding the risk of over-investment.**

Such considerations are particularly relevant for the development of new infrastructure for renewable gases, like hydrogen, including the case for repurposing existing gas infrastructure. The hydrogen sector is at an early stage of development, facing several uncertainties, and needed infrastructure is expected to be costly. European regulators thus recommend that the **development of hydrogen assets should be based on proven needs for an integrated energy system** and chosen among the **most cost-efficient solutions for consumers after having considered several future decarbonisation scenarios based on the NECPs.**

The progressive integration and emergence of new energy markets also makes infrastructure more interdependent, **requiring an integrated approach to infrastructure network planning**, both in relation to the **different levels of the supply chain (vertical), and to the various energy carriers (horizontal).** On the need for such an integrated approach, as well as on the governance of the processes for the Ten-Year Network Development Plan (TYNDP) and the National Development Plans (NDPs), regulators have already called for improvements in the context of the revision of the TEN-E Regulation¹⁰.

From a **vertical integration** perspective, one question is how to consider the distribution level and potential decentralised injections of renewable and low-carbon gases within the planning process. Regulators do not see the need to mirror mandatory DSO NDPs

¹⁰ For more details see [ACER-CEER “Position on Revision of the Trans-European Energy Networks Regulation \(TEN-E\) and Infrastructure Governance”](#), 19 June 2020, and [“Position on Improving the Regulation on Guidelines for Trans-European Energy Networks \(TEN-E\) Regulation”](#), 5 March 2021.

from the Clean Energy Package, as several differences exist in terms of role, number, and dimension of gas DSOs in each Member State leading to diverging views over the benefits of an EU-wide approach. With respect to the Hydrogen and Decarbonised Gas Market Package, regulators advocate including in the TSO NDPs the information from the distribution level which potentially affects planning at transmission level. In this respect, relevant **gas DSOs should at least be included in the joint scenario development process undertaken by the TSOs for the purpose of gas NDPs**. Their main projects having an impact on the transmission level (such as reverse flows from distribution to transmission) should be considered for network planning purposes.

With regard to decentralised developments such as power-to-gas installations or local production, these might have an impact on the transmission and distribution levels, such as requiring additional investments to enable safe and efficient operations. In this respect, questions arise on whether a more centralised approach to planning would yield greater system efficiency compared to a fully autonomous planning by market participants. Examples related to such questions include finding the optimal location of such installations, including those aimed at the conversion between energy carriers, with a view to avoiding or solving network congestion. This issue could be tackled by **asking relevant system operators (at TSO or DSO level) to identify and publish potential locations for the injection of renewable gases**. Also, as decarbonisation should come at least cost, careful consideration should be given to the planning of storage and power-to-gas solutions, including their assessment against potential alternatives that are suited to address a certain need (e.g. network reinforcements). In this context, **regulators might investigate the possibility of specific investment signals**; for example, in the way network tariffs are designed, taking into consideration the need to be technologically neutral and to minimise overall energy system costs.

From a **horizontal integration** perspective, as regards the planning of hydrogen developments at national level, NRAs have already expressed their concern that if such projects (including those developed by non-regulated entities) are not part of the NDPs (which are the basis for the TYNDP), the lack of NRA competence with respect to hydrogen might lead to a lack of regulatory oversight vis-à-vis ENTSOG, which shall be mandated to include hydrogen projects in its TYNDP according to the proposal for a revised TEN-E Regulation¹¹. To strike the right balance between a gradual and flexible regulatory approach for hydrogen and the need for strong coordination in planning, gas and, where relevant, electricity **NDPs should, at least, take into account hydrogen developments for scenario and modelling purposes**, and the role of the NDPs of gas network operators should be extended to also **identify assets that could be converted for the transport of hydrogen**. Once hydrogen regulation is fully in place, **regulated hydrogen infrastructure should be part of a NDP** planning process subject to NRA approval.

In addition to the joint scenario development for electricity and gas NDPs, there are also clear benefits in further **integrating the project assessment stage** for gas and electricity, as well as, potentially, hydrogen projects. Needs identification could distinguish between “sector-” (or vector-) specific system needs, versus energy needs that can be fulfilled by different energy carriers. As an assessment of energy needs that

¹¹ Proposal for a Regulation of the European Parliament and of the Council on guidelines for trans-European energy infrastructure and repealing Regulation (EU) No 347/2013 (COM(2020) 824 final)

can be fulfilled by different energy carriers would have to be conducted jointly by TSOs in the context of the NDPs and, under that framework, projects competing for the same energy needs would be assessed by the NRA.

A **prerequisite for such joint assessment would be cross-sectoral CBAs**, with NRAs having a role in promoting their consistency from an integrated energy system perspective, including technological neutrality and the use of quantitative and/or monetised benefits.

On the potential inclusion of certain provisions on district heating in the Hydrogen and Decarbonised Gas Market Package, regulators believe that district heating and its regulation is an important element of the EU's energy transition. While there may be a limited scope for fully-fledged harmonisation, heat supply is already being affected by EU energy policies, and European energy regulators fully appreciate that more coordinated action at EU level is needed.

5. Empowering and protecting consumers for the energy transition

#6 Guarantee consumer rights regardless of energy carrier

As the energy transition advances, customer rights (regarding free choice of supplier; market-based pricing; public service obligations; affordability; basic contractual rights; billing and billing information; comparison tools; switching; data protection, management and interoperability; single point of contact; out-of-court dispute settlement; vulnerable consumers and energy poverty; etc.) should be safeguarded regardless of the type of energy used, also acknowledging the role of gas for households' everyday needs in the medium term. Regulators welcome that consumer protection safeguards are reinforced for heating, cooling and domestic hot water customers in the proposed revision of the Energy Efficiency Directive, as part of the Fit for 55 Package¹².

With that in mind, the provisions on **consumer rights and protection for gas consumers must be updated and brought into line with those adopted for electricity consumers in the context of the 2019 Clean Energy Package**, whilst considering technical differences between the electricity and gas sectors and differences between the respective market realities as well as the trajectory for decarbonisation of energy consumption in homes and buildings.

Equally, it is essential to **ensure coherence with the consumer proposals in the Fit for 55 legislative package**, including those in the Energy Efficiency Directive on billing, metering, single point of contact, alternative dispute resolution, protecting vulnerable customers and alleviating energy poverty. **Overlapping provisions across EU legal acts should be avoided, as it is important to have a clear, cohesive and consistent set of rules in one place to facilitate implementation and enforcement.**

#7 Embed robust consumer protection, future innovation, technology developments and new market trends in decarbonisation policies, recognising the specificities of gas markets

¹² https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541

We strongly believe that the retail market and consumer provisions for the decarbonised gas sector must be **adapted and revised to allow for effective consumer protection, future innovation, technology developments and new market trends, in particular the emergence of new types of renewable and low-carbon gases**. Furthermore, given the level of uncertainty and maturity of renewable and low-carbon gas technologies and their deployment for household consumers, **discretion should be left to Member States regarding when and how to apply innovation-dependent provisions, based on socio-economic cost-benefit assessments** (e.g. dynamic prices, energy communities, demand response, smart meters, etc.). For example, when considering a fuel mix disclosure for gas(es), the provision of information on renewable gas requires the implementation of an effective, efficient and reliable system of guarantees of origin (GOs), offering economic benefit and certainty for consumers. A **precondition for an effective GO system for gas is the introduction of a comprehensive terminology for different types of gases**. Based on that, GOs as described in Article 19 of the Renewable Energy Directive¹³ should cover all types of gases, while leaving space for Member States to decide on how to best make use of a gas GO system in their respective markets.

#8 Ensure cost efficiency and affordability to safeguard inclusiveness and a just transition, including by promoting and facilitating energy efficiency measures and information

Efficient costs for the development and maintenance of energy (electricity, gas, hydrogen, heating) networks and for the sustainable energy transition **must be shared fairly and equitably among their respective users**. The importance of **respecting the cost reflectivity and beneficiary-pays principles** when setting network tariffs paid by consumers has been emphasised in Recommendation #3 above. Moreover, as outlined in the CEER-BEUC 2030 Vision for Energy Consumers¹⁴, **charges to consumers should be clear and kept to reasonable levels**, ensuring value for money at a level consistent with funding the investments needed to develop and maintain these networks. In particular, **policy makers should conduct a “distributional impact assessment” of planned policies** on consumers, to ensure that actions to decarbonise the energy system **do not put an unreasonable extra burden on consumers**, particularly those in vulnerable situations.

The proposals in the Fit for 55 Package, which range from energy to transport to buildings, whilst paving the way to climate neutrality, will likely have a **major financial impact on consumers and markets**. In particular, the extension of the ETS scheme to fuels consumed in buildings will weigh heavily on the bills of current gas consumers. **Support measures to be financed by the proposed Social Climate Fund must be practicable and delivered effectively and equitably**. Indeed, taken in conjunction, the proposed indicative target of 49% renewables in buildings, new ETS obligations for building fuels and an annual average increase of 2.1 percentage points on the share of renewables (and waste heat and cold) in district heating and cooling, will place significant pressure on all groups of household consumers. **Consumers will require**

¹³ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources

¹⁴ “CEER-BEUC 2030 Vision for Energy Consumers: LET’S ASPIRE!”, 13 October 2020, <https://www.ceer.eu/1932>.

comprehensive and clear information and advice, as well as financial support, in order to face these ambitious transition measures. Thus, the proposals in the Fit for 55 Package must be seen in conjunction with the revisions to the regulatory and market framework for decarbonised gas and with the objective of ensuring a just transition for all.

Energy Efficiency First is the first line of defence to deliver energy (and cost) savings for consumers, and to help address energy poverty. Regulators are committed to playing their part and to encouraging all energy consumers to be more energy efficient. As identified in the Energy Efficiency Directive¹⁵, and although not yet a reality in all of the EU for energy consumers (electricity, gas, heating, cooling, domestic hot water), the **right of customers to have individual meters that accurately reflect their actual energy consumption is crucial to helping them manage their energy spending and efficiency choices. Cost-reflective tariffs and prices, based on actual – not estimated – individual metering**, must be prioritised. In this regard, individual metering is a basic right of every consumer and can help induce energy (and cost) saving behaviour on the part of the consumer. Accordingly, and as retained in the ongoing revision of the Energy Efficiency Directive, individual metering should be the rule (with room for exception with proper justification, e.g. technical or economic).

#9 Provide consumers with clear and reliable information and support, as well as ensure effective enforcement of their rights and consumer-centric digitalisation rules to enhance their empowerment and trust in the energy transition

Empowering consumers to engage with the energy market goes beyond promoting consumer choice and effective competition. It **requires policies and practices which provide clear and trustworthy information, advice and support to help consumers understand their energy use**. The greater the transparency on how markets work, how prices are formed and how consumers can exercise their rights, the more trust consumers are able to gain. In turn, this trust may be translated into a greater willingness to participate and interact with the energy market (for example by helping consumers to make decisions on their energy use, including when buying equipment and appliances).

In addition to the availability of the information itself, consumers need to be made aware of, and learn how to, process new information and understand what the information tells them and how they can use the information to their advantage. It is essential to find ways to make sure consumers are informed in an effective, useful and understandable way. Regulators recall the risks of information overload, which can lead to confusion and, ultimately, disengagement by consumers. Therefore, **requirements on providing information must be accompanied by adequate and wide-reaching national and European campaigns to educate consumers** to identify, read, understand and use that information in their future decision-making and behaviour.

In terms of consistency, the definitions and terminology used in the contract, offer and bill should be the same, facilitating understanding. All **information provided to consumers should be up-to-date, correct, complete and comparable**, allowing

¹⁵ Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency

consumers easily to assess independently their choices and the implications of their decisions.

More specifically, within the context of decarbonisation and promoting the uptake of green offers, including for renewable gases, it is worth noting that whilst the rules on 'disclosure' information that must be provided on the electricity bill are based on GOs and are therefore, trustworthy in principle, **informing consumers about the use made of GOs by their suppliers leaves much to be desired in many cases**. Such issues contribute to the risk of greenwashing and consumer distrust and may also arise when potentially applying GOs for renewable gases in the future. This could be **improved through a two-tier information model**: Level 1 for the **mandatory information** that is already provided on the energy bill (supplier mix, related CO₂ emissions and radioactive waste) as required by European Directives; and Level 2 for **additional information** that is already available on the GO, such as the geographic origin (country or, if applicable, region), the specific renewable energy source(s) and electricity production technology(ies).

Regulators also recall the importance of a robust framework for general consumer law and for data protection. In this regard, regulators underline that the **effectiveness of general consumer law rules depends in great part on its enforceability and on the dissuasiveness of the penalties** that can be imposed.

The reinforcement of energy-specific consumer provisions in the EU's electricity and gas legislation is an important tool for regulators to oversee and improve market behaviour and consumer protection. As a complement, Member States should examine the **possibility of harmonising their respective consumer rights jurisdictions** in order to benefit consumers by **making official processes more effective and easily accessible**. Currently, responsibility at national level for the enforcement of general consumer protection provisions may lie with other public bodies, possibly diminishing the completeness and effectiveness of a sectoral oversight of the energy market. In this regard, it is important to ensure an effective cooperation framework between energy regulators and other public bodies with consumer protection responsibilities.

ACER and CEER stress the importance of **ensuring that digitalisation empowers energy consumers through new services and products and does not create additional hurdles or feed the digital divide. Digitalisation must not take place to the detriment of customers**. It is necessary to take customers on board in order to gain acceptance for the energy transition. In this regard, regulators welcome the European Commission's parallel initiatives for a Data Act¹⁶ and a Digitalisation of Energy Action Plan¹⁷, which recognise the **importance of a consumer-centric and sensitive approach** by "...putting people first and being an enabler for citizens, prosumers, and energy communities to play an active role in the energy markets."

Where appropriate, relevant network and consumption data should be made available to current and potential market participants in an accessible manner. Furthermore, **data**

¹⁶ See https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13045-Data-Act-&-amended-rules-on-the-legal-protection-of-databases_en

¹⁷ See https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13141-Digitalising-the-energy-sector-EU-action-plan_en

must be interoperable and secure, **in line with cybersecurity and data protection requirements.**

Regulators reiterate that issues such as data portability, data access rights for third parties and government, data control and cybersecurity as well as privacy issues, the digital divide, implementation of and access to smart technologies and holistic digital solutions must be addressed within a harmonised framework, **always guaranteeing adequate levels of customer protection.**

Relevant ACER and CEER Papers

Market and regulatory principles

1.	<u>ACER-CEER Regulatory White Paper on Rules to Prevent Methane Leakage in the Energy Sector, “European Green Deal” Regulatory White Paper series (paper #3)</u> , 22 July 2021
2.	<u>ACER-CEER Position Paper on Improving the Regulation on Guidelines for Trans-European Energy Networks (TEN-E) Regulation</u> , 5 March 2021
3.	<u>CEER White Paper on Long-Term Storage</u> , 15 February 2021
4.	<u>ACER-CEER Regulatory White Paper on Regulatory Treatment of Power-to-Gas, “European Green Deal” Regulatory White Paper series (paper #2)</u> , 11 February 2021
5.	<u>ACER-CEER Regulatory White Paper on When and How to Regulate Hydrogen Networks?, “European Green Deal” Regulatory White Paper series (paper #1)</u> , 9 February 2021
6.	<u>ACER-CEER Position Paper on Revision of the Trans-European Energy Networks Regulation (TEN-E) and Infrastructure Governance</u> , 19 June 2020

CEER input to the European Commission

7.	<u>CEER Response to the EC Public Consultation on the Hydrogen and Gas Market Decarbonisation Package</u> , 22 June 2021
8.	<u>CEER input on the Roadmap for an EU Strategy for Methane</u> , 5 August 2020
9.	<u>CEER input on the Roadmap for an EU Strategy for Hydrogen</u> , 8 June 2020
10.	<u>CEER input on the Hydrogen and Gas markets decarbonisation package Combined Evaluation Roadmap / Inception Impact Assessment</u> , 9 March 2020
11.	<u>The Bridge Beyond 2025 Conclusions Paper</u> , 19 November 2019

Consumer issues

1.	<u>CEER Report on Billing Issues in the Clean Energy for All Europeans Package</u> , 23 March 2021
2.	<u>CEER-BEUC 2030 Vision for Energy Consumers</u> , 13 October 2020
3.	<u>Recommendations on Dynamic Price Implementation</u> , 3 March 2020
4.	<u>CEER Guide on Bundled Products</u> , 6 November 2019
CEER input to the European Commission	
5.	<u>CEER Feedback to the European Commission on the Proposal for an EU Directive on Energy Efficiency (recast) COM(2021) 558</u> , 19 November 2021
6.	<u>CEER input on “Roadmap to the Action Plan on the Digitalisation of the Energy Sector”</u> , 10 September 2021
7.	<u>CEER Response to the EC Consultation on the Data Act</u> , 3 September 2021
8.	<u>CEER Response to the Public Consultation on the EU energy efficiency directive (EED)</u> , 9 February 2021
9.	<u>Public Consultation on the EU’s new ‘consumer agenda’</u> , 14 October 2020