



SUBMISSION TO THE ACER CONSULTATION ON “THE BRIDGE BEYOND 2025”

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Climate Action Network (CAN) Europe is Europe's largest coalition working on climate and energy issues. With over 130 member organisations in more than 30 European countries - representing over 44 million citizens - CAN Europe works to prevent dangerous climate change and promote sustainable climate and energy policy in Europe.

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Topic 1: Targeted regulation and market functioning

1. ***Is the proposed response set out above appropriate to address the challenges the sector faces? What should be done differently and why?***

Besides its focus on the Gas Target Model, ACER should consider potential impacts of the shrinking character of the fossil and hence overall gas market. If the European Union wants to remain on track with regard to the achievement of the Paris Agreement's 1.5°C target, a swift phase-out of fossil gas use in Europe is indispensable. While the use of non-fossil gases may, under certain circumstances, be useful for balancing of the energy system, long-term storage and in those sectors that are most difficult to decarbonise, it is extremely unlikely – as indeed is illustrated by modelling carried out for the European Commission's long-term strategic vision for a climate-neutral economy in 2018 – that such gases will be used to meet more than a small fraction of heat supply to buildings, which is more likely to be met through heat pumps – including via district heating systems.

On this basis the content of this consultation is far too optimistic on the likely need for future gas infrastructure of any type: it is likely that in the next few decades large parts of the gas distribution and transmission networks will need to be decommissioned, and operators should not be incentivised to invest bill payers money in what could very well become stranded assets..

Planning for a shrinking fossil gas market

Any market model that promotes the prolonged use of fossil gas would lock our economy in its dependency on this finite and carbon-intensive energy carrier. The European Commission's long-term strategic vision for a climate-neutral economy shows that a massive increase in renewable electricity generation – combined with demand side response and various forms of storage – will be key to achieve necessary emission reductions. Energy efficiency targets, decarbonisation of the power system and electrification of the heating sector, including through the much more extensive use of district heating systems, is likely to leave only a very much

reduced remaining demand for gaseous energy carriers through the gas distribution networks and by implication the transmission system. The regulatory framework and the market design should not encourage countries to increase the share of imports in their fossil gas consumption, e.g. through terminals for liquefied natural gas (LNG) or new pipelines that soon could become stranded assets, and indeed should start now in preparing operators for the likely future decommissioning of large parts of the gas network. The Council of European Energy Regulators (CEER) indicated in its recent consultation document on the regulatory challenges for a sustainable gas sector that gas systems are oversized and excessively costly in relation to gas flows.

Avoiding stranded assets in gas infrastructure

Implementing current Projects of Common Interest (PCIs) will soon eliminate remaining potential supply side risks. These very limited local risks can also be answered through a more efficient use of existing cross-border gas transmission capacities. As suggested by ACER, this approach can be backed by inter-TSO compensations (ITC) and the Use-It-Or-Lose-It provisions for interconnection points. Given this, and the need to start planning for the decommissioning of the gas grid, as explained above, ACER should exercise extreme caution in incentivising any further investment in gas transmission or distribution infrastructure.

CAN Europe welcomes ACER's proposal to assess coherently the broad set of measures that enhance security of supply both across the gas sector as well as across the electricity sector. It should be the guiding principle of regulation across both sectors to prioritise those solutions that allow for the most important emission reductions on the short term. Against this backdrop, regulation should facilitate the quickest increase of renewable energy shares in all sectors of final energy demand (electricity, heating and cooling, transport).

Making the TYNDP compatible with the Paris Agreement

CAN Europe strongly supports ACER's proposal for new governance and regulatory oversight arrangements in relation to the Ten Year Network Development Plan (TYNDP). An independent assessment of underlying assumptions and investment needs is key for a cost-efficient and non-discriminatory development of EU energy infrastructure.

Previous TYNDPs have allowed for EU funding for fossil gas infrastructure. The use of this infrastructure for fossil gas on the mid-term would undermine efforts to reach the Paris Agreement's 1.5°C target. Despite the recently launched joint scenario building of ENTSO-E and ENTSOG, the market modelling for future investment needs does not yet fully consider the multiple benefits of an optimised interlinkage between electricity and gas infrastructure in view of a 100% renewable energy supply.

1.a *For monitoring the GTM metrics and prompting action, should the threshold values be set out at EU level? What should they be? Who should set these values?*

CAN Europe has no dedicated position on the GTM metrics. We generally consider the suggested update of market monitoring as good and necessary in view of preparing the market for a quick shift towards a 100% renewable energy system. The monitoring and future action needs to be based on the Paris Agreement's 1.5°C target, thus anticipate preparations for a swift phase-out of fossil gas use to respect a net-zero emission target in 2040.

1.b *Should there be new principles for tariff and allowed revenue methodologies in legislation – e.g. ensuring a level playing field between the gas and electricity sectors? What principles would be crucial?*

Gas and electricity network tariffs ideally incentivise the flexible use of the existing assets with the lowest emissions and reward investments in flexible new generation and storage units with low emissions. If the carbon intensity along the whole lifecycle is not reflected in charges and levies, inflexible and carbon-intensive assets might be advantaged.

Allowing the use of the cleanest energy carrier across all sectors

In view of creating a level playing field between the gas and electricity sectors, tariff design should avoid different charges in the different sectors for the same energy carrier. For instance, the use of renewable electricity in the heating and transport sector would be discouraged by disproportionately high charges in the electricity sector, compared to low charges on competing fossil fuels such as fossil gas and oil.

As electricity and gas infrastructure should be interlinked in a flexible way to allow for renewable power, it is obvious that the different sectors need aligned tariff designs. On such a level playing field, storage facilities, for instance, would not be charged double because of being legally considered as consumers and as generators under the electricity network tariffs and under the gas network tariffs.

Rewarding all grid users that provide flexibility

Consumers, flexible generation and storage capacities can interact with the existing energy infrastructure in a way that eases grids. The more they interact amongst each other, the better they can facilitate the integration of variable renewables in electricity, heating and cooling and transport sectors. Tariff design can play an important role in mobilising these beneficial effects. Instead of mainly volume based fixed standing fees for electricity grid connection, the consumption-based part of grid tariffs should become more important. Grid tariffs could even include a time-of-use component if digital meters are rolled out.

Such a framework would reward electricity consumers and generators who change their behaviour in order to ease the electricity grid during congestion periods, for instance through sector coupling solutions. If grid users always pay the same fixed standing fee, the price signal for activating flexibility would be weaker. In this context, national capacity mechanisms for fossil fuel-fired power plants should not counteract flexibility.

Making discounts conditional on a proven contribution to system needs

If a limited number of grid users benefit from certain exemptions from different charges, fair cost allocation and market development easily are undermined. CAN Europe questions that a discount on network charges automatically should apply to gas storage and power-to-gas facilities. As a prerequisite, future gas storage needs should be assessed independently in order to avoid overreaching support to this energy carrier. Depending on the location of the power-to-gas facility and its operational mode, additional congestion in electricity grids might be caused. The exclusive use of renewable electricity, an appropriate set of price signals and a dynamic network tariff design are preconditions for turning power-to-gas into a supportive element of the transition towards a 100% renewable energy system.

2. *Should the Agency develop a joint Electricity and Gas Target Model in view of sector coupling and what key features should this model have?*

CAN Europe has no dedicated position on a joint Electricity and Gas Target Model. Cross-sectoral optimisation is needed to be able to choose for the most cost-efficient solutions. This implies a transparent assessment by an independent regulatory authority such as ACER, in particular to scrutinise future infrastructure needs for gas and assumptions on gas demand.

Topic 2: Enabling new products and enhancing infrastructure governance

3. *Is the proposed response set out above appropriate to address the challenges the sector faces? What should be done differently and why?*

In order to avoid any further lock-in into the EU's dependency on fossil fuels, ACER should focus on the support to non-fossil gases only. Only renewable hydrogen and certain types of sustainably sourced biogas can be considered as Paris compatible non-fossil gases, meaning that only renewable electricity shall be used for the production of hydrogen and that biogas and biomethane should originate from fast decaying waste and residues

with no other uses. Sequential crops could in certain cases be an acceptable feedstock for biogas production, however one has to be wary of overoptimistic scenarios and support schemes where biogas production becomes the driver of unsustainable farming practices.

Defining non-fossil gases in contrast to the continued use of fossil gas

When considering all greenhouse gas emissions along the entire supply chain of gases, some of the sources, processes or end products have a considerable climate impact. Only these feedstocks and processes that deliver genuine climate benefits should be considered. Against this backdrop, CAN Europe rejects the idea of linking the market introduction of biogas, biomethane, synthetic methane or hydrogen to carbon capture and use or storage (CCS, CCU). For the production of renewable hydrogen only renewable electricity shall be used.

Hydrogen originating from fossil gas through steam methane reforming (also called blue hydrogen or grey hydrogen depending on the use of CCS) is certainly not renewable or green. Such continued use of fossil fuels is not sustainable and can by nature not be compatible with a net zero emission economy. Regarding the definition of new technologies, the differences between non-fossil and fossil gases should not be blurred. Definitions should prevent opening the door for continued or even increased use of fossil fuels that cannot bring about any relevant net greenhouse gas emission reductions and prevent encouraging ongoing investment in gas infrastructure that depends on the use of non-zero carbon gases in future.

Excluding fossil gases from any preferential treatment

CAN Europe suggests that priority grid access should only be granted to non-fossil gases. As a consequence, investments in generation of biomethane, hydrogen and synthetic methane (power-to-gas) only should be included as potential Projects of Common Interest (PCIs) if they originate exclusively from renewable electricity or sustainably sourced biogas. In CAN Europe's understanding, the generation of renewable gas is not part of maintaining, expanding or upgrading the transmission system, thus should not be considered a core activity of TSOs and thus not be funded by network tariffs.

3.a Who should provide data on the availability of decarbonised gases by location so as to enable assessment of changes of gas system needs and flows, in parallel to greater availability of decarbonised gases? At what frequency should this data be provided to the Agency?

An independent monitoring entity is needed to provide a neutral overview of the potentials of different gases, given the cost of relevant technologies, the alternatives to gaseous carriers (e.g. heat networks) and demands for non-fossil gas from other sectors, and the implications for energy infrastructure. Independent research and monitoring reports of National Regulatory Authorities (NRAs) could provide the base of this monitoring. Data could be collected and updated every two years under the TYNDP process.

For a detailed tracking of the flows of different gases, the existing Guarantees of Origin (GO) scheme for the electricity sector can be adapted to the gas sector. Distribution system operators (DSOs) and transmission system operators (TSOs) would have to collect data on quantities fed into existing infrastructure.

3.b Do TSOs face a conflict of interest in the future in planning gas and electricity infrastructure? If so, would stronger regulatory oversight resolve the problem? Which powers are needed and at which level (European, regional, national)? Would transparency requirements on TSOs/ENTSOs mitigate this problem and if yes, what shall be done?

CAN Europe agrees with ACER's warning against potentially vested interests of network operators who might not be interested in encouraging market solutions or other infrastructure that can make their own infrastructure superfluous. A cross-sectoral optimisation of both electricity, gas and heat network infrastructure appears to be indispensable for defining the most cost-efficient pathway towards a 100% renewable energy supply. While many solutions such as demand side response and storage technologies bear the potential to ease

infrastructure, the infrastructure owners themselves might tend to prefer a further upscaling of their own infrastructure assets.

Introducing a cross-sectoral optimisation of energy infrastructure needs

For this reason, an independent review of infrastructure-related investment needs, should take into account the current availability, market-readiness and future impact of different flexibility options. Risks of stranded assets and the costs of decommissioning infrastructure need to be analysed. An independent entity such as ACER or European Commission services such as the Joint Research Centre (JRC) would be best to run this cross-sectoral assessment on the European level. The TYNDP should be subject to approval by ACER.

Such regulatory oversight could be beneficial because the current TYNDP modelling does not yet provide for a fully cross-sectoral optimisation process. The cross-sectoral assessment should not only compare the increased interplay of electricity and gas infrastructure but also the reduced infrastructure need due to energy efficiency measures, the growth of heat networks and the roll out of electric vehicles.

Including a broader range of stakeholders in energy infrastructure planning

While most of the renewable electricity generation capacities are connected at the distribution grid level, the potential support of low and medium voltage networks for an optimised infrastructure use should be identified. Besides the horizontal cross-sectoral assessment, a better vertical cooperation between the distribution grid and the transmission grid levels appears to be beneficial. Distribution grid operators (DSOs) should get a more prominent role in EU infrastructure planning.

In view of a cross-sectoral optimisation, grid operators should reach out more pro-actively to DSOs, renewable power plant operators, aggregators and to consumer groups. These stakeholders are relevant to better identify the potential impacts of their new business models around demand response on future infrastructure needs.

Aligning the TYNDP process closely to EU targets and to the Paris Agreement

As explained under question 1, making the entire TYNDP process compatible with the 1.5°C target of the Paris Agreement is a prerequisite for CAN Europe. ACER and/or JRC should take a stronger oversight in this regard by defining key trajectories and parameters. These elements would ensure a very close alignment of the process to the overarching EU climate and energy targets. Planned infrastructure needs to be checked against the energy efficiency first principle, questioning whether it can be made dispensable by applying an energy efficiency measure instead. Future TYNDP approval by ACER also will have to scrutinise the planned infrastructure investments in view of their contribution to the 1.5°C target of the Paris Agreement.

Including additional solutions to cables and pipelines in infrastructure planning

Due to the separate modelling architectures of ENTSO-E and ENTSG, potential synergies seem to be not fully tapped. In the worst case, divergent visions of electricity and gas grid operators can lead to inconsistent modelling that leads to oversized infrastructure needs and costs.

Future infrastructure needs should not be driven by the attempt to enshrine existing infrastructure elements as a value in itself (the sunk costs fallacy). A continued use of fossil gas infrastructure, for instance, is not an aim as such that EU policies should defend. The overarching aim is to cover consumers' demand with a clean, reliable and affordable supply of renewable energy sources. Existing electricity and gas networks are two out of many potential remedies that help reaching this aim. As explained above the supply of heat to buildings is more likely to be met cost effectively through the use of district heating networks than by burning scarce and/or expensive non-fossil gases.

Improving energy infrastructure planning through open data access

Assumptions with regards to ENTSOs' modelling for future infrastructure needs are not fully transparent. For academia and civil society, it is difficult to understand how input factors are weighted and how they influence the TYNDP findings. An independent assessment of the data that is fed into the ENTSOs' modelling process could improve the quality and accuracy, given the rapidly changing character of energy technologies. For these reasons, CAN Europe welcomes the ENTSOs' efforts to consult external stakeholders on all steps of their modelling activities. In order to strengthen civil society's engagement along the entire TYNDP and PCI process, CAN Europe supports the idea of assigning an open data license to the dataset used for ENTSOs' modelling and cost-benefit analysis.

4. *What powers are needed for dynamic regulation to be effective?*

CAN Europe has outlined proposals for strengthening the regulatory overview under 3.a and 3.b.

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