

SNAM inputs to the Commission call for contributions on the revised

Guidelines on State aid for climate, environmental protection and energy (CEEAG)

Introduction

SNAM welcomes the revision of the Climate Environmental protection and Energy Guidelines, focusing on enhancing environmental outcomes through two main areas of intervention: enlarging the scope of the guidelines to new areas and technologies and introducing flexibility in compatibility rules. In terms of the former, the technology neutral approach within is especially welcome. In the comments below, we set out some areas for development in this relation, with the **main common denominator being the introduction of more tailored provisions to reflect the level of maturity of the markets underlying**. In fact, the approach to State Aid would be truly technology neutral only insofar the rules apply consistently across all technologies as a function of the level of maturity. As applied to **energy upstream aid**¹, it would make sense indeed to make a distinction between low carbon/renewable gases and renewable power. This is because renewable and low carbon gases technologies, which differently from renewable power have virtually never benefitted from public support, are at a much less mature stage of market development, with hydrogen notably being one of the pillars of the EU Energy and Climate Strategy and pretty much still at the technology discovery phase, requiring more flexible rules to ensure timely scale up. **As applied to infrastructure aid**, a rethinking on the current approach would be desirable in relation to hydrogen. In line with the EU H2 Strategy, hydrogen markets would need to develop at scale and will likely need public support considering the expectedly low customer base at the early stages of market development and the foreseeable constraints on cross subsidization. Relatedly, in order for the EH H2 ambitions to fall into place, **cross regional trade and cooperation should be promoted hence made more explicit within the Guidelines**. Finally, in relation to **clean mobility and support to improving buildings performance**, while we welcome the shift to an approach that is more reflective of the financing gap as opposed to aid intensity caps, we consider that due changes should be made in the provisions to ensure that a **Life Cycle Assessment approach** applies consistently.

Part 1 – Support to Green Hydrogen across the value chain

1. NEED FOR A MORE FLEXIBLE APPROACH ON H2 INFRASTRUCTURE AID²

Snam very much welcomes the acknowledgment by the Commission relating to the need to allow for infrastructure aid where market failures cannot be addressed by means of compulsory users tariffs. The approach to aid eligibility set out in the Guidelines, though, seems **not to be fit for purpose for hydrogen**. In fact, the Commission currently foresees allowing ex-ante eligibility only insofar the infrastructure investment falls within the PCI perimeter while all that is PCI exempted and/or “other infrastructure categories” would have to go through a case-by-case basis assessment. We argue that the latter seems to be too much of an inflexible approach that could delay the roll out of hydrogen markets insofar hydrogen priority corridors are going to develop over time and it is unlikely that all relevant infrastructure projects will be included in the PCI list starting from 2022 – which is when the Guidelines become effective. In fact, the EU hydrogen backbone is going to be delivered in phases, as set out in the EU Hydrogen Strategy (July 2020): the first one encompassing the development of clusters, the second foreseeing the establishment of the first connections between clusters and the third one seeing cross border trade and market maturity. According to the current proposal, the ex-ante eligibility to access public funding would be ruled out for all infrastructure investment relating the first two phases, indirectly risking to delay the conversion of natural gas assets to hydrogen. In order to address this issue, which is very relevant in the case of hydrogen considering that the initial low customer base will most likely warrant state aid, **we suggest rewording the relevant excerpt by removing the reference to PCI (or harmonising the treatment of H2 infrastructure with PCI) and/or allowing for conditions that more closely reflect the objectives set out in the EU H2 Strategy**.

¹ Covered within the “reduction and removal of GHG incl. through renewable energy” aid category

² Reference excerpt n. 377, p82

2. COMPETITIVE BIDDING: APPROACH TO AID ALLOCATION SHOULD REFLECT THE LEVEL of TECHNOLOGY MATURITY

Snam welcomes the enhanced technology neutral angle adopted by the Commission within State Aid control, and we attach great importance to this initiative in supporting the achievement of the European Green Deal' objectives and of the Fit-for-55 targets. With this perspective, we believe it would be **important to further reflect in the Guidelines considerations around technology maturity and market penetration.**

In relation to the approach to allocation aid, for example, the Guidelines do not take these aspects into account as competitive bidding is often indicated within as the default allocation tool. While for renewable power generation auctions have widely been used in the last ten-fifteen years as a mean to achieve cost competitiveness across Europe and beyond, also thanks to cumulated public support over time, competitive bidding may not be an apposite aid allocation choice yet for other less mature technologies and markets. For hydrogen, though similar considerations would apply to biomethane to an extent, competitive bidding based on price would only start making sense when the technologies underlying would reach a certain level of maturity and market design allows for market integration to be reflected into market prices. **In the kick off phase, other types of non-price selection criteria may be more apposite when considering how best to allocate aid.** These range from **degree of innovation, technology and commercial readiness, potential scope of application/replicability, size, cost, required support in absolute terms and as a share of total projects's cost.** We suggest amending the excerpts 89-91 such that for hydrogen the three stages of maturity set out in the EU H2 Strategy are duly taken into account. Finally, we note that even at present, there is lack of clarity in relation to the language of excerpt 92 insofar it is not entirely clear whether the provisions defining the exceptions from competitive bidding for small project also extend to hydrogen. Finally, also in relation to excerpt 92, relevant for hydrogen but for biomethane too, we note that the threshold set out have decreased from the previous regime (down from 500 to 400kW) and consider that the previous values should best be restored unless any strong specific reason.

3. OPEX AID: APPROACH TO AID ALLOCATION SHOULD REFLECT THE LEVEL of TECHNOLOGY MATURITY

In line with the considerations above, we strongly advocate that **also the conditions for opex aid should be tailored to the level of technology maturity.** Technology maturity is in fact an important driver for the opex/total cost ratio. At present, for example, **electrolysis costs can be 80-90% OPEX-related.** It would be apposite, for the **Commission to clarify what should automatically be considered compliant to the requirements** "e.g. regarded as resulting in more environmental-friendly operation versus a counterfactual". We believe that support for electrolysis should be regarded as resulting in more environmental-friendly operation, as well as support towards other less mature renewable/low carbon gas technologies where opex still represent a material share of total costs.

4. CROSS BORDER MECHANISMS SHOULD BE ENHANCED

An aspect of immediate relevance, which is treated just marginally in the Guidelines document under consultation, is the **compatibility of State Aid rules with support mechanisms within the Member State incentivising renewable power production in surrounding regions.** We deem the definition of such rules of extreme relevance for the green hydrogen sector in particular, insofar allowing public funding to enhance green electricity and H2 production in third countries i.e. North Africa, or liquid H2/ammonia production in other relevant regions, for example, may prove necessary to make the most of hydrogen in Europe. The Commission should take the opportunity of the CEEAG to incentivise the application of the Renewable Energy Directive's cross-border mechanisms (including the approach to joint support schemes and joint projects) to hydrogen, also in line with the objectives set out in the EU Hydrogen Strategy. We note that the effort to optimise cross border trade of hydrogen should not only come from the definition of more explicit provisions within State Aid rules, but also by harmonising the treatment of Guarantees of Origin as applied to relevant import regions and treatment to the purposes of NCD accounting across the board.

5. SECURITY of SUPPLY AND ENERGY INTENSIVE LEVY AID SHOULD EXTEND TO Power To Gas (PTG) AND H2

The Commission envisaged aid to security of supply for the electricity sector. We note that **hydrogen (both infrastructure and PTG) should be included into the range of possible tools to address security of supply issues for the electricity sector in light of its contribution in terms of system flexibility**. At present, only economic activities connected to electricity generation, storage and demand response are included into the range of eligible activities. Notably, the Commission does not envisage electrolysis among the list of activities that can be supported via reduced electricity levies despite many of the activities covered do include hydrogen consumption. Not including electrolysis within the range of activities carries the risk of fragmenting the underlying market, as captive production in sectors listed in Annex 1 would be able to benefit from reduced levies, where standalone electrolysis would not. It is therefore important to include electrolysis in the list. Similarly, the Guidelines envisage granting reductions from levies on electricity consumption³ which finance an energy policy objective in favour of certain energy-intensive users without making considerations on extending the provisions to hydrogen and potentially other low carbon gases. Provisions should be, in our opinion, amended to ensure that technology neutrality is granted.

6. AID INTENSITY THRESHOLDS SHOULD BE MORE AMBITIOUS

The only aid intensity explicitly mentioned in the Draft CEEAG is for clean mobility: “the basic aid intensity must not exceed 30% of the eligible costs or 40% of the eligible costs where the recharging or refuelling infrastructure supplies only renewable electricity or renewable hydrogen or renewable gas respectively” (point 182 EEAG). We advise the European Commission to increase the percentage. The state of hydrogen development differing from one country to another, this would give more margin to take different situations into consideration. Same considerations apply to other renewable and low carbon gases. Indeed, for hydrogen and biomethane, which have not yet reached the mature-market phase, we find it desirable to set the thresholds at levels higher than 30% and 40%, ideally up to 100% and in any case proportionate to the level of funding gap.

7. OVERCOMPENSATION CRITERIA SHOULD BE BEST SPECIFIED

In the Guidelines, the Commission duly sets out rules to clarify whether and how State Aid coming through separate channels can be cumulated. In relation to hydrogen and low carbon/renewable gases, we see that the Guidelines could best specify the treatment of the conversion phases. In principle, we believe that, **insofar conversion is functional to the decarbonisation strategy of a specific Member State, then it should be allowed to receive public funding**. Specifically, we would want to ensure that the same MWh of energy can be supported multiple times, as long as it has changed form from one support to the next. For example, that MWh can be supported once as electricity, then again as hydrogen, then again as methanol, and again as e-kerosene **as long as the subsequent support mechanisms are only covering additional costs of conversion and taking into account the technology-specific conversion cost involved**.

Part 2 – Support to other Renewable and Low Carbon Gases

We believe that while some of the considerations set out for hydrogen could extend to renewable and low carbon gases as a whole (see in relation to technology maturity in particular), there are a few remarkable issues relating to the treatment of natural gas within the Guidelines that could affect the development of low carbon and renewable gases that are worth raising separately. **The underpin is that the use of natural gas, or any other energy source or vector really, should best be assessed against a technology neutral approach based on impact calculation at the Life Cycle level**. In contrast with the Tailpipe approach, the Life Cycle Assessment, by comparing technologies and vectors on the basis of the emissions relevant to the whole life cycle of a technology, provides for the most robust comparison tool. We welcome the recognition of this principle in the Guidelines, when the Commission mentions that aid should not “*stimulate or prolong the consumption of fossil-based fuels and energy, including energy carriers that don’t emit at the tailpipe but are*

³ See section 4.11 of the consultation.

produced in a carbon-intensive process”⁴. In this spirit, we believe that further consideration should be placed on provisions that seems to be in contrast with the principle of technology neutrality and Life Cycle Assessment and the rewording of some excerpts should follow. We note that due consideration should be given to the fact that, when considering lock in effects, any measure that goes into the direction of reducing the use of fossil fuels – which is of course very welcome especially in the case of solid fossil fuels – should be framed in a way to **ensure that biogases⁵ markets would not be hampered from the outset** as they may well perform better than other technologies under a Life Cycle Assessment approach.

8. AID FOR REDUCTION OF GHG EMISSIONS

- **(77)** *The Commission will therefore, in principle, consider that support for biofuels, bioliquids, biogas and biomass fuels exceeding the caps defining their eligibility for the calculation of the gross final consumption of energy from renewable sources in the Member State concerned in accordance with Article 26 of that Directive, do not produce positive effects which outweigh the negative effects of the measure. Furthermore, the Commission will verify whether Member States took into account in the design of their support mechanisms the need to avoid distortions on the raw material markets from biomass support, in particular for forest biomass.*
- **(110)** *Similarly, measures that incentivise new investments in energy or industrial production based on natural gas may reduce greenhouse gas emissions and other pollutants in the short term but aggravate negative environmental externalities in the longer term, compared to alternative investments. For investments in natural gas to be seen as having positive environmental effects, Member States must explain how they will ensure that the investment contributes to achieving the Union’s 2030 climate target and 2050 climate neutrality target. In particular, the Member States should explain how a lock in of this gas-fired energy generation or gas-fired production equipment will be avoided. For example, this may include binding commitments by the beneficiary to implement decarbonisation technologies such as CCS/CCU or substitute natural gas by renewable or low carbon gas or to close the plant on a timeline consistent with the Union’s climate targets.*

9. AID FOR IMPROVING BUILDINGS PERFORMANCE

As a general point, we note that in terms of aid intensity Energy Efficiency aid has traditionally been treated differently from Renewable Energy, with a lower maximum aid intensity allowed. We consider that the CEEAG represent an occasion to introduce the level playing field and harmonised treatment across different aid categories, while ensuring strategic investments in line with the Renovation Wave strategy.

- **(116): Cogeneration and Micro-CHP could well be included in the list. Moreover, electricity and gas heat pumps could be included as well in the point (a) ”the installation of integrated on-site renewable energy installations generating electricity, heat or cold or recovering renewable ambient heat”.**
- **(118)** *The aid must induce: (a) in the case of renovation of existing buildings, energy performance improvements leading to a reduction in primary energy demand of at least 20 % as compared to the situation prior to the investment. By way of derogation, where the improvement is part of a staged renovation, the latter must lead to an overall reduction in primary energy demand of at least 30 % as compared to the situation prior to the investment, over a **period of 3 years**; (b) in the case of new buildings, energy performance improvements leading to at least 10 % of primary energy savings compared to the threshold set for the nearly zero-energy building requirements in national measures implementing Directive 2010/31/EU of the EU Parliament and of the Council.*
 - **In relation to this article, we note that the period for renovation at 3 years for staged renovation could imply significant limitations, as subsequent renovation works are difficultly carried out in such a limited period. We strongly advocate for an extension to a suitable timeframe.**

⁴ See footnote 63 at pg. 43.

⁵ Similar considerations would apply to blue hydrogen.

- **(124)** *Aid for the facilitation of energy performance contracting may take the form of a loan or guarantee to the provider of the energy performance improvement measures under an energy performance contract, or consist in a financial product aimed to refinance the respective provider (for example, factoring or forfeiting).*
 - **Grants may also be suitable as a tool to support EE outcomes and should best be included in the list of available tools.**
- **(126-129)** *The basic aid intensity must not exceed 30 % of the eligible costs. As regards aid granted for improving the energy performance of existing buildings, the aid intensity may be increased by **15 percentage points** where the energy performance improvements lead to a reduction of primary energy demand of at least 40 %. The aid intensity may be increased by 20 percentage points for aid granted to small undertakings or by 10 percentage points for aid granted to medium-sized undertakings. The aid intensity may be increased by 15 percentage points for investments located in assisted areas fulfilling the conditions of Article 107(3), point (a), of the Treaty or by 5 percentage points for investments located in assisted areas fulfilling the conditions of Article 107(3), point (c), of the Treaty.*
 - **In relation to excerpt 127, we note that the increase to additional 15% is probably not material enough. We would rather suggest an increase of 20-25% in a way that the additional premium properly reflects the increased energy saving outcome and the related investment needed to achieve that performance.**
- **(134)** *Measures that incentivise new investments in natural gas-fired equipment aimed at improving the energy efficiency of buildings may lead to a reduction in energy demand in the short run but aggravate negative environmental externalities in the longer run, compared to alternative investments. Moreover, aid for the installation of natural gas-fired equipment may unduly distort competition where it displaces investments into cleaner alternatives that are already available on the market, or where it locks in certain technologies, hampering the wider development of a market for and the use of cleaner technologies. The Commission considers that the positive effects of measures that create such a lock-in effect are unlikely to outweigh their negative effects. As part of its assessment, the Commission will consider whether the natural gas-fired equipment replaces energy equipment using the most polluting fossil fuels, such as oil and coal.*
 - **In relation to this point, we note that the natural gas equipments can be already fit for incorporating either biomethane (100%) and are moving towards 'green gas readiness' allowing gas appliances to convert to use any green gas and, therefore immediately contributing to GHG reduction. Already today, some condensing boilers can accommodate a variable share of hydrogen of up to 20%. Also, final appliances – especially in the residential sector – can be easily adapted to run fully on hydrogen without major technical constraints. We therefore suggest to consider gas-fired equipments eligible as far as they improve the energy efficiency of a building and as far as these can accommodate an increasing share of renewable gases.**

10. AID FOR CLEAN MOBILITY

As a general point, we note that mobility is one of the sectors which requires most efforts to decarbonise, also given the stock of old existing vehicles and trucks in many Members States. In this respect, and to promote an effective and immediate result in the reduction of emissions, we consider CNG and LNG to be the most effective available and affordable solutions both for private and public transport. Also considering the relevant role of biomethane in having “negative emissions” where the full LCA is taken into account. At the same time, hydrogen blending could be well supported in a first phase to further enhance g-mobility environmental performances. Given the limited share of g-mobility and the positive multiplier effect of any aid to this segment with respect to other costlier options, we do not consider this to affect at any rate competitive considerations, also taken the priority to achieve emissions’ reductions in large scale during this decade. We consider that aid measures should be prolonged for the sector at least until 2030, where additional evaluations can well take stock on the evolution of fuels’ mix and of other early stage and not yet market viable technologies. The consideration (161) that certain aid measures such

as those that incentivise new investments in natural gas-fuelled (including CNG and LNG) transport vehicles may aggravate negative environmental externalities in the longer run, do not take into account the possibility for the related infrastructure to convey in the future bioLNG, bioCNG and Hydrogen, thus avoiding any lock in and on the contrary catering for the use of cleaner technologies. The consideration regarding the minimum blending (162 and 185) is to be reviewed based on both domestic availability and the possibility to promote cross-border recognition of biofuels; ideally the levels of blending requirements should set at a lower level (5 or 10%) to reflect the level of development of the markets across the board and increase to up to 20% over time. Finally, g-mobility can well serve to promote maritime decarbonisation, therefore requiring an additional extra support for infrastructures connected to this aim.

- **(161)** *The Commission considers that certain aid measures have negative effects on competition and trade that are unlikely to be offset. In particular, measures that incentivise new investments in natural gas-fuelled (including CNG and LNG) transport vehicles may lead to a reduction in greenhouse gas emissions and other pollutants in the short run but aggravate negative environmental externalities in the longer run, compared to alternative investments. In addition, aid for the acquisition of clean transport vehicles may unduly distort competition where it displaces investments into cleaner alternatives that are already available on the market, or where it locks in certain technologies, hampering the wider development of a market for and the use of cleaner technologies. Therefore, in those cases, the Commission considers that the negative effects on competition of aid for the acquisition or leasing of natural gas-fuelled clean transport vehicles such as CNG and LNG vehicles are unlikely to be offset.*
- **(162)** *Aid for the acquisition or leasing of CNG and LNG vehicles may be regarded as not creating long-term lock-in effects and not displacing investments into cleaner technologies if, at the moment when the Member State notifies the Commission of its plans to implement the aid measure or when the aid measure is implemented, the Member State demonstrates that cleaner alternatives are not readily available on the market and are not expected to be available in the short term. The aid may also be regarded as not having lock-in effects or displacing investments into cleaner technologies where the Member State commits to ensure that those vehicles would be operated using blending of biogas or renewable gaseous transport fuels of non-biological origin (minimum 20%).*
- **(184)** *Aid for the deployment or upgrade of refuelling infrastructure may unduly distort competition when it displaces investments into cleaner alternatives that are already available on the market, or where it locks in certain technologies, hampering the wider development of a market for and the use of cleaner technologies. Therefore, in those cases, the Commission considers that the negative effects on competition of aid for the deployment or upgrade of refuelling infrastructure supplying natural gas-based fuels such as CNG and LNG are unlikely to be offset.*
- **(185)** *Aid for the deployment or upgrade of CNG and LNG refuelling infrastructure may be regarded as not creating long-term lock-in effects and not displacing investments into cleaner technologies if, at the moment when the Member State notifies the Commission of its plans to implement the aid measure or when the aid measure is implemented, the Member State demonstrates that cleaner alternatives are not readily available on the market and are not expected to be available in the short term. Aid for the deployment or upgrade of CNG and LNG refuelling infrastructure may also be regarded as not creating long-term lock-in effects where the Member State commits to ensure that the CNG and LNG is blended with biogas or renewable gaseous transport fuels of non-biological origin (minimum 20%).*