

## IOGP response to the Inception Impact Assessment on the revision of the Guidelines on State aid for environmental protection and energy (EEAG) 2014-2020

**The International Association of Oil & Gas Producers' (IOGP) member companies account for approximately 90% of oil and gas produced in Europe. IOGP supports the goals of the Paris Agreement and the EU's objective of climate neutrality by 2050, and will work with policymakers to help create the measures which can enable the energy transition. Many challenges must be overcome to meet this objective, and the energy transition will require significant investments in low-carbon technologies and effective policies driving their uptake.**

IOGP believes that the EEAG should facilitate investments in promising, innovative and scalable technologies that facilitate large-scale carbon emission reduction and management projects while maintaining the functioning of the Internal Energy Market. They should be aimed at allowing for European industries to deliver the scale of projects required to meet the EU's climate objectives, while, as a priority, maintaining competitiveness, keeping existing and creating new jobs. This is essential both in the context of the European Green Deal and as the EU plans to recover from the COVID-19 crisis.

We recommend adapting the EEAG to ensure that the future contributions of carbon capture and utilisation or storage (CCU and CCS) and low-carbon hydrogen from natural gas with CCS to the achievement of the EU climate neutrality objective by 2050 are adequately included. In addition, the EEAG should facilitate the safe, responsible and sustainable production of oil and gas in Europe, including allowing for support for emission reduction technologies.

Continued oil and gas production in Europe will be required during the transition and provide the basis for the development of many necessary low-carbon technologies and their supply chains. Oil and gas from Europe is produced with a 40% lower carbon footprint compared to the global average<sup>1</sup>. Maintaining oil and gas production also allows for the retention of the human and financial capital needed to develop CCS in Europe, as the technology relies on the same people, technologies and value chains.

This paper includes IOGP's recommendations for:

- 1) **Adapting the EEAG to new developments in CCU and CCS**
- 2) **Incorporating low-carbon hydrogen from natural gas with CCS in the EEAG**
- 3) **Adapting the EEAG to facilitate the safe, responsible and sustainable production of oil and gas in Europe**
- 4) **Ensuring the eligibility of measures to reduce emissions from the production and use of oil and gas**
- 5) **Defining positive environmental benefits**

<sup>1</sup> IOGP (2020): [Environmental performance indicators – 2018 data](#).

## 1) Adapting the EEAG to new developments in carbon capture and utilisation or storage (CCU and CCS):

CCS is a proven technology. Three large-scale projects are currently operating in Europe capturing ca. 2.1 Mt CO<sub>2</sub> per year, and a number of projects under development will capture and store between 30 and 60 Mt CO<sub>2</sub> by 2030<sup>2</sup>. Still, this falls far short of the scale required to reach the Commission's climate neutral scenarios which rely on the amount of CO<sub>2</sub> captured and stored to increase by a factor of 40 to 140 by 2050<sup>3</sup>. To achieve the necessary scale-up, the commitment and support of policymakers is needed.

A range of scenarios have shown that CCS is an integral part of meeting the targets set under the Paris Agreement, including the IPCC's SR1.5<sup>4</sup> and the IEA's 2020 World Energy Outlook<sup>5</sup>. The Commission's 2030 Climate Target Plan impact assessment<sup>6</sup> and 2050 long-term strategy<sup>7</sup> equally show that CCS will be necessary to achieve the EU's energy and climate objectives. With State aid assistance, alongside appropriate carbon pricing measures through the EU ETS, widespread CCS investment and deployment will help deliver on energy and climate objectives, facilitate the uptake of both renewable hydrogen and low-carbon hydrogen from natural gas with CCS, and enable negative emissions.

The current EEAG recognise CCS as "a technology that can contribute to mitigating climate change. In the transition to a fully low-carbon economy, CCS technology can reconcile the demand for fossil fuels, with the need to reduce greenhouse gas emissions". The Guidelines also correctly note that "in some industrial sectors, CCS may currently represent the only technology option able to reduce process-related emissions at the scale needed in the long term". The EEAG therefore allow for investment aid of up to 100% of eligible costs to be supported as compatible with the Treaty. Likewise, energy infrastructure also allows for 100% of eligible costs to be covered by investment aid. **These elements should be maintained in the revision of EEAG.** Furthermore, the Guidelines should also recognise that the design and focus of new CCS projects have changed, and innovation in CCS business models has shifted the focus away from single emission sources to industrial clusters linked with CCS hubs<sup>8</sup>.

### IOGP recommendations for adapting the EEAG to new developments in CCS and CCU:

- **Enable a flexible approach to both investment and operation aid in the CCS chain:** The EEAG need to be updated to allow for a wider range of circumstances and business models. This may need to involve flexible aid to cover both investment and operating costs. The policy recommendations outlined in the IOGP-coordinated industry report *The potential for CCS and CCU in Europe*<sup>9</sup> should be considered in this context, in particular Contracts for Difference (CfDs) and tax incentives for CO<sub>2</sub> storage.
- **Incorporate the construction or retrofitting of shared CCS infrastructure:** The EEAG do not currently consider how enabling the retrofitting of existing energy infrastructure or the construction of new infrastructure for CO<sub>2</sub> transport and storage may benefit the decarbonisation of several industrial processes. This will be important to reflect in the infrastructure section of the revised EEAG.
- **Incorporate the transport of CO<sub>2</sub> for storage by other modes of transport (e.g. shipping) in addition to pipeline:** The definition of energy infrastructure concerning CO<sub>2</sub>, as defined in part 1.3 (§31d) of the EEAG only concerns pipeline networks, not ship-based solutions. At the same time, the chapter on aid to CCS in part 3.6 (§164) allows for State aid for the transport of CO<sub>2</sub> without providing a definition of CO<sub>2</sub> transport modes. It is therefore unclear that ship-based solutions to CO<sub>2</sub> transport for storage can receive State aid. The definition of energy infrastructure in the EEAG should be modified to include the transport of CO<sub>2</sub> by other modes than pipeline (e.g. shipping). To ensure coherence between various EU policy tools, modification to include CO<sub>2</sub> transport by other modes of transport in addition to pipeline should also be made in the EU ETS Directive,

<sup>2</sup> See IOGP's [Map of European CCS projects](#).

<sup>3</sup> European Commission (2018): *Figure 89: CO<sub>2</sub> capture and storage or reuse (2050)*. In: [Supplementary information IN-DEPTH ANALYSIS IN SUPPORT OF THE COMMISSION COMMUNICATION COM\(2018\) 773](#) (p. 73).

<sup>4</sup> IPCC (2018): [Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development](#), p. 135. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*.

<sup>5</sup> IEA (2020): [World Energy Outlook 2020](#).

<sup>6</sup> SWD(2020) 176 final: [Impact assessment accompanying the 2030 Climate Target Plan](#).

<sup>7</sup> COM(2018) 773 final: [A Clean Planet for all – A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy](#).

<sup>8</sup> IOGP (2020): [New and old CCS projects in Europe: What's different this time?](#)

<sup>9</sup> IOGP (2019): [The potential for CCS and CCU in Europe](#).

MRR Regulation, TEN-E Regulation and CCS Directive when revised. In this context, we would advise against alignment of the Guidelines with the EU Sustainable Finance Taxonomy, as the current draft Delegated Regulation for climate change adaptation and mitigation only consider as environmentally sustainable the transport of CO<sub>2</sub> by pipeline, and not by other transport modes.

- **Recognise CCU and negative emissions technologies:** The current EEAG do not recognise CCU technologies. We encourage the Commission to define a methodology which enables a quantification of the climate abatement potential of different CCU technologies to ensure that the future EEAG will facilitate the channelling of State aid to these technologies. Likewise, there are limited options for enabling negative emissions. Land-use change and afforestation can and must play a key role, as can bioenergy coupled with CCS (BECCS) and the direct air capture of CO<sub>2</sub> combined with CCS (DACCS)<sup>10</sup>. The updated EEAG should reflect this wide variety of potential uses of CCS technology.

## 2) Incorporating low-carbon hydrogen from natural gas with CCS in the EEAG:

Hydrogen is well suited to be a key low-carbon energy carrier which can be produced both from renewable electricity and from natural gas with CCS, resulting in a mix of production technologies. It is in this perspective that nearly all EU Member States have planned for hydrogen in their National Energy and Climate Plans, and several also plan for hydrogen from natural gas with CCS or CCU<sup>11</sup>. Technology neutrality on the EU level is crucial to successfully support the Member States' national hydrogen strategies, as they vary in their approaches to hydrogen production and scale-up.

Across Europe, a number of large-scale projects for low-carbon hydrogen production from natural gas with CCS are planned. For example, the Magnum project<sup>12</sup> in the Netherlands will convert a natural gas-based power plant to combust hydrogen, and the H2morrow project in Germany<sup>13</sup> will provide low-carbon hydrogen for industrial uses. In terms of industrial clusters, the CCS projects in Rotterdam (Porthos) and Antwerpen (Antwerpen@C)<sup>14</sup> include the capture of CO<sub>2</sub> from existing natural gas reformers to produce low-carbon hydrogen for industrial uses. Likewise, the Preem refinery in Sweden will apply CCS to its existing natural gas reforming unit to produce low-carbon hydrogen.<sup>15</sup>

As recognised in the EU Hydrogen Strategy, hydrogen will be key to reduce emissions in hard-to-abate sectors. Hydrogen is also central to the Strategy for Energy System Integration due to its cross-sectoral potential. The importance of both hydrogen and CCS is furthermore confirmed by the impact assessment accompanying the 2030 Climate Target Plan, which shows that a decarbonised energy system will require going beyond electrification and that further deployment of both renewable and low-carbon fuels will be needed in order to meet increased climate ambitions.<sup>16</sup>

The adaptation or construction of infrastructure to accommodate future hydrogen volumes will also require substantial State aid, and the EEAG should be tailored to support this while ensuring that both renewable and low-carbon hydrogen can compete on a level playing field.

<sup>10</sup> For an overview of Negative Emission Technologies (NETs), see Environmental Research Letters (2018): [Negative emissions—Part 1: Research landscape and synthesis](#).

<sup>11</sup> IOGP (2020): [Assessment of National Energy and Climate Plans](#).

<sup>12</sup> Magnum project information [available here](#).

<sup>13</sup> H2morrow project information [available here](#).

<sup>14</sup> Porthos project information [available here](#) and Antwerpen@C [here](#).

<sup>15</sup> Preem CCS project information [available here](#).

<sup>16</sup> SWD(2020) 176 final: [Impact assessment accompanying the 2030 Climate Target Plan](#) (p.12).

## IOGP recommendations for incorporating low-carbon hydrogen from natural gas with CCS in the EEAG:

- **Fast-tracking and streamlining:** The revised EEAG should ensure that procedures for awarding support to low-carbon projects (including renewable and low-carbon hydrogen) are fast tracked and streamlined to allow for near-time investments.
- **Enable a flexible approach to both investment and operation aid in the low-carbon hydrogen chain:** Similar to the above section on CCS, we recommend that the EEAG are updated also to allow for a wider range of circumstances and business models for low-carbon hydrogen. CfDs and flexible aid for both investment and operating should be considered in this context.
- **Ensure alignment between the revised EEAG and updated gas market rules:** The forthcoming revision of EU internal gas market rules will, inter alia, establish a regulatory framework for renewable and low-carbon gases (including hydrogen). The EEAG should be in line with this framework, as State aid will be instrumental for major renewable and low-carbon gas projects and investments in the adaptation of the existing gas infrastructure, market rules and network codes to receive low-carbon gases.
- **Incorporate renewable and low-carbon hydrogen energy infrastructure:** Hydrogen, or renewable and low-carbon gases in general, are not explicitly covered in any of the current sections of the EEAG. Hydrogen could potentially be considered under the generation adequacy chapters, given the vast scope of potential hydrogen applications in the energy system. However, hydrogen is not included in the definition of energy infrastructure in part 1.3(§31), which only outlines the power, oil, gas and CCS sectors. This hinders future hydrogen projects from qualifying for State aid as energy infrastructure projects. The EEAG should therefore incorporate hydrogen (in a technology neutral manner) explicitly in the definition of energy infrastructure – or a separate chapter on hydrogen should be created, in line with the forthcoming gas regulatory framework. Furthermore, the additional conditions for individually notifiable aid listed in part 3.2.1.2(§33) of the EEAG (abatement technologies; existing Union standards; future Union standards) are not well coordinated with the chapters on energy infrastructure and generation adequacy. The revised EEAG should include the contributions of both hydrogen and CCS infrastructure to decarbonisation.
- **Assessment criteria for renewable and low-carbon gases (including hydrogen):** IOGP is strongly in favour of a technology neutral approach for all renewable and low-carbon technologies, as this would enable the scale-up of the most promising technologies while allowing for a balanced and cost-efficient approach to decarbonisation. Assessment criteria for low-carbon gases (including hydrogen) in the context of the EEAG should therefore be based on life-cycle assessment of GHG emission performance, enabling renewable and low-carbon hydrogen to compete on a level playing field.
- **Ensure a level playing field between renewable and low-carbon hydrogen:** The EEAG should ensure that all hydrogen production technologies which can deliver significant GHG emission reductions at a competitive price are enabled to compete on a level playing field, both with regards to capital expenditure and operational costs. In this context, it will e.g. be important to ensure that competition is not distorted if considering measures such as allowing exemptions from gas tariffs for renewable hydrogen entering the gas system.

### 3) Adapting the EEAG to facilitate the safe, responsible and sustainable production of oil and gas in Europe:

Energy security in the EU is dependent on maintaining a wide range of diverse sources and technologies. As well as delivering on the objective of climate neutrality by 2050, EU energy policy also needs to provide citizens and businesses with an adequate level of confidence in security of supply including a willingness to facilitate indigenous European production. Energy production is also an important element of the European industrial base and supports a wider supply chain which will further provide the basis for critical energy infrastructure and the development of future capabilities relating to low-carbon technologies.

The European upstream oil and gas industry has environmental and safety standards amongst the highest in the world. In 2018, GHG emissions per unit of hydrocarbons produced in Europe were ca. 40% lower than the global average and Europe has the highest standards of Monitoring Reporting and Verification (MRV)<sup>17</sup>. It is also a critical industry, and its importance has been confirmed in the context of the COVID-19 crisis<sup>18</sup>. According to the Commission, the health and economic crisis has been a reminder of how vital reliable access to energy and the reliability of critical supply chains is for European citizens and businesses<sup>19</sup>. The crisis has furthermore accentuated the need for Europe to maintain its industrial capacity and, indeed, repatriate industrial capacity and reverse some of the outsourcing of activities. In the context of recovery from the COVID-19 crisis, the European oil and gas industry can contribute with the supply of oil and gas with a lower environmental footprint and the human and financial capital needed for the development of technologies such as CCS and low-carbon hydrogen from natural gas with CCS.

EU energy policy has so far succeeded in avoiding significant outsourcing of production of oil and gas, with 23% of oil and 46% of natural gas produced in Europe (including Norway and the UK).<sup>20</sup> This increases security of supply and competition between sources while reducing transport costs and associated emissions. Meanwhile, continuous improvement in environmental performance needs to remain at the heart of any oil and gas producing company including investment in step-change emission reduction through, for example, extending affordable electricity supply to offshore assets.

The revised EEAG should enable further emission reductions from oil and gas produced in Europe, and allow for building on the industry's experience and assets to deliver low-carbon solutions which are "Made in Europe".

#### **IOGP recommendations for adapting the EEAG to the safe, responsible and sustainable production of oil and gas in Europe:**

- **Electrification of oil and gas platforms:** State aid rules should facilitate the connection of offshore production to wider energy networks. In this context, a review of Annex 3 of the EEAG is required. This Annex contains a list of energy consuming sectors which are eligible for aid in the form of reductions or removal of specific charge which is levied from electricity consumers on top of the electricity price as described in Section 3.7.2. The production of crude oil and natural gas has not been considered or included on this list to date, as oil and gas platforms have traditionally been producing their own electricity on site. However, an important measure to reduce emissions from oil and gas produced in Europe could be connecting platforms to onshore networks or sources of renewable electricity. To facilitate the electrification of platforms, the production of crude oil and natural gas should be included in Annex 3 and appropriate modifications should be made to Annex 4 to reflect the calculation of electro-intensity, for example to reflect forward projections of production.
- **Reuse, retrofitting and repurposing of oil and gas infrastructure:** The EEAG should be adapted to ensure that the reuse of existing oil and gas infrastructure for the purpose of producing, transporting or storing low-carbon gases (including hydrogen, biomethane and blends) or transporting CO<sub>2</sub> for utilisation or storage is supported.

<sup>17</sup> IOGP (2020): [Environmental performance indicators – 2018 data](#).

<sup>18</sup> See IOGP COVID-19 Updates: [Industry response and impact](#).

<sup>19</sup> SWD(2020) 104 final: [Energy Security: Good practices to address pandemic risks](#).

<sup>20</sup> IOGP (2019): [Global Production Report 2019](#).

## 4) Ensuring the eligibility of measures to reduce emissions from the production and use of oil and gas:

We understand, following the publication of the State of the Energy Union 2020 report, that the Commission will in cooperation with Member States reinforce actions to reduce fossil fuel consumption and to phase out fossil fuel subsidies, and that this could include considering further measures to ensure coherence among EU policies and addressing the ambition to end fossil fuel subsidies in the legislative review of the State aid Guidelines.

In this context, it will be important to ensure that such measures do not impede the initiatives discussed above. For example, CCS must continue to be eligible for State aid when applied to natural gas and electricity produced from a natural gas-fired power plant with CCS should be eligible for State aid, as should the production of low-carbon hydrogen from natural gas with CCS. Likewise, support relating to the reduction of emissions from production should equally be considered as eligible. Also, cogeneration as included in the current EEAG should be considered a means to reduce emissions and increase energy efficiency, and the review should therefore not limit the scope of eligible support for cogeneration.

Similarly, with respect to capacity mechanisms: IOGP does not consider capacity mechanisms subsidies as they ensure that security of electricity supply is not jeopardized. IOGP supports the Commission's approach on the assessment of capacity mechanisms which has been undertaken so far and which needs to be in line with existing legislation<sup>21</sup>. We are convinced that a close cooperation between the Commission and EU Member States will ensure that capacity mechanisms are well-designed and fit for purpose. In this context, natural gas-based power production (alone and in combination with CCS) should remain eligible to participate in capacity mechanisms.

## 5) Defining positive environmental benefits:

IOGP notes the desire to connect the State aid rules with the EU Sustainable Finance Taxonomy. The more the EU can steer investments towards the least-cost pathway to net-zero emissions, the further and faster it is likely to drive decarbonisation across Europe, maximising the EU's contribution to the delivery of the Paris climate goals.

We would like to highlight that the Taxonomy Regulation in itself does not exclude any particular activity. A list of "environmentally sustainable economic activities" will only be laid out in Delegated Regulations which are not yet finalised. It is therefore highly uncertain what economic activities will be considered "Taxonomy compliant" in the future. Likewise, the "Do No Significant Harm" principle will only be defined in the context of the same Delegated Regulations. Considering the legal uncertainty stemming from this, we advise against linking the State aid rules to the Taxonomy.

The Taxonomy, as proposed by the Technical Expert Group (TEG) in their March Report furthermore runs the risk of becoming a tool supporting a niche market for sustainable financial products<sup>22</sup>. In a recent study commissioned by the Federal Environment Ministry of Germany to assess major European firms against the EU Taxonomy, the European capital markets are found to offer limited investment options that comply with the proposed EU Taxonomy criteria. In the three main European indices under consideration, only a small share between 1% and 3% of total revenues is estimated to be taxonomy-aligned<sup>23</sup>. The EU Taxonomy, as proposed by the TEG, would therefore not drive emission reductions in a cost-efficient manner.

Setting too stringent thresholds to define environmentally sustainable economic activities could exclude relevant activities regardless of both their potential contribution to the transition and their ability to further improve their own environmental performance. Such an approach could result in excluding the most cost-effective solutions on the way to climate neutrality and, as a consequence, increase energy poverty rates, especially in those Member States which are heavily dependent on solid fossil fuels. IOGP therefore advocates for a Taxonomy which includes a set of transitional activities (including the use of natural gas) to facilitate a gradual and cost-effective approach to the energy transformation and which would efficiently incentivise all efforts to reach the EU's objective of climate neutrality by 2050. As regards CCS, the current draft Delegated Regulation for climate change mitigation and adaptation only considers as environmentally sustainable the transport of

<sup>21</sup> With reference to the Electricity Regulation [EU] 2019/943.

<sup>22</sup> TEG on Sustainable Finance (March 2020): [Taxonomy: Final Report of the Technical Expert Group on Sustainable Finance](#)

<sup>23</sup> adelphi & ISS ESG (2020): [European Sustainable Finance Survey 2020](#).

CO<sub>2</sub> by pipeline, and not by other transport modes. It is therefore uncertain how a linkage between the EEAG and the EU Taxonomy would impact on planned CCS projects in Europe which rely on other modes on transport than pipeline.

We would like to point out that the introduction of a reference to the Taxonomy Regulation in other EU documents should be compliant with principles resulting from the Better Regulation strategy. According to the Better Regulation Guidelines of the Commission, “EU action must lead to **a simple, clear, stable and predictable** regulatory framework for businesses, workers and citizens that continue to add value as problems evolve, new solutions emerge and political priorities change”.<sup>24</sup>

Moreover, according to the Joint Practical Guide for persons involved in the drafting of European Union legislation<sup>25</sup>, the first principle is that “legal acts of the union shall be drafted clearly, simply and precisely”. This notably means that the drafting of legal act must be “clear, easy to understand and unambiguous”. This is an expression of general principles of law, such as **legal certainty**, in that it should be possible to foresee how the law will be applied. Indeed, “According to case-law, the principle of legal certainty is a fundamental principle of Union law which requires, in particular, that rules should be clear and precise, so that individuals may be able to ascertain unequivocally what their rights and obligations are and may take steps accordingly. [...]”<sup>26</sup>. Additionally, according to Guideline 16 of the Joint Practical Guide cited above, it is specified that internal or external references to other acts should be kept to a minimum and that both internal and external references must be sufficiently precise to enable the reader to easily consult the act to which reference is made. As regards external references, it is specified that particular care must be taken when using them and that, in particular, the act to which reference is made should be sufficiently clear and accessible to the public. Therefore, according to the Joint Practical Guide, **an external reference should only be used if - the act referred to has been published or is sufficiently accessible to the public**. On this basis, it could be considered that introducing a reference to a Regulation for which the Delegated Regulations (setting the screening criteria opening eligibility for certain measures) have not yet been adopted would be contrary to the need for clear legislation and to the principle of legal certainty as it would not be possible to foresee how the Regulation would be applied, and in particular to which activities the law would apply.

**For the reasons outlined above, IOGP disagrees with the intention to link the Taxonomy Regulation with the State aid rules at this stage. Given this significant legal uncertainty, indeed, a case-by-case assessment of all environmental benefits is an appropriate approach when allocating State aid for selected activities.**

<sup>24</sup> European Commission, Commission Staff Working Document, Better Regulation Guidelines, 7 July 2017, <https://ec.europa.eu/info/sites/info/files/better-regulation-guidelines-better-regulation-commission.pdf>.

<sup>25</sup> Joint Practical Guide of the European Parliament, the Council and the Commission for persons involved in the drafting of European Union legislation.

<sup>26</sup> Judgment of the General Court (Second Chamber), 12 February 2014, Beco Metallteile-Handels GmbH v European Commission, case T 81/12, pt 68.