

## **Response to Consultation on the Inception Impact Assessment on the revision of the Guidelines on State Aid for environmental protection and energy**

*Equinor welcomes the opportunity to respond to this consultation and the intention of the European Commission to revise the current Guidelines on State Aid for environmental protection and energy 2014/2020 by the end of 2021. Equinor supports an increased EU climate ambition and the European Commission's efforts to put the European Green Deal at the heart of the post-pandemic economy recovery.*

*Equinor pursues the ambition to become a net-zero energy company by 2050. Our climate roadmap outlines a series of short, mid- and long-term ambitions to reduce our own greenhouse gas emissions and to shape our portfolio in line with the Paris Agreement.*

*As a major European energy supplier, Equinor is determined to contribute to cost-efficient decarbonisation of the EU's energy system. Our broad portfolio of offshore wind, carbon capture and storage (CCS) and low-carbon hydrogen projects offer scalable long-term decarbonisation solutions.*

### **Introduction**

The EEAG State Aid Guidelines have the potential to further accelerate the decarbonisation of the energy system by allowing Member States to offer proportional state funding for low-carbon technologies, including CCS, as well as low-carbon and renewables-based hydrogen. The Guidelines have played and will continue to play a key role in enabling the development of offshore wind projects and in supporting the scale-up of offshore wind technologies through technology-specific auctions.

Equinor is becoming an increasingly broader energy company with operations spanning across the gas, oil, offshore wind and solar markets with the clear climate ambition to become a net-zero company by 2050. Equinor is today part of several offshore wind, CCS and hydrogen (both low-carbon and renewables-based) projects in Europe. These projects are closely tied to the European energy network and require partly state funding to be realised. To contribute to an accelerated energy transition, Equinor relies on well-functioning energy markets, where state aid rules play a key role in addressing market failure.

We support the European Commission's intention to widen the scope of the current EEAG by organizing the updated rules around broader policy objectives, including the 2050 climate neutrality and the environmental protection goals outlined in the European Green Deal, the protection of security of supply and the prevention of industry relocation risks due to energy related charges.

The alignment of the updated EEAG with these priority objectives will enable further technological and market innovations in the future. At current we believe the EEAG are not sufficiently tailored for state-aid to be directed towards large-scale low-carbon gas projects (including for hydrogen), a view well reflected in both the Energy System Integration and Hydrogen Strategies presented by the European Commission. Furthermore, the EEAG should be revised in order to support the new ambitious targets for the deployment of offshore wind set out by the Offshore Renewable Energy Strategy.

Equinor has a strategic ambition to become a global offshore wind major and a leader in developing floating offshore wind. We actively seek new offshore wind opportunities across Europe. With the right regulatory framework in place, we believe that a target of 300 GW of offshore wind by 2050 is feasible. Key to success will be that EEAG continue to allow for proportional and targeted state aid, facilitating the deployment of offshore wind technologies and accelerating their industrial scale-up in a cost-effective way.

Although several players have made the argument that state aid support for certain bottom fixed offshore wind projects may no longer be necessary, it is our view that the use of revenue stabilization mechanisms by Member States will still be required to stimulate new investments in capacity.

The Inception Impact Assessment (IIA) on the revision of the EEAG presented by the European Commission outlines the intention to revise the rules governing the granting of investment and operating aid. In an uncertain future for the energy system, the role of operating aid will become increasingly important for investors' decisions. We consider that the updated EEAG should allow for greater flexibility in the granting of both investment and operating aid as individual categories of state aid. Greater flexibility will also be needed in the combination of both types of aid when awarding state aid for different types of projects.

The IIA also considers the possibility of introducing a requirement for Member States to identify the contribution of their state aid support to environmental protection, for example based on the EU Sustainable Finance Taxonomy. The EEAG and the EU Taxonomy regulation represent two separate sets of policy tools with a differentiated scope of application. The objective of the Taxonomy is to define which activities can be considered as environmentally sustainable for investment purposes, but it does not determine whether these activities can be financed or not.

We consider that, at this stage, it would be premature to align the EEAG and the EU Taxonomy as long as the latter is under development. The specific details of what is considered as an environmentally sustainable activity will only be outlined gradually over time as new technologies and new activities develop.

Furthermore, several sectors and technologies do not form part of the scope of the Taxonomy, nor are technologies equally assessed in terms of life-cycle assessment (LCA). Projects cutting across sectors and technologies are equally difficult to assess under the Taxonomy and such projects could have significant climate and environmental benefits that justify state support. It should therefore be possible for Member States to demonstrate that a specific aid measure supports environmental protection or climate change, even for activities falling outside the scope of the EU Taxonomy.

In order to turn the current EEAG State Aid Guidelines into a fully fit-for-purpose framework that enables a cost-effective reduction of greenhouse gases in the energy system and the deployment of decarbonized energy we recommend to address a number of topics in the areas of hydrogen, CCS and offshore wind. These topics are outlined and further explained in the following sections.

## **1. Low carbon-gases and hydrogen**

*Equinor is currently participating in several large-scale low-carbon and renewable hydrogen projects, including the H2M project in the Netherlands, the H2morrow Steel project in Germany and the NorthH2 in the Netherlands.*

*The H2M project aims to explore the conversion of the Magnum power station in the Eemshaven area from natural gas to low-carbon hydrogen by applying CCS technologies. The H2M project could represent the first step in developing hydrogen infrastructure in the region, which could be also used to produce and transport renewable hydrogen in the future.*

*Based on a consortium formed by Equinor, OGE and thyssenkrupp Steel Europe (tkSE), the H2morrow Steel project in Germany envisages to decarbonise the tkSE's steel production by using low-carbon hydrogen to produce clean steel. In a second stage, the project could be connected to the energy intensive industry cluster located in North-Rhein-Westphalia.*

*Equinor has also recently joined the renewables-based hydrogen project NorthH2 which will be located in the province of Groningen. The project will aim to produce renewable hydrogen by using renewable electricity from offshore wind off the coast of the Netherlands. The project envisages to achieve a capacity of 4GW by 2030 and to produce 1 million tonnes per year of renewable hydrogen by 2040.*

*To facilitate the granting of proportional state funding for large-scale hydrogen projects and to ensure the required support to address infrastructure needs, the revised EEAG should include a dedicated section on hydrogen and low-carbon gases. Following a technology-neutral approach, the definitions of low-carbon and renewables-based hydrogen to be introduced in the revised EEAG should be based on life-cycle*

*emissions criteria in order to create a level playing field for all low-carbon technologies. Below we provide a set of more detailed recommendations.*

### ***Enhanced alignment between the EEAG and internal gas market legislation***

State aid will be instrumental for the future development of major renewable and low-carbon gas projects, as well as for investments in the adaptation of the existing gas infrastructure. Therefore, the revised EEAG should be aligned with the upcoming revision of the EU internal gas market rules, as this revision will be aimed at establishing a regulatory framework for renewable and low-carbon gases that will also cover hydrogen.

### ***The revised EEAG should include specific guidance for hydrogen and low-carbon gases***

Although hydrogen could potentially be considered under the generation adequacy chapter (given the vast potential of hydrogen applications), hydrogen and low-carbon gases in general are not covered under any of the outlined sections of the EEAG.

Importantly, hydrogen and low-carbon gases are not included in the definition of energy infrastructure (part 1.3 item 31 only outlines the power, gas, oil and CO<sub>2</sub> networks). Without a definition of hydrogen energy infrastructure and considerations on support for hydrogen applications future, projects will be difficult to realise. An inclusion of hydrogen in the updated EEAG should naturally ensure consistency with other key pieces of legislation.

### ***The revised EEAG should comprise definitions for various forms of hydrogen based on life-cycle emissions criteria and a technological neutral approach***

Following a technology neutral approach, aimed to create a level playing field for low-carbon technologies, the definition of low-carbon and renewables-based hydrogen should be based on life-cycle emissions criteria. This balanced and inclusive approach will be necessary to enable the scale-up of the most promising technologies and achieve a cost-competitive decarbonization of the EU energy system.

### ***GHG abatement should become the primary evaluation criterium for granting State aid***

GHG abatement should become one of the most relevant criteria for granting State aid under the revised EEAG. While mentioning GHG abatement, early adaptation to Union Standards and future Union Standards as three important indicators to assess the contribution of a project to decarbonization (Part 3.2.1.2 item 33), these criteria are merely considered as secondary. Making GHG abatement a primary evaluation criterium for granting State Aid would contribute to encouraging Member States to prioritize low-carbon energy infrastructure and generation adequacy projects.

### ***The review of EEAG should be coordinated with the revision of the IPCEI Communication***

The Important Projects of Common European Interest (IPCEI) Communication's eligibility criteria should be clarified and aligned with the content of the updated EEAG State Aid Guidelines in order to ensure that there are no contradictions between both instruments when evaluating future IPCEIs.

A coordinated revision of both sets of EEAG and Important Projects of Common European Interest (IPCEIs) State Aid Guidelines would contribute to create conditions to remunerate cost-efficient, scalable hydrogen solutions and related network infrastructure development based on their GHG emissions reduction potential.

### ***To ensure that the levels of investments are aligned with the energy and climate targets, the revised EEAG should include a fast track procedure***

The new revised EEAG Guidelines should promote, enable and accelerate large-scale low-carbon and renewable hydrogen projects. Given the timeframe the EU has given itself to reduce GHG emissions in 2030 and reaching net-zero emissions in 2050, expeditious action to advance industry scale projects is needed. A fast track procedure for advancing large scale projects would be a welcome feature of the revised EEAG.

## ***The revised EEAG should allow for a wider range of circumstances and business models for low carbon and renewable hydrogen projects***

The updated State Aid rules should provide a more comprehensive and flexible response to emerging and innovative business models for both low-carbon and renewable hydrogen projects. This could involve state aid for operational expenditures, e.g. by Carbon Contracts for Difference (CCfDs), providing compensation for uncertainty for an early investment decision, and operating aid for industries which are exposed to international competition.

## **2. CCS**

*Equinor is currently involved in the Northern Lights CCS project, which comprises transportation, receipt and permanent storage of CO<sub>2</sub> in a reservoir in the northern North Sea. This project is included in the 4<sup>th</sup> Project of Common Interest (PCIs) list. Northern Lights is part of the Longship project, which is supported by the Norwegian State and also includes capture of CO<sub>2</sub> from one or two industrial capture sources in Norway.*

*We consider that the current definition of CO<sub>2</sub> energy infrastructure under the current EEAG (part 1.3 item 31.d) should be further extended to also include transport of CO<sub>2</sub> by waterborne solutions and other means of transport, such as rail or truck, in addition to pipeline networks.*

*Similarly, while State aid is allowed for the transport of CO<sub>2</sub>, there is not a clear definition of CO<sub>2</sub> transport modes under the chapter on aid to CCS (part 3.6 item 164) and it is unclear whether waterborne solutions and other alternative means to transport CO<sub>2</sub> can receive state funding.*

*If the current definition is not amended accordingly in the revised EEAG, CCS projects based on shipping solutions could face serious difficulties to access public funding. Projects relying on transport of CO<sub>2</sub> from industrial clusters to storage sites by rail or truck would also face the same problem.*

*We propose the following additional recommendations in order to upgrade the current EEAG to match the future expectations of new CCS projects in Europe and to reflect the full decarbonisation potential of CCS technologies applied to industrial clusters.*

### ***The current level of allowed investment aid intensity should not be modified***

The revised EEAG should continue to acknowledge the importance of CCS technologies for decarbonization, while also highlighting their carbon sink potential.

In the case of CCS and energy infrastructure projects, the revised EEAG should continue to allow for investment aid covering up to 100% of the eligible costs, as reflected in Annex I.

### ***The definition of CCS should be broadened to include any carbon source that can be captured***

The current definition of CCS under the EAAG only refers to CO<sub>2</sub> captured from industrial plants based on fossil fuels and biomass (part 1.3 item 33). The revised EEAG should widen this definition to incorporate any carbon source that can be captured, such as natural gas reforming plants or direct capture from air.

### ***The revised EEAG Guidelines should reflect that the focus of new CCS projects is now on industrial clusters***

The revised Guidelines should reflect that the design and focus of new CCS and CCS business models projects have shifted from single emission sources to industrial clusters linked with CCS hubs. As in the case of hydrogen projects, this new focus should be also addressed through specific measures.

## **3. Offshore wind**

*Amongst others, Equinor's European offshore wind portfolio consists of projects in the United Kingdom, Poland and Germany. These projects include the development of the world's biggest offshore wind farm in*

*the Dogger Bank region of the North Sea and access to acreage in the Baltic Sea that positions Equinor as a leading developer of offshore wind in this maritime region.*

*Equinor has taken a leading role in developing floating wind since early 2000. We are now building the world's largest floating offshore wind farm as part of the project Hywind Tampen in the Norwegian North Sea, whose commissioning is expected for 2022. Equinor is also actively pursuing opportunities for floating wind in a number of European countries.*

*To ensure that state aid rules continue to fully support the deployment of offshore wind technologies and to contribute to the development of less mature technologies, we consider that the updated EEAG should incorporate the new level of ambition outlined in the Offshore Renewable Energy Strategy. The revised EEAG should be also aligned with the upcoming revision of the Renewable Energy Directive in the context of the 2030 climate target plan.*

*The revised EEAG should ensure that the state funding support provided by Member States contributes to accelerate and scale-up the development of floating offshore projects in Europe through technology-specific auctions.*

*We also consider that the updated EEAG should ensure that the required means to facilitate the development of hybrid (cross-border) offshore wind projects are in place.*

*Below are our recommendations for ensuring that the revision of the EEAG will contribute to further accelerate the development of offshore wind in a cost-effective and sustainable manner.*

#### ***The revised EEAG Guidelines should continue to allow for technology-specific auctions***

By maintaining the provisions covered by part 3.3.1 item 110, the revised EEAG would continue to open up for developing both bottom fixed and floating offshore wind through technology-specific tenders based on revenue stabilization mechanisms.

Technology-specific tender design is particularly well suited for the selection procedure to fit with the different characteristics of offshore wind technologies. At the same time, such designs provide an excellent opportunity for incentivizing the parallel development of hybrid cross-border offshore projects and further maturing the regulatory framework.

During the pre-commercialization stages, technology-specific auctions will be particularly key to further reduce the cost of deploying floating offshore wind, while also ensuring that floating wind technologies become cost-competitive compared with bottom-fixed technologies.

#### ***The existence of revenue stabilization mechanisms for offshore wind projects should be ensured***

When addressing market design aspects, the revised EEAG Guidelines should allow Member States to use revenue stabilization mechanisms to incentivise investments in renewable energy. With an increasing share of low carbon sources with very low short run marginal cost, it is important to ensure that market mechanisms are stimulating new investments in capacity. Therefore, relying on a merchant market will not be able to fulfil the decarbonization objectives. Market mechanisms that offer revenue stabilization (such as CfDs) will continue to be important for de-risking projects and allowing for investments to take place.

#### ***In order to be aligned with the objectives of the Offshore Renewable Energy Strategy, the updated EEAG should ensure that the mechanisms in place can provide support to cross-border hybrid offshore wind projects***

The current EEAG do not explicitly cover cross-border renewable energy projects and there are not well-defined rules addressing the amount of state funding that could be allowed for this type of projects. Given the complexity and transnational aspect of this type of projects, state aid needs to play an essential role in supporting the financing of these projects in their early stages.

The only mentioning of a cross-border dimension is made in reference to cooperation mechanisms under the Renewables Energy Directive (RED), aimed to facilitate cross-border support for achieving national targets (part 3.3.1 item 122). This section should also include a reference to the recently adopted Renewable Energy Financing Mechanism, which will be functioning from January 2021 and will play an essential role on the future development of cross-border hybrid offshore renewable energy projects. Therefore, the revised EEAG Guidelines should be aligned with the Renewable Energy Financing Mechanism.

***The updated EEAG should ensure that it is possible to have well-designed national schemes in place***

The combination of future and existing national schemes providing state funding support with wider EU funding mechanisms is essential to ensure the development of offshore wind projects across EU Member States.

The national schemes are key in the initial phases of industrial scale-up until projects become cost-competitive. Improved coordination and planning of national tenders can ensure a stable pipeline of offshore wind projects. The revised EEAG should therefore enable the development of well-designed national schemes aimed to support offshore wind projects during the first stages of development.

***The use of CfDs for allocating support to offshore wind projects should be enabled***

The current EEAG Guidelines do not explicitly address the role of Contracts for Difference (CfDs) and only address green certificates in part 3.3.2.4.

The use of two-sided CfDs is essential to ensure low project financing costs that will result in lower breakeven prices for offshore wind projects. CfDs provide a series of important benefits, including long-term revenue certainties for investors and reductions on the cost of financing, while they also minimize the amount of subsidies provided by Member States and allow for cost reductions on the deployment of offshore wind. Therefore, the revised EEAG should allow for state support to offshore wind projects in the form of two-sided CfDs.

***In the case of low competition, the revised EEAG should allow for the granting of aid without a competitive bidding process***

Although the granting of State aid on the basis of competitive tendering process should be the norm, the updated EEAG should also continue to provide a solution for those cases when there is a lack of projects competing for the award of State aid. In these cases, the revised EEAG should allow Member States to award State support directly to individual projects, without the need of holding a competitive bidding process.