Transparency register 90947457424-20

7 January 2021

EEAG consultation Questionnaire – Additional explanations

As the questionnaire does not allow to add comments for several questions, additional explanations are provided in this companion document.

Please refer also to our response to the Inception Impact Assessment, which lays out our reasoning why financial support is needed for different technologies, and this basically through a technology-specific approach.

1. Additional comments on Q23 (Should aid be allowed for the following areas):

- **Renewable electricity production** continues needing some form of support / revenue stabilization (for instance through 2-sided CfDs), due to an inappropriate market design and the expected/possible gap between market revenues and full costs. As the market design does not provide sufficient long-term certainty for investors, a pure merchant approach will not bring forward the necessary volumes to achieve political targets.
- The term ***renewable heating and cooling*** is very large and can comprise many different solutions ranging from larger, more centralized plants feeding into district heating and cooling networks, up to individual boilers in buildings or industry. Our answer refers mainly to heating and cooling plants connected with district heating/cooling networks.
- **Renewable and low-carbon hydrogens** are a typical example of new technologies which have not been supported in the past and require new forms of aid, based on technology-specific approaches (see point 4. Principles for supporting hydrogen), in particular to support their development on a large scale.
- **Other renewable gases, notably biomethane** produced from anaerobic digestion or pyrogazification, syngas and e-methane, are key solutions (albeit with different degrees of maturity) to decarbonize not only transport but also power generation, heating & cooling and industrial processes. As they have not benefitted from systematic support in past, their development needs to be kickstarted or accelerated through appropriate schemes to help contributing to the renewable/decarbonization targets.
- **CCS / CCU** should be supported under the condition that significant GHG reduction can be achieved. Deployment of CCUS should be focused on sectors with no economic alternatives for decarbonisation (e.g. cement and gas fired generation depending on availability of green gases) and to achieve negative emissions (capture of emissions from biomass combustion, in particular from biomethane-fired generation). Moreover, the valorization of the CO2 captured from biogas production should be promoted. Different valorization pathways include direct

use of CO2 in vegetable growing, food production, cooling, or as a feedstock for industry e.g. in construction or chemical industry, or to produce synthetic methane/fuels.

- Although **capacity mechanisms (capacity markets and strategic reserves)** are currently submitted to state aid approval by DG COMP, one should keep in mind that well-designed competitive capacity markets (open to generation, storage, demand response and cross-border participation) are complementary to the short-term energy markets and provide long-term visibility for investors. Unless they are becoming an integral part of the electricity market design, capacities needed to ensure security of supply should still benefit from state aid schemes.
- As regards **support to the transport sector** (alternative fuels, vehicles, charging and refuelling infrastructure): The climate impact of these options must be taken into account on a well-to-wheel or lifecycle basis. Refuelling/recharging infrastructure is not "fossil" ,"renewable" or "low-carbon" per se, it is neutral and necessary to recharge/refuel vehicles with (increasingly) renewable or low-carbon electricity or fuels such as bioCNG/bioLNG, renewable or low-carbon hydrogen, etc.

2. Principles for support to hydrogen:

- The need for support to renewable and low-carbon hydrogen will depend much on the technology and specific circumstances of each project. **State aide guidelines should therefore allow for different schemes** (such as "classical CFDs" for H2 producers, CCFDs which seems to be more targeted towards (industrial) users of hydrogen, investment support to electrolysers, investment support to carbon capture facilities, etc.). More generally, the guidelines should refrain from introducing rigid rules and stiff categories and should allow Member States to propose novel instruments.
- Renewable H2 is not yet competitive with other low-carbon H2 but is expected to experience **major cost reduction if it can reach economies of scale**. Moreover it has specific advantages: It can help to better integrate renewable in the system, produce renewable gas and e-fuels, it avoids the use of CO2 storage capacities which will, by essence, be limited, it has been identified as a European strategic value chain with a clear contribution to economic growth, jobs and competitiveness. It is therefore key to allow **dedicated support to renewable H2 via technology-specific approaches, which will enable the deployment of renewable H2 at the same time as the development of low carbon H2.**
- **Non-renewable, low-carbon hydrogen can play an important role as well,** to kickstart the hydrogen market and to decarbonize, for instance, existing uses of unabated hydrogen. It should therefore be able to benefit as well from financial support to the extent needed (e.g. support to CCS).
- **Since the development of renewable H2 and low carbon H2 is just starting, exemption from competitive bidding can be justified,** also because in an initial stage other criteria should be

taken into account (such as renewable vs non-renewable H2, safety of the equipment, technical and financial capabilities of the project promoter, ...). Competitive tendering can be phased in at a later stage.

- Generally, **a big share of the cost of renewable hydrogen production is related to OPEX** (renewable electricity supply, possibly network tariffs and taxes). As long as renewable hydrogen is in its deployment phase, these should be covered by support mechanisms as well, in addition to CAPEX support. Alternatively, exempting electrolysers from (parts of) these charges and taxes should be considered under strict conditions and for a limited time horizon.
- When it comes to the **conditions for hydrogen to qualify as "renewable",** a very strict framework (which for example limits admissible running hours for hydrogen, as proposed in the Netherlands) may hinder uptake and development of a technology that will be needed in the future. Therefore, some leeway should be possible, under condition that future positive effects offset the short-term negative effects. This issue will also be addressed in a **delegated act under the Renewable Energy Directive.** It is essential to avoid cumulating too many constraints on renewable hydrogen (see on-going discussions on RED II delegated acts, taxonomy..), otherwise it would threaten the development of renewable hydrogen and counteract the ambitions of the EU on renewables.
- Next to the production of hydrogen **also investment in H2 transport and storage** must be facilitated, and, if needed, financially supported through state aid. This question is also related to the future H2 market design and regulation of H2 infrastructure.

3. Operating aid vs investment aid:

ENGIE believes that it would be important to clarify the concepts of "investment aid" and "operating aid". Indeed, these concepts are not really defined in the current EEAG guidelines, nor in the GBER. In particular, there isn't necessarily any one-to-one mapping to the cost structure (CAPEX, variable OPEX, fixed OPEX,…) of the projects benefiting from state aid. The aids received, being investment and/or operating aids, might cover several elements in the cost structure.

When **aid is expressed in variable terms** (e.g. in EUR/MWh), the aid is made proportional to the operation or production of the project. As such, this aid has therefore the appearance of an **operating aid** – additional operation yields more aid received. However, this aid could nevertheless be related to investments costs (CAPEX) and necessary to trigger/support new investments. For instance, this is the case of contracts for differences supporting renewable electricity generation. In other words, an aid expressed in variable terms could nevertheless be related to an investment incentive and therefore be an **investment aid**. However, in this case, such an aid is *prima facie* expressed in variable terms, it is very often associated to the terminology of "operating aid". This is the approach that we have also followed in our answer to the consultation - **we consider "operating aid" as any aid paid out in EUR/MWh, which de facto can also cover investment cost (as is the case with CfDs for renewable electricity for instance).**

When **aid is expressed in fixed terms** (e.g. in EUR/MW), the aid is not related to the operational performance of the project. In particular, it does not give directly more incentives to increase the operation of the assets (which is the initial rationale of support for renewable electricity generation expressed in variable terms in order to incentivize the production of electricity volume). Such an aid is therefore adapted to cover CAPEX or fixed OPEX and facilitate the development of an economic activity through investments (new assets, but also existing ones through major overhauls). For instance, this is the case of capacity markets, which are meant to reward availability of capacity rather than production of volumes. As such, this aid has therefore the appearance of an **investment aid**.

4. Funding gap vs aid intensity approach

There is no "one size fits all" approach.

The **funding gap approach** seems interesting for larger and more complex projects. It seems to allow to consider **all relevant revenues and expenses (including OPEX and amortization of CAPEX) of a project,** which is less clear in the case of the aid intensity approach. From the point of view of a utility, which is making business cases for its investments, the funding gap approach could be a good option as it is likely to ensure an appropriate level of support, although certain risks remain related to forecasts on prices and volumes.

As regards **aid intensity**, it seems to be an **adequate approach for smaller or standard projects where a counterfactual is already provided**. Aid intensity depends on the type of project and circumstances. Making aid intensity dependent e.g. on the size of the enterprises or on the development level of the territory hosting the project (assisted areas) – as currently the case – seems less relevant. We would rather consider that it should be possible to **apply higher aid intensities, for instance, to reward projects for their positive externalities** for the environment or for the overall energy system, going beyond the direct impacts of the solution.

5. Specific comments related to district heating and cooling and our experience with aid intensity approach in this area

Additional comments on Q26:
For some projects that will be required for rolling out the strategy on energy system integration and for contributing to the decarbonization targets, like e.g. waste heat projects, investment aid has proven to be insufficient in the past. In order to develop waste heat use, in particular in district heating and cooling projects, operating aids in the form of guarantee funds should also be allowed to compensate the risk of resource disappearance or intermittency. Such aids would be granted to DHC operators to replace or complete waste heat resources.

Additional comments on Q49:
Aid intensities for renewable heating and cooling as well as district heating and cooling are not sufficient enough to reach national targets. In France, district heating only represents 5% of the total heat supply. As district heating and cooling networks are being recognized nationally as a solution that

can boost the energy transition, the sector is expected to grow in the near future given the ambitious target set in the 2015 French Energy Transition Law. The objective set out in this law is to multiply five times the quantity of energy delivered by renewable and recovered sources by 2030 (compared to 2012), ie. from 7,9 to 39,5 TWh. However, because of the limited maximum intensity of State Aid in UE for renewable energy production connected to a district heating network and the low price of fossil energies, the effective stage of development of efficient district heating in France is, in 2020, 3 times below expectations. The limited aid intensity doesn't indeed allow projects to be financially sustainable for operators.

Additional comments on Q50:
As regards renewable heating and cooling investments, state aid guidelines set different aid intensities depending on the size of the beneficiary. Such distinction is not appropriate considering it has no effect on the applicable counterfactual and on the costs of investments. We strongly encourage the Commission to review such distortion.