

Response to draft ‘Guidelines on State aid for Climate, Environmental Protection and Energy 2022’

Solar Heat Europe (SHE) welcomes the European Commission’s revision of the *Climate, Energy, and Environmental Aid Guidelines (CEEAG)*. The provisions in the Guidelines for renewable energy generation are generally positive, however certain parts of the proposal should be revised to ensure an equal treatment of all renewable energy vectors.

The proposal needs to ensure a fair approach to state aid between the renewable power sector and the renewable heating sector (solar thermal, geothermal, heat pumps, bioenergy). Furthermore, in order to diversify the EU’s energy sources, meet our climate targets, and ensure fair competition, Solar Heat Europe proposes the following changes:

- Guidelines need to be more explicit, especially for renewable heating and cooling solutions, given their share of energy consumption and their potential for rapid decarbonisation.
- The threshold applied to the exception from competitive bidding for renewable heating and cooling needs to be increased, reflecting the relevance and specificities of this renewable vector.
- The Method and estimate of subsidy per tonne of CO₂ equivalent emissions avoided needs to be based on fair and solid parameters.
- The consultation for measures below 150 million Euros should include also the Method and estimate of subsidy (based on CO₂ savings).
- The renewable-specific criteria to assess key principles¹ is welcome and is generally fit-for-purpose.
- The preservation of tech-specific auctions and the respect for the specificities of demonstration projects will be key to developing new sources of renewable energy and ensuring a more efficient and coordinated system with lower overall costs.
- The options for aid shall consider pre-project costs, such as feasibility studies or other preparatory studies and work.

¹ ‘Necessity’, ‘appropriateness’, ‘avoidance of undue negative effects’ and ‘positive versus negative effect’

Proposals

State aid must clearly benefit the most renewable and energy efficient solutions

In order to promote a faster deployment of renewable solutions, the draft must clearly prioritise renewable and/or energy efficient solutions.

In order to avoid lock-ins of polluting technologies, the draft must clearly prioritise the most sustainable and energy efficient solutions, whilst also ensuring some funding for transition technologies to preserve competition.

Solution – Amend Paragraph 134 as follows:

Paragraph 134: '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 in 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, to this end Member States shall direct state aid to renewable heating and cooling equipment where available, promoting the transition away from fossil-fuel-only equipment. As part of its assessment the Commission will consider whether the natural gas-fired equipment is installed in combination with renewable heating and cooling, and whether the combination replaces energy equipment using the most polluting fossil fuels, such as oil and coal'

The Guidelines must offer further granularity of detail regarding renewable heating and cooling technologies

Paragraphs 115, 116, 117 and 118 define the conditions and thresholds under which aid may be granted for the improvement of the environmental performance of buildings.

Paragraph 115 is unclear on the scope of the aid regarding the improvement of energy efficiency of individual buildings versus the overall network of buildings in a given Member State. In order to ensure a fast transition to renewable heating and cooling, aid should be granted to individual buildings which transition to renewable and energy efficient alternatives.

In addition, the line between renewable heating and cooling (RES-H&C) and energy efficiency measures is blurred. While paragraph 116 grants aid for the "installation of integrated on-site renewable energy installations generating electricity, heat or cold", paragraph 117 grants aid for the "improvement of energy efficiency of the heating and cooling equipment inside the building". This creates funding uncertainty for solar thermal technologies on their own, as it creates a gap in the scope of the aid.

Solution – Amend paragraphs 115 and 116 as follows:

Paragraph 115: "Aid may be granted for the improvement of the energy efficiency of individual buildings without prejudice to district heating systems as laid out in Section 4.10".

Paragraph 116 (a): “the installation of integrated on-site renewable energy installations generating electricity, heat or cold. Aid shall be granted to single or combined renewable energy solutions which deliver on greenhouse gas emissions in line with the EU’s 2030 and 2050 targets”.

Higher threshold for exemption of competitive bidding to allocate aid

Renewable heat is essential to the decarbonisation efforts. This energy vector has one very particular specificity: it is eminently decentralised by nature. The effort to implement renewable heat solutions at local level is already quite high, but it could become overwhelming if a requirement for competitive bidding would be set for sizes as small as 400 kW.

Renewable heat can be applied to industrial process, to commercial buildings (such as shopping centers) or social amenities, where installations above that dimension (400 kW) are usual and shall become common in the future. The local dimension of renewable heat is essential to recognise that state aid attributed to such projects is unlikely to disrupt competition, in particular when compared to larger, centralised, renewable power generation projects.

In brief, the decentralised dimension of these solutions and the benefit they bring to the decarbonisation of the heat sector, to air quality, and the extremely positive economic impact at local level, are enough to justify that the threshold for this requirement is set at 4MW.

Solution – Add new paragraph 92 (b) (iv) as follows

(b) "beneficiaries are small projects defined as follows:

(iv) *for renewable heat generation technologies - projects below ~~400kW~~ 4MW installed capacity"*

Method and estimate of subsidy per tonne of CO₂ equivalent emissions avoided

The comparison of options based on CO₂ savings needs to be based on fair and solid parameters, considering also that several Member States have declared their intention to drastically increase their share of electrification of sectors such as heating and transport.

To this end, the definition of “CO₂ equivalent emissions avoided” should be clarified to ensure that nor renewable power nor renewable heat benefit from an unfair calculation advantage over the other. For instance, if the CO₂ savings of a solar thermal heat project are assessed based on the CO₂ emissions from gas it will be in disadvantage with a solar PV project that is assessed based on the CO₂ emissions from the power sector, which are usually considerably higher than those of gas used directly for heating.

Based on Member States’ intentions to pursue the electrification of the heating sector, such difference of criteria provides as unfair advantage to renewable power solutions over renewable heat.

Therefore, we ask for the use of methods that ensure the same comparison parameter for both power and heat, as these will solidify evidence-based selection of renewable projects, it will exploit the EU's diverse renewable energy technologies, and will align the current draft with the EU's competition objective of "ensuring fair and equal conditions for businesses, while leaving space for innovation".

Solution – Amend paragraph 85 (a) as follows

(a) "For measures where the estimated average annual aid to be granted is >EUR 150 million per year, a public consultation of at least 8 weeks' duration, covering:

(ii) an equal greenhouse gas emissions reduction calculation method for all energy vectors and/or an estimate of subsidy per tonne of CO₂ equivalent emissions avoided (per reference project).

Considering CO₂ equivalent emissions and energy output assessments in public consultation for lower investment threshold

CO₂ emission savings are a relevant parameter to assess needs to be based on fair and solid parameters. As referred above, these should also ensure fair competition between different renewable vectors, such as power and heat.

As such, the consultation for measures where the estimated average annual aid to be granted is < EUR 150 million per year should also include the method and estimate of subsidy per tonne of CO₂ equivalent emissions avoided (per reference project), as is already foreseen for measures above the referred threshold.

Solution - New sub-paragraph in Paragraph 85 (b)

(ii) an equal greenhouse gas emissions reduction calculation method for all energy vectors and/or an estimate of subsidy per tonne of CO₂ equivalent emissions avoided (per reference project).

Public consultations should be evidence-based and focused exclusively on competition-related issues

Section 4.1.3.4 requires a public consultation for renewable energy projects requesting annual aid > 150 M EUR covering six points listed under 85 (a). Renewable projects already must undergo significant due process and consultation before deployment. This requirement risks slowing down the deployment of renewables, by allowing opponents and additional channels to block and delay projects.

To avoid this, the Guidelines should make clear that the consultation is exclusively focused on competition issues and must gather evidence – and primarily quantitative evidence – on competition

impacts. It should also ensure that the method to estimate subsidies per tonne of CO2 equivalent emissions is the same for all energy vectors, to avoid unduly benefiting already established players.

Submissions advocating a certain approach should be assessed on the quality of their evidence, not on the number of submissions received. Member States should be free to integrate the questions into existing consultation processes. Furthermore, the public consultation process must ensure a level playing field among energy producers.

Solution – 2 new Paragraphs in Sec 4.1.3.4

'Member States are required to address submissions which are directly related to competition issues. Member State responses should focus on material arguments which are substantiated by evidence. The volume of supportive or opposed responses is secondary to the weight of evidence of the concerns raised'

'Member States may undertake a dedicated public consultation exercise, or integrate the criteria of Paragraph 85 (a) or (b) into a wider consultation exercise, so long as this exercise meets the requirements of Section 4.1.3.4. These criteria must ensure a level-playing field among energy vectors in order to fully exploit the rapid deployment of renewable energy vectors while protecting fair competition'

Guidelines should be clear that there is no question of retroactive changes to renewable energy support

Paragraphs 53 and 84 refer to possible ex-ante claw-back mechanisms and revisions of support in situations where future financial developments are unclear and considering market and technology developments.

It should be made unambiguously clear that these paragraphs do not foresee retroactive changes in support that has already been granted.

The 2018 Renewables Directive states that *“policies supporting renewable energy should be predictable and stable and should avoid frequent or retroactive changes. Policy unpredictability and instability have a direct impact on capital financing costs, on the costs of project development and therefore on the overall cost of deploying renewable energy in the Union. Member States should prevent the revision of any support granted to renewable energy projects from having a negative impact on their economic viability.”*

Paragraph 84 should link to the Energy Union, and the monitoring undertaken within it concerning technological progress.

Solution –Paragraph 53

'Where a competitive bidding process is not used and future developments in costs and revenues are surrounded by a high degree of uncertainty and there is a strong asymmetry of information, the Member State may be required to introduce compensation models that are not entirely ex ante. Instead, these models are a mix of ex ante and ex post or introduce ex post claw-back or cost monitoring mechanisms, while keeping incentives for the beneficiaries to minimise their costs and

develop their business in an efficient manner over time. The terms of any ex-post claw-back mechanism – including the sums to be clawed back and the circumstances in which this would occur - should be clearly established and communicated before the award of the aid. Compensation models based on incomplete, incorrect or outdated information shall aim at their correction, re-evaluation and if applicable, reversion.”

Solution –Paragraph 84

‘Member States should keep eligibility rules and any rules related thereto under review to ensure that reasons provided to justify a more limited eligibility continue to apply for the lifetime of each scheme, that is to say, to ensure that any limitations on eligibility can still be justified when new technologies or approaches are developed or more data becomes available. Once the Commission agrees on the admissibility of an aid or an aid scheme, the scheme will not be modified to the detriment of the beneficiary. Information from Member States on technology progress will be included in reporting on the fifth dimension (R&I) of Energy Union in the annual State of the Energy Union, which will be the basis for the Commission to take a view on a technology’s maturity and its innovative quality.

The Guidelines must cater for pre-project development work which are standard in renewable energy projects.

Paragraphs 28 and 30 indicate that the ‘incentive effect’ principle will be in doubt if work takes place prior to a written aid application by the beneficiary to national authorities.

However, it is normal for project development activities to take place, prior to the application for support for a renewable energy project. Examples of such activities include feasibility studies, site surveys, environmental impact studies, Front End Engineering Design studies, or engagement with grid operator.

Often this work is a necessary pre-condition to apply for funding. For example, the Commission’s Innovation Fund considers progress in these activities when assessing a project’s maturity.

Project developers do this work at their own risk - and are compensated via margins on successful projects. Such work is not an indication that a project would have happened in the absence of aid.

Solution - New Paragraph 30 (d)

‘activities undertaken are a pre-requirement which beneficiaries must complete before being eligible to apply for aid, or the activities are small relative to the overall costs of the overall activity – e.g. the development costs associated with renewable energy projects, such as feasibility studies, site surveys, securing grid connection, Environmental Impacts Assessments’

The Guidelines should not require a disproportionate amount of paperwork

Paragraph 98 and paragraph 85 (a) (ii) request a detailed calculation of the CO₂ equivalent emissions saved by a renewable energy technology. Similar calculations are required for the ETS Innovation Fund applications. They are non-trivial. Requiring such calculations is disproportionate because savings of CO₂ equivalent emissions will often be only one criterion influencing an award of State aid – as listed in Paragraph 83 (a) to (f). In turn, this will lead to state aid imbalances among RES energy vectors, which will slow the deployment and diversity of renewable energy.

Solution – Amend paragraph 98 as follows

*~~The subsidy per tonne of CO₂ equivalent emissions avoided~~ Where aid will be awarded solely on the basis of greenhouse gas emissions reduction and/or subsidy per tonne of CO₂ equivalent emissions avoided, this quantity must be estimated for each beneficiary or reference project, and the assumptions and methodology for that calculation provided. To the extent possible, this should seek to identify the net emissions reduction from the activity, taking into account life-cycle emissions created or reduced. To enable **an equal and evidence-based** comparison between the costs of different environmental protection measures, the methodology should ~~usually be similar for all measures promoted by a Member State~~ be the same for all energy vectors, and all measures promoted by a Member State.*

Demo projects should not be crowded out of the State Aid process

Demonstration projects are bespoke and often not suited to schemes. This means that they often need to be individually notified. But demo projects are very small. Member States will be dissuaded from innovating if demo projects of several MWs have to undergo the same notification process as multi-GW projects.

The Guidelines should allow notified demo projects – if accepted by the Commission as genuine demo projects – to be subject to reduced requirements. If the Commission does not consider a notified project to be a ‘demonstration project’ then that project must meet all the standard requirements of a normal renewable energy project.

This will allow the Commission to concentrate its resources on those larger projects which require more consideration. It will avoid undermining Member States’ incentive to innovate via demonstration projects.

It is already extremely challenging to deploy demonstration projects. They are higher-risk and so it is more challenging to secure financing. It is much harder to deploy new technologies which do not readily fit within existing planning and legal frameworks.

A balance between new and already deployable energy technologies, such as solar thermal energy, will be critical if Europe is to decarbonise. The new Guidelines can facilitate the scale-up of these technologies, without undermining wider competition.

Solution – 1 new Paragraph in Sec 4.1.2

'For activities, which are notified and accepted by the Commission as satisfying the definition of a 'demonstration project', the Commission will, in principle, presume:

- (i) the activities satisfy the requirements for the 'Appropriateness' and 'Necessity' principles;*
- (ii) that it is an economic activity with positive effect for society and the environment, which is relevant for specific Union policies;*
- (iii) there are no undue negative effects on competition and the level-playing field among renewable energy vectors*

These activities will be assessed exclusively on whether they satisfy the definition of 'demonstration project' and are in line with the criteria for the 'proportionality' and 'incentive effect' principles'.

The requirement to undertake a public consultation need not apply to demonstration projects

Section 4.1.3.4 requires a public consultation on competition impacts prior to notification of renewable energy projects.

Demonstration projects are very small and will never have more than a negligible impact on competition. If the Commission accepts a notified project as being a demonstration project, then there should be no need to undertake a public consultation.

It is already extremely challenging to deploy demonstration projects. They are higher-risk and so it is more challenging to secure financing. It is much harder to deploy new technologies which do not readily fit within existing planning and legal frameworks. Any extra regulatory requirements should be avoided, unless they have a clear and relevant rationale.

Solution – Paragraph 86

'No public consultation is required for measures falling under point 85(b) where the aid is notified and accepted by the Commission as supporting a demonstration project or where competitive bidding processes are used and the measure does not support investments in fossil-fuel based energy generation or industrial production '

The new Guidelines unnecessarily increase the risk facing demonstration projects

The 2014-2020 Guidelines exempt demonstration projects from:

- the requirement that aid be a premium on wholesale prices;
- standard balancing responsibilities; and
- the requirement that there be no incentive to generate during negative prices.

This was not preserved in the new Guidelines.

It is already extremely challenging to deploy demonstration projects. They are higher-risk and so it is more challenging to secure financing. In practice, additional regulatory risk will translate into a great cost for the public – either via grants or via the higher return than private investors will require to participate in the project.

In line with the [Innovation Principle](#), the new Guidelines should avoid imposing additional risks on demonstration projects.

Solution – New Paragraph in Section 4.1.4

'The conditions established in Paragraph 104 do not apply to aid for projects which the Commission has accepted are demonstration projects'

Aid specifically for Open Data

The CEEAG must support the Commission's [Open Data agenda](#), i.e. support the sharing of high-quality raw data relating to activities in the scope of CEEAG. Knowledge- (including data-) sharing is a positive externality: it allows companies to learn from others' experiences.

Companies may be reluctant to share data. Data may first be shared in private groups on reciprocal terms and only later companies may choose to make data available to large groups or the public.

In the absence of a marketplace for datasets, the value of a particular dataset is difficult to determine. Support must take consideration of the publicness of the shared data and how unfamiliar a sector is with sharing (if the community sees the value and does it readily, the need to stimulate sharing with state aid is reduced). No aid should be given to comply with data sharing obligations that are already part of an aid package to a company.

Solution – new paragraph 104a

Aid may be granted to companies for the sharing of high-quality data that they own the rights to relating to the operation of a renewable energy plant. Details on the dataset and on the company's intention of the way it will share it will be communicated on a Member State's official public website. The public and a group of independent experts will give their opinion of a reward that should be paid to the company to compensate it for sharing it in the manner specified. The Member State will decide the reward based on this input. The Commission will be consulted. The reward, approved by the Member State and Commission, is allowable aid.