Dear Sir/Madam

EGEC views on the Climate, Environmental protection and Energy State Aid Guidelines (CCEAG) consultation

EGEC, the voice of the European geothermal industry, is a not-for-profit association representing the entire value-chain of the industry across 28 countries. It is included on the European Transparency Register number: 11458103335-07 Further information can be found at www.egec.org.

Our observations and recommendations are:

Definitions: To avoid ambiguity and fossil fuel subsidies the following amendments are proposed to 2.2 paragraph 15:

- \( \textbf{(a)} \) aid for the reduction and removal of greenhouse gas emissions, including through support for renewable energy;
- \( \textbf{(j)} \) aid for ‘renewable’ energy infrastructure
- \( \textbf{(k)} \) aid for ‘renewable’ district heating and cooling

Risk Mitigation schemes: - Risk mitigation schemes and public insurance schemes, are a proven solution to rapidly drive down the cost of geothermal projects, and that of other renewable technologies. Member States must be allowed to established renewable energy risk mitigation schemes that cover at least 90% of the costs of project and 100% of specific costs such as the exploration drilling for a geothermal project. These risk mitigation schemes can be applied across several categories of the EEA G proposal, notably sections 4.1, 4.2, 4.5, 4.8, 4.9, 4.10.

- \( \textbf{Para 83.fa (new)} \) ‘measures that reduce the financial risk of capital cost associated with renewable energy investments’
- \( \textbf{Para 95a (new)} \) – \textit{When aid is granted in the form of a scheme that reduces the financial risk of capital cost associated with renewable energy investment, the total value of the guarantee may not exceed 90\% of total costs of the project. Specific eligible costs subject to the guarantee may however be covered at up to 100\%.}

District heating and cooling systems:

- \( \textbf{Para 341} \) - The current text creates artificial choice between heating, cooling and storage systems. It will be beneficial to invest in storage plants, \textit{alone}, too, which can significantly upgrade the capacity of existing district heating or cooling networks that need to deal with seasonal peaks by nature. We recommend amending the text to read: "This Section applies to support for the construction or upgrade of energy efficient district heating and cooling systems. Supported investments can concern heating \textit{and/or} cooling generation,}
and/or storage facilities, plants and the distribution network or both any part or combinations of these investments”.

- **Para 116** - Limiting aid for energy efficiency in buildings to on-site renewable energy solutions undermines renewable energy from district heating and cooling systems and is not consistent with the Renewable Energy and Energy Efficiency Directives. The words ‘on-site’ should be deleted or ‘on and near-site’ added.

- **Para 18.35(e)** – should be revised to include renewable district heating and cooling systems as well as underground aquifer and thermal storage systems.

### Diversifying renewable energy technologies:

Different renewable technologies bring different benefits and are at various stages of commercial maturity. Geothermal power plants are baseload and flexible, geothermal district heating and cooling systems can be designed for seasonal energy storage. To bring these technologies to commercial maturity, renewable energy support schemes must incorporate the various services that can be provided to accelerate the decarbonisation of energy system beyond the sole EUR/MW or MWh metric. Member States shall be able to a) promote renewable technologies that provide specific services, b) to provide sufficient aid intensity to allow technologies to progress towards commercial maturity.

- **Para 49** - The selection criteria in the competitive bidding process should as a general rule be based on the aid amount requested by the applicant put in direct or indirect relation to the contribution to the objective of the measure (for example in terms of unit of environmental protection or unit of energy). In a few exceptional cases, it may be appropriate to include other non-price selection criteria (for instance additional environmental, technological or social criteria) especially those criteria that Member States can demonstrate contribute to the achievement of the EU climate, energy and environmental policy objectives for instance with regard to carbon neutrality, system integration and reduction of energy poverty. In such cases, such other criteria must account for not more than 40 % of the weighting of all the selection criteria. The Member State must provide reasons for the proposed approach and ensure it is appropriate to the objective pursued.

- **Para 94a** - The basic aid intensity must not exceed 65 % of the eligible costs.

### Geothermal lithium and other sustainable critical raw material extraction:

European expertise pioneered sustainable lithium hydroxide extraction in geothermal energy plants. As the chemical processing process occurs naturally below ground, the overall CO2e intensity of lithium processing becomes negligible. To accelerate investment in the co-production of geothermal lithium the guidelines must

- **Para 143** – The Member State must provide a credible counterfactual scenario in the absence of the aid. A counterfactual scenario corresponds to an investment with the same capacity, lifetime and, where appropriate, other relevant technical characteristics as the environmentally friendly investment. Where the investment concerns the acquisition or leasing of clean transport vehicles, the counterfactual scenario generally is the acquisition or the leasing of vehicles of the same category and the same capacity, at least complying with Union standards that would be acquired or leased without the aid. Regarding geothermal lithium capacity, the Member State scenario must highlight the reduction in import dependency, and economic benefits to local electric battery manufacturing capacity as well as sustainable geothermal energy supplies.
• **Para 153** - Costs that are not directly linked to the achievement of a higher level of environmental protection will not be eligible for support, *except those related to the sustainable co-production of geothermal lithium.*

**Innovative demonstration projects**: Demonstration projects are bespoke, small and often require individual notification for State Aid approval. Member States will be dissuaded from innovating if demonstration projects of several MWs must undergo the same notification process as multi-GW projects. Demonstration projects, provided they advance renewable energy technologies and or co-production of sustainable critical raw material extraction such as geothermal lithium, should require less administrative burdens. We propose a new paragraph to section 4.1.2:

• **Para (4.1.2 new)** 'For activities, which are notified and accepted by the Commission as satisfying the definition of a ‘demonstration project’, the Commission will, in principle, presume: The activities satisfy the requirements for the ‘Appropriateness’ and ‘Necessity’ principles; that it is an economic activity with positive effect for society which is relevant for specific Union policies; there are no undue negative effects on competition and trade and balancing. 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’

**Remove the possibility of retroactive measures**: Retroactive changes within the EU law, altering the functioning of the renewable energy sector are detrimental to legal certainty and decrease predictability for investors. Paragraphs 53 and 84 refer to possible ex-ante claw-back mechanisms and revisions to support in situations where future financial developments are unclear and in light of market technology developments. 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.*”

• **Para 53** – should read ‘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.

• **Para 84** – should read ‘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.

Energy Security from flexible renewable generation: The Renewable Energy Directive sets a binding EU target for increasing the share of renewable energy sources, which can produce dispatchable, flexible or baseload electricity. Geothermal power plants are typically operated baseload with capacity factors routinely above 95%, they can also answer to the flexibility needs of the electricity market. To allow investors to increase the availability of such supply side renewable flexibility resources, it is crucial that they are given priority access to schemes such as Capacity Remuneration Mechanisms. Otherwise, there is a significant risk to subsidised uncompetitive fossil assets.

- 317a (new) - Incentives must be accessible in priority to renewable energy technologies as defined by Directive EC 2018/2001.

Eliminating funding for fossil fuel utilisation and infrastructure: State Aid support for unabated fossil fuel utilisation or infrastructure is incompatible with the Climate Law and undermines achievement of the Renewable Energy, and Energy Efficiency and Energy Performance of Buildings Directives. The following articles must be revised accordingly:

- **Para 18(22)** – cogeneration prolongs the use of fossils at the expense of renewable energy and contravenes para 108 of the proposed guidelines and therefore cannot be eligible for State Aid and must be deleted.
- **Para 18(35(b))** - should be deleted because this is a fossil fuel subsidy. The European Commission’s proposal on the Trans-European Networks for Energy outlawed investment in fossil gas infrastructure. DG Competition must respect this decision.
- **Para 18(42)** - cogeneration prolongs the use of fossils at the expense of renewable energy and contravenes para 108 of the proposed guidelines and therefore cannot be eligible for State Aid and must be deleted.
- **Para 74** – cogeneration prolongs the use of fossils at the expense of renewable energy and contravenes para 108 of the proposed guidelines and therefore cannot be eligible for State Aid and must be deleted.
- **Para 75** - There is no legal definition of a ‘low carbon gas’ therefore State Aid cannot be applied to it as it may be a subsidy for fossil fuel use and/or infrastructure.
- **Para 92(b)iiii** – this is a direct fossil fuel subsidy and must be deleted.
- **Para 107** – refers to 'less polluting forms of energy’ but there is no definition of this and must be replaced with 'non-renewable’.
- **Para 109** - The Commission considers that certain aid measures have negative effects on competition and trade that are unlikely to be offset. In particular, certain aid measures may aggravate market failures, creating inefficiencies to the detriment of consumers and social welfare. For instance, measures that incentivise new investments in energy or industrial production based on the most polluting fossil fuels, such as coal, gas, diesel, lignite, oil, peat and oil shale, increase the negative environmental externalities in the market. They will not be considered to have any positive environmental effects, given the incompatibility of these fuels with the Union’s climate targets.
Para 348 – this allow Member States to provide fossil gas subsidies and is incompatible with delivering the aims of the Fit for 55 package, the Renewable Energy, Energy Efficiency and Energy Performance of Building Directives as well as the Trans-European Network for Energy Regulation.

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