

# ACER Opinion on the calculation of the values of CO<sub>2</sub> emission limits referred to in the first subparagraph of Article 22(4) of Regulation (EU) 2019/943

## **Evaluation of responses to the public consultation on the preliminary draft Opinion**

### **1 Introduction**

Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast) entered into force on 4 July 2019. Article 22(4) of this Regulation introduces CO<sub>2</sub> emission limits as a requirement that capacity mechanisms shall incorporate. Co-legislators have set deadlines for the introduction of the emission limits as from 4 July 2019 for “*generation capacity that started commercial production on or after that date*” and as from 1 July 2025 for “*generation capacity that started commercial production before 4 July 2019*”. Article 71 of the same Regulation emphasizes that the provisions of Article 22(4) shall apply from the date of entry into force of the Regulation.

The third subparagraph of Article 22(4) of Regulation (EU) 2019/943 asks for an Opinion of the Agency, providing technical guidance related to the calculation of the limit values set in the Regulation. In order to gather views and information from stakeholders, the Agency launched a public consultation on 24 September 2019 inviting all interested parties to express their views on potential amendments of the preliminary draft Opinion. The closing date for comments was 22 October 2019.

### **2 Responses**

By the end of the consultation period, the Agency received responses from 47 respondents. 39 respondents gave permission to publish their answers.

This evaluation paper summarises all received comments and responses to them. The table below is organised according to the consultation questions and provides the respective views from the respondents, as well as a response from the Agency clarifying the extent to which their comments were taken into account.

Respondents' views	ACER views
<b>Question 1: Please provide your comments on Section 5 of the draft Opinion.</b>	
30 respondents provided an answer to this question.	
<p>14 respondents provided their contribution on the definition of generation capacity. Among them, 7 respondents explicitly share the Agency's view on what generation capacity should be subject to the emission limits, as set in Regulation (EU) 2019/943. 1 respondent mentions that in some cases the emission limit calculations should be performed at the production unit level instead of the generation unit level.</p> <p>6 respondents object that the definition of generation capacity is already tackled in the national capacity mechanisms' rules.</p>	<p>While national capacity market rules define how generation capacity can participate in the local markets (e.g. portfolio bidding, bundled products, unit bidding), a common framework is needed among Member States, when assessing the emission limits.</p> <p>In order to ensure a homogenous application of the emission limits, the Agency's Opinion provides Member States with specifications regarding which generation capacity should be subject to the emission limits and what should be the relation between 'generation unit', 'production unit' and the generation capacity that is subject to the limits. Further details are found in Section 5 of the Opinion.</p> <p>The Agency recommends that the calculation of the emission limits shall be performed at the level of each single generation unit. However, the Agency understands that there might be more complex production units that require case-specific assessments to be addressed by the competent national body, taking into account the interoperability of the generation units, the different types of fuels used and the environmental principles underlying the introduction of the emission limits in the Regulation.</p>
6 respondents ask for deleting any reference to greenhouse gases other than CO <sub>2</sub> .	See Agency's response related to the same issue in Question 2.
1 respondent expresses concern over the administrative effort related to the calculation of the emission limits and the submission of a certified calculation to the national competent body. A lower level of administrative effort is asked for small-scale units.	The Agency agrees and therefore has introduced a recommendation aiming to reduce the burden for units with capacity lower than 5 MWe, using standard commercial fuels, by suggesting that in this case a third-party verification of the calculations should not be required.
1 respondent underlines that the "competent Authority" defined in the opinion might be different	The Agency accommodated this suggestion by amending the Opinion, which now refers to 'competent national body' rather than 'competent Authority'. A definition for 'competent

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<p>from the authority verifying other eligibility requirements to participate in capacity mechanisms, which is nominated by the national market rules.</p>	<p>national body' is provided in Section 4 of the Opinion and refers to the body responsible for verifying the compliance of generation capacity with the CO<sub>2</sub> emission limits, in order for the generation capacity to participate in capacity mechanisms..</p>
<p>7 respondents asked to clarify that emission limits do not apply to generation units that are not related to any capacity mechanism.</p>	<p>The Agency believes that the provisions of Article 22(4) of Regulation (EU) 2019/943 as well as the Agency's Opinion do not leave any room for misinterpretation on the application of the emission limits only to generation capacity that participates or intends to participate in a CM.</p>
<p>2 respondents asked for further clarification of the term net/design efficiency in particular regarding the accounting of auxiliary demand highlighting the significance of localised factors and providing the examples of gas compression in cases of generation units that are located away from the high-pressure grid and of flue gas treatment that exceeds the national and European environmental limits.</p>	<p>Article 22(4) of Regulation (EU) 2019/943 defines the '<i>design efficiency of the generation unit</i>' as the '<i>net efficiency at nominal capacity under the relevant standards provided for by the International Organization for Standardization</i>'. In the context of capacity mechanisms, the Agency believes that the net efficiency should be defined according to the net electricity output that the generation unit can deliver to the grid (at full load), i.e. the electricity, which a generation unit can produce, less any auxiliary demand. In this regard, the Agency adopts the approach defined in the LCP BAT conclusions (Commission Implementing Decision 2017/1442) and therefore considers fuel handling components (e.g. gas compression) and air quality systems (e.g. flue gas treatment) within the generation unit's boundaries. In the Agency's view, the electrical demand associated with this component is an auxiliary consumption of the generation unit.</p>
<p>3 respondents claimed that generation units should not be allowed to dilute CO<sub>2</sub> emission by any interventions such as carbon capture or by co-firing fossil fuel with biomass. They further elaborated that, in their view, such tactics would go against the intention of Article 22(4) of the Electricity Regulation and of the co-legislators, which is to restrict participation in capacity mechanisms to fossil fuel-fired plants emitting less than 550g per kWh "<i>from the considered fossil fuel</i>".</p>	<p>Article 22(4) of Regulation (EU) 2019/943 clearly refers to CO<sub>2</sub> emission from generation capacity. In the Agency's view, interventions such as investments in reducing CO<sub>2</sub> including carbon capture and transfer technologies leading to the long term avoidance of CO<sub>2</sub> emissions should be considered as mitigating measures reducing overall CO<sub>2</sub> emissions. In this respect, carbon capture and transfer is taken into account when calculating the emission factor only if it is made possible through any of the installations described in point (a) of the first subparagraph of Article 49 of Regulation (EU) 2018/2066. An ex-post validation is also recommended in the case of such installations, in order to ensure compliance with the emission limits.</p>

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<p>1 respondent argues that upstream emissions should be also considered as directly linked to electricity production.</p>	<p>Although it could make sense to consider upstream emissions when evaluating emission performance of various electricity generation facilities, the Agency recognises that a harmonised approach to account for such emission is not available at the moment and any attempt to develop common rules would require significant cooperation from the Member States and possibly from non-EU countries. Such an analysis is considered out of the scope of the Agency's mandate. In this respect, any further inclusion of upstream emissions is left to the discretion of the Member States.</p>
<p>Several respondents suggest applying alternative calculation to combined heat and power (CHP) units, in order to take into account the heat produced by those units in the calculation of their emissions values. Among them, 3 respondents suggest that the calculation formulae should be based on the total efficiency of the generation units rather than on the electrical efficiency and 1 respondent suggests following the LCP BAT conclusions by calculating the 'net electrical efficiency' referring to the combustion unit generating only electricity at full load.</p>	<p>See Agency's response related to the same issue in Question 2.</p>
<p>3 respondents claimed that storage as is out of scope and there should be no reference in the Opinion about electricity from storage facilities</p>	<p>The Agency agrees that, under the same assumptions as the ones used for generation units (i.e. only combustion emissions are considered), electricity from energy storage should not be subject to the emission limits. However, in order to avoid any misuse of this recommendation, the Agency additionally suggests that, in the case of energy storage units directly connected (either physically or through OTC contracts) to a generation unit, the operator should provide evidence of this unit's compliance with the emission limits. This provision covers also the cases when a storage system is integrated with the combustion of fossil fuels in the discharging phase, such as CAES with supplementary combustion of natural gas.</p>

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<b>Question 2: Please provide your comments on Section 6 of the draft Opinion.</b>	
<p>44 respondents provided an answer to this question.</p> <p>26 respondents are opposed to the Agency's view on the calculation of the emission limits for combined heat and power (CHP) generation units and believe that the CO<sub>2</sub> emissions of these units should be reduced by allocating a certain share to the heat product according to the "heat bonus" approach.</p> <p>4 respondents also believe that the heat produced by CHP plants should be taken into consideration in this context, but suggest to do this with methods different from the "heat bonus".</p> <p>1 respondent suggests to follow the BREF LCP BAT conclusions by calculating the "net electrical efficiency" referring to the combustion unit generating only electricity at full load.</p> <p>3 respondents support the Agency's view.</p> <p>9 respondents did not provide any comment on this topic.</p>	<p>The Agency disagrees with the interpretation that the heat produced by CHP units should be considered in the calculation of the emission limits, in the context of capacity mechanisms. Article 22(4) of Regulation (EU) 2019/943 introduces an emission limit of "550 g CO<sub>2</sub> of fossil fuel origin per kWh of electricity" and an emission limit of "350 kg CO<sub>2</sub> of fossil fuel origin on average per year per installed kWe". Therefore the Agency's Opinion acknowledges the co-legislator's intentional reference only to 'electricity' and 'kWe' and for this reason recommends to calculate the CO<sub>2</sub> emission limits on the basis of the emission factor of the fuel(s) that is(are) used and to the net electrical efficiency of the generation unit. In order to streamline the calculations the Agency has further specified that, in the case of CHP units, the BREF LCP BAT conclusions should be considered as reference, i.e. the net electrical efficiency should refer to the unit producing only electricity at full load.</p>
<p>20 respondents believe that GHGs other than CO<sub>2</sub> should not be considered in this context. On the contrary, 2 respondents support the initial Agency's proposal and believe that not only it is necessary to include CH<sub>4</sub> and N<sub>2</sub>O to the calculation, but upstream emission should also be considered. Among them, 1 respondent recommends a consultation in order to discuss a procedure to convert N<sub>2</sub>O in CO<sub>2</sub>.</p>	<p>The Agency observes that stakeholders' view on the inclusion of GHGs other than CO<sub>2</sub> is by large aligned and therefore amended the formulae in order to consider only CO<sub>2</sub> emissions. However, it is noted that given their negative effects, Member States could decide to also take CH<sub>4</sub> and N<sub>2</sub>O into account when assessing the eligibility of generation capacity in capacity mechanism. In this case, emissions of CH<sub>4</sub> and N<sub>2</sub>O should be converted into tonnes of carbon dioxide, called CO<sub>2</sub>-equivalent, according to the Global Warming Potentials (GWP) factors, in accordance with values agreed under the Delegated Act (forthcoming) of the Energy Union Governance Regulation (EU) 2018/1999.</p>

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<p>Further, this view is implicitly supported by other 2 respondents that ask for upstream emissions to be also included as this is the best practice in evaluating carbon-intensity of a power plant.</p> <p>21 respondents did not provide any comment on this topic.</p>	
<p>4 respondents specifically discussed about waste and waste-to-energy units.</p> <p>3 respondents suggest that waste should be excluded from the definition of “fossil fuel” consistently to the UK Capacity Market rules.</p> <p>2 respondents are afraid that the Agency’s proposal regarding the determination of the biodegradable (i.e. biomass) fraction of waste and the emission factor for waste, would incur in unjustified and unequal burden for the operators of waste-to-energy plants.</p>	<p>While the underlying argument for an exclusion of generation units using waste from the application of the emission limits are not fully clear, the Agency notes that Article 22(4) of Regulation (EU) 2019/943 refers to CO<sub>2</sub> emissions “of fossil fuel <i>origin</i>”. Furthermore, one can note that the UK national regulation excludes waste from the definition of fossil fuel, based on a transposition of the spirit of the EU ETS. However, the exclusion of waste-to-energy units from the EU ETS is only partial (some countries have already opted-in this activity, in full or for specific types of waste) and lies on technical reasons, which are independent from the fossil fuel origin of the largest part of municipal and industrial waste, which is typically used in waste-to-energy plants.</p> <p>The Agency disagrees with the concern on a risk of unequal treatment for the operators of waste-to-energy units, since the suggested approach for the determination of the biomass (or biodegradable) fraction is also applied to the mixed fuels and includes the possibility to agree different sampling frequency with the national competent body. Finally, the Agency’s Opinion leaves operators of waste-to-energy units with a wide range of methods that can be applied when determining the emission factor of waste.</p>
<p>1 respondent says that the “calculation of the emission factor” should avoid excessive penalty for synthetic gas combustion in industrial installations where synthetic gas is a sub-product of the industrial process.</p>	<p>The Agency finds it necessary to ensure consistency with the emission factors listed in the latest version of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (IPCC GL), while at the same time applying the provision of Article 22(4) only to CO<sub>2</sub> emissions of fossil fuel origin. For this reason, the emission factor of renewable sources, including landfill gas, should be considered as equal to zero. For all the fuels that are not listed in the IPPCC GL, an estimation method should be applied and approved by the competent national body. The</p>

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<p>1 respondent asks the Agency to specify that landfill gas should be considered as renewable and to exempt coal mine methane (CMM) from the emission limits, claiming that the utilisation of this gas has a positive environmental impact.</p> <p>1 respondent notes that the use of carbon capture and utilisation (CCU) fuels does not result in a net increase in emission and they should be therefore considered as carbon neutral.</p>	<p>Agency is of the opinion that the provisions of Article 22(4) of Regulation 2019/943 leave no room for exceptions to fossil fuels or fuels of fossil origin.</p>
<p>2 respondents ask for the interpretation of “design efficiency” to account for upgrades and modifications to power plants allowing for re-assessments after significant changes are made to the power plant.</p>	<p>The Agency agrees. This concept is underlined in Section 7.3 of the Opinion where the most updated performance test is indicated as primary reference for the design efficiency of the generation unit. Typically, a performance test is carried out after major updates or modifications to the generation unit.</p>
<p><b>Question 3: Please comment on the suggested approach to calculate the Specific Emissions of the generation capacity</b></p>	
<p>36 respondents provided an answer to this question.</p>	
<p>7 respondents ask for a different formula for cogeneration units, aiming to consider the heat produced.</p>	<p>The Agency is the Opinion that, in the context of capacity mechanisms and according to the underlining principles of Article 22(4) of Regulation 2019/943, there is no need for a different formula for CHP generation units. Further justification on this can be found in Question 2.</p>
<p>By answering to this question, 17 respondents have provided comments on the inclusion to the calculation of GHGs other than CO<sub>2</sub>. Among them, 15 respondents ask for excluding GHGs other than CO<sub>2</sub> from the formula. On the contrary, 2 respondents ask for upstream emissions to be considered in the calculation, which would implicitly require other GHGs, as CH<sub>4</sub>, to be considered.</p>	<p>See Agency’s response related to the same issue in Question 2.</p>

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<p>9 respondents provide a contribution that focuses on the design efficiency. Among them, 6 respondents ask for design efficiency to account for upgrades and modifications. 3 respondents object that calculation should refer to the actual efficiency of the generation units.</p>	<p>The Agency agrees that upgrades and modification to the generation units should be considered when determining the design efficiency, as already addressed in Question 2.</p> <p>On the contrary, the Agency disagrees with the suggestion of taking into consideration the actual efficiency rather than the design efficiency as Article 22(4) clearly refers to the latter one, when defining the principles for the calculation of the emission limits.</p>
<p>3 respondents underline that the calculation should refer only to the fossil fuel part.</p>	<p>The Agency is of opinion that the principle of carbon neutrality of biomass or biomass fraction of mixed fuels and waste is already well reflected in the formula of <i>Specific Emissions</i>. This is done by applying an emission factor equal to zero to biomass and by multiplying the preliminary emission factor of mixed fuels and waste by the fossil fraction according to the principles of point (1) of paragraph 4.3.1 of the Monitoring and Reporting Regulation General Guidance for Installations. This is better specified in the latest version of the Opinion (sections 7.2.2.1 and 7.2.2.2) in which further specifications are also provided for generation units under the EU ETS framework (see Section 7.2.1).</p>
<p>3 respondents suggest that, to reduce burden for capacity providers, only standard emission factors should be applied, disregarding any other method for the determination of emission factors.</p>	<p>The Agency agrees with this principles to the extent that standard emission factors are available. In every other cases, they should be determined by applying analyses. This is reflected in a flow-chart, which is intended to guide generation units operators in deciding what values should be used in the calculation (see Annex III of the Opinion).</p>
<p>2 respondents ask to amend table 5 and 7.1 (reference to the preliminary draft of the Opinion which was shared with stakeholders for the purpose of public consultation) to account for fuels not mentioned therein.</p>	<p>Both tables have been amended and a full list of available standard emission factors, with reference to the IPCC GL, is now provided.</p>
<p><b>Question 4: Please comment on the suggested approach to calculate the Total Emissions of the generation capacity.</b></p>	
<p>30 respondents provided an answer to this question.</p>	



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<p>11 respondents agree with the Agency's proposal for the calculation of the value of kg CO<sub>2</sub>/kWh on average per year, in full or subject to the comments previously addressed in Question 3.</p> <p>Other 9 respondents agree with the Agency's proposal but, with different levels of concern, ask to fix a misleading reference in the text to historical operation that, if applied to the efficiency, could suggest a deviation from the underlining principles expressed in Article 22(4) of Regulation (EU) 2019/943.</p> <p>3 respondents disagree with the proposed approach as they think that <i>Total Emissions</i> should refer to the delivery under capacity mechanism only.</p> <p>Finally, 5 respondents disagree with the proposed ex-ante calculation and believe that the emission limit should be verified ex-post as they are afraid that the three-year reference period set by the Agency might not reflect the generation units' operation after start of delivery in the capacity mechanism.</p>	<p>The Agency observes that the suggested approach has been largely accepted by stakeholders and further notes that the Agency shares stakeholders' view on the reference to design efficiency only (that 9 stakeholders have asked for being clarified). This is, in fact, reflected in the proposed formula for the calculation of Total Emissions. In this formula, the annual electricity production is multiplied by the value of <i>Specific Emission</i> that implicitly results in a value of <i>Total Emission</i> as if this electricity was produced at design efficiency. The Agency has amended the relevant section of the Opinion, in order to provide a clearer explanation.</p> <p>The Agency disagrees with the suggested alternative approaches, which aim to downgrade the emission limit to an ex-post evaluation, either related to twelve months or limited to the delivery under capacity mechanism only. In this regard, the Agency considers that an efficient policymaking should prevent potential manipulation of auctions for new capacity by filtering out units at the pre-qualification stage. This view is fully aligned with (and seems to be the only interpretation of) the wording of Article 22(4) of Regulation (EU) 2019/943, which forbid non-compliant units from even receiving "commitments for future payments under a capacity mechanism".</p>
<p>3 respondents argue that specific considerations should be taken for the case of strategic reserves mechanisms as they are characterized by the fact that units participating in this mechanism are kept outside the market (i.e. the renunciation of generation unit's participation in commercial operation is a prerequisite for participation in a strategic reserve).</p>	<p>The Agency accommodated this proposal and introduced (see Section 6 of the Opinion) an option for operators of generation units to enter a strategic reserve mechanisms that meets the requirements laid down in Article 22(2) of Regulation (EU) 2019/943 if they can firmly commit to ensure compliance with the limit of <i>Annual Emissions</i>, during each calendar year that falls into the delivery period of the capacity mechanism, on the basis of:</p> <ul style="list-style-type: none"> <li>i) the expected hours of activation</li> <li>ii) its technical constraints (e.g. start-up time, ramp rate)</li> <li>iii) the duration of the period of delivery</li> </ul>

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	iv) its Specific Emissions
6 respondents suggest translating the emission limit from kg CO <sub>2</sub> /kWe per year to full load operating hours (FLH) per year or GWh per year.	The Agency considers that such an approach is not needed and it would probably create a higher degree of complexity. However, in the case of the strategic reserves, pre-qualification check should be based on the comparison of the maximum foreseen annual delivery period with the maximum allowed equivalent full load hours a unit may operate so that it does not exceed the second emission limit on Total Annual Emissions.
2 respondents suggest that <i>Total Emissions</i> should be calculated at the production unit level.	The Agency notes that Article 22(4) of Regulation (EU)2019/943 clearly refers to “generation unit”.
2 respondents finds it necessary to have a clear definition of “commercial operation”.	In principle, the Agency believes that a generation unit has reached commercial operation when the relevant notification for connection has been issued (see Regulation 2016/631), the commissioning of the unit, including all relevant tests, is finished and the unit is generating electricity, which is being sold on an energy market or under a power purchase agreement. This term has not been defined in the Opinion and, if necessary, national competent bodies could include it in the capacity mechanism rules.
1 respondent asks to clarify the term “on average per year”.	The Agency's view on the yearly time reference is expressed through the Opinion. Namely, in Section 6.2 of the Opinion, it is explained that, as a standard approach, the Agency recommends to average out the annual emissions over a historical period of 3 calendar years. The Agency believes this approach provides the most straightforward way to estimate the emission values, at the pre-qualification stage. When ex-post validation is required (Section 9), the Agency believes that the same calculation should be performed, referring to each calendar year of the delivery period, in line with the provisions of Article 22(4) of Regulation 2019/943.

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<p>2 respondents suggest that capacity providers who have proven to be compliant with the emission limits at the pre-qualification stage should also be required to provide guarantees of compliance for the future. They further elaborate that penalties, suspension, clawback, and/or cancellations of contracts should be applied, in case of non-compliance of the emissions for each delivery period.</p>	<p>The Agency is concerned about the need to ensure effectiveness of the emission limits while at the same time ensuring a streamlined process with a limited burden for capacity providers and competent national bodies. For this reason, the Agency considers that the approach proposed in the Opinion provides a sufficient level of effectiveness, by limiting ex-post validation to specific cases, as further analysed in Section 9 of the Opinion. In these specific cases, the Agency has accommodated stakeholders' request of suggesting an introduction of sanctions for generation units, which fails to prove their compliance.</p>
<p><b>Question 5: Please provide your comments on Section 8 of the draft Opinion.</b></p>	
<p>22 respondents provided an answer to this question</p>	
<p>9 respondents agree with the proposed approach and find this Section of the Opinion appropriate to strike the necessary balance between ensuring accuracy of information and avoiding unnecessary burdensome procedures.</p> <p>5 respondents note that it is not feasible to provide some of the information listed for a new-build generation unit at the pre-qualification stage.</p> <p>3 respondents do not support the proposal from the Agency and ask for leaving further evaluation on the needed documentation to the competent national bodies.</p>	<p>The Agency observes that a majority of stakeholders supports the Agency's approach. With regard to stakeholders who are concerned by a too strict application of the Agency's proposal in the case of new-build units, the Agency notes that data sources listed in Section 9 are just examples of data sources for data needed to perform the validation. In the case of new-build units, operators should provide competent national bodies with the best approximation of all the values needed for the calculation of <i>Specific Emissions</i> (this also applies to waste-to-energy units). In this case, all the relevant data sources should be applied as "<i>information from other technical sources</i>". As a general principle, the Agency agrees that competent national bodies might provide capacity providers with further specifications on the requested documentation, in line with their available resources to perform data acquisition and review process.</p>

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<p>3 respondents suggest small changes. Among them, 2 respondents note that it may be impractical for the competent national body to obtain and/or review the document that are listed in this Section. Another respondent objects to the requirement to predict the composition of waste in advance.</p>	
<p>3 respondent express their support for third-party verification while 2 respondents do not recognise the need for it.</p>	<p>The Agency believes that third-party verification is the most straightforward way to ensure a homogenous quality level to the emission limits calculation. Third-party verifiers accredited for scope 1(a) and/or scope 1(b) of Annex I of Regulation (EU) 2018/2067 have competences to calculate CO<sub>2</sub> emission in combustion units including the power production sector. The Agency believes that the experience gained in the EU ETS framework will confer useful know-how to the calculation of emission limits, sparking a virtuous cycle.</p>
<p>1 respondent suggests that it should be possible to rely directly on EU ETS data to reduce administrative burden.</p>	<p>The Agency agrees and has amended the draft Opinion by introducing a more direct reference to EU ETS data, when available.</p>
<p><b>Question 6: Please provide your comments on Section 9 of the draft Opinion.</b></p>	
<p>16 respondents provided an answer to this question.</p>	
<p>3 respondents support the Agency's proposal considering the list of identified plants as exhaustive, provided that point (e) of the draft Opinion refers only to the plants whose corrective action plan has already been implemented by the beginning of the delivery year of the reference capacity mechanism.</p> <p>6 respondents suggest minor changes, in some cases including a request for more details on the ex-post monitoring report.</p>	<p>The Agency notes a general support on this proposal from stakeholders and has accommodated stakeholders' request of specifying that corrective action plans (called compliance action plans in the Opinion) should be implemented by the beginning of the delivery period of the capacity mechanism.</p> <p>The Agency has also accommodated stakeholders' request of providing more details on the ex-post monitoring (called ex-post validation in the Opinion) activity by specifying, for each category of generation units, what value should be subject to the ex-post validation.</p> <p>The Agency is of opinion that, in order to streamline the process and ensure a straightforward integration of emission limits in capacity mechanisms, ex-post validation of the values</p>

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<p>2 respondents argue in favour of an exclusion of waste-to-energy units from ex-post monitoring. 3 respondents believe that ex-post monitoring should apply to all generation units.</p>	<p>calculated at pre-qualification stage should be limited to the exceptional cases listed in Section 9 of the Opinion (including waste-to-energy units).</p>
<p>2 respondents consider third-party verification unnecessary.</p>	<p>The Agency is of opinion that the same level of accuracy should be ensured to ex-post validation, as to the calculation of CO<sub>2</sub> emission values performed at pre-qualification stage.</p>
<p>1 respondent suggests an alternative approach that would limit monitoring activity to exceptional cases. This approach would be based on typical emission range for technology and ex-post controls performed only on generation units claiming emission values that vary from this range.</p>	<p>The Agency disagrees with this alternative approach and notes that a case-specific approach to the evaluation of design efficiency is applied throughout the Opinion, and so should it also be for what it concerns ex-post validation.</p>
<p><b>Question 7: Please provide any further comment on the draft Opinion.</b></p>	
<p>28 respondents provided an answer to this question.</p>	
<p>2 respondents believe that demand side response should not be considered in this Opinion.</p>	<p>The Agency finds it necessary to ensure that the gradual increase in DSR activation will not pose a threat to the EU environmental objectives. For this reason, and in order to create a level playing fields, on-site back-up generation units linked to demand response that participates in a capacity mechanism, which are used temporarily to meet electricity requirements, should be subject to the emission limits introduced in Article 22(4) of Regulation (EU) 2019/943 and the calculation methodology defined in the Agency's Opinion. In this regard, a back-up generation unit that has not commercially produced before 4 July 2019, should be subject to the emission limit referred at in point (a) of Article 22(4) of Regulation (EU) 2019/943 (start of commercial production corresponds to the moment in which the back-up unit is coupled with DSR). A back-up generation unit, that has commercially produced before 4 July 2019, should be subject to the emission limits referred to in point (b) of the same article.</p>

Respondents' views	ACER views
2 respondents are concerned that harmonisation among Member States should be ensured on the topic of how to consider biogas injected by and withdrawn from the network.	The Agency observes that a provision on how to consider biogas in the pipe-network is implicitly provided in the relevant paragraph of the Opinion, referring to Article 39 of Regulation (EU) 2018/2066.
2 respondents ask for including CO <sub>2</sub> sequestration in calcium carbonates when defining the criteria for CO <sub>2</sub> captured and stored.	The Agency agrees.
2 respondents claim that national competent bodies should be allowed to provide further guidance on the emission limits calculation.	The Agency agrees that Member States could provide further guidance, in line with Article 22(4) of Regulation 2019/943 and the principles expressed in the Agency's Opinion.
2 respondents ask for including definitions of “Net Calorific Value”, “mixed fuel” and “fossil carbon”.	Net Calorific Values (NCVs) and mixed fuels are now defined in Annex I. As Regulation (EU) 2019/943 sets the emission limits for CO <sub>2</sub> emissions "of fossil fuel origin", the Agency believes that this concept does not require further specification.
1 respondent disagrees with the introduction of third-party verification.	The Agency believes that the effort required to perform a third-party verification is proportionate to the objective set by Article 22(4) of Regulation 2019/943 and the potential income generated by the capacity remuneration.
<p>In this part of the survey, several respondents have repeated comments, already expressed as a response to the relevant question. For practical reasons, the Agency has not performed an analysis on the uniqueness of the comments received and simply reports them here.</p> <p>5 respondents believe that different formulae should be applied in the calculation of the emission limits for CHP plants, in order to consider the heat produced in the calculation.</p>	See Agency's responses related to the same issues in Question 1, 2, 3 and 4.

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<p>3 respondents believe that calculations should refer to the actual efficiency rather than the design efficiency.</p> <p>3 respondents ask for an inclusion of upstream emissions.</p> <p>3 respondents believe that formulae should refer only to the fossil fuel part.</p> <p>3 respondents ask for the exclusion of GHGs other than CO<sub>2</sub>. On the contrary, 1 respondent argues that CH<sub>4</sub> and N<sub>2</sub>O should be included in the calculation.</p>	

### 3 List of respondents

Organisation	Type
ACOGEN Asociación Española de Cogeneración	Industry association of power plant producers
AGFW e.V.	Other
AIGET (The Italian Association of Energy Traders & Wholesalers)	Other
Association for District Heating of the Czech Republic	Other
BDEW e.V. (German Association of Energy and Water Industries)	Other
Central Europe Energy Partners	Other
CEWEP Ireland	Capacity provider
CEWP	Industry association of power plant producers
CEZ, a.s.	Industry association of power plant producers
ClientEarth	Other
Climate Action Network (CAN) Europe	Other
COGEN Europe	Other
Commission for Regulation of Utilities (CRU)	National Regulatory Authority
E.ON UK plc	Capacity provider
Edison	Capacity provider
EDP Energias de Portugal, S.A.	Industry association of power plant producers
EirGrid Group	Transmission system operator
ENEA Elektrownia Połaniec S.A.	Other



Organisation	Type
Energy Technologies Europe	Industry association of power plant producers
Energy UK	Industry association of power plant producers
ENTSO-E	Transmission system operator
EUGINE - European Engine Power Plants Association	Industry association of power plant producers
Eurelectric	Other
Euroheat & Power	Other
EUTurbines – European Association of Gas and Steam Turbine Manufacturers	Industry association of power plant producers
IFIEC Europe	Other
Polish Ministry of Energy	National Regulatory Authority
PGNiG TERMIKA SA	Capacity provider
Polish Electricity Association (PKEE)	Capacity provider
Polish Power Plants Association	Industry association of power plant producers
Polskie Towarzystwo Elektrociepłowni Zawodowych (PTEZ)	Industry association of power plant producers
Public Power Corporation SA (Hellas)	Capacity provider
RWE Generation UK	Capacity provider
Sandbag	Researcher/academia
The Association for Decentralised Energy	Other
Union Française de l'Electricité	Industry association of power plant producers
Uniper SE	Capacity provider
VPI Immingham LLP	Capacity provider

Organisation	Type
Zakłady Pomiarowo-Badawcze Energetyki z o.o.	Other