

Stakeholder consultation on the Draft Terms and Conditions (“Draft T&Cs”) for the 2025 Innovation Fund auction for industrial process heat decarbonization (electrification and use of direct renewable heat)

Feedback table

Instructions

Thank you for taking the time to provide written feedback on the **Draft Terms and Conditions (“Draft T&Cs”) of the 2025 Innovation Fund auction for industrial process heat electrification**. We would also like to invite you to our online workshop on **9 July 2025**, where we will present the draft T&Cs and answer questions you may have. The workshop will take place [online via Webex](#) from 10am-12pm.

We invite you to provide your structured feedback in the below table on the different design elements of the auction. Your feedback will be taken into account for the publication of the Final T&Cs. We are asking you also some additional questions in the below table to seek your feedback on specific design elements. Given the high number of interested stakeholders and our ambition to review all relevant feedback in very short time, please mind the following:

- Short, concise feedback, e.g. in bullet points is sought. If you have overall, high-level feedback, please provide it at the beginning restricting yourself to a few paragraphs.
- Please substantiate your feedback with evidence, wherever possible.
- Don't feel obliged to provide feedback on all points in the table.
- Please indicate what type of stakeholder you are and whether you intend to bid

Please send your feedback via email to clima-auctions@ec.europa.eu by 15 August 2025.

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Information about the respondent and general feedback

Name:

Position:

Company / Institution / Member State: Sandbag

Type of Stakeholder (e.g. “industrial company using process heat”, “industrial process heat technology provider” (e.g. heat pumps, electric boilers, direct renewable heat solutions, etc.), “Member State”, etc.): Think Tank, EU climate advocacy

Intention to bid in IF25 decarbonized heat auction (yes/no): no

General feedback (optional):

I. General auction design elements

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
1.0	Objective of the auction	To reduce GHG emissions in industry by cost-effectively supporting the market uptake of electrified and direct renewable industrial process heat.		
1.1	Auctioned good	<p>Fixed premium subsidy (expressed in EUR / t_CO2 abated) for direct GHG abatement achieved through electrified or direct renewable process heat technologies.</p> <p>The achieved abatement will be calculated by multiplying the volume of produced process heat (in MWh_{th}) with:</p> <ul style="list-style-type: none"> - the phase 4 ETS heat benchmark, for projects that install additional heat equipment without decommissioning existing capacity, - the emissions factor of the fuel¹ replaced in the installation (e.g. natural gas, heating oil, coal...) for projects that decommission corresponding fossil fuel-fired capacity at the same site. Projects decommissioning existing capacity and claiming an emissions factor other than the heat benchmark must provide: <ul style="list-style-type: none"> o At application stage, proof of the replaced fuel fuel-fired equipment can be provided through the most recent ETS MRV report. o At Entry into Operation or a subsequent work package (tbd in final T&Cs), a decommissioning report² of the replaced fossil fuel-fired capacity. o If a project fails to provide either, it will be terminated (See Point 4.3 'Sanctions in case of non-compliance with support requirements'). 	<p>Fixed premium subsidy (expressed in EUR / t_CO2 abated) for direct GHG abatement achieved through electrified or direct renewable process heat technologies.</p> <p>The expected abatement will be calculated as the difference: Reference emissions – Induced emissions</p> <p>The achieved abatementReference emissions will be calculated by multiplying the volume of produced process heat (in MWh_{th}) with:</p> <ul style="list-style-type: none"> - the phase 4 ETS heat benchmark, for projects that install additional heat equipment without decommissioning existing capacity, - the emissions factor of the fuel replaced in the installation (e.g. natural gas, heating oil, coal...) for projects that decommission corresponding fossil fuel-fired capacity at the same site. Projects decommissioning existing capacity and claiming an emissions factor other than the heat benchmark must provide: <ul style="list-style-type: none"> o At application stage, proof of the replaced fuel fuel-fired equipment can be provided through the most recent ETS MRV report. o At Entry into Operation or a subsequent work package (tbd in final T&Cs), a decommissioning report of the replaced fossil fuel-fired capacity. 	<p>For the carbon footprint of natural gas fired power generation, see e.g.: UNECE Life Cycle Assessment of Gas.</p> <p>This methodology prioritises subsidies to technologies with the most impact, over those producing electrified heat with little or no climate gain.</p> <p>The indicative schedule of peak hours (used to estimate the expected abatement) should be based on a credible energy system scenario (e.g. the EU Reference MIX). This can be done as explained in Sandbag (2025), Getting Electrification Right: The broader challenge of induced emissions:</p> <ul style="list-style-type: none"> • Use historical hourly electricity price data from ENTSO-E to determine the number of hours per year where prices were below €20/MWh in each bidding zone.

¹ If the replaced capacity uses multiple fuels, the phase 4 ETS heat benchmark must be used.

² Decommissioning must concern capacity at the same site, and have happened after the submission of the application.

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
		<p>See point 4.6 'Monitoring, verification and reporting of process heat and temperature' for details on monitoring, verifying and reporting the volume of process heat.</p> <p><u>Question to stakeholders: Should projects that install new heat equipment without decommissioning existing capacity have to demonstrate separately that they remain below their ETS 4 phase product benchmark³ (please use the feedback column for your reply)?</u></p>	<ul style="list-style-type: none"> ○ If a project fails to provide either, it will be terminated (See Point 4.3 'Sanctions in case of non-compliance with support requirements'). <p>Induced emissions will be calculated by multiplying peak-time electricity use (in MWh) by a reference emissions factor of 0.430 tCO₂/MWh, corresponding to the emission intensity of peak gas-fired electricity generation. Peak hours are defined as hours when fossil marginal generation sets electricity prices.</p> <p>The European Commission will provide applicants with indicative schedules of peak hours for each bidding zone and year.</p> <p>See point 4.6 'Monitoring, verification and reporting of process heat and temperature' for details on monitoring, verifying and reporting the volume of process heat.</p> <p>Note for applicants with coefficient of performance (COP) < 2.5: Electricity used during peak hours may result in negative abatement and therefore reduce the total subsidy.</p>	<ul style="list-style-type: none"> • Use projection based on EU MIX scenario • Apply a regression model to project eligible hours based on the projected electricity grid production mix.
1.2	Budget as constraining value	<p>The total available Innovation Fund budget for each topic is the constraining value of the auction. The Innovation Fund budget is known in advance and will be EUR 1 billion for the 2025 pilot (see also point 1.12 'Auctions-as-a-Service'). The auction will be cleared where the budget is exhausted.</p> <p>The number of projects and production of electrified or direct renewable process heat supported is derived from the total available budget and the individual bids with their respective bid prices and volumes. See also point 1.9 'Auction topics / baskets'.</p>		
1.3	Support type	Output-based support (payment per tonne of CO ₂ abated by the project, as stated in the application). See also point 1.1 'Auctioned good'.	Output-based support (payment per tonne of CO ₂ abated by the project, as stated in the application calculated upon verification of heat volumes and peak-time power use). See also point 1.1 'Auctioned good'.	<p>Applying the formula using actual values:</p> <p>Achieved abatement = Reference emissions – Induced emissions</p>

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R0447&qid=1750171151778>

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
1.4	Support form	Fixed premium.		
1.5	Indexation of support	No indexation.		
1.6	Grant duration (disbursement period)	<p>The grant duration will end 5 years after the Entry into Operation of the project (unless the total process heat production volume as stated in the bid is reached earlier, due to the production flexibility rules (see point 4.1 'Production flexibility rules').</p> <p>See also point 4.3 'Sanctions in case of non-compliance with support requirements.</p>	<p>The grant duration will end 5 years after the Entry into Operation of the project (unless the total process heat production volume as stated in the bid is reached earlier or later, due to the production flexibility rules (see point 4.1 'Production flexibility rules').</p> <p>See also point 4.3 'Sanctions in case of non-compliance with support requirements.</p>	<p>Grantees should get their grants extended if e.g. they received less payment over the 5 years, due to less frequent operation at non-peak hours than expected</p>
1.7	Ranking of bids	Price-only ranking.		
1.8	Bid components	<p>Applicants will state:</p> <p>(1) the subsidy requested per unit of produced heat (expressed in EUR / MWh_{th})</p> <p>An automatic formula in the application form will translate (1) into (2) the bid price, i.e. the subsidy requested per tonne of CO₂ abated using standard emission factors of fossil fuels and efficiencies or the phase 4 ETS heat benchmark as explained in Point 1.1.</p> <p>The bid price will correspond to the fixed premium to be received if the project is selected in EUR/t_CO₂ abated, expressed with two digits after the comma.⁴</p> <p>(3) the nominal thermal capacity in MW_{th} of the equipment that produces electrified industrial process heat or direct renewable process heat that will be installed and verified as being operational by the time of entry into operation.</p> <p>(4) the volume of expected average yearly electrified/direct renewable heat produced (see point 1.1 'Auctioned Good'), expressed in MWh_{th}.</p> <p>Please note that subsidized heat production will be limited to 80% of hours per year at nominal capacity unless the project can</p>	<p>Applicants will state:</p> <p>(1) the subsidy requested per unit of produced heat (expressed in EUR / MWh_{th}).</p> <p>An automatic formula in the application form will translate (1) into (2) the bid price, i.e., the subsidy requested per tonne of CO₂ abated, using standard emission factors of fossil fuels and efficiencies or the Phase 4 ETS heat benchmark and induced emission methodology as explained in Point 1.1.</p> <p>The bid price will correspond to the fixed premium to be received if the project is selected in EUR/t_CO₂ abated, expressed with two digits after the comma.</p> <p>(3) the nominal thermal capacity in MW_{th} of the equipment that produces electrified industrial process heat or direct renewable process heat that will be installed and verified as being operational by the time of entry into operation.</p> <p>(4) the volume of expected average yearly electrified/direct renewable heat produced (see point 1.1 'Auctioned Good'), expressed in MWh_{th}.</p> <p>(6) the following additional information:</p>	

⁴ Bid will be truncated if more than 2 digits after comma are provided.

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
		<p>demonstrate having a flexibility solution (see point 1.10 'Indirect emissions & flexibility considerations').</p> <p>An automatic formula in the application form will translate (4) into (5) abatement of GHG (expressed in tCO₂), using standard emission factors of fossil fuels and efficiencies or the phase 4 ETS heat benchmark as explained in Point 1.1.and efficiencies, over a 5 years of heat production period.</p> <p>The maximum grant amount is therefore calculated as:</p> $\left[\text{Bid price in } \frac{\text{€}}{\text{t}_{\text{CO}_2}} \right] * \left[\text{expected average yearly volume of GHG abated in } \frac{\text{t}_{\text{CO}_2}}{\text{year}} \right] * 5 \text{ years}$ <p>(6) The required temperature of the heating process</p>	<ul style="list-style-type: none"> Case 1: Average load factor (in %): If the load is intended to be run regardless of price, the Commission will automatically calculate the expected electricity consumption as equal to the load factor times nominal capacity, distributed between peak and non-peak as if it ran 24/7, to estimate the corresponding induced emissions. Case 2: No data: If the equipment is intended to only run at times of low price (non-fossil marginal electricity times), no induced emissions are calculated. Case 3: Peak time electricity use: If the equipment is intended to partly respond to price signals but also run at times of high electricity prices, with or without energy storage, induced emissions will be deduced from peak-time electricity use. <p>Please note that subsidized heat production will be limited to 80% of hours per year at nominal capacity unless the project can demonstrate having a flexibility solution (see point 1.10 'Indirect emissions & flexibility considerations').</p> <p>An automatic formula in the application form will translate (4) and (6) into (5) expected abatement of GHG (expressed in tCO₂), using standard emission factors of fossil fuels and efficiencies or the phase 4 ETS heat benchmark as explained in Point 1.1.and efficiencies, over a 5 years of heat production period, as follows:</p> $\text{expected GHG abatement in year } y = V_{\text{heat},y} \times EF_{\text{heat}} - E_{\text{high},y} \times 0.430 \text{ tCO}_2/\text{MWh}$ <p>Where:</p> <p>$E_{\text{high},y}$ is the electricity to be consumed at times of high price (fossil marginal generation) in year y.</p> <p>EF_{heat} is the standard emission factor of the fossil fuel replaced or the Phase 4 ETS heat benchmark</p> <p>The total total GHG abated over the 5-year period is the sum of the annual values.</p> <p>The maximum grant amount is therefore calculated as:</p>	

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			$\left[\text{Bid price in } \frac{\text{€}}{\text{t}_{\text{CO2}}} \right]$ $* \left[\text{expected } \text{total average yearly volume of GHG abated in 5 years} \right]$ * 5 years (67) The required temperature of the heating process	
1.9	Auction topics/baskets	<p>There will be two topics ('auction baskets'):</p> <ul style="list-style-type: none"> i. a low-temperature heat topic that covers heat produced at a metered temperature of between 100°C and 400°C with a budget of EUR 500 million and ii. a high-temperature heat topic that covers heat produced at a metered temperature of above 400°C a budget of EUR 500 million <p>Temperatures need to be metered from an ISO 50001 management system.</p> <p>If there are budget remainders, the Commission may redistribute them between the call topics.</p>		
1.10	Indirect emissions & flexibility considerations	<p>The below conditions do <u>not</u> apply to heat pumps with a Coefficient of Performance (COP) of at least 2.0 and direct renewable heat.</p> <p>While power sector emissions overall are covered by the EU ETS, in many bidding zones, electricity consumption during peak hours is linked to high emissions from electricity generation, as well as increased system costs, such as additional capacity, grid or redispatch costs.</p> <p>The auction therefore aims to avoid incentivising consumption of electricity from the grid that leads to high emissions from electricity generation and higher system costs (i.e. consumption of electricity during peak hours). Peak hours are defined as peak price hours.</p> <p>This is why there is the default restriction of payments to 80% of hours * nominal capacity. Projects cannot receive a subsidy for more</p>	<p>The below conditions do <u>not</u> apply to heat pumps with a Coefficient of Performance (COP) of at least 2.0 and direct renewable heat.</p> <p>While power sector emissions overall are covered by the EU ETS, in many bidding zones, electricity consumption during peak hours is linked to high emissions from electricity generation, as well as increased system costs, such as additional capacity, grid or redispatch costs.</p> <p>The auction therefore aims to avoid incentivising consumption of electricity from the grid that leads to high emissions from electricity generation and higher system costs (i.e. consumption of electricity during peak hours). Peak hours are defined as peak price hours when fossil marginal generation sets electricity prices.</p> <p>This is why there is the default restriction of payments to 80% of hours * nominal capacity the abatement calculation takes into account those induced emissions: for technologies with a COP below 2.5, electricity consumption during peak hours may result in negative abatement, thereby reducing the total support the project receives. Projects cannot</p>	<p>Proposed methodology for peak hours: times when day-ahead power price is > €20/MWh or 0.36 times the EUA price in the bidding zone of the equipment, as used in Article 6.3 of the RFNBO Delegated Act.</p>

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		<p>than 80% of hours per year (i.e. 7008 hours) unless they can demonstrate flexibility via one of the approached below⁵:</p> <p><u>Approach 1 (ex-post check every payment period based on consumption from the grid during peak price hours):</u></p> <ul style="list-style-type: none"> At end of the monitoring period, the project can prove through audited statements that it is not consuming in the 10% of highest price hours as per ENTSO-E data. In this case the full-load hour restriction on payments is entirely lifted. <p><u>Approach 2 (ex-ante check at Entry into Operation based on investments in flexibility):</u></p> <ul style="list-style-type: none"> At Entry into Operation (EiO), the project can prove that either: <ul style="list-style-type: none"> it can follow a flexible ramping schedule for consuming electricity from the grid without damage to the equipment or compromising product quality (ramp down from nominal capacity within 1h to 80% of nominal capacity for 4h, ramp up again within 1h). In this case the full-load hour restriction is increased to 90% or it proves investment into electricity or thermal storage for the purpose of the project sufficient to reduce electricity consumption from the grid for 4h by 20% within 1h. In this case the full-load hour restriction on payments is entirely lifted. <p>The approach to flexibility must be chosen by the applicant already at the bidding stage (see point 1.8 'Bid components')</p> <p>Beyond this flexibility safeguard (<i>one of</i> approach 1 or 2 – for public consultation), indirect emissions do not need to be accounted for abatement (see also point 1.1).</p> <p><u>1st question to stakeholders:</u></p> <p><u>Regarding the two alternative approaches to flexibility presented above: Please provide feedback on your preferred approach. Only</u></p>	<p>receive a subsidy for more than 80% of hours per year (i.e. 7008 hours) unless they can demonstrate flexibility via one of the approached below:</p> <p><u>Answer to Question 1:</u></p> <p>Approach 2 presents an inherent contradiction. Lifting the 80% limit of nominal capacity for equipment able to operate flexibly would create an incentive not to use this flexibility, as the equipment would earn more subsidy by running 24/7.</p> <p>If a method based on approach 2 is used, it should therefore not incentivise flexibility based on higher volumes of heat but rather on higher retribution per unit of heat, justified by the higher climate benefit of electricity use at low-price times.</p> <p>This is why we proposed a method of abatement calculation that takes into account (negatively) the emissions induced by electricity use (see 1.8). For equipment responding to relevant price signals (our "case 2" to in 1.8), operating hours would be typically <u>reduced</u> (not increased) but the abatement and resulting subsidy per kWh could increase very significantly.</p> <p>In any case, the volume should not be set in advance: if flexibility is properly used, volumes can't be predefined. This is why we proposed the possibility to extend the duration of grants to make sure that subsidies are only delayed and not lost, for equipment limiting their operations for flexibility reasons (see 1.6).</p> <p>Approach 1 also insufficiently incentivises flexibility by electrified heat equipment, for several reasons.</p> <p>Firstly, lifting the full-hour restriction for equipment that is not consuming power for at least 10% of the time would only benefit installations equipped with power storage equipment.</p>	

⁵ Please note that in the final T&Cs only one approach will be implemented, not a menu of 2 approaches to choose from.

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		<p><u>one approach will be implemented in the final T&C, not a menu of options.</u></p> <p><u>2nd question to stakeholders:</u></p> <p><u>Approach 2 requires only proof of the ability to consume flexibly from the grid, without ex-post checks of whether the flexibility was actually used. In your view, given the power price signal, is this approach sufficient to incentivise projects to make use of their flexibility?</u></p> <p><u>If you are a project developer, would your unit costs change due to investments in flexibility?</u></p> <p><u>Please provide your responses to the two questions in the feedback column.</u></p>	<p>Secondly, excluding from subsidies only the 10% hours with highest prices is much too low in many countries, where fossil generation is expected to drive power prices for over 50% of the time in the coming years. The number of hours should instead be different between bidding zones, to better reflect climate impacts.</p> <p>Thirdly, the hours with 10% highest prices may not be those with the highest emission intensity of power generation. In many cases, coal fired plants produce power at intermediate prices and gas plants at the highest prices, so the use of electricity at times of prices below the 10% highest may induce more emission than the one used at times of 10% highest prices.</p> <p>Lastly, it is impossible for a plant operator to predict if the current electricity price will be in the 10% highest or not.</p> <p>Approach 1 would therefore be effective if the price threshold for induced emissions was fixed (e.g. €20/MWh or 0.36 times the EUA price, as set by the RFNBO Delegated Act methodology) rather than relative to power prices recorded at different times as currently proposed.</p> <p><u>Answer to Question 2:</u></p> <p>Approach 2 is not sufficient, for several reasons.</p> <p>Firstly, because the equipment might be shut down at non-peak hours for maintenance or other reasons, so the absence of ex-post checks could incentivise to operate at peak hours to claw back the subsidies lost during non-peak hours.</p> <p>Secondly, the ability for heat equipment to respond to price signals does not guarantee that it will respond to <u>the right</u> price signals. Indeed, to limit emissions induced by heat equipment, operations need to respond to the spot (or day-ahead) price of electricity, which drives the dispatch of power generation in the grid. However, many industrial electricity users operate with long-term contract. Responding to price signals set by long term contracts would bring no climate benefits.</p> <p>Even assuming that the equipment will operate as desired, the subsidy should not granted as a fixed amount but based on the actual number of</p>	

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
			peak hours observed in the period. These peak hours should be based on a price threshold that is relevant for the fossil nature of marginal power generation in the grid.	
1.11	Safeguards against over-subsidisation	Ensuring competition through market testing, total available budget, a ceiling price, and feedback on the level of competition from one round to another. See also the rules on combined public support in Annex IV. No claw backs.		
1.12	Auction-as-a-Service	The Auction-as-a-Service mechanism would be open to all EEA countries.		
1.13	Granting authority	Climate, Infrastructure and Environment Executive Agency (CINEA) or national granting authority in case of Auction-as-a-Service.		

II. Qualification requirements

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
2.0	Admissibility	Strict respect of submission deadlines, use of forms provided through the Funding and Tenders Portal, and compliance with presenting all required documentation (Application Forms and self-declarations contained therein), together with mandatory documents and supporting documents (see section III).		
2.1	Eligibility	<ul style="list-style-type: none"> Proposals must be for projects located in the EEA. There is no limitation on the origin or type (e.g. energy company, project developer, industrial player etc.) of members of the consortium. 		

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
		<ul style="list-style-type: none"> Proposals must concern the deployment of industrial process heat electrification technologies (e.g. heat pumps⁶, electric boilers, resistance heating, induction heating, smelters, melters, ovens, shockwave heating, plasma torches...) or direct renewable heat technologies (e.g. solar-thermal or geothermal)⁷. Electric arc furnaces are not eligible, as the technological status quo is already electrified. Other processes for which heat generation is already mostly electrified may also be excluded (tbd). <p><u>Question to stakeholders: Besides electric arc furnaces, should other specific heat processes that are already mostly electrified today also be excluded? If yes, which ones precisely? Please provide your response in the feedback column.</u></p> <ul style="list-style-type: none"> Heat production for space heating or sale to district heating is not eligible. Projects that install new capacity without decommissioning existing capacity must not install fossil fuel-fired capacity at the same site. The electrified or direct renewable process heat needs to be produced by new capacity (i.e. capacity for which at the time of application start of works⁸ did not yet take place), in order to ensure an incentive effect of the subsidy. Projects must align with the applicable 'Do No Significant Harm' technical screening criteria outlined in the EU Taxonomy 'Climate Delegated Act'⁹. 		

⁶ Heat pumps can work with waste heat produced from fossil fuels but cannot lead to expansion of the fossil fuels-fired capacities.

⁷ Proposals that electrify or deploy direct renewable heat only partly and alongside existing equipment using fossil fuels are also eligible.

⁸ The first firm commitment (for example, to order equipment or start construction) that makes an investment irreversible. The buying of land and preparatory works such as obtaining permits and conducting preliminary feasibility studies are not considered as start of works.

⁹ Commission Delegated Regulation (EU) 2021/2139.

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		<ul style="list-style-type: none"> A restriction on the maximum grant amount per bid applies: EUR 250 million in the low-temperature heat topic and EUR 250 million in the high temperature heat topic (see point 1.9 'Auction topics/baskets') Minimum project size requirements apply: 5 MW_{th} of newly installed electrified / direct renewable process heat capacity. The newly installed capacity must be in a single location; virtual pooling of capacity is not permitted. Minimum eligible temperature level requirements apply: Process heat below 100°C as measured at the meter¹⁰ is not eligible in this auction. <p>Projects that have already been awarded funding under the Innovation Fund will be ineligible to bid in this auction.</p>		
2.2	Relevance and Quality	<ul style="list-style-type: none"> The proposals will be evaluated on a pass/fail basis on relevance. Quality, consisting of technical, financial, and operational maturity is assessed based on the documents listed in section III of the Terms & Conditions and Application Form B. <p>After the evaluation but before grant agreement signature, for projects invited to grant agreement preparation a financial capacity and legal entity check will be made to ensure that successful applicants have stable and sufficient resources to successfully implement all proposed projects and are in compliance with EU exclusion situation limitations (default, prosecution, etc.).</p>		
2.3	Completion guarantee	<p>A completion guarantee covering 8% of the maximum grant amount (see point 1.8 'Bid components') will be requested from projects invited to prepare grant agreement.</p> <p>A letter of intent from a bank or financial institution to issue a completion guarantee will be required as part of the proposal. A template will be made available and will have to be used (no changes to the template are allowed).</p>		

¹⁰ Metering from ISO 50001 management system.

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		<p>The completion guarantee should be in euro and issued by an approved bank/financial institution (with the following minimum rating from at least one of these rating agencies: BBB- from S&P or Fitch, Baa3 from Moody's or BBB (low) from DBRS) established in an EEA. This completion guarantee must be able to be called on first demand by the granting authority if the project (i) does not reach financial close within 2 years, or (ii) does not reach approved entry into operation within 4 years after signing the grant agreement (see point 4.0 'Maximum time to reach financial close and entry into operation').</p> <p>The completion guarantee shall be issued at the latest two months after receiving the evaluation result letter inviting the selected applicants for grant agreement preparation. It shall be valid from the date of issuance until six months after the maximum time to entry into operation (i.e. after verification that the equipment with the capacity stated as part of the bid production capacity is operational). The duration of the completion guarantee is expected to be at least 4 years and 11 months. A template will be made available and will be mandatory.</p> <p>If entry into operation is reached earlier, the guarantee can be released earlier.</p> <p>The enforcement of completion guarantees is further explained in point 4.3 'Sanctions in case of non-compliance with support requirements.</p>		

III. Design elements defining the auction procedure

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
3.0	Competitiveness of the process	<p>The key rules ensuring competitiveness of the process are:</p> <ul style="list-style-type: none"> No discrimination against participants in auction. 		

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
		<ul style="list-style-type: none"> Transparency on requirements and sufficient lead times to prepare bids. No ex-post adjustments of auction rules. 		
3.1	One-stage or two-stage auction	One-stage.		
3.2	Auction type	Static auction.		
3.3	Pricing rules	Pay-as-bid.		
3.4	Minimum prices	No minimum price.		
3.5	Ceiling prices	<p>Disclosed ceiling price:</p> <ul style="list-style-type: none"> 250 EUR /tCO₂ (abated a result of deploying electrified/direct renewables process heat) for a low-temperature heat topic as a maximum bid price. 500 EUR /tCO₂ (abated a result of deploying electrified/direct renewables process heat) for a high-temperature heat topic as a maximum bid price 		
3.6	Clearing mechanism and marginal bid	<p>Proposals will be first ranked according to their bid price from lowest to highest.</p> <p>Those proposals whose maximum grant amounts fit within the Innovation Fund basket/topic budgets (see point 1.9), and the proposals necessary to fill the reserve list, if any, will be assessed against the award criteria of 'Relevance' and 'Quality', on a pass/fail basis.</p> <p>Remaining proposals will be rejected. They will not be evaluated against the 'Relevance' and 'Quality' award criteria.</p> <p>The last proposal proposed for funding that exceeds the call budget will be added to the reserve list.</p>		
3.7	Tie-breaking rules	For proposals with the same bid price, a priority order will be determined according to the following approach:		

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction	Feedback	Substantiating evidence, data sources, background information
		<p>Successively for every group of ex-aequo proposals, starting with the lowest bid price group, and continuing in descending order:</p> <p>1) Proposals with the overall smaller maximum grant amount will be preferred.</p> <p>2) If this does not allow to determine the priority, proposals which have at least one SME¹¹ in their consortium will be preferred.</p> <p>3) If this does not allow to determine the priority, proposals located in the country with fewer funds awarded (EUR) previously under the Innovation Fund will be preferred.</p> <p>4) If this also does not allow to determine the priority decision will be taken by random draw, supervised by the evaluation committee</p>		
3.8	Minimum number of bidders	<p>The auction volume will not be adapted to the observed participation.</p> <p>Each topic of the auction may be cancelled if less than two proposals are submitted.</p>		

IV. Design elements defining rights and obligations

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auctions	Feedback	Substantiating evidence, data sources, background information
4.0	Maximum time to reach financial close and entry into operation	<p>Maximum time to reach Financial Close from Grant Agreement signature: 2 years after signing the grant agreement</p> <p>Maximum time to reach EiO from Grant Agreement signature: 4 years after signing the grant agreement.</p>		

¹¹ The determining factors whether an enterprise is an SME are: staff headcount and either turnover or balance sheet total, see definitions here: https://single-market-economy.ec.europa.eu/smes/sme-fundamentals/sme-definition_en

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auctions	Feedback	Substantiating evidence, data sources, background information
4.1	Heat production flexibility rules	<p>Semi-annual electrified/direct renewable heat production (and consequently the GHG abatement) can be increased up to 30% compared to half of the expected average yearly volume of electrified/direct renewable heat production as stated in the bid (see point 1.8 'Bid components'). Semi-annual electrified/renewable heat production beyond 30% will not be supported by grant payments.</p> <p>The total grant amount is capped at 100% of the maximum grant amount.</p> <p>See also points 4.3 'Sanctions in case of non-compliance with support requirements' for lower limits on production, and 4.4 'Payment schedules'.</p>	<p>Semi-annual electrified/direct renewable heat production (and consequently the GHG abatement) can be increased up to 30% compared to half of the expected average yearly volume of electrified/direct renewable heat production as stated in the bid (see point 1.8 'Bid components'). Semi-annual electrified/renewable heat production beyond 30% will not be supported by grant payments.</p> <p>The total grant amount is capped at 100% of the maximum grant amount.</p> <p>The grant may be extended, and the grant amount rolled over to subsequent years if the electrified/renewable heat production (and consequently the GHG abatement) falls below the expected yearly average volume as stated in the bid.</p> <p>See also points 4.3 'Sanctions in case of non-compliance with support requirements' for lower limits on production, and 4.4 'Payment schedules'.</p>	
4.2	Rules on combined support	Please see Section IV of the Draft T&Cs.		
4.3	Sanctions in case of non-compliance with support requirements	<p>A project reaching Financial Close should be able to demonstrate that all contracts are signed and conditions in them fulfilled.</p> <p>A project entering into operation should be able to demonstrate as operational a nameplate thermal capacity and eligible temperature levels for its electrified/direct renewable heat equipment (producing for industrial processes) of at least 100% of that expressed in the bid. The entry into operation needs to be approved by the granting authority.</p> <p>In case a project that claimed to decommission existing thermal capacity using gas/coal/oil, and therefore claimed an emission factor higher than the heat benchmark but cannot prove this at Entry into Operation (proof of decommissioning is not submitted), the project will be terminated as its bid expressed in EUR/tCO₂ avoided is no longer valid.</p> <p>If the maximum time to reach financial close or entry into operation is exceeded, the grant agreement will be terminated, and the granting authority will call the completion guarantee see point 2.3 'Completion guarantee'.</p>	<p>A project reaching Financial Close should be able to demonstrate that all contracts are signed and conditions in them fulfilled.</p> <p>A project entering into operation should be able to demonstrate as operational a nameplate thermal capacity and eligible temperature levels for its electrified/direct renewable heat equipment (producing for industrial processes) of at least 100% of that expressed in the bid. The entry into operation needs to be approved by the granting authority.</p> <p>In case a project that claimed to decommission existing thermal capacity using gas/coal/oil, and therefore claimed an emission factor higher than the heat benchmark but cannot prove this at Entry into Operation (proof of decommissioning is not submitted), the project will be terminated as its bid expressed in EUR/tCO₂ avoided is no longer valid.</p> <p>If the maximum time to reach financial close or entry into operation is exceeded, the grant agreement will be terminated, and the granting authority will call the completion guarantee see point 2.3 'Completion guarantee'.</p>	<p>Typically, yearly grant amounts will be different from those estimated at application, due to differences in peak hours over the years.</p> <p>Applicants should not be penalised for delaying their production to subsequent years due to high electricity prices.</p>

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auctions	Feedback	Substantiating evidence, data sources, background information
		The grant agreement may be terminated, or the grant reduced if the electrified/renewable heat production (and consequently the GHG abatement) falls on average below 30% of the expected yearly average volume as stated in the bid for three consecutive years. This average will be calculated over a rolling 3-year period.	The grant agreement may be terminated, or the grant reduced if the electrified/renewable heat production (and consequently the GHG abatement) falls on average below 30% of the expected yearly average volume as stated in the bid for three consecutive years. This average will be calculated over a rolling 3-year period. nominal capacity actually installed is lower than the capacity for which the auction was requested.	
4.4	Payment schedules	Semi-annual (every 6 months after entry into of operation) based on metered electrified / direct renewable industrial heat production from the new installation described in the proposal (see point 4.5 'Reporting requirements').		
4.5	Reporting requirements	<p>To fulfil the call objective of price discovery and contribution to market formation, the following information will be published: (i) identified bid price, total volume electrified/direct renewable heat produced, electrified/direct renewable heat equipment nominal capacity, and name of successful projects, (ii) anonymized bid price, total volume electrified/direct renewable heat produced and electrified/direct renewable heat equipment nominal capacity for unsuccessful bidders. Additional data and analysis may be published where anonymization is guaranteed.</p> <p>Until entry into operation projects will have to report annually on their progress in project implementation.</p> <p>After entry into operation, projects will report periodically alongside their requests for payment (i.e. for every six months of the operation). Reports will concern the electrified/ direct renewable heat production and resulting abatement, see point 1.1, as well as the temperature level of the produced heat.</p> <p>In these reports, projects will also have to confirm that rules on combination of support are respected.</p>	<p>To fulfil the call objective of price discovery and contribution to market formation, the following information will be published: (i) identified bid price, total volume electrified/direct renewable heat produced, electrified/direct renewable heat equipment nominal capacity, and name of successful projects, (ii) anonymized bid price, total volume electrified/direct renewable heat produced and electrified/direct renewable heat equipment nominal capacity for unsuccessful bidders. Additional data and analysis may be published where anonymization is guaranteed.</p> <p>Until entry into operation projects will have to report annually on their progress in project implementation.</p> <p>After entry into operation, projects will report periodically alongside their requests for payment (i.e. for every six months of the operation). Reports will concern the electrified/ direct renewable heat production, peak-time electricity consumption and resulting abatement, see point 1.1, as well as the temperature level of the produced heat.</p> <p>In these reports, projects will also have to confirm that rules on combination of support are respected.</p>	
4.6	Monitoring, verification and reporting of process heat volume and temperature	Process heat production needs to be reported in the semi-annual reports, every six months after Entry into Operation. Monitoring needs to take place within the framework of an energy management system as set out by Art. 11 of the EED. To be eligible for funding, the process heat needs to be monitored by audited metering units	Process heat production and peak-time electricity consumption needs to be reported in the semi-annual reports, every six months after Entry into Operation. If peak-time electricity production is not reported, the system will be assumed run on a 24/7 basis. Monitoring needs to take place within the framework	

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auctions	Feedback	Substantiating evidence, data sources, background information
		<p>following the ISO50001 standard, which needs to be part of the audited energy management system in place. Heat flow and temperature need to be monitored simultaneously.</p> <p>Process heat production of one reporting cycle is eligible for funding if the weighted average temperature lies within the limits of the corresponding temperature basket (see points 1.9 and 2.1). To calculate the weighted average temperature, the average temperature of every hour is multiplied with the average heat flow of every hour. The sum of products of all hours is divided by the total heat flow in the monitoring period.</p>	<p>of an energy management system as set out by Art. 11 of the EED. To be eligible for funding, the process heat needs to be monitored by audited metering units following the ISO50001 standard, which needs to be part of the audited energy management system in place. Heat flow and temperature need to be monitored simultaneously.</p> <p>Process heat production of one reporting cycle is eligible for funding if the weighted average temperature lies within the limits of the corresponding temperature basket (see points 1.9 and 2.1). To calculate the weighted average temperature, the average temperature of every hour is multiplied with the average heat flow of every hour. The sum of products of all hours is divided by the total heat flow in the monitoring period.</p>	

V. Mandatory documents necessary for the assessment of qualification requirements

No.	Design Element	Feedback	Substantiating evidence, data sources, background information
5.1	<p>Mandatory documents necessary for the assessment of qualification requirements:</p> <ul style="list-style-type: none"> • Application forms A, B and C/extended form C • Cost calculator • Participant information • Timetable/Gantt chart • Feasibility study • Permits, licences and authorisations • Completion guarantee letter of intent • Other annexes: Letters of intent/MoUs from equipment providers, suppliers and offtakers 		