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CLIMA.C.2 – Low Carbon Solutions (II): Research & Low Carbon Technology Deployment

Innovation Fund IF25 Heat Auction

Terms and Conditions

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I. Background and auction objectives

The Innovation Fund is one of the world's largest funding programmes for the demonstration of innovative low-carbon technologies and processes. The Fund aims to demonstrate and commercialise industrial solutions to decarbonise and support the EU's transition to climate neutrality. It is funded by revenues from the European Union Emissions Trading System (EU ETS).

The revision of the EU ETS Directive in 2023 introduced the possibility of using competitive bidding procedures (i.e. auctions) to award Innovation Fund funding. The objectives of the competitive bidding procedures are fourfold:

- A cost-efficient way of distributing financial support. Auctions have been a significant instrument in the power sector in many Member States¹, bringing down the support costs for renewable electricity by magnitudes.
- Price discovery and market formation. Auctions can reveal the real cost of certain activities or products if there is sufficient competition. This creates valuable data points for the public sector but also helps to create markets where there are none yet, by providing vetted price points.
- De-risking projects and leveraging private capital.
- Reducing the administrative burden for both project developers and contracting authorities.

Building on the successful EU-wide auctions for renewable fuel of non-biological origin (RFNBO) hydrogen production, this auction was announced in the Clean Industrial Deal Communication² in February 2025 as a pilot for the new Industrial Decarbonisation Bank. In terms of scope, this auction is focusing on the decarbonisation of industrial process heat.

This auction will support innovative projects:

- (1) Electrifying industrial process heat via technologies such as: heat pumps, direct and indirect resistance heating, electromagnetic and dielectric heating, plasma heating.
- (2) Using direct-renewable (solar thermal or geothermal) heat for industrial heat processes.
- (3) Hybrid projects of the above-mentioned technologies.

Further, the auction design aims to avoid incentivising consumption behaviour of electrified solutions that leads to higher emissions from electricity generation and higher system costs (through consumption of electricity during peak hours). Investments in electric and thermal storage, demand side response and other flexibility solutions can be priced into the bids and allow higher level of support.

This auction focusses on industrial process heat because of the large cost-effective decarbonization potential in this area: process heating³ is the single largest energy use in the European industrial sector, accounting for 47% of industrial energy demand and roughly three quarters of the CO₂ emissions generated directly by industry in 2018.⁴ Today in the EU, energy for industrial process heat predominantly comes from the combustion of fossil fuels (75%), while biomass accounts for 15%, district heating for 6% and electricity for only around 4%. Although viable electrification technologies for industrial process heat already exist, their widespread deployment is still lagging. This indicates that fossil-based technologies remain the base case for investments made today, despite their risk of becoming stranded assets with rising CO₂ prices, given those assets' long lifetimes. The auction will address economic barriers, helping industries on their path to achieve climate neutrality by the mid-century.

¹ *Competitive auctions are recommended under the Guidelines on State aid for climate, environmental protection and energy (CEEAG), (2022/C 80/01)*

² *COM(2025) 85 final*

³ *Industrial process heat refers to the many methods by which heat is used to transform materials into useful products. E.g. heat is used to remove moisture, enable chemical reactions, create steam, treat metals, melt plastics, glass etc.*

⁴ *Fraunhofer ISI (2024): Direct electrification of industrial process heat. An assessment of technologies, potentials and future prospects for the EU. Study on behalf of Agora Industry, https://www.agora-industry.org/fileadmin/Projects/2023/2023-20_IND_Electrification_Industrial_Heat/A-IND_329_04_Electrification_Industrial_Heat_WEB.pdf*

Like for the Innovation Fund hydrogen auctions, the Commission offers Member States the possibility to use the auction ‘as-a-Service’ feature to allocate additional national funds. Through the ‘Auctions-as-a-Service’ (AaaS) feature, EEA countries would be able to use their own, national resources to award support to projects that bid in the auction and are located on their territory while relying on the Innovation Fund’s EU-wide auction mechanism and evaluation to identify the most competitive projects. This would reduce the administrative burden for applicants who have to apply only once to benefit from Innovation Fund or national funding, as well as for Member States which benefit from an EEA-wide competitive selection of projects as well as a streamlined State aid approval process - pending compatibility assessment⁵ of the final schemes with CEEAG⁶. Member States who are interested to use this instrument are encouraged to get in touch with Commission services (CLIMA-AUCTIONS@ec.europa.eu and Stateaidgreffe@ec.europa.eu through their permanent representation).

II. Overview of auction design elements

This auction will support projects with electrified and direct-renewable (solar thermal and geothermal) industrial process heat⁷ solutions. Innovation Fund support will take the form of a fixed premium payment linked and proportional to demonstrated CO2 abatement for a maximum period of 5 years.

The status quo of industrial process heating is predominantly based on fossil fuels consumption. Electrified technologies are increasingly available for various temperature levels and applications but support from the Innovation Fund is needed, as most electrified heat projects face a cost gap between their costs of production and current market prices for fossil-based alternatives⁸. With this pilot auction, support through the Innovation Fund will help scale-up electrified and direct-renewable (solar thermal and geothermal) process heat technologies in industry.

The support primarily aims to reduce greenhouse gas (GHG) emissions from process heat generation. It also aims to create positive spill-over effects on other firms – including across sectors and equipment manufacturers – and thus to entail economic benefits beyond the recipients of financial support. Support will be allocated through an open competitive bidding procedure (‘auction’) and will directly support the financial viability of the projects⁹. Bids will be ranked according to the cost of abating direct GHG emissions. Displacing fossil fuels use in heat with electricity/direct-renewable heat subsidised under the instrument will reduce direct GHG emissions.

This document presents the *final Terms and Conditions* on which the design and call documents of the 2024 Heat Auction will be based.¹⁰ It is intended to help prospective applicants prepare their submission already before the publication of the call for proposals by the end of 2025. This document takes into account feedback received through written public consultation over the summer of 2025.

Any questions about the final Terms and Conditions can be sent to: CLIMA-AUCTIONS@ec.europa.eu

To ease orientation, the design elements are presented in four categories:

1. General auction design elements
2. Qualification requirements (together with section III on mandatory documents)
3. Design elements defining the auction procedure
4. Design elements defining the rights and obligations (together with section IV on rules on combination of public support)

⁵ For more details on the compatibility assessment of national schemes, see point 1.12 ‘Auction-as-a-Service’.

⁶ https://competition-policy.ec.europa.eu/sectors/energy-environment/legislation_en

⁷ Whilst cooling cannot be remunerated under the auction, projects can benefit from substantial energy efficiency gains when applying cooling and heating applications simultaneously in the case of an industrial heat pump installation.

⁸ See figure 7 (based on data for Germany) in Fraunhofer ISI (2024): CO2-neutral process heat using electrification and hydrogen https://www.isi.fraunhofer.de/content/dam/isi/dokumente/policy-briefs/24-07_policy_brief_process-heat_co2-neutral_%20electrification_hydrogen.pdf

⁹ This assessment is made based on the results of the pilot auction (IF23 Auction) which can be consulted on the following link: https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/competitive-bidding_en

¹⁰ Only the forthcoming call for proposals and its annexes (the call documents) are binding on the Commission. The call documents will be authoritative in the event of any discrepancy with the Final Terms and Conditions.

1. General auction design elements

Table 1: Overview of design elements for the IF25 Heat Auction - general design

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction
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	Fixed premium subsidy for direct GHG abatement (expressed in EUR / t_{CO2} abated) achieved through technologies using electricity, direct-renewable (solar thermal or geothermal) heat sources or hybrid solutions thereof to produce industrial process heat. The achieved abatement will be calculated by multiplying the volume of produced process heat (in MWh_{th}¹¹) with: - as a default: the phase 4 ETS heat benchmark, for projects that install a new heat production unit without decommissioning existing capacity, - the emission factor of the fossil fuel¹² replaced in the installation (e.g. natural gas, heating oil, coal...) with an assumed conversion efficiency of 90% for projects that decommission corresponding fossil fuel-fired capacity at the same site. Projects claiming an emission factor other than the default heat benchmark and decommissioning existing capacity must provide: ○ At application stage, proof¹³ of the to-be-replaced fossil fuel-fired heat production unit. This proof can take the form of the most recent ETS MRV or a third-party report¹⁴. ▪ Without this proof, the project is deemed ineligible (See point 2.1 'Eligibility'). ○ One year after Entry into Operation (second payment work package), a decommissioning report¹⁵ of the replaced fossil fuel-fired capacity. ▪ If a project fails to provide the decommissioning report, it will be terminated and the grant amount paid will be recovered (See point 4.3 'Sanctions in case of non-compliance with support requirements'). See point 4.6 'Monitoring, reporting and verification' for details on monitoring, verifying and reporting the volume of process heat.
1.2	Budget as constraining value	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, and each of the three topics will have a dedicated budget (see point 1.9 'Auction topics/baskets'). There is also a possibility of 'Auction-as-a-Service' (see also point 1.12 'Auction-as-a-Service'). The auction will be cleared where the budget is exhausted. The number of projects and production of electrified or direct-renewable process heat supported will be derived from the total available budget and the individual bids with their respective bid prices and volumes.
1.3	Support type	Output-based support (payment per tonne of CO2 abated by the project, as stated in the application). See also point 1.1 'Auctioned good'.
1.4	Support form	Fixed premium.
1.5	Indexation of support	No indexation.

¹¹ For projects that cannot measure the heat produced but can measure electricity consumed in the heat production unit (see point 4.6 'Monitoring, reporting and verification') the conversion efficiency from electricity to heat is assumed to be 95% for electric boilers and 100% for all other applications. The measured electricity consumption will then translate in the produced process heat that can be supported and is included in this formulation.

¹² If the replaced capacity uses multiple fuels, the phase 4 ETS heat benchmark must be used.

¹³ Proof of the existence and previous active use of the fossil-fired installation at the same site, its thermal capacity corresponding to at least the new supported capacity and identification of the fossil fuel used in the past years.

¹⁴ If the installation is outside the ETS

¹⁵ Decommissioning must concern fossil-fired installation at the same site, its thermal capacity corresponding to at least the new supported capacity and must have happened after the submission of the application.

1.6	Grant duration (disbursement period)	The grant duration will end 5 years after the Entry into Operation of the project. See also point 4.3 ‘Sanctions in case of non-compliance with support requirements’.
1.7	Ranking of bids	Price-only ranking.
1.8	Bid components	Applicants will state: (1) the subsidy requested per unit of produced heat (expressed in EUR / MWh_{th}) 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 - as a default the phase 4 ETS heat benchmark¹⁶ - or - standard emission factors of fossil fuels¹⁷ with an assumed conversion efficiency of 90% as explained in point 1.1 ‘Auctioned Good’. 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.¹⁸ (3) the nominal thermal capacity in MW_{th} of the heat production unit 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. (4) the volume of expected average yearly electrified/direct-renewable heat produced (see point 1.1 ‘Auctioned Good’), expressed in MWh_{th}. Please note that already at the application stage, subsidised heat production will be limited by default to the equivalent of 70% of hours per year at nominal capacity unless the project applies for a flexibility solution or is exempted from this requirement (see point 1.10 ‘Indirect emissions & flexibility requirements’). An automatic formula in the application form will translate (4) into (5) expected average yearly volume of GHG abated (expressed in t_CO2), using standard emission factors of fossil fuels with an assumed conversion efficiency of 90% or the phase 4 ETS heat benchmark (as explained in Point 1.1 ‘Auctioned good’), multiplied by 5 years of the maximum support period. The maximum grant amount is therefore calculated as: $\left[\text{Bid price in } \frac{\text{€}}{\text{t}_{\text{CO2}}} \right] * \left[\text{expected average yearly volume of GHG abated in } \frac{\text{t}_{\text{CO2}}}{\text{year}} \right] * 5 \text{ years}$
1.9	Auction topics/baskets	There will be three topics (‘auction baskets’): - a medium-temperature heat topic that covers heat produced at a metered temperature of between 100°C and 400°C, by projects that have the size higher or equal than 3MW_{th} and lower than 5MW_{th} with a budget of EUR 150 million. a. and - a medium-temperature heat topic that covers heat produced at a metered temperature of between 100°C and 400°C, by projects that have the size higher or equal than 5MW_{th} with a budget of EUR 350 million - a high-temperature heat topic that covers heat produced at a metered temperature of above 400°C by projects that have the size higher or equal than 3MW_{th} with a budget of EUR 500 million Temperatures need to be metered according to the measurement system specified in Point 4.6 ‘Monitoring, verification and reporting’. If there are budget remainders, the Commission may redistribute them between the call topics.

¹⁶

ETS heat benchmark	0.170 tCO2/MWh
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Natural gas	0.202 tCO2/MWh
Hard coal	0.341 tCO2/MWh
Lignite	0.364 tCO2/MWh
Heating oil	0.264 tCO2/MWh

¹⁸ Bid will be truncated if more than 2 digits after comma are provided.

1.10	Indirect emissions & flexibility requirements	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. 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). This is why there is the default restriction of payments to 70% of hours * nominal thermal capacity ('full-load hour restriction'). For each 6-month monitoring period, a project cannot receive a subsidy for produced volumes above the equivalent of 70% of hours * nominal thermal capacity unless at Entry into Operation: ○ it indicates that it can follow a flexible ramping schedule for consuming electricity from the grid without damage to the equipment or compromising product quality. In this case the full-load hour restriction is increased to 80% but will be monitored at each 6-month reporting period or ○ it proves investment into electricity or thermal storage for the purpose of the project sufficient to replace the project's electricity consumption from the grid or the heat demand of the process for 4h by 20% within 1h. In this case the full-load hour restriction is entirely lifted. ○ it deploys heat pumps with Coefficient of Performance (COP) of at least 2.0 or direct renewable heat. In this case the full-load hour restriction is entirely lifted¹⁹. The approach to flexibility must be chosen by the applicant already at the bidding stage (see point 1.8 'Bid components'). See also point 4.3 'Sanctions in case of non-compliance with support requirements' for the case when the flexibility was claimed at application stage not actually implemented. Beyond this flexibility requirement, indirect emissions do not need to be accounted for abatement (see also point 1.1 'Auctioned good').
1.11	Safeguards against over-compensation	Ensuring competition through market testing, total available budget 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 is open to all EEA countries. Additional safeguards might be needed to ensure that the subsidized projects lead to net emissions savings, taking into account indirect emissions from electricity. Any exemptions to the requirements on not installing new fossil fuel-fired capacity as part of the same installation (see possible exemptions in point 2.1 'Eligibility') would need to be closely examined and monitored.
1.13	Granting authority	Climate, Infrastructure and Environment Executive Agency (CINEA) or national granting authority in case of Auction-as-a-Service.

¹⁹ Hybrid projects that only partially produce heat through heat pumps with the necessary COP or by use of direct-renewable heat are not exempted from this full-load hour restriction.

2. Qualification requirements

Bidders need to fulfil qualification requirements to have their bids ranked. Qualification aims to ensure that bidders can implement the project, the project is sufficiently mature to be implemented in time, and to prevent speculative bidding. The following table lists the qualification requirements for the IF25 Heat Auction. Qualification requirements will be assessed on a Pass/Fail basis, see also section III for the mandatory documents required for the assessment of the Qualification requirements.

Table 2: Overview of design elements for the Innovation Fund 2025 Heat auction – qualification requirements

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction
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	- 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. - Proposals must concern the deployment of industrial process heat: - electrification technologies (e.g. heat pumps²⁰, direct and indirect resistance heating, electromagnetic and dielectric heating, plasma heating) or - direct-renewable (solar thermal or geothermal) heat technologies^{21 22} - or hybrid projects of the above-mentioned technologies. - Electrolysis processes (e.g. in the aluminium sector) are not eligible. - Electric arc furnaces for steel making are not eligible. - Heat production for space heating or sale to district heating is not eligible. - Projects must not install new fossil fuel-fired capacity as part of the same installation as concerns the project. Glass furnaces are exempt from this rule, as technical/safety barriers to full electrification exist. Other applications that show similar technical/safety restrictions need to provide evidence of such barriers as well as a transformation path from fossil-fuel to climate neutral fuel²³. - The electrified or direct-renewable process heat needs to be produced by new thermal capacity (i.e. heating production units for which at the time of application start of works²⁴ did not yet take place), in order to ensure an incentive effect of the subsidy. - If a project chooses to deviate from the default ETS heat benchmark but does not submit the required proof of the to-be-replaced fossil fuel-fired heat production unit, the project will be considered not eligible. See also point 1.1 ‘Auctioned good’. - A restriction on the maximum grant amount per bid applies: EUR 100 million in both medium-temperature heat topics and EUR 250 million in the high temperature heat topic (see point 1.9 ‘Auction topics/baskets’) - Minimum project size requirements apply: min. 3 MW_{th} or 5 MW_{th} (thermal output capacity of the heat production unit(s)) depending on the auction topic/basket (see point 1.9 ‘Auction topics/baskets’). The newly installed capacity must be in a single location; virtual pooling of capacity is not permitted.

²⁰ ‘Heat pump’ as a category also covers mechanical vapour recompression (MVR) and thermochemical heat transformers. Heat pumps can use environmental heat or excess waste heat from industrial processes. A direct application of fossil fuels to preheat the source of heat for heat pumps makes a project ineligible.

²¹ Proposals that electrify or deploy direct-renewable heat only partly and alongside existing heat production unit using fossil fuels are also eligible. For avoidance of doubt, heat that is produced from fossil fuels will not be eligible for support

²² For avoidance of doubt, biomass or hydrogen use for heat production is not eligible.

²³ For avoidance of doubt, heat that is produced from fossil fuels will not be eligible for support.

²⁴ 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.

		Minimum eligible temperature level requirements apply: Process heat below 100°C (determined as the temperature of heat generated following the rules set out in point 4.6 ‘Monitoring, Verification and Reporting’) is not eligible in this auction.
2.2	Relevance and Quality	- The proposals will be evaluated on a pass/fail basis on relevance. - Quality, consisting of technical, financial, and operational maturity²⁵ is assessed based on the documents listed in section III of the Terms & Conditions and Application Form B. - Projects must comply with the applicable ‘Do No Significant Harm’ technical screening criteria outlined in Commission Delegated Regulations (EU) 2021/2139 (‘Climate Delegated Act’). 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 comply with EU exclusion situation limitations (default, prosecution, etc.).
2.3	Completion guarantee	A completion guarantee covering 6% of the maximum grant amount (see point 1.8 ‘Bid components’) will be requested from projects invited to prepare grant agreement. 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). 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 approved 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’). 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 (see point 4.0 ‘Maximum time to reach Financial Close and Entry into Operation’). 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. If entry into operation is reached earlier, the guarantee can be released earlier. The enforcement of completion guarantees is further explained in point 4.3 ‘Sanctions in case of non-compliance with support requirements.’

3. Design elements defining the auction procedure

Table 2: Overview of design elements for the Innovation Fund competitive bidding mechanism - auction procedure

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction
3.0	Competitiveness of the process	The key rules ensuring competitiveness of the process are: - No discrimination against participants in auction. - Transparency on requirements and sufficient lead times to prepare bids. - No ex-post adjustments of auction rules or results.
3.1	One-stage or two-stage auction	One-stage.
3.2	Auction type	Static auction.
3.3	Pricing rules	Pay-as-bid.

²⁵ For projects with capacity of 5MWth or higher, cybersecurity measures should also be described.

3.4	Minimum prices	No minimum price.
3.5	Ceiling prices	No ceiling prices.
3.6	Clearing mechanism and marginal bid	For each topic, proposals that pass eligibility and admissibility assessment will be first ranked according to their bid price from lowest to highest. Those proposals whose maximum grant amounts fit within the Innovation Fund basket/topic budgets (see point 1.9 ‘Auction topics/baskets’), 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. Remaining proposals will be rejected. They will not be evaluated against the ‘Relevance’ and ‘Quality’ award criteria. The last proposal that exceeds the call budget will be added to the reserve list.
3.7	Tie-breaking rules	For proposals with the same bid price (within a topic), a priority order will be determined according to the following approach: Successively for every group of ex-aequo proposals, starting with the lowest bid price group, and continuing in ascending order: 1) Proposals with the overall smaller maximum grant amount will be preferred. 2) If this does not allow to determine the priority, proposals which have at least one SME²⁶ in their consortium will be preferred. 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.
3.8	Minimum number of bidders	The auction volume will not be adapted to the observed participation. Each topic of the auction may be cancelled if less than two proposals are submitted.

4. Design elements the defining rights and obligations

Table 3: Overview of design elements for the Innovation Fund 2025 Heat auctions - Rights and obligations

No.	Design Element	Implementation in the Innovation Fund 2025 Heat Auction
4.0	Maximum time to reach Financial Close and Entry into Operation	A project reaching Financial Close should be able to demonstrate that all contracts are signed and conditions in them fulfilled. The financial close needs to be approved by the granting authority. ○ Maximum time to reach Financial Close from Grant Agreement signature: 2 years after signing the grant agreement A project reaching an Entry into Operation should be able to demonstrate as operational a nameplate thermal capacity and eligible temperature levels for its electrified/direct-renewable heat production unit of at least 100% of that expressed in the bid. The entry into operation needs to be approved by the granting authority. ○ Maximum time to reach EiO from Grant Agreement signature: 4 years after signing the grant agreement.
4.1	Production rules flexibility	Projects have to observe full-load hour restrictions as per point 1.10 ‘Indirect emissions & flexibility requirements’.
4.2	Rules on combined support	Please see Section IV
4.3	Sanctions in case of non-compliance with support requirements	• 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 latest one year after Entry into Operation (decommissioning report is not submitted, see point 1.1 ‘Auctioned good’), the project will be terminated

²⁶ 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

		and the grant amount will be recovered, as its bid expressed in EUR/t_CO2 avoided would be no longer valid. • If at application stage, a project claims to implement a storage flexibility solution to waive the full-load hour restriction but by EiO does not implement it, payments will be limited to 70% of the hours (for any of the periods of 6 months). • If at application stage, project claims to implement a flexible ramping schedule to benefit from 80% full-load hour restriction but monitoring of heat production (for any of the periods of 6 months) indicates that 80% full-load hour restriction is exceeded, amount of heat that can be funded will be reduced according to the formula: $\text{Amount of heat that can be funded (MWh)} = \text{Amount of heat produced (MWh)} - 2 * \text{Excess heat produced (MWh)}.$ $\text{Excess heat (MWh)} = \text{Amount of heat produced (MWh)} - 80\% * 4380 (h) * \text{nominal heat production capacity of the heat production unit (MW)}$ • If at application stage project claims to deploy heat pumps with Coefficient of Performance (COP) of at least 2.0 to waive the full-load hour restriction but by EiO does not achieve the COP of at least 2.0, payments will be limited to 70% of the hours (for any of the periods of 6 months). • 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'. • The grant agreement may be terminated, or the grant reduced if the electrified/direct-renewable industrial 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.
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	• To fulfil the call objective of price discovery and contribution to market formation, the following information will be published: (i) for successful bidders: identified bid price, name of the project and coordinator, total volume electrified/direct-renewable heat produced, total volume of carbon abatement to be achieved, nominal capacity of the electrified/direct-renewable heat production unit(s), product of the use of heat and sector where heat is applied and possible other information, (ii) for unsuccessful bidders, anonymized overview of statistics such as: bid price, total volume electrified/direct-renewable heat produced, total volume of carbon abatement to be achieved and nominal capacity of the electrified/direct-renewable heat production unit(s), products of the use of heat and sectors where heat is applied. Additional data and analysis may be published where anonymization is guaranteed. • Until entry into operation projects will have to report annually on their progress in project implementation. • 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 'Auctioned good', as well as the temperature level of the produced heat. ◦ In these reports, projects will also have to confirm that rules on combination of support are respected. • Decommissioning report verified by an independent third party (where applicable – see point 1.1 'Auctioned good') will be required one year after Entry into Operation (second payment work package). • Reporting on the chosen flexibility approach (where applicable – see point 1.10 'Indirect emissions & flexibility requirements') will be required at Financial Close and at Entry into Operation. • Reporting on DNSH principle application at Financial Close, Entry into Operation and at the end of project's monitoring period.
4.6	Monitoring, reporting and verification (MRV)	(Industrial) process heat production needs to be monitored, reported, verified by an independent third party every six months after Entry into Operation so that grant payments can be made. Payments are proportional to CO2 abatement, calculated as produced electrified/direct-renewable process heat * the applicable emissions factor²⁷ (the same as used in point 1.8

²⁷ And for emission factors of fossil fuels also an assumed conversion efficiency of 90%

		‘Bid components’). Therefore, the correct monitoring, reporting and verification of produced process heat is crucial. To claim payments under this auction, projects must monitor and measure the produced process heat with an EMAS or ISO50001 compliant management system. Meters such as heat flow meters and thermometers need to be calibrated accordingly. There are two possible measurement approaches: • Direct measurement of process heat or • Indirect measurement of process heat. All technologies are required to follow one of the two approaches as specified below. Both process heat volume and temperature levels will have to be measured. Approach 1: Direct measurement of process heat • If the heat production volume can be measured directly by monitoring a heat flow, projects are required to do so. All applications of heat pumps²⁸, and direct-renewable heat technologies are required to follow this approach. The heat flow must be measured by a heat meter in a heat transfer medium such as steam, hot air, water, oil, liquid metals or salts, transported through identifiable pipelines or ducts. • The temperature level of the process heat is determined by a temperature measurement of the heat transfer medium after it has passed the source of heat increasing the temperature of the heat transfer medium, such as the heat exchanger of the heat pump. The temperature level needs to be monitored simultaneously with or as part of the measurement of the heat flow. Process heat production of one reporting cycle can be funded if the weighted average temperature lies within the limits of the corresponding temperature basket (see points 1.9 ‘Auction topics/baskets’ and 2.1 ‘Eligibility’). 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. Subject to the data processing system, hourly values may be substituted by other time intervals, as appropriate. Approach 2: Indirect measurement of process heat • If heat flow cannot be measured directly, projects must determine heat production based on the electricity consumption of the heat production unit. All applications of resistance heating (e.g. furnaces, boilers), electromagnetic and dielectric heating (e.g. melters, ovens), shockwave heating and plasma heating are required to follow this approach. The process heat production is determined by multiplying the hourly average electricity consumption by 95% for electric boilers and 100% for all other applications²⁹. Subject to the data processing system, hourly values may be substituted by other time intervals, as appropriate. • The temperature level of the process heat must be measured with an adequate measurement approach. Thermometers already used for process monitoring and process control can be used. The temperature level needs to be monitored simultaneously with the electricity consumption. Process heat production of one reporting cycle can be funded if the average temperature of all such measurements lies within the limits of the corresponding temperature basket (see points 1.9 ‘Auction topics/baskets’ and 2.1 ‘Eligibility’).
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²⁸ Including mechanical vapor recompression and thermochemical heat transformers.

²⁹ I.e. assuming standard efficiencies.

III. Mandatory documents necessary for the assessment of qualification requirements

- Application forms A, B and C/extended form C
- Detailed budget table/calculator ('financial information file' with the bid calculation)
- Participant information
- Timetable/Gantt chart
- Feasibility study

The feasibility study is a stand-alone mandatory document that should contribute to assess the maturity of the proposal at the moment of application. Applicants can draft it using the template available on EU Funding and Tenders Portal, but other formats are allowed.

Main sections of the feasibility study should be:

- *Project description and requirements, including aspects such as objectives, resource availability, equipment (listing the main items and their cost, substantiated by quotes from suppliers when possible), location, situation of regulatory requirements.*
- *Technology readiness, expected project output (in terms of heat production) and impacts.*
- *Project Organization, staffing and schedule.*
- *Risks analysis and management.*

Proposals implementing flexibility solutions will have to include in the feasibility study a credible justification of their ability to meet the requirements of either following a flexible ramping schedule or of investing into electricity or thermal storage (e.g., by providing quotes and technical specifications by suppliers).

- Permits, licences and authorisations strategy

The proposal should present a credible strategy to obtain the relevant permits (e.g., environmental permits, construction permits, grid connection) from the competent national or regional authorities.

The strategy needs to include a clear description of all the relevant permits needed to build and operate, as well as the process of obtaining the said permits from the relevant authorities. Furthermore, the strategy should present a clear timeline, demonstrating the ability to obtain in a timely manner the necessary permits. Particular attention should be given to the requirement of providing the environmental and construction permits (where applicable) at Financial Close.

The documentation provided will be assessed considering the national context, which should also be described in the application.

When the project assumes the use of electricity from the grid, the proposal should provide a credible strategy and the status of the process with the relevant authority to receive a grid connection, including any additional capacity needed.

The submitted documents must prove in a credible manner that the power grid connection will be secured by the Entry into Operation.

The documentation provided will be assessed considering the national context, which should also be described in the application.

- Completion guarantee letter of intent (template will be provided and will be mandatory to use)
- Other annexes: Letters of Intent / Memoranda of Understanding from equipment providers, suppliers and off-takers

IV. Rules on combination of support under the auction with other public support

This section describes the rules for combining the support awarded through this auction with other public support in the form of: either State aid (both notified e.g. under the CEEAG³⁰ or the IPCEI Communication³¹ and not notified e.g. under the GBER³²) or funding from EU programmes (e.g. Innovation Fund, Horizon Europe, Connecting Europe Facility, InvestEU).

Cases of combination of support marked **X** are not allowed. A self-declaration will be required as part of the project application, stating that by the time of grant agreement signature the project will not be in any excluded cases of combined support.

Cases marked **V** are allowed.

For all cases of allowed combination of support (under the IF auction), please also note that there are also rules on combination of support that have to be respected coming from State aid requirements (e.g. in some case of funding gap assessment under CEEAG/IPCEI).

For avoidance of doubt, general measures such as general tax reduction measures applicable to all economic operators, when they are *not* State aid, fall outside the scope of this section.

Entity	Cases of combination of support that are not allowed	Cases that are allowed
Project signing Grant Agreement for an Innovation Fund auction grant ('IF auction project')	X Combination with public support for project's CAPEX or OPEX is <i>not</i> allowed. X For avoidance of doubt, compensation for indirect emission costs provided under the ETS State aid Guidelines³³ is a form of State aid and cannot be combined. X For avoidance of doubt, reductions from levies or taxes which reflect part of the cost of providing electricity to the beneficiaries, e.g. reductions from network charges or from charges financing capacity mechanisms or reductions in electricity taxes (not covered by point 403 of CEEAG or equivalent points under other State aid frameworks) cannot be combined when they are State aid.	V Combination with previous public support for early project development stages such as: research, feasibility studies or FEED studies preceding the commercial operation is allowed. V Combination with previous public support for capacity development that is <i>not</i> part of the bid is allowed³⁴. V Combination with public support for energy infrastructure³⁵ connected to the project (e.g. Connecting Europe Facility support) is allowed, provided that the energy infrastructure is not infrastructure dedicated to this project ("non-dedicated infrastructure"). V Combination with reduction from levies on electricity consumption which finance energy and environmental policy objectives (as described in section 4.11 of CEEAG or equivalent measures under other State aid frameworks)³⁶ is allowed³⁷, even if these measures qualify as State aid.
Electrified/direct-renewable heat equipment manufacturers from whom IF auction project will purchase equipment		V Public support provided to the manufacturers supplying equipment for the IF auction project is allowed.

³⁰ https://competition-policy.ec.europa.eu/sectors/energy-environment/legislation_en

³¹ https://competition-policy.ec.europa.eu/state-aid/legislation/modernisation/ipcei_en

³² https://competition-policy.ec.europa.eu/state-aid/legislation/regulations_en

³³ Communication from the Commission – Guidelines on certain State aid measures in the context of the system for greenhouse gas emission allowance trading post-2021, 2020/C 317/04.

³⁴ E.g. if a previous project stage of 5MWe of capacity has received public support, and a 15MWe capacity extension is bid into the auction, that bid is eligible. A combined 20MWe bid, comprising 5MWe previously supported would, however, not be allowed.

³⁵ As defined in CEEAG (point 36 of section 2.4 Definitions).

³⁶ Measures notified that fall under point 403 and section 4.11 of CEEAG or similar measures, for example those that fall under Article 44 of GBER.

³⁷ Allowed for the 2025 auction round. If further auction rounds follow, this case of combined support may not be allowed.

Entity	Cases of combination of support that are not allowed	Cases that are allowed
Electricity installations from which IF auction project will source electricity		✓ Public support provided to the electricity installation from which the IF auction project will source electricity is allowed.
Off-takers to whom IF auction project sell their products (glass, metals, paper etc)		✓ Public support provided to the off-takers to whom IF auction project sell their products is allowed.