



Department for
Business, Energy
& Industrial Strategy

CHECKPOINT 1

Guidance Document



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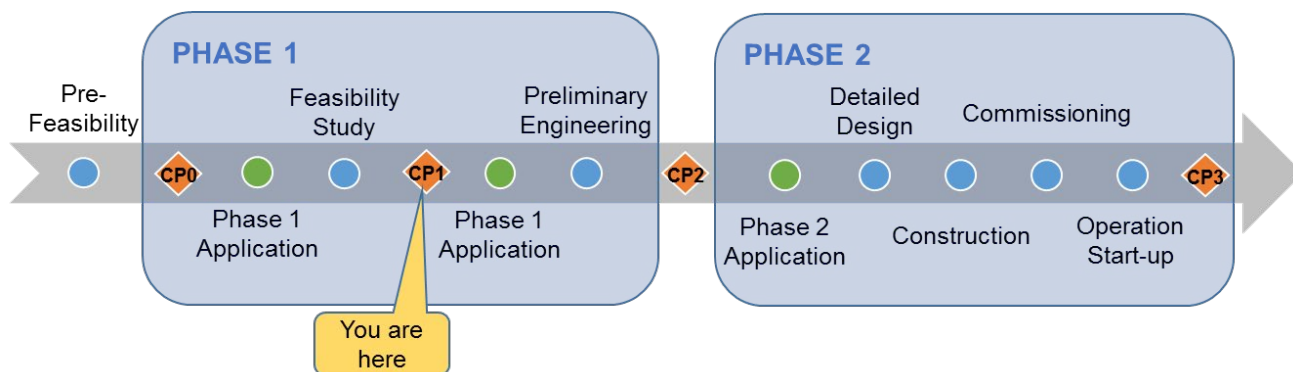
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Intention

This document provides guidance to Industrial Heat Recovery Support (IHRS) Programme applicants completing and submitting a Checkpoint 1 form.

Figure 1 IHRS Programme Checkpoint 1 Location



Checkpoint 1 provides an opportunity for existing and new participants of the IHRS Programme to:

- Provide information to the Delivery Partner to review the eligibility and the appropriateness of funding for preliminary engineering (either through continuing on from the feasibility study or direct entry to preliminary engineering) and provide feedback in advance of a Phase 1 Application (for new entrants) or progression to preliminary engineering (for existing participants).
- Communicate the key findings from a feasibility study and refine key technical and economic information before progressing onto preliminary engineering alongside an updated Phase 1 Application Workbook.

There are three pathways through Checkpoint 1 as summarised below:

- Continuing from IHRS-grant funded feasibility study to preliminary engineering – At Checkpoint 1 the continued viability of a heat recovery project is to be reviewed and confirmed.
- New entrant proceeding directly to preliminary engineering – Direct entry to potential IHRS grant funding for preliminary engineering activities for Applicants who have already completed a feasibility study (independently from the Programme). CP1 provides for review of the heat recovery project eligibility and viability, based on the information from the feasibility study, prior to a competitive Phase 1 Application submission.
- Exiting the Programme – This provides IHRS Participants who have completed IHRS grant funded feasibility studies the opportunity to withdraw their Application should the feasibility study indicate that the project would not deliver previously anticipated benefits. It also gives IHRS Participants who do not wish to progress with preliminary engineering at the current time the opportunity to exit the Programme.
- If the feasibility study demonstrates that the proposed project is not strong enough to justify continuing, BEIS requires that the Participant exits the Programme.

Completing Checkpoint 1

Applicants must complete the Checkpoint 1 form, updating information that may have been provided previously with the additional detail provided by the feasibility study.

Overall this is an opportunity for applicants to demonstrate that they have a potentially viable heat recovery project which is worth exploring through preliminary engineering. Applicants should attach a copy of the feasibility study as part of the submission of the Checkpoint form.

The information you will be asked to provide will be specific to your use of Checkpoint 1 (i.e. whether the applicant is continuing with, new to, or exiting from, the Programme).

New applicants completing Checkpoint 1 will have already completed a feasibility study independently of the IHRS and must use the relevant information from the feasibility study to aid completion of the Form.

Continuing applicants must provide an update to the previously provided information extracting the detail gained from having now completed a feasibility study alongside an updated Phase 1 Application Workbook.

Exiting applicants must complete Checkpoint 1 to provide information on key lessons learned and the decision for withdrawing from the Programme

Forms for **exiting** and **continuing** applicants will be available on the IHRS portal. Example forms can be viewed on the template Checkpoint forms available on the IHRS webpage.

Although Checkpoint 1 review is not competitive, it is essential that Programme participants submit and have their Checkpoint form reviewed in order to progress to the next stage of the Programme, be it Exit or preliminary engineering. Milestone payment applications for existing participants will only be processed upon receipt of the completed Checkpoint 1 form to confirm completion of the feasibility study. IHRS Participants exiting the Programme must also comply with the Evaluation Process to receive the associated milestone payment

For new applicants, you are advised to provide as much detail as possible across all questions. This will enable the Delivery Partner to review your Checkpoint information and provide you with further comments on crucial points that need to be more fully addressed if your project is to proceed to preliminary engineering with IHRS support. For new applicants this will help improve the robustness and completeness of your application for competitive assessment. To make sure the Delivery Partner reviews all the data, please reference, within the response to a question, the name of any documents you submit in support of that response.

[Table 1](#) gives an outline of the detail required for Checkpoint 1.

Table 1 Checkpoint 1 Completion Requirements

Section	Checkpoint 1 requirements
Applicant Details (Section 0)	This section will contain the information you provided at the application registration stage. If you need to change any of this detail, please note the change in the box at the end of this section and the update will be made by the Delivery Partner. This is to manage the integrity of the initial registration checks.

Section	Checkpoint 1 requirements
	<p>If you are a new applicant at CP1 you will need to add:</p> <p>Your company size;</p> <p>An overview of the heat recovery opportunity and</p> <p>Your agreement to State aid and BEIS Grant offer terms.</p>
<p>Technical Concept (Section 1)</p>	<p>New applicants will need to describe your heat recovery project, using the detail you have from your feasibility study.</p> <p>1.1 Provide an overview of the process generating the waste heat. This should include the source of energy, amount of heat generated, factors affecting the availability of waste heat and its technical characteristics (temperature, pressure, gas content, flow rate, etc.).</p> <p>1.2 Provide an overview of the proposed technical solution for recovering waste heat. This could include the heat recovery method, estimated thermal efficiencies, rated outputs, and factors (e.g. production, temperature, gas quality, etc.) affecting its performance. State the maturity and market status of the chosen technology and consider whether there is a precedent for the selected technology in a similar application and/or within the sector from which the Project is proposed.</p> <p>1.3 Provide an overview of the technical profile of the proposed use of the recovered heat or energy. This could include the process, operation parameters, current energy consumption and fuel type.</p> <p>1.4 Provide an overview of the technical concept of the heat transport or energy delivery to the user. This should include a conceptual plant layout plan, conceptual schematic diagrams, relevant technical specifications gathered of the proposed heat / energy transfer solution being assessed.</p> <p>You will also need to provide the figures for the expected available, recovered and used heat. You must also provide a process flow diagram.</p> <p>Continuing applicants can provide an updated write-up extracting the detail you have gained from having completed a feasibility study.</p> <p>To make sure the Delivery Partner reviews all the data, please reference the name of any documents you submit.</p> <p>If exiting, you do not complete any of this section.</p>
<p>Delivery Plan (Section 2)</p>	<p>This section asks for information on the completed feasibility study and proposed preliminary engineering. Each of these sub-sections is tailored to your entry point for CP1.</p>
<p>2.1 Feasibility Study</p>	<p>In this section of CP1 you will be asked to describe the previously undertaken feasibility study, and you must attach a copy with CP1.</p> <p>If you have not completed a feasibility study or If you have completed a feasibility study that you no longer feel is relevant, then you should be entering the Programme at CP0.</p> <p>New applicants must provide the following detail on the feasibility study activity:</p> <p>2.1.3 List and explain the specific objectives and purpose of the activities that were undertaken. You should consider technical objectives, business objectives such as cost and payback, and implementation feasibility.</p> <p>2.1.4 Detail and explain the feasibility study conclusions. The response should connect to the objectives described in the question above and to any new or unexpected conclusions. You need to provide sufficient detail</p>

Section	Checkpoint 1 requirements
	<p>for the review to show clearly the viability of the proposed heat recovery project.</p> <p>When writing 2.1.4 take care not to duplicate the specific areas covered in the next two questions.</p> <p>2.1.5 Provide an assessment of the key barriers to, risks for and constraints on the heat recovery project that were identified. Each of these should have practical mitigation procedures for effectively managing the risk and constraint and overcoming the barrier.</p> <p>2.1.6 Specific detail on planning or permitting requirements.</p> <p>For continuing or exiting applicants: these questions are not exactly the same as were submitted at CP0, so you must update or complete the questions extracting the detail you have gained from now having completed the feasibility study.</p>
2.2 Preliminary Engineering	<p>In this section of CP1 all applicants will be asked to describe the preliminary engineering work you will be undertaking.</p> <p>New applicants must provide the following detail on the preliminary engineering activity:</p> <p>2.2.4 Provide and explain the specific objectives and purpose of the proposed activities. You should consider technical objectives, business objectives such as cost and payback, and implementation feasibility.</p> <p>2.2.5.1 Please provide the organisation details of any external resources you will engage for your activity along with their specific role and responsibilities. Your response should be sufficient to show that you have all the required resources.</p> <p>2.2.5.2 For each person in your activity team please provide their name, specific role, experience and company. The intention is to show that the team have the experience and skills to deliver a successful activity.</p> <p>2.2.6 You should describe the activity in sufficient task detail to be able to clearly show the activity is deliverable and the benefits that the activity will bring. For each task you should describe:</p> <p>The specific task that will be undertaken;</p> <p>What the measure or output of the task will be and the benefit it is bringing to the activity;</p> <p>In detail what will be done in the task and how the task is achievable and relevant to the overall activity;</p> <p>You should also consider and describe a realistic timescale for the activity.</p> <p>2.2.7 Provide a summary assessment of the key activity risks. The risks identified should be specific to the activity and should have practical mitigation procedures for effectively managing the risk posed</p> <p>Continuing applicants can provide an updated write-up extracting the detail you have gained from having now completed a feasibility study.</p> <p>If exiting, you do not complete any of this section.</p>
Finance and additionality (Section 3)	<p>New applicants must provide:</p> <p>3.1.1 The total cost of the preliminary engineering. Not the amount of grant funding you are requesting.</p> <p>All applicants must provide your post feasibility estimates of financial information for the eventual heat recovery project:</p> <p>3.1.2 Expected cost to implement.</p>

Section	Checkpoint 1 requirements
	<p>3.1.3 Expected rate of return on investment.</p> <p>3.1.4 Your company's minimum investment threshold.</p> <p>3.1.6 The amount of preliminary engineering grant funding you are applying for.</p> <p>The simple payback (3.1.5) will be calculated for you.</p> <p>In 3.1.7 please detail how you intend to fund the preliminary engineering and the proposed heat recovery project. You must detail the funding sources and amounts they are providing to each phase. Please also provide information on conditions that come with the funding sources such as limits, constraints or energy saving performance expectations.</p> <p>3.2.1 is an opportunity for you to provide further narrative information to support the cost numbers for the preliminary engineering activities or the proposed heat recovery project itself.</p>
Wider Benefits (Section 4)	<p>This section is where you describe the benefits of the heat recovery project.</p> <p>4.1 Please provide your early estimates of the expected scale and effectiveness of the eventual heat recovery project in terms of a value for energy cost savings (4.1.4) and any other cost savings (4.1.5) such as water, waste or maintenance. This must reference the figures you provided in section 1 (which are shown here). In 4.1.7 please describe the non-energy cost savings, how you calculated them and any assumptions. These could include materials, waste, water, labour.</p> <p>4.2. When describing the non-financial benefits, you could include; environmental, wider economic and employment or social impact. You could also show the operational benefits the heat recovery project will bring for example simpler process or improved quality.</p> <p>If not exiting you will be asked to confirm you have attached a document with the results of a high-level sensitivity analysis which demonstrates the dependence of benefits on key technical, operational and financial parameters. You summarise these results by listing in 4.3 you all the key factors that may affect the benefits from the heat recovery project, showing what they are and what the impact may be.</p> <p>You will need to provide detail on the wider benefits in the Application Workbook.</p>
Further Information (Section 5)	<p>This is a purely optional question for you to provide further narrative information to make the case for your application.</p>
Exiting the Programme (Section 6)	<p>This section is only visible to participants Exiting the scheme after the feasibility study.</p> <p>Exiting applicants will be asked to provide a narrative on your reasons for leaving the Programme and to provide a narrative on the lessons learned from undertaking the feasibility study. These could both be related to financial or business case reasons, unsolvable operational challenges, a change in business direction.</p> <p>For both these questions a suitably detailed response is a requirement of any milestone payment.</p>

Submission

The completed Checkpoint form should be submitted to the Delivery Partner either through the IHRS portal or following the submission guidelines provided in the confirmation note sent in response to your Application Registration. Applicants will receive an email acknowledgement of receipt of the Checkpoint form and should then expect to wait up to two weeks for feedback on the Checkpoint form, prior to proceeding.

An electronic copy of feasibility study and any additional supporting documentation should also be submitted to IHRS Delivery Partner.

Please note – Review of the Checkpoint form at Checkpoint 1 is required for applicants to:

Progress to preliminary engineering from IHRS-funded feasibility study (alongside a submitted updated Phase 1 Application Workbook); or

Exit the Programme (in addition to the Evaluation Process having been completed).

Receive Payment Milestone PM01 – Grant payment for feasibility study.

or

To proceed with competitive application for Phase 1 funding for 'preliminary engineering only' for new entrants to the IHRS Programme.

Review of Checkpoint 1

The Checkpoint form is not competitively assessed but is subject to a review process. Following review of the Checkpoint form, applicants will be given a confirmation note with the following feedback:

Confirmation note	Pathways	Basis of outcome
Proceed	Existing participants continuing from IHRS-grant funded feasibility study to preliminary engineering	All Grant Funding Agreement requirements met and output findings of feasibility study remains aligned with IHRS aims and objectives. Participant may proceed onto carrying out the preliminary engineering with IHRS grant funding. Payment Milestone 1 (PM01) shall be released.
	New entrants applying directly for IHRS funding for preliminary engineering only	Applicant may proceed onto the full application by completing and submitting a Phase 1 Application Workbook for competitive assessment. If technical comments are provided, applicants are strongly encouraged to address these prior

Confirmation note	Pathways	Basis of outcome
		to the submission of their application Workbook. Applicants are not required to resubmit the Checkpoint form.
	Exiting participants exiting the Programme	All Grant Offer Letter and Grant Funding Agreement requirements met and evaluation process completed. Participant decide not to proceed further and may exit the Programme. Payment Milestone 1 (PM01) shall be released.
Cannot proceed	Existing participants continuing from IHRS-grant funded feasibility study to preliminary engineering	Grant Funding Agreement requirements not met. Participant cannot proceed onto preliminary engineering. Payment Milestone 1 (PM01) cannot be released. In the case where the Grant Offer Letter and Grant Funding Agreement requirements are met but the outcomes of the feasibility study demonstrate that the proposed project is not strong enough to justify continuing BEIS will ask participant to exit the programme at this point. Payment Milestone 1 (PM01) will be released when the evaluation process for the Programme has been completed.
	New entrants applying directly for IHRS funding for preliminary engineering only	Applicant cannot proceed with full application as they either do not meet the minimum eligibility requirement, or the Checkpoint form is incomplete.
	Exiting participants exiting the Programme	Grant Offer Letter and/or Grant Funding Agreement requirements not met and/or evaluation process not completed. Payment Milestone 1 (PM01) cannot be released until the Grant Offer Letter and Grant Funding Agreement requirements have been met and/or the evaluation process completed by the participants.

If applying for preliminary engineering only, applicants must complete the Checkpoint 1 Form prior to Phase 1 Application. Please note that Checkpoint 1 review is not a competitive process, however information submitted in the Checkpoint 1 form prior to the Phase 1 Application serves as a project summary for this application.

This publication is available from: <https://www.gov.uk/guidance/industrial-heat-recovery-support-programme-how-to-apply>

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