

# Heat Pump Ready Stream 1

## Response to Competition Questions

### Version 3

Version 3 updates:

- Addition of Question C.5
- Addition of Question F.10

Version 2 updates:

- Addition of Conflict of interest Section K
- Update on Question D.19



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# Contents

A.	Document Corrections _____	4
B.	General _____	5
C.	Applicant eligibility _____	5
D.	Project Scope & Eligibility _____	7
E.	Collaborative / Consortia Applications _____	15
F.	Funding _____	16
G.	Reporting _____	20
H.	Other _____	20
	General Heat Pump Ready Questions & Answers _____	22
I.	Supporting Materials _____	22
J.	Eligibility _____	23

## A. Document Corrections

A.0 P21 of the Guidance (page on document) states: 'Phase 1 project's will complete their application for Phase 1 during Month 5 of their project...' Can you confirm that this should read: 'Phase 1 project's will complete their application for Phase 2 during Month 5 of their project...'

Correct – this should read “Phase 1 project’s will complete their application for Phase 2 during Month 5 of their project” and has been amended in Version 2 of the document issued.

A.1 Do I understand correctly that the SBRI structure for this programme means that funding is provided by way of contract of service to BEIS not as grant? If so, what is the purpose of the 'for grants only' section in the Summary tab of the Project cost breakdown form?

A revised version of the Project Finance Form has been issued and must be used by all applicants to Heat Pump Ready Stream 1.

A.2 The Guidance Note on p80 says, 'All costs should be provided excluding VAT, though where VAT applies, applicants should specify the amount.' Can you specify where in the Project Cost Breakdown Form we should specify the VAT amount?

Where VAT applies, please detail this in the row below the item which incurs VAT, when completing the Project Finance Form.

A.3 Can you confirm that the correct declarations have been published? There appears an error in a couple?

Revised versions of all declarations have been published.

A.4 “Phase 1 application forms can be submitted from any point after the start of month 5 of Phase 1 up to the deadline of end of month 5 of Phase 1.” Should this read "Phase 2 application...".?

Correct – on Page 22, this should read “Phase 2 application forms can be submitted from any point after the start of month 5 of Phase 1 up to the deadline of end of month 5 of Phase 1.” and has been amended in Version 2 of the document issued.

A.5 P14 describes Phase I as 6 months and p26 states 'Phase 1 contracts are expected to be started 1st May 2022 running to 31st October 2022'. However p34 states 'Phase 1: Feasibility Studies must be completed and approved by BEIS by 12 noon BST, 29th September 2022.' 'Eligibility question: Can you confirm that your Phase 1 project end date is on or before 12 noon BST, 29th September 2022? (yes/no)' Should the latter be amended to 'Eligibility question: Can you confirm that your Phase 1 project end date is on or before 12 noon BST, 31st October 2022? (yes/no) Or should p14 be amended? What should be planning to undertake in October 2022 in our Phase 1 Project Plan?

Page 34 has been amended in the Competition Guidance and Smart Survey Application. The duration of a Phase 1 project is a total of 6 months. In October 2022 projects are expected to be completing their final reporting on the project.

### B. General

B.0 Can BEIS confirm that phase 2 of the project will be a maximum of 3 projects, or could this be increased depending on size and scale of individual phase 2 proposals following phase 1 feasibility?

The funding available for Phase 2 of Stream 1 is £27m, this is enough funding for 3 projects applying for the maximum £9m of funding available. Should the highest-ranking projects apply for less than the maximum funding, BEIS may be able to fund more projects with the funding available. (Please see Section B.3. which details funding available under Stream 1)

B.1 Please can you provide an extension to the response deadline to accommodate the substantial change you made to the competition with regards to the funding of heat pump capital costs.

BEIS has provided from 22nd December 2021 to 22nd February 2022, which provides approximately 6 weeks post-Christmas for applicants to prepare their Phase 1 application. BEIS will not be extending the competition deadline.

B.2 The price of electricity is expected to go up by more than 10p/kWh in spring to as much as 34p/kWh, with gas seeing a rise of less than 2p/kWh to around 8p/kWh. With the focus of Stream 1 being on-gas domestic properties, the disparity in pricing will have a big impact on participants. With much of the difference in cost related to taxation and government policy, therefore out of control of Stream 1 applicants, what will BEIS be doing to ensure that this programme does not result in increased negative media coverage of green policies and heat pumps in particular?

Under Stream 3 of Heat Pump Ready, we will have a contract responsible for conducting social research and evaluation across the Heat Pump Ready Programme, in addition to facilitating knowledge sharing and evidence dissemination. This work will allow BEIS to understand and share with the broader sector, the impact of any potential changes to the cost of gas and electricity and future policies, on the deployment of heat pumps.

### C. Applicant eligibility

C.0 Are Housing Associations from Wales eligible to apply or is this solely for English based businesses?

Housing Associations from Wales and other commercial and non-commercial organisations may apply, however they must demonstrate a credible and practical route to market, i.e., the application must include a plan to commercialise the results. (Please refer to Competition

Guidance, Section F, Phase 1 and 2 Assessment Criteria, Criterion 4, regarding requirement for replicability and sustainability of project before lifetime of funding).

C.1 Would housing cooperatives be considered within the private or social housing categories? Or is BEIS looking to focus on individual homeowners rather than a single decision maker for many households (in a housing coop)?

For this programme we will use the following definition: social housing is housing which is operated by a “social landlord” which is defined as—

(a) in respect of premises in England—

- (i) a local housing authority, within the meaning of section 1 of the Housing Act 1985(4);
- (ii) a housing association, within the meaning of section 5 of the Housing Act 1985(5);
- (iii) a housing trust, within the meaning of section 6 of the Housing Act 1985; or
- (iv) a charity, within the meaning of section 1 of the Charities Act 2011(6);

(b) in respect of premises in Scotland, a person so described in section 165 of the Housing (Scotland) Act 2010(7); and

(c) in respect of premises in Wales—

- (i) a local housing authority, within the meaning of section 1 of the Housing Act 1985;
- (ii) a housing association, within the meaning of section 5 of the Housing Act 1985;
- (iii) a housing trust, within the meaning of section 6 of the Housing Act 1985;
- (iv) a charity, within the meaning of section 1 of the Charities Act 2011;
- (v) a person listed in section 80(1) of the Housing Act 1985(8); or
- (vi) a body registered as a social landlord under Chapter 1 of Part 1 of the Housing Act 1996(9).

Whether housing cooperatives are deemed as private or social housing would depend on whether it meets the criteria set in the definition above.

Social Landlords and other commercial and non-commercial organisations may apply, however they must demonstrate a credible and practical route to market, i.e., the application must include a plan to commercialise the results. (Please refer to Competition Guidance, Section F, Phase 1 and 2 Assessment Criteria, Criterion 4 , regarding requirement for replicability and sustainability of project before lifetime of funding).

Please also note that social housing homes can only represent up to 30% of the total homes in

a Stream 1 project trial - see Table 6 and Table 8 (Page 30 & 38) of the Stream 1 Competition Guidance.

C.2 Please confirm this funding opportunity applies to Social Landlords in Wales.

Social Landlords in Wales and other commercial and non-commercial organisations may apply, however they must demonstrate a credible and practical route to market, i.e., the application must include a plan to commercialise the results. (Please refer to Competition Guidance, Section F, Phase 1 and 2 Assessment Criteria, Criterion 4, regarding requirement for replicability and sustainability of project before lifetime of funding).

C.3 Can any Local Authority partner and Distribution Network Operator (DNO) receive grants (actual £) from the project programme and overall funding split?

Local Authority partners, DNOs and other commercial and non-commercial organisations may apply, however they must demonstrate a credible and practical route to market, i.e., the application must include a plan to commercialise the results. (Please refer to Competition Guidance, Section F, Phase 1 and 2 Assessment Criteria, Criterion 4, regarding requirement for replicability and sustainability of project before lifetime of funding). Please note that the Stream 1 competition is being run as a SBRI, a form of pre-commercial procurement (and it is NOT a grant programme)

C.4 We will have a few partners as a project consortium to apply this grant together, Could you please confirm that if the University, as a research organisation, is eligible to lead the application? Or Does the lead applicant must be a business? Is this role apply to both Stage 1 and Stage 2?

Universities and other commercial and non-commercial organisations may apply, however they must demonstrate a credible and practical route to market, i.e., the application must include a plan to commercialise the results. (Please refer to Competition Guidance, Section F, Phase 1 and 2 Assessment Criteria, Criterion 4, regarding requirement for replicability and sustainability of project before lifetime of funding). Please note that Stream 1 is being run as a SBRI, a form of pre-commercial procurement (and it is NOT a grant programme)

C.5 I was wondering if this opportunity was open to applicants in Northern Ireland?

Commercial and non-commercial organisations, including those based in Northern Ireland may apply, however only methodologies which support the high density deployment of heat pumps in locations across Great Britain are eligible and the innovative methodologies must be trialled in Great Britain. In addition projects must demonstrate a credible and practical route to market, i.e., the application must include a plan to commercialise the results

## D. Project Scope & Eligibility

D.0 Would the following examples be eligible under Stream 1?:

## Heat Pump Ready Stream 1: response to competition questions

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- Web based self-service portals to allow customers (including local authorities etc.) and installers to understand the capacity of the network to support their plans and indicative costs of any network upgrades required.
- Mobile device based apps with back-office AI that allow customers and installers to get an assessment of individual supply point suitability for heat pump connection and potentially initiate applications to the DNO.

Projects are welcome to use the commercially available technologies which meet the scope detailed above as part of their innovative methodology developed under Stream 1, Phase 1, however funding to develop these technologies would not be eligible under Stream 1, Phase 1. Applicants may be eligible to receive funding for the development of such technologies from Ofgem's Strategic Innovation Fund and should contact [SIF\\_Ofgem@iuk.ukri.org](mailto:SIF_Ofgem@iuk.ukri.org) for further details.

D.1 In the Q and A one of the answers was: 3.17. It was said that householders need advice on the type of heat pump best suited to them. Do you mean you want projects to be manufacturer agnostic? It is important that consumers received the most suitable heat pump for their circumstances rather than a particular brand of heat pump.

Methodologies do not have to be technology/manufacture agnostic, however applicants will need to justify how a methodology which relies upon specific technology will be sustainable and replicable beyond the lifetime their project. (Please refer to Competition Guidance, Section F, Phase 1 and 2 Assessment Criteria, Criterion 4, regarding requirement for replicability and sustainability of project before lifetime of funding).

D.2 Is this correct that retrofit social housing can only make up 30% of the total.

Correct, for example should a project trial size be a total of 1,000 homes, only 300 of these homes are eligible to be social housing homes. Please see Table 6 and Table 8 (Page 30 & 38) of the Stream 1 Competition Guidance.

D.3 Would you expect the Phase 1 application to include details of a specific location within the LAU Level 1 area we identify or simply to identify which of the three location categories it will fall within?

As per Competition Guidance, Section F, Phase 1, assessment Criterion 2, at Phase 1 stage, applicants should identify the LAU which they will be conducting their feasibility study within. At Phase 2, as per assessment Criterion 1, applicants will be expected to specify the specific location within that LAU they will be deploying heat pumps.

D.4 Is the target property type street level or would low-medium rise flats (<18m) be welcomed (provided other criteria are met)?

BEIS do not specify the archetype of the eligible homes, both street level and low-medium rise flats (and other housing types) are welcomed provided all the criteria set out in Section D of the Competition Guidance are met.

- D.5 Does the definition of ‘off-gas grid homes’ relate to the availability of gas in an area or whether there is an existing gas connection to a property? For example, would a property in an ‘on-gas’ area that does not have a gas connection be considered to be a ‘off-gas grid home’?

‘Off-gas grid homes’ relates to properties which do not have an existing gas connection.

- D.6 Is the primary objective of the call to assess the impact of high-density deployment of heat pumps on the local distribution network; or to develop new business models to accelerate the deployment of heat pumps within the target areas?

Heat Pump Ready Stream 1 aims to understand the impact of high density heat pump deployment on the local distribution networking, in addition to supporting the development and trial of innovative methodologies for engaging consumers and deploying heat pumps at high density.

Note, Stream 1 does not provide funding for the development of new financial business models (such as heat or comfort as a service), only the deployment of commercially available financial business models. The development of new financial business models is eligible for funding under Stream 2. Please see Section B.2. of the Competition Guidance for competition objectives.

- D.7 We seek clarification of “suppliers will retain responsibility and ownership for the technologies and demonstration devices developed and deployed as part of this programme”. Does this mean that manufacturers will still own all heat pumps deployed as part of the programme? If homeowners have purchased the technology/technologies as part of the programme we assume they will own them? Manufacturers/project partners will own any shared infrastructure and monitoring equipment.

With reference to Section I.3 of the competition guidance, at the end of a Stream 1, Phase 2 project, any heat pumps deployed as part of this programme will be the responsibility of the Project Lead. Project Leads may choose to assign the ownership of these heat pumps to another organisation or consumer, as part of their methodology.

Note, as per Section M.2.1. the cost of home energy monitoring is not an eligible cost of the project.

- D.8 We have product in mind [which could be deployed in Phase 2 alongside the heat pumps], and does it mean that we must stop developing work while we do feasibility study, at least for 6 months?

For funding towards the development of tools and technologies, applicants should look to Stream 2 of Heat Pump Ready. Stream 1 supports the development of innovative methodologies to support the high-density deployment of heat pumps, opposed to the development of components of heat pump systems. All technology and tools used in the trial deployment of Stream 1 methodologies should be entering the market for sales (i.e. TRL8/9 or above) available at the point of installation.

BEIS has included a 'rapid' option for Stream 2 projects to enable them to align with Phase 2 of Stream 1, with rapid projects due to be completed at the point of the Stream 1, Phase 2 stage gate – which could enable them to be trialled in Stream 1, Phase 2. BEIS will facilitate introduction between successful Stream 1 and Stream 2 projects. Please note: BEIS will not fund any retrospective work.

D.9 Can a tool or technology funded under Stream 2 be used in Stream 1's trial deployment?

Yes, however at the point of deployment in Stream 1 the tool or technology should be entering the market for sales (i.e. TRL8/9 or above). BEIS has included a 'rapid' option for Stream 2 projects to enable them to align with Phase 2 of Stream 1, with rapid projects due to be completed at the point of the Stream 1, Phase 2 stage gate – which could enable them to be trialled in Stream 1, Phase 2 projects. BEIS will facilitate introduction between successful Stream 1 and Stream 2 projects. Please note: BEIS will not fund any retrospective work.

D.10 Can Stream 2 projects trial their technology as part of Stream 1's deployment phase?

Projects cannot use Stream 1 to 'trial' their technology as products deployed as Stream 1 is focused on trialling the deployment methodology opposed to individual technologies and tools. Funding is available as part of Stream 2 to develop and trial technologies and tools which are at a pre-commercial stage. BEIS has included a 'rapid' option for Stream 2 projects to enable them to align with Phase 2 of Stream 1, with rapid projects due to be completed at the point of the Stream 1, Phase 2 stage gate – which could enable them to be trialled in Stream 1, Phase 2 projects. BEIS will facilitate introduction between successful Stream 1 and Stream 2 projects.

D.11 In Eligibility criteria section it is written that "innovation wouldn't be taken forwards without public sector funding". Does it mean that company will not be able to use and develop the product in future?

The Stream 1 innovation is around the development of an innovative methodology which enables the high-density deployment of heat pumps. Eligibility criterion D13 (Page 33 of the Stream 1 Competition Guidance) requires applicants to provide evidence to show that any innovation they propose for Stream 1 would not be taken forwards (or would be taken forwards at a much slower rate) without public sector funding – that is, the funding available under Stream 1 is necessary to enable the innovative methodology to be developed and demonstrated.

It is also a requirement of applicants to demonstrate the replicability of their methodology and its' sustainability beyond the lifetime of the project.

D.12 I have a query about the Heat Pump Ready Programme, it says Stream 1 is intended to be focused on domestic, on gas grid homeowners who are retrofitting heat pumps but that 15% of the trial buildings can be off-gas grid properties. As a county with 24% of off-gas grid properties are we able to apply for this funding to trial rural off-gas heat pump deployment or at least for a feasibility study? Also, why is the funding

predominantly focused on on-gas grid properties when it is likely to be more challenging to deploy them in off grid properties.

Projects which aim to deploy heat pumps at a high density in 100% off-gas homes are not eligible under the programme. As per Section D.1.5. Phase 1 projects must be aiming to achieve a minimum of 85% heat pump deployment to on-gas homes. This is required in order for the programme to meet its objectives.

D.13 Table 8 states that the maximum number of off-gas grid homes is 15% of the total. We are looking at a number of Rural areas where there is a high percentage of off-gas grid homes. Can this requirement be relaxed for projects classifying as Rural as we believe there will be a higher proportion of off-gas homes in general within these areas?

As per Section D.1.5. Phase 1 projects must be aiming to achieve a minimum of 85% heat pump deployment to on-gas homes. This is required in order for the programme to meet its objectives.

D.14 Can BEIS confirm or provide further guidance on “significant increase beyond trials carried out to date”. We assume that this is significant relating to an individual LAU trial, and not reflective of such volumes delivered nationally in other programmes as Electrification of Heat?

A “significant increase beyond trials carried out to date” relates to the number of heat pumps which have been deployed in an area with similar characteristics to that being proposed by the project. For example, in a location with similar characteristics to an area in which heat pumps were deployed under the Electrification of Heat Programme, we would expect a higher level of deployment through the development of a project’s innovative methodology.

D.15 Can BEIS provide further clarity on the High density deployment requirement. Do all of the heat pumps installed need to meet the 25% criteria definition? Or is this 25% of the overall programme volume?

25% is at a project level, not a programme level. Each project is responsible for ensuring 25% deployment as per Section D.1.3 of the competition guidance.

D.16 If an existing heat pump is already installed (for example on a LV network where we are planning to install additional properties) can this count towards the overall 25%?

No, only heat pumps installed as part of this programme count towards the 25% deployment figure –and no retrospective work can be funded.

D.17 Would your contractor (ie the successful applicant) and/or the household be able to hold full ownership rights for assets bought with part-funding in Stream 1 Phase 2?

The Project Lead will be responsible for heat pumps deployed through their contract with BEIS. They may choose to assign ownership to other organisations/consumers depending on their innovative methodology.

D.18 Our innovative approach includes providing the household with an option of us financing the initial cost of equipment and installation. R&D on the finance service has been undertaken but it is still pre-commercial. We are not seeking support under this programme for R&D to develop the finance service but the finance service will form part of the innovative service package which will be the subject of feasibility and trial. I also note that elsewhere Stream 1 providers will be encouraged to consider incorporating innovations developed under Stream 2. Our finance service innovation has already been developed and will not be the subject of a stream 2 application. Can the Stream 1 feasibility and trial work incorporate a finance service which has been developed but is pre-commercial?

Stream 1, Phase 1 may include pre-commercial technologies or products as part of their application. However, at the point of Phase 2's Stage Gate all technologies and products deployed must be a commercial product. Stream 1 focuses on trialling the innovation around the innovative methodology developed, not the trial of pre-commercial products. Applicants wishing to carry out the feasibility and trials of tools and technologies are eligible for funding from Stream 2 of the programme. Where applicants have included pre-commercial products (which they expect to be commercially available by the point of install) they should detail the risk of the inclusion of these products and the associated mitigation required to ensure delivery should these pre-commercial products be delayed or fail to commercialise.

D.19 I would like clarification of BEIS' understanding of 'pre-commercial' which both phase 1 and 2 will be. P33 notes: 'Projects requesting funding for commercialisation activities (for example, advertising and marketing of their developed solution as a commercial product to other heat pump coordinating organisations) are not eligible.' Our proposal will not include the examples given. It would include, in Phase 2, entering of contracts with households for provision of goods/services to them. These may be long term contracts where households opt for a funded solution, and contracts with funding partners, insurers etc. Will this still constitute pre-commercial activity?

Throughout Phase 1 and Phase 2 of Stream 1, in line with the 'no profit' requirement of this pre-commercial procurement, project leads are not eligible to charge a profit on eligible project costs, including within commercial contracts with consumers. Where commercially available products need to be used for the project, for example the heat pumps, unless these are provided by the lead applicant, we understand that in line with typical purchases, these will be purchased at the market rate through sub-contractors which will likely include an element of profit. Project leads should not be supplying heat pumps and incurring a profit as to do so would contravene SBRI principles.

Project Leads may wish to enter into non-commercial contracts (i.e. a contract which does not include any profit) however, as part of their application, applicants would need to demonstrate how they would ensure the innovative methodology to heat pump deployment would be replicable and sustainable beyond the life time of the Heat Pump Ready Project, even though the trial of their methodology would provide heat pump to consumers at a lower than market rate.

D.20 The term 'heat network' is used throughout the tender documents and it has been made clear that they are not eligible in this program. Please can you confirm that you are limiting your definition of a heat network to systems dependent on central plant.

Correct, Heat Pump Ready only provides funding to projects whereby there is a heat pump per property, as opposed to, for example, a heat pump per street.

D.21 Can additional homes from outside the 25% density criteria be used to ensure criteria around house-type (social housing/new build etc.) be included in the trial? For example, 25% of a low voltage network being achieved by deploying heat pumps in new build homes e.g. 25 homes on a single low voltage network, with an additional 84 private households found elsewhere in the local authority to reach the requirement for 70% minimum new-build homes?

All homes in which heat pumps are deployed should be within the 25% density options which the applicant selected, for this example, the applicant may wish to increase from a low voltage network to a secondary substation, noting the increased number of homes which would be required (25% of homes on a secondary substation, rather than 25% of a single low-voltage network). The maximum combined 30% of homes being social housing, new-build and non-domestic is across all homes the level at which applicants set their 25% density. The 30% limit on social housing, new build and non-domestic properties is a maximum limit – there is no requirement for trials to include 30% of social housing, new build and non-domestic properties.

D.22 Do Stream 1 projects have to be manufacturer agnostic when providing guidance and heat pump recommendations to consumers?

Stream 1 projects are required to provide the most suitable heat pump to the households. If an applicant can demonstrate the most suitable heat pump can be provided to all the trial households from a single manufacturer that would be acceptable. Applicants should also detail how the methodology developed, which would be reliant on a single manufacturer, would be sustainable and replicable beyond the lifetime of the project, as per the Competition Guidance, Section F, assessment Criterion 4.

D.23 Do projects have to meet any interoperability (or other) mandated standards or requirements?

Projects should meet all mandated standards which are in place at the point of deployment. Projects should detail risks which potential policy changes may have on the project and the mitigation action they will take as part of their application.

D.24 Will a solution be accepted that only installs heat pumps from a single manufacturer?

Stream 1 projects are required to provide the most suitable heat pump to the households. If an applicant can demonstrate the most suitable heat pump can be provided to all the trial households from a single manufacturer that would be acceptable. Applicants should also detail how the methodology developed, which would be reliant on a single manufacturer, would be

sustainable and replicable beyond the lifetime of the project, as per the Competition Guidance, Section F, assessment Criterion 4.

D.25 Can manufacturers offer heat pumps at a significant cost reduction / at cost price to consumers to reflect the cost reduction expected in the next few years?

Yes, however applicants must ensure they can demonstrate how any methodology developed, which offers heat pumps at a significant cost reduction during this project, would be sustainable and replicable beyond the lifetime of the project.

D.26 Please may we ask can battery storage and inverter be included in the project cost?

No, as per Section M.2.1. "Capital cost of renewable energy generation & electricity storage (i.e. solar PV, battery)" are not eligible costs under Stream 1's costs.

D.27 We are looking at the project including smart EV charging installation - given EV can be a significant draw on the grid and we are asking whether this aspect of the system solution can be qualified for other governmental incentives, such as OZEV Home Charging Point Grants? i.e. Adding in and bolting on charge point grants on top of the core programme funding and whether this is acceptable?

Project teams are welcome to apply for additional public funding to support the deployment of their project, however this additional funding cannot be additional funding (i.e., funding to top-up that provided from Heat Pump Ready) for costs which are eligible under Stream 1. In addition, the success and delivery of Stream 1 projects cannot be dependent on additional funding which has not been secured at the point of Phase 2 application. Any reliant on additional funding for Phase 1 or Phase 2 which is yet to be secured by the applicant should be included in the project risks with mitigation action detailed.

D.28 The government is developing regulation of heat networks through Ofgem. Supplying heat as a service rather than relying on traditional ownership and billing methods for heating will bring with it the same consumer protection issues experienced by households connected to a heat network. Compliance with regulation would increase financial risk and cost of delivery. Please can you clarify whether or not heat as a service suppliers will be covered by the same regulation as heat network operators.

Stream 1 projects should comply with all relevant standards and regulations which are in place at the point of installation. Projects should detail risks which potential policy changes may have on the project and the mitigation action they will take as part of their application. For projects looking to develop innovative financial business models (such as heat-as-a-service) funding is available through Stream 2 of Heat Pump Ready – Category 3, "Financial models to support heat pump deployment".

## E. Collaborative / Consortia Applications

E.0 With regards to a possible consortium approach, can a local authority be a lead partner on the bid and project?

Local authorities and other commercial and non-commercial organisations are eligible to lead an application for Stream 1, however they must demonstrate a credible and practical route to market, i.e., the application must include a plan to commercialise the results. (Criterion 4 in Phase 1 and 2 applications regarding replicability and sustainability of project before lifetime of funding).

E.1 Can the project lead / consortia change between Phase 1 and Phase 2?

Project leads and consortia cannot be changed between Phase 1 and Phase 2 applications. BEIS will consider, on a case-by-case basis, the addition of consortia members which support areas of expertise, identified during the Phase 1 project, and which are essential to enable mobilisation and deployment in Phase 2.

E.2 Please can you confirm that the lead Partner is responsible for the budget/spending control?

Yes, the Project Lead / Lead Partner, will be responsible for the budget and spend control of the project, including the deployment of funding from BEIS to its collaboration partners.

E.3 Do you expect proposals to Stream One to have a local authority signed up as a partner of some sort, to any proposal in their area and are local authorities eligible to lead a bid?

Local Authorities (and other commercial and non-commercial organisations) are eligible to lead a bid, however they must demonstrate a credible and practical route to market, i.e., the application must include a plan to commercialise the results. (Criterion 4 in Phase 1 and 2 applications regarding replicability and sustainability of project before lifetime of funding). It is not mandatory for a local authority to be a formal partner in a Stream 1 project. Applicants should consider the Stream 1 assessment criteria, including the skills and competencies required for all the tasks proposed for their project, when deciding which organisations to include within a consortium bid.

E.4 Referring to the statement "The lead organisations must also ensure that there is no double-counting' – i.e. that funding is not claimed more than once for the same piece of work". Can the same consortium (with different lead partners) apply the same methodology and technology but different location under different location categories (i.e. Urban, rural, urban with significant rural) or would this be considered as double counting? Does double-counting refer to receiving various sources of funding (i.e. If a member of the consortium has already received some funding for their work e.g. Tool development?)

There are two elements of 'double counting' detailed in this question:

1. Double counting in terms of developing the same methodology in two areas. If applicants wish to apply to more than one location category, they are required to develop different methodologies otherwise project teams will be doing the same work, just in two different locations.
2. Double counting in terms of funding source. Additional public funding cannot be used to supplement any of the eligible costs under Heat Pump Ready. This includes funding towards the cost of the heat pumps.

E.5 Can a Research and Technology Organisation (RTO) lead a submission to Stream One?

RTO's (and other commercial and non-commercial organisations) are eligible to apply, however they must demonstrate a credible and practical route to market, i.e., the application must include a plan to commercialise the results. (Please refer to Competition Guidance, Section F, Phase 1 and 2 Assessment Criteria, Criterion 4 , regarding requirement for replicability and sustainability of project before lifetime of funding).

## F. Funding

F.0 My understanding is that SBRI will fund 100% of the eligible costs. Does this apply to both University and business? No matter the size of business, the funding intensity will be 100%, for both Stage 1 and Stage 2?

Correct, 100% of eligible costs will be funded under the SBRI, which is the same for both Phase 1 and Phase 2. Please note that Full Economic Cost calculations are not relevant in this competition. SBRI is a competitive procurement mechanism and tenders will be submitted by a variety of organisations. Whatever calculation you use to arrive at your tender price your application will be assessed against bids from other organisations. You should calculate your tender price bearing this in mind and that your proposal will be assessed as to whether it reflects a fair market value. You are entitled to include overheads but remember that this is a competitive tender.

F.2 Will the cost of appropriate insurances which may include public and product liability, employer liability, professional indemnity, fire and theft for the installed heat pump, which would be owned by Stream 1 provider, be an eligible Phase 2 cost?

The BEIS Stream 3 provider will establish a 'Costing methodology' as detailed in Section B.6. and the cost of relevant insurances will be incorporated into this 'Costing methodology'. Funding will be provided to successful projects against these costs as detailed in Section M.1.2. of the Competition Guidance. These costs will not be eligible as stand-alone items of a Stream 1 application as they form part of the consumer offering.

Where Local Authorities and Housing Associations receive funding via Social Housing Decarbonisation Fund to undertake insulation measures (i.e. EWI) can Heat Pump Ready

funding be used on the same properties for an Air Source Heat Pumps installation as part of the trial (in accordance with the guidance cap)?

Public funding can be used to fund costs which are ineligible under Heat Pump Ready. For the specific example of insulation measures, since the cost of insulation that is necessary to enable a heat pump deployment is categorised as a core cost to consumers (section M.1.2.) which is an eligible cost for Heat Pump Ready, projects will not be able to utilise additional public funding to support that element. An example of where additional public funding could be used to support project costs which are ineligible under Heat Pump Ready, is the cost of EV chargers and/or the cost of renewable energy generation and storage. Note that all projects must demonstrate how the innovative methodology developed is replicable and sustainable beyond the lifetime of the Heat Pump Ready project.

F.3 P51 states 'all overheads will need to be justified.' In other SBRI projects. Justification can be either by itemising overhead costs or keeping them within 20% of staffing cost (and if the latter, without itemisation). Will this approach also be applied for this SBRI project?

Page 51 of the Competition Guidance states: "BEIS will not normally pay overheads over 50%, all overheads will need to be justified."

F.4 How is the funding for Phase 1 determined (i.e. within the £50K-£200k)?

Applicants are required to submit an application with eligible project costs between £50k and £200k. These costs should be submitted as part of the applications finance form. All bids will be assessed against the evaluation criteria specified in the competition guidance.

F.5 What is the relative weighting of the funding objectives (e.g. cost savings? Financial proposal? Mainstream households? Replicability?)

The assessment criteria and relevant weightings are set out in Section F.1 for Phase 1 and Section F.2 for Phase 2, of the Competition Guidance

F.6 Could we have clarification on the following point with regards to value for money – is there a particular criteria? "Quantify the savings being passed on to HM Government to reflect the asymmetric balance of risks and benefits accruing to the project consortium and HM Government"

In Criterion 5B, Applicants are expected to:

- Describe why the application represents good value for money for HM Government. The answer should explain the following:
  - a. How the availability of public funding makes a material difference to the actuality and pace of moving the solution towards commercialisation, and
  - b. Qualify and quantify the savings that are being passed on to HM Government to reflect the asymmetric balance of risks and benefits accruing to the project consortium and HM

Government. As part of the assessment process for Phase 1, project teams will be asked to clearly state where cost savings are being provided compared to exclusive development contracts (that is, contracts where the buyer – BEIS in this case – retains all the rights for IP developed under the contract). These cost savings form part of the eligibility conditions for the Competition, i.e., projects that do not offer justified cost savings will not be eligible for Phase 1 funding.

F.7 Are the HEAT PUMP READY 'COST TO CONSUMERS' BENCHMARK requirements to be interpreted in cases where upfront costs are met by us as service provider not the household?

The Stream 3 provider has the responsibility of producing a methodology for calculating the 'cost to consumer' under the different approaches successful in their Stream 1, Phase 1 application. This is to enable 'like for like' costs to be compared in the Phase 2 applications. This methodology will consider both the upfront costs and operational costs, which include costs paid to service-based offerings. This cost methodology will also consider different tenures, including owner occupier, private landlords and social housing.

F.8 The Guidance Note p82 states, 'To de-risk the deployment of heat pumps and enable Phase 2 projects to successfully trial their innovative methodology, up to 40% of the core costs to consumers (as set out in Table 13) will be eligible for domestic retro-fit low temperature air and ground source hydronic heat pump installs, capped at a maximum of £5,000 for air source heat pumps and £6,000 for ground source heat pumps.' Where the innovative methodology provides for the initial costs of installs to be met by a party other than the consumer will up to 40% of the core costs of installs be eligible costs in Phase 2?

Funding towards the capital cost of heat pumps will be provided to the Project Leads to be used to deploy heat pumps in line with their developed innovative methodologies. This cost saving could be passed on to the consumer or - where a service-based offering is to be provided - to offset the upfront capital cost of this service-based offering. It is essential that in both cases, projects can provide evidence that their methodology is replicable and sustainable beyond the funding duration of this project.

F.9 P80 of the Guidance says 'All eligible project costs, outlined within this section, must be 100% funded by BEIS – i.e. Heat Pump Ready funding must be for a specific innovation project as defined in this Guidance document; it cannot be used as partial funding for a broader programme. Projects which have higher costs than the maximum allowed in each Phase (Phase 1 £200k excluding VAT and Phase 2 £9m excluding VAT) are ineligible, even when the project team are providing the additional/in-kind funding.' Our innovation includes incorporation of a heat pump in a home alongside onsite generation and storage (PV and battery) with a smart local energy system. For Phase 2, we appreciate that only part of the capital cost can be covered (ie part of the heat pump cost and none of the PV and battery cost). All eligible costs would be 100% funded by BEIS but we and/or the householder would meet other costs as outlined above-

principally PV and battery. Would this make the whole of our phase 2 project ineligible? (we would keep within the £9m total project cost)

The total cost of all eligible project costs must not exceed the maximum funding available from BEIS – i.e. BEIS must fund 100% of the eligible costs. The funding from BEIS cannot be used as part of a larger project, which includes costs which would be eligible under the BEIS project, for example if a project were to propose a methodology, which when trialled would have eligible costs of £50m, BEIS will not provide £9m of the £50m eligible project costs. In the case where projects wish to fund costs which are out of scope and ineligible under the BEIS project costs (e.g. renewable electricity generation or energy storage) projects are not excluded from funding ineligible costs at their own expense to enable them to be included in the development and trial of the methodology, however additional measures or facilities will not be included in the assessment of the project or form part of the contract. (Reference Section M.1. & M.2. of Competition Guidance)

F.10 In our proposal for stream 1 we had planned to use the Boiler Upgrade Scheme instead of using Stream 1 funding to subsidise the heat pump capital and install costs. This will allow us to trial a methodology that can be easily scaled in other areas (working with our install partner) without the need for more funding. We thought that this would be ok as it would avoid double-counting.

However, on re-reading the SBRI guidance it looks like you're saying we aren't allowed to choose between the Boiler Upgrade scheme and stream 1 funding. This is a shame because it will mean that we can't include the process of claiming for the boiler upgrade scheme as part of the methodology; this will make it harder to expand and replicate the methodology.

In addition, the 40% offered as part of stream 1 funding is less than what is likely to be available under the BUS for most urban homes, so this will make it harder to recruit customers as we'll be starting at a cost disadvantage against companies (outside stream 1) who are able to offer BUS-subsidised heat pumps.

Applications into Stream 1 (SBRI) are not eligible to apply for the Boiler Upgrade Scheme (BUS) as part of their solution. The Heat Pump Ready programme aims to develop methodologies to deploy heat pumps at a high density which will be sustainable beyond the lifetime of the programme (i.e. January 2025), as well as beyond the lifetime of current grant or subsidy schemes, with the ambition that these methodologies reduce the cost of heat pump deployment to a level which requires minimum government grants or subsidies.

Government expects heat pump costs to fall by 25 to 50 per cent by 2025, as the market develops. In recognition of the current heat pump costs, ahead of these anticipated cost reductions, during the Heat Pump Ready Programme time frame, BEIS are providing a proportion of funding for eligible heat pump deployment costs for successful Stream 1, Phase 2 projects, as set out in Section M.1.2 of the Stream 1 Competition Guidance.

Further details on the Boiler Upgrade Scheme can be found here:

<https://www.gov.uk/government/consultations/future-support-for-low-carbon-heat>

## G. Reporting

- G.1 P20 of the Guidance states: 'Projects are required to submit monthly written progress reports to their PMO, and to meet with them monthly to discuss project progress.' Can you confirm if these can be online meetings and if not what geographical location we should assume

These meetings will be in-person, unless COVID regulations prevent this and will be held at the Project Leads premises in the first instance.

## H. Other

- H.1 Would it be possible to amend the allocation method slightly? At the moment there is a risk of losing a lot of higher quality proposals because they are unfortunate to have bid in a NUTs region where there's another good bid.

There will be no changes to the funding allocation method which has been developed to help ensure that the Stream 1 Competition funds a diverse and varied range of solutions which work for the whole of Great Britain. . The funding allocation method is detailed in Section F.6. and F.7. of the Competition Guidance.

- H.2 We see recruitment of consumers as the critical step in successfully delivering Stream 1. In reality, this may need to start much earlier (i.e. in Phase 1) to ensure the requisite number of participants in the trial is achieved. Would it make more sense to bring forward recruitment of consumers into Phase 1?

No, the recruitment of consumers will begin if/when Phase 2 projects are awarded. The methodology developed under Phase 1 of the project should address how consumers can be recruited in the timescale allowed under Phase 2 of the project.

- H.3 Is there already the opportunity to go straight to Phase 2, and if so, what does the application look like for that?

No, BEIS is funding the development and trial of innovative methodologies for high density heat pump deployment which are not yet in the market – it is not simply a heat pump deployment programme.

- H.4 Will the contract be the same for Stream 1, phase 2 and for Stream 2?

No, they do not have the same contract. Stream 1 is an SBRI competition, whereas Stream 2 is a grant competition.

- H.5 Is provision of our insurance policies non-negotiable? We can only provide insurance broker certificates evidencing our insurance coverage.

## Heat Pump Ready Stream 1: response to competition questions

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Yes, as part of the due diligence process, BEIS will require evidence of the insurance policies in place for the duration of the project. This is non-negotiable.

# General Heat Pump Ready Questions & Answers

## I. Supporting Materials

- I.0 In the Q&A document, in response to questions 1.19, 1.20 and 1.21 on page 7, you stated that: “Our analysis indicates that around 80 to 90 per cent of homes currently have sufficient energy efficiency and internal electrical limits to accommodate a heat pump. However, due to the diversity of UK housing stock, it means that in some cases fabric energy efficiency upgrades, such as loft or wall insulation, may be required.” Please could you share the analysis referred to?

This is BEIS internal analysis and is not yet published, however the methodology applied is the same as that published as part of the Delta-EE report on the technical feasibility of electric heating in rural off-gas grid dwellings (<https://www.gov.uk/government/publications/electric-heating-in-rural-off-gas-grid-dwellings-technical-feasibility>).

- I.1 is there any data available from the EoH project that we could plug into our modelling?

Data from BEIS Electrification of Heat project will be published in due course. Projects should base their proposals on data currently available and should be viable without data which has not yet been published.

- I.2 When will the Home Suitability Model be published, including APIs? Significant elements of that tool would be useful, and also mean that repetition of activity could be avoided (with related impact on what needs to be included in our planning). Can the related research that was done in conjunction with the development of that tool be shared?

Details on the publication of the Home Suitability Model and associated API's will be released in due course. Projects should base their proposals on data currently available and should be viable without data/models which have not yet been published.

- I.3 Will the Heat Pump Ready Programme Networking page stay up after the competition submission date and if so, any idea how long?

Yes, the Heat Pump Ready Programme Networking platform will remain open until at least November 2022.

- I.4 Is/was the [excellent] UK SMART meter network funded by the UK Government (i.e. the taxpayer) and does the UK Government own the data which comes from it (even if both have been subsequently monetised by the CCS).

The smart meter rollout is funded by energy suppliers, who may recover their costs from their entire customer base, just as they do with traditional metering. This represents a small

proportion of customers' energy bills. Access to the data collected by smart meters is controlled by the smart metering Data Access and Privacy Framework: the Framework ensures that households have control over who can access their energy consumption data and for what purposes, except where this is required for regulated purposes (such as accurate billing).

## J. Eligibility

J.0 We currently have a project running through the Energy Entrepreneurs Fund, but am wondering if it is possible to apply for this also please?

With reference to Section 5.2.1 of the competition guidance, "Recipients of other BEIS or other public sector innovation grant funding (Energy Entrepreneurs Fund for example) may apply for funding for new projects within Heat Pump Ready Stream 2 - Developing Tools & Technology. Any applications for Heat Pump Ready funding must extend the scope of the previously funded work to substantively new applications or processes or extend the technology readiness."

J.1 I have a company which provides training material and equipment to support learning providers. Could funding be eligible as part of Heat Pump Ready to develop training material and equipment and to scale up the fabrication of equipment?

Under Stream 2, as detailed in Section 2.1 of the Competition Guidance, a project which is developing innovative technology and tools to support the personnel involved in the heat pump installation process could be eligible.

J.2 Does the Heat Pump Ready programme replace the incentive of RHI for an end consumer? How does the new programme compare to RHI? How do I, as a consumer, apply?

The Heat Pump Ready Programme is not a direct to consumer heat pump funding programme. Its aim is to provide funding to organisations to support innovation required to overcome barriers to heat pump deployment.

- The Boiler Upgrade Scheme (BUS) is currently planned to launch in April 2022 as a successor policy to the Domestic Renewable Heat Incentive (DRHI), the primary existing support scheme for low carbon heat, which will close to new applications on 31 March 2022.
- The BUS will support the installation of air source heat pumps, ground source heat pumps, and, in limited circumstances, biomass boilers in domestic and small non-domestic buildings.
- The BUS will provide upfront capital grants for the installation of low carbon heat technologies in domestic and small non-domestic properties, whereas the RHI pays consumers in arrears over 7 years. The grant model will help customers overcome the high upfront cost of low carbon technologies when replacing existing fossil fuel systems.

- For further details on scheme eligibility and application requirements, we recommend viewing the [government response](#) for the Boiler Upgrade Scheme and Ofgem's [consultation](#) on scheme administration.

J.3 I note there is Boiler Upgrade Scheme that possibly is the replacement to RHI. Is that correct? Where can I get full information re eligibility and how to apply?

The Boiler Upgrade Scheme (BUS) is currently planned to launch in April 2022 as a successor policy to the Domestic Renewable Heat Incentive (DRHI), the primary existing support scheme for low carbon heat, which will close to new applications on 31 March 2022.

The BUS will support the installation of air source heat pumps, ground source heat pumps, and, in limited circumstances, biomass boilers in domestic and small non-domestic buildings.

For further details on scheme eligibility and application requirements, we recommend viewing the [government response](#) for the Boiler Upgrade Scheme and Ofgem's [consultation](#) on scheme administration.

J.4 I have been looking at lots of presentations and papers but I still don't fully understand. How do I find out more about applying for a heat pump, as my gas boiler is broken?

The Heat Pump Ready Programme is not a direct to consumer heat pump funding programme. Its aim is to provide funding to organisations to support innovation required to overcome barriers to heat pump deployment.

The Boiler Upgrade Scheme (BUS) is currently planned to launch in April 2022 as a successor policy to the Domestic Renewable Heat Incentive (DRHI), the primary existing support scheme for low carbon heat, which will close to new applications on 31 March 2022.

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For further details on scheme eligibility and application requirements, we recommend viewing the [government response](#) for the Boiler Upgrade Scheme and Ofgem's [consultation](#) on scheme administration.

## K. Conflicts of Interest

K.1 Initially [Company name] were going to be part of our consortium but they are probably bidding for Stream 3 - if we include them in our bid but say that if they get Stream 3 they would be carved away from the project (obviously they wouldn't be a dependency but a complement in terms of the actual submission), is that OK from BEIS' side?

As per the HPR guidance for all three streams, the appointed supplier for Heat Pump Ready Stream 3 - Trial Support and Shared Learnings will be partly responsible for assessing effectiveness and impact of Stream 1 - Solutions for High-density Heat Pump Deployment and Stream 2 - Tools & Technology projects and disseminating the work of these Streams.

BEIS therefore considers that there is potential for an actual or perceived conflict of interest if companies who bid for this Stream 3 - Trial Support and Shared Learnings work, were to bid for other work in or related to this Programme, for example, for the Stream 1 - Solutions for High-density Heat Pump Deployment or Stream 2 - Tools & Technology roles or for the Thematic Evaluation Contractor. In their tender response, all tenderers (regardless of which competition they are bidding for) are required to ensure that any actual or perceived conflict is declared and satisfactorily mitigated.

Organisations may submit bids for both Stream 1 - Solutions for High-density Heat Pump Deployment and Stream 2 - Tools & Technology funding but they must declare that they have made applications to more than one stream; and ensure that satisfactory mitigation to any potential conflict of interest is identified in their tender responses.

BEIS reserves the right to exclude any proposals where the bidder has an actual or perceived conflict of interest that cannot be mitigated to the satisfaction of BEIS.

K.2 Stream 3 requires independent assessment of the stream 1&2 projects and the BEIS documentation entirely appropriately highlights the importance that there must be no conflict of interest, real or perceived, between the projects that are undertaken and their evaluation. Whilst the final details for Stream 3 do not appear to have been published yet (please correct me if I am wrong here), the initial documentation highlights the importance of independent performance assessment. [redacted] [Our organisation would like to enquire whether it can provide smart meter data, through its existing data collection service], to the Stream 3 provider.

To mitigate the potential conflict of interest, we propose that [if data were to be collected by our organisation in] Stream 3 to support the evaluation exercise, that [our organisation] only provide the data, with appropriate QA, and are not involved in its analysis or interpretation. Further, if the Stream 3 team wish to run the standard [data collection] survey to compare to a control sample, [our organisation] would administer the survey and provide the data, but take no part in its analysis and interpretation for the Heat Pump Ready Programme. In this way, whilst [our organisations] involvement may be required to access smart meter data and a standard survey, we would be able to provide assurance that [our organisation] has no involvement in the evaluation of that data, and thus of the participant projects of Streams 1&2, and therefore no conflict of interest.

When assessing the impact of a COI we need to take into account not only any actual conflicts, but perceived conflicts as well.

The steps outlined in your proposed mitigations have some shortcomings, especially in relation to 'perceived' conflicts which have not been addressed in the mitigations proposed.

In addition, you have not specified whether you intend to submit bids for (or be involved in consortia for) streams 1 & 2 or how you would specifically mitigate any perceived COI.

Our response is also conditional upon receiving and reviewing your proposal after the bid deadline before any final decision could be made on whether the COI considerations had been satisfactorily addressed.

K.3 I have found myself in a position whereby I am providing advice to Stream 1, Stream 2 and Stream 3 applicants regarding my area of expertise, however I will not be submitting my own application or bid. Please can you clarify who the responsibility of understanding if there is a conflict of interest fall on? Is it the bidders coming to me or me?

BEIS defines a conflict of interest for research and analysis, as the presence of an interest or involvement of the contractor, subcontractor (or consortium member) which could affect the actual or perceived impartiality of the research or analysis. If you are not involved in an application/bid as a contractor, subcontractor (or consortium member) you would be outside of the BEIS conflict of interest declaration requirements. If you are involved in an application/bid to Heat Pump Ready, you are required as part of your application to declare that you are involved in applications to more than one stream; and ensure that satisfactory mitigation to any potential conflict of interest is identified in each of your tender responses.

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This publication is available from: [www.gov.uk/government/publications/heat-pump-ready-programme-apply-for-stream-1-opportunities](https://www.gov.uk/government/publications/heat-pump-ready-programme-apply-for-stream-1-opportunities)

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