Department for
Business, Energy
& Industrial Strategy

The Industrial Energy Transformation Fund

Summary of responses to consultation

June 2020

Any enquiries regarding this publication should be sent to us at:
IETF@beis.gov.uk

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1 General Information

1.1 Purpose

The Industrial Energy Transformation Fund (IETF) was announced in Budget 2018 as a £315m fund aiming to help companies with high energy use to cut their bills and reduce carbon emissions. Launching in spring 2020, the Fund will be delivered by 2024. In autumn 2019, the Government sought views on the detailed design proposals for the Fund, particularly on how to maximise value for money.

This document summarises the 88 responses received from a wide variety of stakeholders during the consultation on '*The Industrial Energy Transformation Fund: Supporting industry on the path to net zero*'. For each question asked in the consultation, this document presents the qualitative and quantitative analysis of the responses received and demonstrates how feedback has been incorporated into the final scheme design for Phase 1.

Phase 2 guidance and a separate government response will be published in 2021.

Issued: June 2020

1.2 Enquiries to the IETF

Industrial Energy Transformation Fund Team
Department for Business, Energy and Industrial Strategy
2nd Floor, Victoria 2
1 Victoria Street
London
SW1H 0ET

Tel: 0207 215 5000
Email: IETF@beis.gov.uk

Territorial extent: England, Wales and Northern Ireland

2 Executive Summary

This document responds to the 88 responses received to the consultation on '*The Industrial Energy Transformation Fund: Supporting industry on the path to net zero*', which ran from 10 October 2019 to 21 November 2019.

We are grateful for all the feedback we have received on the consultation, both in response to the document and during our events in Belfast, Cardiff, Glasgow, London, Manchester and Middlesbrough. All responses have been carefully considered and the feedback received has been incorporated into the final scheme design for Phase 1 of the IETF.

The consultation set out the key aspects of the scheme design for Phase 1 of the IETF and how the IETF intends to make a contribution towards meeting our 2050 net zero target in conjunction with other policies. How these policies will interact with one another is covered by section 3 of this document.

The majority of respondents were in favour of the proposals for technologies, feasibility and Front-End Engineering and Design (FEED) studies, funding support and delivery for Phase 1 scheme design. Our proposals for eligible organisations and the minimum grant award size received a mixed response. This document sets out the detail behind the final scheme design and the feedback we received on each proposal. In summary, the following design for Phase 1 of the IETF has been agreed:

- Organisations from manufacturing SIC codes 10 – 33 will be eligible for support during Phase 1, though projects in data centres will also now be eligible for support. Funding will be provided as grants in Phase 1 for energy efficiency deployment projects and feasibility and FEED studies. The minimum grant award per project for the deployment of energy efficiency technologies has been reduced from £1 million to £250,000.
- Only projects proposing to use technologies that improve the energy efficiency of industrial processes will be supported. Projects improving the energy efficiency of buildings or transport will be ineligible for funding. Applicants will not be required to limit technologies to those listed on the Energy Technology List (ETL).
- The IETF will also provide support for feasibility and FEED studies of energy efficiency and deep decarbonisation projects during Phase 1.
- Phase 1 applications will be assessed against four criteria:
    - Additionality and cost effectiveness
    - Project overview and technical feasibility
    - Project costs
    - Deliverability and risk.
- The IETF will be open to applications in England, Northern Ireland and Wales. Scotland have chosen to opt-out of the UK wide IETF and a share of the overall Fund will be made available to Scotland[1]. This will enable a separately administered fund supporting Scottish industries to be developed.

[1] This share will be calculated according to the Barnett formula.

For Phase 2, the IETF will provide grant funding support for large-scale demonstration or deployment of deep decarbonisation projects, whilst continuing to support the activities carried out during Phase 1. Other funding and support mechanisms will be considered in the development of future government policy initiatives and strategies for deep decarbonisation, since we recognise that both hydrogen and Carbon Capture Usage and Storage (CCUS) business models will need to be developed in order to enable deployment of these technologies.

2.1 Next Steps

This response is being published alongside guidance for Phase 1 applications here. This competition will launch in the summer and the deadline for applications will be in late 2020. We then aim to make our first awards by early 2021.

As we progress with planning for Phase 2 of the IETF, we will conduct further market intelligence and stakeholder engagement.

As our understanding of Phase 1 progresses, we will review aspects of the scheme design for Phase 2 over the next year.

3 Industrial Decarbonisation landscape

The UK's business and industrial[2] sectors currently account for around a quarter of UK emissions.[3] Although emissions have fallen significantly since 1990, there is still more to do if we are to achieve our ambition of meeting our net zero target by 2050. By offering support to energy efficiency and deep decarbonisation projects the IETF is strengthening the growing package of government support in this area.

Industrial Energy Efficiency

Cutting energy use across UK industrial sectors will be key if we are to keep UK industries competitive and reduce emissions. The Department for Business, Energy and Industrial Strategy (BEIS) currently supports energy efficiency measures from the research and development phase, via the £10m Industrial Energy Efficiency Accelerator (IEEA), through to the deployment phase, using tax relief support through the Enhanced Capital Allowance (ECA) and Energy Technology List (ETL) or the Climate Change Levy.

As the ECA ended in April 2020, our ambition is for the IETF to continue supporting the deployment of energy efficiency measures across UK industrial sectors. Although support will only be provided for energy efficiency measures that improve industrial process energy efficiency or measures that reduce energy demand across the system.

Industrial decarbonisation

Recognising the scale of the challenge in decarbonising UK industrial sectors, BEIS currently offers a mix of subsidies, taxes, policy exemptions, and funding schemes in support of industrial decarbonisation. These measures include the EU Emissions Trading Scheme (ETS), which generated £1.4 billion in allowance auction revenues in 2018, the £320m Heat Networks Investment Programme (HNIP) across England and Wales, the Non-Domestic Renewables Heat Incentive (RHI)[4], and the £18m Industrial Heat Recovery Scheme (IHRS)[5].

With the aim of accelerating the commercialisation of innovative, clean, and reliable energy technologies by the mid-2020s and into the 2030s, £505m is being provided by the Energy Innovation Programme from 2015 to 2021. This funding includes various projects in support of industrial fuel switching, the Hydrogen Supply competition, as well as projects in support of Carbon Capture Utilisation and Storage, through the Carbon Capture and Utilisation Demonstration (CCUD) innovation programme and the Call for CCUS Innovation.

Building on this initial support for industrial decarbonisation over the past decade, BEIS plans to continue to play a significant role towards achieving net zero by 2050 by providing over £2 billion in funding over the next eight years in support of industrial decarbonisation. This funding will include short-term policies such as the IETF, the £100m Low Carbon Hydrogen Production Fund (LCHPF), the £170m Industrial Decarbonisation Challenge (IDC), the £250m Clean Steel

[2] Manufacturing, Other energy supply (refining, other fuel manufacturing and extraction) and buildings emissions – excluding power sector emissions
[3] BEIS calculations based on GHG Inventory
[4] The Non-domestic RHI only applies to England, Scotland and Wales.
[5] The IHRS is only open to applications in England and Wales

Fund, and at least £800m through the Carbon Capture and Storage (CCS) Infrastructure Fund, amongst other policies.

Working together these policies will form part of the Government's work towards net zero. We will incentivise investment in clean growth technology and sustain industrial decarbonisation across the range of industrial sectors by supporting investment from production through to technology deployment, through the LCHPF, IDC and IETF respectively. These funds will also allow us to potentially continue some of the innovation and demonstration projects that are currently being supported by competitions such as the CCUD and CCUS Innovation.

Long-term planning

Underpinning these policies will be a CCS Infrastructure Fund – announced during the Budget in March 2020 – to support the establishment of CCUS in at least two industrial clusters, one by the mid-2020s and a second by 2030. This Fund, combined with the continued development of business models for industrial CCUS and low carbon hydrogen, will help deliver our CCUS Action Plan. This will help to deliver economy-wide benefits, such as enabling industrial growth and generate new opportunities by unlocking the potential of this technology on a global scale. Further details on the Fund will be set out in 2020.

The CCS Infrastructure Fund could also help to further develop low carbon hydrogen within industry, complementing the LCHPF and the development of hydrogen use in industry, as we move from innovation to commercial deployment and deliver our net zero target.

The Government is committed to carbon pricing as a decarbonisation tool. Now that we have left the EU, our approach will be at least as ambitious as our participation in the EU's ETS. This remains a central element of how we achieve our legal carbon targets, reducing industrial greenhouse gas emissions, while preserving competitiveness. The UK remains open to linking any future UK and EU ETS if it is in both sides' interests. Alternatives include a standalone UK ETS or Carbon Emissions Tax.

Figure 1, below, shows the range of policies that will help enable the transformation of industrial energy use in collaboration with industry.

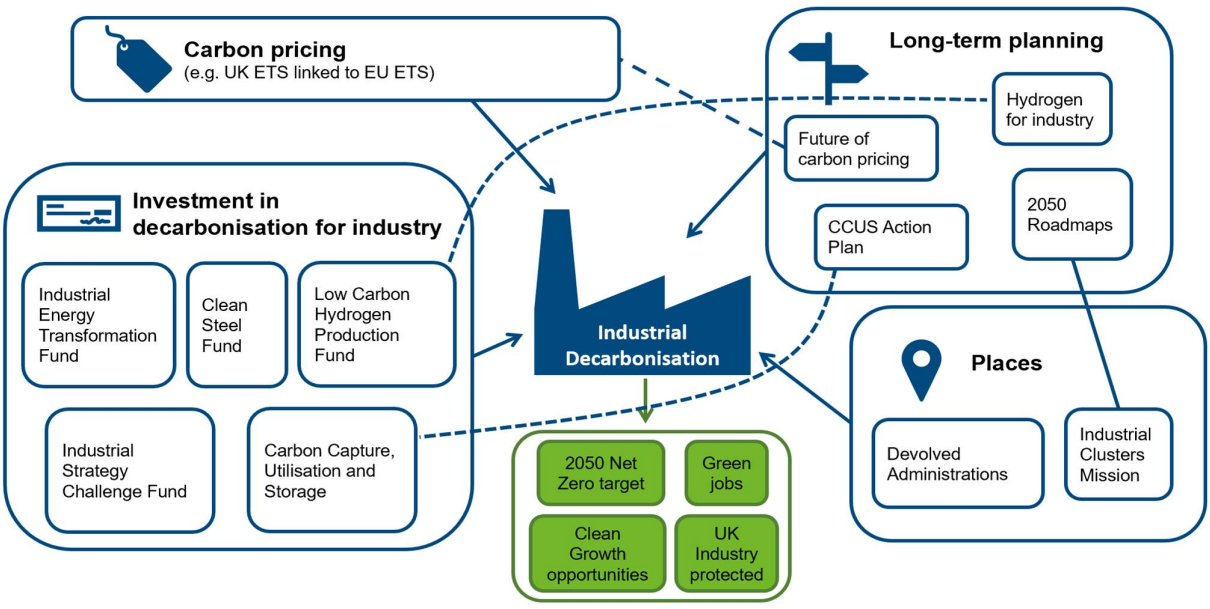


Figure 1: Industrial Decarbonisation policy landscape

By investing in vital manufacturing industries such as steel, cement and glass, we are increasing productivity, maintaining our industrial base and helping to safeguard around 2.7 million jobs,[6] whilst helping businesses to seize the opportunities to deliver clean growth in the global economy by 2050.

Places

This new funding will also provide support towards the realisation of the Industrial Clusters Mission, through the development of at least one net zero industrial cluster by 2040. To this end, feasibility and FEED studies across industry will be supported in the early 2020s using some funding from the IETF and from the ISCF.

Although Scotland have chosen to opt out of the UK wide fund, continued engagement with the Devolved Administrations will ensure that there is a coherent approach to Industrial Energy policy across the UK.

Further information about each of the policies listed can be found in Annex C.

[6] BEIS analysis of: ONS, 2018, Annual Business Survey.

4 The consultation exercise

4.1 About the consultation

The Industrial Energy Transformation Fund consultation sought views on the detailed scheme design features for Phase 1 and Phase 2 of the Fund. The consultation was published by BEIS on 10 October 2019 and ran for a period of six weeks, closing on 21 November 2019. This followed the informal consultation which ran from 25 March to 31 May 2019.

In the consultation, we were particularly interested in understanding stakeholder views on the following design features:

- Who can apply to the IETF?
- What technologies should the Fund support?
- Should the Fund support Feasibility and FEED studies?
- What type of funding support should we offer?
- Phasing of the scheme
- Project Assessment Criteria
- Evaluation, Monitoring and Reporting
- Interactions with other BEIS decarbonisation policies

We would like to thank all of those stakeholders who attended our events in London, Cardiff, Manchester, Glasgow, Belfast and Middlesbrough and who contributed views via CitizenSpace, a digital platform used to host consultations on the GOV.UK website.

The Devolved Administrations have been engaged throughout the development of the scheme design proposals process and our stakeholder events.

4.2 About the Government Response

This document will outline our response to each question we asked in the consultation, providing a summary of the responses received and the UK Government's response. The questions were designed to allow for quantitative and qualitative analysis of responses, and both have been included in this response.

The overall response has shaped the design of the scheme for Phase 1, worth up to £30 million, which is being launched alongside this document with guidance for Phase 1 applications here. Applications for Phase 1 will open in the summer of 2020 and the deadline will be in late 2020.

Phase 2 will open in 2021 and will deliver the remainder of the scheme. Further information will be provided ahead of its launch in a Phase 2 guidance document.

5 Conducting the consultation exercise

During the six-week consultation period, six workshops took place across the UK, in London, Cardiff, Middlesbrough, Manchester, Glasgow and Belfast. A total of 131 stakeholders attended these events and feedback was captured via the collaborative software, MeetingSphere.

We worked closely with the Devolved Administrations to deliver the events in each devolved region. The Devolved Administrations promoted the events via their networks, online and social media channels. The events were very well received by those who attended and valuable input was collected and considered after the events.

Official responses were received via Citizen Space, and there were also a number of meetings with key stakeholders before, during and after the consultation launch.

5.1 Presentation of the analysis

Throughout the document, we refer to the 88 companies/organisations who responded to the consultation as consultees. We refer to the subset of the 88 companies/organisations who answered each particular question as respondents. Responses are broken down as ‘manufacturing’ or ‘other organisations’.

We have used graphs/charts to present the analysis and have indicated whether or not the feedback supported our proposal at consultation.

In the text summarising the graph/chart, we have used percentages when respondents could select one option. When respondents could select multiple options, we have used figures. The full data set is included in Annex A.

5.2 Consultation responses

The consultation received 88 responses in total**.** Of the 88 consultees, 44 were from manufacturing companies and 44 were from non-manufacturing organisations including trade associations, local government, academics and non-governmental organisations.

Of the 88 responses, 16% (14) came from companies primarily located in the Devolved Administrations (Scotland – eight, Wales – four, Northern Ireland – two). The remaining 84% of responses came from consultees across England. We recognise that some businesses may operate across more than one area.

Table 1 provides a breakdown of the 88 consultees by company type.

Table 1: Breakdown of consultees by company type

Company type	Number of consultees
Large business (over 250 employees)	35
Trade Association	20
Medium business (50-250 employees)	9
Micro business (up to 9 employees)	8
Local Government	4
Financial institution	2
Small business (10-49 employees)	2
Supply chain (e.g. energy services company)	2
Academic	1
Individual	1
Consultancy	1
Other	3

5.3 Consultation responses: Overall approach to questions

The consultation consisted of 32 questions[7].

Questions were designed to have an initial closed (yes/no) element followed by the opportunity to expand upon that answer. For example:

a) Do you agree with the proposal that xxxx? (Y / N)

b) Please expand on your answer and give evidence where possible

As many of the questions were either partly or entirely open ended and allowed respondents to expand on their answer, we identified the key themes and counted how often they were mentioned in order to inform our response.

In our response to each question, we respond to feedback, outlining our intent, offering further justification or an explanation of the policies where necessary.

[7] See Annex B for a full list of the consultation questions

6 What we were consulting on

The table below shows an overview of the key IETF design features proposed in the consultation and how feedback has been incorporated into the final design. Further detail on analysis and final design proposals are included in each response.

Table 2: Summary of key scheme design proposals

Scheme design question	Consultation design proposal	Final design
Who can apply?	Restricting eligibility for Energy Efficiency (EE) projects to manufacturing sectors (SIC codes 10-33).	Eligibility for energy efficiency projects in Phase 1 will remain restricted to SIC codes 10-33, although data centres will also be eligible.
	For deep decarbonisation projects, private companies from any sector can apply as sole applicants or as a consortium with other companies, or in a consortium with academic, research, or public sector organisation.	Phase 2 Government response and guidance will be published in 2021 as we plan to progress our planning during 2020 through further market intelligence work and stakeholder engagement.
	Minimum award per project of £1 million for deployment of energy efficiency technologies	Based on evidence from further analysis and market intelligence, we will drop the minimum threshold for a deployment grant to £250,000 for Phase 1. This threshold will be reviewed for Phase 2 following further market intelligence and analysis of Phase 1 applications. The total eligible costs incurred by a company of any size conducting a feasibility study must be at least £60,000.

Scheme design question	Consultation design proposal	Final design
		The total eligible costs incurred by a company of any size conducting a FEED study must be at least £100,000.
	May allow firms to aggregate bids from the same sector or a cluster	Phase 1 of the IETF will allow applicants to bundle together projects at one site into a single bid, as long as all elements are technologically eligible.
What technologies should the Fund support?	Deployment of mature energy efficiency technologies that improve industrial process energy efficiency and reduce energy demand (TRL 8 or TRL 9)	The IETF will support energy efficiency technologies that are ready for deployment at either TRL 8 or TRL 9. We will support technologies that improve industrial process energy efficiency and those that reduce energy demand across a system.
	Support for deep decarbonisation technologies that are ready for demonstration in an operational environment or ready for deployment (TRL 7 or higher)	For Phase 2, deep decarbonisation projects will be supported from demonstration through to full commercial deployment (TRL 7 – 9). There are certain types of fuel-switching technologies that will be eligible (including biomass, coal to gas, hydrogen and electrification) along with high quality and CCUS projects, providing these projects meet specific eligibility and assessment criteria.
	Remain open on the exact technology solution for projects	The IETF will be technology neutral so all technologies can apply, subject to meeting eligibility criteria which can be found here.

Scheme design question	Consultation design proposal	Final design
	Use of the Energy Technology List (ETL) where required	The use of the ETL will not be required as part of the application process. Companies will not need to use a technology type which is already covered by the ETL or prove that their technology matches the same standards as those on the ETL, when applying for funding.
Should the Fund support feasibility and FEED studies, and capacity building?	Feasibility and FEED studies for projects deploying mature energy efficiency or deep decarbonisation technologies	The IETF will support feasibility and FEED studies into both energy efficiency and deep decarbonisation technologies.
	Feasibility study must be completed within 12 months. FEED study must be completed within 24 months	For companies to be eligible for funding, they must comply with a feasibility study being completed within 12 months and a FEED study within 24 months of the grant funding agreement being signed.
What type of funding support should we offer?	Competitive grant funding is offered to eligible applicants for capital investment within permitted EU State Aid limits	Funding will be awarded as grants through a competitive process for Phase 1, meaning a maximum of €15 million (GBP equivalent) per undertaking will be available for deployment support, a maximum of €7.5 million (GBP equivalent) for feasibility studies and €15-20m (GBP equivalent) for FEED studies. This aid intensity will also vary between 25-80% depending on the activity and technology supported.

Scheme design question	Consultation design proposal	Final design
	A small proportion of funding may be made available as loans for energy efficiency projects in Phase 2	Conclusions will be outlined in the Phase 2 Government response.
How should the Fund be delivered?	A phased approach – Phase 1 will be worth up to £30m and will support feasibility and FEED studies for energy efficiency and deep decarbonisation, and deployment of energy efficiency technologies. A single application window for Phase 1.	Phase 1 will be worth up to £30m and launched with the publication of this document. Phase 1 will support deployment of energy efficiency technologies and feasibility and FEED studies for energy efficiency and deep decarbonisation.
	Applicant Development Service to provide support to applicants	Support for applicants will be offered by UKRI by email and through their competition helpline.
	Phase 2 will support the above and deployment of deep decarbonisation technologies. Phase 2 will deliver in multiple windows	Phase 2 of the IETF will launch in Autumn 2021 and will deliver the remainder of the scheme after Phase 1 is complete. Phase 2 will support feasibility and FEED studies for energy efficiency and deep decarbonisation, and deployment of energy efficiency and deep decarbonisation technologies. A decision on the number and length of windows in Phase 2 will be outlined in the Phase 2 response.
	We plan to have similar assessment criteria for both energy efficiency deployment and feasibility/ FEED applications. Deep decarbonisation deployment applications will have separate criteria	The assessment criteria that were outlined in the consultation will be used to score applications for energy efficiency technologies in Phase 1, and the assessment criteria for

Scheme design question	Consultation design proposal	Final design
		deep decarbonisation technologies in Phase 2 will be developed during 2020.

7 Government Response

7.1 Eligibility and Scope

Who can apply?

Consultation question:

1. Do you agree with our proposal to restrict eligibility for energy efficiency projects to organisations in manufacturing sectors as covered by SIC codes 10-33?

Summary of responses

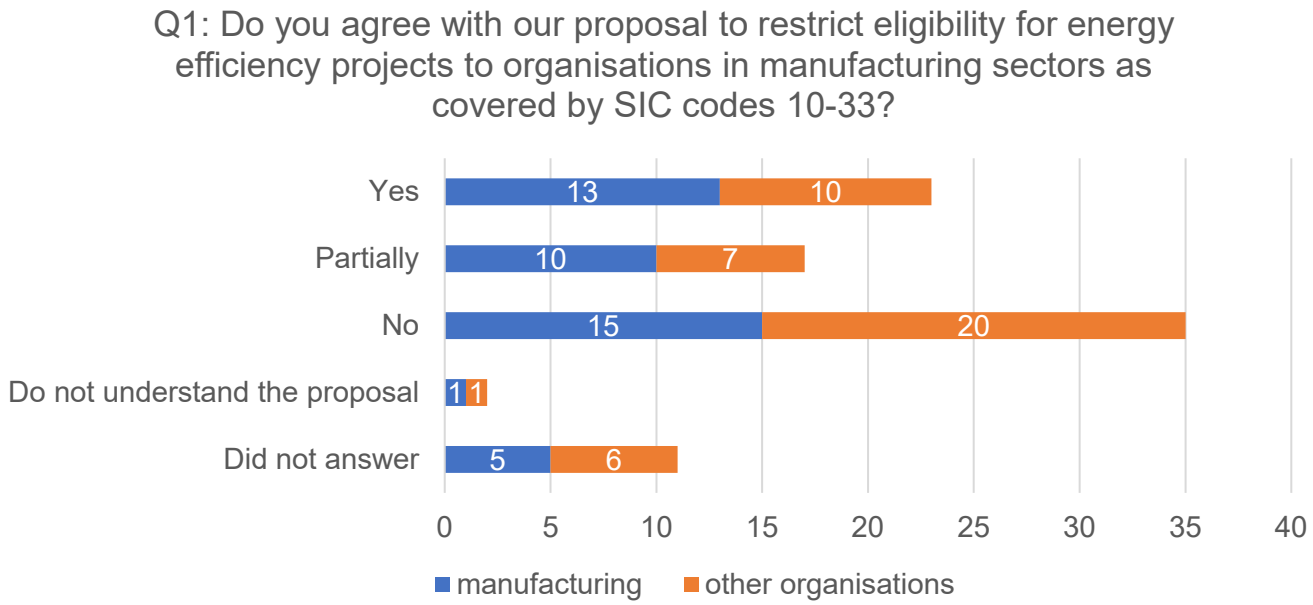


Figure 1: Summary of responses by sector for question 1

75 respondents answered this question. Of those who answered: 52% agreed or partially agreed, 45% disagreed and 3% did not understand the question. This indicated a mixed response to our position at consultation.

There was some disagreement in consultation responses between those who wanted eligibility to be extended to additional sectors, and those who wanted it restricted to energy intensive manufacturing sectors.

Respondents in favour of restricting eligibility to manufacturing sectors covered by SIC codes 10-33 made the point that widening eligibility beyond these sectors will reduce the amount of funding available, and that the proposed eligibility restriction would simplify the process by targeting funding towards industrial energy use.

By contrast, respondents who thought that eligibility should be expanded beyond manufacturing sectors argued that energy is consumed in great quantities beyond the manufacturing sectors covered by SIC codes 10-33 and that there could be missed

opportunities in terms of energy and emissions savings if the Fund restricts itself to industrial manufacturing.

Our response

Organisations in manufacturing sectors covered by SIC codes 10-33 will be eligible for Phase 1 of the IETF. Data centres will also be eligible to apply.

IETF eligibility will not be restricted to energy intensive industries (EIIs). There are significant opportunities to improve energy efficiency and reduce carbon emissions in other manufacturing sectors, which contribute a third of all industrial carbon emissions. There is also evidence that carbon savings in these sectors may be lower cost, as less energy-intense companies have had less incentive to introduce efficiency measures.

IETF eligibility will not be extended to other sectors (aside from data centres – see below). The specific proposals in the consultation responses do not align with key IETF aims and objectives, which include focusing support specifically on industrial businesses and our proposal to focus IETF on industrial process energy efficiency.

Some of the responses suggested using energy or emission savings as the eligibility measurement, but such data are more appropriate to compare applications against each other at assessment stage. We considered that asking applicants to calculate their precise emissions in order to work out whether they would be eligible would be burdensome and delay the Fund.

Data centres will be eligible for Phase 1, as there are opportunities for waste heat recovery, the implementation of more efficient motors, cooling systems and other energy efficiency technologies in the sector. This also aligns IETF Phase 1 eligibility with eligibility for the Industrial Heat Recovery Support scheme (IHRS). This is important as it ensures that there are additional opportunities for government to support industrial energy efficiency in waste heat recovery in data centres, which are heavily energy intensive.

Consultation question:

2. Do you agree that additional sectors should be eligible for funding for energy efficiency projects if they can demonstrate their energy intensity?

Summary of responses

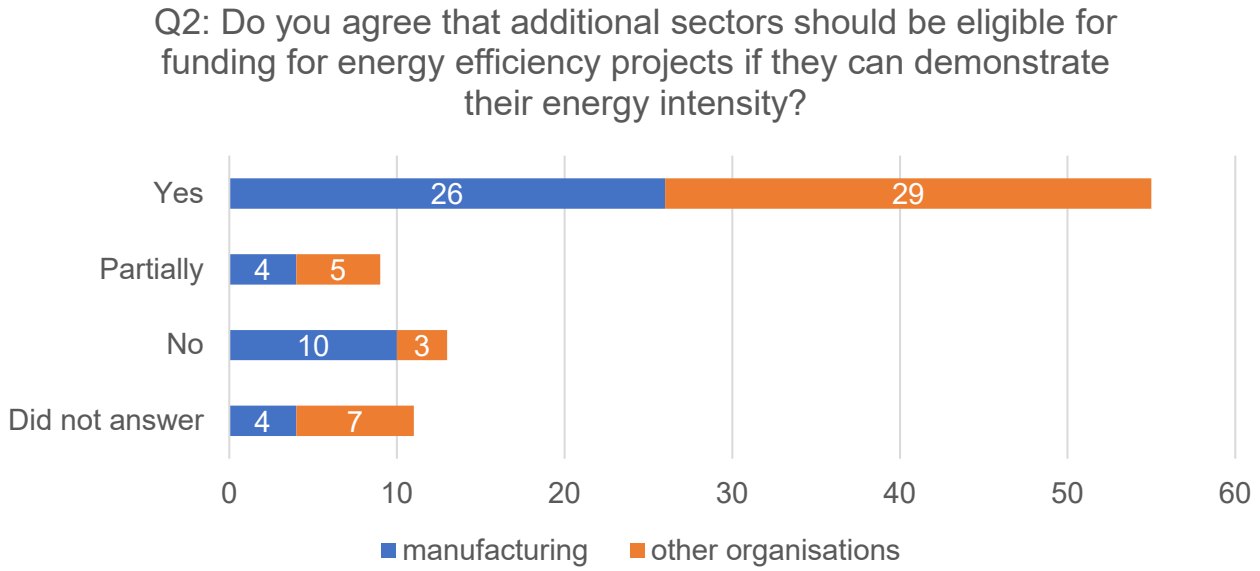


Figure 2: Summary of responses by sector for question 2

77 respondents answered this question. Of those who answered: 83% agreed or partially agreed and 17% disagreed.

Although 83% of respondents to question two were broadly in favour of the proposal, their responses and rationale were mixed, and sometimes opposed.

Our response

Sectoral eligibility for Phase 1 of the IETF will be as stated in the response to question one.

As set out in the response to question one, the proposals made in consultation responses for the extension of Phase 1 eligibility beyond manufacturing sectors aligned with key IETF aims and objectives. This includes the ability to invest directly in industrial process energy efficiency measures. However, the exception is data centres, where there are opportunities to invest in waste heat recovery, more efficient motors, and other energy efficiency measures.

Consultation question:

3. Do you think that the IETF should allow firms to aggregate their bids?

Summary of responses

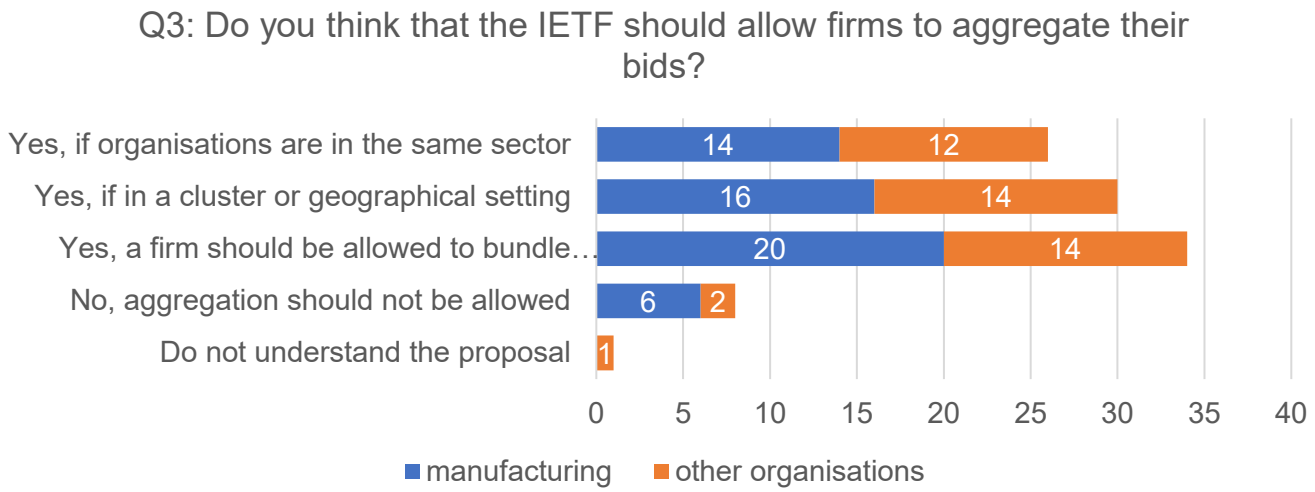


Figure 3: Summary of responses by sector for question 3

53 respondents answered this question and could choose multiple options. Of those who answered: 26 respondents agreed with aggregation for organisations in the same sector; 30 respondents agreed for projects in a cluster or geographical setting; and 34 agreed with firms bundling similar projects at different sites. Nine respondents disagreed with aggregation.

Respondents who thought that firms should be able to aggregate bids argued that it has the potential to maximise funding through economies of scale and could be an effective way of supporting technology-specific projects that can be replicated across a number of operations.

Our response

The IETF will allow multiple projects at a single site to be combined into one application (as long as nothing in the application is incompatible with IETF technology eligibility). Companies in the same geographical area (for example, a cluster) or collaborating from different geographical areas will be able to collaborate and apply for a single project or apply for an aggregated bundle of projects, so long as this project or projects are located at a single site.

Allowing multiple projects at a single site will encourage companies to pursue multiple improvements to their industrial processes (realising greater fuel bill and carbon savings across a site). It will reduce the application burden on companies who have linked improvements across their site by only requiring them to submit one application. It will also be relatively simple to manage for payment and monitoring as improvements at one site are more likely to be linked to each other. Smaller companies may also be encouraged to overcome the minimum project grant threshold through submitting a more ambitious proposal.

Consultation responses considered a number of other possibilities for how aggregation could work, including multiple projects from one company at different sites and different companies aggregating bids. However, all but the simplest forms of aggregation pose considerable challenges to successful delivery of the projects. For instance, it would be logistically difficult to monitor multiple projects on different sites, even within the same company, as each site usually

has its own manager for a project and would be delivering to an independent timetable. The payment challenges involved for the Government's delivery body would undermine any efficiency savings from allowing companies to aggregate.

Consultation question:

4. If you think firms should be allowed to aggregate bids, what restrictions could be put in place to prevent misuse of the aggregation system?

Summary of responses

37 respondents answered this question. 10 respondents suggested that a cap should be placed on aggregated bids to prevent misuse of the aggregation system in terms of number of projects or number of sites supported. Eight respondents stated that aggregated bids should demonstrate additional value compared to a non-aggregated bid, for example, being able to demonstrate significant cost savings over non-aggregated bids.

The point was also made that all elements of bids must meet the IETF's eligibility criteria in order to prevent ineligible activities forming part of an eligible application.

Our response

Applicants will be allowed to bundle whatever improvements they think appropriate at one site into an application. The IETF has set technology eligibility criteria: for example, energy efficiency lighting projects will not be eligible. Aggregated bids at a single site will not be able to include these ineligible projects.

Bundled applications will be assessed against other applications on the basis of assessment criteria such as their deliverability and potential energy savings (bundling together the different elements of the project into a single set of metrics).

It is not practical for the IETF to define a "project" which would be combined into an aggregated bid, as these can vary depending on the characteristics of the sector, technology and site.

It is for the applicant to decide which elements of site improvement they wish to bundle into their bid for the purposes of making the strongest application. Applications will only be permitted to cover one site. This is due to the challenge of ensuring efficient coordination of delivering projects across multiple sites within one application (see page 19).

Consultation question:

5. Do you agree with the proposed minimum value of grant awards of £1 million in Phase 1 for energy efficiency?

Summary of responses

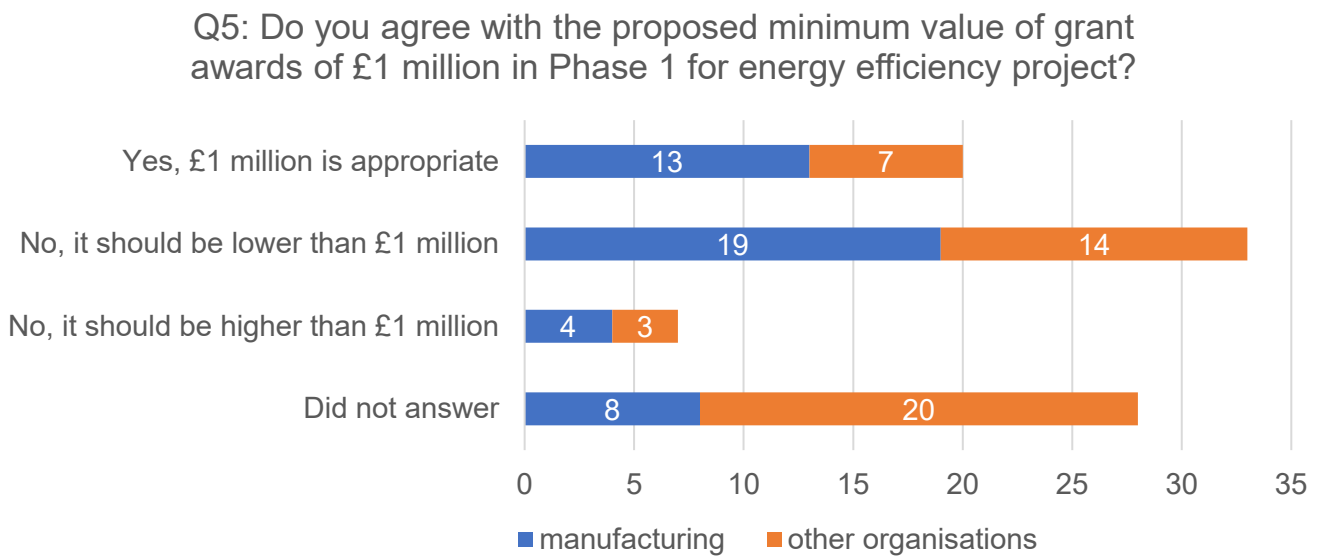


Figure 4: summary of responses by sector for question 5

60 respondents answered this question. Of those who answered: 33% agreed, 12% disagreed and felt the threshold should be higher, and 55% disagreed and felt the threshold should be lower. This indicated that respondents wanted to see a change to our position at consultation.

Respondents that disagreed with the proposed minimum value of grant awards argued that a minimum project value or any kind of minimum threshold might put off Small and Medium Enterprises (SMEs) from applying. Others argued that some projects might have a significant energy saving potential that is on a smaller scale than £1 million.

Our response

The IETF will set a minimum value of grant awards for energy efficiency deployment projects of £250,000 in Phase 1.

As Figure 5 shows, a number of responses felt that the consultation proposal set the minimum grant threshold at too high a level. Some respondents fed back that the £1 million threshold would exclude SMEs from participating in the Fund. It would also exclude projects that could still make a significant contribution to energy and carbon savings. Additionally, it presented a risk of too few projects being able to apply to the Fund.

A lower threshold will allow smaller-scale projects to participate which means a greater range of innovative energy and carbon-saving projects having access to the Fund. Having a threshold will prevent the inclusion of small scale and micro-projects, which are less likely to meet scheme goals of being transformational and would pose greater delivery challenges.

Consultation question:

6. What other methods could be used to determine a minimum threshold for feasibility/FEED study support?

The consultation proposed that, for feasibility/FEED studies, those studies which are linked to a capital expenditure project that could meet the minimum grant threshold should be eligible.

Summary of responses

43 respondents answered this question. 21 respondents said that CO_2 emissions reductions should be the key metric in determining the minimum threshold for feasibility/FEED study support. Five respondents said that the replicability and/or scalability of the proposed project should be used to determine the threshold (a small study could still be used to roll-out a technology across a sector).

Our response

The IETF will fund feasibility and FEED studies for deployment projects that meet certain thresholds covering the total eligible costs, for companies of any size. For feasibility studies, the total eligible costs must be at least £60,000. For FEED studies, the total eligible costs must be at least £100,000.

Our market intelligence exercise has demonstrated that several companies have FEED studies of low cost that will explore projects with significant decarbonisation potential, and that these projects meet these thresholds.

Consultation responses tended to focus on potential assessment criteria, such as emissions reductions and replicability, rather than provide suggestions for eligibility criteria. These factors will be assessed at the assessment stage since measuring carbon abatement/replicability at eligibility stage would be burdensome and delay the scheme.

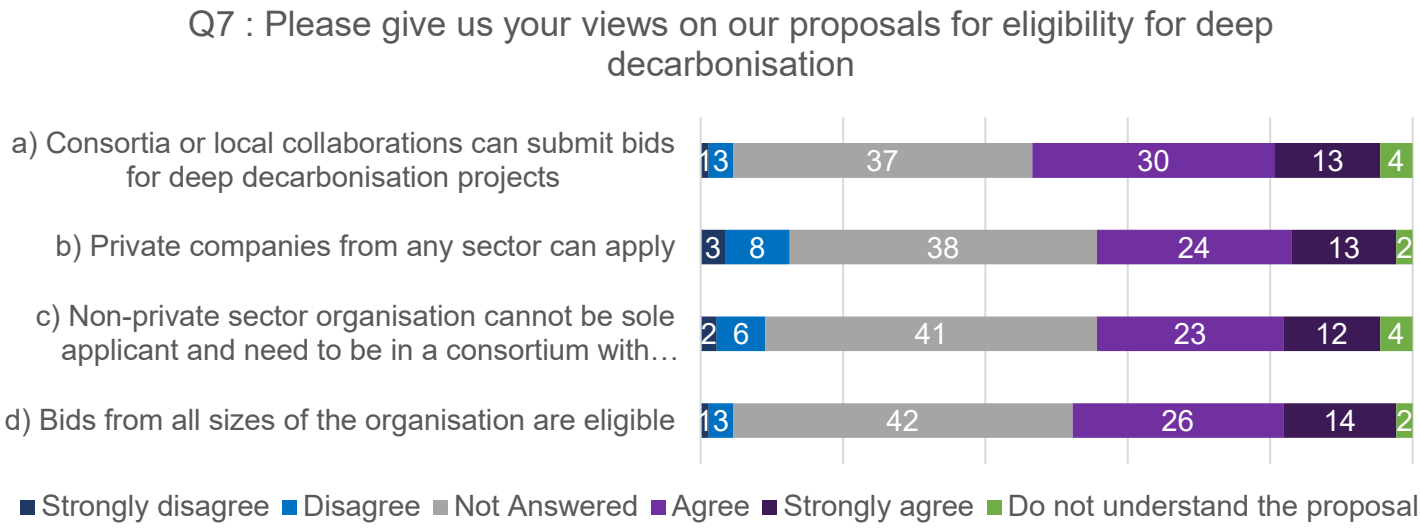
Consultation question:

7. Please give us your views on our proposals for eligibility for deep decarbonisation projects.

In the consultation, we proposed that private companies from any sector would be eligible to apply as sole applicants or as part of a consortium with other companies, or in a consortium with academic, research or public sector organisations. To be eligible, applicants from outside the private sector would need to be in a project consortium with one or more private sector organisations and not be sole applicants. Bids from all sizes of organisation would be eligible.

There were four proposals within question seven, presented here as proposals a, b, c and d.

Summary of responses



a) 47 respondents answered this question. Of those who answered: 91% strongly agreed or agreed, and 17% disagreed with our proposal for **consortia or local collaborations submitting bids for deep decarbonisation projects.**

b) 48 respondents answered this question. Of those who answered: 77% strongly agreed or agreed, and 22% strongly disagreed or disagreed with our proposal for **private companies from any sector applying.**

c) 43 respondents answered this question. Of those who answered: 81% strongly agreed or agreed, and 17% strongly disagreed or disagreed with our proposal that **non-private sector organisations cannot be sole applicants and need to be in a consortium with one or more private sector organisations to apply.**

d) 44 respondents answered this question. Of those who answered: 91% strongly agreed or agreed, and 9% strongly disagreed or disagreed with our proposal that **bids from all sizes of organisation are eligible**.

Our response

We are using this feedback to develop detailed proposals for the eligibility of deep decarbonisation projects in Phase 2. More information on eligibility will be included in our response for Phase 2 design and guidance. These documents will be published in 2021.

For the purposes of applying for a feasibility of FEED study that may then apply to Phase 2 for deployment funding, we currently anticipate that:

- Phase 2 organisational eligibility will be restricted to manufacturing sectors (SIC codes 10-33), plus related sectors to manufacturing that are able to make the case for inclusion based on their potential for energy and carbon emissions reductions.
- We will allow applications from consortia involving other private sector companies and non-private sector organisations such as research organisations, as long as the lead organisation is from a private sector company based in the UK from an eligible sector.

7.2 What technologies should the Fund support?

Consultation question:

8. Please give us your views on our proposals for which technologies would be supported to improve energy efficiency.

The consultation proposed that the IETF support energy efficiency technologies that improve industrial processes and reduce energy demand across a system. The IETF would be technology neutral and support energy efficiency technologies at TRL 8 or TRL 9 that were ready for deployment.

There were four proposals within question eight, presented here as proposals a, b, c and d.

Summary of responses

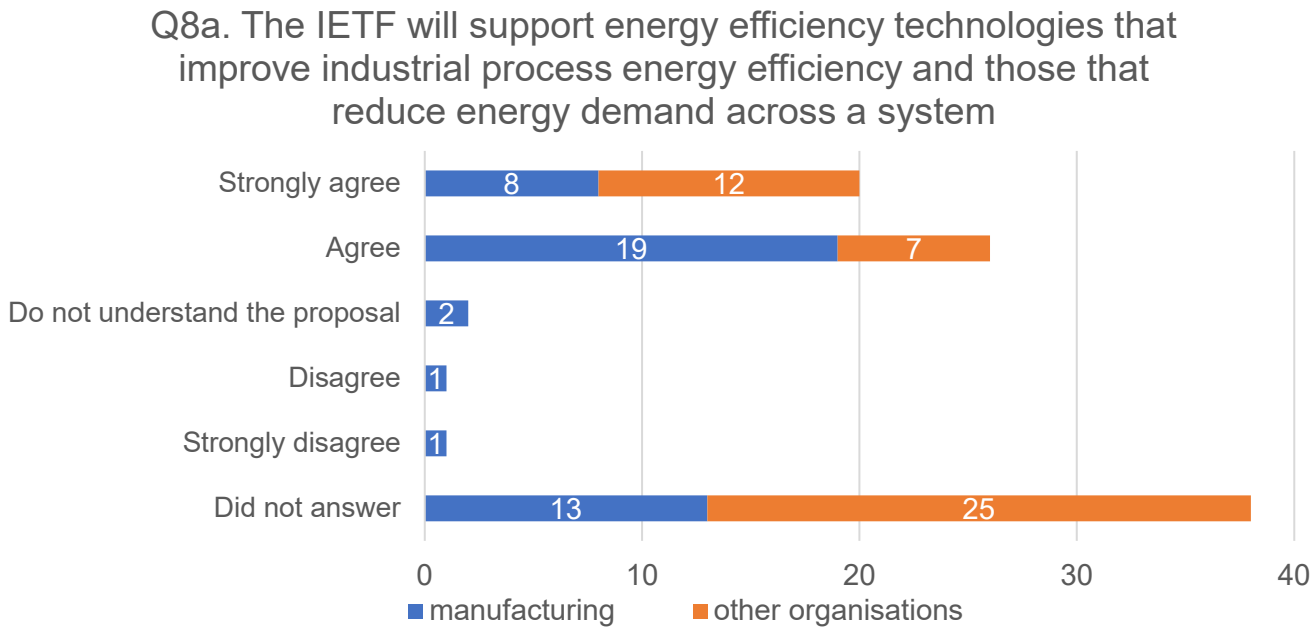


Figure 5: Summary of responses received by sector for question 8a

a. 48 respondents answered this question. Of those who answered: 96% strongly agreed or agreed, and 4% strongly disagreed or disagreed with our proposal. This confirmed our position at consultation.

   Respondents to this question expressed the view that heating and cooling technologies should be supported as this will in turn support the industrial process.

Our response

The IETF will support energy efficiency technologies that improve industrial energy efficiency and those that reduce energy demand across a system, as long as the proposed project is compatible with reducing greenhouse gas emissions to net zero by 2050.

In doing so the IETF can effectively provide support to industrial sectors in need of additional support, and those attempting to make a greater carbon saving. This will help reduce current barriers such as payback periods being longer than company defined thresholds, high capital costs, and technical and commercial risks to the manufacturing process.

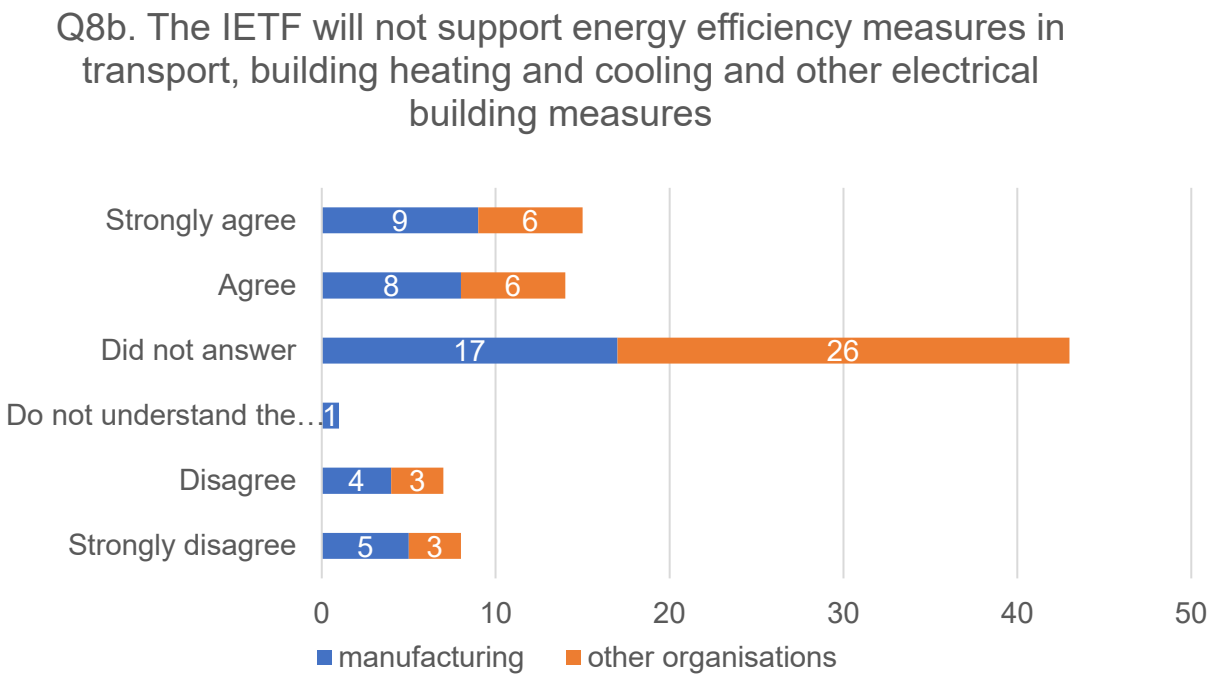


Figure 6: summary of responses received by sector for question 8b

b. 44 respondents answered this question. Of those who answered: 65% strongly agreed or agreed, and 35% strongly disagreed or disagreed with our proposal. A common response to this question was that heating, cooling and lighting are low cost measures that are often combined with other energy efficiency measures.

Our response

The IETF will support energy efficiency measures that improve industrial process energy efficiency and those that reduce energy demand across a system, as the IETF aims to enable industry to bring down energy bills and deliver emission reductions. Improvements to building fabric or building service and controls, and energy efficiency measures for transport, will remain ineligible.

Recognising that there was some disagreement with this proposal, the IETF will support the capture of waste heat in combination with other energy efficiency measures. Further information about eligibility can be found in our guidance here.

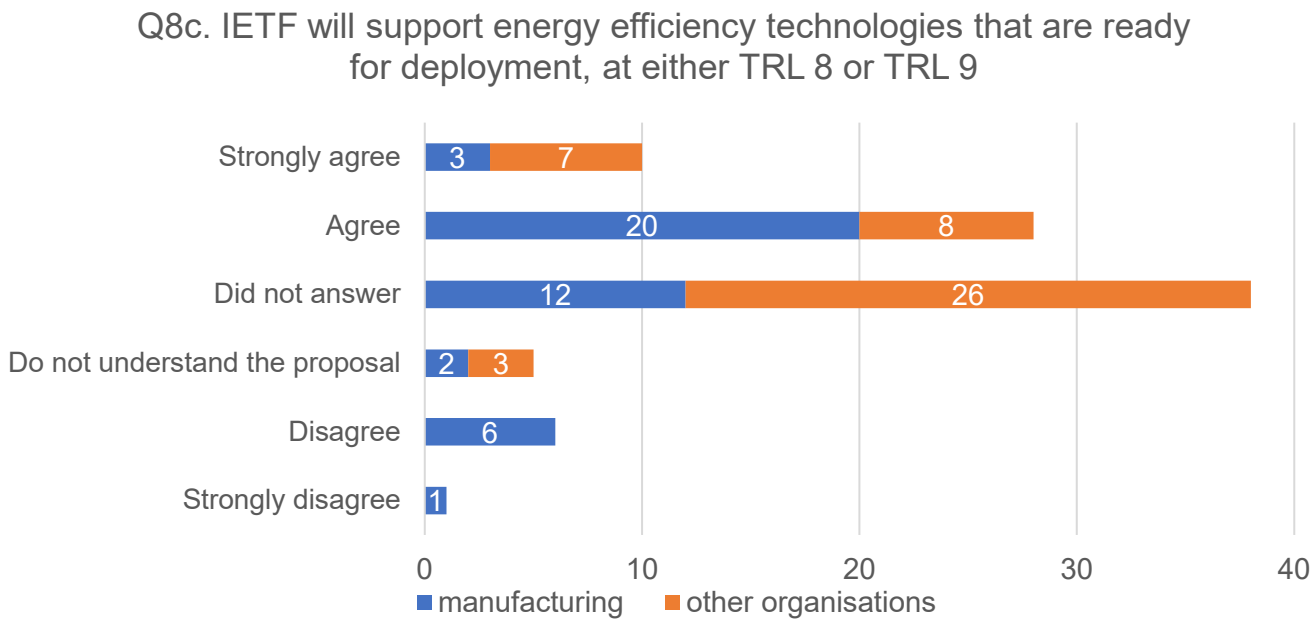


Figure 7: Summary of responses received by sector for question 8c

c. 45 respondents answered this question. Of those who answered: 84% strongly agreed or agreed, and 16% strongly disagreed or disagreed with our proposal. This confirmed our position at consultation.

Examples of the type of commercialised technologies that respondents think should be supported included waste heat recovery, waste heat to power, and heat pumps.

Our response

We propose that the IETF will support energy efficiency measures that are ready for deployment at either TRL 8 or 9. There is a clear policy gap for support for projects between demonstration and commercial development for certain appliances and technologies, and the IETF aims to fill this gap by addressing commercial barriers such as lengthy payback periods and internal competition for funding, in turn enabling businesses to invest in technologies that are technically deployable at the right juncture.

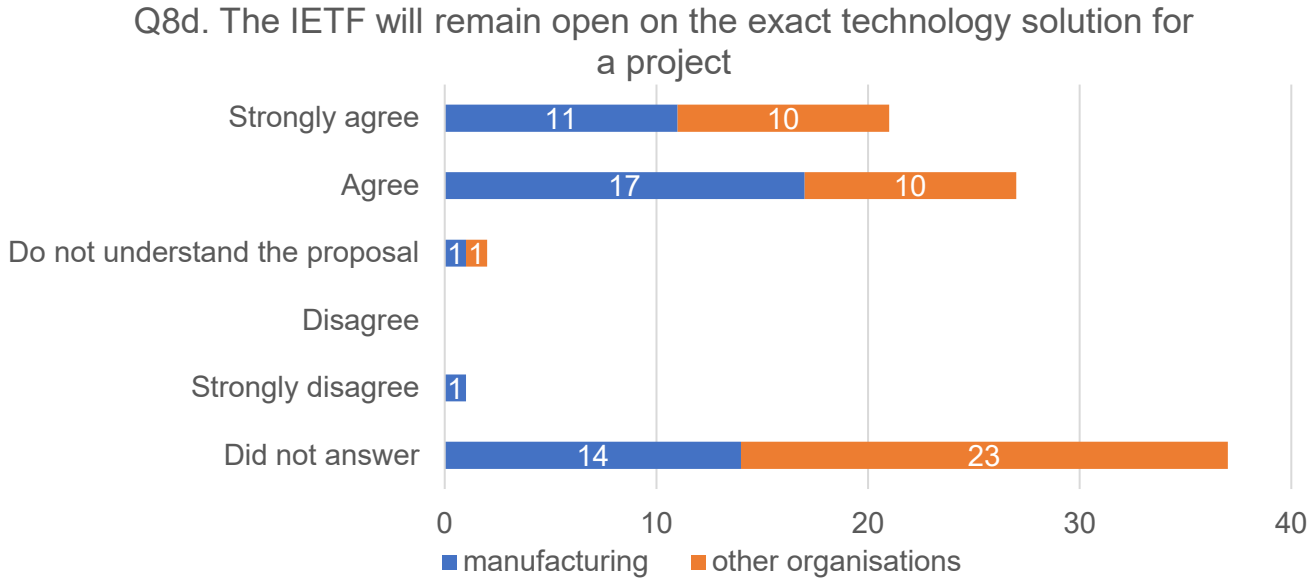


Figure 8: Summary of responses received by sector for 8d

d. 51 respondents answered this question. Of those who answered: 94% strongly agreed or agreed, and 2% strongly disagreed with our proposal that the **IETF will remain open on the exact technology solution for a project**. This confirmed our position at consultation.

The majority of responses made the point that restricting or ruling out certain kinds of application could potentially have unintended consequences.

Our response

Being technology neutral allows applicants to choose the most suitable technology for them. It also allows for innovative and newer, high-performing technologies to come forward and does not restrict the number of bids.

We have, however, ruled out providing financial support for combined heat and power (CHP) systems that do not involve a fuel switch from a higher carbon intensity fuel, amongst other criteria – see IETF guidance for details. This decision was made since financial incentives and government subsidies are already available by seeking accreditation with the CHP quality assurance (CHPQA) programme, which currently provides exemptions from the Climate Change Levy and Carbon Price Floor taxes as well as access to other forms of subsidy.

Consultation question:

9. Should applicants be required to use products already listed on the Energy Technology List (ETL), unless the applicant can demonstrate that their preferred product choice performs to a better or equivalent standard?

Summary of responses

Figure 9: summary of responses received by sector for question 9

63 respondents answered this question. Of those who answered: 43% agreed or partially agreed, and 57% disagreed. This indicated a desire for a change to our consultation proposal.

Our response

ETL listed technologies will be eligible for funding but they will not be a requirement for successful applications.

Within the respondents from manufacturing sectors, a clear majority were not in favour of the proposal. Several key stakeholders from eligible sectors for Phase 1 expressed concerns that the ETL does not include technologies that would be appropriate for their sector nor is it appropriate for large projects.

In response to this feedback, the scheme design has been altered accordingly.

Consultation question:

10. Do you agree with the kind of deep decarbonisation activities the IETF is looking to support?

For deep decarbonisation activities, the consultation proposed that the IETF would provide match-funding for feasibility studies, FEED studies, and capital support for deployment or large-scale demonstration projects, helping de-risk the technology in industrial settings.

Summary of responses

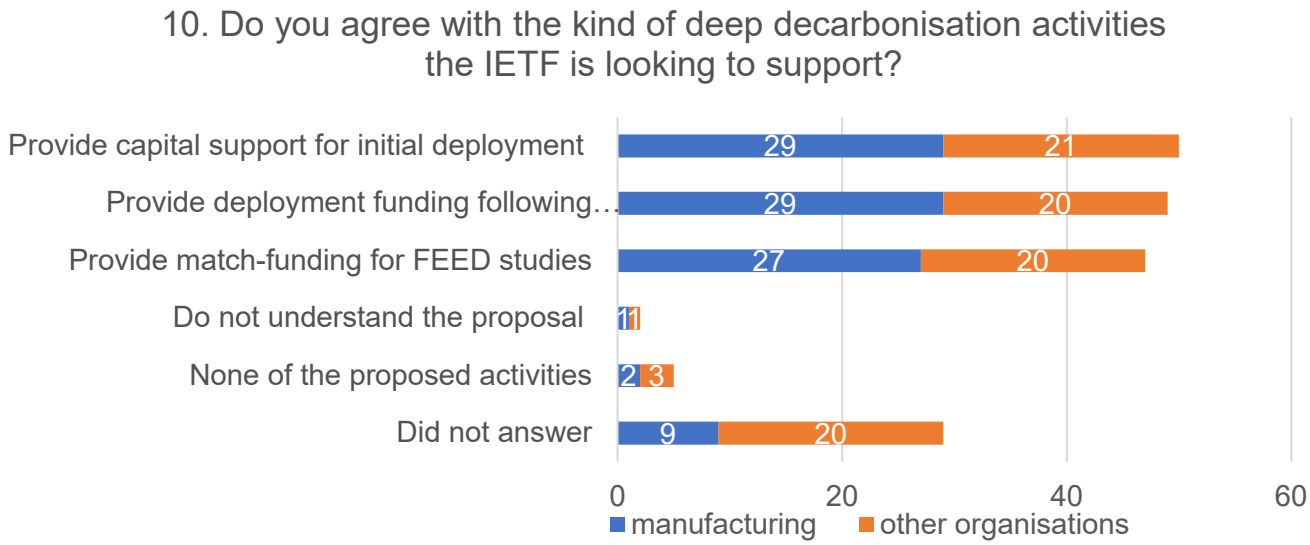


Figure 10: Summary of responses received by sector for question 10

62 respondents answered this question and could choose multiple options. Of those who answered: 47 respondents supported providing match-funding for FEED studies; 49 supported providing deployment funding following completion of FEED studies; 50 supported providing capital support for initial deployment or large-scale demonstration; and five thought it should be none of the proposed activities.

Suggested activities included first-of-a-kind commercial deployment, deployment funding, and helping hydrogen and CCUS projects reach final investment decisions. Respondents raised the point that business models need to be set up around the key technologies and that clearer guidance on the interaction between different policies needs to be published.

Our response

The IETF plans to support deep decarbonisation projects in Phase 2 by providing funding for large-scale demonstration or deployment projects. This will include support for fuel switching – including hydrogen, biomass, and electrification – and carbon capture utilisation and storage projects. In terms of the specific eligibility and assessment criteria for these types of projects, this will be published in the guidance for Phase 2 in 2021.

Despite this wide support for the approach set out in the consultation, there was a strong consensus that hydrogen and CCUS business models need to be set up rapidly in support of strategically important technologies to achieve net zero, and that storage and transport infrastructure will be vital in the long run. Section 3 of this document, covering the Industrial Decarbonisation Landscape, and Annex C highlights how some of the BEIS funds and policies will help achieve these ambitions.

Consultation question:

11. Please give us your views on our approach towards deep decarbonisation technologies.

The consultation proposed that the IETF will provide support for technologies that are either ready for demonstration in an operational environment or ready for deployment (at TRL7 or higher) during Phase 2.

There were three proposals within question 11, presented here as proposals a, b and c.

Summary of responses

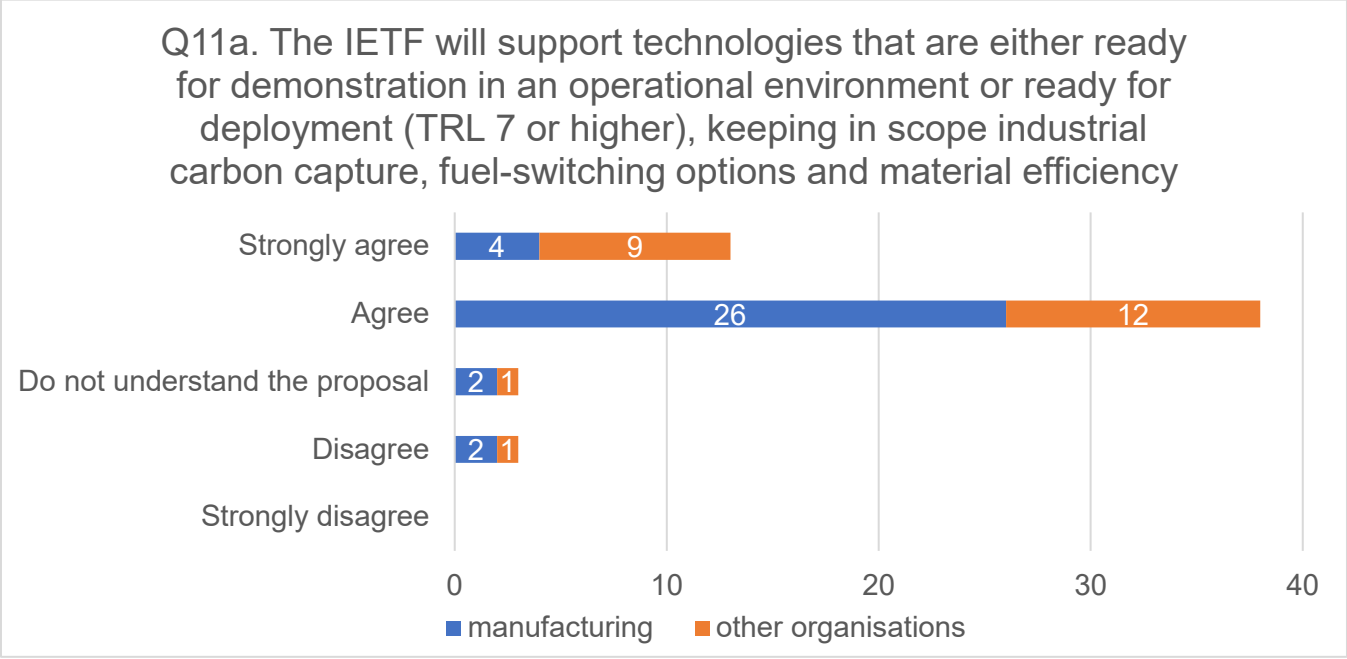


Figure 11: Summary of responses received from question 11a

a. 54 respondents answered this question. Of those who answered: 94% strongly agreed or agreed, and 6% disagreed with our proposal. This confirmed our position at consultation.

Our response

The IETF will focus on deployment rather than innovation by supporting technologies that are at TRL 7 or higher. There is already support for innovation through other BEIS schemes such as the Industrial Fuel Switching & CCUS competitions.

Stakeholders in support of this highlighted that this will help bridge the gap between demonstration and deployment. Some asked that flexibility be included in the scheme design since the exclusion of stand-alone production projects could leave limited opportunities available.

Where respondents disagreed, they suggested that there needs to be flexibility in order to cover TRL 6 technologies.

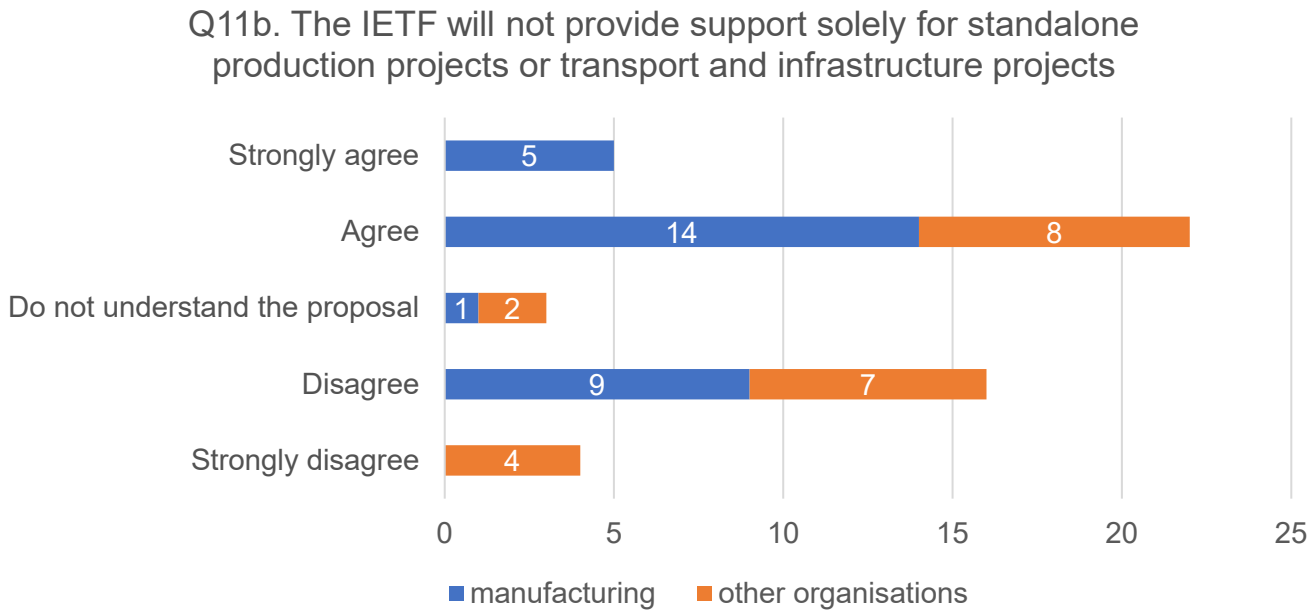


Figure 12: Summary of responses received by sector for question 11b

b. 47 respondents answered this question. Of those that answered: 57% strongly agreed or agreed, and 43% strongly disagreed or disagreed with our proposal.

   Some respondents who disagreed saw a clear role for the IETF in supporting low carbon hydrogen production, and that interaction with the Low Carbon Hydrogen Production Fund will need to be made clear.

Our response

The IETF will not provide support for standalone fuels production projects. This includes hydrogen, biogas and biofuels production. Support for the standalone production of these fuels is already provided through other government schemes such as the Low Carbon Hydrogen Production Fund, Renewable Heat Incentive and Renewable Transport Fuels Obligation. However, projects that combine low carbon hydrogen production and use on-site will be eligible for funding as long as this hydrogen is not then exported.

Support will not be provided for transport or infrastructure projects since the focus of the IETF is on reducing emissions from industrial processes in the UK. The ambition of the Fund is to

support businesses as one of several policies operating across the industrial energy landscape – see Section 3 and Annex C – and help de-risk the technologies that will be used in the future.

As there was support for this proposal, it will not be changed in the final scheme design.

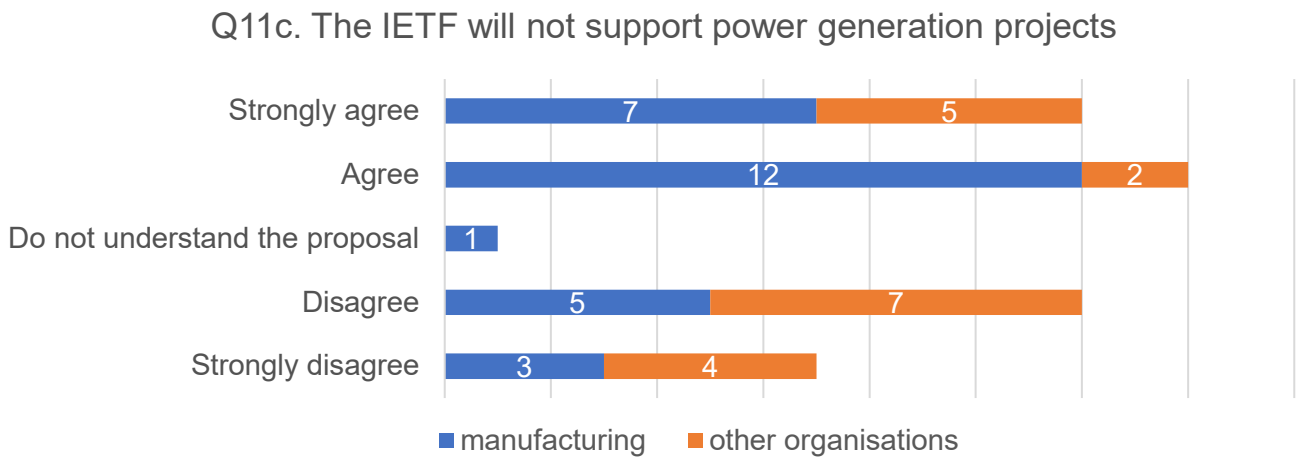


Figure 13: summary of responses received by sector for question 11c

c. 45 respondents answered this question. Of those who answered: 58% strongly agreed or agreed, and 42% strongly disagreed or disagreed with our proposal. Within those responses that disagreed or strongly disagreed with this proposal, there was significant support for electricity generation from waste heat or CHP.

Our response

Solar, wind and hydroelectric generation will not be eligible for support since other government policies already provide support for these forms of generation. Only electricity generation projects using waste heat, waste pressure, waste process gas, waste process liquid not suitable for transport use or eligible CHP fuel switching projects will be eligible for IETF support.

The rationale behind the exclusion of natural gas-fired CHP is in our response to question 8.

7.3 Should the Fund support feasibility studies and Front-End Engineering and Design (FEED) studies, and capacity building?

Consultation question:

12. Do you agree with the proposal to support feasibility studies and FEED studies into energy efficiency and deep decarbonisation technologies?

Summary of responses

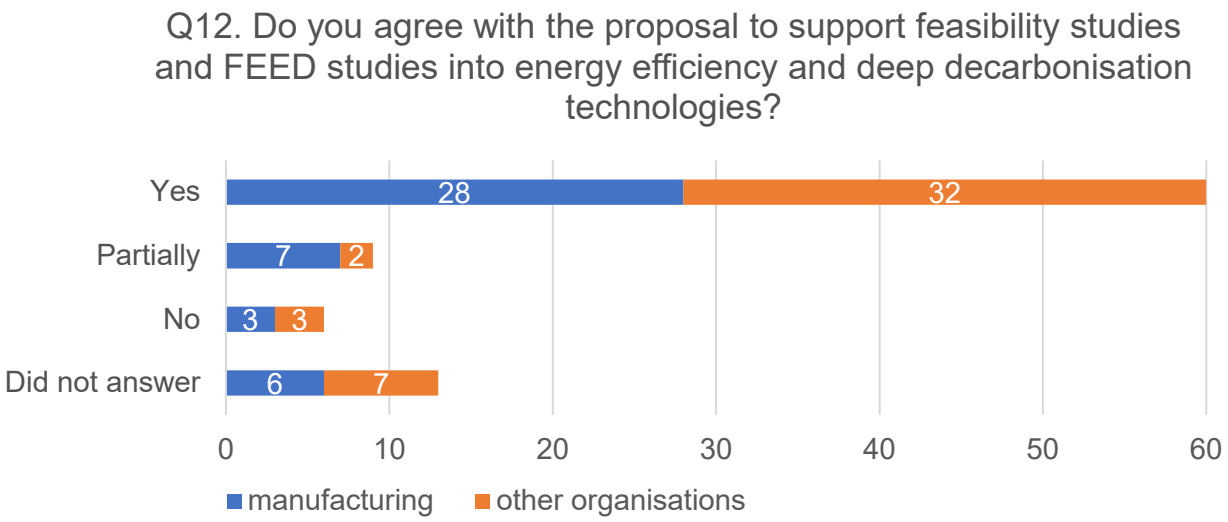


Figure 14: summary of responses received by sector for question 12

75 respondents answered this question. Of those who answered: 92% agreed or partially agreed, and 8% disagreed. This confirmed our position at consultation.

Our response

Respondents overwhelmingly supported our proposal, expressing general agreement with our rationale for supporting feasibility and FEED studies into both energy efficiency and deep decarbonisation technologies. As such, we will maintain our proposed policy position for the reasons previously set out.

Consultation question:

13. Do you agree with the proposed maximum feasibility study duration?

The consultation proposed that feasibility studies must be completed within 12 months of notification that the application is successful.

Summary of responses

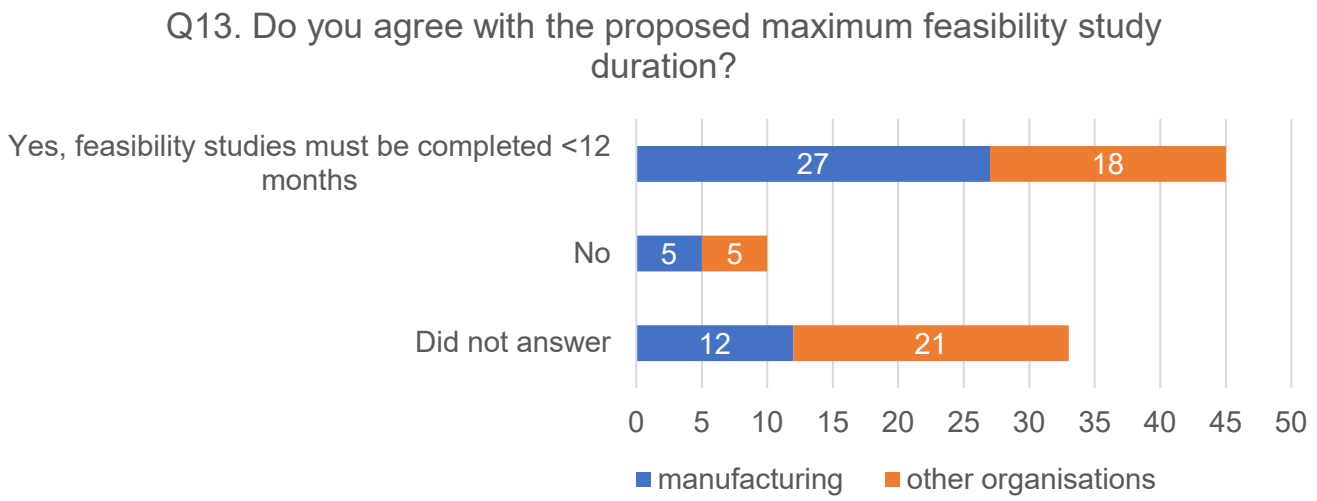


Figure 15: Summary of responses received by sector for question 13

55 respondents answered this question. Of those who answered: 82% agreed, and 18% disagreed. There was broad agreement from respondents that this timeframe was reasonable and that, given the lifetime of the Fund, rapid action is required. This confirmed our position at consultation.

Our response

Respondents thought 12 months was an appropriate time limit given the need for rapid action on decarbonisation and the limited lifetime of the Fund. Others thought that 12 months was suitable as it will encourage the timely delivery of projects.

Given the relatively short lifetime of the IETF, that feasibility studies typically take a few months to complete, and the fact that we want to give companies the opportunity to apply for deployment funding after the study has been completed, 12 months is appropriate.

Consultation question:

14. Do you agree with the proposed maximum FEED study duration?

The consultation proposed that a FEED study must be completed within 24 months of notification that the application is successful.

Summary of responses

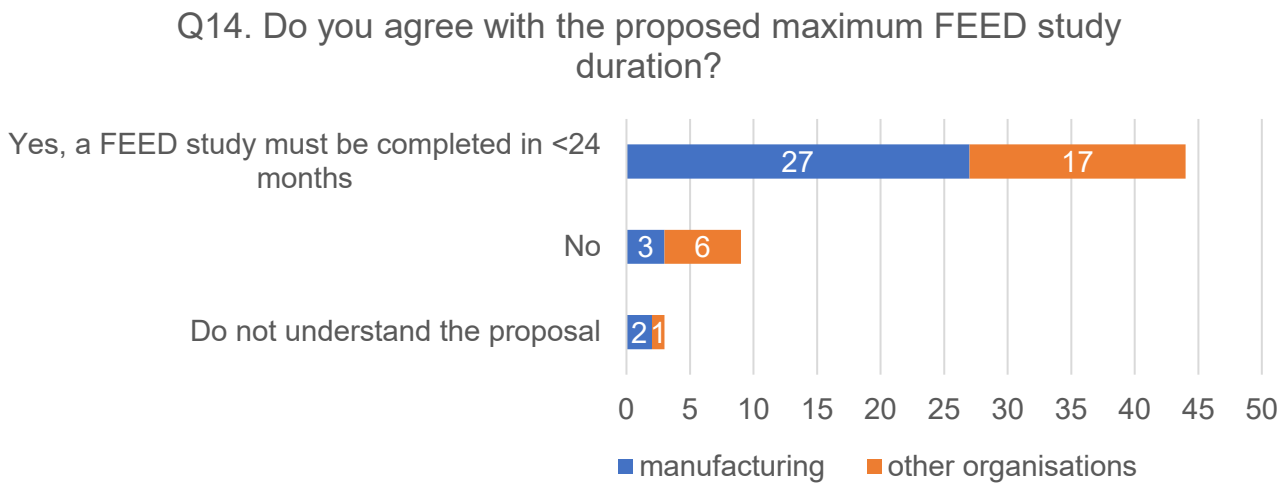


Figure 16: Summary of responses received by sector for question 14

53 respondents answered this question. Of those who answered: 83% agreed, and 17% disagreed. Overall, respondents supported our proposed timeframe. This confirmed our position at consultation.

Our response

A FEED study must be completed within 24 months of notification that the application is successful.

We appreciate that FEED studies are typically conducted for complex engineering projects and that they can encounter delays such as getting planning consent or other factors. We have therefore balanced the time needed to complete these multi-disciplinary project planning tasks with the need to ensure IETF funded activities move at a sufficient pace.

By funding FEED and feasibility studies during the early 2020s, the IETF will form part of wider BEIS support for pre-deployment projects, complementing the £132m that is available for cluster-based FEED decarbonisation projects through the UKRI-led Industrial Decarbonisation Challenge. Together these policies will create a pipeline of decarbonisation projects that could then be supported by new business models for CCUS in industry and/or hydrogen as well as the CCS Infrastructure Fund, which aims to support the establishment of CCS in at least two industrial clusters, one by the mid-2020s, and a second by 2030.

Consultation question:

15. Do you agree with the proposed assessment criteria for feasibility and FEED study applications?

The consultation proposed the following as assessment criteria for feasibility and FEED study applications: replicability for the sector; technical feasibility; project costs; and deliverability and risk.

Summary of responses

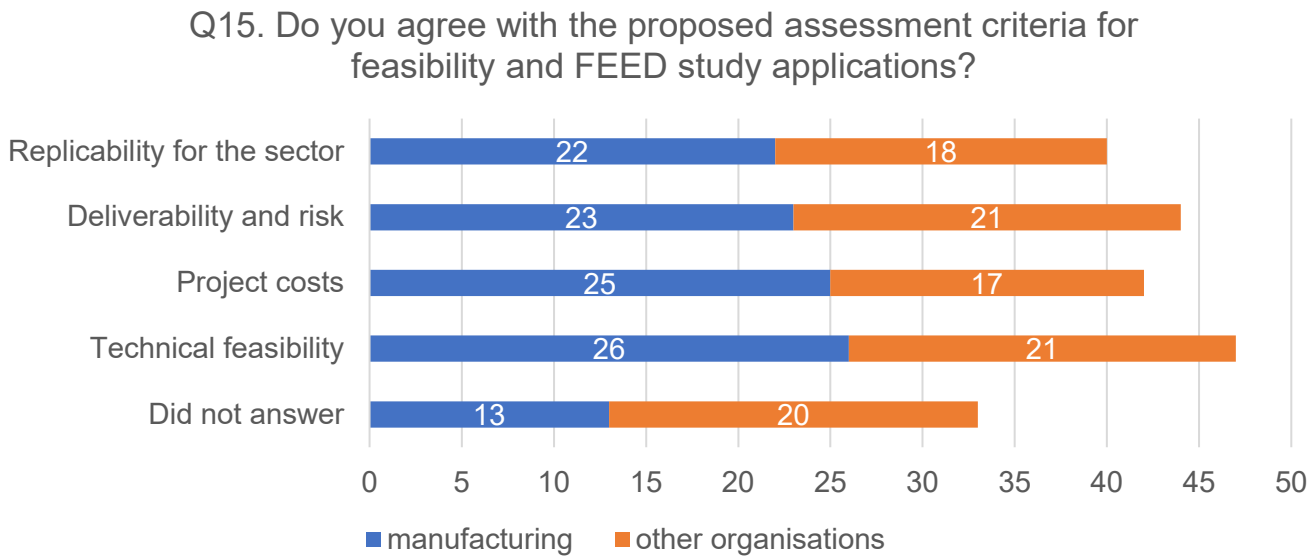


Figure 17: Summary of responses received by sector for question 15

Respondents could indicate their support for multiple options for question 15. Out of the respondents who answered question 15, 40 supported replicability for the sector, 47 supported technical feasibility, 42 supported project costs and 44 supported deliverability and risk. Three respondents indicated they did not support any of the proposed assessment criteria. Overall, respondents were very supportive of the criteria proposed to assess feasibility and FEED study applications.

Our response

After further consideration and in response to feedback, we have made changes and additions to the feasibility and FEED study assessment criteria.

'Replicability for the sector' will not count towards an applicant's score as much as the other criteria.

We have added 'potential for future carbon savings' as another assessment criterion. Applications with unsubstantiated carbon savings predictions will receive a low score. We have added this criterion in response to suggestions made by respondents and because it supports the IETF deep decarbonisation objective.

7.4 What type of funding support should we offer?

Consultation question:

16. Out of the following funding mechanisms – grants, loans, guarantees, and equity – which do you prefer for energy efficiency projects?

The consultation proposed grants; loans; guarantees; and equity as funding mechanisms for energy efficiency projects.

Summary of responses

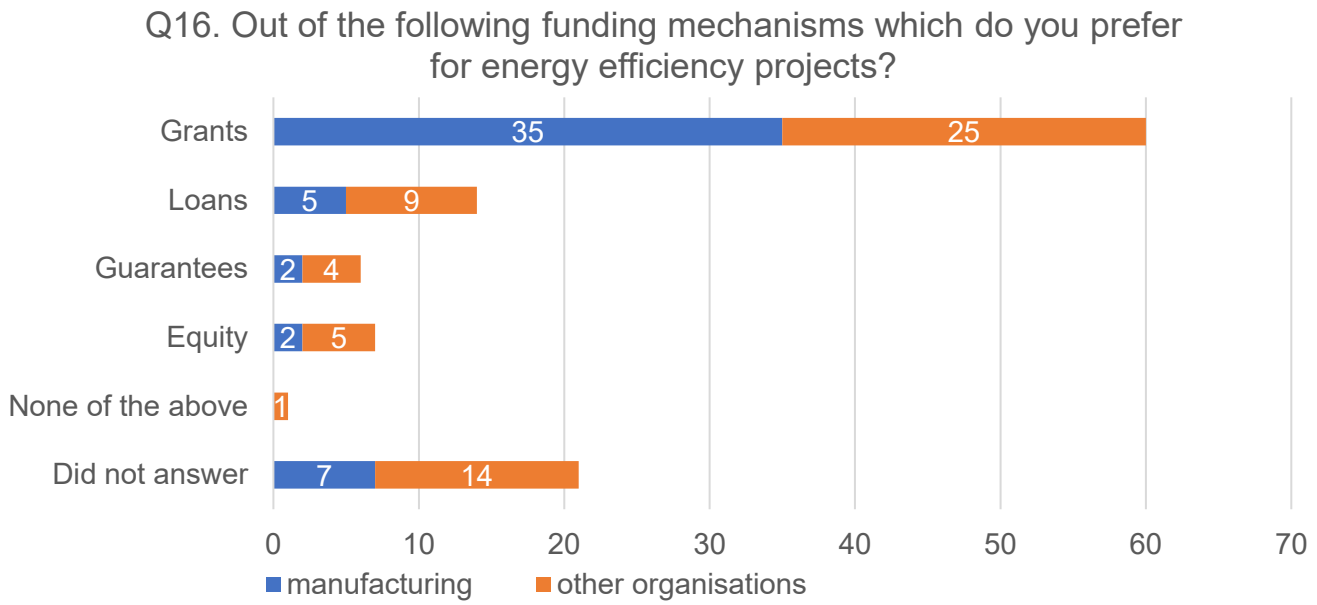


Figure 18: Summary of responses received by sector for question 16

66 respondents answered this question. Of those who answered: 86% of respondents were in favour of grants; 21% were in favour of loans; 9% preferred guarantees; 11% would prefer equity and 2% answered none of the above. Overall, grant funding was regarded as a clear, simple and effective way of supporting organisations to overcome initial investment costs. This confirmed our position at consultation.

Our response

Phase 1 of the IETF will provide grants for energy efficiency projects and feasibility and FEED studies.

The option to provide government grants received overwhelming support from consultees. Grants can overcome key barriers to investment such as lowering payback periods and de-risking investments and can unlock a significant amount of investment through match funding. To illustrate this point, one respondent pointed out that “Without grant funding projects are unlikely to go ahead as they will not meet company criteria for payback.”

Consultation question:

17. Would you like us to consider other potential funding mechanisms for energy efficiency projects?

Summary of responses

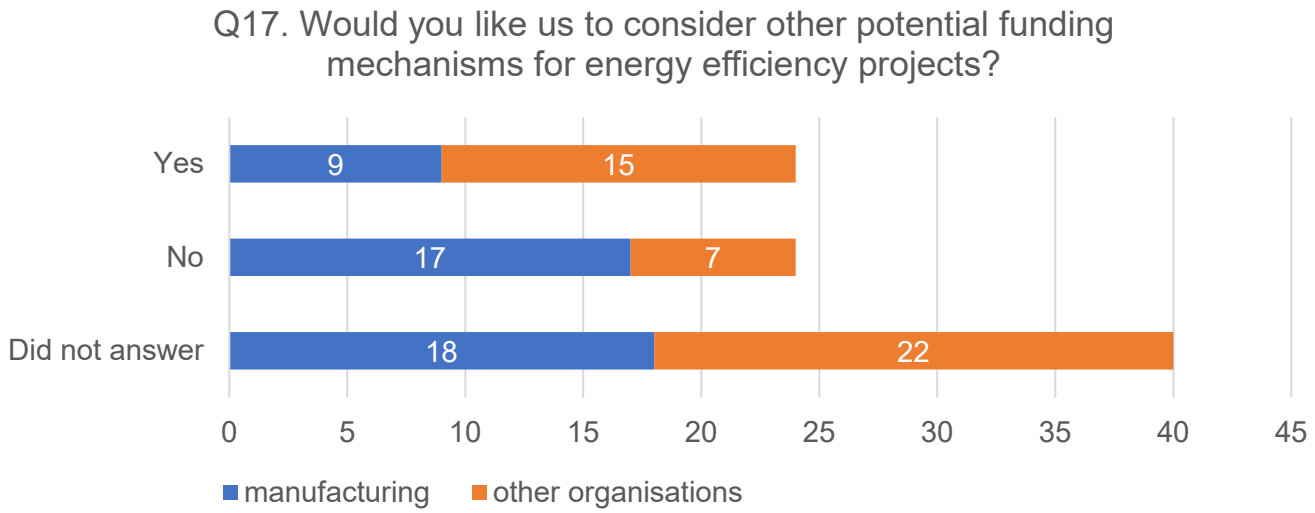


Figure 19: Summary of responses received by sector for question 17

48 respondents answered this question. Of those who answered: 50% of respondents answered yes, and 50% answered no.

Some respondents suggested other potential funding mechanisms for energy efficiency projects, and this included tax relief or revenue support.

Our response

We will consider the case for providing a proportion of IETF Phase 2 funding for energy efficiency in the form of loans.

A number of responses mentioned the potential for a loan scheme. A loan scheme has the potential to leverage private capital, support further projects with the funds paid back, and create a self-sustaining market in industrial energy efficiency. In principle, beneficiaries should be able to pay back the loans with the accumulated financial savings from reduced energy use. However, as other responses mention, loans are unable to overcome key barriers to investment (such as payback periods) and do not have as great an economic impact as grants. Also, many companies do not want to take loans onto their balance sheets. The extent to which government loans would duplicate financing from the private sector is also unclear.

BEIS will investigate options regarding the private lending market for industrial energy efficiency to clarify whether government intervention could add value. We will evaluate whether the IETF might offer a proportion of Phase 2 funding in the form of loans for industrial energy efficiency projects.

The other funding mechanisms suggested, such as tax reliefs and revenue support, were previously considered during the design of the IETF. However, following feedback from stakeholders and engagement through our informal consultation 'Designing the Industrial

Energy Transformation Fund', it was concluded that grants, loans, guarantees and equity currently offer the best value for money.

Consultation question:

18. Out of the following funding mechanisms – grants, loans, guarantees, and equity – which do you prefer for deep decarbonisation projects?

The consultation proposed grants; loans; guarantees; and equity as funding mechanisms for deep decarbonisation projects.

Summary of responses

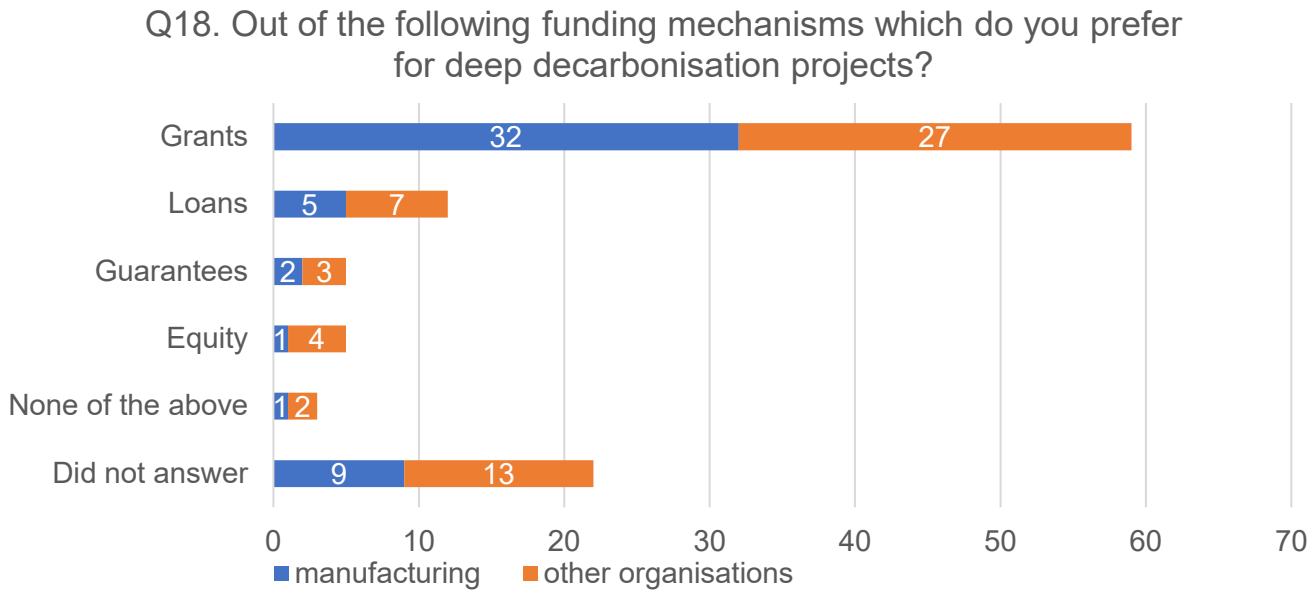


Figure 20: Summary of responses received by sector for question 18

66 respondents answered this question. Of those who answered: 86% of respondents answered grants; 18% answered loans; 8% answered guarantees; 8% answered equity and 5% answered none of the above.

Respondents gave the view that grant funds were the preferred funding mechanism since they provide an added value to projects and could help maximise investment in fuel switching to hydrogen or electrification. This confirmed our position at consultation.

Our response

The IETF will provide grants for deep decarbonisation projects in Phase 2.

Provision of government grants has overwhelming support from consultees. Grants may be necessary for deep decarbonisation technologies such as CCUS and fuel switching for hydrogen, as these technologies are yet to be commercially demonstrated in the UK. They also currently have high costs.

Grant funding project capital expenditure can reduce overall project costs by de-risking projects and removing some finance costs. Furthermore, deep decarbonisation technologies

involve higher permanent operational costs for the operator (for example, through capture of carbon or higher cost of fuel). There is no revenue stream yet with which to pay back a financial instrument such as a loan.

Consultation question:

19. Would you like us to consider other potential funding mechanisms for deep decarbonisation projects?

Summary of responses

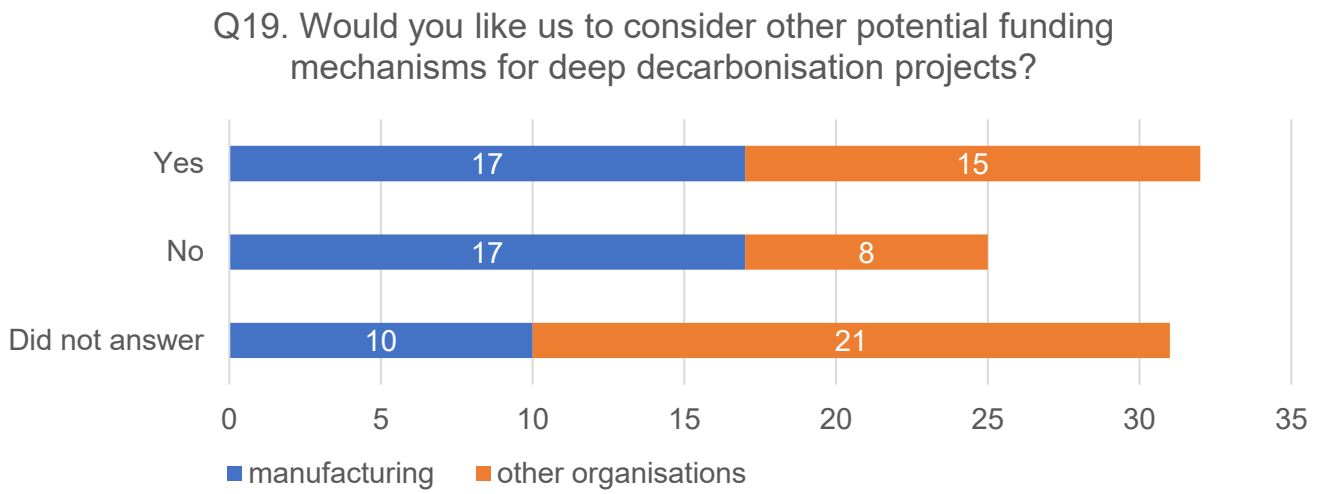


Figure 21: Summary of responses received by sector for question 19

57 respondents answered this question. Of those who answered: 56% answered yes and 44% answered no.

One respondent said that “It is worth noting that while energy efficiency projects will reduce operational costs, deep decarbonisation projects are likely to increase operational costs. Consideration of how operational expenditure for deep decarbonisation will be supported, alongside IETF capital funding, is therefore critical. Otherwise it will be extremely difficult for industries operating in globally competitive markets with thin margins to roll out decarbonisation technologies, and the risk of offshoring of emissions is increased.”

Our response

The IETF will not offer an alternative to grants for deep decarbonisation projects. Other funding and support mechanisms will be considered in the development of future government policy initiatives and strategies for deep decarbonisation.

Although a number of suggestions were made for alternative funding mechanisms, they tended to fall outside the general focus of the IETF (see response to question 17) which was shaped by our informal consultation and there was no consensus behind an alternative proposal. The price of carbon emissions is being addressed either through the creation of a UK Emissions Trading System (ETS), which could be linked to the EU ETS, or a Carbon Emissions Tax. As set out in February in the UK’s Approach to the Negotiation, the UK would be open to

considering a link between any future UK Emissions Trading System (ETS) and the EU ETS (as Switzerland has done with its ETS), if it suited both sides' interests.

Consultation question:

20. What type of energy efficiency projects would be suitable for a Government loan?

The consultation asked for preference towards government loans being used to fund energy efficiency projects.

Summary of responses

34 respondents answered this question. Of those who answered, respondents were evenly split between those who were in favour of government loans being used to support energy efficiency projects, and those who were against. Projects suggested included Energy Performance Contracts on a spend to save basis and proven technologies that show a reduction in energy use without reducing productivity. In contrast, some respondents doubted that projects could meet payback of internal rate of return requirements if funded via a loan.

Our response

Among the respondents who were in favour of government loans, there was no consensus on the type of project that a government loan would be most suitable for.

We will consider suggestions for loans for energy efficiency projects in our policy development for Phase 2.

Consultation question:

21. What value could an IETF loan scheme add to private provision of loans?

The consultation asked for preference towards the value an IETF loan scheme could offer.

Summary of responses

34 respondents answered this question. Of those who answered, 59% were in favour of the proposition that an IETF loan scheme could offer value above private provision of loans, while 41% were not.

Some respondents stated that lower interest rates or an extended repayment period would be of interest if the IETF provided loans. Respondents suggested that the benefits of the IETF providing loans could include cash flow relief and commercial funding for projects that otherwise would find it very hard to get financing from the market. It might also allow the IETF to support more projects as loans are repaid.

Our response

We take note of the suggestions for the value of an IETF loan scheme and will incorporate this into the consideration of loans for Phase 2.

While a majority of respondents gave positive suggestions in answer to this question, most consultees did not answer this question, and responses to other questions have shown that most consultees were not in favour of loans being provided via the IETF.

The responses give some indication as to how a loan scheme could be structured to add value, particularly through providing preferential terms to the private market. These responses will shape the policy development for Phase 2, as we explore the potential for loans for energy efficiency projects, and future BEIS policy development on supporting industrial energy efficiency.

7.5 Delivery of the Fund

Phasing of the scheme

Consultation question:

22. Do you agree with the proposal for Phase 1 to fund energy efficiency projects and feasibility/FEED studies for both energy efficiency and deep decarbonisation?

Summary of responses

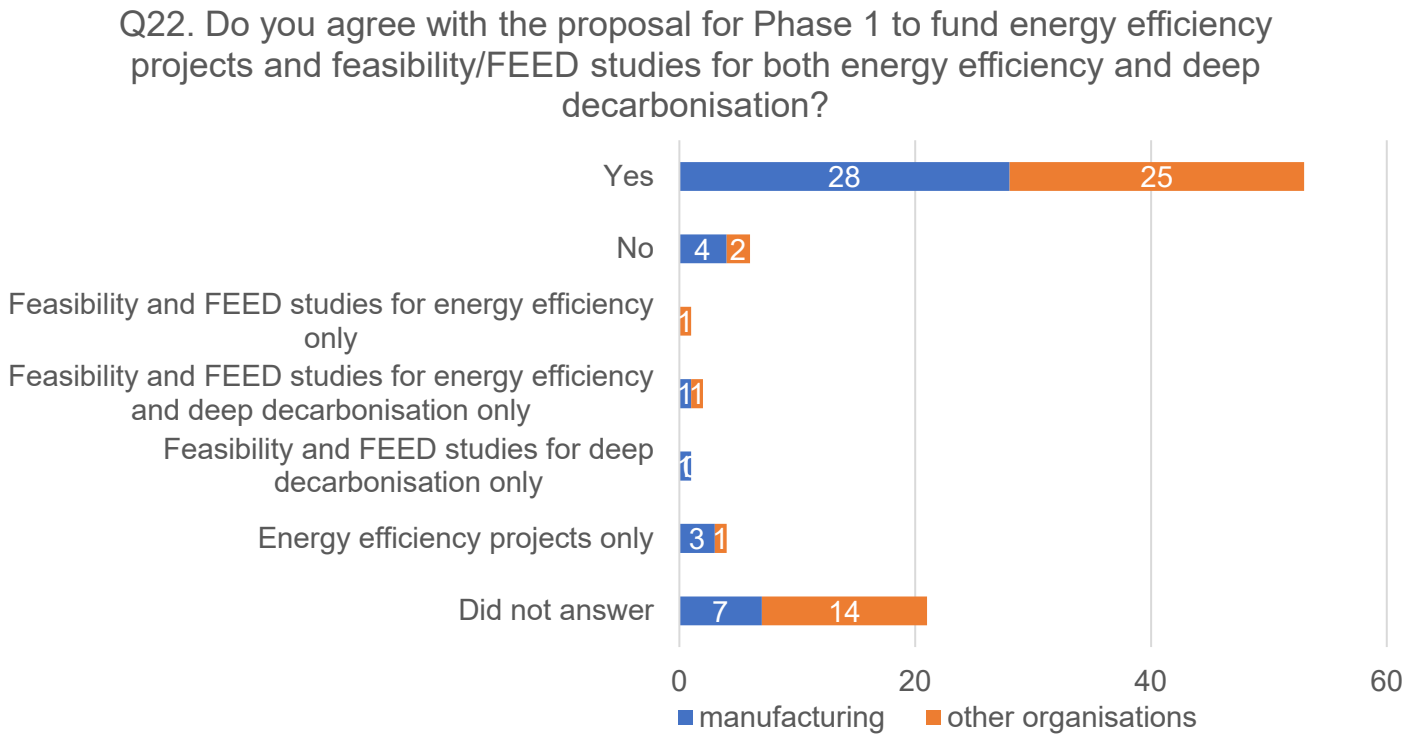


Figure 22: Summary of responses received by sector for question 22

67 consultees answered this question. Of those who answered: 80% of respondents agreed; 6% of respondents supported Phase 1 funding energy efficiency projects only; 3% supported

Phase 1 funding feasibility and FEED studies for energy efficiency and deep decarbonisation only, and 8% disagreed with the proposal. This confirmed our position at consultation.

There was a high level of support for this proposal. Respondents cited a range of factors when expressing general agreement for the IETF providing feasibility and FEED study support.

Respondents were supportive that the focus of Phase 1 should be on energy efficiency projects as they are typically closer to deployment. For feasibility and FEED studies, respondents highlighted that these were essential in order to demonstrate technology that can deliver effective decarbonisation results. Respondents suggested that this proposal is necessary to help energy efficiency and deep decarbonisation projects to progress as soon as possible.

Our response

Phase 1 of the IETF will be worth up to £30 million and will support energy efficiency deployment projects and feasibility and FEED study applications for both energy efficiency and deep decarbonisation.

Phase 2 will deliver the remainder of the money available for the scheme. In addition to the continuation for the types of support provided in Phase 1, Phase 2 will also support more complex deep decarbonisation projects, including some technologies that have not yet been demonstrated at scale.

We anticipate that the projects receiving feasibility and FEED study funding in Phase 1 will help create a pipeline of projects that can then apply for funding for deployment in Phase 2.

7.6 Application process

Consultation question:

23. Do you support the proposal to have an Application Development Service to provide potential applicants with detailed advice and support? Please outline your reasons for your answer and, if you agree, outline specific issues on which you think potential applicants would require such support.

Summary of responses

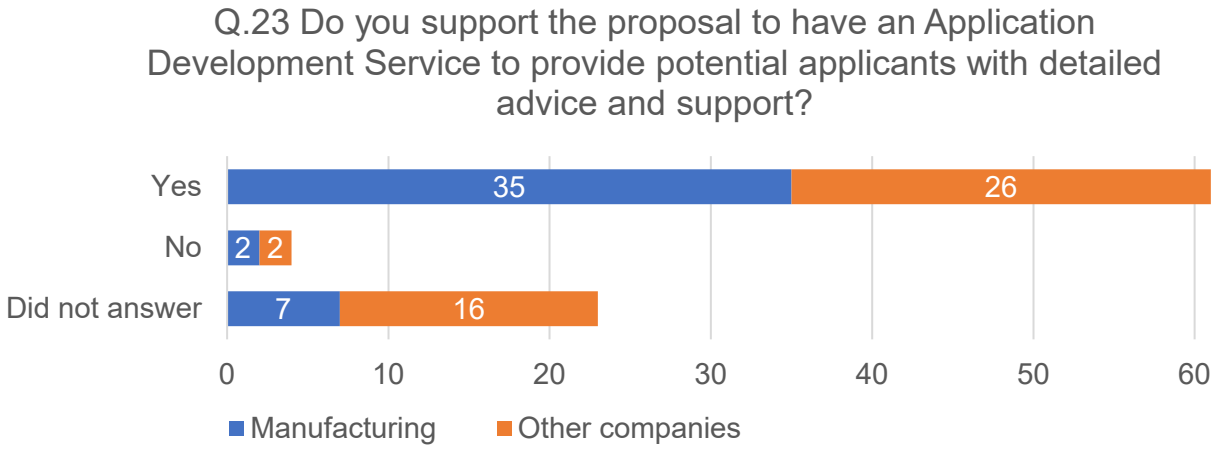


Figure 23: summary of responses received by sector for question 23

65 consultees answered this question. Of those who answered, 94% answered yes and 6% answered no. Respondents were in favour of an Applicant Development Service as 'having a dedicated support function familiar with the application process and expectations can only help to streamline the process'. This confirmed our position at consultation.

Our response

Support for applicants will be offered by UKRI by email and through their competition helpline. This will include the opportunity to ask whether projects are likely to be eligible before submitting an application.

It is clear from industry feedback that potential applicants would like support with the application process so that they can be in the best position to apply for funding. The key messages from the responses received in favour of such support were the service should provide applicants with advice on determining project eligibility for the Fund; the funding mechanism; state aid implications; aggregation of bids; and navigating other government energy efficiency and decarbonisation policies.

Full details of how to access support with applications are published in the Phase 1 guidance document here.

Consultation question:

24. Do you support Phase 2 having a single application window or multiple application windows?

Summary of responses

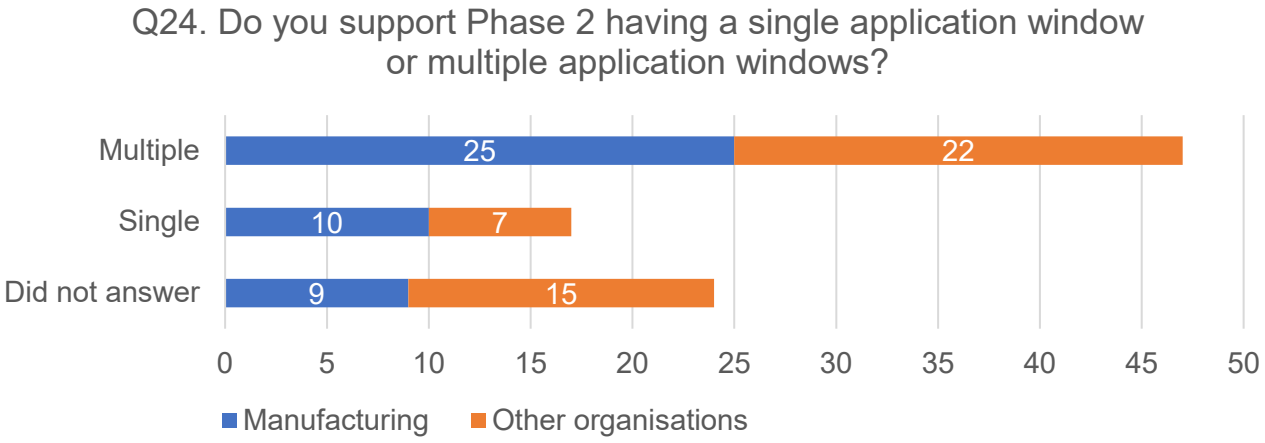


Figure 24: Summary of responses received by sector for question 24

64 consultees answered this question. Of those who answered, 27% favoured a single application window and 73% favoured multiple application windows.

Our response

Stakeholder feedback highlighted that it is important that application windows are sufficiently flexible to align with business investment cycles, and that they allow for development of larger and more complex projects that involve multiple partners.

The responses from the consultation on Phase 2 application windows will be taken into consideration during the policy design for Phase 2.

Consultation question:

25. If you support multiple application windows, how long do you think each window should be, and why?

The consultation presented two parts to this question. Part A: whether there should be one, two, or three or more windows. Part B: whether the window should be open for up to two months, two to four months or more than four months.

Summary of responses

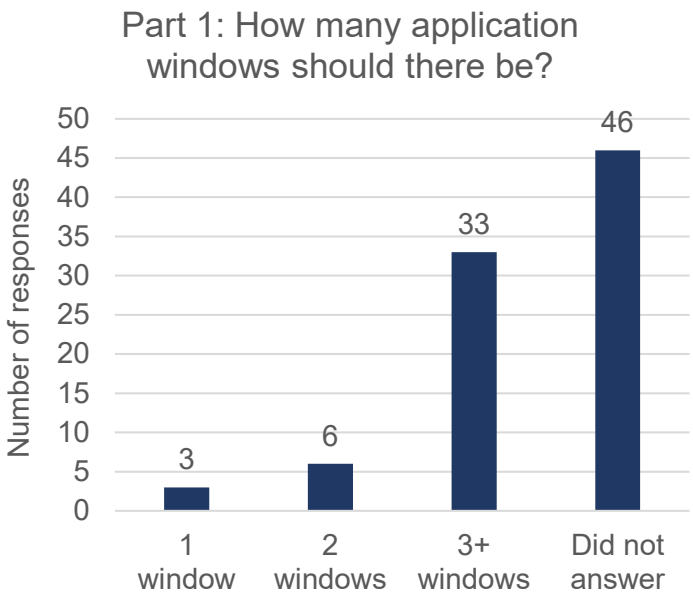


Figure 25: summary of responses for how many application windows there should be

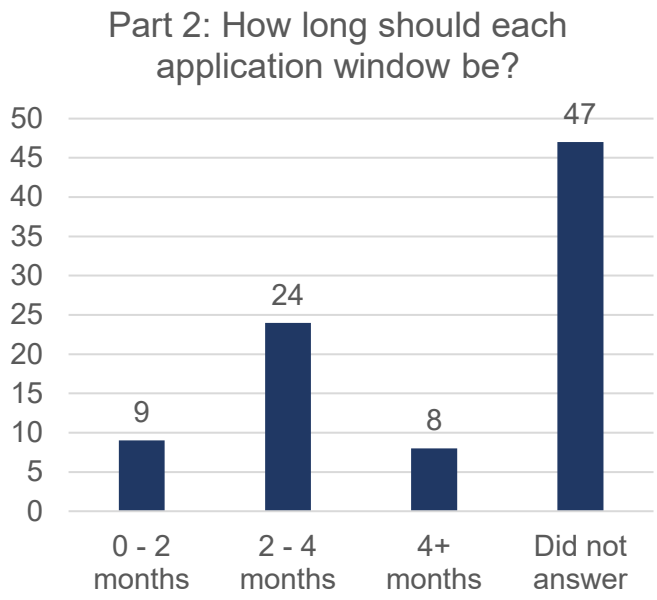


Figure 26: summary of responses for how long each application window should be

42 consultees answered part A of this question. Of those who answered, 33 respondents answered three windows or more; six answered two windows; and three answered one window.

41 respondents answered part B of this question. Of those who answered, eight respondents answered four+ months; 24 answered two-four months; and nine answered up to two months.

Our response

Feedback has highlighted that flexibility is important and multiple windows enables this by allowing businesses to align their investment plans to application windows. This also requires clear communication of application window timescales. We also heard that ensuring enough time between funding windows would give companies enough time to prepare bids. Furthermore, that it would give those that might have been unsuccessful in a previous window time to consider feedback and resubmit an improved application.

The responses from the consultation on Phase 2 application windows will be taken into consideration during the policy design for Phase 2.

7.7 Project assessment criteria

Consultation question:

26. Do you agree with the proposed assessment criteria for energy efficiency projects?

The consultation proposed additionality and cost effectiveness; project overview and technical feasibility; project costs; and deliverability and risk as assessment criteria for energy efficiency projects.

Summary of responses

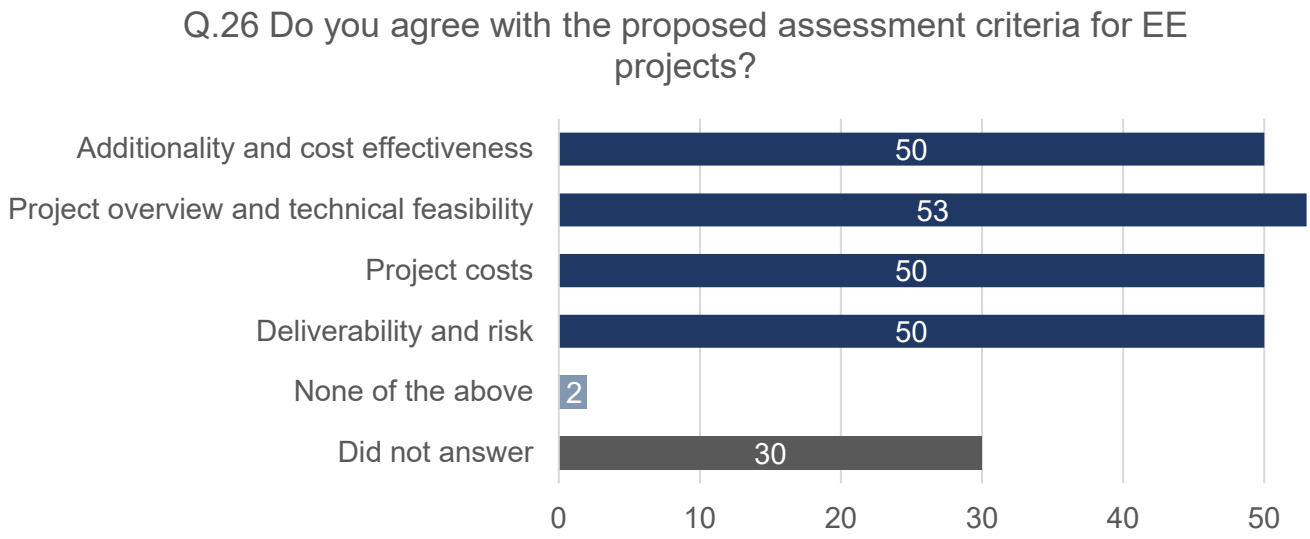


Figure 27: Summary of responses for the proposed assessment criteria for EE projects

58 consultees answered this question and could choose multiple options. As Figure 27 shows, the majority of respondents agreed with our proposed assessment criteria. Only two respondents answered none of the above, which confirmed our position at consultation.

Our response

There was good overall support for the assessment criteria for Phase 1 energy efficiency deployment projects.

Consultees showed clear support for a focus on projects that result in strong CO_2 reductions. In line with Government ambitions to reach net zero by 2050, the cost-effectiveness criteria will be positively weighted towards carbon savings. It was also noted that the Fund should not ignore projects that make good short-term savings.

In addition, it is recognised that for some projects, improved revenue generation might be an additional benefit, however it would be unlikely to add value as a criterion in meeting the Fund's objectives to reduce greenhouse gas emissions and fuel bills for the sector.

For more information on how applications will be assessed, please refer to the application guidance here.

Consultation question:

27. Do you agree with the proposed assessment criteria for deep decarbonisation projects?

The consultation proposed additionality and cost-effectiveness; technical concept and feasibility; deliverability and risk; and whether a project was transformational as assessment criteria for deep decarbonisation projects.

Summary of responses

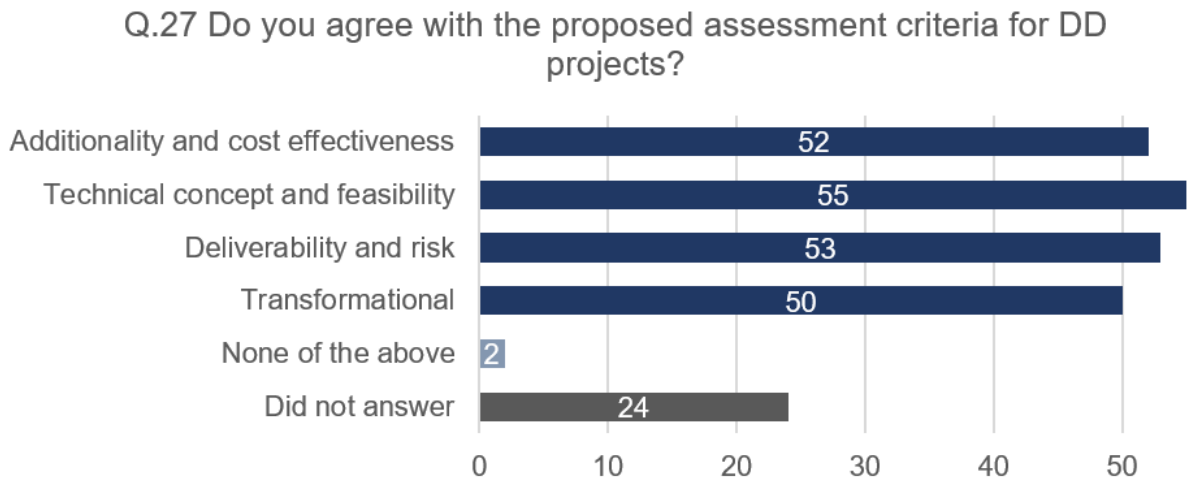


Figure 28: Summary of responses for the proposed assessment criteria for DD projects

64 consultees answered this question and could choose multiple options. Of those who responded: 52 answered additionality and cost-effectiveness; 55 answered technical concept and feasibility; 53 answered deliverability and risk; 50 answered transformational; and two answered none of the above. Respondents agreed with the assessment criteria and some also said that they should also capture the impact of payback periods on financial decisions.

This confirmed our position at consultation.

Our response

There was strong overall support for the assessment criteria for deep decarbonisation projects in Phase 2. Responses from the consultation will feed into the development of the Phase 2 assessment criteria.

Consultation question:

28. Please suggest the types of evidence that would help to prove the additionality of a given project at application stage.

Summary of responses

38 respondents answered this question. Feedback suggests that the definition of “additionality” was not clear which resulted in some respondents interpreting “additionality” as the additional benefits a project can provide. Some respondents suggested that applicants should provide

financial evidence that that funding is not available from internal resources and supporting evidence that senior management had rejected the project without external support, as this would indicate that IETF funding is required.

Our response

We will provide clear and easy to understand guidance on additionality evidence requirements in Phase 1 guidance. Additionality will be considered during the assessment stage. Applicants will be required to provide evidence that supports the extent to which IETF funding would enable a project to go ahead. For more information on the types of evidence required, please refer to the application guidance here.

7.8 Evaluation, monitoring and reporting

Consultation question:

29. What topics would you find useful for BEIS to investigate through any monitoring and evaluation, to develop more effective policy to deliver the objectives of the IETF?

Summary of responses

42 respondents answered this question.

From the responses, we have identified five common themes:

- Respondents wanted to see monitoring against our main policy objectives (emissions reduction and bill savings);
- Several respondents encouraged BEIS to assess the forecast benefits of supported projects against actual delivery
- The replicability of funded projects was highlighted as a key area to monitor;
- Respondents encouraged BEIS to log challenges and issues during project delivery, including barriers to action following FEED/feasibility studies.; and
- Several respondents wanted BEIS to record the technology type and geographical region of supported projects.

There was limited content in the responses on how to deliver monitoring and evaluation. However, some respondents highlighted issues of proportionate burden on applicants and beneficiaries of the scheme, saying that “the heavier [monitoring and evaluation] is, the more budget and resource has to be devoted to it, sometimes to the point of distracting from the real purpose.”

Our response

Many of the themes identified above have been considered as part of our emerging approach to monitoring and evaluation. We will incorporate the themes raised through the consultation into plans for delivery.

We will consider how to monitor the forecast energy and emission reductions and bill savings of all projects funded in Phase 1, with the aim of comparing these with performance once the projects are operational. We are also planning to publish the technology type and geographical region of any project supported under the IETF.

As part of our monitoring of funded projects, we will consider how to capture and analyse any issues that were encountered by grant recipients.

The replicability of funded projects and barriers to action following the delivery of FEED/feasibility studies are linked issues which we will consider how to evaluate. This will only be possible to investigate once enough time has elapsed from the delivery of a project or FEED/feasibility study.

Consultees have made clear that we will need to consider the proportionate burden of our approach to monitoring, particularly during the scheme application process.

Consultation question:

30. Do you have any views on how the IETF can encourage the sharing of knowledge of energy efficiency and deep decarbonisation measures between organisations?

Summary of responses

54 respondents answered this question.

Overall a majority were in favour of knowledge sharing to various degrees. Five key themes were identified from the responses.

- Nine respondents identified workshops and seminars as effective knowledge sharing platforms. Responses demonstrated support for BEIS-led seminars to facilitate rapid knowledge sharing and feedback between organisations and with Government. One response suggested these sessions could focus not only on ‘hard’ knowledge (data, design plans and energy savings) but also on ‘softer’ elements such as regulation, permitting, project timeline development and public acceptance/engagement.
- Nine respondents proposed that knowledge sharing should be mandatory and be a condition of any financial award from the IETF. Multiple respondents recognised the benefits of knowledge sharing but highlighted that confidentiality needs to be a priority when sharing this information.
- Eight respondents stated that case studies would be useful for sharing knowledge about projects. Respondents who suggested this approach also raised confidentiality of information as a key concern. Multiple respondents suggested that these case studies be available to view online, searchable by sector and technology.
- Eight respondents suggested that publications and newsletters could facilitate knowledge sharing. Suggested publications included: trade press and trade associations; publicly available annual reports on projects; articles; blogs; and conference presentations. Respondents suggested that publications should cover the following details: feedback on project developments from scheme participants; sharing of expertise; detailed energy / CO_2 savings; and rate of return on the project.

- Five respondents suggested that an online platform would be useful. Grant recipients would be encouraged or required to publicise their schemes on a sharing and learning web platform.

Our response

The responses to this question highlighted the importance of knowledge sharing between organisations. Many of the themes identified will be part of a knowledge sharing programme.

For Phase 1, we will adopt an approach to knowledge sharing that will combine these suggestions. A summary of every application supported by the IETF will be published online. Grant recipients will be required to provide information on their projects, notwithstanding confidentiality and intellectual property rights considerations.

Grant recipients will also be required to produce a publishable case study in order to receive the final grant payment.

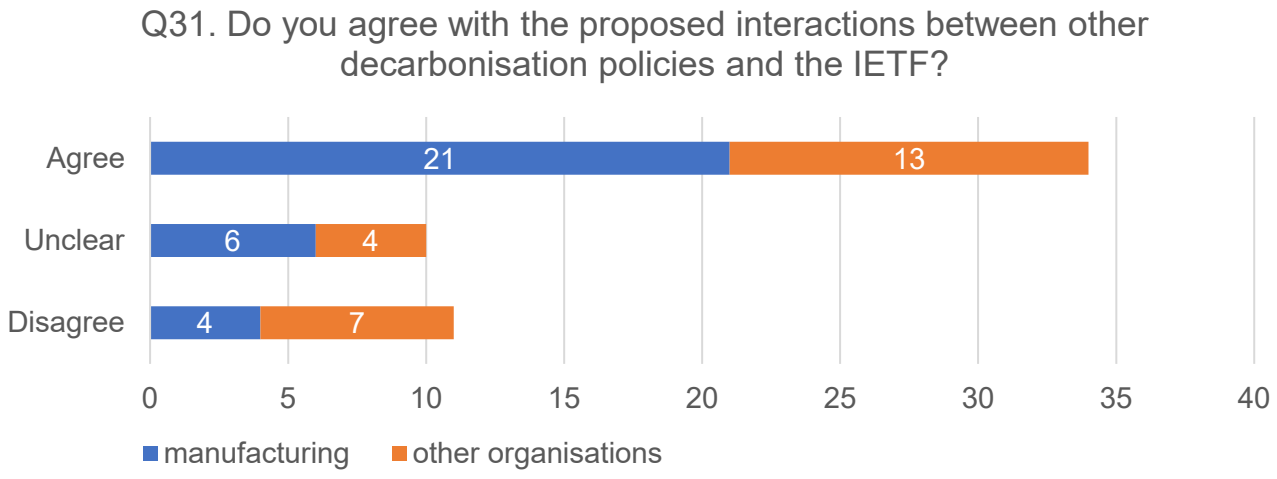
We will consider the most appropriate ways to disseminate information in a timely way.

7.9 Interactions with other BEIS decarbonisation policies

Consultation question:

31. Do you agree with the proposed interactions between other decarbonisation policies and the IETF?

Summary of responses



56 respondents answered this question. Of those who answered: 61% agreed; 20% disagreed; and 18% gave a mixed or unclear response.

Many respondents felt that the possibility of IETF jointly funding larger projects alongside other BEIS funds such as the Industrial Strategy Challenge Fund or Low Carbon Hydrogen Production Fund would be of great benefit and should be explored further.

There was also a clear appreciation that, in part due to the sheer scale of these sorts of projects, any support for CCUS projects would need to be linked to other forms of BEIS

support. There were also requests for further detail and clarity regarding how BEIS decarbonisation policies interact. Some consultees also commented that the application process for related schemes such as the ISCF should be similar or identical to reduce administrative burden.

Our response

The wider industrial decarbonisation landscape in which the IETF will operate is set out in Section 3 of this document. The individual schemes are summarised in Annex C.

The fund is designed to de-risk the deployment and wider uptake of technologies, with its focus on TRL stages 8 to 9 for energy efficiency and 7 to 9 for deep decarbonisation technologies. By supporting technologies at a later stage of development, we will continue the pipeline of support that begins with research and development focussed programmes like the ISCF and IEEA.

The IETF will play a vital role in providing short-term support for energy efficiency and deep decarbonisation projects that may initially receive support at earlier TRLs through the CCUD competition, CCUS Innovation competition, Hydrogen Supply competition, and IEEA.

The funding will be complementary to other deployment projects such as the Heat Networks Investment Project (HNIP) and Industrial Heat Recovery Support programme (IHRS), and longer-term measures for hydrogen adoption in industrial processes. For example, we anticipate that waste heat recovery projects funded through the IETF could be linked to networks funded by HNIP. By supporting fuel switching technologies, the IETF can also support sites in developing the capability to ultimately move to hydrogen.

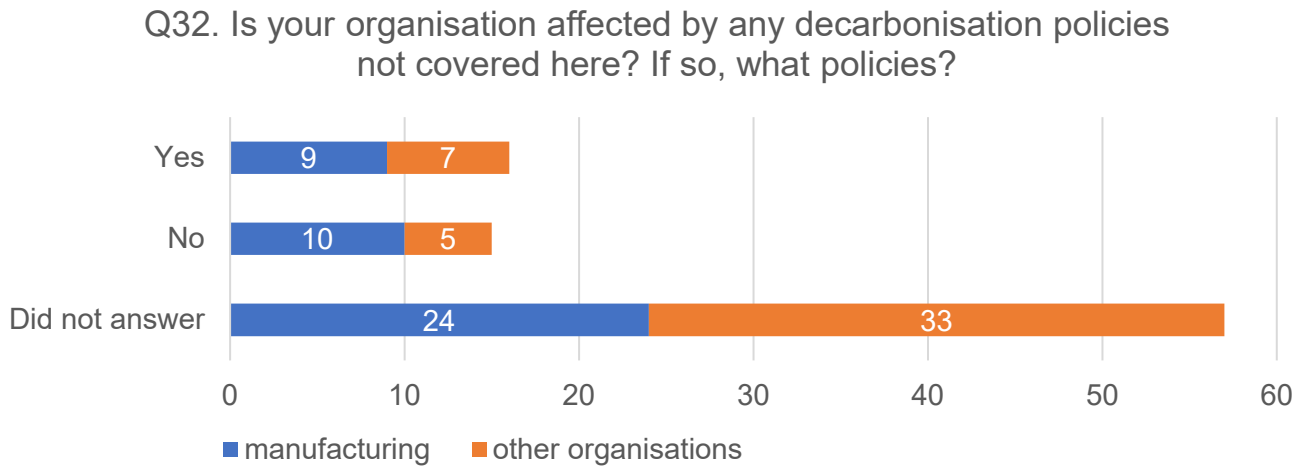
As a technology neutral programme, spanning both energy efficiency and deep decarbonisation, the IETF is flexible in supporting advancements across all manufacturing processes. In this way, we hope to unlock opportunities for large scale deep decarbonisation projects that will support the Industrial Clusters Mission and the CCUS Action Plan in their objectives. We will act on feedback from respondents to ensure that the application processes and communication around these funds is aligned.

Recognising that the IETF and other polices alone will not achieve net zero, additional Government policy initiatives and strategies for deep decarbonisation are being developed, which will further enable the deployment and commercialisation of low carbon technologies.

Consultation question:

32. Is your organisation affected by any decarbonisation policies not covered here? If so, what policies?

Summary of responses



31 respondents answered this question. Of those who answered, 52% answered yes and 48% answered no.

Of the 52% who answered yes, respondents said that other decarbonisation policies were important to their organisation. The Renewable Heat Incentive, Fuel Switching Competition and Contracts for Difference were mentioned as important funding mechanisms for incentivising investment in renewable energy technologies. The wider regulatory framework, including the Renewable Transport Fuel Obligation and the requirements of the Energy Savings Opportunity Scheme (ESOS) under Article 8 of the Energy Efficiency Directive, was also mentioned as a consideration.

Whilst respondents did not provide views on the exact interactions between other policies and the IETF, many made clear that a joined-up government offer is needed to ensure that appropriate incentives to decarbonise and save energy are in place.

One respondent noted that “It is important to reiterate that for full industrial decarbonisation, and CCUS deployment in the UK we will need to see investable business models for power, transport and storage, industry, negative emissions, and hydrogen and the IETF, in conjunction with the Industrial Strategy Challenge Fund (ISCF) can help develop the market for this.”

Our response

We recognise the importance of viable funding models in ensuring new energy efficiency and deep decarbonisation technologies are a success in the long term.

In areas where there is an overlap in the technologies and sectors affected, BEIS’ decarbonisation funds will work together to minimise conflicting incentives and ensure clear pathways.

This joined-up approach was supported by respondents, and we will continue to engage with partners to ensure the policy landscape in this area is clear.

8 Next steps

The Government response to this consultation, identified five common themes:

- Respondents wanted to see monitoring against our main policy objectives (emissions reduction and bill savings);
- Several respondents encouraged BEIS to assess the forecast benefits of supported projects against actual delivery
- The replicability of funded projects was highlighted as a key area to monitor;
- Respondents encouraged BEIS to log challenges and issues during project delivery, including barriers to action following FEED/feasibility studies.; and
- Several respondents wanted BEIS to record the technology type and geographical region of supported projects.

These themes have helped confirm our scheme design for Phase 1. The detailed eligibility requirements have been set out in the Phase 1 guidance which is published alongside this document here.

The Government response for the scheme design for Phase 2 and guidance will be published in 2021, in advance of the launch of Phase 2 later that year. We will conduct further market intelligence and stakeholder engagement as we progress with the planning for Phase 2.

9 Contact details

Enquiries to:

Industrial Energy Transformation Fund Team
Department for Business, Energy and Industrial Strategy
2nd Floor, Victoria 2
1 Victoria Street
London
SW1H 0ET

Tel: 0207 215 5000

Email: IETF@beis.gov.uk

10 Annexes

Annex A – Data set

Q1: Do you agree with our proposal to restrict eligibility for energy efficiency projects to organisations in manufacturing sectors as covered by SIC codes 10-33?	
Yes	23/75
Partially	17/75
No	35/75
Do not understand the proposal	2/88
Not Answered	11/88
Q2: Do you agree that additional sectors should be eligible for funding for energy efficiency projects if they can demonstrate their energy intensity?	
Yes	55/77
Partially	9/77
No	13/77
Not Answered	11/88
Q3: Do you think that the IETF should allow firms to aggregate their bids?	
Yes, if organisations are in the same sector	26/53
Yes, if in a cluster or geographical setting	30/53
Yes, a firm should be allowed to bundle similar projects at different sites	34/53
Yes, if organisations are in the same sector	26/53
No, aggregation should not be allowed	8/53
Do not understand the proposal	1/88
Not Answered	34/88

Q4. If you think firms should be allowed to aggregate their bids, what restrictions could be put in place to prevent misuse of the aggregation system?				
Aggregation should be restricted to a maximum number of components	6/37			
Aggregation should be based on the additionality of energy/cost savings	2/37			
Aggregation should be through the same parent company/legal entity	3/37			
Q5. Do you agree with the proposed minimum value of grant awards of £1 million in Phase 1 for energy efficiency projects?				
Yes, £1 million is appropriate	20/60			
No, it should be higher than £1 million	7/60			
No, it should be lower than £1 million	33/60			
Not Answered	28/88			
Q6. What other methods could be used to determine a minimum threshold for feasibility/FEED study support?				
Answered	43/88			
Not Answered	45/88			
Q7. Please give us your views on our proposals for eligibility for deep decarbonisation projects.				
→	*Strong agree*	*Agree*	*Disagree*	*Strongly disagree*
Consortia or local collaborations;	13/47	30/47	3/47	1/47
Private companies from any sector;	13/48	24/48	8/48	3/48
Non-private sector organisation cannot be sole applicant;	12/43	23/43	6/43	2/43
All are eligible;	14/44	26/44	3/44	1/44
Q8. Please give us your views on our proposals for which technologies would be supported to improve energy efficiency.				
→	*Strong agree*	*Agree*	*Disagree*	*Strongly disagree*
8a. The IETF will support energy efficiency technologies that improve industrial process energy efficiency and those that reduce energy demand across a system	20/48	26/48	1/48	1/48

8b. The IETF will not support energy efficiency measures in transport, building heating and cooling and other electrical building measures	15/44	14/44	7/44	8/44
8c. The IETF will support energy efficiency technologies that are ready for deployment, at either TRL 8 or TRL 9	10/45	28/45	6/45	1/45
8d. The IETF will remain open on the exact technology solution for a project	21/49	27/49	0/49	1/49
Q9. Should applicants be required to use products already listed on the ETL, unless the applicant can demonstrate that their preferred product choice performs to a better or equivalent standard?				
Yes	15/63			
Partially	11/63			
No	37/63			
Q10. Do you agree with the kind of deep decarbonisation activities the IETF is looking to support?				
Provide match-funding for FEED studies	47/62			
Provide deployment funding following the completion of FEED studies	49/62			
Provide capital support for initial deployment or large-scale demonstration, helping de-risk the technology in industrial settings	50/62			
None of the proposed activities	5/62			
Do not understand the proposal	2/88			
Not Answered	24/88			
Q11. Please give us your views on our approach towards deep decarbonisation technologies.				
→	*Strong agree*	*Agree*	*Disagree*	*Strongly disagree*
11a. The IETF will support technologies that are either ready for demonstration in an operational environment or ready for deployment (TRL 7 or higher), keeping in scope industrial carbon capture, fuel-switching options and material efficiency	13/54	38/54	3/54	0/54
11b. The IETF will not provide support solely for standalone production projects or transport and infrastructure projects	5/47	22/47	16/47	4/47
11c. The IETF will not support power generation projects	12/45	14/45	12/45	7/45

Q12. Do you agree with the proposal to support feasibility studies and FEED studies into energy efficiency and deep decarbonisation technologies?	
Yes	60/75
Partially	9/75
No	6/75
Q13. Do you agree with the proposed maximum feasibility study duration?	
Yes, feasibility studies must be completed within 12 months of notification that the application is successful	45/55
No	10/55
Q14. Do you agree with the proposed maximum FEED study duration?	
Yes, a FEED study must be completed within 24 months of notification that the application is successful	44/53
No	9/53
Do not understand the proposal	3/88
Not Answered	32/88
Q15. Do you agree with the proposed assessment criteria for feasibility and FEED study applications?	
Replicability for the sector	40/57
Technical feasibility	47/57
Project Costs	42/57
Deliverability and risk	44/57
None of the above	3/57
Not Answered	31/88
Q16. Which of the funding mechanisms above do you prefer for energy efficiency projects?	
Grants	57/66
Loans	14/66
Guarantees	6/66
Equity	7/66
None of the above	1/66
Not Answered	22/88

Q17. Would you like us to consider other potential funding mechanisms for energy efficiency projects?	
Yes	24/48
No	24/48
Q18. Which of the funding mechanisms above do you prefer for deep decarbonisation projects?	
Grants	57/66
Loans	12/66
Guarantees	5/66
Equity	5/66
None of the above	3/66
Not Answered	22/88
Q19. Would you like us to consider other potential funding mechanisms for deep decarbonisation projects?	
Yes	32/57
No	25/57
Q20. What type of energy efficiency projects would be suitable for a government loan?	
Sentiment towards government loans being used to fund energy efficiency projects	
Positive	17/34
Negative	17/34
Not Answered	54/88
Q21. What value could an IETF loan scheme add above existing provision in the private financing market for energy efficiency loans?	
Sentiment towards the value an IETF loan scheme could offer:	
Positive	20/34
Negative	14/34
Not Answered	54/88
Q22. Do you agree with the proposal for Phase 1 to fund energy efficiency projects and feasibility/FEED studies for both energy efficiency and deep decarbonisation?	
Yes	53/67
Energy efficiency projects only	4/67
Feasibility and FEED studies for deep decarbonisation only	1/67

Feasibility and FEED studies for energy efficiency only	1/67
Feasibility and FEED studies for energy efficiency and deep decarbonisation only	2/67
No	6/67
Q23. Do you support the proposal to have an Application Development Service to provide potential applicants with detailed advice and support? Please outline your reasons for your answer and, if you agree, outline specific issues on which you think potential applicants would require such support	
Yes	61/65
No	4/65
Q24. Do you support Phase 2 having a single application window or multiple application windows?	
Single application window	17/64
Multiple application windows	47/64
Not Answered	24/88
Q25. If you support multiple application windows, how long do you think each window should be, and why?	
1	3/42
2	6/42
3 or more	33/42
Not Answered	46/88
Q26. Do you agree with the proposed assessment criteria for energy efficiency projects?	
Respondents in support of each assessment criteria for energy efficiency projects	
Additionality and cost-effectiveness	50/58
Project overview and technical feasibility	53/58
Project Costs	50/58
Deliverability and risk	50/58
None of the above	2/58
Not Answered	30/88
Q27. Do you agree with the proposed assessment criteria for deep decarbonisation projects?	
Respondents in support of each assessment criteria for energy efficiency projects	
Additionality and cost-effectiveness	52/64

Technical concept and feasibility	55/64
Deliverability and risk	53/64
Transformational	50/64
None of the above	2/64
Not Answered	24/88
Q28. Please suggest the types of evidence that would help to prove the additionality of a given project at application stage.	
NB: The responses to this question are qualitative and have been captured in the main body of text.	
Not Answered	49/88
Q29. What topics would you find it useful for BEIS to investigate through any monitoring and evaluation, to develop more effective policy to deliver the objectives of the IETF?	
NB: The responses to this question are qualitative and have been captured in the main body of text.	
Not Answered	46/88
Q30. Do you have any views on how the IETF can encourage the sharing of knowledge of energy efficiency and deep decarbonisation measures between organisations?	
NB: The responses to this question are qualitative and have been captured in the main body of text.	
Not answered	34/88
Q31. Do you agree with the proposed interactions between other decarbonisation policies and the IETF?	
Agree	34/55
Disagree	11/55
Unclear	10/55
Not Answered	32/88
Q32. Is your organisation affected by any decarbonisation policies not covered here? If so, what policies?	
Yes	16/31
No	15/31
Not Answered	57/88

Annex B - Consultation question list summary

1. Do you agree with our proposal to restrict eligibility for energy efficiency projects to organisations in manufacturing sectors as covered by SIC codes 10-33?
2. Do you agree that additional sectors should be eligible for funding for energy efficiency projects if they can demonstrate their energy intensity?
3. Do you think that the IETF should allow firms to aggregate their bids?
4. If you think firms should be allowed to aggregate their bids, what restrictions could be put in place to prevent misuse of the aggregation system?
5. Do you agree with the proposed minimum value of grant awards of £1 million in Phase 1 for energy efficiency project?
6. What other methods could be used to determine a minimum threshold for feasibility/FEED study support?
7. Please give us your views on our proposals for eligibility for deep decarbonisation projects.
8. Please give us your views on our proposals for which technologies would be supported to improve energy efficiency.
9. Should applicants be required to use products already listed on the ETL, unless the applicant can demonstrate that their preferred product choice performs to a better or equivalent standard?
10. Do you agree with the kind of deep decarbonisation activities the IETF is looking to support?
11. Please give us your views on our approach towards deep decarbonisation technologies.
12. Do you agree with the proposal to support feasibility studies and FEED studies into energy efficiency and deep decarbonisation technologies?
13. Do you agree with the proposed maximum feasibility study duration?
14. Do you agree with the proposed maximum FEED study duration?
15. Do you agree with the proposed assessment criteria for feasibility and FEED study applications?
16. Which of the funding mechanisms above do you prefer for energy efficiency projects?
17. Would you like us to consider other potential funding mechanisms for energy efficiency projects?
18. Which of the funding mechanisms above do you prefer for deep decarbonisation projects?
19. Would you like us to consider other potential funding mechanisms for deep decarbonisation projects?
20. What type of energy efficiency projects would be suitable for a government loan?
21. What value could an IETF loan scheme add above existing provision in the private financing market for energy efficiency loans?
22. Do you agree with the proposal for Phase 1 to fund energy efficiency projects and feasibility/FEED studies for both energy efficiency and deep decarbonisation?
23. Do you support the proposal to have an Application Development Service to provide potential applicants with detailed advice and support? Please outline your reasons for your

answer and, if you agree, outline specific issues on which you think potential applicants would require such support.

24. Do you support Phase 2 having a single application window or multiple application windows?
25. If you support multiple application windows, how long do you think each window should be, and why?
26. Do you agree with the proposed assessment criteria for energy efficiency projects?
27. Do you agree with the proposed assessment criteria for deep decarbonisation projects?
28. Please suggest the types of evidence that would help to prove the additionality of a given project at application stage.
29. What topics would you find it useful for BEIS to investigate through any monitoring and evaluation, to develop more effective policy to deliver the objectives of the IETF?
30. Do you have any views on how the IETF can encourage the sharing of knowledge of energy efficiency and deep decarbonisation measures between organisations?
31. Do you agree with the proposed interactions between other decarbonisation policies and the IETF?
32. Is your organisation affected by any decarbonisation policies not covered here? If so, what policies?

Annex C – Industrial Decarbonisation Policies

A variety of existing Government policies support energy efficiency and deep decarbonisation across the industrial landscape.

The Emissions Trading System (ETS) – Industry, aviation and the power sector pay for their carbon emissions through an EU emissions trading system. It encourages industry to reduce their emissions by allowing the market to determine the price of carbon in the most cost-effective way. 1,000 sites are part of the system in the UK, generating £1.4 billion in allowance auction revenues in 2018. We are designing and delivering a UK based carbon pricing scheme for post EU Exit. We want it to provide the best incentive for industry to reduce their greenhouse gas emissions, while preserving competitiveness.

The Clean Steel Fund – The £250m Clean Steel Fund will support the longevity of the steel sector in the UK and help put it on a path to decarbonisation. We will develop proposals in partnership with industry to help overcome some of the challenges facing the sector. A call for evidence was issued in August 2019 and we are currently analysing responses to help us to develop proposals further.

Climate Change Agreements (CCAs) – These agreements between the Government and firms encourage improvements in energy efficiency across 53 industrial sectors, in return for significant discounts on the Climate Change Levy (CCL), a tax on non-domestic energy use.

Climate Change Levy (CCL) – the CCL operates across UK agricultural, commercial, industrial and the public service sectors and encourages businesses to be more energy efficient and reduce their greenhouse gas emissions by taxing energy use.

Carbon Capture and Utilisation Demonstration (CCUD) innovation programme – This £20m programme is designed to encourage industrial sites to capture carbon dioxide which could then be used in industrial applications, providing a learning opportunity for the development of capture technologies at an intermediate scale.

CCUS Innovation Programme – This is a £24m grant funding programme running until March 2021 supporting projects that develop novel technology and processes that reduce the cost of deploying CCUS.

Energy Technology List (ETL) – The ETL is a part of the Enhanced Capital Allowances scheme and is a free-to-use list. It lists plant and machinery equipment of a high energy efficiency standard, covering 16 separate technology categories, providing a benchmark for what current represents top performance through regular, independent evaluations.

Enhanced Capital Allowance – This scheme aims to encourage UK businesses to invest in high performance energy efficient equipment by reducing the financial and transactional costs associated with purchasing energy efficient products, such as those listed on the ETL, by accelerating tax relief during the year of purchase.

Heat Networks Investment Project (HNIP)[8] – HNIP is a £320m BEIS-led scheme that operates across England and Wales. It is designed to create the conditions for a self-

[8] BEIS, 2019, HNIP overview and how to apply

sustaining heat networks market that contributes to the decarbonisation of the UK energy system by 2050.

Hydrogen and Carbon Capture Usage and Storage (CCUS) Business Models – According to the CCC, development of hydrogen and CCUS is likely to be integral to the delivery of the Department's strategic priorities and long-term climate goals.

Industrial Heat Recovery Support Programme (IHRS) – This is a grant funding programme designed to encourage and support investment in heat recovery technologies. It helps businesses in the manufacturing sector to identify and invest in opportunities for recovering and reusing heat that would otherwise be wasted. (It is not available in Scotland or Northern Ireland.)

Industrial Energy Efficiency Accelerator (IEEA) – This helps to identify new energy efficient technologies and accelerate their deployment in UK industry. Targets include all industrial and manufacturing sectors in the UK.

Industrial fuel switching competition – This identifies and tests the processes and technologies required for industries in the UK to switch to low-carbon fuels.

Clean power and heat generation – A number of policies incentivise the deployment of efficient Combined Heat and Power (CHP). These include tax exemptions from the Climate Change Levy and Carbon Price Support and subsidies for biomass-fuelled CHP such as the Renewable Heat Incentive (RHI) and Contracts for Difference.[9] The RHI also funds biomass heat-only plants (for example, biomass boilers). The RHI is available in England, Scotland and Wales. It is no longer open to new applications in Northern Ireland.

Industrial Clusters Mission – The £170 million Mission will establish the world's first net zero carbon industrial cluster by 2040 and at least one low-carbon cluster by 2030. The Mission intends to work together with each industrial cluster to help them fund the best low carbon technology options and route towards reducing their emissions, which will have associated benefits for the regional supply chains and skills. Several specific projects will contribute to the success of the Mission, such as Carbon Capture Utilisation and Storage.

Industrial Decarbonisation Challenge – Up to £170 million of ISCF funding has been allocated to kick-start the delivery of the Industrial Clusters Mission. This will support the delivery of projects that can help to decarbonise an industrial cluster, as well as planning and research activity led by the Industrial Decarbonisation Research and Innovation Centre, which was launched in February 2020.

Low Carbon Hydrogen Production Fund – This £100 million fund will support the commercial scale demonstration and deployment of low carbon hydrogen production at scale and will explore how hydrogen could be used as a flexible, low carbon energy carrier and will help us understand how businesses could adopt it. This fund will open for applications at the end of 2021.

Non-domestic Renewable Heat Incentives (RHI) Scheme – the Non-Domestic RHI provides quarterly payments over 20 years, based on the amount of heat generated, to increase the uptake of renewable heat by businesses, the public sector and non-profit organisations operating in England, Scotland, and Wales.

[9] BEIS, 2019, Guidance: Combined Heat and Power Incentives

Annex D – Glossary

Acronym	Name
BEIS	Department for Business, Energy and Industrial Strategy
CCA	Climate Change Agreements
CCL	Climate Change Levy
CCUD	Carbon Capture and Utilisation Demonstration
CCUS	Carbon Capture Usage and Storage
CHP	Combined Heat and Power
CHPQA	Combined Heat and Power Quality Assurance
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
COP26	UN Climate Change Conference of the Parties 2020
DD	Deep Decarbonisation
EE	Energy Efficiency
EII	Energy Intensive Industry
ESOS	Energy Savings Opportunity Scheme
ETL	Energy Technology List
ETS	Emissions Trading System
EU	European Union
FEED	Front-End Engineering Design

Acronym	Name
GHG	Greenhouse Gas
HNIP	Heat Networks Investment Project
IEEA	Industrial Energy Efficiency Accelerator
IETF	Industrial Energy Transformation Fund
IHRS	Industrial Heat Recovery Support Programme
ISCF	Industrial Strategy Challenge Fund
LCHP	Low Carbon Hydrogen Production
$MtCO_2e$	Million Tonnes of Carbon Dioxide equivalent
NGO	Non-Governmental Organisation
RHI	Renewable Heat incentive
SIC	Standard Industrial Classification
SMEs	Small and Medium-sized Enterprises
TRL	Technology Readiness Level
UKRI	UK Research and Innovation

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