REA response to DESNZ Consultation on the future of the Industrial Energy Transformation Fund.

The Association for Renewable Energy & Clean Technologies (REA) is pleased to submit this response. The REA represents industry stakeholders from across the sector and includes dedicated member forums focused on green gas & hydrogen, biomass heat, biomass power, renewable transport fuels, thermal storage and energy from waste (including advanced conversion technologies).

Our members include generators, project developers, heat suppliers, investors, equipment producers and service providers. Members range in size from major multinationals to sole traders. There are over 500 corporate members of the REA, making it the largest renewable energy trade association in the UK.

We look forward to continuing to engage with the department on these and related policies.

Part 1- Phase 3 of the IETF.

1. Is the IETF achieving its aims of supporting first movers?

The REA are supportive of the IETF and believe that the aims set are largely being achieved through the fund, although note that such a grant scheme will only ever be limited in its reach and that a wider mechanism is likely needed to provide a route to market for the decarbonisation of all commercial buildings and industry in the UK.

As a trade association representing multiple renewable energy and clean technology industries, we are particularly supportive of its principle of technology neutrality which ensures inclusivity across the sector. However, we note that in some cases the required eligibility criteria are unnecessarily restrictive, undermining the intention to be technology neutral. For example, the continuing application of a 240°C process heat requirement for biomass, is limiting its use despite its significant potential to be helping more industrial applications to immediately decarbonise.

Overall, the IETF represents an important financial package to enable the costs and risks of industrial decarbonisation to be lowered. We support the continuation of this scheme, particularly as for many industries this currently is the only source of funding for deep decarbonisation available to them. However, we believe there are areas for potential expansion both in Phase 3 and 4 of the IETF that would be beneficial for enabling net zero targets to be reached across the entirety of UK industry. The fund must also now be accompanied by a broader fuel switching tariff to enable more industries to invest in decarbonisation activities.

2. What are the main barriers to investing in deep decarbonisation or energy efficiency technologies?

The initial capital costs of deep decarbonisation or energy efficient technologies are significant, and act as a barrier for many companies. Additionally, following the closure of the Non-Domestic RHI (ND RHI) in 2021, the limited government support for operational costs once renewable technologies are up and running, makes many industries reluctant to put up the initial investment. Whilst it is notable that the IETF is technology neutral, its

requirement that energy efficiency technologies must be at TRL 8 and deep decarbonisation technologies at TRL 7, acts as a barrier to investment in innovative and first of a kind projects. We would recommend that some proportion of the grant mechanism be expanded to TRL 6 technologies to enable their commercialisation.

Finally, we also note that since the closure of the ND RHI there has been effectively no route to market for low carbon heat technologies aside from the IETF. This is especially true for biomass, where IETF requirements of having a process heat above 240°C acts as a barrier to deployment. Given the now limited heat policies in place to support industrial decarbonisation, we urge that this threshold be reconsidered in future IETF allocation phases.

The REA would be happy to support the IETF team in speaking with our Finance Forum to further explore these barriers.

3. What role does the IETF play in addressing investment barriers, and does this differ to other public and private financing options?

The REA welcomes the fact that the IETF supports projects at different stages of development, scoping and delivery, which is critical for advancing progress in the decarbonisation of industry. It provides an important source of investment for sectors which may not find the capital elsewhere.

However, we note that, unlike the tariff-based ND RHI, the IETF operates as a grant that does not address operational expenditure, only capital expenditure. As such the support ends with delivery but does not address longer terms barriers to use of a system and ensuring a secure return on investment.

4. Do you agree with the range of SIC codes proposed to determine IETF eligibility? If no, what additional categories of activity (using SIC code descriptors if possible) should be included or excluded and why?

The REA supports the fact that the current range of SIC codes are aimed at targeting industries which are harder to decarbonise. We support the wide range of manufacturing SIC codes that are included – particularly food and beverage processing and manufacturing, which are well suited to the biomass and biogas technologies, and since the closure of the ND RHI receive little support elsewhere. However, for Phase 4 of the IETF, if not Phase 3, it would be of benefit to expand the SIC codes, as there are many other industries with high energy use. As the scheme is technology neutral, expanding the SIC codes would help support the use of a wider range of renewable technologies which may not be suited to the industries included in the current range of SIC codes.

We would particularly highlight the potential for the inclusion of the following SIC codes:

- Construction (41000-43999),
- Transport and storage (49000-53202),
- Education (85000),
- Hospitals (86000),
- Libraries (90000),
- Agriculture, Forestry and Fishing (01000-03000).

5. Do you agree with the decision to limit IETF support to existing sites and processes? Are there any opportunities being missed and, if so, how could the energy and emissions impacts of these projects be evaluated?

The REA supports the fund's intention to decarbonise existing industrial sites and processes. However, we highlight that this still leaves a significant policy gap concerning the decarbonisation of new sites to immediately install renewable technologies, rather than having to use fossil fuels first and waiting to decarbonise at a later date. Government should consider either the expansion of the IETF to facilitate such projects, or urgently deliver an alternative scheme.

6. Do you agree with the decision to limit IETF support to investments or studies that are relevant to onsite infrastructures only? Are there any opportunities being missed and, if so, what types of *off-site* investment should be permitted?

The REA would encourage as broad a definition of the boundaries of a site as possible, providing there is a clear connection between the asset and the main site. Some of our members have had to develop outside their boundaries in adjacent sites, due to access constraints, and worry they would be excluded from applying for IETF support. An example of this would be an anaerobic digestion plant providing biogas to a site via a pipeline but being some distance from the relevant industrial site. Such issues could also become significant when considering hydrogen production, which could be produced by an adjacent electrolysis or biohydrogen pathway, and again connected by pipeline. While we believe this should be possible under the current IETF, there is always a concern that the drawing of boundaries could preclude the inclusion of such projects.

Thus, the REA would support a wider definition of "boundaries" to ensure industries are not excluded on the basis of a geographic technicality.

7. Do IETF rules currently encourage collaboration and the creation of beneficial consortia arrangements? If no, how can we improve this?

The REA are supportive of the collaboration element of the IETF. However, many industries and technologies may not be aware such consortia arrangements are possible. To ameliorate this, we would encourage government departments to work with trade associations, including ourselves, as this could enable collaboration. As a trade association representing over 500 members from generators, project developers, heat suppliers, investors, equipment producers and service providers, and academic institutions we would be well placed to assist in helping establish relevant consortia.

8. Do you agree with the current minimum grant thresholds set by the IETF? If no, what amount should they be amended to? Please explain your rationale including details on what types of project and site would benefit from the change.

The REA finds the current minimum grant thresholds acceptable. However, the government should consider how to support the decarbonisation of smaller-scale businesses, especially given the closure of the ND RHI.

In addition, the IETF may also consider how the agglomeration of smaller industrial sites into one application, utilising the same decarbonisation approach, might be able to be supported by one IETF grant as part of a consortium approach.

9. What financing routes would you typically consider when developing a project? Do you have access to all the routes you need, and how do you determine whether grant funding is required to unlock investment in a project?

The REA is a trade association and therefore would not itself be looking to finance a project. However, our members find that grants help support the capex and bankability of projects. We also note that grant systems do little to address Opex costs, which would ensure that systems continue to be used and the return on investment can be realised using the new system. This is an area that should continue to be considered by the IETF.

10. At feasibility study stage, would industrial sites benefit from an expansion in scope so that the IETF funding can also support an options analysis of technologies?

The REA supports an options analysis of technologies, to ensure that innovation options are not limited and to enable the range of renewable and clean technology sectors to benefit from such schemes. We encourage the use of the right technology in the right situation. Such analysis should be encouraged as part of the IETF application process.

11. Are there any other changes to the scope of activities eligible for study strand support that might improve outcomes?

REA has chosen not to answer this question.

12. Are there any other changes to the range of eligible technologies or scope of deployment strand support that might improve outcomes?

The REA would support the inclusion of TRL 6 technologies to be included in the scope for some proportion of support. This could be particularly valuable regarding the grants for scoping applications, firstly because it could help enable innovation and commercialisation of these technologies, and secondly because such technologies may have reached TRL 7 by the time the project is under way.

The REA would also highlight the need to address the limiting criteria on the use of Biomass in the IETF, that continues to mandate a process heat above 240°C. This is high for biomass and is stopping its use in a wide range of potentially beneficial industrial applications that it could be helping to decarbonise.

Finally, more should be done in the IETF to support the use of Thermal Storage technologies as part of the design of projects. Systems developed by the likes of EnergyNest and Sunamp, could significantly help drive the efficiencies of heat decarbonisation technologies, while also reducing demands on the electricity grid. As such, thermal storage could play a big role in industrial decarbonisation, while also allowing sites to contribute to grid flexibility and

contribute demand side response. The REA would recommend the IETF team consider our briefing on thermal storage to promote a discussion on how it could be better supported in future allocation phases. The briefing can be read here: https://www.r-e-a.net/wp-content/uploads/2023/07/REA-Thermal-energy-storage-briefing.pdf

13. Do you have any comments on the application process and delivery through to post award for the IETF? Please explain any practical considerations the government should consider when designing IETF Phase 3 or other future schemes.

As noted in our response to Question 4, the REA would support a wider range of SIC codes and TRLs to be included, if not for Phase 3 of the IETF, then at least for Phase 4 – as this currently limits the ability of many companies to make applications.

14. Do you have a clear understanding of the range of government support that is available to you and how to access it? Please expand on your answer, describing how you currently identify funding opportunities and any ways in which the accessibility of this support could be improved.

The REA recommends that the government collates its range of financial support for industries in a single place. It would also be helpful to signpost unsuccessful IETF applicants to alternative funding opportunities where possible, to further encourage the decarbonisation of industry in the UK. Finally, the government should also consider introducing a right to appeal mechanism for the IETF, where applicants can show they are not eligible for other support mechanisms, to ensure they are not allowed to "fall through the cracks" of funding opportunities.

The REA also highlights that since the closure of the ND RHI there has been no equivalent scheme to support the wider decarbonisation of commercial properties and industry. This substantial policy gap must be addressed urgently if Government are to remain on track with meeting their carbon budgets.

15. Do you have any feedback on how the application questions and criteria used to assess IETF studies and deployment projects could be improved?

N/A

16. If you applied previously, please share your views on whether the application questions provided you with adequate opportunity to describe the purpose and scope of your study or project.

N/A

Are there additional questions that should be asked, particularly in regard to evidencing that the proposal meets the IETF eligibility criteria?

As mentioned in the answer to question 14 the IETF may determine eligibility based on the belief that industries may be eligible for other support mechanisms, so the opportunity to

provide comment in the application process on ineligibility or unsuccessful application in other schemes would ensure they are not allowed to "fall through the cracks" of funding opportunities.

17. If you applied to the deployment strand, did you find the economic assessment questions and project benefits calculator easy to understand and complete? Did you encounter any issues and what improvements could be made? In your view, does the IETF assessment process discourage applications for projects or studies that may have otherwise gone ahead without IETF support?

N/A

18. How could the assessment of "additionality" be improved, particularly in terms of identifying where investment exceeds existing commitments, such as Climate Change Agreement requirements?

N/A

19. In your view, is it appropriate to assess all applicants against the same criteria or should there be a different approach for certain businesses or projects?

The REA suggests that there may need to be a differentiation between smaller and medium industries compared with larger industries when considering eligibility. As whilst the overall energy usage of smaller companies will be less, it may well be proportionate to those from larger industries, as would investment in decarbonisation projects.

20. Would the current level of technical detail required for M&V in the IETF application deter you from applying?

N/A

21. How can the IETF encourage further the sharing of knowledge of energy efficiency and deep decarbonisation measures between organisations?

The REA would encourage the IETF to disseminate successful project case studies where possible, highlighting lessons learned and best-case practice. The REA would welcome the opportunity for the IETF team to give presentations to our members, to showcase what the fund has achieved.

Part 2- The long -term role of government support post 2025.

22. What do you see as the IETFs long term role in supporting industry to save energy and reduce emissions? Please consider how the IETF should interact with other

decarbonisation and energy efficiency policies to avoid duplication and maximise value for money.

The REA supports the continuation of the IETF as a useful scheme for initial investment which gets decarbonisation projects off the ground. However, as the fund size is not unlimited, there is a cap on the number of projects it can support. We would support its expansion – both financially, and in terms of eligibility, to ensure industries of all size and sectors can decarbonise (refer to our responses in Questions 4, 12 and 19). The REA also calls for a co-ordinated, long term policy framework on industrial decarbonisation, particularly with regards to heat.

We also note that since the closure of the ND RHI there is a significant policy gap, to provide a more universal route to market to enable industrial decarbonisation, that needs to be filled. The REA's proposals include an Industrial Fuel Switching Tariff or the development of a Heat CfD mechanism, replicating the success seen for CfDs in the power market.

23. Do you support the principle of technological neutrality in the IETF? Should any particular technologies or sectors be excluded or prioritised in future support should it become available?

As noted in our answer to Questions 1 and 10, the REA is supportive of the principle of technological neutrality providing it is low carbon. We firmly support the idea of the right technology in the right situation, and we encourage scoping surveys to identify the right renewable or clean technology solution that provides the best outcome for the user.

We encourage government to ensure that use criteria in the IETF remains technology neutral. This is currently not the case with biomass eligibility criteria being restricted to meeting a 240°C process heat threshold and should be revised. We also encourage the consideration of how the IETF could support thermal storage technologies, as discussed in question 12.

24. What type of support will industry need out to 2035 to enable energy efficiency and decarbonisation projects to be replicated and deployed at scale? Would any of the following provide an effective intervention: support for capital costs, operational costs, access to finance or information, clarity on grid capacity and connections or the availability of hydrogen, or capacity building?

The REA believes that all of the above are needed to enable decarbonisation of industry across the UK as quickly as possible. The government needs to consider an appropriate replacement for the ND RHI, which could be Industrial Fuel Switching Tariff or a Heat CfD - this should include biomass, heat pumps, biogas, green gas, biofuels, thermal storage and other low carbon heat technologies, in addition to hydrogen.

Secondly, the government needs to ensure they are integrating with wider government workstreams on grid connection reform and hydrogen business models. Finally, the government should focus on how to support industry with operational costs over capital costs, as the latter are frequently covered by private investment. Businesses need to be rewarded over operational costs so that returns on investment can be recognised and projects made bankable.

25. Which of the following would provide an effective funding mechanism for energy efficiency and decarbonisation projects out to 2035, and could any become more attractive or necessary: grants, loans, guarantees, and equity? Do you feel that the existing balance between these different types of government support is appropriate?

Grants for innovative solutions are helpful for delivering commercialisation but after that there needs to be a tariff-based mechanism to ensure return on investment, rewarding the operation of low carbon systems against which private equity can be raised.

There is a significant amount of private capital available to companies wanting to decarbonise, so capex is rarely the primary barrier to deployment. However, accessing this capital requires longer term returns to be clearly identified and de-risked, which is why tariffs for operation are advantageous.

26. Besides energy and emissions savings, what wider benefits could funds like the IETF deliver? How would you assess and evaluate these benefits?

Additional benefits include the development of intellectual property on how to decarbonise – the services of which the UK can then export.