

# Advanced Fuels Fund Competition

Stakeholder enquires and responses for Window 2

R	f Question	Response
	Eligible Feedstocks - does "fossil fraction" of RDF include waste plastics?	The fossil fraction of a mixed Refuse Derived Fuel (RDF) feedstock is comprised of various components including waste fossil plastics, fossil textiles, fossil rubbers etc. However, separately collected waste fossil plastic streams (from industry/business/homes – i.e. at the point of becoming a waste) are <b>not</b> eligible feedstocks for the AFF. Only the following two recycled carbon fuel (RCF) feedstocks are eligible: the fossil fraction of mixed RDF and waste industrial fossil gases. These RCF feedstocks must also demonstrate compliance with the definition of a waste, and with the waste hierarchy.
	For a project planning a full-scale commercial plant in the UK does the demonstration plant also need to be in the UK?	Any prior demonstration plant does not need to be in the UK, but any project receiving UK funding needs to be in the UK.
:	Is the funding available only to end-product fuel producers or also businesses in their supply chain where investment is needed?	Funding is available to (intermediate) conversion plants within the supply chain provided all the feedstocks used in any funded project are eligible. If you have a planned plant that is solely focused on producing an intermediate fuel, DfT will still need to see sufficient tonnages of eligible AFF fuel produced via the overall fuel pathway in order for your project to be eligible. If you have any specific questions about your pathway eligibility or required scales, please contact us via <u>AFF@ricardo.com</u> .
	Ineligible costs - Profit earned by a subsidiary or by an associate undertaking work sub-contracted under the project. Please expand on this? If engineering or other specialist work is undertaken this will likely be a priced rates (and not at cost) so will include a portion of profit within the work carried out to complete Pre-FEED, FEED work etc. Is this acceptable and therefore is the ineligible profit mentioned more in relation to mark-up and overall profit fee on the AFF associated work by the applicant which makes sense?	Profits and mark-ups on work carried out by the applicant or partners would be ineligible. Engineering or other specialist work carried out by a subcontractor for specific project funded activities would be eligible.

Depa for Tr	Department for Transport <b>E4tech</b> V1.4 – 2 June 2023			
Ref	Question	Response		
5	Modified eligible scope of Round 2. You mentioned a slight modification in eligible scope within EPC phase. Can you expand on this? Our understanding is that successful projects from Round 1 can't reapply for funding for same scope already awarded. Does this change in eligible scope make it more likely that existing Round 1 winners will re-apply for elements in broader scope (EPC?) for same projects. If so, will Round 2 give preference to new projects over existing projects to further broaden pipeline?	This may be a slight misunderstanding from the start of the webinar. The previous 2021 GFGS competition did not include any aspects within the EPC phase, whereas the AFF competition includes the early stages of EPC up to and including Detailed Design and Procurement of Main Equipment. There have been no changes to this aspect of the AFF scope between window 1 and window 2. Window 1 winners are only able to apply for new activities in the window 2 application stage and will not be granted more money for activities already covered in their window 1 grant. In some cases, winning projects were awarded grants covering the full 3 years of the competition, so we would not expect them to be applying for more funding unless they had a new project or major expansion. Some winning projects only applied for year 1 and 2 funding in window 1 and they would then be eligible to apply under window 2 for funding in e.g. year 3 provided this is for new activities, not delayed activities. Window 2 will assess all bids on an equal footing, and not provide preferential scoring to new or to existing projects. DfT will then consider the spending pot limits and overall portfolio of projects for support.		
6	The grant conditions state that all IP generated will be the property of the authority, not the grant recipient. Is this correct?	The grant conditions state that IP contained with the progress reports will reside with DfT, not the much wider IP generated by the project itself. DfT respect that projects are handling sensitive IP and we have strict confidentiality practices in place. Any information shared by the project in the reports is only for the purpose of monitoring and reporting progress of the project, including unlocking milestone payments, and will not be shared beyond DfT and delivery partners for any reason. Should any information provided with the progress reports be confidential, this should be supplied as a separate annex and marked as strictly confidential.		
7	To support networking for stakeholders looking to build consortia, is there a plan to publicly provide an open list of interested organisations on the web page? or circulated via email?	Yes, this is something that was done under the Window 1 application stage and we will do the same for Window 2. Further details on this will be shared with stakeholders via email and on the AFF webpage.		
8	How can we have access to the presentation material today?	The slides and recording of the launch webinar will be shared with those that registered for the event by email and also added to the AFF webpage along with the Q&A's in this FAQ document.		
9	Are international organisations eligible to be partners	Yes, as long as the lead applicant is a registered UK company or charity.		

Ref	Question	Response
10	Are technology license payments eligible costs?	<ul> <li>Yes, license payments are deemed eligible costs if <ul> <li>they are for the correct phase of the project lifecycle (up to detailed design and procurement of main equipment)</li> <li>they apply to eligible parts of the technology (main pieces of equipment converting feedstock into fuels, not auxiliary systems and utilities)</li> <li>they are incurred within the AFF funding period</li> </ul> </li> </ul>
11	Direct Air Capture isn't mentioned explicitly in the eligible list of feedstocks, is this an omission given it's mentioned elsewhere in the doc?	Direct air capture of $CO_2$ is eligible as a feedstock, under the $CO_2$ sub-pot, however it would need to be combined with hydrogen (meeting the AFF eligibility requirements).
12	If the CO <sub>2</sub> pot isn't used, when can we expect it to be reallocated? I.e. will the 2nd round of CO <sub>2</sub> funding be added to the third round of AFF funding?	DfT have not confirmed whether there will be a third round of funding under the AFF. All assessments will be carried out and be reviewed by an external expert panel for moderation. Recommendations will be made to the DfT programme board who will look across the portfolio and make decisions based on the scores from assessments. It is at this stage that it will be decided where to allocate funds and this will include whether to use the funds within the CO <sub>2</sub> sub-pot or whether these funds will feed back into the main pot if unallocated.
13	Are there any restrictions on what sub-contractors can be used? Do they have to be based in the UK? Is there a limit as to how much of the overall budget can be allocated to sub-contractors?	Sub-contractors based outside of the UK can be used as long as the Lead applicant is a UK registered company or charity. The scoring criteria in the assessment process does take into consideration jobs created within the UK, but there are no eligibility restrictions on the amount of budget used on overseas sub-contractors.

Ref	Question	Response
14	As a catalyst and technology design company, we are looking for funding to scale up our technology package, including investment in the catalyst manufacturing plant. We can take any feedstock of CO <sub>2</sub> /H <sub>2</sub> – must AFF funding include production & supply of eligible feedstock? So do we need a project partner that can supply the 'eligible' CO <sub>2</sub> and H <sub>2</sub> ?	Investment in a catalyst manufacturing plant is not an eligible cost for the AFF, as this facility is not producing eligible fuels or intermediates, only catalysts. However, if the company were to consider designing a specific UK project using the catalyst in a conversion plant that meets the eligibility criteria, and were to either bring in project partners looking to supply the CO <sub>2</sub> and H <sub>2</sub> , or were to explore potential feedstock partners and sites as part of a Feasibility study, this conversion plant project could be eligible. However, AFF funding cannot be spent on the physical production of fuel or physical supply of feedstock, as these would fall under operational costs which are ineligible. Projects focused on one part of the supply chain still need to show an eligible pathway from feedstock to final fuel at sufficient scale has been contemplated in their design or procurement work. Those projects that can provide more certainty and evidence about their feedstock sources, any upgrading & offtakers etc (i.e. any activities upstream and downstream) will score more highly on certain assessment metrics, although we note Feasibility studies are still eligible to apply. Those projects where the feedstock or upgrading is still unclear may require clarification questions to be raised to establish their eligibility, and we would encourage projects in this position to reach out to the AFF@ricardo.com mailbox with more specifics about their project well ahead of the deadline to check their eligibility.
15	We understand that only information that is included in the application form and supporting appendices provided by the application deadline will be used in the assessment. Does the same apply to changes in legislation after the application deadline?	The application would not be negatively scored based on subsequent changes in legislation but we would likely ask clarifications should this this situation arise and how this might impact your project.
16	Within the application template there are Text Form Field Boxes against questions (shown as a grey square). For example in Section 1.2. Please can you advise whether we can ignore this or do we need to ensure responses are written within the text form field as doing this limits the number of words (less than permitted amount).	The small grey text boxes do not need to be used when completing your application form, although please do note that some questions do have a maximum word limit.

Depa for Tr	Department for Transport V1.4 – 2 June 2023		
Ref	Question	Response	
17	Is a project that is lead by a UK company, and is developed/engineered within the UK <b>but</b> utilises results and analysis from testing and optimisation work completed outside of the UK acceptable for the AFF criteria.	If a project is led by a UK company/charity, and the demo/FOAK conversion plant project will be sited in the UK, but the project design work utilises <b>past</b> results and analysis from testing and optimisation work <b>already completed</b> outside of the UK, this is perfectly acceptable.	
	For example if some laboratory or pilot plant work outside of the UK is included with the scope of the project would the project still be eligible for funding, or does all activity related to the project need to be completed within the UK.	If a project is led by a UK company/charity, and the demo/FOAK conversion plant project will be sited in the UK, but the project proposes to spend <b>some (not a majority)</b> of the AFF funding on generating <b>new</b> results and analysis from testing and optimisation outside of the UK – this is acceptable provided that AFF funds will be spent in the AFF funding period and are not going towards the construction of new pilot or lab facilities (due to the TRL 6-8 eligibility criteria). The use of AFF funds for the operation of existing pilot or lab equipment with e.g. modified catalysts or process conditions is acceptable, provided it can be demonstrated this further research is essential for the design of the TRL 6-8 demo/FOAK project in the UK (which will remain the focus of the AFF project and budget), and that the overall technology pathway already meets the TRL 4+ eligibility criteria.	
		If you have any specific questions about your eligibility, please contact us via <u>AFF@ricardo.com</u> .	
18	Should we use US or EU construction code systems, or are there new UK codes post-Brexit? US (NEC for electrical and ASME for pressure vessels) or EU (ATEX for electrical and PED for pressure vessels), there seems to be some uncertainty around the UK codes; I would be very grateful if you could provide some clarification.	The AFF does not have any eligibility criteria regarding construction codes, nor will construction codes be assessed as part of the AFF application evaluation phase. Construction codes are a matter for individual projects to deal with during creation of their engineering designs, and during construction after the AFF. DfT would expect the project to apply any construction codes systems as required by any UK Government guidance, plus HSE or other regulations, in order to meet onsite safety requirements and any permitting & planning constraints.	
		Further guidance on this topic may be provided by UK Government in due course.	



Ref	Question	Response
19	If the project we are developing has the potential to expand in size and future fuel production capacity after the initial grant is awarded, is there scope to subsequently increase the grant funding commensurately?	If successful, any grant award needs to be for a set maximum amount, and will not be expanded later. Note that all AFF grants need to be distributed by March 2025, so any expansion to a plant that occurs after this won't have any relevance to the AFF. If you mean that the plant design stage could be enlarged before March 2025 (i.e. more FEED or Detailed Design required for a larger plant), you should submit your application based on which design package is the most likely scenario. Or if you mean that the procurement of the plant's main equipment could be enlarged before March 2025 (more key conversion kit to order), again, you should submit your application based on the most likely scenario. Note that construction, commissioning, or operational costs are not eligible, I.e. are out of scope of the AFF.
20	Please could you send us a copy of the Grant Offer Letter?	The Grant Offer Letter is listed on the AFF webpage under 'Application documents' and is called "Advanced Fuels Fund Example Grant Agreement".
21	Can a newly formed UK-registered SPV (Special Purpose Vehicle) company that has been set up for the purpose of the proposed project be the lead applicant? Or does the lead applicant need to be an established UK-registered company with "x no of years" of accounts filed? If so, how many years?	Any company that is a registered UK company or charity is eligible to apply for funding, regardless of its date of establishment. DfT will need to carry out due diligence against the company and any parent companies as well as the project partners and it is highly likely that this will involve further clarification questions on their status should this be a newly formed company.
22	"and the demo/FOAK conversion plant project will be sited in the UK, but the project proposes to spend some (not a majority) of the AFF funding on generating new results and analysis from testing and optimisation outside of the UK – this is acceptable provided that AFF funds will be spent in the AFF funding period" Could you clarify the point about "not the majority of AFF funding spent on generating new results". Is the 'majority' calculation expressed as the 'non-UK' eligible costs divided by the total eligible costs for the period of the funding (Sept 2023 to March 2025)? Or is this calculated some other way?	This majority calculation should be based on the 'non-UK' eligible costs divided by the total eligible costs for the period of the funding (Sept 2023 to March 2025). If there is going to be a significant amount of testing and optimisation work outside of the UK, this will need evidenced as to the value of DfT funding compared to other in-country schemes, and how the outputs arising from this testing/optimisation work will flow into the proposed UK project and result in UK benefits.

### Department for Transport

#### Ref Question

23

The AFF guidance is explicit in stating that priority will be given to projects closest to commercial scale construction and that the largest, most developed projects will be marked preferentially. The government commissioned report by Philip New is clear that those SAF technologies closest to commercialisation have significant constraints due to availability of feedstock supply and there is a need to develop SAF with a greater diversity of feedstock types with an unconstrained supply of feedstock-for example e-fuels/PtL (3g SAF). The report highlights the unique emphasis in the SAF Mandate on creating a dedicated market for 2 and 3g SAF. However, noting the competition is not a level playing field, and less mature e-fuels pathways are de-prioritised compared to nearer term pathways, is there any more guidance as to how disadvantaged these earlier stage projects will be? For example, is there any quantitative guidance in the marks scheme we can refer to, which marked element will be marked down for a feasibility/pre-feed with deployment in the early to mid 2030s, relative to a nearer term, larger scale pathway that could deliver fuel prior to 2030. Please outline how many marks are allocated to this element and how many will be lost for a longer-term solutions.

24

The guidance refers to a variety of allowable feedstocks, for example H<sub>2</sub> (referred to as included in the funded scope). Whilst it is clear from the guidance on what is an allowable feedstock, we would welcome further clarification on what is included in the 'funded scope'. i.e. an allowable feedstock does not necessarily mean that development of feedstock technology is included in the funded scope. Is it possible to provide guidance on the boundaries of funded scope.

#### Response

DfT acknowledges the need to support a diversity of pathways through the AFF, and will achieve this via the enlargement of the CO<sub>2</sub> sub-pot, and the discretionary technology diversity cap imposed for window 2 (which may impact if there are multiple/large waste gasification + FT bids). If your bid is an eligible CO<sub>2</sub> sub-pot pathway, you will only initially be competing against other CO<sub>2</sub> sub-pot pathways, before joining the main pot if unsuccessful in the CO<sub>2</sub> sub-pot. Of the 15 scoring assessment criteria being used, only one criterion (criterion #6) has an explicit weighting applied towards nearer-term projects. As stated in the AFF window 2 launch event slides, the lowest multiplier for criterion #6 is 50% (which would be a Feasibility study for small-scale demonstration plant), and the highest multiplier for criteria #1-#5 or criteria #7-#14. The date of first operations is not explicitly marked but will inform part of the future ramp-up for your technology and therefore some of the potential case for economic benefits under criterion #8. There is no other published guidance on the marking scheme.

The costs of electrolysers (via EPC procurement of main equipment) or developing an electrolysis project (FEED, Pre-FEED, Feasibility) would only be eligible if part of an overall pathway that generates AFF eligible fuels, and if this end-to-end overall pathway meets the TRL requirements of the AFF. The simplest version of this is a combined plant with electrolysis and eligible fuels conversion at TRL 6-8, where design costs & procurement of main equipment are eligible. The AFF cannot fund standalone hydrogen/intermediate fuel production that will not be converted into AFF eligible fuels, nor will AFF providing funding for standalone hydrogen/intermediate fuel production that is significantly larger than the requirements of your downstream conversion step to AFF eligible fuel. If hydrogen/intermediate fuel is produced at a different site to the AFF eligible fuel production, evidence should ideally be provided as to why separate locations are required for your pathway, and how any lost co-location benefits (e.g. thermal integration) are compensated for (e.g. significantly cheaper local inputs). The AFF will not fund the design or procurement of standalone electricity generation equipment (e.g. a new wind farm, new solar park), nor will it fund any upstream standalone parts of a feedstock supply chain that are already commercially mature (e.g. new biomass pelleting facilities).

D	Department for Transport E4tech V1.4 – 2 June 202		
R		Response	
2	We understand one objective of the funding is to open up new	Please see the answer to Q24. And yes, integration of systems (including integrating hydrogen production onsite with SAF production) and modification to sub-systems are eligible costs for design work. Procurement cost eligibility relies on showing the equipment claimed is key equipment for the fuels conversion process, and not auxiliary equipment.	
	TRL's are referred to in the context of individual technologies. However, is it correct to conclude that the TRL will refer to the whole system, rather than the individual technologies, as end to end SAF pathways will require a number of different technologies at different TRL levels?	We expect applicants to state the TRL of the individual components, as well as the overall TRL for the whole pathway (and this overall TRL will be used for the TRL eligibility checks). Typically, the overall TRL will rely on the lowest common denominator of the component TRLs.	
2	The guidance states that projects must reach TRL 6/8. Please can you confirm that this is the output TRL once the project has been constructed and SAF production has commenced. Feasibility projects are included in scope, and so we have made this assumption since feasibility projects could not produce TRL 6/8 at the end of a 2 year project. Please can you confirm our assumption is correct.	Correct, the TRL 6-8 criteria for your project is once it is built and operational, which could be many years after the AFF study you propose.	
2	We understand that there must be no double accounting from	If a window 1 awardee was awarded funding under window 2 for new activities under the same project, it would be appropriate and indeed expected that outputs from window 1 would be utilised in window 2. A clear demarcation of tasks between the two windows would be helpful for the assessment phase.	

## Department for Transport

#### **Ref Question**

29

30

This question is relating to the commercial relationship between the technology providers and the lead. In a scenario where the lead partner is not one or any of the technology providers (where multiple technologies create the SAF pathway), is it acceptable that the technology companies are subcontractors of the lead applicant. Or would DfT request that the lead holds the licenses to the technologies as part of the bid-or some other arrangement. We do not see any differentiator between 'project partners' and 'subcontractors' so we would like to request clarification and guidance in this respect.

On the selection of projects based on the Portfolio Approach, can DfT please describe the types of diversity that it wishes to see from the overall fund. For example, does it seek diversity in feedstocks, in fuel synthesis/production technology, scale of project, first operation date, extent of project (e.g. focus on a specific process, or end-to-end feedstock to SAF).

#### Response

The lead organisation does not have to be a technology provider. The AFF places no restriction on the commercial licensing arrangements between the different parties involved in the bid – applicants only need to show how they have the relevant technology rights to develop the proposed project, and how any license fee down-payments being claimed under the AFF are reasonable and necessary for design/EPC work to continue. There are some important distinctions between project partners and subcontractors, as well as the resulting differences in project governance structures and legal contracting for your application. All project partners will undergo formal due diligence by DfT and cannot claim mark-up or profits (nor can their subsidiaries or associates). Subcontractors can include typical profits within their share of the project budget, although large subcontractor mark-ups will be noted and taken into consideration when assessing the strength of case for DfT funding under criteria #15, and may be subject to clarification questions, or negotiation if successful. Sub-contractors are generally viewed during the assessment phase as being less committed to the project than full partners. DfT retain the right to conduct due diligence on subcontractors with a significant role in the project.

Providing sufficient numbers of high-quality bids are received, DfT is looking to support a diverse portfolio of eligible fuel production pathways – some of which will use very different feedstocks at different commercial scales. DfT are not looking to focus on one specific technology component, rather the advancement of whole pathways, and projects will need to be designed around demonstrating or commercialising eligible AFF fuel production – not just intermediate fuel production. First operation date is not an eligibility criterion and DfT are not looking to disadvantage nearer-term projects just to have a mix of start dates – the pathway diversity is the primary portfolio consideration. Multiple projects proposing to use the same limited feedstock may also inform portfolio choices in order to manage deliverability risks. Also see the response to Q23.



	-	
Ref		uestion
NEL	<u> </u>	uestion

31

plant application?

Can you please clarify the following:

o What does the 45% (min) of total fuel limitation
correspond to; is this on a full system boundary basis?
o What is meant by "point source CO <sub>2</sub> " on the bid basis?

#### Response

The definition of the minimum 45% criteria is best left to pages 5-6 of the Guidance document, as there are a number of allowable cases and nuances. As footnote 1 makes clear, fuels are defined as liquid or gaseous co-products of the funded plant and any downstream upgrading facilities within the pathway (that upgrade intermediate product from the funded plant). The examples in footnote 2 are for a standalone conversion plant with no downstream upgrading, where the indicative %s are based on the LHV energy content share of the total fuel outputs.

So note that the >45% is not based on the whole system boundary - e.g. it is not including upstream co-products in e.g. waste pre-processing. Similarly, when looking at upgrading, only the AFF consignments are considered – not other e.g. fossil feedstocks that might be co-processed in an upgrading plant alongside the AFF consignments.

If you would like to get our opinion on the eligibility of your pathway, we suggest that you provide more details regarding pathway and outputs at each step – particularly if you have fuel production occurring at multiple steps.

Point source CO<sub>2</sub> simply refers to the collection of CO<sub>2</sub> from a stationary, typically (but not necessarily) large emitter of  $CO_2$ , where there is typically (but not necessarily) a gaseous stream present that has a  $CO_2$  concentration significantly higher than atmospheric  $CO_2$ . AFF pathways can also collect  $CO_2$  from multiple smaller point sources of  $CO_2$  – there are no size or concentration constraints on the sourcing of CO<sub>2</sub> feedstock. However, in all cases, the RTFO criteria regarding  $CO_2$  sourcing have to be met (see AFF guidance page 7) – e.g.  $CO_2$ cannot be purposely generated or purposely extracted from geological storage. The use of "point source  $CO_2$ " is therefore only meant to provide a differentiation from Direct Air Capture. Non-stationary sources of CO<sub>2</sub> are unlikely to be feasible or viable to capture for use in an AFF pathway, but could be considered by DfT if evidence of their feasibility, viability and potential scale is provided by an applicant.

We are interested in conducting some feedstock feasibility work for This is ultimately a decision for the applicant as to the level of effort required and whether a future commercial plant (TRL 8), should this work be split out as a they wish for these applications to be separately assessed. If the feedstock feasibility work for a TRL 8 project is small in relation to the TRL 6 demonstration project budget, inclusion separate application or combined within our TRL 6 demonstration within a single application is acceptable, provided this task and its budget is clearly demarcated. Yes.

Does feedstock feasibility work for a future commercial plant (TRL 8) 32 have to have this plant located within the UK to be eligible for AFF funding?

Ref	Question	Response
33	Does question 3.1.2 of the application form refer to the proposed AFF plant or existing facilities?	It refers to the proposed AFF plant.
34	Should a project include their revenue projections, even if their TRL 6 demonstration plant is producing only very small volumes of fuel?	Yes.
35	Would side-studies looking at process design improvements such as recycling of gases, waste water streams and other residues be eligible for AFF support?	Yes, provided these studies are for an eligible AFF project.
36	Do we have to pay DfT back for any equipment costs at the end of the funding window, or purchase the equipment back from DfT?	No, these are straight grants, provided the terms of the Grant Offer Letters are complied with.
37	Are purchases of feedstocks (e.g. H <sub>2</sub> , CO <sub>2</sub> ) eligible costs under AFF?	No, because these feedstock costs are part of the operational phase for a plant, which are outside of the eligible scope of the AFF project lifecycle phases.
38	With reference to the Grant Agreement paragraph 4.3, please can DfT confirm that where subcontractors are included in the original bid there is no requirement to subsequently seek three quotations for their identified scope of work provided value for money can still be demonstrated. Furthermore, please can DfT confirm that it is not a requirement for the subcontractors included in the bid to have been selected following a competitive exercise during the bidding period.	For any partner or consortium member of the Lead Applicant there will not be a need to subsequently seek three quotations for their scope of work. The three-quote requirement for procurement activity applies after a successful applicant signs their grant agreement and during the funding phase. Any costs before this will still be scrutinised as part of the assessment, so it remains important to show value for money.

Department for Transport <b>E4tech</b> V1.4 – 2 June 2023		
Ref	Question	Response
for Ti	ansport REARDO E4tech	
		a certain technology pathway – it is <u>not</u> a prioritised sub-pot for waste gasification + FT projects. In other words, waste gasification + FT projects will be competing within the main pot, but with a potential additional restriction on the total award(s) in window 2. It does not mean that only £1.1m is available for other technology pathways – there will be between £28.8m and £55.8m available for pathways in the main pot after any CO <sub>2</sub> sub-pot awards are made.

### Department for Transport

Ref

Question

#### Response

40 Is there a clear preference for gasification with FT synthesis projects?

- a) Is the 50% cap on one technology pathway included as a catch all in case there are limited non-gasification/FT projects that meet the criteria to allow further allocation to this pathway?
- b) Assuming you receive enough quality bids, does this mean that £27.7m will <u>definitely</u> go to projects with waste gasification with Fischer-Tropsch synthesis and £27m will <u>definitely</u> go to projects that use CO<sub>2</sub> (point source or direct air capture) as their main carbon source? That would mean there is no funding left for alternative technology pathways?
- c) Or, if a commercially sound non-solid waste gasification/FT project submission comes in with a different pathway to Jet A1 would it have a preference for funding over Gasification/FT to spread out the diversity of pathways (all things being equal)?

There is no preference or prioritisation for waste gasification + FT projects – there is however a potential restriction on the maximum support available for this pathway. Waste gasification + FT projects will be competing alongside all other non-CO<sub>2</sub> feedstock pathways in the main pot.

- a) Yes, if there are unallocated window 2 funds and only eligible waste gasification + FT projects remaining.
- b) No as above, waste gasification + FT projects will be competing with all main pot pathways.
- c) If this other pathway is a CO<sub>2</sub> sub-pot pathway, then yes, this will be given funding priority within the CO<sub>2</sub> sub-pot constraints the CO<sub>2</sub> sub-pot is designed to improve the overall diversity of AFF pathways. If this other pathway is not eligible for the CO<sub>2</sub> sub-pot, it will be competing within the main pot alongside the rest of the pathways. There will be no preferences given between main pot pathways in the assessment and application scoring phases. Final decisions and discretion regarding the overall portfolio of pathways to be funded resides with the DfT Board.

Department for Transport	RICARDO	E4tech

	· · ·
Ref	Question
Nei	Question

41

### Response

We seek clarification on the following clause within the AFF guidance relating to Eligibility as it appears to open up a clear commercialisation route via road fuel FOAK first:

"First-of-a-kind commercial project where the main fuel output (>45% of total fuel) is a drop-in liquid fuel for road transport, evidencing BS EN: 590 for diesel could be met when blended at 25% or above by LHV energy content, with evidence also provided of the technical potential and commercial strategy to retrofit the project to produce >45% jet A-1".

The above guidance clause appears to confirm that a commercial drop in road fuel project which can be retrofitted later (we would be looking within 5 years of commissioning – circa 2030) would be an acceptable route for funding. We are currently developing a project that can go directly to an FOAK road fuel project now (scale = 200 million litres of fuel product per annum), but which has some additional commercialisation work required before it can be deemed licensable by the technology providers for Jet A1 (decision likely made within the next few months, but unlikely before the application submission deadline).

In reality, how realistic would receiving the grant funding for an initial 'road fuel with SAF conversion later' route be under the scheme (all elements being equal)?

42 If one of the partners is not a UK registered company what information do you require in Section 1.3 in terms of their legal status and registration number.

43 Would a market analysis report be eligible for the grant? Specifically, we want to examine the UK SAF landscape, our export potential and pricing structure for SAF for potential offtake, alternatively we could purchase pricing tables from Argus, would that cost be eligible?

Note the main fuel output requirement to meet BS EN 590 at >25% blending, prior to the retrofit (if you have any queries regarding your fuel eligibility, please provide further details of your pathway and outputs). DfT will then be looking for credible evidence of the jet A-1 retrofit timelines and these plans being confirmed (any board, partner, supplier, offtaker, investor reassurances etc), along with evidence for the technical/commercial feasibility and management of risks for the retrofit. If passing these and other eligibility checks, the application will be assessed on an equal footing to others. We note AFF objectives include near-term emissions reduction for the aviation sector, so nearer-term retrofits would likely have some advantage over longer-term retrofits for the project relevance assessment criterion (this is 1 out of 15 assessment criteria). We would encourage you to clearly demarcate the road fuel and SAF volumes, and the transition, in your application form (e.g. 3.1.2, 3.3.1 and 4.3.1), as well as in Annex E, and please provide separate Annex H GHG workbooks for the first full year of (road fuel) operations and for the first full year of SAF operations after the retrofit.

Where a partner is not a UK registered company, we would still expect you to be able to provide their legal status, eg charity, large enterprise, Ltd company etc and also their company registration number for the country that they are based in.

Yes, this would be eligible. Estimates for some of these questions will be required in the application form/appendices. Novel SAF pathways are unlikely to be covered under Argus pricing datasets.

Ref	Question	Response
44	If newly formed companies are subject to additional due diligence to that of established companies, please can DfT confirm what further clarifications would be required by newly formed companies, over and above what is stated in the ITT. As a new company we will need to understand if we are likely to meet the due diligence requirements.	DfT will conduct due diligence tests on all companies involved in bids to the Advanced Fuels Fund. The first round of tests will include considerations on the strength of balance sheets and routine <u>Spotlight</u> checks. This will lead to further questions and clarifications where necessary. Newly formed companies may have gaps in their first-round tests due to a lack of filing history. In these instances, DfT will request additional information that provides a similar level of assurance to the information that would be received from more established companies. The nature of this request will be dependent on what DfT initially receives.
45	Can you advise whether there are any file size limitations when submitting our documents on the 7 <sup>th</sup> June 2023? If so, can you provide alternate submission strategies, for example, would an online system, such as WeTransfer, be acceptable?	We would encourage you to send the files by email in the first instance. If this does not work or is bounced back to you for being too large, let us know via email and we will send you a link to a secure folder on Ricardo Box where you can upload your entire application. All of this would need to be done before the deadline of 16:00 BST on Wednesday 7 June.
46	Would it be possible to have an extension to the deadline of 1 week?	It is not possible to extend the deadline.
47	We have some queries regarding the application, what would be the best way of discussing them with you please?	As a starting point we would like to ask that you submit your specific questions in writing to the <u>AFF@ricardo.com</u> email address. This ensures that all potential applicants are treated fairly and no advantages given to any particular organisation. Please note we can only provide support on eligibility and application material queries. All competition guidance, including application documents and FAQs are published on the <u>AFF website</u> and we suggest looking there for information in the first instance.

Ref	Question	Response
48	<ul> <li>Please see my query regarding whether private/Match funding is required and to what extent:</li> <li>The application documents state the following which would suggest private funding is not required: <ol> <li><i>Where relevant</i>, please confirm the match funding you have in place to cover the total costs that are not being provided by the Advanced Fuels Fund and provide evidence of how this match funding has been secured. Append any necessary supporting information to your application.</li> <li>Appendix F: Details of match funding from project financiers (where appropriate, to be completed by the applicant).</li> <li>Advanced Fuels Fund grant funding can only be provided for project work that cannot be financed on reasonable commercial terms by the private sector</li> <li>Appendix F: As letters of support are stated as the form of evidence, I would understand it is not firm commitment.</li> </ol> </li> <li>However, the declaration to be signed by the Applicant states : "It has sufficient funds available to meet the requirement of private funding and to undertake the work which is the subject of this proposal."</li> <li>This declaration statement is very confusing as it implies it already has the private funds at it's disposal which contradicts the other references mentioned.</li> </ul>	DfT has set the maximum grant funding intensity at 100% of total eligible costs during Feasibility, Pre-FEED and FEED stages, and at a maximum of 50% of total eligible costs at 'Detailed Design' and 'Procurement of Main Equipment' stages within EPC. Eligible costs are set out in detail in Appendix D. It is not necessary to have any match funding at the Feasibility, Pre-FEED and FEED stages, or above 50% match funding at the 'Detailed Design' and 'Procurement of Main Equipment' stages within EPC however proposals that include match funding will be scored preferentially, with increased match funding able to score higher marks. The DfT Fund Board may rely on funding intensity to decide funding allocations in marginal cases. All applications for funding are subject to assessment and there is no guarantee that successful applicants will be offered the full amount they have applied for.
49	Can you please provide some clarity around the text in italics in the following sentence taken from the guidance notes: Own labour costs, including agreed overheads and project management cost, but not profit. <i>These costs should be directly</i> <i>linked to the design, and evaluation of the equipment contained in</i> <i>the project</i> and auditable as such.	Only labour costs associated with the funded activities would be eligible. Labour costs for other projects, or general technology development that isn't relevant to the project can be claimed.

200			
Department for Transport	RICARDO	E4tech	
Pof Quest	ion		

Ref	Question	Response
50	Our process technology utilises a catalyst. Would the cost for sufficient catalyst for the first fill of the plant be considered a long lead item (and therefore eligible) or a consumable?	There isn't firm guidance on catalysts, but the AFF does rule out costs during construction & commissioning. The intent for Procurement of Main Equipment is to support early/upfront, long-lead, big-ticket and potentially bespoke items that are critical to the project's success. So if you are buying the main conversion/upgrading equipment and it'll arrive with a first load of catalyst, this is likely to be deemed as eligible. Instead, if you plan on buying all kit, installing it, and then inputting the catalyst right before commissioning, this cost is unlikely to be deemed as eligible due to being well within the construction phase.
51	Would eMethanol qualify as an ingredient in producing SAF?	By e-methanol, we presume you mean methanol synthesised from water, eligible sources of captured CO2, and eligible sources of non-biogenic renewable energy/nuclear energy. We presume this e-methanol will be a significant input contributing to the energy content of the jet fuel (a feedstock), not just a chemical input for e.g. a gas scrubber that does not contribute to the jet fuel energy content (not a feedstock). If it is a feedstock, this is e-methanol is likely to be eligible, and potentially qualifying the pathway for the CO2 use subpot, but it is unclear what other feedstocks are being proposed or what is meant by "ingredients", and whether these will be eligible and how significant they are compared to the e-methanol. If it is not a feedstock, this e-methanol is irrelevant to the feedstock eligibility, and will only have a potentially small impact on the fuel GHG emissions calculations.

Ref	Question	Response
52	The output of our first plant is an intermediate fuel, which will be upgraded to SAF outside of our facilities. Can you confirm that a funding request for this first plant <u>only</u> would be eligible under the competition? We acknowledge the fuel criteria set out in the AFF guidance document, that one of the main fuel outputs of the project (comprising at least 45% of the total fuel output by Lower Heating Value (LHV) energy content) must meet one of the seven listed cases. While the potential for our intermediate fuel to be converted to SAF is obvious, it is currently not clear where our intermediate fuel would fall under the AFF criteria and what case we should list as our output when submitting our bid, if our bid chooses to not include upgrading to SAF. Our intermediate fuel is unlikely to be blended with diesel at >25%.	The whole pathway from feedstock to fuel needs to meet the AFF eligibility criteria. There is no requirement for fuel production to start by March 2025, but an AFF funded project once operational needs to meet the AFF eligibility criteria. There should therefore be a clear plan to make jet from the majority of the intermediate fuel coming out of your plant (so that jet is >45% of the pathway fuel output), and also show this is at a minimum TRL 6 scale (indicatively >200 tonnes/yr jet capacity) – this upgrading to jet could be onsite, or offsite with a partner. If these conditions can be met, we would recommend stating case (i)/(ii)/(iii) in the application form based on your jet pathway's ASTM qualification status. Within your AFF application, there would also need to be a clear commercialisation strategy towards jet (including how/when future intermediate fuel plants would be developed), and involvement of a UK upgrading project in your bid – this UK upgrading project could be early stage with relatively limited budget, or in coordination with another more developed UK upgrading project, but some UK upgrading development progress during the AFF period would be expected to show that the whole pathway could be commercialised in the UK. Jet upgrading of sufficient intermediate fuel from your AFF funded plant has to occur to meet the AFF rules, but does not necessarily have to occur at the UK upgrading project in your bid, as your AFF funded plant could be producing intermediate fuel several years ahead of your UK upgrading project being operational.
53	What are you expecting to see in relation to the governance plan in Appendix C?	We would want to know how a consortium is organised, which roles each partner takes and who takes the lead and governs the consortium. A diagram will be useful to explain the structure.
54	Where is the template for the cash flow model for the future commercial plant within Appendix E?	If the proposed AFF plant is going to be a demonstration plant, we would recommend copying the empty "Cash flow – proposed plant" tab within the same workbook, re-labelling this as the "Cash flow - commercial plant" before filling in this new tab with the FOAK commercial plant details. If you will also be separately submitting a FOAK commercial plant application, please include the same FOAK commercial plant information in that application's version of Appendix E.
55	We are invited to insert diagrams into the application form to support our answers. We want to check whether the word count we have includes words that are part of the diagrams.	No, words within charts, diagrams and tables do not count towards the word count.
56	We are not yet a registered UK company but will be pursuing this. Will you consider giving us time to register a UK company and have this be a condition for contracting if awarded the funding?	Applicants need to be registered with Companies House (for companies) or the Charity Commission (for charities). Bids where the lead applicant is not a UK registered company or charity will be ineligible.

Department for Transport	RICARDO	E4tec	:h

Ref	Question	Response
57	The Word document sets out text fields for each question. These text fields limit the layout and formatting that can be used in the response. Is it mandatory/recommended to place the response within the text fields, or are they merely a placeholder for the location of where the answer should be written?	It is fine to type next to the text fields, in order to stick to the guidance – the text fields are a locational placeholder. We would recommend deleting the guidance text once your answer is complete, to save on space.
58	Do applicants need to register?	Candidates do not need to register ahead of submitting their window 2 bids. They just need to submit their completed application form along with the required supporting documents before the deadline. Applicants do not need to register with us, but they do need to be registered with Companies House (for companies) or the Charity Commission (for charities). Bids where the lead applicant is not a UK registered company or charity will be ineligible.
59	Is there any requirement to be awarded 100% of what we ask for (a la Dragon's Den for instance) or can applicants receive partial awards?	Partial awards can be made, as per the AFF guidance document. DfT could judge some of the tasks/costs to be ineligible or not providing sufficient value for money to warrant funding.
60	If a project were producing a certain amount of 'renewable generator fuel' that could be used to run an on-site generator that either powers the units and/or an adjacent electrolyser that would then provide $H_2$ back into the SAF plant. Would/could this be considered as relevant in terms of the side pot?	The CO <sub>2</sub> use sub-pot is defined based on captured CO <sub>2</sub> being the majority source of the carbon within the output AFF eligible fuel. Input or self-generated fuels used for running power/heat utilities onsite that do not contribute carbon to the output fuel are not relevant to the CO <sub>2</sub> use sub-pot. Note all onsite hydrogen generation must meet the LCHS criteria, including the separate emissions threshold within the LCHS for the hydrogen GHG intensity (which would take into account generator and electrolyser efficiencies).
61	If the proposed pathway could produce biochar and so one area of feasibility would be if/how this could be used for sequestration and while $CO_2$ would not be a feed there is a $CO_2$ specific angle to the project. With regards to the GHG data then are we OK to just work basis one base case assumption in terms of final point of use of the SAF (ie. the airport/s and how to get to them) or is there an expectation that we include a number of scenarios?	If your project plans on producing and selling biochar, this biochar can be included in the GHG calculations as a co-product, against which some of the process and upstream emissions can be allocated (based on the share of LHV energy content of all the plant products and co-products). If your project plans on producing and sequestering biochar, to claim a carbon sequestration credit in the GHG calculations (instead of a co-product allocation), evidence will need to be provided to show the permanence of biochar in the chosen sequestration application (no rapid release of CO <sub>2</sub> ). Output biochar has no relevance to the CO <sub>2</sub> use sub-pot.
		For the GHG data, if there are major differences between scenarios (e.g. the plant is still to decide whether to include or exclude CCS), please attach separate versions of Appendix E. If there are only minor differences (e.g. different airports where the differences in downstream distribution emissions are minimal), please choose just one likely base case.

Depa for Tr	ansport E4tech	V1.4 – 2 June 2023
Ref	Question	Response
62	Can I please just check that when you say "and up to 50% of eligible project costs during the "Detailed Design" and "Procurement of Main Equipment" stages within "Engineering, Procurement & Construction" (EPC)" that that includes up to 50% of the actual costs of the equipment rather than simply the costs of running the procurement process? Perhaps you have a list of some examples of what you consider to be main equipment?	The Procurement of Main Equipment phase includes up to 50% of the actual costs of ordering the main pieces of equipment (not the full installation costs, as installation is outside of the AFF scope). However, tendering is a permissible activity, and as stated, own labour costs directly linked to the design and evaluation of the equipment contained in the project is also eligible – so applicants can also claim for eligible labour costs to run the procurement process up until the point that orders for the main pieces of equipment are submitted.
		The main equipment will likely be bespoke to each pathway, but we would generally consider this list to include feedstock handling & pre-processing, conversion to an intermediate product, intermediate product clean-up, CO2 capture, hydrogen generation, intermediate product upgrading and fuel separation steps, plus related control systems – i.e. the process steps through which the feedstock directly flows to turn into a finished fuel. We would generally expect equipment relating to utilities like water, heat, power, along with pumps, tanks etc to not be eligible, but there might be exceptions for innovative technology options or where integrated as part of a main process unit. If you have any queries regarding equipment eligibility, please do provide more details regarding your pathway, and we would be happy to assist.
63	Would it be possible to include an assignment clause in the application such that if awarded we can change the recipient entity (at all times subject to the approval of the AFF etc.)?	A future reassignment/change in the lead applicant is technically possible under clause 21 of the Grant Offer Agreement, with DfT's consent. In your application form, please provide company and governance information regarding both the current lead applicant and the potential other entity (or entities) that might take over in the future, and the relationship(s) between them – this is because DfT need to be able to conduct due diligence on any organisation that is being considered for AFF funding.
64	Do you need all of the documents as Word documents? In the case of the Appendices, (and letters of support), it would be ideal if we could PDF these, for tidiness and size. Is this acceptable?	Please provide the application form itself in Word format, any Excel appendices in Excel, and the rest of the appendices in pdf format.
65	<ul> <li>What are the expectations with regards to frequency of claims being submitted?</li> <li>Would you expect this to be: <ul> <li>Quarterly / annually and aligned against funding years?</li> <li>Aligned to project milestones hence at potentially irregular intervals?</li> </ul> </li> </ul>	The timing and frequency of claims will vary between winning projects and are based on the completion of project milestones. Once winning projects receive a provisional offer letter, negotiations will take place to agree project milestones over the funding period and how the proposed award will be distributed across them. Projects typically make claims between a bi-monthly and quarterly basis.
66	What is the correct way to add naphtha co-product in Appendix H?	Coproducts like naphtha should be listed in the coproduct rows. More information can be found here: <u>https://www.ricardo.com/media/n4wpx53q/ghg-emissions-briefing-e4tech-pack.pdf</u>

Depa for Tr	Department for Transport <b>E4tech</b> V1.4 – 2 June 2023		
Ref	Question	Response	
67	Could tell us the time on the 7 <sup>th</sup> of June that the application is due and to what email or other we are to send the completed application.	All completed application forms and required attachments must be submitted electronically to AFF@ricardo.com by 16:00 BST on 7 June 2023.	
68	For the RCF methodology, should I add direct emissions to the atmosphere? The fossil carbon from the RDF feedstock that can't be added to the end products is released to the atmosphere. However, the same fate happens when there is incineration.	If following the RCF methodology for Appendix H (i.e. this Excel workbook relates to the waste fossil fraction of the feedstock/fuel), it is correct that the total of the feedstock carbon released to atmosphere as CO2 in the processing of the feedstock plus the feedstock carbon released to atmosphere as CO2 in the combustion of the final fuel is assumed under the AFF guidance document (pages 24-26) to be matched by those emissions from unabated Energy from Waste incineration (the AFF-prescribed counterfactual for solid fossil waste feedstocks). So under these AFF counterfactual rules, these terms should not impact the final fuel GHG intensity (there is no "Fuel in use" step, and there is no calculation of the release of feedstock CO2 in the RCF counterfactual tab). To ensure maximum transparency, we would recommend adding a new row in the Pre-processing/Conversion/Upgrading tabs, between rows 25-26, to state "Fossil CO2 generated onsite from release of <u>waste fossil feedstock</u> carbon", give the value in tonnes/yr generated (prior to any CO2 capture), but with a GHG intensity of 0 gCO2e/kg in column P, given the unabated counterfactual assumption. This is distinct from row 26, which must still account for the fossil CO2 generated (prior to any CO2 generated (prior to any CO2 capture) form e.g. combustion of diesel, natural gas and other <u>non-feedstock fossil inputs</u> using +1,000gCO2e/kg in column P. Row 28 "Fossil CO2 captured and sequestered" can still account for any fossil CO2 sequestered (from the feedstock and/or other fossil inputs) and be given an Eccs credit of - 1000 gCO2e/kg in column P, following the RCF methodology. Row 30 carbon capture and utilisation (CCU) credits are not permitted under the RCF methodology.	
69	Could you please let us know if there is a files size limit with you email system. If there is, and our application exceeds this limit even within a Zip file, will you accept multiple emails?	If your files are too large to attach to 1-3 emails, we would recommend providing us with a secure link to a file sharing facility where the AFF team will be able to download your files from for the assessment. Alternatively, we can provide you with a link to upload your files into our secure file system – please let us know early next week.	
70	"The maximum grant funding intensity is 50% of total eligible costs for 'Detailed Design' and 'Procurement of Main Equipment' stages.' Am I right to understand that the 50% funding intensity applies to the combined spend on both 'Detailed Design' and 'Procurement of Main Equipment'; rather than a maximum of 50% for 'detailed design' and a maximum of 50% for 'Procurement of Main Equipment'.	The 50% cap applies to every single individual cost/budget line item within the Detailed Design and Procurement of Main Equipment stages. It does not apply to a stage or both stages as a whole - for example, you cannot claim for 70% of a gasifier but only 20% of a Fischer Tropsch reactor. During the assessment phase, as well as looking at the Appendix D line-item cost claims, a % check is also carried out at the overall EPC phase level to make sure the underlying accounting has been done correctly.	

Ref	Question	Response
71	Can you confirm the confidentiality of any commercially sensitive material that may be included in the Letters of Intent or Letters of Support between the partners in the consortium that will be	Please see the guidance document. There is a paragraph on intellectual property rights (page 17) that answers the question.
	included in Appendix a of the application.	aff-guidance-v31-window-2.pdf (ricardo.com)
72	Is it possible to pay a consortium member license fees? It is unclear whether the license fee might be perceived as profit, as per the statements from the guidance below (Page 23). Ineligible costs include: - Mark up and profits - Profit earned by a subsidiary or by an associate undertaking work sub-contracted under the project Were the technology licensor a third party, then these costs would be included and likely considered eligible.	<ul> <li>It is not possible for a project partner/consortium member try to claim its own licence fee. Therefore it is not permitted. The success of the project should be incentive enough, as it would allow them to sell more/larger licenses in the future.</li> <li>It is correct that if the licensor were a third party, parts of the licence fee could be claimable at the relevant points in time when incurred, for example: <ul> <li>if there is a downpayment on the licence fee required to unlock FEED (up to 100% of this part of the fee might be claimable),</li> <li>if there is a downpayment on the licence fee required to unlock Detailed Design work (up to 50% of this part of the fee might be claimable),</li> <li>if there are further licence fee payments needed to place an order for the procurement of the relevant main equipment (up to 50% of this part of the fee might be claimable).</li> </ul> </li> <li>Components of a licence fee that are due to be paid during construction, commissioning or operations are not eligible costs for the AFF, given the project lifecycle eligibility rules.</li> </ul>
		Note there are rules within the draft Grant Offer Agreement about the use of subcontractors, and the general requirement to obtain three competitive quotes for the provision of subcontracted goods/services.
73	Are we able to claim back VAT?	VAT is an ineligible cost and cannot be claimed.
74	Will there be another application window for the AFF?	Application Window 2 of the AFF competition closes on 7 June. This is expected to be the last application window under the competition.
		For details please see the webpage: AFF   Campaigns   News and insights   Ricardo