

Advanced Fuels Fund – third window

Guidance document for 2025 applicants

Version 1.0

This guidance document provides information on applying to the third window of the Department for Transport's Advanced Fuels Fund. This document should be read in advance of submitting any application and should be referred to throughout the process.

The first application window of the Advanced Fuels Fund was launched on 19 July 2022 by the Department for Transport (DfT). The second application window opened on 30 March 2023, and the third application window opened on 07 February 2025. The fund aims to support the UK's emerging advanced fuels sector, with the **key objective of the Advanced Fuels Fund** being to:

Support the UK advanced fuels sector in development and commercial deployment of innovative fuel production technologies that are capable of significantly reducing near-term UK aviation emissions, strengthening the UK project pipeline, and broadening technology options.

To achieve this objective, the Advanced Fuels Fund has been extended for another year and will competitively allocate up to an additional £63 million in grant funding to support UK advanced fuel projects until 31 March 2026. £82.2 million in grant funding was allocated across five successful projects in the first application window, and £53.0 million in grant funding was allocated across fullocated across nine successful projects in the second application window.

The Advanced Fuels Fund will look to prioritise first-of-a-kind (FOAK) commercial scale sustainable aviation fuel plants that require additional support to become ready for investment and construction. It will also be open to support projects during engineering design stages, demonstration scale projects, and those projects not yet targeting aviation fuels but with future plans and the ability to do so – see Section B for a full explanation of the competition scope. A sub-pot of c.50% (£32 million) of the third window funds will also be available specifically to support projects that use CO_2 (point source or direct air capture) as their main carbon source in fuel production.

The Advanced Fuels Fund's third application window will be administered and managed on behalf of DfT by existing delivery partners Ricardo Energy & Environment and ERM, up until

the end of March 2025. DfT are yet to appoint a new delivery partner for the application assessment and awardee monitoring phases.

Window 3 of the Advanced Fuels Fund is open to applications until 28 March 2025. Application documents are available on the <u>fund website</u>. Further dates for the Advanced Fuels Fund are available in Table 1, Section C.

Those interested in the Advanced Fuels Fund should register interest by emailing <u>AFF@ricardo.com</u> to ensure you are kept up-to-date as the scheme progresses.

This guidance document has three sections (it is vital to read and understand all sections ahead of an application):

- Section A The fund background.
- Section B Fund objectives and eligibility criteria.
- Section C Guidance for applicants.

Please see the <u>fund website</u> for supplementary information, such as anonymised questions and responses that will be published on a regularly updated FAQ page. If applicants have any questions about these guidelines, they should send these to <u>AFF@ricardo.com</u>.

SECTION A: THE FUND BACKGROUND

This section sets out the background to and rationale for the Advanced Fuels Fund.

Background

The UK has challenging goals for reducing greenhouse gas (GHG) emissions. In transport, the electrification of vehicles will have a key role, but the aviation sector currently has few alternatives to using liquid fossil fuels. Biofuels derived from wastes and residues, fuels made from renewable or nuclear electricity and waste-based fossil fuels could deliver significant GHG savings. However, other than commercially mature hydrotreating routes using segregated waste oils and fats, these conversion routes are yet to be commercialised and face high upfront capital costs and investment barriers which are challenging to overcome without government intervention.

In the UK, DfT have encouraged the deployment of waste/residue-derived biofuels and renewable fuels of non-biological origin through double counting under the Renewable Transport Fuel Obligation (RTFO) which also includes a 'development fuels' sub-target to provide additional support for advanced conversion routes. On 1st January 2025, we launched the UK's ambitious SAF Mandate, under which only biofuels derived from wastes and residues will be eligible, alongside a specific sub-target for Power-to-Liquid (PtL) fuels derived from renewable or nuclear electricity. DfT have also provided previous grant funding to industry projects via the £25 million <u>Advanced Biofuel Demonstration Competition</u> (ABDC), the £20 million <u>Future Fuels for Flight and Freight Competition</u> (F4C) and the £15 million <u>Green Fuels</u>, <u>Green Skies (GFGS) Competition</u>. Whilst these demand-side and supply-side policy approaches have been successful at helping build innovative biofuel demonstration projects and designing a number of SAF projects, there is still an ongoing need to support the development of the emerging UK advanced fuel sector as it scales up to commercial production.

The Advanced Fuels Fund will provide up to £63 million of grant funding in the third window to help accelerate the development and deployment of advanced fuel plants in the UK. £135m was allocated through the previous two windows. The fund will also aim to leverage private investment, both by supporting projects to reach an "investor ready" status and by prioritising projects that have secured match¹ funding. The design of the Advanced Fuels Fund was supported by an <u>industry survey</u> conducted in Q1 2022.

To ensure the Advanced Fuels Fund achieves its stated objectives, it is necessary to clearly define the scope of the fund and provide the criteria used to assess the eligibility of proposed projects. This is discussed in Section B.

¹ Match funding means any funding that covers the costs incurred on the project which are not funded by the Advanced Fuels Fund.

SECTION B: FUND OBJECTIVES AND ELIGIBILITY CRITERIA

This section provides an outline of the Advanced Fuels Fund, its objectives and eligibility criteria for the third application window.

Overview

The purpose of the fund is to support the development of the emerging UK advanced fuel sector as it scales up to commercial production. To achieve this, the Advanced Fuels Fund will provide funding to FOAK commercial and demonstration-scale projects in the UK at certain development stages up to construction starting, including "Pre-Front End Engineering Design (Pre-FEED)", "Front End Engineering Design (FEED)" and the "Detailed Design" and "Procurement of Main Equipment" stages within "Engineering, Procurement & Construction (EPC)" (definitions provided in Appendix C). For AFF window three, Feasibility studies and EPC licence fees will not be supported.

The first application window for the Advanced Fuels Fund ran over summer 2022, and the second over summer 2023. This third application window will run until 28 March 2025 (See Section C: Overview and Timetable).





Objectives

The key objectives of the Advanced Fuels Fund are to:

- Support the UK advanced fuels sector with the commercial deployment of innovative fuel production technologies that are capable of significantly reducing near-term UK aviation emissions.
- Broaden and strengthen the UK project pipeline, getting as many UK projects as possible to an "investment ready" state.
- Support the advancement of a diverse range of technology routes to SAF and other advanced fuels.

The objectives for projects receiving financial support are:

• **Technology demonstration:** material progress towards commercial scale production of an eligible fuel, with high process reliability and performance.

- **Fuel production:** develop a project with the capability to produce commercially significant volumes of eligible fuel, including for the purposes of attaining qualification.
- **Commercial potential:** develop a strategy for commercialising the technology and the products from the project, evidencing the potential for value to the UK.
- **Emissions reduction:** demonstrate the potential for the produced fuel to achieve low lifecycle GHG emissions.
- **Project execution:** bring together a team with the necessary expertise and experience to deliver the project according to its objectives
- **Investor confidence:** catalyse private investment or attract new investors into the project and reduce investment risks.

The third window of the fund will also allocate a sub-pot of up to £32 million of the £63 million available under window three, specifically to support projects that use CO_2 (point source or direct air capture) as their main carbon source in fuel production. This sub-pot is in recognition of both the longer-term potential of these pathways but also nearer-term challenges in sourcing CO_2 and low carbon hydrogen and will help to ensure the Advanced Fuels Fund supports a diverse range of technologies that utilise a range of sustainable feedstocks.

Eligibility Criteria

In order to be eligible to apply to the Advanced Fuels Fund, a project must comply with the following <u>minimum</u> requirements:

| Category | Eligibility Criteria | |
|------------------|--|--|
| | 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 ¹) must show the ability or future potential to be blended with jet A-1: | |
| Main fuel output | i. Ideally the fuel would already meet ASTM D1655/D7566 or DEF STAN 91-091 fuel specifications and could be used immediately: or ii. The pathway is currently engaged with the ASTM D4054 evaluation process; or iii. The pathway is yet to enter the ASTM evaluation process but there is clear evidence of the fuel's future potential to be blended with jet A-1. | |
| | Alternatively, one of the following cases must hold ² : | |
| | iv. First-of-a-kind commercial project where the main fuel output (>45% of total fuel) is avgas, evidencing ASTM D910 or DEF STAN 91-090 could be met, with evidence also provided of the technical potential and commercial strategy to retrofit the project to produce >45% jet A-1; or | |

¹ Co-products such as electricity, heat, biochar and other solid co-products are not counted as fuel outputs. Liquid and gaseous co-products are counted as fuel outputs (e.g. naphtha, heavy fuel oil, hydrogen, methane, LPG, isobutene). Fuel outputs of the project are taken to mean outputs from the funded plant and any downstream upgrading facilities (e.g. refinery units) that form part of the pathway.

² Some examples are provided here for illustrative purposes only, assuming any main fuel output meets the relevant specifications.

A FOAK commercial plant producing 50% jet A-1 and 50% naphtha would be eligible.

A FOAK commercial plant producing 20% jet A-1 and 80% methane would not be eligible.

A FOAK commercial plant producing 60% diesel and 40% naphtha could be eligible if it can be retrofitted to make >45% jet A-1. A demonstration plant producing 60% diesel and 40% naphtha could be eligible if future plants can be shown to be able to produce >45% jet A-1.

A demonstration plant producing 30% avgas and 70% petrol would not be eligible.

| | v. 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; or | | |
| | vi. Demonstration project where the main fuel output (>45% of total fuel) is avgas, evidencing ASTM D910 or DEF STAN 91-090 could be met, | | |
| | with evidence also provided of the technical potential and commercial strategy to modify the technology to produce >45% jet A-1 in future | | |
| | facilities (retrofit of the demonstration plant is not required); or vii. Demonstration 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 modify the technology to produce >45% jet A- | | |
| | 1 in future facilities (retrofit of the demonstration plant is not required). | | |
| | The proposed plant must achieve Technology Readiness Level ¹ 6-8 (small | | |
| | demonstration, large demonstration or FOAK commercial scale) once | | |
| TRL | operational. Note that proposed pilot plant projects (TRL 5) are not eligible and will not be supported under the Advanced Fuels Fund. | | |
| | The proposed technology must already be at least TRL 5 (operational pilot plant) today ² , and cannot already be fully commercialised (TRL 9). | | |
| | Eligibility rules vary according to the feedstock type used: | | |
| | Biomass feedstocks (including the original feedstocks used to derive | | |
| | any intermediate fuels) must be a sustainable biomass waste or residue meeting the requirements of the RTFO & SAF Mandate, but | | |
| | segregated oils/fats are not eligible ³ . Waste biomass feedstocks must | | |
| | demonstrate compliance with the definition of a waste ⁴ and with the waste hierarchy ⁵ . | | |
| Feedstocks | • The following Recycled carbon fuel (RCF) feedstocks are permitted: | | |
| | the fossil fraction of MSW ⁶ , and waste industrial fossil gases rich in | | |
| | carbon monoxide that are only suitable for incineration for energy recovery. These feedstocks must also demonstrate compliance with | | |
| | the definition of a waste, and with the sustainable waste management | | |
| | standard given in the RTFO & SAF Mandate Technical Guidance. | | |
| | Hydrogen production as part of the funded project, or where hydrogen purchases exceed 5% (by LHV energy content) of the total | | |

¹ Technology Readiness Level (TRL) is a relative measure of the maturity of evolving technologies on a scale of 1 to 9. Full TRL definitions are given in Appendix B. The fund will not support fully commercialised pathways (TRL 9), nor will it support pilot plant

⁽TRL 5) activities. ² For fairness, your TRL "today" will be assessed based on the information within the third window application. Your TRL "today" will not be updated during the assessment phase if you subsequently e.g. run pilot tests or successfully start-up operations at a larger facility.

The current status of many feedstocks can be found in DfT lists here. Please note that all single counting feedstocks, used cooking oil, tallow, other segregated fats/oils and dedicated energy crops are not eligible feedstocks. Applicants that are uncertain of the eligibility of their feedstocks should direct questions to AFF@ricardo.com at least one week before the end of the third

window. ⁴ If the feedstock is claimed to be a waste, evidence is provided that this is a material which the holder discards, intends to discard, or is required to discard, and has not been purposefully mixed with other materials in order to become a waste, nor have any existing processes been modified to generate more of the feedstock. ⁵ i.e. not taking feedstock supplies from existing more environmentally beneficial uses. This requires consideration of how the

waste material could not have been prevented, re-used or recycled, and hence the only alternatives available are energy recovery or disposal. ⁶ Mixed biogenic/fossil non-hazardous waste which is either collected from households or is a household-like waste collected

from commercial or industrial premises

| | fuel output, must evidence how this hydrogen is likely to meet the requirements of the UK Low Carbon Hydrogen Standard, using annual average or DESNZ default data. Hydrogen production or hydrogen purchases derived from fossil natural gas, coal or oil cannot exceed 5% (by LHV energy content) of the total fuel output of the project.¹ Renewable fuels of non-biological origin (RFNBOs) must follow the RTFO & SAF Mandate Technical Guidance on CO₂ sourcing. Nuclear electricity or heat is permitted as a feedstock, provided any intermediate hydrogen produced meets the requirements above, and the RTFO & SAF Mandate Technical Guidance on CO₂ sourcing (for RFNBOs/PTL) is followed. The Advanced Fuels Fund is not specifying any additionality requirements for renewable or nuclear energy. |
|------------------------------------|---|
| Greenhouse Gas emissions | The GHG emissions intensity methodology set out in the RTFO & SAF Mandate Technical Guidance should be followed, and evidence provided to back up any claims along your supply chain (including any carbon capture & utilisation or sequestration benefits). For any supply chain components consuming UK grid electricity, the forecast intensity for the relevant year in Appendix E should be applied. FOAK commercial scale plants must demonstrate they will deliver a biofuel, nuclear fuel or RFNBO output with lifecycle GHG emissions not exceeding 31 gCO₂e/MJ LHV during their first full calendar year of operation. For RCFs, the maximum lifecycle GHG emissions permitted for any RCF consignment of a FOAK commercial plant in the first full calendar year of operations are set out in Appendix E. Demonstration plants do not have to meet these thresholds but must demonstrate how a future FOAK commercial plant will meet this threshold in its first full calendar year of operations.² |
| Location | The proposed plant must be located in the UK. |
| Project Lead | The project lead must be a UK registered company or charity. The project lead must supply a UK company registration number. |
| T&Cs | Applicants must accept the grant offer letter terms and conditions in full at the application stage. Further negotiation is not possible. ³ |
| Project lifecycle stage | Activities proposed within Pre-FEED, FEED, Detailed Design and Procurement of Main Equipment stages are eligible. Ineligible activities include Feasibility, Construction, Installation, Commissioning, Start-up and Operations phases, as well as EPC licence fees. The project must not have already commenced Construction. |
| Eligible costs and grant intensity | Funding cannot be used for previously funded activities or to replace private sector investment. ⁴ The maximum grant funding intensity is 100% of total eligible costs during Pre-FEED and FEED stages, and 50% at 'Detailed Design' and 'Procurement of Main Equipment' stages. |

¹ Some examples are provided here for illustrative purposes only. An electrolyser as part of the funded project for onsite hydrogen production will have to show it is likely to meet the Low Carbon Hydrogen Standard (LCHS). If a project produces 2,000 TJ/year of fuels, then purchase of 50 TJ/year of hydrogen does not have to show it is likely to meet the LCHS, whereas purchase of 200 TJ/year would have to. For this same project, consumption of hydrogen from natural gas reforming with CCS of 101 TJ/year would not be permitted (even if it likely met the LCHS).

² Project activities focused on demonstration-scale plants that do not achieve the GHG emissions threshold will have to evidence a clear and credible path to achieving the GHG emissions threshold for their future FOAK commercial-scale plants
 ³ An example grant offer letter is available via the <u>fund website</u>.
 ⁴ Please refer to "Interaction with other funding schemes" in Section C of the guidance document for further information.

| Timescales | Funding is only available for eligible project work completed during the |
|-------------|--|
| TITIESCAIES | Funding Period (to 31 March 2026). ¹ |

Questions and points of clarification

Questions and points of clarification about the Advanced Fuels Fund should be emailed to <u>AFF@ricardo.com</u>. Anonymised questions and responses will be published on a regularly updated FAQ page, available on the <u>website</u>.

Eligibility queries will be responded to promptly, but the final decision as to eligibility of a project resides with the DfT Fund Board and can only be confirmed upon submission of a full application and completion of the assessment process set out in Section C below. Note that a project being deemed eligible for the Advanced Fuels Fund is no guarantee of eligibility for the RTFO or SAF mandate, nor is it a guarantee that any hydrogen used will meet the UK's Low Carbon Hydrogen Standard once facilities are operational.

¹ Please refer to "Fund scope and Funding Period" in Section C of the guidance document for further information.

SECTION C: GUIDANCE FOR APPLICANTS

This section sets out the processes and actions for applicants.

Overview and Timetable

The following figure and table outline the fund process and prospective dates for its key stages.

Figure 2: Advanced Fuels Fund process

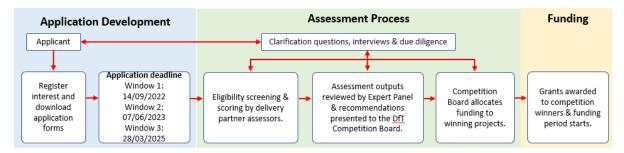


Table 1: Prospective dates for the Advanced Fuels Fund

| Date | Stage | |
|------------------|--|--|
| 07 February 2025 | Window 3 open for applications. | |
| 28 March 2025 | Window 3 Application deadline. | |
| June 2025 | Announcement of winners and the start of Funding Period for Window 3 projects. | |
| 31 March 2026 | End of Funding Period for all winning projects. | |

Who is managing the Advanced Fuels Fund?

The Advanced Fuels Fund's third application window will be administered and managed on behalf of DfT by the existing delivery partners Ricardo Energy & Environment and ERM. DfT are yet to appoint a new delivery partner for the application assessment and awardee monitoring phases. DfT retains overall responsibility for the execution, eligibility and award decisions, contract terms and payments throughout.

Who can apply for funding?

Applications are expected primarily from private sector commercial organisations, with a range of project partners permissible, including SMEs¹ and academic institutions. Applications can be made by a single organisation or via a consortium/partnership with a project lead organisation that receives funds and signs up to the grant conditions. The lead applicant organisation must be registered in the UK, and the project itself must be located in the UK (see eligibility criteria in Section B).

¹ An SME is any organisation that has fewer than 250 employees and a turnover of less than €50 million or a balance sheet total less than €43 million. https://www.gov.uk/government/publications/fcdo-small-to-medium-sized-enterprise-sme-action-plan/small-to-medium-sized-enterprise-sme-action-small-to-medium-sized-enterprise-sme-action-small-to-medium-sized-enterprise-sme-action-small-to-medium-sized-enterprise-sme-action-small-to-medium-sized-enterprise-sme-action-small-to-medium-sized-enterprise-sme-action-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-small-to-medium-sm

Those interested in the Advanced Fuels Fund should register interest by emailing <u>AFF@ricardo.com</u> to ensure you are kept up to date as the scheme progresses. Application documents for the third window are available on the <u>fund website</u>.

Scope and Funding Period

Project funding will be available for work completed during the "Funding Period". This will begin following the assessment process in early 2025 and runs until 31 March 2026. Applications will only be accepted to support eligible project work for First-Of-A-Kind (FOAK) commercial and demonstration plants at the following project development stages (see Appendix C for definitions):

- "Detailed Design" and "Procurement of Main Equipment" within "Engineering, Procurement and Construction (EPC)", but excluding EPC licence fees;
- "Front End Engineering Design (FEED)"; and
- "Pre-FEED"

The Funding Period for winning projects will begin after the finalisation of project specific grant conditions and all relevant grant agreement paperwork. Due to this, the Funding Period start dates may vary between winning projects. However, for the purpose of their applications, projects may assume their Funding Period begins in June 2025.

Projects should not commit themselves to any expenditure on which grant funding may be sought until after a decision has been made on your application. If a grant offer letter is sent to you, you should sign and return it before incurring costs. DfT will not give grant funding to cover incurred costs that have started before a grant offer letter has been signed.

Funding Years

DfT funding is only available for work that has been agreed and demonstrated to be completed by 31 March 2026 (the end of AFF Funding Year 4). The project work that is tied to your grant requests must be feasible to deliver by the end of March 2026. Applicants must therefore demonstrate how funds requested will be appropriately used by this deadline within their application. Only work completed by the end of the Funding Year will be eligible for reimbursement.

If your project has previously been successful during AFF Window 1 or 2, and there are delays in an earlier Funding Year that means your project under-claims grants by 31 March 2025 (the end of Funding Year 3), you will not be able to increase your grant award in Funding Year 4. This third application window is a standalone competition, and open to all eligible applicants, regardless of any prior AFF success.

Eligible activities and costs

Please see Appendix D of this guide for a full list of eligible and ineligible costs. The fund will provide up to 100% grant funding for Pre-FEED and FEED stages, and up to 50% grant funding for Detailed Engineering and Procurement of Main Equipment stages. The fund will not provide funding for construction, installation, commissioning, start-up and operational costs, nor will AFF window three provide funding for the Feasibility stage or EPC licence fees.

Please contact the current delivery partner if you have any questions regarding the eligibility of your project: <u>AFF@ricardo.com</u>. Anonymised questions and responses will be published on a regularly updated FAQ page, available on the <u>website</u>.

What documentation is required for an application?

Applications must be completed using the application form available at <u>https://ee.ricardo.com/aff</u>. We <u>will not consider</u> applications submitted in any other format.

Please ensure that you follow the guidance within the application form regarding formatting and number of words per section. When doing so, please refer to this guidance document where necessary and ensure that you have complied with all the scheme requirements.

You may also be required to complete and submit the following documentation and supplementary evidence as part or in support of your application:

- Letters from all proposed partners confirming that they have agreed to be part of the consortium/alliance/partnership that will implement this project.
- Evidence to support the choice of technology including:
 - Detailed technical specifications and project schematics for the proposed plant.
 - Identified (potential) suppliers for each key technology component.
 - \circ $\;$ Evidence of lab testing, pilots and previous plants.
- A summary of the overall work plan including governance plan of any consortium
- A detailed project budget for the grant funded activities (template provided must be used)
- A projected cash-flow model for the proposed demonstration and/or FOAK plant (template provided must be used)
- Details of match funding from project financiers (where relevant)
- An outline project risk assessment (template provided must be used)
- A GHG emissions estimate for the proposed demonstration and/or FOAK plant (template provided must be used), with supporting evidence for assumptions used.
- Relevant documents to demonstrate the project's current development status. These may include financial agreements, planning permission, permits, fuel off-take agreements, feedstock supply agreements, engagement with key equipment suppliers and engineering contractors, process safety assessments etc.
- Relevant documentation to enable the completion of due diligence on the applicant(s).

All completed application forms and required attachments must be submitted electronically to <u>AFF@ricardo.com</u> by 16:00 BST on **28 March 2025**.

Applications will be logged and an acknowledgement email will be issued providing a unique reference number for your application within two working days of the application date. This reference number should be used in all communications with the existing and new delivery partner (when appointed) about your application.

Please note that during the assessment period, you must be able to provide (within 5 working days) on request further evidence and clarifications materially connected to your application's assessment or needed to support due diligence undertaken by DfT. Please ensure that this information is readily available to avoid delay to grant award and enable commencement of

funded activities. The funding period will not be extended should there be delays to this process.

Assessment of applications

Applications received in time will be screened against the eligibility criteria provided in Section B. Applications that pass the eligibility criteria screening will then be passed to the scoring process where they will be assessed by at least 2 experts from the new delivery partners against the scoring criteria provided below; these assessments will be submitted to an independent external Expert Panel for review before being passed to the DfT Fund Board. Due diligence of projects may also be commenced during this period. Projects may be asked to provide clarifications and/or may be invited to an interview regarding their application during this period.

<u>All</u> applications are subject to assessment and the assessment of applications will be based <u>only</u> on the information which is explicitly contained within your application and supporting documentation, or that is provided during clarification rounds or interview. You must not assume that the assessment team has any prior knowledge of your organisation or its work.

Scoring of applications

The total score awarded to an application in the scoring process will be calculated by applying a weighting to each of the scoring criterion given in Table 2 below. These scoring criteria will be assessed using the information you provide in your application form (primarily sections 2.3, 3, 4 & 5) and your appendices. The information in section 2.2 of your application form will be used to assess the eligibility of your project.

In order to be eligible for consideration for funding, projects that have met the eligibility criteria must score a minimum total weighted score of 65% in the scoring process. Where insufficient number of projects clear this threshold to appropriately award the total available funds in third window, the DfT Fund Board may lower this threshold or consider not awarding the full available funding accordingly.

It is expected that projects that are currently **closest to the commercial scale construction** of advanced sustainable aviation fuel plants in the UK will be best placed to achieve the fund's objectives. The assessment process has therefore been designed to prioritise selecting and supporting activities related to FOAK commercial advanced fuel plants that require additional support to become "investor ready" and ready to start construction. To achieve this, the largest and most developed projects will be marked preferentially for some scoring criteria during the assessment process. However, other eligible projects that are able to demonstrate a clear alignment with the fund's objectives are expected to remain competitive within the scoring and assessment process.

In addition, projects that provide **match funding** will also be prioritised during the assessment process; with higher marks available to projects able to offer evidence of higher proportions of match funding secured during the Funding Period. However, DfT reserves the right to fund projects at up to 100% of total costs of eligible work where appropriate and where compliant with subsidy control requirements.

Table 2: Scoring criteria

| Category | Scoring criteria | |
|------------------------|---|--|
| Project relevance | 1. Clarity of the project objectives and relevance to the fund objectives | |
| | 2. Credibility of the technological approach, clarity of the project data and justification with relevant pilot/demo plant data | |
| Technical | 3. Level of innovation and progress as a result of the proposed plant | |
| approach | 4. Level of progression of the fuel pathway through ASTM qualification process | |
| | 5. Level and evidence of fuel GHG emissions from the proposed plant (and expected fuel GHG emissions at commercial scale if different) | |
| | 6. Level of progression towards construction of a FOAK commercial plant as a result of the funded activities | |
| Commercial approach | 7. Potential and case for economic benefits of the proposed plant during construction and operation, including costs, revenues and jobs created | |
| | 8. Potential and case for benefits of future deployment of the technology within the UK, and benefits from export markets | |
| | 9. Credibility of current status of the project and readiness to proceed with funded activities | |
| | 10. Confidence in skills and experience of the project team | |
| Project | 11. Appropriateness of project management and governance structure and partners roles | |
| Implementation | 12. Appropriateness and credibility of the project work plan | |
| | 13. Detailed understanding of the project risks and their management | |
| | 14. Credibility of detailed project costing for the funded activities | |
| | 15. Strength of case for DfT funding, including level of match funding leveraged and status of securing funding | |

Funding allocation

Following the scoring of applications, the Expert Panel and then the DfT Fund Board will review those projects that have passed the minimum 65% score threshold. The DfT Fund Board will employ a portfolio approach for allocation of any funding, which will consider scores received through the scoring process, including the scores received in respect of individual scoring criteria, and the breadth of technology pathways represented by the applications that meet the quality threshold. This approach means that a project that achieves a lower overall score may still be selected for funding over higher scoring projects that use a production pathway for which one or more higher scoring applications have already been selected for funding.

The value of grant offers allocated to winning projects will also be at the discretion of the DfT Fund Board and will also be subject to this portfolio approach. This may result in projects receiving grant offers at less than their original request where the DfT Fund Board view is that projects may satisfactorily achieve some objectives with a lower funding offer, and/or where a reduced funding offer would enable a wider portfolio of projects to be supported by the fund.

The new grant funding available for the third AFF application window is only available in one Funding Year (AFF Funding Year 4), which runs from 1 April 2025 – 31 March 2026.

The available funding means that some projects might request support in e.g. both "FEED" and "Detailed Design" stages but only get awarded "FEED" support.

Applicants should note that nothing in this guidance document commits DfT to award any applicant a grant offer either at all or of any particular amount or on any particular terms. DfT reserves the right not to award any grant offers, in particular if DfT is not satisfied by the quality of proposals received or if the funding assigned to the scheme is reallocated to other purposes. DfT will not, under any circumstances, make any contribution to the costs of preparing proposals and applicants accept the risk that they may not be awarded any funding, or the amount of funding requested.

The DfT Fund Board will provide a letter with brief reasons for its decisions to any applicant that it decides not to fund or to provide only part of the funds sought. All decisions made by DfT are final.

CO₂ use sub-pot

£32 million of the available funding in the third window has been allocated to a sub-pot to prioritise UK projects that will source the majority of their fuel carbon from CO_2 (point source or direct air capture). The fund eligibility criteria apply in full, including project lifecycle stage, low carbon hydrogen sources, lifecycle GHG emissions and CO_2 sourcing requirements. Projects using CO_2 will only be considered for support under this sub-pot if their application is sufficiently high quality to pass the minimum 65% score threshold.

Any unallocated budget from this sub-pot will be reallocated to the main funding pot. If there are more eligible projects using CO_2 than the sub-pot budget available, then once the sub-pot budget has been awarded to the highest scoring projects using CO_2 , any further lower scoring projects using CO_2 will still be considered as part of the main funding pot. The total amount of support provided to third window projects using CO_2 may therefore exceed c.50% of the third window available funds if there are enough high-quality projects using CO_2 . Note that the DfT Fund Board will be considering the overall portfolio of projects when awarding funds under the main funding pot.

First and second window applicants

Unsuccessful applicants from the first and second windows of the Advanced Fuels Fund can re-apply in this third window, provided any ineligibility issues have been resolved. Successful projects from the first and second windows can apply in the third application window for funding support for new activities not covered by their existing grant offer letter. In all cases, the third window applications will be assessed based on the material submitted during the third application window, and not based on the eligibility/ineligibility or strengths/weaknesses of previous applications.

Maximum funding intensity

DfT has set the maximum grant funding intensity at 100% of total eligible costs during Pre-FEED and FEED stages, and at a maximum of 50%¹ 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. 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. <u>All</u> applications for funding are subject to

¹ This limit on Detailed Design and Procurement of Main Equipment stage funding is more relevant for demonstration scale projects – it is expected that DfT grants will provide very significantly less than 50% of the funding required for FOAK commercial plants at these Detailed Design and Procurement of Main Equipment stages.

assessment and there is no guarantee that successful applicants will be offered the full amount they have applied for.

Maximum and minimum awards

While there is no maximum award limit per project, the total grant funding available for Advanced Fuels Fund window three is £63 million. There is also no guarantee that the full amount for the third application window will be awarded. There is no minimum award threshold per project.

Interaction with other funding schemes

Grant schemes: It is possible to apply or to have applied for other grant scheme funding so long as Subsidy Control rules are not breached. This may mean a single eligible project applies for grants from two or more schemes up to the maximum subsidy control intensity, or that grants are applied to different elements of a project (e.g. electrolysis, CO₂ capture), so long as the base eligible costs do not overlap. In particular, projects previously or currently being supported under the first and second windows of the Advanced Fuels Fund, the Green Fuels Green Skies (GFGS), Future Fuels for Flight and Freight Fund (F4C) or the Advanced Biofuels Demonstration Fund (ABDC) are required to demonstrate how funding through this fund will directly support different work even if for the same plant development project.

Loan schemes: Applicants that have received loans from other schemes remain eligible for Advanced Fuels Fund as long as the loans received were provided on a commercial basis (i.e. including an appropriate rate of interest).

Please contact the existing delivery partner if you have any questions regarding the eligibility of your project and interactions with other schemes: <u>AFF@ricardo.com</u>. Anonymised questions and responses will be published on a regularly updated FAQ page, available on the <u>website</u>.

Due Diligence

For all valid applications, the applicants and each partner in any consortium may be subject to due diligence and must provide all information required in the fund application form to facilitate this process, plus any additional information requested during the assessment period. Due diligence may also be carried out on sources of match funding (where appropriate). Applications from any organisation failing these tests (including failure to provide requested information within the time frame requested) or involving a consortium that includes any organisation failing these tests, may be ruled ineligible.

Approval of applications

If your application for funding is successful, you will receive a grant offer letter. This offer may be subject to conditions that need to be met. The grant offer letter, including the terms and conditions of grant, form the agreement between your organisation and DfT. You must sign the offer letter and return it to establish the agreement. Applicants should review the example grant offer letter, as this will set out the terms and conditions that DfT will require successful applicants to sign up to. Renegotiation of these terms and conditions is not possible.

Grant payments

The grant offer letter sets out all terms of the funding and the duties and responsibilities of both parties. DfT will only release milestone-based funds after signing of the grant offer letter. Grantees must follow the conditions in their agreements on release and use of funds. Applicants must also satisfy the due diligence, financial and organisational checks required prior to receiving public funds.

DfT recognises the importance of remaining flexible and pragmatic throughout project implementation and will consider changes to ensure the most effective use of funds. DfT should be requested to approve any changes to the overall impact and outcome of projects and any significant changes in outputs. Requesting a significant change may necessitate a re-examination of project purpose or implementation. DfT must approve any changes that require the movement of more than 10% of the total budget between budget lines. An updated work plan and budget may also be needed when requesting changes.

No extensions to the project timescales are expected given that funding is tied to delivery only within Funding Year 4. Where circumstances outside the control of grantees occur that impact on delivery of the expected outputs in the funding year, grantees must inform their delivery partner Monitoring Officer as soon as possible.

Funds should be claimed in arrears against evidence of expenditure which will usually take the form of a receipted invoice accompanied by evidence or copies of work undertaken towards the relevant payment milestone. Should this not be possible, on exception you may submit evidence of lack of funds and the payment may be able to be made in advance with DfT's written agreement. In the event of an advanced payment, any unspent funds must be repaid in full. A claim form will be issued with your grant offer letter. After each stage of work is completed, you will be expected to complete and submit a claim form. You will also need to provide a reasonable assurance report of the project expenditure from an independent accountant, as per the grant offer letter. Claims are submitted to the Fund delivery partner for processing. Claims will be processed within 21 working days of any claim being received by the Fund delivery partner. Finance is released against work carried out rather than a lump sum on approval.

Reporting

Each winning project will be provided a Monitoring Officer from the Advanced Fuels Fund's new delivery partner team (when appointed). The grantee must maintain regular communication with their nominated Monitoring Officer. Repeated failures to respond to your Monitoring Officer within 10 working days may result in suspension of DfT funding.

The winning projects will be required to provide updates on the project progress including:

- A monthly report (due by the 10th of the following month). This is expected to take the form of a written update and a call with the Monitoring Officer.
- Additional information will be requested for stage gate approval (e.g., moving from Pre-FEED to FEED)
- A monthly spend forecast.
- Additional details at key stages, quarterly and/or annually.
- A final financial and narrative report within 15 days of the end of the project.

DfT's new delivery partner (yet to be appointed) will review all reports and will address any issues in these and contact grantees accordingly. They will be the first point of contact between grantees for any project reporting.

Reporting beyond project completion

It is expected that projects awarded a grant may be subject to future independent evaluation of their project as part of a wider Advanced Fuels Fund evaluation. This may be carried out by a third party on behalf of DfT and the grantees will be required to participate.

Intellectual property rights

IP developed within the project remains the property of the applicant/consortium. Any information provided to DfT may be subject to the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or other legislation. DfT will work with applicants to ensure that no commercially sensitive information is disclosed as far as possible under the law.

<u>APPENDIX A: Currently qualified ASTM SAF pathways, and those in the qualification process</u>

Note that not all these pathways will be eligible for the Advanced Fuels Fund – feedstock, GHG emissions and other eligibility requirements apply. Additional pathways could also be considered.

| ASTM Abbreviation | ASTM Description | Qualification Status |
|---------------------------------|---|----------------------|
| FT-SPK | Fischer-Tropsch - Synthetic Paraffinic Kerosene | Qualified (Annex A1) |
| FT-SPK/A | Fischer-Tropsch - Synthetic Paraffinic Kerosene with added aromatics | |
| HEFA-SPK | Hydroprocessed Esters & Fatty Acids - Synthetic paraffinic kerosene | Qualified (Annex A4) |
| HFS-SIP | Hydroprocessing of Fermented Sugars - Synthetic Iso- Paraffinic fuels | Qualified (Annex A3) |
| ATJ-SPK | Alcohol-to-Jet Synthetic Paraffinic Kerosene | Qualified (Annex A5) |
| СНЈ | Catalytic Hydrothermolysis Synthesized Kerosene | Qualified (Annex A6) |
| HC-HEFA-SPK | Hydrocarbon-hydroprocessed Esters and Fatty acids | Qualified (Annex A7) |
| ATJ-SKA | Alcohol-to-Jet Synthetic Kerosene with Aromatics | Qualified (Annex A8) |
| | Co-processing of up to 5 vol% Fischer-Tropsch waxes from Municipal Solid Waste | |
| | Co-processing of up to 5 vol% oils and fats in a refinery Qualified to produce kerosene | |
| HDO-SAK | Hydro-deoxygenation Synthetic Aromatic Kerosene | Assessment |
| CPK-0 | Cycloparaffinic Kerosene via integrated hydropyrolysis and hydroconversion | Assessment (on hold) |
| Isoprene-CPK | Isoprene Cycloparaffinic Kerosene | |
| HEFA-SKA | HEFA Synthesised Kerosene with Aromatics | Assessment |
| PtJ-SKA | Plastics to Jet Synthesised Kerosene with Aromatics | Assessment |
| CTO-SKA | Crude Tall Oil Synthesised Kerosene with Aromatics | Assessment |
| HEFA-SPK + | HEFA-SPK with higher cycloparaffins | Assessment |
| MtJ Source: https://www.caaf | Methanol to Jet | Assessment |

Source: https://www.caafi.org/fuel-qualifications

APPENDIX B: TRL definitions and Pilot vs. Demo vs Commercial scale definitions

| TRL | Type of plant | Description | |
|-----|--------------------------------------|--|--|
| 1 | - | Basic principle observed | |
| 2 | - | Technology concept formulated | |
| 3 | Lab | Experimental proof of concept | |
| 4 | Lab | Technology validated in lab | |
| 5 | Pilot | Technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies) | |
| 6 | (Small) Demonstration | Technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies) | |
| 7 | (Large) Demonstration | System prototype demonstration in operational environment | |
| 8 | First-Of-A-Kind (FOAK) Commercial | System complete and qualified | |
| 9 | Nth-Of-A-Kind (NOAK) Commercial | Actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies) | |

Source: Innovate UK https://catapult.org.uk/wp-content/uploads/2020/12/EU-Catapult-Report-2015.pdf

APPENDIX C: Project Lifecycle Stage Definitions

Note that the below table is intended to help a project clearly identify which stage of the project lifecycle they are at. It is not intended to give a complete breakdown of all outputs and outcomes expected at each stage – for example, outputs relating to planning permission, financing activities, supply and offtake agreements would also be expected in addition to the engineering outputs defined below, developed to a degree commensurate with the project's lifecycle stage.

| Lifecycle stage | Typical engineering outputs at this stage | Typical outcomes at this stage |
|---|---|---|
| Feasibility (Also known as FEL-1) – NOT eligible for Advanced Fuels Fund window 3 | Options appraisal Heat & Mass Balance Project charter Order of magnitude CAPEX and OPEX assessment (between -20 to -50% and +30 to +100%) | Determine the design options available and the feasibility of each design option. Several possible locations for the plant will have been evaluated at high level. Feasibility studies should enable the development of an AACE (Association for the Advancement of Cost Engineering) Class 5 Cost Estimate. |
| Pre-FEED (Also known as FEL-2) | Preliminary equipment design License cost estimates (if needed) Preliminary layout Preliminary project schedule Preliminary CAPEX/OPEX estimates (between -15 to -30% and +20 to +50%) | Identifying, defining and selecting the optimum business design/solution for a project's development. A specific location for the plant will have been identified. Pre-FEED usually contains sufficient elements to perform a Class 4 or advanced 4 AACE cost estimate. |
| FEED (Also known as FEL-3) | Purchase-ready major equipment specifications Definitive CAPEX and OPEX estimate (between -10 to -20% and +10 to +30%) Project execution plan Preliminary 3-D model and advanced layout Process Flow Diagram (PFD) and Piping & Instrument Diagram (P&ID) Lists (i.e. electrical, civil, mechanical, instrumentation, piping) Preliminary Hazard Assessment on design (i.e. HAZOP) Process philosophies Safety assessment | The outcome of this stage is used to take a Final Investment Decision (FID), triggering bidding for Execution Phase Contracts (EPC, EPCI, etc). A specific location for the plant will have been evaluated. FEED allows a Class 3 AACE cost estimate. |
| Detailed Design and Procurement of Main Equipment stages only (as part of EPC) | Definitive CAPEX and OPEX estimate (between -5 to -15% and +5 to +20%) Project execution plan 30% Plant Model Review Process flow diagrams (PFDs) Piping & Instrument Diagram (P&ID) Hazard Assessment on final design (i.e. HAZOP, SIL) Process, Control and Electrical philosophies. | Detailed Design allows a Class 2 or Class 1 AACE cost estimate. The outcome of this stage is that major equipment orders will have been placed, and the detailed design forms the basis for the construction stage to be able to begin. |

| Fluid data list | |
|---|--|
| Logic and interlock diagrams. | |
| Pressure relief devices | |
| Functional safety philosophy. | |
| Drawings (i.e. electrical, civil, | |
| mechanical, instrumentation, | |
| piping, layout elevation) | |
| Safety Assessments (e.g. | |
| hazardous area classification, | |
| quantitative risk assessments, fire | |
| analysis, explosion analysis, fire | |
| | |
| detection studies, fire protection | |
| studies etc.) | |
| Material Take Off (MTO) | |
| Manual for Operations, Pre- | |
| Commissioning, Commissioning, | |
| Start Up and troubleshooting | |

APPENDIX D: Eligible and Ineligible Project Work

DfT can fund up to 100% of eligible project costs within the Pre-FEED and FEED project lifecycle stages, although with prioritised scoring for projects that can evidence match funding. DfT will not fund more than 50% of eligible project costs during Detailed Design and Procurement of Main Equipment during EPC stages. DfT will not fund construction, installation, commissioning, start-up or operational stages, and Advanced Fuels Fund window 3 will not cover Feasibility stage costs or EPC stage licence fees.

Eligible activities and costs

- Strategy work and technology configuration appraisals
- Plant site identification and review
- Permitting and planning application work
- Feedstock availability assessments
- Economic assessments (including detailed revenue and cost modelling)
- Process Flow Diagram (PFD) and Process and Instrumentation Diagrams (P&IDs) development up to Approved for Construction revision.
- Hazard and Operability (HAZOP) and Hazard Identification (HAZID) Workshop
- Process and Mechanical specifications and data sheets
- Safety, Mechanical, Civil, Structural, Architecture, Electrical, Instrument's lists, drawings and studies
- Plant layout design and plant modelling work
- Material Take Off (MTO)
- Developing detailed GHG emissions projections for plants
- Developing detailed project execution plans, risk assessments, and detailed budgets
- Tendering, bidding, visiting vendor and subcontractor's site
- Procurement of main equipment for the project. The equipment eligible for grant support is the conversion and fuel upgrading technology, any onsite feedstock preprocessing equipment, CO₂ capture equipment.
- Own labour costs, including agreed overheads and project management cost, but not profit. These costs should be directly linked to the design, and evaluation of the equipment contained in the project and auditable as such. In this context "own costs" include applicant's own costs and eligible costs incurred by consortium members and eligible costs incurred by companies connected to any of these
- Hosting meetings with potential consortia members
- Formalising a consortium or partnership arrangement
- Hosting meetings between applicant consortia and others necessary to further the development of the project
- Securing private sector funding
- Addressing legal issues

Ineligible activities and costs

- Any costs incurred before a grant offer letter has been signed with DfT
- Any cost incurred for construction or installation of the plant. This includes own or subcontractor labour, overhead and operating costs
- Any cost incurred for delivery of the procured main equipment

- Any costs incurred in the Feasibility stage
- Any technology licence fees during the EPC stage
- Any cost incurred in commissioning, start up, operations and maintenance
- Any costs relating to the design or procurement of a pilot plant facility (TRL 5)
- Any bulk material costs including pipework
- Any building works
- Purchase or lease cost of any land on which the project is built
- Input VAT (except where it cannot be reclaimed by grantees)
- Interest charges, bad debts
- Hire purchase interest and any associated service charges
- Loan repayments
- Mark up and profits
- Profit earned by a subsidiary or by an associate undertaking work sub-contracted under the project
- Notional costs (e.g. opportunity costs)
- Audit fee for certification of claims by an independent accountant
- Grants that contribute directly to a company's distributed profits
- Endowments
- Funds to build up a reserve or surplus
- Contingency
- Retrospective funding
- Any costs that are already being funded by another grant source, or are to be funded by another grant source in the future
- Advertising, marketing, sales activities, entertaining

APPENDIX E: GHG emissions calculations

Electricity grid intensity figures

The following forecast GHG emissions trajectory is supplied from DESNZ internal calculations, based off the National Grid's FES Holistic scenario. If your plant is due to start operations in e.g. August 2028, your first full year of operations will be 2029, so read off the 2029 value.

These values are to be used in Appendix H for any consumption of UK grid electricity by your plant or by UK components of your supply chain, as well as for any RCF projects where UK grid electricity is the displaced energy in the RCF counterfactual. Note that these intensity values include upstream fuel supply emissions, generation station emissions and losses in transmission & distribution. Grid mix projections for Northern Ireland were not available, so this National Grid GB grid dataset should be used for all UK projects.

| First full year of | Grid electricity intensity |
|--------------------|----------------------------|
| operations | (gCO₂e/MJ₀) |
| 2025 | 44.5 |
| 2026 | 41.0 |
| 2027 | 41.6 |
| 2028 | 34.4 |
| 2029 | 28.6 |
| 2030 | 19.1 |
| 2031 | 13.1 |
| 2032 | 8.9 |
| 2033 | 4.2 |
| 2034 | 1.0 |
| 2035 | 0.0 |
| 2036 | 0.0 |
| 2037 | 0.0 |
| 2038 | 0.0 |

RCF GHG emissions thresholds

Based on the first full year of operations given in your application, the corresponding GHG emission threshold value in the table below is to be used to calculate whether the recycled carbon fuel (RCF) consignments produced from a FOAK commercial scale plant will be eligible under the Advanced Fuels Fund.

These values do not indicate any confirmed policy position as to RCF GHG emissions thresholds for either the RTFO or SAF mandate. Furthermore, eligibility for the Advanced Fuels Fund does not determine eligibility for the RTFO or SAF mandate, in either the first year of operations or any other given year, given operational emissions can vary from projected designs and can vary across years.

| First full year of operations for FOAK | RCF lifecycle GHG emissions threshold |
|---|--|
| commercial plant | (gCO ₂ e/MJ _{LHV}) |
| 2025 | 43.1 |
| 2026 | 41.5 |
| 2027 | 41.8 |
| 2028 | 38.6 |
| 2029 | 36.1 |
| 2030 | 31.9 |
| 2031 | 29.3 |
| 2032 | 27.4 |
| 2033 | 25.4 |
| 2034 | 23.9 |
| 2035 | 23.5 |
| 2036 | 23.5 |
| 2037 | 23.5 |
| 2038 | 23.5 |

These threshold values do not apply to biofuel, RFNBO or nuclear consignments produced from FOAK commercial plants, which are being assessed under the Advanced Fuels Fund against a fixed threshold of 31 gCO_2e/MJ_{LHV} .