

Green Fuels, Green Skies (GFGS) Competition

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DfT hosted a stakeholder briefing session to focus on the application process and provide guidance on the GHG emissions estimate process. Slides and a briefing pack for the event are available to download below.

To support networking for stakeholders looking to build consortiums, an open list of interested organisations is publicly available on this web page. If you are interested in having your organisations details available on this webpage until June 2021, please email GFGS@ricardo.com (<mailto:GFGS@ricardo.com>), including your organisations name, a named contact and 100 words that outline your organisation's relevant experience and collaboration interest. You can download the current GFGS networking list below.

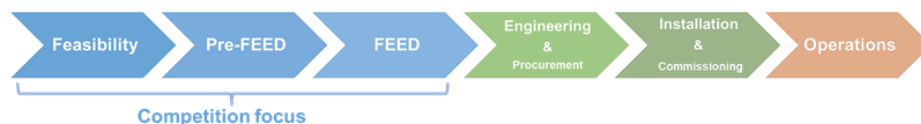
As part of his [Ten Point Plan for a Green Industrial Revolution](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf) (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf), the Prime Minister announced on 18 November 2020 a:

...£15 million competition to support the production of Sustainable Aviation Fuels (SAF) in the UK, building on the success of the [Future Fuels for Flight and Freight Competition \(F4C\)](#). ([/transport/case-studies/f4c](#)).

This competition was launched on 16 March 2021 by the Department for Transport (DfT) to support the development of the emerging UK sector on its pathway to production of SAF at scale.

The Green Fuels, Green Skies competition will provide up to £15 million in grant funding to UK SAF projects during the 2021/22 financial year. Specifically, it will look to support the early-stage development of UK SAF plants, referred to as "Front End Engineering Design (FEED)", "Pre-FEED" and "Feasibility Study" stages of a project's development life cycle.

Figure 1. Project lifecycle stages for a SAF plant and GFGS competition focus



The competition will have a key focus on supporting activities related to the development of First-Of-A-Kind (FOAK) commercial SAF plants in the UK, but will also be open to demonstration scale SAF projects and will allocate up to £2m in funding for projects at the feasibility stage of development across these scales.

The Green Fuels, Green Skies competition is open to applications until 31 May 2021. The competition [guidance document](#) (<https://cdn.ricardo.com/ee/media/assets/gfgs-competition-guidance-document-v1-1.pdf>) is available at the bottom of this page to download.

The Green Fuels, Green Skies competition will be administered and managed on behalf of the DfT by the competition delivery partners Ricardo Energy & Environment and E4tech. Those interested in the SAF competition should register their interest by emailing GFGS@ricardo.com (<mailto:GFGS@ricardo.com>) to ensure you are kept up to date as the scheme progresses.

Prior to the announcement of the Green Fuels, Green Skies Competition, E4tech were commissioned by two organisations that subsequently made the decision to submit an application for funding. The Department for Transport has determined that this work has not been undertaken in support of these organisation's applications to the GFGS. Neither E4tech nor the Department for Transport consider that this work creates a conflict of interest in E4tech's role as a delivery partner on this competition. In addition, there is sufficient oversight and management structures in place to provide assurance of a fair and competitive assessment process in any case. However, in the interest of transparency we are disclosing this information to all applicants here. To further ensure confidence, we have introduced changes to the evaluation process so that the initial marking of the applications submitted by these two projects will only be handled by Ricardo Energy & Environment and the final confirmation of applicant scores will be provided by DfT's appointed Expert Panel. If any further Conflicts of Interests are identified following the receipt of applications, DfT will look to handle these in the same manner.

The following diagram and table outline key dates and stages of the GFGS competition, from initial interest to the expected end of the competition's Funding Period.

Figure 1: GFGS Competition process

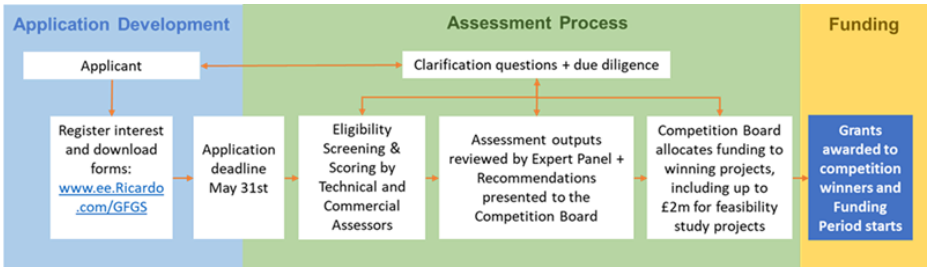


Table 1: Stages of the GFGS competition

Date	Stage
16 March 2021	Competition launched
26 March 2021	Application documents released on the competition website
31 May 2021	Application deadline
31 July 2021 [expected]	Announcement of competition winners and the start of Funding Period for project work.
31 March 2022	End of Funding Period for winning projects

Background

The UK has challenging goals for reducing greenhouse gas 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.

In addition, an independent [Feasibility Study](#) (<https://ee.ricardo.com/downloads/transport/targeted-aviation-advanced-biofuels-demonstration-competition-%E2%80%93-feasibility-study>) commissioned by the DfT from E4tech & Ricardo-EE (via an ARUP/AECOM consortium) has indicated that early and decisive action could enable the UK, with our research and engineering expertise, to claim a share of a global SAF market that could support substantial UK low carbon growth.

A high-level analysis indicates that this could generate between £700m and £1,660m in GVA, with potentially half of this being generated from the

export of IP and the provision of engineering services. This industry could create between 5,000 and 11,000 green jobs, and furthermore, replacing imported kerosene with domestically produced SAF would increase fuel security and have a net positive impact on the UK's balance of payments

The GFGS competition has been designed to aid the UK SAF industry to realise this potential. For more context, please see the competition [guidance document \(https://cdn.ricardo.com/ee/media/assets/gfgs-competition-guidance-document-v1-1.pdf\)](https://cdn.ricardo.com/ee/media/assets/gfgs-competition-guidance-document-v1-1.pdf).

Objectives

The key objective of the GFGS competition is to:

Support the development of the UK SAF sector towards the deployment of innovative SAF production technologies at commercial scale that are capable of reducing emissions from the aviation sector in the UK within the near-term.

The objectives for projects receiving financial support are:

- **Technology demonstration:** materially progress a project towards First-Of-A-Kind (FOAK) commercial production of an eligible SAF pathway.
- **Fuel production:** materially develop a project with the capability to produce commercially significant volumes of SAF, including for the purposes of attaining certification.
- **Commercial potential:** materially develop a strategy for commercialising the technology and the products from the project, demonstrating the potential for significant value to the UK.
- **Emissions reduction:** demonstrate the potential for greenhouse gas reductions of a technology pathway vs a fossil fuel equivalent.
- **Project execution:** bring together a team with the necessary expertise and experience to deliver the project according to its objectives.

Competition documents

Please download competition documents using the links below.

- **GFGS guidance document(PDF)** (<https://cdn.ricardo.com/ee/media/assets/gfgs-competition-guidance-document-v1-1.pdf>)
- **GFGS Stakeholder enquiries** ([/getattachment/Transport/case-studies/GFGS/GFGS-FAQs-240521-V4-0.pdf?lang=en-GB](https://cdn.ricardo.com/ee/media/assets/gfgs-stakeholder-enquiries-v1-1.pdf)) – 25 May 2021
- **GFGS Stakeholder session slide pack** ([/getattachment/Transport/case-studies/GFGS/Stakeholder-Session-DfT-Slide-pack-Pub_V1-0.pdf?lang=en-GB](https://cdn.ricardo.com/ee/media/assets/gfgs-stakeholder-session-slide-pack-v1-1.pdf)).
- **GFGS Briefing pack** ([/getattachment/Transport/case-studies/GFGS/GHG-meeting-E4tech-briefing-pack-\(email-distribution\).pdf?lang=en-GB](https://cdn.ricardo.com/ee/media/assets/gfgs-briefing-pack-v1-1.pdf)).
- **Green Fuels, Green skies networking list - 22 April 2021** ([/getattachment/Transport/case-studies/GFGS/Stakeholder-list-v1-1.pdf?lang=en-GB](https://cdn.ricardo.com/ee/media/assets/gfgs-networking-list-v1-1.pdf)).
- **GFGS application form** (<https://cdn.ricardo.com/ee/media/assets/gfgs-application-form-published-v1-0.docx>) - (MS Word)
 - **Appendix D** (https://cdn.ricardo.com/ee/media/assets/appendix-d-g-gfgs-budget-and-risk-template-pub_v1-0.xlsx) - A detailed project budget for the grant funded activities and **Appendix G** - An outline risk assessment (MS Excel worksheets – combined in one workbook)
 - **Appendix H** (https://cdn.ricardo.com/ee/media/assets/copy-of-appendix-h-ghg-calculation-for-gfgs-competition-pub_v1-1.xlsx) - A lifecycle GHG emissions estimate for your project's jet fuel output (template as provided) with supporting evidence for assumptions used (to be completed by the applicant).
 - **Appendix E** ([/getattachment/Transport/case-studies/GFGS/Appendix-E-GFGS-Costing-Template-v6.xlsx?lang=en-GB](https://cdn.ricardo.com/ee/media/assets/appendix-e-gfgs-costing-template-v6.xlsx)) - A projected cash-flow model for the future commercial plant (MS Excel).
- GFGS - **Example grant agreement** ([/getattachment/Transport/case-studies/GFGS/GFGS-Boilerplate-grant-agreement-V1-0.pdf?lang=en-GB](https://cdn.ricardo.com/ee/media/assets/gfgs-example-grant-agreement-v1-0.pdf)).

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