**Green Fuels, Green Skies (GFGS) Competition**

**Application form (version 1.0)**



**To be read in conjunction with the GFGS** [**guidance document**](https://cdn.ricardo.com/ee/media/assets/gfgs-competition-guidance-document-v1-1.pdf)**.**

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**THE DEADLINE FOR RECEIPT IS 31 May 2021, 1600 hours.**

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| **Please note:** For most questions there is a maximum word count. A shorter response may be adequate. Assessors are unable to read lengthy supporting documents in addition to this application form. Each appendix that accompanies an application must be concise, with multiple pages compiled within a single pdf, and Applicants should make sure:* Any pertinent information in the appendix is directly referenced within a question’s response in the application form.
* The corresponding evidence within the appendix should also be labelled clearly with the corresponding question number wherever possible.
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# APPLICATION CHECKLIST

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| **Appendix Ref.** | **Please check and confirm before submission** |
| **Appendix A** | Letters from all proposed partners confirming that they have agreed to be part of the consortium/alliance/partnership that will implement this project (to be completed by the applicant). | Yes [ ] No [ ]  |
| **Appendix B** | Evidence to support the choice of technology (to be completed by the applicant) including:* Detailed technical specifications and project schematics for the proposed plant (to be completed by the applicant).
* Further evidence of pilots/previous plants (to be completed by the applicant).
 | Yes [ ] No [ ]  |
| **Appendix C** | A summary of the overall work plan including governance plan of any consortium (to be completed by the applicant). | Yes [ ] No [ ]  |
| **Appendix D** | A detailed project budget for the grant funded activities (template provided). | Yes [ ] No [ ]  |
| **Appendix E** | A projected cash-flow model for the future commercial plant (template provided). | Yes [ ] No [ ]  |
| **Appendix F** | Details of match funding from project financiers (where appropriate, to be completed by the applicant). | Yes [ ] No [ ]  |
| **Appendix G** | An outline risk assessment (template provided). | Yes [ ] No [ ]  |
| **Appendix H** | A lifecycle GHG emissions estimate for your project’s jet fuel output (template provided) with supporting evidence for assumptions used (to be completed by the applicant). | Yes [ ] No [ ]  |
| **Appendix I** | 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. (to be completed by the applicant). | Yes [ ] No [ ]  |

# SECTION 1 – ADMINISTRATIVE DETAILS

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| **1.1 Project title** |
| **Project title** | *The title of the project will be used throughout the award process and any subsequent grant.* |
| **Details of Applicant** |
| Registered Name  |       |
| UK company/charity or other registration no. |       |
| VAT Registration Number |       |
| Legal status(please refer to the Guidance Notes) | [ ]  Commercial organisation (large enterprise)[ ]  Commercial organisation (SME)[ ]  Academic institute[ ]  Other, e.g. Consortia, please specify:      |
| Establishment date |       |
| **Address of registered office** |
| Address line 1 |       |
| Address line 2 |       |
| Address line 3 |       |
| Local authority |       |
| Postcode |       |
| **Contact details for correspondence**  |
| Name of contact person |       |
| Address  |       |
| Phone |       |
| E-mail | *Please ensure that the email address is entered correctly and remains active.*      |
| Alternative contact and email address |       |

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| **1.2 The applicant** |
| Is your organisation able to reclaim VAT? | Yes [ ] No [ ] *Organisations that cannot reclaim VAT on capital equipment through normal channels are allowed to count VAT in their total project costs.* |
| Please describe your organisation’s business/ aims. | ***Word limit:*** *50 words.**Give a short description of your aims in one or two sentences.*       |
| Please describe any experience that you have that will benefit the project. | ***Word limit:*** *200 words.**Describe any experience you have of similar projects or activities (outside of your proposed sustainable aviation fuel project) that would support a decision to award a grant. This could be project management of similar projects or other low carbon energy activities.*      |
| Are there any potential conflicts of interest? | ***Word limit****: 100 words.**Declare any potential conflicts of interest and describe how any conflicts of interest will be addressed.*      |
| What is the project’s current lifecycle stage and (if different) what lifecycle stage of the project will the GFGS support? | ***Word limit:*** *100 words.**The GFGS competition will be open to provide grant funding to UK sustainable aviation fuel facilities at the “FEED”, “Pre-FEED” and “Feasibility” stages of a typical project’s development lifecycle. Please see Appendix C of the guidance document for further details.*      |

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| **1.3 Partners (if applicable)** |
| Organisation  | Legal Status (plc, charity, etc) | Registration number |
| 1.      |       |       |
| 2.      |       |       |
| 3.      |       |       |
| 4.      |       |       |
| 5.      |       |       |

*Add additional rows as necessary*

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| **1.4 Partner details (if applicable)** |
| Please describe partner’s business or activities. | ***Word limit****: 50 words.**Give a short description of the partner’s activities in one or two sentences.*       |
| Please describe any experience that the partner has that will benefit the project. | ***Word limit:*** *150 words.**Describe any experience the partner has of similar projects or activities (outside of the proposed sustainable aviation fuel project) that would support a decision to award a grant. This could be project management of similar projects or other low carbon energy activities.*      |
| Are there any potential conflicts of interest? | ***Word limit:*** *100 words.**Declare any potential conflicts of interest and describe how any conflicts of interest will be addressed by the project partner.*      |

*Please copy table 1.4 as many times as necessary to cover all partners*

# SECTION 2 – PROJECT RELEVANCE

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| **2.1 Summary project information** |
| 2.1.1Describe clearly the objectives of the proposed project, describing your vision, its relevance to the competition, and the case for UK deployment and benefits. | ***Word limit:*** *500 words.**State here the aims of your project and give clear, measurable objectives. Bear in mind that, should your application be successful, this summary project information text may be made public, for example in press releases.*      |

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| **Eligibility criteria** |
| Confirm the fuel(s) you will produce would be capable of being blended with jet A-1. | ***Word limit:*** *50 words (further details to be provided in Question 3.3.1).**The proposed sustainable aviation fuel output must be capable of being blended with jet A-1.**i) Ideally, this would involve ASTM certified fuel that can be used immediately without engine modifications, meeting the relevant jet fuel ASTM specifications.**However, projects involving fuels that are not currently ASTM certified are also able to apply, provided that either:**ii) the pathway is currently engaged with the ASTM certification process;* *or* *iii) the pathway is yet to enter the ASTM certification process but there is clear evidence of the fuel’s future potential to be blended with jet A-1.**Confirm the ASTM certification status of your fuel (i, ii or iii)*       |
| What are the predicted lifecycle GHG emissions of jet fuel from the planned plant (and a commercial plant if different) in 2030, and the % savings vs a fossil comparator?  | ***Word limit****: 50 words (further details to be provided in Question 3.4.1).**First-Of-A-Kind (FOAK) commercial scale plants must have the potential to deliver a jet fuel output with a minimum 70% saving in weighted average lifecycle GHG emissions compared to a fossil fuel comparator of 94gCO2e/MJ in 2030. Demonstration plants do not have to meet this requirement but must report their expected GHG emissions and demonstrate how any future commercial plant operating in 2030 would meet this threshold. This means that applicants looking to build demonstration scale plants must provide emissions values for both the demonstration plant in 2030 as well as a future FOAK commercial plant in 2030.**Note that RTFO reporting requires that if fuel is generated from a mix of feedstocks, GHG savings values should be provided separately for each feedstock. If feedstocks are used that have a blend of renewable and non-renewable components (e.g. refuse derived fuel), both the renewable consignment and the non-renewable consignment must be separately reported under the RTFO. However, for the purposes of the GFGS competition* ***only****, applicants should report in this question an overall weighted average of their GHG results (using consignment LHVs). GHG emissions for each consignment should be reported in Question 3.4.1.**Provide summary figures below from your response to Question 3.4.1.* *(****Demo plant, if applicable:****weighted average GHG emissions in 2030 =       gCO2e/MJ jet**weighted average % GHG saving in 2030 =      )****FOAK plant:*** *weighted average GHG emissions in 2030 =       gCO2e/MJ jet**weighted average % GHG saving in 2030 =* |
| * + 1.

What is the current TRL of the technology you intend to deploy? | ***Word limit****: 50 words (further details to be provided in Question 3.1.1).**Please see the competition guidance document for more information on defining TRLs.*      |
| * + 1.

What is the predicted TRL once the plant is operational? | ***Word limit****: 50 words (further details to be provided in Question 3.2.1).**The proposed plant must achieve Technology Readiness Level 6-8 (small demonstration, large demonstration or First-Of-A-Kind commercial scale).*       |
| * + 1.

List the proposed feedstocks and confirm they either comply with the waste hierarchy or demonstrate additionality of the renewable electricity used. | *Word limit: 400 words.* *List the feedstocks that will be used in the plant and their proposed annual amounts (tonnes/yr and GJ/yr LHV). Confirm these feedstocks meet or are likely to meet RTFO sustainability requirements, and that any waste feedstocks used meet the definition of a ‘waste’1 and can demonstrate compliance with the waste hierarchy.2 The current alternative destination of feedstocks (prior to their use in aviation fuel production) should also be provided.* *Furthermore, feedstocks (including the original feedstocks used to derive any intermediate fuels) must also have the potential to meet the RTFO ‘development fuel’ feedstock requirements:** *Biogenic waste/residue feedstocks should be eligible for double-counting under the RTFO. Use of segregated oils & fats is not permitted.3*
* *Non-biogenic waste feedstocks should be aligned with the proposals for Recycled Carbon Fuels (RCFs) provided in the Targeting Net Zero consultation.4*
* *Renewable fuels of non-biological origin may demonstrate additionality of renewable electricity used via the proposed method in the Targeting Net Zero consultation. 5*

*Please note that the use of provisions outlined in the Targeting Net Zero consultation as guidance for applicants for this competition does not indicate a fixed policy position under the RTFO. All outcomes of the consultation are subject to normal legislative procedures and as a result there is* ***no guarantee*** *fuels supported through this competition will be eligible for future RTFO support.*          *1. 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.**2. 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.**3.The current status of many feedstocks can be found* [*here*](https://www.gov.uk/government/publications/renewable-transport-fuel-obligation-rtfo-guidance-2021/list-of-feedstocks-including-wastes-and-residues-year-2021--2)*. Please note that all single counting feedstocks, dedicated energy crops and segregated oils & fats are not eligible feedstocks for producing development fuels under the RTFO. Applicants that are uncertain of the status of their feedstocks should direct questions to* *GFGS@ricardo.com* *by 30 April 2021. If your process converts an intermediate fuel into a final aviation fuel, answer this question based on the original feedstocks used to generate the intermediate fuel at the start of your supply chain.**4. please see chapter 2 of the* [*Targeting Net Zero consultation*](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/973041/targeting-net-zero-rtfo.pdf) *for guidance.**5. please see chapter 3 of the* [*Targeting Net Zero consultation*](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/973041/targeting-net-zero-rtfo.pdf) *for guidance* |
| * + 1.

Please confirm the location of the proposed plant will be in the UK. | *The proposed plant must be located in the UK. If the proposed plant location is not yet confirmed, then candidate sites must all be within the UK.*Yes [ ]  No [ ] Proposed location (if known):       |
| * + 1.

Please confirm the lead applicant is a UK registered company and provide the company registration number. | *The project lead must be a UK registered company.*Yes [ ]  No [ ] Registration number:       |
| * + 1.

Please confirm the lead applicant acceptance in principle of the terms and conditions of the supplied Example Grant Offer Letter. | *Consortiums must have completed a legal or commercial review of the example grant offer letter in order to confirm acceptance of the proposed terms and conditions of future grant funding.**The applicant must agree to the grant terms & conditions as proposed by the Secretary of State for Transport. The example grant offer letter will be made available to potential applicants via the competition website before* ***30 April 2021****.*Yes [ ]  No [ ]  |
| * + 1.

Please confirm the planned activities have not been previously funded by the DfT (or other public-sector funding).  | *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 schemes up to the maximum subsidy control intensity, or that grants are applied to different elements of a project, so long as the base eligible costs do not overlap (further details to be provided in question 5.7.4).* *In particular, projects previously or currently being supported under the Future Fuels for Flight and Freight Competition (F4C) or the Advanced Biofuels Demonstration Competition (ABDC) are required to demonstrate how funding through this competition will directly support different work even if for the same plant development project.* *Please refer to the guidance document for more information.*Yes [ ]  No [ ]  |
| Please confirm that it has not been possible to fund proposed project activities solely from private sector investment on reasonable commercial terms. | *GFGS funding can only be provided for project work that cannot be financed on reasonable commercial terms by the private sector (further details to be provided in Question 5.7.2).*Yes [ ]  No [ ]  |
| * + 1.

Please confirm that all GFGS funded elements of project activities will complete by 31 March 2022. | *The overall project duration may exceed 31 March 2022, but funding is only available for work taking place during the competition Funding Period up to this date. Please confirm that the GFGS funded elements will be completed within the Funding Period (further details to be provided in Question 5.4.1).*Yes [ ]  No [ ]  |

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| **2.3 Clarity of the project objectives and relevance to the competition objectives** |
| 2.3.1Explain how your project will align with the competition objectives. | ***Word limit:*** *200 words.****Suggested format:*** *Bulleted sentences**Competition objectives have been set out in the competition guidance document available at* [*www.ee.ricardo.com/GFGS*](http://www.ee.ricardo.com/GFGS) |
| 2.3.2 Explain the objectives of planned project activities during the Funding Period.  | ***Word limit:*** *300 words.****Suggested format:*** *Bulleted sentences**List the key activities planned during the Funding Period to 31 March 2022, and the objectives of these activities.* |

# SECTION 3: TECHNICAL APPROACH

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| **3.1 Credibility of the technological approach, clarity of the project data and justification with relevant pilot/demo plant data.** |
| 3.1.1Technology and current TRL: Provide a description of the technology(ies) that your proposed plant will use. Clearly describe the key component technologies and their current TRL levels, and the current TRL of the overall system. | ***Word limit:*** *1000 words****Suggested format:*** *Prose, bullets, tables.****Use of Appendices:*** *Place the supporting technical information for the proposed plant in* ***Appendix B*** *as a single combined PDF. Depending on the project lifecycle stage, this may include:** *(simplified) process flow diagrams;*
* *mass and energy balances;*
* *equipment specifications/sizing;*
* *process yields of aviation fuel and co-products;*
* *energy, utilities, chemicals and catalyst consumption datasets.*

*At a high-level, summarise in this application form what types of information are provided in* ***Appendix B****. Clearly state the provenance of the information within* ***Appendix B*** *(e.g. based on development planning estimates, feasibility studies or pre-FEED studies). Where possible applicants should highlight the specific areas relating to this question within these appendices, and label them with the question number.**Divide your answer in this form into sections, with one section describing the overall plant, and subsequent sections describing the individual technologies.**For clarity, this answer should focus on the current TRL as it stands today. Answers to question 3.2.1 should demonstrate the planned progression from the current TRL. To demonstrate the current TRL of the technologies you will be using, provide credible evidence from pilot/demo plant operations where available.**Outside of your proposed plant site, please also provide details regarding any upstream feedstock pre-processing (or intermediate fuel production), and/or any downstream upgrading technologies that will be required to convert the original feedstocks into a finished fuel. State who, where and how these other steps will be provided, and their TRL status.*  |
| 3.1.2How much fuel will be produced, and is this at an appropriate scale for the fuel type and in line with the competition objectives? | ***Word limit:*** *250 words****Suggested format:*** *Bulleted text**Quantify how much aviation jet fuel (in GJ LHV, tonnes and litres) will be produced in each year of the plant’s operation. Also specify the quantities of co-products produced, where relevant.**Explain how the amount of aviation jet fuel produced is sufficient and appropriate for commercial sales, demonstration testing or other relevant purposes, and how this aligns with the GFGS competition and project objectives.* |

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| **3.2 Level of innovation and progress as a result of the proposed plant.** |
| 3.2.1What is innovative about the project and what TRL will be achieved by the proposed plant? Describe the main technical challenges of each of the technology components and how these will be overcome in the proposed plant. | ***Word limit:*** *750 words****Suggested format:*** *Prose, bullet points, tables, use of diagrams to aid descriptions****Use of Appendices:******Appendix B*** *and* ***Appendix H*** *may be used to support your answer. Where possible applicants should highlight the specific areas relating to this question within these appendices, and label them with the question number.**Describe what is innovative about the proposed plant. Describe how the proposed plant will lead to a demonstration or First-Of-A-Kind commercial application of the technology (and the resulting TRL of 6, 7 or 8 as per the GFGS guidance document Annex B).* *List the key performance indicators (KPIs) that will be used to demonstrate the advancement of the technology and of the TRL level. Describe the envisaged progress in these KPIs during the plant operation, clearly stating the current values of these indicators (with evidence for where these values come from, e.g. which pilot plant), and the expected values achieved during the plant operation.* *For illustrative purposes only, KPIs might include: yields/efficiencies, availability, equipment lifetime, specific capital costs, staffing intensity, intermediate contamination levels, fuel quality characteristics, or a new feedstock being proven over a certain number of operating hours, amongst others.**The applicant must clearly demonstrate in depth knowledge of potential technical barriers, with a concise description of how these barriers will be overcome in the proposed plant.**For clarity, this answer should focus on how the proposed plant will result in progression from the current TRL. Answers to question 3.1.1 should focus on the current TRL as it stands today.* |

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| **3.3 Level of progression of the fuel pathway through ASTM certification process** |
| 3.3.1Confirm the level of progression of the proposed fuel pathway through the ASTM certification process. | ***Word limit:*** *250 words****Suggested format:*** *Bulleted text**The proposed plant jet fuel output must be capable of being blended with fossil jet A-1.* *A non-exhaustive list of ASTM pathways can be found in the GFGS guidance document, Annex A.**If not already certified by ASTM, describe the further steps that will be undertaken so that the fuel will move through the certification process, how long this will take and how will this be funded. Evidence should be provided of the fuel’s future potential to be blended with jet A-1.* |

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| **3.4 Level and evidence of GHG emissions savings of the proposed plant (and expected GHG emissions savings at commercial scale in 2030, if different).** |
| 3.4.1What are the predicted lifecycle GHG emissions savings of the proposed plant in 2030, and at commercial scale in 2030 if you are proposing a demonstration-scale plant? | *Answers must be provided using* ***Appendix H.****Provide an estimate and justification of the predicted weighted average lifecycle GHG emissions (gCO2e/MJ LHV) of jet fuel for your proposed plant* ***in the year 2030****, and % GHG savings versus a fossil fuel comparator of 94.0 gCO2e/MJ.* *Method**For* ***biofuels****, the GHG methodology given in the RTFO guidance should be followed.**For* ***waste-based fossil fuels****, the GHG methodology provided in the Targeting Net Zero consultation should be followed. Please use the “Fossil feedstock counterfactual” tab in* ***Appendix H*** *to provide more evidence of the counterfactual(s) used.**For* ***renewable fuels of non-biological origin*** *(RFNBOs), the GHG methodology given in the RTFO guidance should be followed, with evidence provided of the additionality of the renewable electricity via the proposed method in the Targeting Net Zero consultation. Any evidence is to be provided in the “Additional Evidence” tab of* ***Appendix H****.* *For all projects, carbon capture and sequestration will be allowable within the GHG emissions calculation (and this benefit should be highlighted). Carbon capture and utilisation will only be allowable within the calculations where an aspect of permanence can be demonstrated (i.e. no release back to atmosphere within a short timeframe), in addition to the requirements of the RTFO guidance (and again any benefit claimed should be highlighted). Any evidence is to be provided in the “Additional Evidence” tab of* ***Appendix H****.**Any estimated values for key parameters (such as process energy and material demands, conversion yields) should be clearly stated. Detailed assumptions should be given, with references to research studies or empirical evidence, including any pilot or demonstration activities. Supporting evidence should be attached in* ***Appendix B****, along with your completed GHG emissions calculations Excel workbook in* ***Appendix H****.**For any supply chain component consuming UK grid electricity, the 2028 UK grid GHG intensity factor in the Assumptions tab of* ***Appendix H*** *should be used (as this is the appropriate data year for conducting an analysis in 2030).**System boundary**Include a flow diagram of your supply chain, showing the GHG system boundary to be assessed for each of your feedstocks, and the main inputs and outputs across the system boundary. Describe carefully if any processes or units are situated on the conversion plant site, but not included within the system boundary, and the rationale for this.**GHG emissions should be estimated for each supply chain step, with each step clearly explained (e.g. transport distance and mode):**•* *(for waste fossil feedstocks consignments only, the displaced emissions from diversion of the feedstock from the counterfactual use.)**•* *feedstock collection,**•* *feedstock transport,* *•* *(if applicable, pre-processing, then intermediate transport),**•* *conversion (including any CCS or CCU benefits),* *•* *(if applicable, product transport, then upgrading),* *•* *fuel distribution,* *•* *fuel storage,**•* *aircraft refuelling to wing.**Number of results to be reported****For any projects using multiple or mixed feedstocks, you should report the GHG emissions of the different fuel consignments separately and provide a separate Appendix H Excel workbook for each consignment.****The GHG emissions for each consignment should then be used to calculate an overall weighted average GHG emissions value for your plant in 2030, based on the consignment LHV energy contents. Finally, an overall % GHG emissions saving should be calculated vs. the fossil comparator of 94gCO2e/MJ, to report in eligibility criteria section 2.2.2 above.* *Copy-paste the following results from the Summary tab of your* ***Appendix H*** *Excel workbook(s) (illustrative numbers only).****If your GFGS competition******project is only for a demonstration scale plant (TRL 6-7), then repeat the whole process for a future commercial scale plant producing fuel in the year 2030.*** *Further details about the number of Excel workbooks to provide are given in* ***Appendix H****.**Please then output your GHG emissions figures into the following format, specifying the feedstock or feedstock fraction used in each consignment. Add further (or delete unnecessary) consignment rows if required:**(****Demo Plant, if applicable****:**consignment #1      : GHG emissions in 2030 =       gCO2e/MJ jet**consignment #2      : GHG emissions in 2030 =       gCO2e/MJ jet**consignment #3      : GHG emissions in 2030 =       gCO2e/MJ jet**Weighted average GHG emissions in 2030 =       gCO2e/MJ jet**Weighted average % GHG saving in 2030 =      )****FOAK commercial plant****:**consignment #1      : GHG emissions in 2030 =       gCO2e/MJ jet**(consignment #2      : GHG emissions in 2030 =       gCO2e/MJ jet**consignment #3      : GHG emissions in 2030 =       gCO2e/MJ jet)**Wweighted average GHG emissions in 2030 =       gCO2e/MJ jet**Weighted average % GHG saving in 2030 =* |

# SECTION 4: MAKING THE CASE: COMMERCIAL

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| **4.1 Level of progression towards construction of a FOAK commercial plant as a result of the funded activities.** |
| 4.1.1Please clearly describe how GFGS support will provide critical funds for progressing your project towards the future construction of a FOAK commercial plant.  | ***Word limit:*** *1000 words****Suggested format:*** *Prose, bullet points, tables, use of diagrams to aid descriptions.**Link the project directly to planned future activities, dependencies, financial considerations and potential challenges by;*1. *Describing clearly how the funded activities are a critical element of a commercialisation strategy for the technology.*

1. *Describing how the funded activities will contribute to the next stage of progress towards construction of a FOAK commercial plant.*

1. *Detailing what steps and activities follow on from the funded activities to achieve construction of the FOAK commercial plant including when the proposed plant is expected to have completed construction and commissioning?*

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| **4.2 Potential and case for economic benefits of the proposed plant during construction and operation, including CAPEX, OPEX, revenues of plant and local economic benefits.** |
| 4.2.1Assuming the plant is deployed, describe the potential and case for economic benefits of the proposed plant during construction and operation, including CAPEX, OPEX, revenues of plant and local economic benefits. | ***Word limit:*** *1200 words****Suggested format:*** *Prose, bullet points, with tables and diagrams where necessary.****Use of Appendices:*** *Applicants must complete* ***Appendix E.****Applicants should consider the following in their answer:* * *What UK SMEs will be involved in the project and how they will benefit from the project?*
* *What specific UK IP will be developed and how it will be of economic value?*
* *How many jobs will be generated? Please define using units of FTEs: temporary (with duration) and FTEs: permanent (for duration of project), and split this data by project phase:*
* *Total jobs generated during the construction/refurbishment phase and at steady state operations.*
* *Number of net UK jobs generated, i.e. allowing for displacement.*
* *Total number of jobs anticipated using employees in the locality (within 25 miles) during the construction/ refurbishment phase and at steady state operations, allowing for displacement.*
* *Provide details of the skills required and developed, training that will be conducted, and/or any apprenticeships that will be offered.*
* *Anticipated revenues, profits and UK tax payments per year (e.g. income tax, National Insurance Contributions, VAT, corporation tax etc.) from the project?*
* *Which project materials and equipment components will be manufactured/fabricated in the UK? Which will be imported?*

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| **4.3 Potential and case for benefits of future deployment of the technology within the UK, and benefits from export markets.** |
| 4.3.1Beyond the proposed plant, what is the future commercial potential of the technology, and how scalable is it?  | ***Word limit:*** *750 words****Suggested format:*** *Bullet points, with tables and diagrams where necessary. Divide answer into three sections, as per the points (i) to (iii) below.**i) Assuming the project is successful, describe your plans for future plants in the UK and abroad, giving scales, production volumes and timings for at least 10 years following the competition end date (March 2022).* ***Clearly separate the UK from non-UK production projections****, giving tonnes/yr and GJ/yr (LHV) of feedstock and fuel outputs. If the roll-out plans rely on any parallel development or funding of multiple projects, or rapid company scale-up, provide evidence (if available) regarding feasibility, e.g. that your staff resource, risk and financial constraint assumptions or licencing assumptions or assumptions regarding access to local CCS infrastructure are realistic. Provide the expected scale of a fully commercial plant, in tonnes/yr and GJ/yr (LHV) of feedstock and fuel.* *ii) Clearly describe which feedstocks and countries will be targeted for commercial roll-out, and the estimated availability of these feedstocks in each of the countries, considering the impacts of competing demands for the feedstocks proposed.**iii) Clearly describe your plans for integrating your aviation jet fuel into the fuel market, and which geographies will be addressed. If your fuel is not yet ASTM certified, describe how the process to achieve ASTM certification might impact on timings for the roll-out of your fuel.* *Applicants that can demonstrate a realistic roll-out plan, using widely available feedstocks, producing ASTM certified fuel will be scored highest in this question.*  |
| 4.3.2 What is the future potential economic impact of the commercialisation within the UK? | ***Word limit:*** *500 words****Suggested format:*** *Prose, with tables and diagrams where necessary. Divide answer into sections as necessary.**Using the same metrics from Question 4.2.1, and the UK deployment projections from Question 4.3.1, please provide details as to how future UK plants (as part of the commercialisation strategy) will benefit UK SMEs, further the development of UK IP, create UK jobs, revenues and UK tax income, and the extent to which UK manufacturing will be used.* |
| 4.3.3If applicable, how will future export benefits/markets for the technology or fuel be secured, and how significant are they? | ***Word limit:*** *500 words****Suggested format:*** *Prose, with tables and diagrams where necessary. Divide answer into sections as necessary.**Clearly describe the proposed steps to secure future export benefits/markets for the technology or fuel.* *Using the same metrics from Question 4.2.1, and the non-UK deployment projections from Question 4.3.1, please provide details as to how future plants abroad (as part of the commercialisation strategy) will benefit UK SMEs, further the development of UK IP, create UK jobs, revenues and UK tax income, and the extent to which UK manufacturing will be used.* |

# SECTION 5: PROJECT IMPLEMENTATION

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| **5.1 Credibility of current status of project and readiness to proceed with funded activities.** |
| 5.1.1Please describe the current development status of the overall project in relation to the funded activities for the Funding Period and in relation to the proposed plant. | ***Word limit:*** *1200 words****Suggested format:*** *Prose, bullet points, tables and diagrams where necessary.* ***Use of Appendices:*** *Applicants should use* ***Appendix I*** *to support their written answer.**Documents should be combined within a single PDF and applicants must clearly highlight the specific areas relating to this question within the appendix and label them with question number.**Please provide a brief summary of progress to date regarding engagement with financiers, project partners, planning permission, permits, process safety assessments, fuel off-take agreements, feedstock supply agreements, engineering contractors, and engagement with key equipment suppliers. Divide your answer into sections for each of these activities, add additional sections if necessary.* *Clearly explain how this demonstrates readiness to proceed with the activities which you are applying for funding.* |

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| **5.2 Confidence in skills and experience of the project team.** |
| 5.2.1Explain how the project team has the appropriate skills and experience to deliver the funded activities with clearly defined roles and responsibilities and time committed to the project. | ***Word limit:*** *500 words****Suggested format:*** *Prose, with tables and diagrams where necessary.**Please provide a short summary of skills and experience per project team member, alongside the structure of the project team (roles, responsibilities), time commitment.* |
| 5.2.2Detail your organisation's track record in delivery. Give examples of previous projects in this and related topic areas. | ***Word limit:*** *750 words****Suggested format:*** *Prose, with tables and diagrams where necessary.**Summarise examples of projects that demonstrate that your organisation is able to successfully execute the activities for which you are applying for funding, as well as the planned construction and operation of the plant itself.* |

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| **5.3 Appropriateness of project management and governance structure and partners roles.** |
| 5.3.1Demonstrate the organisation is able to deliver the funded activities. | ***Word limit:*** *500 words****Suggested format:*** *Prose, with tables and diagrams where necessary.**Please explain how the project team outlined in 5.2 will be supported by the wider organisation to deliver the funded project. How can they access the necessary resources and support to deliver the funded project?**How will you ensure that any skill/resource gaps are addressed during the funded activities (e.g. ongoing support/training/opportunities to gain qualifications for delivery team, covering for staff absence etc)?* |
| 5.3.2Please provide a description of your commercial and governance structures, including partner and stakeholder relationships. | ***Word limit:*** *150 words****Suggested format:*** *bullet points, with tables and diagrams where necessary.**Please provide diagrams summarising the commercial and governance structure you are proposing and the roles of partners.* *Clearly show the ownership structure of the UK entity and the ownership of individual supply chains steps, including where partners play a role. Explain the necessary partner and stakeholder relationships appropriate for the delivery of the funded activities.* |
| 5.3.3Explain how intellectual property will be managed. | ***Word limit:*** *500 words****Suggested format:*** *bullet points, with tables and diagrams where necessary.**Clearly explain who owns the intellectual property rights of each individual technology component of the process.* *Your response should also include where appropriate;*1. *the capture and formalisation of IP generated by the project;*
2. *commercial management of IP*
3. *the processes for ensuring that the applicant has all the technology licences required to complete the project.*

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| **5.4 Appropriateness and credibility of the project work plan.** |
| 5.4.1Outline the milestones and deliverables for the funded activities. This should include a detailed delivery plan with associated timelines (including a Gantt chart) which identifies various activities and milestones and forecast grant claim values. | ***Word limit:*** *250 words****Suggested format:*** *bullet points, with tables and diagrams where necessary.****Use of Appendices:*** *Applicants may reference* ***Appendix C****,* ***Appendix D*** *and* ***Appendix E****. Applicants must clearly highlight the specific areas relating to this question within the appendix and label them with question number.**Summarise key points here to provide a description of your project management approach, explaining how the project will be delivered to required timescales.* |
| 5.4.2Describe why the identified delivery plan is structured as it is and any key dependencies within it. | ***Word limit:*** *150 words****Suggested format:*** *bullet points, with tables and diagrams where necessary.****Use of Appendices:*** *Applicants may reference* ***Appendix C****. Applicants must clearly highlight the specific areas relating to this question within the appendix and label them with question number.**Summarise key points here.* |

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| **5.5 Detailed understanding of the project risks and their management.** |
| 5.5.1Clearly explain the key project risks and how they will be managed in a way that will allow for successful delivery of the funded activities by end of March 2022. | **Word limit:** 300 words**Suggested format:** Prose, bullet pointsPlease provide your answer in the form of a risk register, **Appendix G**.Ensure all significant risks, including Health & Safety (which should assume continuation of COVID-19 precautions), are accounted for and how you will ensure that the funded activities will be completed within the given timescales. Please refer to appropriate project team members where possible. Summarise key points here. |

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| **5.6 Credibility of detailed project costing for the funded activities.** |
| 5.6.1Please complete the costing appendix detailing all relevant costs for the funded activities. | ***Word limit:*** *350 words****Suggested format:*** *Prose, bullet points**Please provide your answer in the form of* ***Appendix D****.* *Costing should take into account timelines, the eligible costs detailed within the guidance document - and provide an accurate forecast of claims for the duration of the project. Instructions can be found within the excel template.**Applicants are encouraged to use the space provided here to explain why the costs are appropriate (e.g. why a certain level of staff/expertise is required for a given task, why specific purchases are required etc).**Summarise key points here.* |

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| **5.7 Strength of case for the DfT funding, including level of match funding leveraged and status of securing funding.** |
| 5.7.1Confirm the total project costs and grant request from the GFGS competition. | ***Word limit:*** *100 words**One of the criteria used for selecting projects to support is value for money. Applicants must decide the minimum amount of grant funding that is necessary to enable the project to succeed. In addition, the DfT will only fund those projects that have been unable to obtain private sector funding for the activities on reasonable commercial terms.**Total project costs:**Total available match funding for the project:**Project costs for the Funding Period:**Available match funding for the Funding Period:**Grant request for the Funding Period:* |
| 5.7.2Outline the steps taken to secure private sector funding for these activities to date. | ***Word limit:*** *450 words****Suggested format:*** *Prose, bullet points**Please provide details of efforts to secure private sector funding for the proposed plant to date and why these have been unsuccessful if known. Key points from feedback from prospective investors should be provided where available.**Where offers have been received for funding that have not been accepted by the project, please provide brief details of these offers and reasons why they were not accepted.* |
| 5.7.3Where relevant, please confirm the match funding you have in place to cover the total costs that are not being provided by the GFGS competition funds and provide evidence of how this match funding has been secured. Append any necessary supporting information to your application. | ***Word limit:*** *150 words****Suggested format:*** *Prose, bullet points**Detailed evidence is required to show that, subject to securing the grant, you have adequate finance to invest in the project, and cover any potential cost over-runs. In this section, please briefly explain the monies that will come from each source and attach any relevant screenshots/emails/letters explaining the level of engagement and commitment to date. Evidence should be combined into a single pdf document as* ***Appendix F****.**Some examples of evidence you may provide could include (although different applications may use different financing routes):* * *For projects that will use some of the entities’ own resources, a Board or Steering Committee approval letter or memorandum,*
* *For equity investors letters of support,*
* *For bank finance strong letters of support*
* *For other grants you have applied for, evidence this grant is ready to be drawn.*

*Note that the DfT may conduct due diligence on the funding sources detailed within your application, including a credit (or other financial) check on your organisation, and the DfT may request additional information during this process. Applicants must satisfy these due diligence, financial and organisational checks required prior to receiving public funds.* |
| 5.7.4Explain clearly the need and role for grant funding from this competition in the commercial development of the technology.  | ***Word limit****: 1200 words****Suggested format:*** *Prose**Please consider the nature of supporting evidence to be provided. Assessors are unable to read lengthy supporting documents in addition to this application form. If your answer refers to evidence in the appendices please explicitly state where the evidence can be found within the document(s) and preferably highlight the relevant information within the appendices.**Make a robust case for why the proposed activities would benefit from the GFGS grant. Provide appropriate evidence to support arguments.**If you have received other grants for pilot and demonstration activities or work on this project, you need to demonstrate the additionality of receiving funding from this competition (i.e. what additional benefits will this funding achieve over and above that already received?).* |

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# SECTION 6: DECLARATIONS

## 6.1 Declaration of Honour

I, the undersigned, on behalf of [ ] the Applicant in this application form,

(1) declares that the Applicant is not in any of the following situations:

1. is bankrupt or being wound up, is having its affairs administered by the courts, has entered into an arrangement with creditors, has suspended business activities, is the subject of proceedings concerning those matters, or is in any analogous situation arising from a similar procedure provided for in national legislation or regulations;
2. is not in compliance with all its obligations relating to the payment of social security contributions and the payment of taxes in accordance with the legal provisions of the country in which it is established, with those of the country of the contracting authority and those of the country where the contract is to be performed;
3. is a subject of an administrative penalty for being guilty of misrepresentation in supplying the information required by the contracting authority as a condition of participation in a procurement procedure or failing to supply this information, or having been declared to be in serious breach of its obligations under contracts covered by the DfT's budget

(2) further declares that neither the Applicant nor any of its directors or officers is or are in any of the following situations:

1. has been convicted of an offence concerning professional conduct by a judgment of a competent authority of a Member State which has the force of res judicata;
2. has been guilty of grave professional misconduct proven by any means which the contracting authorities can justify including by decisions of the European Investment Bank and international organisations;
3. has been the subject of a judgement which has the force of res judicata for fraud, corruption, involvement in a criminal organisation, money laundering or any other illegal activity

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| **An officer of the relevant organisation possessing the authority to enter into agreements on its behalf should sign the hard copy of this declaration.** **It must be a different person to the main contact given in SECTION 1 – Administrative Details.**  |
| Signed: |  |
| Title: |       | First name: |       | Surname: |       |

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| Position in organisation: |       |

## 6.2 Declaration from Applicant

I declare that:

* To the best of my knowledge this application requests grant support only for eligible costs and complies with the rules on public funding as described in the GFGS guidance document.
* The information given on this application form and in any other documentation that supports this application is accurate.
* I understand that, where any materially misleading statements (whether deliberate or accidental) are given at any stage during the application process, or where any material information is knowingly withheld, this could (at the discretion of the Department for Transport) render my grant application invalid and any grant funds received by us may be liable for repayment.
* The grant scheme falls within my organisation’s governing document (e.g. constitution, set of rules, trust deed, or memorandum and articles of association).
* My organisation has the power to accept a grant subject to conditions, and to repay the grant in the event of the grant conditions not being met (in the opinion of the Department for Transport).
* The original wording and structure of this application form is as it was originally provided and has not been altered, deleted or added to in any way.
* My organisation will take all reasonable precautions to ensure that grant funds received will not be misused or misappropriated in any way. In the event of fraud, I understand that the Department for Transport will take legal action to recover any misappropriated funds.
* My organisation has sufficient funds available to meet the requirement of match funding and to complete the proposal which is the subject of this bid.

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| **An officer of the relevant organisation possessing the authority to enter into agreements on its behalf should sign the hard copy of this declaration.** **It must be a different person to the main contact given in SECTION 1 – Administrative Details.** |
| Signed: |  |
| Title: |       | First name: |       | Surname: |       |

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| Position in organisation: |       |

## 6.3 Data Protection

**Fair Processing Notice**

The purpose of this Fair Processing Notice is to inform you of the use that will be made of your personal data, as required by the General Data Protection Regulation 2018.

The Department for Transport is the data controller in respect of any personal data that you provide when you complete the Green Fuels, Green Flights application forms. Ricardo Energy and Environment and E4tech are The Department for Transport’s appointed agents for the purposes of administering the scheme, and they will process the data on The Department for Transport’s behalf.

The Department for Transport and its appointed agents will use your personal data for the purposes of administering and analysing applications and grant awards and subsequent monitoring, including site visits, of successful projects under the competition. Some information will be shared with other Government Departments, their agencies and appointed agents to enable the detection of fraudulent applications to the competition and other grant schemes.

The Department for Transport may be required to release information, including personal data and commercial information, on request under the Environmental Information Regulations 2004 or the Freedom of Information Act 2000. However, the Department for Transport will not permit any unwarranted breach of confidentiality nor will we act in contravention of our obligations under the General Data Protection Regulation 2018.

The Department for Transport or its appointed agents may use the name, address and other details on your application form to contact you in connection with occasional customer research aimed at improving the services that the Department for Transport provides to you.

**What non-personal information will the Department for Transport** **make publicly available?**

***Details of applications***

During the assessment stage, the number of applications received will be disclosed on request.

***Details of grant-funded projects***

It is important to the aims of the scheme that the grant-funded projects should act as encouragement for others. Once the applications have been determined, summary details of the successful projects will be published and disseminated widely, including being published on The Department for Transport’s website and in press releases. Summary details may include:

* The name of the project;
* The names of the organisations, companies etc who are members of the project;
* Location of the project;
* Expected annual fuel output from the future proposed plant;
* Expected carbon saved;
* Estimated investment cost;
* Grant allocated to the projects under the Green Fuels, Green Skies Competition;
* Total public support from all sources;
* Proposed plant commissioning date;
* Brief description of the project, including any key technical features (as supplied by applicants).

Section C of the guidance document explains the progress reports that projects are required to submit during the life of the grant agreement. The final report which describes the benefits and performance of the project, the difficulties encountered, and lessons learned, may be published in full. Interim reports may also be published.

I confirm that I have read and agree to the above data protection statement.

SIGNATURE:       NAME:

# SECTION 7: SUBMITTING YOUR APPLICATION

**Submission:**

Please send a Microsoft Word electronic version of your application and all necessary appendices to GFGS@ricardo.com.

**THE DEADLINE FOR RECEIPT IS 1600 HOURS, 31 May 2021.**

**Receipt will be acknowledged.**

**It is not possible to accept late entries.**