

Assessor guidance notes - Green Future Fellowships 2024/25 Stage one: expressions of interest

Contents

| Introduction | |
|--|---|
| Assessment stages | |
| | |
| Confidentiality | 2 |
| Conflict of Interest | 3 |
| Diversity | 3 |
| Use of Al | 3 |
| Green Future Fellowship eligibility criteria | 3 |
| Grant Management System | 4 |
| Assessment of the expressions of interest | |
| Scoring | 6 |
| Feedback | |
| Contact | 7 |
| Core members of the Green Future Fellowship Steering Group | 7 |

Introduction

Thank you for volunteering your time to assess applications for the Green Future Fellowship. The role of an assessor is crucial to the work of the Royal Academy of Engineering.

The Green Future Fellowship programme aims to nurture climate innovation by providing those working across academia and industry with the space, time and support they need to accelerate their critical technologies into scalable, commercially viable, and world-changing projects. As well as aiming to attract and retain talent in the UK. This is the first year that the Royal Academy of Engineering has run this scheme.

Further details about the programme can be found here: https://raeng.org.uk/green-future-fellowships

The scheme has a two-stage assessment process. The aim of each review stage is to provide comments and scores to help the <u>Steering Group</u> decide the most competitive applications to proceed to the next stage.

Due to the high number of applications, and the small number that will ultimately be successful, assessments should clearly indicate which applications stand out as having the most promise. We expect only ~10% of all expressions of interest submitted in the first stage to advance to the second stage.

Assessors are asked to review approximately six applications each in the first instance. Each application will be reviewed by two assessors.

Assessment stages

The two review stages are designed to assess distinct attributes of the quality of the candidate and their application.

Stage one: expression of interest

Expressions of interest will be assessed by two members of the Green Future Fellowship assessor pool. The pool is comprised of a diverse group with expertise from across engineering and non-engineering disciplines, as well as knowledge of commercialisation. Following review by the assessor pool, the Steering Group (composed primarily of Academy Fellows) will consider the comments and scores and confirm the applications to be invited to stage two to submit a more detailed application. Applicants will be informed of the stage one outcome in late January 2025.

The focus of the stage one review is a general assessment of the candidate's ability to articulate their vision. It is recognised that as general assessors you may not have the technical expertise of the project being assessed, and therefore, at this stage the assessment is focussed on the candidate's motivation, the vision and the impact (it is not intended to be a detailed technical review).

Stage two: invited applications

Shortlisted applicants will be invited to submit a more detailed application which will be assessed by three expert reviewers. Applicants will be given the opportunity to respond to reviewer questions in late May 2025. The Steering Group will then consider which applications will be invited to attend an assessment day in Mid-July 2025.

At stage two, the invited application will be sent to reviewers who are experts in the applicant's field and who are also asked to comment on the quality of the innovation, financial plan, and the candidate's ability to carry out the technical aspects of the projects.

Confidentiality

Applications and reviews are submitted to the Academy in confidence.

- Assessors should not discuss or share the application with any third party, without prior approval from the Academy.
- Assessors should not discuss the application or have any contact with the applicant.
- Assessors should not act upon any of the information they obtain through the applications and should not engage with applicants if approached about their review
- Assessors should not retain any copies of application documents once their role as assessor has been completed.
- Any hard copies of application documents, or any electronic versions of application documents saved locally, must be destroyed/ deleted upon submission of the review.
- The identity of assessors will not be made known to applicants but may be revealed to other members of the assessment process.

Conflict of Interest

Assessors should inform the Academy if they believe they have any conflict of interest or could be perceived by others to have a conflict of interest, which may affect their ability to provide a fair and independent review of an application. The Academy will then decide on the appropriate course of action. Conflicts include but are not limited to knowing the applicant outside of or through work, having a working relationship with their organisation, or having a commercial interest relevant to the application.

Diversity

Assessors are reminded that the Academy is committed to diversity and to increasing the participation of women and other minority and under-represented groups across science, engineering and technology. For more on Academy diversity activity and policy please visit https://raeng.org.uk/diversity.

Use of Al

Exclusion of AI in Evaluation: Assessors must refrain from using generative AI tools to make judgments or write feedback on grant applications. The Academy's approach relies on the expertise of its Fellows (or other assessors identified by Fellows or Academy staff) in evaluating applications and passing on their knowledge to the next generation. Any reliance on machine intelligence is not in line with our established working methods.

Confidentiality of Application Content: Assessors are explicitly prohibited from sharing the content of grant applications with any generative AI tool as this can lead to the submitted data being used for other purposes. Maintaining the confidentiality of the application materials ensures the integrity of the assessment process and upholds the trust placed in the Academy's evaluation procedures.

Detection of improper use of AI: At present the Academy has no formal tools for identifying whether AI has been used in generating content (although it may seek to acquire such tools in future, subject to strict data security requirements), and therefore is primarily relying on honesty and integrity from applicants. However, the use of current tools can generally be identified through close reading, particularly if the applicant has also been interviewed. Exceptionally, assessors may request a short interview with applicants that they would otherwise not have interviewed prior to confirming funding, to build confidence that there has not been improper use of AI tools.

Green Future Fellowship eligibility criteria

The Green Future Fellowship is open to anyone with a transformative idea that has the potential to make a significant and lasting impact on global climate resilience.

The novel technologies supported by the Green Future Fellowship programme will:

- be practical and scalable
- reduce greenhouse gas emissions
- help the UK adapt sustainably to the impacts of climate change.

Innovations at all stages of development are eligible, from basic principles to proof of concept, demonstration, and application. Applications must be centred around enabling and driving scalability of the proposed climate technology solution and demonstrate excellence or the potential for excellence in engineering or technology.

Green Future Fellowships can be led by individuals from non-engineering backgrounds or disciplines, but they must provide clear evidence of how their research or innovation promotes engineering excellence and supports engineering outcomes.

There are no nationality or age restrictions for applicants. Applicants based outside the UK are eligible to apply. If successful, non-UK-based applicants will need to find a suitable UK-based host organisation.

We expect that only ~10% of those who submit an expression of interest will be invited to submit a full application, and only 10 applicants will ultimately be successful in attaining a Fellowship in the first year.

Additional eligibility details:

- Awards must be held at a UK-based organisation. This may be a university, research institute or company. For-profit companies can apply through three different routes (university partnership, convertible loan, or by making IP fully available to the public), but they are not required to commit to one of these routes at the expression of interest stage. Note: applicants are not required to have secured a host organisation at stage one (expression of interest).
- There are no limitations on the career stage of applicants. Applicants are not required to hold a PhD.
- Applications are welcome for innovations at all stages of development, from basic principles to proof of concept, demonstration and application with no restrictions based on Technology Readiness Level (TRL).
- Proposed projects must demonstrate the potential to deliver impact that benefits the UK, alongside any global impact.
- The Green Future Fellowship should be the applicant's primary source of employment. Applicants are eligible to hold other awards but must be able to dedicate the majority of their working time to Green Future Fellowship programme of work. Note: applicants are not required to provide costings, give percentages of FTE, or name contributors at stage one (expression of interest).
- There are no restrictions on the number of applications an organisation can submit.

Grant Management System

Applications have been submitted through the online grant management system at https://grants.raeng.org.uk and reviews must also be completed on the system.

You should already have an account with the Academy, e.g. from being a Fellow or when you applied for events or grants, and the same login details should be used. Once logged into the system, you will be presented with the applications you have been allocated to review. Clicking on the application reference number (in the format GFF-2425-la-xxx) will take you through to the application summary page, where you can view the application and access the review form.

A visual step-by-step guide on using the system is included at the end of this document.

Assessment of the expressions of interest

Assessors should give each criterion a score out of seven (please refer to the rating column in the table on page 6), provide comments to support the scores given and give a Yes/No recommendation on whether the expression of interest should proceed to stage two. Assessors will also be asked to:

- provide their level of confidence in their review, i.e. how sure they are of their assessment, on a scale of 1 to 3, with 3 being high. This is to help the Steering Group gauge how to weight each opinion should reviewers be of differing opinions.
- include comments about any exceptional qualities of an application, even if the application is weaker in other aspects.

Expressions of interest will be assessed against the following criteria:

Candidate's motivation and experience

• The extent to which the candidate's expertise, experience, and ambitions align with the goals of the Green Future Fellowship programme.

Innovation and novelty

- Clear articulation of what makes the proposed approach or solution better compared to other technologies, the key challenges and the envisioned realworld impact.
- Understanding of how the project advances the current state of knowledge or technology
- Demonstration of excellence, or potential for excellence, in engineering or technology.

Impact on climate mitigation and/or adaptation

• Evaluation of how well the project supports climate mitigation and/or adaptation efforts

Routes to success: Impact and value

- The scalability of the innovation and its potential for adoption, considering factors that may facilitate or hinder integration into current ecosystems and market readiness.
- Within the duration of the award, clear plans for commercialisation and/or the sustainable continuation of the technology or innovation by other means.
- Articulation of the value of the innovation and potential for public benefit.

Long-term vision and sustainability

- Clear articulation of the long-term vision to sustain and grow the impact of the innovation with an understanding of funding opportunities beyond the Fellowship.
- The potential for public benefit from the project to UK society and beyond.

Scoring

Assessors must also give an overall score out of seven, with seven being the most positive. The table below indicates the quality-thresholds required for each score. This score will be used as the primary application score. The scores from each assessment criterion will be used by the Steering Group to understand which areas of the applications are the strongest and to differentiate between applications with the same overall score.

Because only ~10% of those who submitted an expression of interest will be invited to submit a full application, and only 10 applicants will ultimately be successful in attaining a Fellowship in the first year, assessors should use the full range of scores and only use the highest scores for the most outstanding applications.

Your score must be reflective of your 'Yes' or 'No' decision to proceed (i.e., an application receiving a score of 7, the recommendation would be a 'Yes'). Assessors are encouraged to refer to these indicators in their comments and, where possible, to provide evidence from the application itself as this will greatly assist the Steering Group.

| Score | Rating | Indicators |
|-------|---------------|--|
| 7 | Outstanding | The application strongly meets all the criteria for the fellowship. |
| 6 | Excellent | The application meets all the criteria for the fellowship, in most areas strongly meets the criteria. |
| 5 | Very Good | The application meets all the criteria for the fellowship, in a few areas strongly meets the criteria. |
| 4 | Good | The application meets all the criteria for the fellowship. |
| 3 | Average | The application meets most of the criteria for the fellowship. |
| 2 | Below average | The application meets some of the criteria for the fellowship. |
| 1 | Poor | The application meets some of the criteria for the fellowship. |

To note: scores form part of the assessment process and are for the Steering Group only and will not be shared with applicants.

The commentary provided should justify the mark given. This information will be used to inform the decision as to which applications should proceed to the next stage. Assessors may be asked to provide additional information if their submitted comments do not contain sufficient information to validate the score given.

Once an assessment has been completed, the 'submit review' button will become available at the bottom left corner of the form. Please bear in mind that once submitted a review cannot be altered.

Feedback

Where possible the Academy will provide feedback to candidates. Please ensure that any comments provided are both complete enough and specific enough to allow the

Academy to derive useful feedback. Unsuccessful applicants may well go on to be successful in other activities with the right guidance.

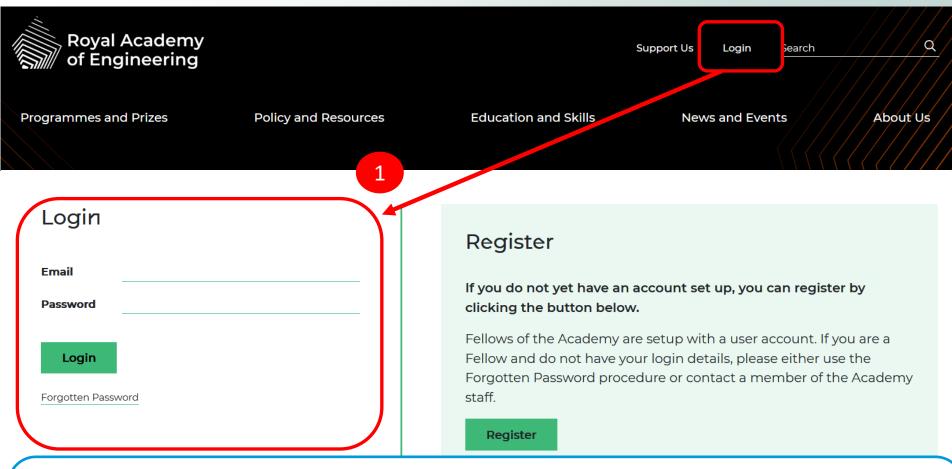
Contact

If you have any further queries on the review process or on using the grants system, please contact gf@raeng.org.uk

Core members of the Green Future Fellowship Steering Group

Chair: Baroness Julia Elizabeth Brown of Cambridge DBE FREng FRS FMedSci Deputy Chair: Professor Jim Hall FREng Professor Richard Templer OBE, FRSC, FRSA Professor Georgina Endfield FBA Professor Mercedes Maroto-Valer FRSE, FEI, FIChemE, FRSA, FRSC Mr Mark Enzer OBE FREng Professor Patricia Thornley FREng Ms Judith Sykes FREng

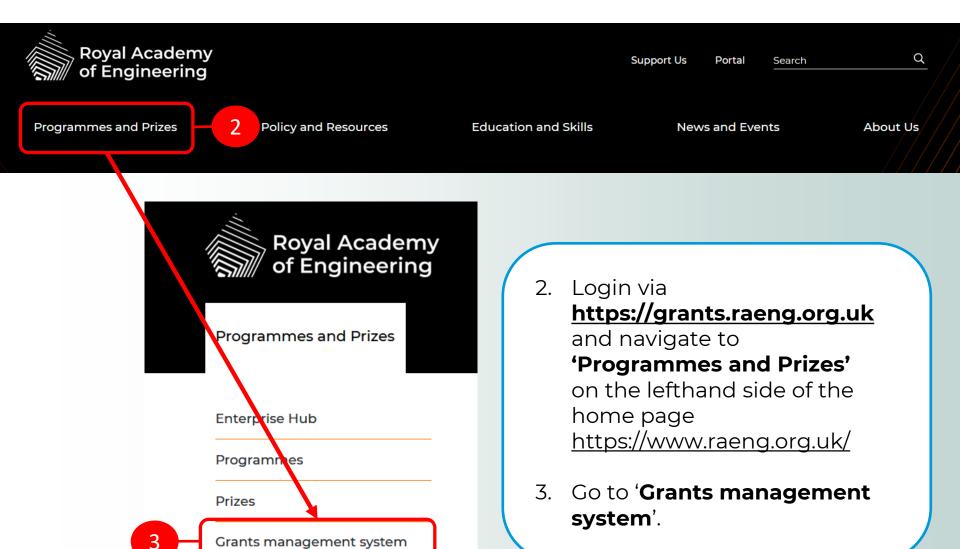
How to login to the Grants Management System and access your account



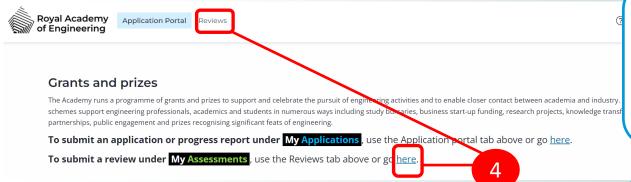
1. Login through the website: https://grants.raeng.org.uk
If you don't have an account, register through the website: https://grants.raeng.org.uk

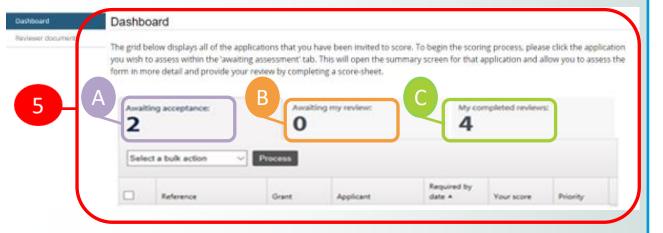
Once you have created your account, you will automatically be sent a verification email. Please use the link to verify your account. Once verified, please log in to the Grants Management System to activate the account (see points 2 & 3, on the next page for details)

How to login to the Grants Management System and access your account



How to find your assigned applications

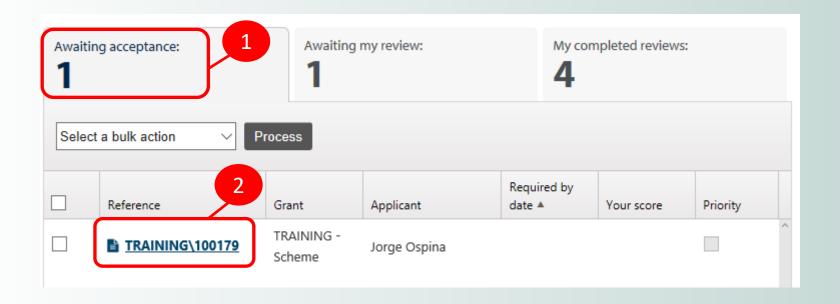




- To access the dashboard, go to 'My Assessments', via the links as indicated left.
 - 5. When you have accessed the dashboard, you will see the number of applications awaiting your acceptance (A), awaiting your review (B), and the number you have completed (C).

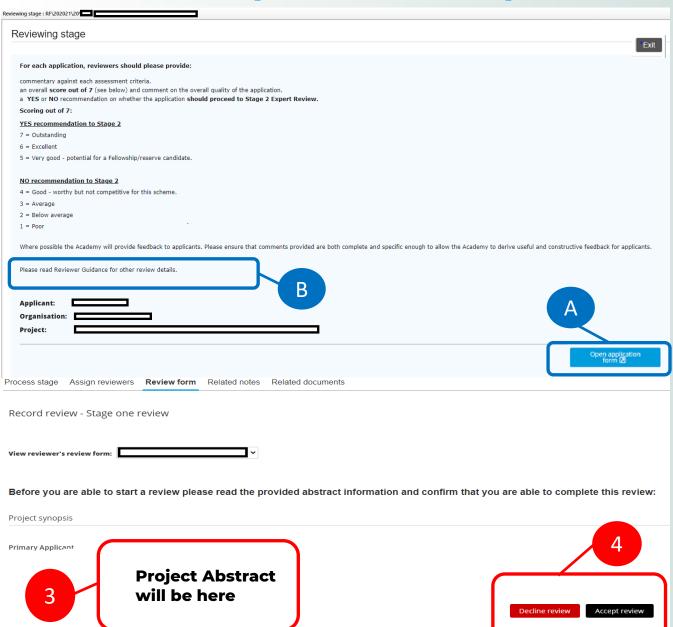
N.B.: The number of reviews you have been assigned will vary from this example.

Submitting a review on the Academy online system Step 1: Select the application to accept



- Click on the 'Awaiting Acceptance' tab, you will see all the applications assigned to you
- 2. Click on the **reference number** to accept the review. A new window will open.

Submitting a review on the Academy online system Step 2: Confirm Acceptance to Review



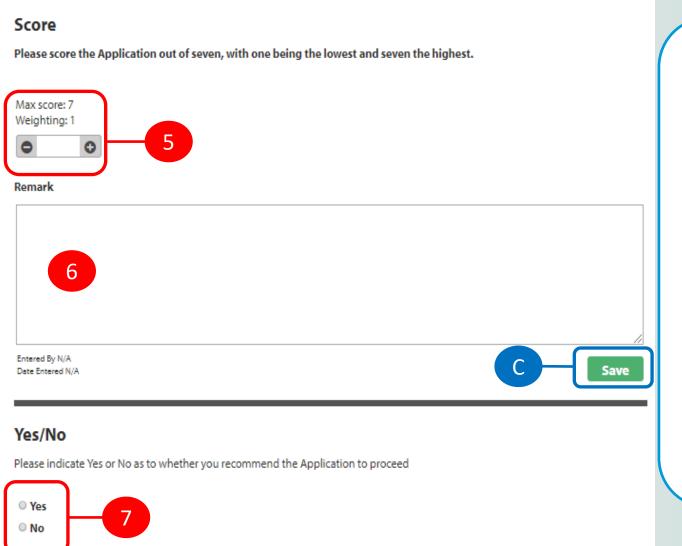
- 3. Read the Project **Abstract**
- 4. You will be asked if you are able to start a review after reading the abstract information. If you select 'accept review' you will be taken to the review form
- A. Once you have accepted the review you can click here to open the full application and download the pdf

Optional:

B. Download the
'reviewer guidance
notes'

Submitting a review on the Academy online system

Step 3: Complete the review



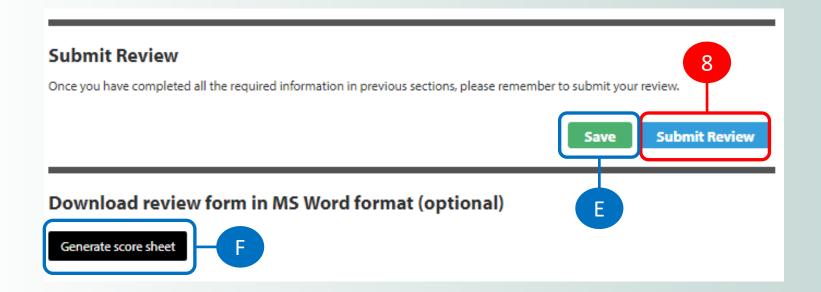
- 5. Give a score
- Provide your comments on the application
- 7. Give a **Yes/No**recommendation
 compliant with the
 score

We advice to:

C. Save your work so you may return to it later. Note it will be auto-saved when you click "Submit Review."

N.B.: Questions on the review form will vary by scheme. Information is provided in the 'reviewer guidance notes' you will receive from the Programme Manager.

Submitting a review on the Academy online system Step 4: Submit the review

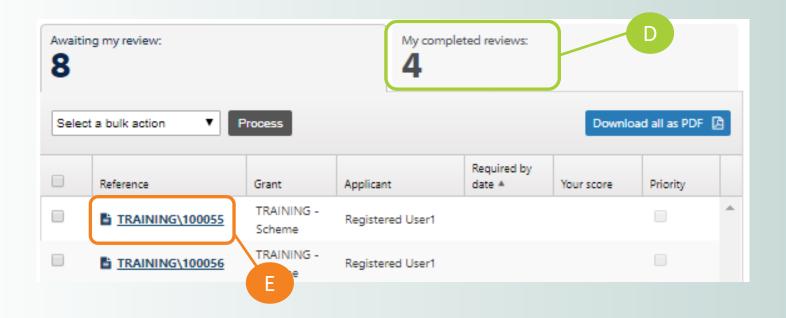


8. Submit the completed review and click ok on the pop up window, then close the window. The review is now done.

Optional:

- **E. Save your work** so you may return to it later. Note it will be auto-saved when you click "Submit Review."
- F. Generate a blank score sheet so you can complete offline prior to submitting

Submitting a review on the Academy online system Step 5: Confirmation of submission



Once you have submitted your review, you will be taken back to the reviewer dashboard. If you refresh the page, you can see your **completed reviews** (D).

From here you can start the process again by **selecting another application (E)** if you have more reviews remaining.