

Member and Chartered Scientist

Application Guidance



Independence



Integrity



Professionalism and sound science



Your pathway to recognition as a Member and Chartered Scientist

The Energy Institute

The Energy Institute is a professional body serving individuals and organisations engaged in all aspects of energy. It is a licensed member of the Engineering Council, the Science Council, the Society for the Environment and a registered charity.

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These guidance notes will assist you in structuring your submission to attain recognition of your energy-related skills, responsible experience and achievements through the Energy Institute as a Member and the Science Council as a Chartered Scientist. They comprise:

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Profile of a Member of the Energy Institute and a Chartered Scientist

A **Member of the Energy Institute (MEI)** is an individual concerned with the production, conversion, transmission and/or utilisation of energy in various forms with due consideration for health, safety and the environment. They may be involved in energy policy/economics, design, development, application, maintenance and/or promotion of energy efficient systems. Key characteristics are management and direction, professional judgement, assumption of responsibility. **Members** are concerned with, for example, finance, human resources, business management, planning, policy or R&D in an energy-related environment through innovation, creativity and change. They oversee and introduce new, more efficient techniques and pioneer new services and management concepts.

Profile of a Chartered Scientist

A Chartered Scientist is characterised by his/her ability to develop appropriate solutions to scientific problems, using new or existing technologies, through a combination of high level knowledge, innovation and creativity. A Chartered Scientist is a professional for whom the knowledge and skills acquired in an accredited scientific Masters level degree (or equivalent) is critical to his/her job competence. Continued registration as a Chartered Scientist is dependent upon a mandatory requirement that a record of your professional development is maintained and submitted to the Energy Institute on an annual basis. The requirements for entry are:

- A minimum of 4 years' practical experience – This relates to the application of scientific method to delivering solutions and/or improving overall understanding of a subject;
- 2 years' responsible experience – This relates to being accountable for technical and/or commercial decisions, supervising practitioners and being accountable for processes and outputs;
- A Masters level academic qualification in a scientific subject.

As a Member and Chartered Scientist registrant with the Science Council, you will have:

Academic requirements

You are required to have completed a scientific Masters qualification or an assessed equivalent. This equivalent can be a combination of:

- A peer-reviewed scientific article
- Records from an assessed work-based learning programme
- A report of your high-level problem-solving experience of project for which you had technical responsibility.

If you have **not** completed a Masters-Level degree in a scientific subject you will need to provide:

- a) A module breakdown of the degree level qualification that you have completed, transcripts of the content of the modules and a copy of your final year dissertation
- b) Any technical reports that you have been responsible for producing. This should highlight your ability to apply scientific method in reaching a conclusion. Please note that these will be treated in the strictest confidence. You must, however, obtain permission for them to be sent to the Energy Institute
- c) Completed self-assessment form mapping the Masters level learning outcomes to your experiential learning.

Or if required:

- a) A detailed technical summary of a scientific project that you have managed. You must obtain agreement from the Energy Institute that this will be sufficient prior to commencing the report. Your report, of about 5,000 words and will be assessed through a presentation at a Professional Interview. It should highlight your ability to:
 - Structure a report
 - Communicate effectively
 - Have a depth of knowledge in a particular subject area

- Use the appropriate scientific methods
- Analyse results
- Design solutions and/or make sound recommendations.

Professional Development

This is the other key part of developing competence. It is how potential Members and Chartered Scientists learn to apply their knowledge and understanding, and begin to apply professional judgment. It can happen at the same time as some of the formal education referred to above, for example through an industrial placement during a higher education course, or alongside part-time study.

Anyone seeking registration as a Member and Chartered Scientist should maintain a detailed record of their development, responsibilities and experience, verified by superiors or mentors, to provide best evidence for the Professional Review.

Maintaining competence

Candidates applying for registration as a Member and Chartered Scientist will be required to show evidence that they have a plan to continue to maintain their competence. This is an important part of recognition as a Chartered Scientist. It is for this reason that Chartered Scientists may only obtain and retain registration if they are members of one of the licensed professional institutions. It is important that candidates seeking registration recognise that this will entail obligations and an ongoing commitment.

Professional behaviour

Members will be expected to observe the requirements of the Code of Conduct of the Energy Institute. We are obliged to respond to allegations of infringement of the code and may suspend or remove membership and registration if proven.

Assessment Criteria

Your application will be assessed against a series of competences. The objective of this application form is to enable you to present, by illustrating the depth and breadth of your relevant experiences and achievements, your ability to:

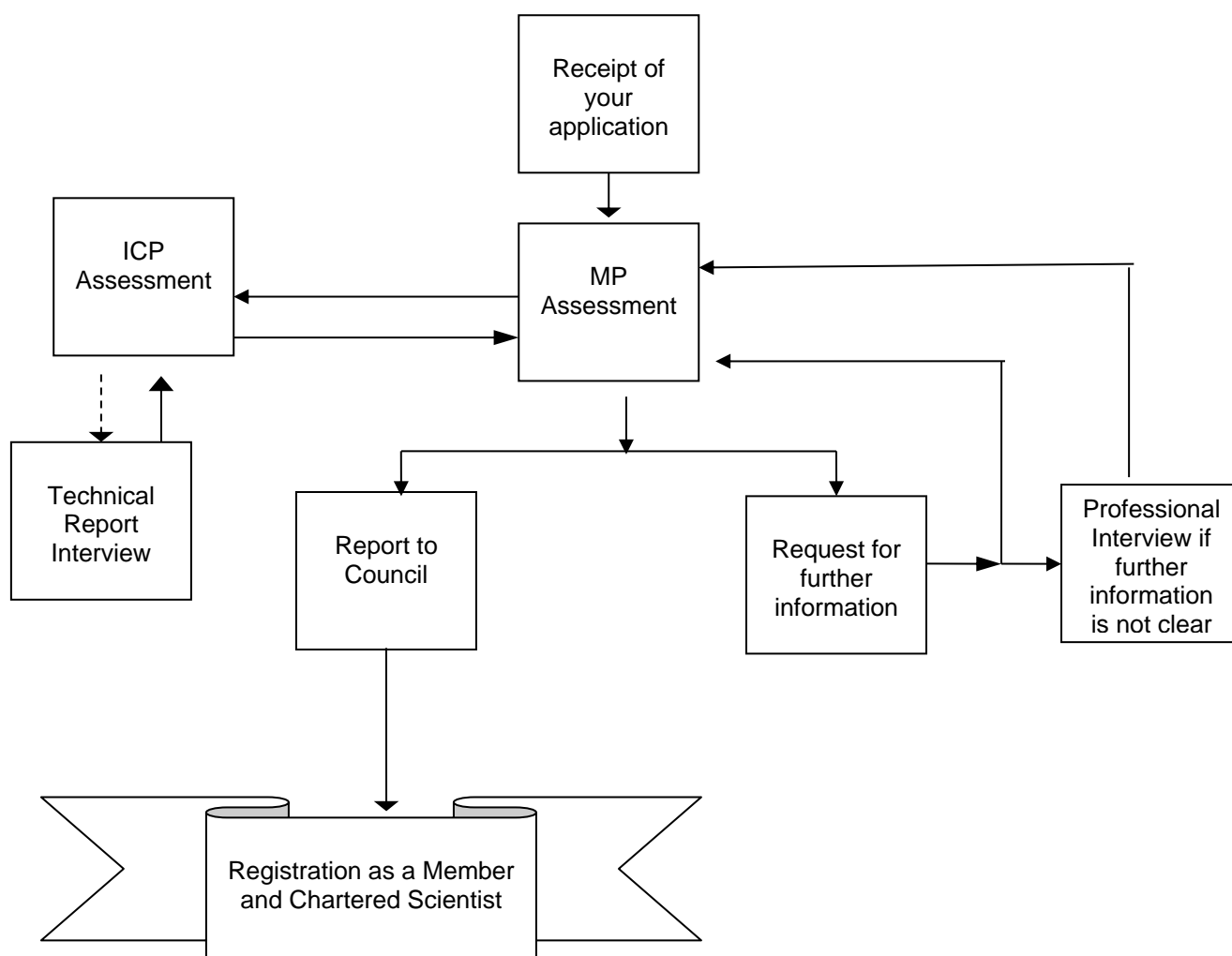
- Deal with complex issues, both systematically and creatively;
- Make sound judgements in the absence of complete data;
- Communicate conclusions clearly to specialist and non specialist audiences;
- Exercise self-direction and originality in solving problems;
- Exercise substantial personal autonomy in planning and implementing tasks at a professional level;
- Continue to advance their knowledge, understanding and competence to a high level.

The application process

Upon receipt of your submission, the Membership Panel (MP) will conduct a review of your competencies and experience against the assessment criteria for registration as a Member and Chartered Scientist. If you have successfully demonstrated how you meet the criteria for registration, a recommendation will be made to the Professional Affairs Committee for your registration as a Member and Chartered Scientist. Upon approval by the PAC, an Election Letter will be sent to you.

In instances where your application is inclusive, you will be required to provide additional information for review by the Membership Panel. If this additional information does not clarify your responsible experience and relevant achievements you will be required to perform a Professional Interview. The diagram below outlines the process.

If you do not have the appropriate academic base, you will either complete a Technical Report, which may include the need for a supporting Professional Interview. Alternatively, information about your qualifications will be sent to the Individual Case Procedure (ICP) Panel for review.



Assessment criteria

Your application for recognition as a Member and Chartered Scientist will be assessed against the Competence and Commitment criteria listed below. You are required to demonstrate your compliance to the criteria in your **Professional Development Review**.

Information about structuring your Professional Development Review is contained on page 8.

Standards of competence and commitment for Member and Chartered Scientist

A Member and Chartered Scientist is characterised by his/her ability to develop appropriate solutions to energy related scientific problems, using new or existing technologies, through a combination of high level knowledge, innovation and creativity. A Chartered Scientist is a professional for whom the knowledge and skills acquired in an accredited scientific Masters level degree (or equivalent) is critical to his/her job competence. Continued registration as a Chartered Scientist is dependent upon a mandatory requirement that a record of your professional development is maintained and submitted to the Energy Institute on an annual basis.

Member Chartered Scientists must be competent throughout their working life, by virtue of their education, training and experience, to:

A Application of knowledge and understanding

	The Standard	
A1	Use specialist experiential knowledge and broader scientific understanding to optimise the application of existing and emerging science and technology.	<p>You should provide sufficient detail here to show your specialist experiential knowledge and how you have applied it. Further to this, include any examples of where your broader scientific understanding is applied to your area of practice. Examples could include but are not limited to</p> <ul style="list-style-type: none"> • Writing and presenting internal papers, reports or standards • Conducting appropriate research to facilitate design and development of scientific processes
A2	Exercise sound judgement in the absence of complete information and in complex or unpredictable situations.	<p>This competence is asking you to identify and be aware of the limit of your own knowledge and professional competence, to demonstrate an ability to manage your own strengths and weaknesses and to recognise the level of risk attached to your actions. Examples could include but are not limited to:</p> <ul style="list-style-type: none"> • Considering when you have approached a piece of work or project flexibly and in a novel or different way, or reacted to an unexpected outcome.
A3	Demonstrate critical evaluation of relevant scientific information and concepts to propose solutions to problems.	<p>You should think of this competence in terms of selecting the best methodology, the subsequent data analysis and conclusions you draw and how you overcome any barriers or issues. Examples could include but are not limited to:</p> <ul style="list-style-type: none"> • Engaging in experimental design and testing • Reviewing relevant literature, manuals or designs • Sharing your findings with others

B Personal responsibility

	The Standard	
B1	Work autonomously and take responsibility for the work of self and others.	<p>It is important for this competence to ensure you describe your contribution, responsibility and impact on a certain task and make it clear what you personally have achieved i.e. "I" not "we". In formulating your answers, you should consider the following:</p> <ul style="list-style-type: none">• You will be expected to undertake much of your work without day-to-day supervision and so you should demonstrate that you are able to achieve this• You should demonstrate your understanding of when you may need to seek guidance from others and how you would obtain this guidance• If you are responsible for managing the work of others, you should clearly describe how you discharge those responsibilities
B2	Promote and implement robust policies and protocols relating to health, safety and security.	<p>You should demonstrate that you understand the policies and protocols related to health, safety and security that apply to the work you are undertaking and describe any responsibilities that you have related to this. Security can include issues related to data, Intellectual Property, confidentiality, prevention of contamination, traceability of documents and information. In formulating your answers, you should consider the following:</p> <ul style="list-style-type: none">• These policies and protocols will document how relevant aspects of your work must be carried out. Demonstrate that you know where these policies and protocols are documented, and that you are able to apply them in your practice• What risks you are aware of related to the security aspects of the work you carry out, and how you seek to mitigate these risks• How you "promote" the awareness and application of these policies and protocols with others, especially peers and more junior colleagues
B3	Promote and ensure compliance with all relevant regulatory requirements and quality standards.	<p>You should demonstrate that you understand which regulatory requirements and quality standards apply to your area of work. In formulating your answers, you should consider the following:</p> <ul style="list-style-type: none">• Describe what you do to ensure that these requirements and standards are being followed for those activities for which you are responsible• Describe how you "promote" the awareness of regulatory requirements and quality standards amongst peers and more junior colleagues

B4	Oversee the implementation of solutions with due regard to the wider environment and broader context.	<p>You should demonstrate an understanding of the potential and actual impacts of your work on your organisation, on the profession, on the general public and on the physical environment. Examples could include but are not limited to:</p> <ul style="list-style-type: none"> • Indicating that you are aware of the sensitivity of your work and show how this understanding translates into the ways in which you carry out your work • Showing an awareness of how your profession is portrayed and viewed by the public at large, and how you take responsibility for recognising this in the work you do • Describing how you seek to avoid reputational damage related to the work you carry out • Explaining how you set a good example to others in the way you discharge the responsibilities related to the work you undertake
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C Interpersonal skills

	The Standard	
C1	Demonstrate the ability to communicate effectively with specialist and non-specialist audiences.	<p>A non-specialist audience is anyone working outside of your particular area of expertise, so it would not necessarily be a non-scientist. Your example(s) should indicate how you have communicated in a way that is effective to each type of audience. In formulating your answers, you should consider the following:</p> <ul style="list-style-type: none"> • Not just the content of the message but also the mode or style of delivery that is adapted according to the audience • The feedback loop to gauge the understanding and improve future communications
C2	Demonstrate effective leadership through the ability to guide, influence, inspire and empathise with others.	<p>This competence is about understanding your leadership skills and is not reserved for those in Management roles; it is applicable to all. Examples could include but are not limited to:</p> <ul style="list-style-type: none"> • Experiences of mentoring or coaching you have had; you should consider how effective this was and the overall impact • Considering when you have managed change within your organisation or overseen the implementation of any new processes

C3	Demonstrate the ability to mediate, develop and maintain positive working relationships.	<p>You should describe or define the “working relationship” and provide at least one example which focuses on your handling of a challenging interpersonal situation and demonstrates your ability to mediate and achieve a positive outcome. You should consider how through your approach you have changed or modified the behaviour or attitudes of others to positive effect. Examples could include but are not limited to:</p> <ul style="list-style-type: none"> • How you have managed the merger or integration of different teams • Managing working relationships across different departments or organisations • Interactions with committees, working groups or other professional body activities • How you have managed and resolved a difficult relationship situation between members of a team for which you are responsible.
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D Professional practice

	The Standard	
D1	Scope, plan and manage multifaceted projects.	<p>Describe a project that you have managed and make it clear the level of autonomy you had while working on the project, especially if you were in a team. You should show how you contributed to determining the resulting courses of action. Examples could include but are not limited to:</p> <ul style="list-style-type: none"> • An operational project utilising resources across several disciplines • A change management project aligning processes across sites • An industry-wide project establishing guidance on technical standards and requirements
D2	Demonstrate the achievement of desired outcomes with the effective management of resources and risks.	<p>Using the project you have discussed under D1, or another project with which you have been involved, you should describe your roles and responsibilities in managing the activities to achieve the desired outcomes. Examples could include but are not limited to:</p> <ul style="list-style-type: none"> • Identifying the resources (people and/or money) needed to undertake the activities • Monitoring and surveillance of the progress of the activities • Identification, evaluation and implementation of changes that may be needed to ensure the activities are successfully completed • Identification and management of risks that could impact on the successful completion of the activities

D3	Take responsibility for continuous performance improvement both at a personal level and in a wider organisational context.	<p>Your examples should indicate what actions you take to make improvements to your personal performance and to your organisation as a whole. This could be through encouraging the continuous development of junior staff or through improvements to processes within the organisation. Examples could include but are not limited to:</p> <ul style="list-style-type: none"> • Identification of lessons learned from activities undertaken by yourself or by others for whom you are responsible, such as what went well, went badly or was lacking • Evaluation of the performance of specialists methods and tools used • Development of recommendations for future enhancements or modifications to procedures or working practices in order to achieve performance improvements • Description of examples where your actions have led to performance improvement by yourself or others
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E Professional standards

	The Standard	
E1	Demonstrate understanding and compliance with relevant codes of conduct.	<p>You should describe how the codes of conduct under which you practice relate to the work that you carry out and give examples of how they govern your professional practice. Within this, you should include any ethical considerations, both in terms of scientific and business practices. Examples you may wish to use may relate to:</p> <ul style="list-style-type: none"> • Standards of professional practice in respect of your profession, employer, clients or patients • Standards of professional behaviour in respect of attitudes, respect and confidentiality • Standards of professional competence in respect of personal development and the development of others
E2	Demonstrate a commitment to professional development through continuing advancement of own knowledge, understanding and competence	<p>Your answer should provide specific examples of what you have already done in terms of continuing professional development (CPD) and your plans for the coming year. In your examples you should describe how your engagement in CPD has benefited your practice and the users of your work.</p> <p>Examples can be taken from any of the five categories of activity (work based learning, professional activity, formal/educational, self-directed learning and other) defined and exemplified at:</p> <p>http://www.charteredscientist.org/PDFs/categories_of_learning_activities.pdf</p>

Structuring your Professional Development Review (PDR)

Your Professional Development Review (PDR) should provide a detailed overview of your energy related scientific professional experience, achievements and levels of seniority in energy sectors. It should demonstrate your compliance to the **Assessment criteria** listed on page 6. Your PDR should comprise:

Introduction

- Please outline why you are seeking recognition of **your** energy related scientific experiences through the Energy Institute.
- You should provide an overview of **your** energy related scientific experiences, achievements and levels of seniority.

Professional history

- For each period of employment please provide an insight into your roles and responsibilities as well as your achievements (projects that you have managed, personnel and/or systems that you have developed, and so on). This provides you with an opportunity to demonstrate how you applied your knowledge and understanding of energy related science.
- Please illustrate this section with examples of how you managed energy related projects with emphasis on the nature of the project, size of the project team, budgets and outcome.
- Please mention any technical societies/panels that you belong to with an insight into your achievements. Information of your membership of other professional bodies should also be recorded.
- Your PDR will need to include a detailed CPD record and plan for the future.
- The PDR should be between 2,000 – 4,000 words in English.
- We recommend that you reference the competences met within your PDR.
- As annexes you may provide your current roles and responsibilities, list technical/research papers you have authored and provide other information you feel will support your submission.

Professional Development Review

Introduction

I am seeking recognition of my scientific energy achievements through the Energy Institute because...

Professional History

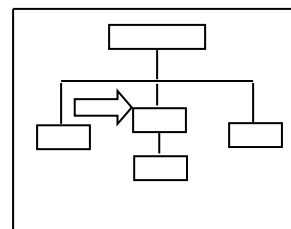
03/99 – present

Job title	Employer
I am responsible for....	
I have achieved	
I achieved this by....	

02/97 – 03/99

Preparing an organisational chart

- An Organisational Chart is a simple diagram that highlights **your position** with your current employer. Please indicate your post with an arrow.
- It should clearly display to whom you report and departments / employees that report to you. Please include two or three levels of authority above and below your post.
- If you have changed your job within the last three years, include the diagram for your previous post on a separate A4 sheet, together with the relevant date(s).
- If your organisation operates a flat-based structure, please illustrate.
- If you work in a large organisation you should display the position of your team, your position and department with an overview of how the department fits into the whole organisation.
- Do not use any pictures, colour or shading as these make the diagram illegible when photocopied.



Sponsors' references

- You require two sponsors of Professional Standing (such as your employer / line manager) who are familiar with your field of practise and can vouch and verify your assertions with respect to your knowledge, training and experience.
- Of Professional Standing means "is or could be a member of a professional body or learned society which elects their members through peer review or by examination" The judgement as to whether a sponsor is 'of professional standing' is at the discretion of the Membership Panel.
- Sponsors should not be someone who directly reports to you.
- Completed forms can be sent with your application. Alternatively, sponsors may forward their completed forms directly to the Membership Officer.

Subscription information

- The Member application fee is **£95.00**. This one-off, non-refundable payment does not form part of the annual membership subscription and should be sent with your submission.
- The transfer to Member fee (for Energy Institute members transferring to Member) is **£65.00**.
- The Member annual subscription fee is **£126**. This will be levied upon completion of the application process.
- The Initial Chartered Scientist registration fee with the Science Council is **£25** and the annual Chartered Scientist fee thereafter is **£25**, which be levied on completion of the process

Checklist for completed submissions

We prefer electronic copies of your application and supporting documentation

Prior to submitting your application please ensure that your submission comprises:

All relevant sections of the application form completed and signed
Professional Development Review
Completed competence grid
Organisational chart
Detailed CPD record and future plan
Sponsors' references – signed with comments
Signed true and accurate copies of your academic certificates
Signed true and accurate copy of photographic id showing signature and date of birth
Relevant application fee / transfer fee – can be paid cheque or credit / debit card

Please submit your completed electronic application to:

e: professionals@energyinst.org

Professional Membership Officer
Energy Institute
61 New Cavendish Street, London W1G 7AR, UK
t: +44 (0)20 7467 7100