

Member and Incorporated Engineer

Application Guidance



Independence



Integrity



Professionalism and sound science



Your pathway to recognition as a Member and Incorporated Engineer

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, Science Council, the Society for the Environment and a registered charity.

Contents

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 Engineering Council as an Incorporated Engineer. They comprise:

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Profile of a Member of the Energy Institute

As a Member and Incorporated Engineer registrant with the Engineering Council, you will have:

Education

Knowledge and understanding are important components of professional competence. Formal education is the usual, though not the only, way of demonstrating the necessary knowledge and understanding, and the following qualifications exemplify the required knowledge and understanding for Incorporated Engineers:

- An accredited Bachelors degree in engineering or technology
- **or** Higher National Diploma or Foundation Degree in engineering or technology, plus appropriate further learning to degree level.
- **or** an NVQ4 or SVQ4 which has been approved for the purpose by a licensed engineering institution

Details of accredited qualifications can be found on the Engineering Council website:

<http://www.engc.org.uk/registration/acad/search.aspx>

Applicants who do not have exemplifying qualifications to demonstrate the required knowledge and understanding may do so in other ways, but must clearly demonstrate they have achieved the same level of knowledge and understanding as those with the qualifications. However, applicants holding a CEng accredited Bachelors degree will usually be eligible for acceptance through professional review.

Ways to demonstrate include:

- Taking further qualifications, in whole or in part, as specified by the Energy Institute
- Completing appropriate work-based or experiential learning
- Writing a technical report, based on their experience, and demonstrating their knowledge and understanding of engineering principles

Further information on the Individual Route assessment process for candidates without exemplifying academic qualifications can be obtained from membership@energyinst.org. An additional fee is payable for the Individual Route assessment.

Professional Development

This is the other key part of developing competence. It is how potential Incorporated Engineers 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 an Incorporated Engineer 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 Member and Incorporated Engineer 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 Member and Incorporated Engineer. It is for this reason that Incorporated Engineers may only obtain and retain registration if they are members of one of the licensed professional engineering institutions. It is important that candidates seeking registration recognise that this will entail obligations and an ongoing commitment.

Professional Behaviour

Incorporated Engineers 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.

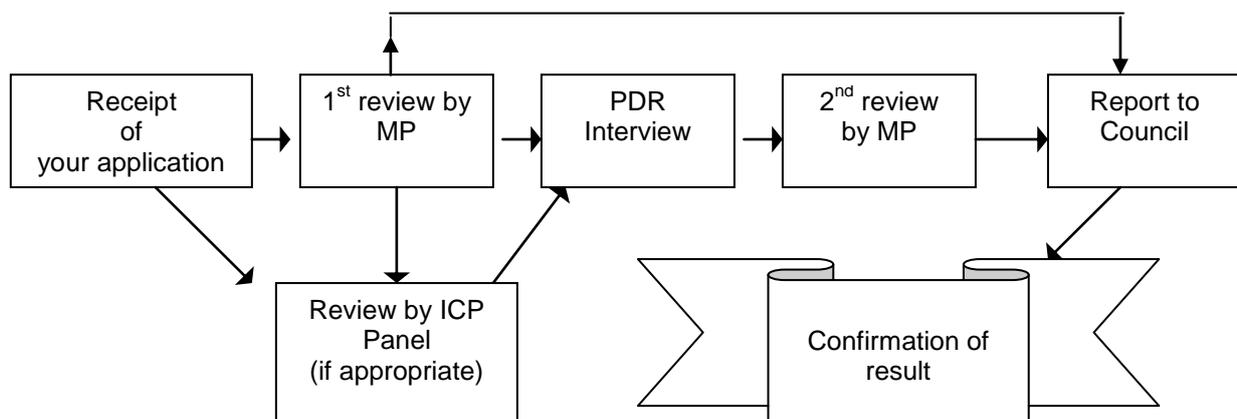
The Application Process

Upon receipt of your submission, the Membership Panel (MP) will conduct an initial review of your roles and responsibilities. If you have not followed one of the exemplifying academic pathways, outlined on page 3, the EI's Individual Case Procedure (ICP) Panel will review your career history and education and training record against the benchmark criteria of accredited engineering qualifications. Please see the Individual Route guidance notes for further information. Additional learning may be required.

Should the MP assessment and ICP assessment be successful you will be required to complete a Professional Development Review (PDR) Interview. In instances where your roles and responsibilities have been assessed by another professional body of similar standing to the Energy Institute, you are a registered Chartered Engineer and your submission provides a full overview of your energy-related achievements, you may not be required to complete a PDR interview.

A report from this interview will be made back to the MP. The MP will forward a recommendation to the Energy Institute's governing Council and you will be notified of the result.

The schematic diagram below outlines the process.



Assessment Criteria

Your application for recognition as a Member and Incorporated Engineer 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 10

Standards of Competence and Commitment for Incorporated Engineers

Incorporated Engineers maintain and manage applications of current and developing technology, and may undertake engineering design, development, manufacture, construction and operation. Incorporated Engineers are variously engaged in technical and commercial management and possess effective interpersonal skills.

Incorporated Engineers must be competent throughout their working life, by virtue of their education, training and experience, to:

A Use a combination of general and specialist energy engineering knowledge and understanding to apply existing and emerging technology.

	The Standard	This could include an ability to:	Examples of activities
A1	Maintain and extend a sound theoretical approach to the application of technology in energy engineering practice	<ul style="list-style-type: none">• Identify the limits of own personal knowledge and skills• Strive to extend own technological capability• Broaden and deepen own knowledge base through new applications and techniques	Engage in formal learning. Learn new engineering theories and techniques in the workplace, at seminars, etc. Broaden your knowledge of engineering codes, standards and specifications.

A2	Use a sound evidence-based approach to problem-solving and contribute to continuous improvement	<ul style="list-style-type: none"> • Establish users' requirements for improvement • Use market intelligence and knowledge of technological developments to promote and improve the effectiveness of energy engineering products, systems and services • Contribute to the evaluation and development of continuous improvement systems • Apply knowledge and experience to investigate and solve problems arising during engineering tasks and implement corrective action. 	<p>Manage/contribute to market research, and product and process research and development.</p> <p>Involvement with cross-disciplinary working.</p> <p>Conduct statistically sound appraisal of data.</p> <p>Use evidence from best practice to improve effectiveness.</p> <p>Apply root cause analysis.</p>
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B Apply appropriate theoretical and practical methods to design, develop, manufacture, construct, commission, operate, maintain, decommission and re-cycle engineering processes, systems, services and products.

	The Standard	This could include an ability to:	Examples of activities
B1	Identify, review and select techniques, procedures and methods to undertake energy engineering tasks	<ul style="list-style-type: none"> • Select a review methodology • Review the potential for enhancing energy engineering products, processes, systems and services, using evidence from best practice • Establish an action plan to implement the results of the review 	<p>Contribute to the marketing of and tendering for new engineering products, processes and systems.</p> <p>Contribute to the specification and procurement of new Engineering products, processes and systems.</p> <p>Develop decommissioning processes.</p> <p>Set targets, and draft programmes and action plans.</p> <p>Schedule activities.</p>
B2	Contribute to the design and development of energy engineering solutions	<ul style="list-style-type: none"> • Contribute to the Identification and specification of design and development requirements for engineering products, processes, systems and services • Identify potential operational problems and evaluate possible engineering solutions, taking account of cost, quality, safety, reliability, appearance, fitness for purpose and environmental impact • Contribute to the design of engineering solutions 	<p>Contribute to theoretical and applied research.</p> <p>Manage/contribute to value engineering and whole life costing.</p> <p>Work in design teams.</p> <p>Draft specifications. Develop and test options.</p> <p>Identify resources and costs of options.</p> <p>Produce detailed designs.</p>

B3	Implement design solutions and contribute to their evaluation	<ul style="list-style-type: none"> • Secure the resources required for implementation • Implement design solutions, taking account of critical constraints • Identify problems during implementation and take corrective action • Contribute to the evaluation of design solutions • Contribute to recommendations for improvement and actively learn from feedback on results. 	<p>Follow the design process through into product manufacture.</p> <p>Operate and maintain processes, systems etc. Contribute to reports on the evaluation of the effectiveness of the designs.</p> <p>Contribute to product improvement.</p> <p>Interpret and analyse performance.</p> <p>Contribute to determining critical success factors.</p>
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C Provide technical and commercial management.

	The Standard	This could include an ability to:	Examples of activities
C1	Plan for effective project implementation	<ul style="list-style-type: none"> • Identify the factors affecting the project implementation • Prepare and agree implementation plans and method statements • Secure the necessary resources and confirm roles in project team • Apply the necessary contractual arrangements with other stakeholders (client, subcontractors, suppliers, etc.) 	<p>Manage/contribute to project planning activities.</p> <p>Produce and implement procurement plans.</p> <p>Contribute to project risk assessments.</p> <p>Collaborate with key stakeholders.</p> <p>Plan programmes and delivery of tasks. Identify resources and costs.</p> <p>Prepare and agree contracts / work orders.</p>
C2	Manage the planning, budgeting and organisation of tasks, people and resources	<ul style="list-style-type: none"> • Operate appropriate management systems • Work to the agreed quality standards, programme and budget, within legal and statutory requirements • Manage work teams, coordinating project activities • Identify variations from quality standards, programme and budgets, and take corrective action • Evaluate performance and recommend improvements 	<p>Manage/contribute to project operations.</p> <p>Manage the balance between quality, cost and time.</p> <p>Manage contingency processes.</p> <p>Contribute to the management of project funding, payments and recovery.</p> <p>Satisfy legal and statutory obligations.</p> <p>Manage tasks within identified financial, commercial and regulatory constraints.</p>

C3	Manage teams and develop staff to meet changing technical and managerial needs	<ul style="list-style-type: none"> • Agree objectives and work plans with teams and individuals • Identify team and individual needs, and plan for their development • Manage and support team and individual development • Assess team and individual performance, and provide feedback. 	<p>Carry out/contribute to staff appraisals. Plan/contribute to the training and development of staff. Gather evidence from colleagues of the management, assessment and feedback that you have provided. Carry out/contribute to disciplinary procedures.</p>
C4	Manage continuous quality improvement	<ul style="list-style-type: none"> • Ensure the application of quality management principles by team members and colleagues • Manage operations to maintain quality standards • Evaluate projects and make recommendations for improvement. 	<p>Promote quality. Manage/contribute to best practice methods of continuous improvement, e.g. ISO 9000, EFQM, balanced scorecard. Carry out/contribute to quality audits. Monitor, maintain and improve delivery. Identify, implement and evaluate changes to meet quality objectives.</p>

D Demonstrate effective interpersonal skills.

	The Standard	This could include an ability to:	Examples of activities
D1	Communicate in English¹ with others at all levels	<ul style="list-style-type: none"> • Contribute to, chair and record meetings and discussions • Prepare letters, documents and reports on technical matters • Exchange information and provide advice to technical and non-technical colleagues 	<p>Reports, minutes of meetings, letters, programmes, drawings, specifications.</p>
D2	Present and discuss proposals	<ul style="list-style-type: none"> • Prepare and deliver appropriate presentations • Manage debates with audiences • Feed the results back to improve the proposals 	<p>Presentations, records of discussions and their outcomes.</p>
D3	Demonstrate personal and social skills	<ul style="list-style-type: none"> • Know and manage own emotions, strengths and weaknesses • Be aware of the needs and concerns of others • Be confident and flexible in dealing with new and changing interpersonal situations • Identify, agree and work towards collective goals • Create, maintain and enhance productive working relationships, and resolve conflicts. 	<p>Records of meetings. Evidence from colleagues of your personal and social skills. Contribute to productive working relationships. Apply diversity and anti-discrimination legislation.</p>

¹ Any interviews will be conducted in English, subject only to the provisions of the Welsh Language Act 1993 and any Regulations which may be made in implementation of European Union directives on free movement of labour.

E Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.

	The Standard	This could include an ability to:	Examples of activities
E1	Comply with relevant codes of conduct	<ul style="list-style-type: none"> Comply with the Code of Professional Conduct of the Energy Institute. Manage work within all relevant legislation and regulatory frameworks, including social and employment legislation 	Contribute to the affairs of your professional body. Work with a variety of conditions of contract.
E2	Manage and apply safe systems of work	<ul style="list-style-type: none"> Identify and take responsibility for own obligations for health, safety and welfare issues Manage systems that satisfy health, safety and welfare requirements Develop and implement appropriate hazard identification and risk management systems Manage, evaluate and improve these systems 	Undertake formal H&S training. Work with H&S legislation and best practice, e.g. HASAW 1974, CDM regs, OHSAS 18001:2007 and company safety policies. Carry out safety audits. Identify and minimise hazards. Assess and control risks. Deliver H&S briefings & inductions.
E3	Undertake energy-engineering activities in a way that contributes to sustainable development	<ul style="list-style-type: none"> Operate and act responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously Provide products and services which maintain and enhance the quality of the environment and community, and meet financial objectives Understand and encourage stakeholder involvement in sustainable development. 	Carry out/contribute to environmental impact assessments. Carry out/contribute to environmental risk assessments. Manage best practice environmental management systems, e.g. ISO 14000. Work within environmental legislation. Adopt sustainable practices. Contribute to “triple bottom line” (i.e. social, economic and environmental) outcomes.
E4	Carry out continuing professional development necessary to maintain and enhance competence in own area of practice	<ul style="list-style-type: none"> Undertake reviews of own development needs Prepare action plans to meet personal and organisational objectives Carry out planned (and unplanned) CPD activities Maintain evidence of competence development Evaluate CPD outcomes against the action plans Assist others with their own CPD 	Keep up to date with national and international engineering issues. Maintain CPD plans and records. Involvement with the affairs of your professional body. Evidence of your development through on-the-job learning, private study, in-house courses, external courses and conferences.

Structuring your Professional Development Review (PDR)

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

Your PDR should comprise:

Introduction

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

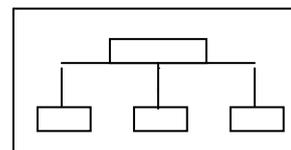
Professional Development Review	
Introduction	
I am seeking recognition of my energy engineering achievements through the Energy Institute because...	
Professional History	
03/99 – present	
Job title	Employer
I am responsible for....	
I have achieved	
I achieved this by....	
07/97 – 03/99	

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 engineering.
- Please illustrate this section with examples of how you managed energy-engineering 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.
- The PDR should be between 1,000 – 4,000 words in English.
- 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.
- Details of past and future plans for Continuing Professional Development.

Preparing an Organisational Chart

- An Organisational Chart is a simple diagram that highlights **your position** with your current employer.
- It should clearly display to whom you report and departments/employees that report to you.
- 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.



Sponsors' References

- You will require one sponsor who is registered with the Engineering Council at an equivalent or higher grade than that applied for, i.e. IEng or CEng. A second sponsor of Professional Standing (such as your employer / line manager) who is familiar with your field of practice and can vouch and verify your assertions with respect to your knowledge, training and experience. In some cases one sponsor may fulfil both roles, but in all cases two sponsors are required.
- 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 **£60**. 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 **£50**.
- The Individual Route assessment fee is **£100** and is applicable if you do not hold an exemplifying academic qualification (see page 3)
- The Member annual subscription fee is **£110**. This will be levied upon completion of the application process.
- The Initial Incorporated Engineer registration fee with the Engineering Council is **£38**, which will be levied on completion of the application process. The annual Incorporated Engineer fee is **£30**.

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
- PDR and organisational chart
- 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 / ICP assessment fee – can be paid cheque or credit / debit card

Please submit your completed electronic application to:

e: membership@energyinst.org

Alternatively, please send **four copies** of all documentation to:

Professional Membership Manager

Energy Institute

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