



# Energy Analyst - Energy Modelling

Programme Executive – Level D

Reference: DS.34

Candidate  
Information  
Booklet

*We're interested in you becoming involved in SEAI. We want people who are driven towards climate action in this country.*

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# About Us

SEAI is Ireland's national energy authority with a mission is to be at the heart of delivering Ireland's energy revolution. We drive the reduction and replacement of fossil fuel usage. We are a knowledge led organisation. We partner with citizens, communities, businesses and Government. We are trusted collaborators, innovators, funders and educators.

Our role is to transform the way we all use energy by moving to more efficient and clean sources, and by leading innovation in Ireland's approach to energy. If you are interested in working in an organisation that has a real and measurable impact on tackling our climate challenges, then consider a career with SEAI. To find out more about us as an organisation, click [here](#).

Our culture in SEAI is defined by our values. These values define the way in which we strive to behave and act. SEAI's values include being **Passionate, Innovative, Courageous, Collaborative**, respecting the **Trust** you placed in us and recognising the importance of technical **Expertise**.

SEAI invites applications from suitably qualified candidates for this role. Full details of the role and how to apply are set out in this booklet.

Candidates should note that entry will be at the minimum of the salary scale and the rate of remuneration, including incremental progression, will not be subject to negotiation and may be adjusted from time to time in line with Government pay policy. Different terms and conditions may apply if you are currently a serving civil or public servant.

**Canvassing will disqualify.**

# Position Profile

**Title of Position:** 2024/DS.34 Programme Executive Energy Analyst – Energy Modelling

**Starting Salary:** €50,501 pa

(Other arrangements may apply if coming directly from another civil or public service body)

**Blended Working:** Details available within booklet.

**Tenure:** 5-year fixed term contract.

**Head Office:** 3 Park Place, Hatch Street Upper,  
Dublin 2, D02 FX65, Ireland  
[www.seai.ie](http://www.seai.ie)

**Work Location:** Dublin, Dundalk, Cork, or Sligo.

**Role Profile:** We have an exciting opportunity in the Energy Modelling team in the Data and Insights Department.

The Energy Modelling team provides evidence for national energy policy by producing projections of Ireland's future energy supply and consumption under alternative sets of policies and measures.

The team develops the National Energy Modelling Framework (NEMF) and uses this Python-based modelling framework to provide insights on potential solutions and pathways for decarbonising the electricity, heat, and transport sectors. One of its key outputs is the *National Energy Projections*<sup>1</sup>, which forms the energy component of Ireland's *National Greenhouse Gas Emissions Projections*<sup>2</sup>. These projections are used to assess Ireland's progress toward national and international energy and climate targets.

This role is aimed towards the electricity module of the NEMF. High resolution optimisation models are employed to analyse how the electric power system can rapidly decarbonise while maintaining reliability standards in an affordable manner. Technologies modelled include electric vehicles, variable renewable energy sources such as offshore wind, onshore wind and solar, as well as energy storage from short to long duration, and conventional generation using gas and steam cycles. Future technologies include hydrogen storage, and carbon capture.

In order to provide robust insights to policy makers and drive effective climate action, the team strives to incorporate the latest best practice in the modelling domains of electricity, heat, transport, and sector-coupling.

Reporting to the Programme Manager for Energy Modelling, the successful candidate will join an enthusiastic and innovative team who are committed to the high-quality delivery of SEAI's Energy Modelling function.

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<sup>1</sup> SEAI, 'National Energy Projections 2023'. Nov. 2023. [Online]. Accessed from: <https://www.seai.ie/publications/National-Energy-Projections-2023.pdf>

<sup>2</sup> EPA, 'Ireland's Greenhouse Gas Emissions Projections 2023-2050'. May 2024. [Online]. Accessed from: <https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/irelands-greenhouse-gas-emissions-projections-2023-2050.php>

Throughout SEAI, we believe in being welcoming, diverse and inclusive in our workplace, and in the services that we deliver, where we are respectful and value different experiences and perspectives. We are committed to achieving this for the benefit of all who work with SEAI and for all whom we support through our services’.

# Key Responsibilities, Knowledge and Skills

## Responsibilities

The responsibilities of the role outlined in this job description are indicative of the currently envisaged scope and may be added to or altered as required, in line with the requirement of SEAI across Business Units/Department.

They will include, but not limited to, the following:

- Conduct energy modelling studies using advanced simulation tools, particularly for analysing electric power system decarbonisation options.
- Contribute to the development of new analytical tools using programming languages such as Python and Julia, using best practices for coding, documentation, and version control.
- Prepare, integrate, and analyse data to improve the quality of modelling inputs and outputs.
- Contribute to the creation of clear and concise reports and briefings to inform sustainable energy policy making and stakeholders.
- Produce effective data visualisations to illustrate analytical insights.
- Assist in identifying current and future data gaps, and latest research to continuously develop model methodology, functionality, and other analytical tools.
- Build and maintain strong working relationships with external stakeholders and with organisations delivering services on behalf of SEAI.
- Undertake any other duties /projects as may be required from time to time within the Data and Insights Department, the Research and Policy Insights, and alternative SEAI Business Units.
- Active team, cross-team, and cross-department participation, supporting SEAI Research & Policy Insights, and other programme areas, as required.
- Represent SEAI and Ireland in various fora such as meetings with National and International bodies, and in SEAI presentations, webinars, etc.

To ensure that activity peaks within the Department are addressed in a proactive manner, it is expected that the candidate appointed to this role will need to be flexible in terms of working hours during these periods.

## Knowledge & Skills

The knowledge and skills required include but are not limited to the following:

- Electricity system knowledge and a keen interest in climate action.
- Good understanding of computer modelling and simulation and their application for producing advanced analysis.
- Well-developed computer skills including programming languages, databases, and visualisation tools.
- Excellent communication (written and oral) skills and ability to write up and present technical findings.

- Ability to work effectively and flexibly within a small, collaborative team, responding to needs as they arise. Including organisation skills and the ability to prioritise work, manage a variety of tasks, and meet deadlines.
- A capacity to foster a positive working relationship with colleagues at all levels; to work in multi-disciplinary teams and to network effectively.
- Ability to work on own initiative, display sound judgment, and apply accuracy and rigour when conducting analysis.

# Experience and Qualifications

## ESSENTIAL REQUIREMENTS

The successful candidate must be able to demonstrate:

- A degree (a minimum of NFQ Level 7 or greater) and/or equivalent professional qualification in Engineering, Computer Science, Science, Mathematics, or Economics.
- Minimum three years' experience of working in these areas, or similar (can include postgraduate studies).
- Demonstrated experience with programming languages, such as Python and Julia or similar, and database querying languages such as SQL or similar.
- Excellent computer skills including a proficient use of tools for modelling, simulation, analysis, and presentation.
- Excellent communication (written and oral) and interpersonal skills, including ability to communicate technical information to non-technical audiences.
- Passion for climate action and providing evidence base to advance sustainable energy policy.

## DESIRABLE REQUIREMENTS

- Awareness of latest research in power system decarbonisation and modelling best practises.
- Extensive practical experience coding in Python or similar language.
- Knowledge of the electricity sector and experience with modelling or analysing aspects of the electricity system (supply and/or demand sides).
- Experience with computer modelling workflows and data engineering with cloud-based tools.
- Experience with optimisation modelling techniques.
- Strong problem-solving and analytical skills.



# How to Apply

SEAI invites applications from suitably qualified candidates for this role, as set out in this booklet. SEAI is an equal opportunities employer and welcomes applications from people from diverse backgrounds and under-represented groups including ethnic minorities and people with disabilities.

**Submission** Applications should be submitted in the form of a cover letter (max of two pages) demonstrating how the applicant meets the requirements for this role as set out in this booklet together with an up-to-date Curriculum Vitae (CV). Both documents should be submitted via the candidate portal on the SEAI careers [website](https://www.seai.ie/careers/open-roles) [www.seai.ie/careers/open-roles](https://www.seai.ie/careers/open-roles)

**Eligibility to Work** The SEAI has a legal obligation to ensure that all employees are lawfully entitled to work in Ireland. To qualify, candidates must hold a valid visa on the date of application and where applicable to support a candidate's application, candidates must submit a valid work permit/visa confirming permission to work in Ireland when requested. Failure to submit the required evidence, and failure to hold a valid permit/visa during the period of the contract, will result in the application and/or contract of employment being rendered void.

Note in respect of UK citizens: Information regarding the Common Travel Area is available [here](#).

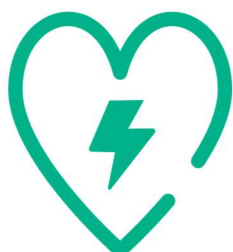
**Closing Date** Your application must be received by **midnight on Sunday 20<sup>th</sup> October 2024**.

Applications will not be accepted after this time and date. All applications will be acknowledged by email within three working days. If you do not receive an acknowledgement within three working days, please contact [recruitment@seai.ie](mailto:recruitment@seai.ie)

**Shortlisting** Eligible applications will be shortlisted according to how well the experience and skills as described by applicants match the requirements of this role of as outlined above as contained in this booklet. It is important that applicants consider the information contained in this Information Booklet in presenting and demonstrating their relevant qualification, skills and experience for this role. The candidates whose applications, in the expertise of the interview panel, appear best suited to the position will be shortlisted for interview.

<b>Interview</b>	<p>An interview process will be held with an interview panel in accordance with SEAI arrangements for posts at this level. Shortlisted applicants will be invited to attend for a competency-based interview. A presentation may be required on a topic of relevance to the role and/ or other such assessment methods as deemed appropriate. The SEAI may invite candidates to a second-round interview and to undergo further assessment, including the use of psychometric assessment if so required. Interviews may take place in person or online, as appropriate.</p> <p>Candidates are not permitted to use any type of recording equipment at any stage of the selection process unless written permission has been provided in advance of the process. This applies to any form of sound recording and any type of video recording, whether including sound recording or not, and covers any type of device used for these purposes.</p> <p>Prior to recommending any candidate for appointment to this position, SEAI will make all such enquiries deemed necessary to find that candidate's suitability. Until all stages of the recruitment process have been fully completed, a final decision cannot be made,</p>
<b>Key Competencies</b>	<p>At interview, candidates should demonstrate the ability to carry out successfully the duties of the role, as well as the general skills and competencies required at Level D grade. The key competencies that have been developed for roles at this grade level are as follows.</p> <ul style="list-style-type: none"><li>• Team Leadership</li><li>• Analysis and Decision Making</li><li>• Management and Delivery of Results</li><li>• Interpersonal and Communication Skills</li><li>• Specialist Knowledge, Expertise and Self Development</li><li>• Drive and Commitment to Public Service Values</li></ul> <p>Each of the key competencies is supported by a list of key performance indicators which are available <a href="#">here</a>.</p> <p>Candidates are strongly encouraged to prepare in advance of the interview, clear and relevant examples of how they have previously demonstrated these specific competencies.</p>
<b>Deeming of Candidate to be Withdrawn</b>	<p>Candidates who do not attend for interview or other tests when and where required, or who do not, when requested, furnish such evidence, as the SEAI require regarding any matter relevant to their candidature, will have no further claim to consideration.</p>
<b>Feedback</b>	<p>Feedback will be provided to interviewees on written request.</p>
<b>Code of Practice</b>	<p>This campaign is being organised in accordance with the existing Code of Practice 'Appointment to Positions in the Civil Service and Public Service' published by the Commissioners for Public Service Appointments (CPSA).</p>

# SEAI Values



## Passionate

We are enthusiastic about our role in working towards a sustainable energy society. We channel our passion and commitment into the way we operate to ensure that we will deliver for all of Irish society



## Courageous

We understand the scale of Ireland's energy challenge and accept our role in meeting this challenge. We understand that every one of us has a part to play in delivering the energy changes that Ireland needs.



## Innovative

We know that existing technologies and processes alone will not allow us to realise a fully sustainable energy society. We are continually learning, seeking new solutions, and constantly adapting to meet the demands of our fast-changing environment.



## Trusted

We appreciate the trust placed in us by citizens, communities, business and Government. Without it we could not deliver on these objectives. We respect this trust and seek to maintain it by obtaining transparently, working with integrity, holding ourselves accountable and functioning independently.



## Experts




We recognise the importance that technical expertise lays in achieving a sustainable energy future. We seek to further enhance this expertise within SEAI through research, critical thinking, consultation, listening, analysis and delivery.



## Collaborative

We will not succeed by operating in isolation. We actively look to work with all those in Irish society; listening to ideas and concerns, incorporating feedback and looking to support every individual, community and business in Ireland to be a part of the sustainable energy revolution.

# Employee Value Proposition

<p><b>Benefits</b></p> 	<ul style="list-style-type: none"> <li>• Modern Dublin HQ located centrally and accessible with many transport options.</li> <li>• Regional office in Cork, Dundalk, and Sligo.</li> <li>• Hybrid working model (up to two days in office, three days remote with option for 1-month remote p/annum)</li> <li>• Employee Assistance Programme</li> <li>• Cycle to work scheme.</li> <li>• Range of 23-30 days annual leave, depending on role &amp; company date (Good Friday)</li> </ul>
<p><b>Culture</b></p> 	<ul style="list-style-type: none"> <li>• Purpose led organisation with passionate experts invested in making an impact.</li> <li>• Employee centred, value driven team environment.</li> <li>• Strong focus on Equality, Diversity, and inclusion (EDI)</li> <li>• Employee driven committees including Green Team, EDI, Social etc.</li> <li>• Focus on work life balance and flexibility</li> </ul>
<p><b>Compensation</b></p> 	<ul style="list-style-type: none"> <li>• Competitive and transparent salaries and salary scales.</li> <li>• Annual increments.</li> <li>• Obligatory pension schemes with Additional Voluntary Contribution option.</li> <li>• Financial support towards further education and study and exam leave.</li> <li>• Supportive illness policies and pay for different circumstances including Income Continuance Plan.</li> <li>• Good Gender pay balance.</li> </ul>
<p><b>Career</b></p> 	<ul style="list-style-type: none"> <li>• Successful track record of internal promotions.</li> <li>• Numerous different career paths across the organisation.</li> <li>• Training and mentoring programmes.</li> <li>• Investment in individual learning and development.</li> <li>• Leadership training and development.</li> </ul>

# Conditions of Service

<b>Tenure:</b>	This position will be offered on a 5-year Fixed Term contract basis.
<b>Salary Payment Arrangements:</b>	<p>The Level D salary scale for this position effective from 1<sup>st</sup> October 2024 is as follows: €50,501 to €74,276 (inclusive of one Long Service Increment (LSI1) which applies after three years additional service at Max of grade). Incremental progression will be subject to satisfactory performance.</p> <p><b>Important Note:</b> Candidates should note that entry will be at the first point of the scale and the rate of remuneration, including incremental progression, will not be subject to negotiation and may be adjusted from time to time in line with Government pay policy.</p> <p>Different terms and conditions may apply if you are currently a serving civil or public servant.</p>
<b>Location:</b>	The place of work will be based at one of the SEAI offices as listed on cover page. SEAI offer the option to work in a hybrid working arrangement, in line with the SEAI Blended Working Policy. SEAI reserves the right, at its discretion, to change working location within reason on any future date.
<b>Blended Working Arrangements:</b>	As an employer, SEAI operates a blended working policy that facilitates access to remote working options having regard to work-life balance/integration, mental health, and the need for a safe and productive working environment. Blended working arrangements will be operated under SEAI's Blended Working Policy, which currently requires staff to work from the office a minimum of two (2) days per week. Availability and patterns of blended working will be based on business needs and the suitability of the role and may be subject to change should the business needs dictate.
<b>Probation:</b>	On appointment, the appointee will serve a six (6) month probationary period. In certain circumstances, the probation period may be extended, in line with the SEAI's Probationary Policy and Procedures.
<b>Working Week:</b>	Hours of attendance will be as fixed from time to time but will amount, on average, to not less than 41.25 hours per week (35 hours net of rest breaks). Pro-Rata will apply in the case of part-time role. Additional hours may from time to time be reasonably required to meet the requirements of the position. No additional payment will be made for extra attendance as the rate of remuneration payable covers any exceptional extra attendance liability that may arise from time to time.
<b>Annual Leave:</b>	The annual leave allowance will be <b>29 working days</b> a year, based on a five-day week and is exclusive of public holidays. Pro-rata will apply in the case of part-time role. Annual Leave is to be taken at a time or times convenient to SEAI.
<b>Eligibility to Work:</b>	The SEAI has a legal obligation to ensure that all employees are lawfully entitled to work in Ireland. Where applicable and to support a candidate's application, candidates must submit a valid work permit/visa confirming permission to work in Ireland. Failure to submit the required evidence, and

failure to hold a valid permit/visa during the period of the contract, will result in the application and/or contract of employment being rendered void.

**Those not eligible to apply for the role**

Former Irish Public Service Employees - Certain Restrictions on Eligibility. Eligibility to apply for a position may be affected where applicants were formerly employed by an Irish Public Sector body and previously availed of an Irish Public Service Redundancy or Incentivised Retirement Scheme including the below. For details on restrictions click [here](#).

- Collective Agreement: Redundancy Payments to Public Servants
- Incentivised Scheme for Early Retirement (ISER)
- Department of Health and Children Circular (7/2010)
- Department of Environment, Community & Local Government (Circular Letter LG(P) 06/2013).

**Declaration:** Applicants will be required to declare whether they have previously availed of a public service scheme of incentivised early retirement and/or the collective agreement outlined above. Applicants will also be required to declare any entitlements to a Public Service pension benefit (in payment or preserved) from any other Public Service employment.

**Other Conditions of Employment:** The above represents the principal conditions of service and is not intended to be the comprehensive list of all terms and conditions of employment which will be set out in the employment contract to be agreed with the appointee.

**Standard Checks:** Any offer of employment made to a successful candidate will be subject to satisfactory reference verification and satisfactory verification of academic and professional qualifications.

SEAI commits to treat all the information or documents received under GDPR guidelines.

**Garda Vetting:** SEAI is set up with a registered organization for Garda vetting purposes. You may be asked to make an application to be vetted.

**Superannuation and Retirement:** The appointee will be offered the appropriate superannuation terms and conditions as prevailing in the Public Service at the time of being offered an appointment. In general, an appointee who has never worked in the Public Service will be offered appointment based on membership of the Single Public Service Pension Scheme ("Single Scheme").

Full details of the Scheme are at <http://www.per.gov.ie/pensions>

E: [info@seai.ie](mailto:info@seai.ie)  
W: [www.seai.ie](http://www.seai.ie)

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[#EnergyRevolution](https://twitter.com/SEAI_Ireland)

Play your part in Ireland's  
ambitious climate action.  
Ireland needs your energy