# Position Details

## Research Scientist/Engineer CSOF7

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| The following information is for applicants | |
| Advertised Job Title | Engineering Lead, National Energy Analysis Centre (NEAC) |
| Job Reference | 101106 |
| Tenure and work schedule | Specified Term of 3 years. Full-time.  We will explore options for part-time, job-share and flexible work arrangements based on needs of the role and individual circumstances. |
| Salary Range | AU$157k - AU$174k per annum (pro-rata for part-time)  plus up to 15.4% superannuation |
| Location(s) and office arrangements | Newcastle, Melbourne, Brisbane, Canberra preferred.Other locations considered.  Hybrid and flexible work options available. |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents |
| Position reports to the | Director, National Energy Analysis Centre |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Stephen Craig, Director NEAC, via email at stephen.craig@csiro.au |
| Support and workplace adjustments | We offer a range of reasonable supports and workplace adjustments. Please let us know via email [vicki.ferrar@csiro.au](mailto:vicki.ferrar@csiro.au) or phone 07 3214 2369 if we can help you to equitably participate in our recruitment process or the role itself. |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  We encourage you to reach out if you require any support or experience difficulties when applying – please email [careers.online@csiro.au](mailto:careers.online@csiro.au) |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### About CSIRO

As Australia's national science agency, CSIRO is solving the greatest challenges through innovative science and technology. Many of our iconic innovations were once considered impossible until someone, just like you, joined us and took on the challenge.

As one of the world’s largest multidisciplinary mission-driven research organisations, we are focused on the issues that matter the most: for our quality of life, for the economy and for our environment. We believe diverse teams are more effective and deliver more innovative outcomes. When we all focus on the big things that really matter, and work in partnership with our communities and [Indigenous Australia](https://www.csiro.au/research/indigenous-science), Australian science and technology can solve seemingly impossible problems and create new value for all Australians. Visit [CSIRO.au](https://www.csiro.au/) for more information.

## **About NEAC**

The National Energy Analysis Centre (NEAC) is CSIRO-led digital research infrastructure that will guide and streamline Australia's energy transition to net zero. NEAC builds on modern systems science, incorporating both human and technical aspects. It will be accessible to researchers, policymakers, innovators and industry for assessing options that inform the future of energy in Australia.

NEAC is comprised of:

1. NEAC Living Lab - A digitally connected, large-scale network of real people in real environments, sharing their energy use data and preferences, including from their own homes and businesses down to individual appliances.
2. NEAC Systems Science Toolbox - A system-level model and analysis suite for Australia's overall energy system, including electricity, heat, gas, coal, hydrogen and other emerging energy types; adjacent systems like water and the atmosphere; and mapping supply through to demand. The NEAC Systems Science Toolbox will allow users to interrogate the potential impacts of new approaches and technologies, incorporating rich systems analysis, workflow tools and data visualisation.
3. Physical Infrastructure Integration – Links from the virtual NEAC to physical facilities such as CSIRO’s Renewable Energy Integration Facility, to allow robust emulation, simulation and testing of energy innovations and future scenarios.

NEAC addresses the need to evolve from the siloed and fragmented nature of Australia's energy ecosystem to a coherent, data-informed, systems-science approach that enables faster and more holistic feedback for research, policy development and innovation, including the adoption of new products and practices, with a resultant risk reduction across all relevant technologies.

### Role Overview

The NEAC Engineering Lead is responsible for the vision, planning, design and implementation decisions required to build NEAC’s digital infrastructure. This is a hands-on leadership position with deep involvement in NEAC team activities and strategy, building prototypes and guiding development of scalable production systems. You will oversee the overall build of NEAC with an internal development team supplemented by external contractors and development agencies.

If you have a desire to bring your strong technical and interpersonal skills to a collaborative and innovative team and support the energy transition, we look forward to hearing from you!

### Duties and Key Result Areas

* Lead the engineering architecture, design, and development of NEAC
* Collaborate with the founding team on science translation, product direction, market feedback, and platform evolution
* Coordinate and lead a high-performance development team, including internal resources, contractors, development agencies, and other external contributors
* Ensure platform scalability, security, and performance as we onboard users, expand features, and implement advanced analytical workflows
* Stay informed about energy data standards, emerging technologies, and research needs to guide innovation
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, diversity initiatives and Zero Harm goals

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A Degree in a relevant field such as computer science or software engineering or similar, or an equivalent combination of qualifications and research experience.
2. Meaningful leadership experience in software development, including engineering leadership or senior engineering roles delivering complex platform projects while communicating the vision and value to technical and non-technical stakeholders.
3. Coordination, planning and management of internal team members and contractors, alongside external development providers, to achieve a cohesive, collaborative program of delivery.
4. Full-stack development skills (e.g., Python, Node.js, TypeScript, React, or similar) and ability to be hands-on where required, especially in early prototyping and exploration of features.
5. Experience designing and implementing scalable data platforms, APIs, and cloud-based systems (e.g. AWS, GCP) to a level of commercial product quality and robustness.
6. The ability to work collaboratively within a purpose-driven, customer-focused agile team, supporting team priorities in a dynamic and innovative operational environment.

## **Desirable**

1. Experience working in a research environment, including familiarity with data governance, access controls, and compliance in scientific or research contexts.
2. Experience with platform architecture, design and economics especially in building SaaS or data-heavy B2B platforms.
3. Experience of data capture, processing, analysis and/or visualisation from various sources that may be relevant to NEAC, e.g. social research, IoT devices, energy systems, spatial data.
4. Knowledge of systems engineering, optimisation, and associated computational workflows.
5. Leadership team experience from a new and evolving initiative.

## **Not sure if you meet all the criteria?**

While it is CSIRO policy that the successful candidate must meet all the essential criteria, there are many ways to demonstrate this. Don’t let the list discourage you. If you are unsure about applying, please reach out to the contact on page 1 of this document so we can discuss the role further.

## **Required Competencies**

* **Teamwork and Collaboration:** Creates and fosters an environment in which there is a high level of cooperation within and between teams. Facilitates positive team relationships to build interactions across Business Units and the organisation.
* **Influence and Communication:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **Resource Management/Leadership:** Provides leadership that fosters an environment that encourages new ideas and provides support for the development of emerging skills. Creates trust by displaying consistency, understanding, integrity and patience. Plans, seeks, allocates and monitors resources to achieve outcomes.
* **Judgement and Problem Solving:** Resolves major conceptual scientific, technical, commercial or management problems, which have a significant impact upon the field of research, professional function, the Business Unit or the Organisation. Situations faced have little or no precedent and require original concepts and approaches.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Is flexible in response to external change or when faced with external constraints. Identifies and promotes the opportunities arising as a result of change.

## **Setting you up for success**

We understand that not everyone works in the same way and sometimes people may require reasonable support and adjustments to perform at their best. Whether related to the recruitment process and or the role itself, this may include options such as providing different methods of communication, flexible hours or physical adjustments to work methods. If you feel comfortable, we encourage you to share any support and adjustments you may need to carry out the inherent requirements of the role. Please let us know via email vicki.ferrar@csiro.au or phone 07 3214 2369 if we can help you to equitably participate in our recruitment process or the role itself.

## **Life at CSIRO and flexible working arrangements**

We [work flexibly at CSIRO](https://www.csiro.au/en/careers/life-at-csiro/Flexible-work), offering a range of options for how, when and where you work.  We can discuss flexible work arrangements with you during the recruitment process. CSIRO also offers a range of leave entitlements, [benefits](https://www.csiro.au/en/careers/life-at-csiro/Benefits) and [career development](https://www.csiro.au/en/careers/life-at-csiro/Career-development) opportunities. To learn more, visit [Careers at CSIRO](https://www.csiro.au/en/careers).

We celebrate the uniqueness of our workforce and are committed to creating [diverse and inclusive teams](https://www.csiro.au/en/careers/life-at-csiro/Diversity-inclusion-belonging) where everyone feels they belong. CSIRO is an equal employment opportunity organisation dedicated to recruiting people based on merit, and reflecting the diversity of the community we serve. We recognise true diversity encompasses all ages, nationalities, abilities, cultures, genders, sexualities, faiths, levels of education, diversity of thought and many more aspects of identity. By empowering diverse teams, our community is reflected in the solutions we create.

## **CSIRO values**

CSIRO is a values-based organisation committed to values-based leadership.

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| **Value** | **Descriptor** | **Behaviour** |
| **People first** | Our priority is the safety and wellbeing of our people. We believe in, and respect, the power of diverse perspectives. We seek out and learn from our differences. | * Respectful * Caring * Inclusive |
| **Further together** | We achieve more together than we ever could alone. We listen and collaborate, in teams, across disciplines, across boundaries. We embrace ambiguity and use discussion and persistence to generate unique solutions to complex problems. | * Accountable * Authentic * Courageous |
| **Making it real** | We do science with real impact. We thrive when taking on the big challenges facing the world. We take educated risks and defy convention. We celebrate successes and failures and leverage them to learn as we strive to be the force for positive change. | * Partnering * Cooperative * Humble |
| **Trusted** | We’re driven by purpose but remain objective. We fight misinformation with facts. We earn trust everywhere through everything we do. We trust each other and we hold each other accountable. Together our actions drive Australia’s trust in CSIRO. | * Curious * Adaptive * Entrepreneurial |

## **Child safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

Special Requirements

* The successful candidate will undertake a pre-employment background check. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* The successful candidate will be required to travel occasionally.