# Position Details

## Research Projects – CSOF5 or CSOF6

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| The following information is for applicants |
| Advertised Job Title | Electrical Power Systems Engineer |
| Job Reference | 100917 |
| Tenure and work schedule | IndefiniteFull-time (**preferred**) *We will explore options for part-time and flexible work arrangements based on needs of the role and individual circumstances.* |
| Salary Range | Applications would be assessed across two capability levels, and the successful candidate will be appointed at the level commensurate with their skills and experience, as assessed by the Selection Panel.**CSOF5:** AU$ 114,219 – AU$ 123,605 per annum (pro-rata for part-time) plus up to 15.4% superannuation**CSOF6:** AU$131,113 – AU$153,639 per annum (pro-rata for part-time) plus up to 15.4% superannuation |
| Location(s) and office arrangements | Newcastle, NSW (**preferred**) or Melbourne VIC may be considered |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Position reports to the | Team Leader, Power Systems |
| Client Focus – Internal | 40% |
| Client Focus – External | 60% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Himani Goyal, Team Leader – Power Systems, via email at himani.goyal@csiro.au  |
| Support and workplace adjustments | We offer a range of reasonable supports and workplace adjustments. Please let us know via email Piumi.Desilva@csiro.au (Piumi De Silva – Talent Acquisition Partner) 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  |

**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.

### Role Overview

The role of Research Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work. At senior levels, Research Projects staff may be involved in providing consulting services, science and technology management and/or industry liaison.

As Australia move towards a net zero emissions future, the four key components of the energy sector — electricity, industry, transport and exports — are evolving rapidly. There is a large body of work needed across the industry over the next 10 years, which will require a significant increase in the depth and breadth of power system engineering expertise both in academia and industry. CSIRO’s work is helping build the foundation for this through the provision of reliable, actionable, evidence-based research.

The Electrical Power Systems Engineer is a critical position within CSIRO’s Energy Systems program, ensuring the continuity of specialised expertise in power system planning, analysis, and operational support. The role contributes to applied research activities in electrical power systems and energy network modelling and control, working with a range of partners to apply advanced optimisation, simulation, and analytical techniques to real-world challenges. This position is directly aligned with CSIRO’s "Electricity Transition" impact area, supporting both system reliability and flexibility. As part of our strategic Power Systems Transformation APaIR programme, the role is essential to maintaining project timelines, upholding compliance with industry standards, and enabling the successful delivery of a strong and growing pipeline of secured and developing projects that are central to Australia’s electricity system transformation.

*Applications would be assessed across two capability levels, and the successful candidate will be appointed at the level commensurate with their skills and experience, as assessed by the Selection Panel.*

### Duties and Key Result Areas

* Conduct modelling and simulation studies of Australia’s current and next-generation electricity generation, transmission and distribution systems (in near real-time and longer-term timeframes).
* Develop approaches and techniques for solving grid challenges associated with renewable energy integration, managing battery systems or distributed energy resources. Deploy and test these techniques in real-world, large-scale deployments. A focus of these positions will be the multi-year program – [Australian Research - Power Systems Transformation](https://www.csiro.au/en/research/technology-space/energy/electricity-transition/ar-pst). The successful candidate will be heavily engaged in delivering this work.
* Apply specialist expertise to solve complex problems within a discipline or across a diverse range of projects.
* Address ill-defined problems and make critical choices between options that require knowledge of the most recent scientific and/or technological developments or novel methodologies.
* Participate in project scoping and planning, making significant contributions to the research or technological direction, and may advise on the level and type of services that are provided.
* Act as a trusted advisor, demonstrating creativity to determine and anticipate client or project needs, and ability to identify and adapt quickly to changes in client or project needs and changes in the external environment.
* Present results in a meaningful format, prepare reports for clients and/or contribute to scientific papers for publication.
* May initiate and maintain collaborative relationships with external researchers and experts, manage contracts and transfer technology to industry.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

*In addition to the duties listed above, if the successful candidate is appointed at the higher CSOF6 level, their additional duties & key result areas would also include:*

* Lead research projects, including the negotiation and management of resource requirements.
* Initiate and take responsibility for research projects or work packages within larger projects within and/or across Research Units.
* Provide leadership, supervision and on-the-job training to technical staff and students to ensure experiments/tasks are established in accordance with the research design and are completed within the agreed timeframes and budget.

## **Selection Criteria**

*Applications would be assessed according to the Selection Criteria listed below and the level they’re met, and the successful candidate will be considered/appointed at the capability level commensurate with their skills and experience, as assessed by the Selection Panel.*

#### Essential

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

1. Relevant tertiary degree, or equivalent relevant work experience, in Electrical Engineering, Mathematics or related fields, with a focus on power systems engineering.
2. Demonstrated industry experience in electrical generation/distribution/transmission system modelling, planning, optimisation or control.
3. Experience with power systems modelling tools and programming/analysis tools.
4. Excellent written and verbal communication skills, and interpersonal skills with the ability to work constructively with colleagues, collaborators, and clients, and to build strong networks with internal teams and external stakeholders.
5. An enthusiasm for applied research solving current problems for commercial partners.

## *To be considered for the higher CSOF6 level, the following* ***additional criteria*** *must also be met*

1. Significant professional experience in a relevant industry, particularly in power systems engineering.
2. Demonstrated ability to manage complex projects, from planning and development through to successful delivery.

#### Desirable

1. Experience in one or more of the nine research topic areas identified in the [CSIRO AR-PST Roadmap for Australia](https://www.csiro.au/en/research/technology-space/energy/electricity-transition/ar-pst) *(Applicants are strongly encouraged highlight how their previous professional experience relates to addressing one or more of the nine research topics identified as high priority in the CSIRO GPST Roadmap for Australia, or less specifically, how it relates to solving grid challenges associated with renewable energy integration).*
2. Experience with programming/analysis tools, such as Python, Matlab, R, or Julia PowerModels, and power system modelling tools, such as SINCAL, PowerFactory, OpenDSS, PSCAD.
3. Ability to manage complex projects from planning through to delivery.
4. Ability to contribute to quality scientific publications, grant applications or inventorship on patent applications.

## **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**

#### CSOF5

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other team as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others’ reactions.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **Adaptability:** Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

#### CSOF6

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other team as well as industry colleagues.
* **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:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **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:**Demonstrates flexibility in thinking and adapts to and manages the increasing rate of organisational change by adjusting strategies, goals and priorities.

## **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 Piumi.Desilva@csiro.au (Piumi De Silva – Talent Acquisition Partner) 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
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| **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
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| **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
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| **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
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## **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

Appointment to this role is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance 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.