# Position Details

## Research Projects – CSOF6

|  |  |
| --- | --- |
| The following information is for applicants | |
| Advertised Job Title | Senior Electrical Engineer – Lithium Battery Technology and Recycling |
| Job Reference | 82669 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU$117,917 to AU$138,176 pa + up to 15.4% superannuation |
| Location(s) | Clayton, VIC |
| 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 | Research Team Leader |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Dr Thomas Ruether via email at [thomas.ruether@csiro.au](mailto:thomas.ruether@csiro.au) or phone +61 3 9545 8597 |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

### Acknowledgement of Country

### CSIRO acknowledges the Traditional Owners of the land, sea, and waters, of the area 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).

### 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.

The Senior Electrical Engineer will work across a multidisciplinary team within the ‘Thermal and Electrochemical Technologies’ Group in the CSIRO Energy Technologies program. The group undertakes applied research & development in the areas related to hydrogen and its carriers, including a range of production and utilisation pathways; CO2 capture and utilisation technologies; and activities supporting the developing Circular Economy, including bioenergy applications and managing end-of-life batteries and the challenges associated with battery recycling and reuse.

The Senior Electrical Engineer will lead and conduct the development, construction and testing of electronic hardware for specific battery and hybrid energy systems. More specifically, they will be breadboarding electronic designs, evaluating the designs for the intended applications and finally construct and experimentally test respective prototype units. They will also play a key role in developing research projects around the areas of battery storage, reuse and discharge, which requires input into project scoping and generation of ideas. They will also take an active role in initiating and managing external relationships to further the commercialisation of CSIRO developed technology.

### Duties and Key Result Areas

* Lead and develop system prototype and hardware construction including breadboarding designs, construction of electronic systems, testing and evaluation.
* Be responsible for the programming/coding work involved in prototype development.
* Lead a small team and/or collaborate with staff from other teams in work that have unique or unusual features and complications, requiring the design & development of original technologies and/or the development of original experimental techniques and insightful interpretation of data.
* Participate in project scoping and planning, by generating ideas in support of existing and further research and making significant contributions to the technological direction.
* Initiate and maintain collaborative relationships with external parties, with the aim to transfer technology to industry.
* Manage the laboratory day-to-day operations, laboratory and equipment maintenance, including safe working instructions (SWI) and preventive maintenance schedules for the safe operation of laboratory equipment.
* Initiate projects in consultation with clients or CSIRO project teams and secure necessary resources.
* Ensure that client or end-user needs are met and typically have a leading role in the effective transfer of new technology to industry/community.
* Be accountable for the quality of the results delivered, the alignment of the project activities with the business, research and/or technology directions.
* Maintain a sound understanding of the client’s business or a market opportunity, negotiate work requirements with clients or project teams and ensure that client and project team needs are met.
* Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work as part of a multi-disciplinary, often regionally dispersed research team, to carry out tasks independently in support of scientific research.
* Provide instructions on activities pertaining to the immediate work area and responsibilities, as required.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Required Competencies**

* **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.

## **Selection Criteria**

#### Essential

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

1. Relevant trade certificate/diploma/bachelor’s degree, or equivalent combination of relevant qualifications and work experience, in electronics engineering and electrical systems.
2. Demonstrated understanding of electrical control systems such as PLC, HMI, battery management systems (BMS), micro controller programming etc.
3. Proven proficiency with various equipment and software such as (or equivalent) Altium Designer, Automation Organiser, Arduino IDE, Visio Professional, etc.
4. Demonstrated high level of initiative, ingenuity and skills to solve complex technological problems, and independence in identifying and characterising technological challenges.

Demonstrated experience in liaising with clients and leading project teams, including collaborating with and supervising people with varying skills and backgrounds.

## **Desirable**

1. A valid licence to carry out electrical work.
2. Demonstrated experience working with batteries, solar PV, micro-wind or fuel cells testing/operation.
3. Demonstrated experience with prototype construction and electrical systems testing.
4. An understanding of commercialisation of technology.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Clearance or equivalent. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

CSIRO is a values-based organisation. In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted

We work flexibly at CSIRO, offering a range of options for how, when and where you work. Talk to us about how this role could be flexible for you.

**CSIRO Energy** is pioneering low-emission technologies that create value for industry and households and provide the knowledge which will help guide Australia towards a smart, secure energy future.

Find out more about CSIRO [Energy](https://www.csiro.au/en/Research/EF)