# Position Details

## Research Projects – CSOF4

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| The following information is for applicants | |
| Advertised Job Title | Mechanical/Process Engineer (2 positions available) |
| Job Reference | 100546 |
| Tenure and work schedule | Indefinite  Full-time (preferred)  *We will explore options for part-time and flexible work arrangements based on needs of the role and individual circumstances.* |
| Salary Range | AU$96,811 – AU$109,527 per annum (pro-rata for part-time) plus 15.4% superannuation |
| Location(s) and office arrangements | Newcastle, NSW  *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 only |
| Position reports to the | Team Leader, Solar |
| Client Focus – Internal | 90% |
| Client Focus – External | 10% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Noel Duffy (Group Leader – Solar Technologies) via email at [noel.duffy@csiro.au](mailto:noel.duffy@csiro.au) or phone +61 3 9545 7828 |
| Support and workplace adjustments | We offer a range of reasonable supports and workplace adjustments. Please let us know via email at [Vicki.Ferrar@csiro.au](mailto:Vicki.Ferrar@csiro.au) (Vicki Ferrar – 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**  If you 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.

### 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 Mechanical/Process Engineer will be part of CSIRO’s Solar Thermal Engineering team, a multi-disciplinary group based in Newcastle comprising scientists, engineers, and economists. The team undertakes applied research and development to advance renewable energy technologies, with a focus on addressing industry challenges, supporting decarbonisation, and contributing to a more affordable and sustainable energy future.

The Mechanical/Process Engineer will contribute to the advancement of cutting-edge solar energy technologies and high-temperature systems. The successful candidate will play a key role in supporting the inventory management, experiments, running equipment and managing logistics. It is well suited to an individual who is motivated by innovative engineering solutions and the drive to lead impactful projects.

### Duties and Key Result Areas

* Assist with the development, testing and modification of prefabricated structures, parts and control systems for pilot scale demonstration of technologies.
* Designing and performing straightforward experiments and routine analyses of solar photovoltaics and solar thermal technologies, assisting with the design and/or scale-up of new processes or apparatus by adapting existing techniques and components to meet special circumstances or undertaking modifications to methods requiring some innovation.
* Performing some non-routine technology development activities using a range of techniques, often working on several parallel and competing tasks.
* Working with discretion to decide on the timing of operations within the work team’s plan and planning ahead to meet experimental and/or project demands.
* Assisting with maintaining research facilities, scheduling and instructing staff in the use of equipment, maintaining workspaces and consumables.
* Developing and maintaining service drawings, P&IDs and plant assembly drawings
* Supervision of external contractors.
* 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, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy and diversity initiatives.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A tertiary degree and/ or equivalent relevant work experience in Mechatronics engineering, Mechanical Engineering, Chemical Engineering, Renewable Energy Engineering, or similar field.
2. Effective problem-solving skills and a results-oriented mindset.
3. Strong organizational abilities, with keen attention to detail and the capacity to manage multiple projects simultaneously.
4. High level of professionalism and the ability to work collaboratively across multidisciplinary teams.
5. Commitment to fostering a safe and inclusive work environment.

**Desirable**

1. Experience with CAD and FEA software, preferably the Solidworks software package, particularly with more complicated assembly models.
2. Knowledge of high-temperature thermo-optical concentrator systems or experience in heat and mass transfer systems, or knowledge of photovoltaics devices and solar energy system design.
3. Strong communication and leadership abilities, with a proven capacity to supervise and develop engineering teams.
4. Experience working with pilot scale hardware, design and testing.
5. Experience in or understanding of basic control systems, electronics, embedded hardware.
6. Good oral and written communication skills including the ability to communicate outcomes to stakeholders.
7. Proven ability to work collaboratively as part of a multi-disciplinary team and carry out tasks safely and successfully in support of project goals.

## **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:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams 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:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **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:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **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.

## **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](mailto:Vicki.Ferrar@csiro.au) (Vicki Ferrar – 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 |
| **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

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.