# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants |
| Advertised Job Title | Senior Process Engineer – Solar Thermal Processes |
| Job Reference | 67832 |
| Tenure | Specified Term of 3 years Full-time  |
| Salary Range | AU$113,338 to AU$132,811 (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Newcastle, NSW |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian Citizens and Permanent Residents
* New Zealand Citizens who usually reside in Australia
* Australian temporary residents who are currently residing in Australia (visa sponsorship may be provided to eligible candidates)
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| Position reports to the | Team Leader – Solar thermal processes / ASTRI |
| Client Focus – Internal | 60% |
| Client Focus – External | 40% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Robbie McNaughton via email at Rob.mcnaughton@csiro.au |
| 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 or call 1300 984 220. |

### Role Overview

The role of Research Scientist/Engineer staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

Working within the Solar Thermal Processes team, this role will lead the conception, design, construction, commissioning and operation of process equipment for the utilisation of Solar Thermal Energy. These systems may involve high temperature fluids such as liquid metals, high pressure gases or hydrogen and fuel production processes.

### Duties and Key Result Areas:

* Act as a trusted advisor, utilising knowledge of client’s business and understanding of their underlying needs.
* Anticipate industry and/or community needs and market direction through client liaison/networking, and identify and adapt quickly to changes.
* Within broad guidelines, use professional expertise, knowledge of other disciplines and research experience/achievement to formulate, develop and complete an approved research program with general direction as to the aims of their activities.
* Communicate research results to clients and the scientific community through oral and written reports, which may include the preparation of documents for patent applications.
* Provide advice to policy makers and inform and transfer knowledge to non-scientific audiences.
* Lead and supervise staff to ensure that experiments are established in accordance with the research design and are completed within the agreed timeframes and budget.
* Undertake feasibility studies, demonstrating a considerable degree of originality, creativity and innovation in solving problems and introducing new directions and approaches.
* 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 procedures and policy, Diversity initiatives and Making Safety Personal 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 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:** 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.

## **Selection Criteria**

#### Essential

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

1. Relevant degree/qualifications and relevant work experience in chemical engineering, metallurgy, mineral processing, chemistry or other relevant industrial or process engineering field.
2. Excellent project management skills, with experience in leading team-based projects involving multiple stakeholders and complex timelines.
3. Ability to lead process engineering aspects of engagements – studies, through to detailed design, to operation:
	1. Identify process flow sheet and equipment options for aspects of the process flow sheet and undertake trade off studies to resolve options.
	2. Develop the chemical process definition and generate and appropriately document flow sheets.
	3. Carryout engineering design calculations and equipment sizing calculations.
	4. Prepare technical analysis of process equipment including technical details and duties.
	5. Design of the process control logic adhering to appropriate safety standards, and documentation into Functional Descriptions.
	6. Compiles operating cost estimates including estimation of consumables, labour, maintenance materials and power.
	7. Ensure process specifications portray the appropriate information and design intent.
	8. Involvement in commissioning of equipment and systems.
	9. Provide process engineering input to piping and instrumentation diagrams.
4. Several years’ experience of project management in the process industries, engineering or relevant technology fields.

## **Desirable:**

1. Experience with high temperature liquid metal systems.
2. High level of interpersonal, oral and written communication skills.
3. Experience with working on a major project in a multidisciplinary team environment.
4. Process simulation experience.

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 Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).- https://ielts.com.au/

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