# Position Details

## Research Scientist/Engineer- CSOF6/7

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| The following information is for applicants | |
| Advertised Job Title | Senior Research Engineer - Hydrogen Systems Integration |
| Job Reference | 78221 |
| Tenure | Indefinite  Full-time or Part-time (min 0.8 FTE) |
| Salary Range | CSOF Level 6: AU$115k to AU$135k pa (pro-rata for part-time) + up to 15.4% superannuation  CSOF Level 7: AU$139k to AU$153k pa (pro-rata for part-time) + up to 15.4% superannuation  \*NB: This position is offered across two levels, the appointment level will be determined by the qualifications, skills and relevant experience of the successful candidate |
| Location(s) | Melbourne (Clayton) Victoria |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates |
| Position reports to the | Team Leader, Environment, Storage & Processing |
| Client Focus – Internal | 40% |
| Client Focus – External | 60% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Allison Hortle via email at Allison.Hortle@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](mailto: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. As such, 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 build on our existing research areas, including optimising the commercial scale production of hydrogen; developing materials for hydrogen storage and distribution; and the utilisation of hydrogen as an energy carrier or feedstock for high value products.

Working as part of CSIRO’s Hydrogen Industry Mission, the Senior Research Engineer - Hydrogen Systems Integration role will sit within the CSIRO’s Energy Business Unit which has a strategic focus on delivering research and development to support Australia’s Energy transition to net zero emissions.

The role will initially oversee the hands-on installation and commissioning of a hydrogen refuelling system at the Hydrogen Technology Demonstration Facility (HTDF), which will form a key component of the $10m Victorian Hydrogen Hub (VH2) collaboration with Swinburne University of Technology. Engagement with external collaborators to develop further hydrogen technology demonstration projects associated with the facility will be a subsequent priority, as will involvement in the management and support for the Centre for Hybrid Energy Systems (CHES), which is also located at CSIRO Clayton.

This position is offered across two levels, the appointment level will be determined by the qualifications, skills and relevant experience of the successful candidate.

This role is offered on a full-time or part-time (minimum 0.8 FTE) basis.

### Duties and Key Result Areas

* Implementation of the operational phase of the Hydrogen refuelling system at the HTDF.
* Technical management of the design, procurement, build, installation and commissioning of hydrogen and other energy storage technology demonstration scale projects.
* Development of funding opportunities through hydrogen tech demo partnerships such as the Victorian Hydrogen Hub (VH2) utilising both the HTDF and the CHES.
* Effective management and delivery of these large projects on time and on budget to the satisfaction of the internal and external stakeholders.
* Lead and supervise staff to ensure that projects are established in accordance with the research design and are completed within the agreed timeframes and budget.
* Collaboration within CSIRO, including the Hydrogen Mission, the Hydrogen Future Science Platform and the Towards Net Zero Mission.
* 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.
* Undertake feasibility studies, demonstrating a considerable degree of originality, creativity and innovation in solving problems and introducing new directions and approaches.
* Maintain confidentiality when dealing commercially sensitive information.
* 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, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

**For appointment at the higher salary level (CSOF7), duties will also include:**

* Identify and find innovative solutions for major conceptual scientific, technical, commercial or management problems related to the field of hydrogen or hydrogen carriers like ammonia.
* Develop and deliver large research projects, related to the field of hydrogen or hydrogen carriers like ammonia.
* Provide leadership to foster an environment that encourages new ideas and provides support for the development of emerging skills and technologies of multidisciplinary and spatially isolated teams.

## **Required Competencies**

**CSOF6**

* **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:** 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, goal and priorities.

**CSOF7**

* **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.

## **Selection Criteria**

#### Essential

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

1. A PhD (or an equivalent combination of qualifications and research experience) in a relevant field such as Chemical Engineering or Process Engineering.
2. Demonstrated practical experience in process flow sheeting and high temperature/pressure systems and industrial processes.
3. A track record of R&D in hydrogen or other energy storage technologies.
4. A track record of developing and delivering large client-focussed research projects, demonstrating well-developed project leadership and management skills.
5. Demonstrated ability to work effectively in multidisciplinary teams with technical goals.
6. Evidence of the development of an external industry or collaborative professional network (e.g. participation on advisory groups, technical committees, etc.).
7. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
8. Excellent oral and written communication skills and a demonstrated publication history of authorship on scientific papers in peer reviewed journals, reports, grant applications or inventorship on patent applications.

## **Desirable**

1. Knowledge of hydrogen and other liquid fuels related technologies/systems.
2. Demonstrated ability to contribute to design of high temperature/pressure research equipment and systems
3. Practical experience of integrated or hybrid solutions for stationary and transport power applications.

**For appointment at the higher salary level (CSOF7), essential criteria will also include:**

1. Demonstrated experience in solving major conceptual scientific, technical, commercial or management problems, which have a significant impact upon the field of research or professional function.
2. Demonstrated experience in developing and delivering large research programs, ideally related to the field of hydrogen, other hydrogen carriers, and battery storage technologies.
3. Demonstrated leadership skills to foster an environment that encourages new ideas and provides support for the development of emerging skills and technologies of multidisciplinary and spatially isolated teams.

**For appointment at the higher salary level (CSOF7), desirable criteria will also include:**

1. Experience in conducting HAZOP analysis on major laboratory and pilot scale research rigs.
2. Knowledge of the emerging hydrogen industry or new energy technologies in Australia and globally.

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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* 1. People First
  2. Further Together
  3. Making it Real
  4. Trusted

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