# Position Details

## Research Scientist/Engineer- CSOF7

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| The following information is for applicants |
| Advertised Job Title | Energy Resources Engineer  |
| Job Reference | 68302 |
| Tenure | Specified Term of 3 yearsFull-time |
| Salary Range | CSOFAU$136,437to AU$150,956pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Kensington WA or Clayton VIC |
| 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 for Reservoir Engineering or Reservoir Productivity |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Ben Clennell via email at Ben.Clennell@csiro.au or phone +61 8 6436 8599 |
| 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 Engineering 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.

Emissions reduction in Australia and worldwide is leading to an increased demand for natural gas as a replacement for coal in the near term, and in the medium to long term a transition to zero emissions fuels and emissions abatement technologies such as carbon capture, utilization and storage (CCUS). Decarbonization of the economy will involve substitution of fossil fuels by renewable energy sources and the uptake of alternative fuels such as hydrogen and biogas. This will present problems in the intermittency and stability of supply of electricity and secure supplies of replacement transport fuels. While batteries and pumped hydro-electricity can provide energy storage for demand levelling purposes over timescales of hours to days, longer term energy storage needs may be met by a combination power-to-gas (P2G), power-to-hydrogen (P2H) and technologies such as compressed air energy storage (CAES). Successful uptake of these new technologies will require well-planned, safe and environmentally responsible storage of energy gases in the geological subsurface, and incorporation of increasingly green (renewables-derived) gas and hydrogen streams into integrated energy systems.

The role of the Energy Resources Engineer – Gas Storage, is to play a leading role in conception, design, planning and execution of research projects at CSIRO that involve the production, transportation, storage and use of natural gas, biogas and hydrogen in ways that improves energy efficiency and reduces lifecycle emissions. The research scientist will have an understanding of connections between subsurface (reservoirs and wellbores) with surface facilities and energy systems engineering. The horizon of application will range from optimization of commercial projects working with industry clients, through to demonstration of novel technologies that require further development on their path to market. The incumbent will develop and strengthen partnerships with industry, government agencies and national/ international research organisations.

### Duties and Key Result Areas:

* Contribute to integrated R&D projects in energy utilization and storage supporting development, upscaling and deployment of low and zero emissions technologies.
* Provide a bridge between surface and subsurface science and engineering capabilities in the Energy Resources Program (Reservoir Simulation, Engineering and Productivity, Gas Processing) within the CSIRO Energy Business Unit.
* Customer engagement and liaison with industry, government and funding agencies.
* Work in a multi-disciplinary team at CSIRO, and engage with industry partners, external R&D collaborators, and specialist contractors, as required.
* Communicate research results to clients and the scientific community through oral and written reports and papers.
* Understand, protect and develop intellectual property that can be commercialised. This may include the preparation of documents for invention disclosure and patent applications.
* 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.
* 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:** 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. Ph.D. in a relevant area of energy systems science and engineering or Master’s level qualification plus commensurate industry experience.
2. Extensive experience in energy systems engineering, involving research and development and / or operational experience in industry. You must demonstrate teamwork, innovative thinking and advanced problem solving skills.
3. A substantial track-record of successful project delivery with evidence of leadership in project or capability teams.
4. Demonstrated understanding of Occupational Health, Safety and Environmental principles and safe working practices for flammable and explosive gases.

## **Desirable:**

1. Experience in gas facilities design and modelling tools for natural gas, biogas or hydrogen gas systems.
2. Experience in one or more of the following areas: natural gas processing or fuel conversion technologies; reservoir / production engineering; well design / well abandonment and decommissioning; carbon capture (utilization) and storage; subsurface natural gas / hydrogen storage.
3. Experience with hydrogen gas and/or ammonia production, transportation, storage or processing.
4. Experience in project management with evidence of delivery on time and to budget.
5. Experience in applied R&D delivering within, or to, the energy sector demonstrated by positive project outcomes, scientific publications etc.

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