# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants | |
| Advertised Job Title | Research Scientist/ Engineer: Carbon Capture and Storage Geoscientist |
| Job Reference | 97275 |
| Tenure | Indefinite, Full-time |
| Salary Range | AU$ 126,313 k - AU$ 148,014 k per annum (pro-rata for part-time)  plus up to 15.4% superannuation |
| Location(s) | Perth, WA preferred. Melbourne may be considered |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Senior Scientist/Team Leader of Underground Storage Characterisation |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | TBA |
| 2Enquire about this job | Contact Chris via email at tess.dance@csiro.au or phone +61 8 6436 8718 |
| 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 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).

**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).

### Role Overview

As part of the Underground Storage Characterisation Team, the role of the CCS Geoscientist will be to conduct innovative research leading to scientific achievements in advancing the understanding of safe and reliable storage of carbon dioxide, hydrogen, and compressed air energy. Research opportunities need to be investigated in applied basin analysis, mapping, geological characterisation, and multi resource identification and management to support industrial decarbonisation. The responsibilities of the CCS Geoscientist include devising strategies to reduce technical and environmental risks associated with sub-surface uncertainties and advancing the uptake of geological knowledge for site selection and project development. The researcher will scope novel project proposals for industrial clients and play a lead role in securing project funds. They will collaborate where appropriate to ensure their basin mapping and site screening workflows are best practice nationally and internationally. This will ensure the depth of their scientific advice can be reported and relied upon in their role as technical advisor to key government and community stakeholders and contribute towards advancing Australia’s goal to achieving net zero by 2050.

### Duties and Key Result Areas

* Work collaboratively as part of a multi-disciplinary, regionally dispersed research team to apply specialist geological knowledge and carry out tasks in support of CSIRO’s decarbonisation research areas.
* Anticipate industry needs and market direction of transition fuels such as Hydrogen, through client liaison and networking.
* Develop challenging but realistic research plans and lead projects from opportunity identification, conception, development, resourcing, planning, through to delivering impact to clients and partners.
* Demonstrate a considerable degree of originality, creativity and innovation in solving problems and introduce new directions and approaches for integrating basin hydrodynamics, sedimentology, sequence stratigraphy, and specialised formation evaluation techniques into 3D subsurface models for uncertainty risking and fluid simulation.
* Draw on industry best practice to explore for and assess suitable rock formations on the regional scale with potential for Carbon Capture and Storage or storage of Hydrogen in Australia; including developing the multi-criteria for common risk segment mapping for successful underground geological settings.
* Undertake feasibility studies to test the impacts of geological heterogeneity on the storage of hydrogen in underground reservoirs, caverns, and salt complexes as a technology to ensure supply and export of this emerging new fuel.
* Explore how geological science, industry knowledge, and networks can be leveraged with new capabilities in digital science (i.e. advanced well log analysis or digital core) to reduce lead times for site characterisation and preparation for Declaration of Storage.
* Advise policy makers and inform and transfer knowledge to non-scientific audiences as required.
* Prepare high quality scientific reports, journal articles, conference proceedings and presentations ensuring that trust is earned across various platforms and with diverse stakeholders.
* Access commercially sensitive information of CSIRO and/or research or commercial partners.
* Represent CSIRO externally, including in public forums, with industry or the research sector or with Government as required.
* Uphold and contribute to CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **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 Oil & Gas development, Carbon Capture and Storage evaluation, or natural Hydrogen exploration.
2. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems, including ahistory of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.
3. Research experience in the regional screening of sedimentary basins using multi-criteria specifically for Carbon Capture and Storage, natural hydrogen prospectivity, or underground hydrogen storage.
4. Research experience in static modelling and reservoir characterisation for pilot or commercial scale Carbon Capture and Storage projects, including geophysical interpretation, well planning and formation evaluation strategies.
5. Specific scientific/engineering technical skills in resource and risk evaluation; integrating core, well log and seismic interpretations; interrogating geographic information systems; and constructing 3D geological models for numerical simulation in various platforms.
6. An understanding of the challenges involved in energy resource industry strategy, portfolio management, and asset development.

## **Desirable**

1. An understanding of the various government permitting requirements associated with conducting Carbon Capture and Storage and Natural Hydrogen projects in Australia.
2. Previous experience in other sub-surface resource exploitation such as geothermal, groundwater extraction, and/or waste disposal.

## **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:** 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.

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.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [Energy Business Unit - CSIRO](https://www.csiro.au/en/about/people/business-units/Energy) for more information.

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