# Position Details

## Research Consulting – CSOF6/ CSOF7

|  |  |
| --- | --- |
| The following information is for applicants | |
| Advertised Job Title | Senior Technoeconomic Analyst |
| Job Reference | 94061 |
| Tenure | Specified Term of 36 months  Full-time |
| Salary Range | CSOF6: AU$121,455 – AU$142,321 per annum (pro-rata for part-time)  CSOF7: AU$146,207 - AU$161,767 per annum (pro-rata for part-time)  plus 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) | Kensington, Perth, WA |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents |
| Position reports to the | Team Leader |
| Client Focus – Internal | 30% |
| Client Focus – External | 70% |
| Number of Direct Reports | 0 |
| Enquire about this job | 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](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

The role of Research Consulting staff is to promote CSIRO's research capability through strategic partnerships with industry. Research Consultants manage and/or lead research, client relationships, staff and other resources, by devising the research strategy and assuming overall scientific responsibility for research. Research Consultants establish and facilitate multi-team or multi-organisational, collaborative research programs, maintaining an up-to-date awareness of advances in technologies and ideas. Research Consultants recognise and exploit opportunities for innovation by pursuing new ideas and approaches. Research Consultants build and maintain alliances and networks, have a lead role in securing project funds, and prepare detailed research proposals and project reports.

The position of Senior Techno-Economic Analyst within the Energy Resources Program of the CSIRO Energy Business Unit will work with Research Scientists and Managers and other Techno-Economic Modellers to deliver solutions for projects within the Energy Business Unit and activities of CSIRO’s Missions for the decarbonization of industry and the secure provision of low emissions fuels including hydrogen and bio-derivatives, for Australia’s energy transition. Major research areas for the Energy Resources program include carbon capture, utilization and storage (CCUS), integrated energy and emissions abatement hubs to support next generation energy exports, development of a robust hydrogen industry value chain, long duration energy storage technologies and environmental monitoring and protection. These activities are supported by advanced data science, modelling and analytics, including techno-economic analysis provided by the Geodata Analytics Research team.

The Senior Techno-Economic Analyst will assist researchers to rapidly assess the techno economic feasibilities of technologies and research permitting the identification of technology/approaches with the highest potential in the above domain. This will include identification of emerging trends in these areas and the key risks to adoption of new approaches and technology. The Analyst will provide economic support to science teams on both internally and externally funded projects where techno economic modelling is required. This will involve the scoping of economic components for new projects, the coordination of staff working on economics, client engagement, stakeholder consultation, report writing, and the implementation of the team’s economic capability development strategy.

The candidate is expected to have a BS or equivalent in economics with wide-ranging experience in providing techno-economic modelling to the energy sector. The candidate will have experience in the development of risk-based investment decision frameworks and the involvement and commercialisation of new technologies.

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

### Duties and Key Result Areas

* Develop post-tax techno-economic models for a range of fiscal regimes including petroleum resource rent tax, royalty regimes and production sharing contracts.
* Run techno economics including NPV, IRR and unit technical cost analysis for a range of upstream, downstream and midstream projects including liquefied natural gas, gas to liquids, gas to products e.g. ammonia, gas to power, blue and green hydrogen, pipelines, infrastructure, solar power, battery storage, carbon capture, carbon storage, carbon transport, carbon utilisation and mineral processing.
* Develop gas transfer pricing models for integrated gas to liquids and gas to product projects.
* Develop project economic assumptions with the consensus of stakeholders including energy prices, foreign exchange rates, interest rates, cost of capital and chemical prices to run techno economics.
* Contribute to the development of cost and schedule estimates for running techno economics with CSIRO research scientists and project management staff.
* Peer-review internal and third-party techno-economic models, case decks and results for CSIRO external consulting scopes.
* Conduct risk analysis including tornado charts and identify key influences of project value and pathways to commercialisation of new energy technologies.
* Contribute to commercial risk discussions in project risk workshops.
* Identify areas of research / new economic project opportunities and lead the scoping and proposal development for these to unlock the commerciality of new energy and emissions reduction projects.
* Contribute to the valuation of CSIRO developed technologies and intellectual property.
* Contribute to broader organisation techno-economic initiatives including supporting national energy grid roadmaps, Future Science Platforms and Missions.
* Act as a trusted advisor and utilising knowledge of the clients’ business, be responsive and adaptable to changes in the clients’ needs and market changes.
* Have a broad knowledge of CSIRO’s capability, industry needs and government policy, and understand the political, social and organisational environment to ensure alignment with Business Unit and organisational objectives (including by providing high-level strategic advice to CSIRO Management), as required.
* 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.
* 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.
* Represent CSIRO externally at public forums, with industry, the research sector or with Government.
* 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 higher degree (Masters, Doctorate) in Economics or a related field that includes significant quantitative and analytical components together with relevant practical experience ***or*** managerial and/or commercial qualifications (e.g., MBA, professional accreditation) with significant relevant experience and depth of science understanding either from a research or industry perspective.
2. A track record of recognising and capitalising on opportunities for innovation and generating new theoretical perspectives.
3. Experience in autonomously project managing small teams on strategic or technical consulting projects that include economic modelling and analysis to support strategic decision making.
4. Demonstrated experience or interest in science and technology applicable to the energy transition.
5. Strong interpersonal skills with a demonstrated ability to work effectively in a team environment and to identify and build positive relationships with internal and external stakeholders.
6. Experience managing junior staff in a consultancy/advisory setting, including performance management, mentoring, and professional development.
7. Excellent oral communication skills and experience generating professional quality client-facing written reports and deliverables that clearly communicate economic analysis and key insights to a senior executive-level audience. This includes the ability to present a clear narrative to help communicate challenging or complex concepts to fellow team members and clients.
8. Ability to demonstrate adaptability, modifying project methodologies in real time and being able to justify the changes.

## **Desirable**

1. Experience in Australia’s energy sector with understanding of energy markets, regulation mechanisms and fiscal regimes.
2. Understanding of current domestic gas and LNG export markets and emerging hydrogen industries together with carbon capture, utilization and storage.
3. Expertise in economic scenario modelling and investment decision making in the face of uncertainties, including alternative market mechanisms, risk analysis and methods such as least regret basis, real options valuations, hedging strategies etc.

## **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.

## **Required Competencies – 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:** 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:**Is flexible in response to external change or when faced with external constraints. Identifies and promotes the opportunities arising as a result of change.

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