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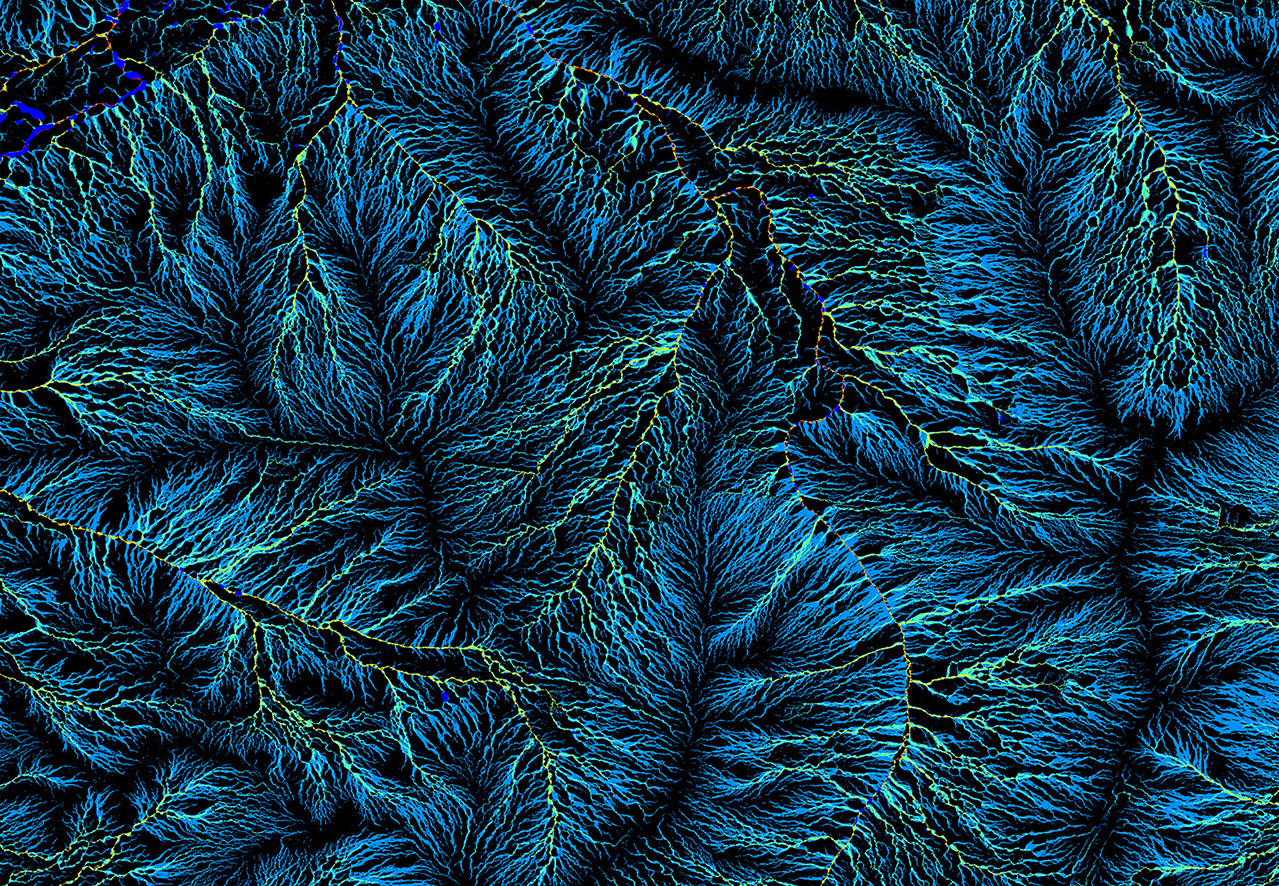
# Research Director

# Energy Technologies

# Energy Business Unit

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Australia’s National  
Science Agency



**CSIRO’s Energy Business Unit**

**Delivering science and technology to enable Australia’s transition to a net zero emissions energy future.**

We at CSIRO are pioneering low-emission technologies and provide the knowledge to guide Australia towards a smart, secure and sustainable energy future. The transition to a reliable, net zero emissions energy future at lowest cost will involve:

* A shift to decentralised electricity generation, with increased share of renewable energy
* A flexible distribution grid capable of balancing demand and response reliably and economically
* Replacement of coal-fired power by gas-fired generation, renewables and other low-carbon technologies
* Decarbonisation of industry and transport, through electrification, integration of clean energy and low emission technologies into industrial processes
* A transforming energy export industry that manages carbon impacts and associated risks
* An emerging hydrogen industry for domestic and export markets

CSIRO Energy’s portfolio priorities focus on:

**Electricity transition**: to resolve the national challenges of electricity generation, transmission, distribution, and consumption using simulation and analysis tools, facilities and knowhow to inform investments in stable electricity grid systems. Our focus includes managing the grid including storage, gas as transition fuel, simulation and analysis and continuing focus on energy productivity.

**Industry and transport transition**: to create value chains across sectors and develop sustainable solutions for domestic and export industries through demonstrating viable technologies for creation, storage, transport and uses of hydrogen as well as for other low carbon industry processes. Our focus includes hydrogen, energy storage, distributed energy systems, primary industry decarbonisation and transport.

**Community and environment**: to understand and manage the social and environmental impacts of the key energy technologies, offer solutions for emission reduction and thereby enable generators and industry to shift from high emission fossil energy towards reduced emissions and sustainable solutions. Our focus includes supporting the closure of fossil fuel production fields and aging generation facilities, fugitive emissions and managing emissions including carbon storage and fugitive emission controls.

**Energy Technologies Program**

The Energy Technologies program is one of three Programs within CSIRO’s Energy Business unit. The Energy Technologies Program’s vision is to **provide the technology, analysis and insight that reduces the costs and accelerates reliable transition to towards net zero emissions.**

## To goals of the Program are to:

* Support and facilitate the development, demonstration and deployment of affordable, reliable, high-efficiency low-emission energy technologies
* Through collaboration with other research groups, government and industry the program works to provide technology pathways for low-emission energy technologies to increase efficiencies and reduce costs of emission reduction options across all energy and industrial sectors while ensuring secure and sustainable energy supply
* Work across the relevant range of practical energy technology options to create a sustainable and affordable energy technology portfolio
* Drive and coordinate Australia’s role in development and deployment of solar technologies with particular emphasis on demonstrating concentrated solar thermal technologies and PV
* Create a whole new industry around hydrogen energy systems and exportable clean energy via ammonia and other suitable carriers
* Integrate energy environment and society needs through emissions measurement, modelling, planning and management

For further information about our work head to https://www.csiro.au/en/Research/EF

**About CSIRO**

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is one of the world’s largest and most successful partially publicly-funded research and development organisations with locations across Australia and internationally. CSIRO is committed to complementing its world-class science capabilities with outcome-focused research that will generate economic, environmental, and social benefits for Australia in a global context. At CSIRO you can be part of helping to solve big, complex problems that make a real difference to our future. We spark off our organisational values, people first; further together; making it real and trusted to achieve more than we could individually in a supportive, rewarding, inclusive and flexible environment.

**About the Role**

The Research Director sets the vision and strategy for the Energy Technologies Research Program and is responsible for leading a portfolio of multi-disciplinary, collaborative research projects that deliver on the goals of the Energy Business Unit. The Energy Technologies Program contains the following key capabilities:

* Advanced Solar PV and CST Technologies and demonstration platforms to accelerate renewable scale and drive industry transition
* Thermal & Electrochemical Technologies to increase efficiency, scale and uptake of low emission technologies and hydrogen energy systems
* Sustainable Carbon Utilisation Technologies to support industry transition to net zero emissions

The Program leverages these key capabilities with several national partners including state and federal government, ARENA, industry, and Australia’s entrepreneurial energy start-up community. The Program collaborates very broadly with key national and international research partners.

CSIRO’s mandate is to deliver world-class research that provides innovative solutions for industry, government and the community. The research effort is, therefore, mission-directed and impact-focused and it is essential that the Research Director has, or can readily develop, strong links with industry partners and relevant government agencies. Experience in building cohesive, dynamic and creative research teams that integrate across disciplinary and organisational boundaries is essential. It should be expected that the portfolio of research will evolve over time based on need, strategy and performance.

The Research Director must be a collaborative and an entrepreneurial science leader who has demonstrated commitment to progressing inclusion and promoting diversity. He or she will form part of the Energy Business Unit Leadership Team and be accountable for the delivery of specific elements of the Business Unit’s overall impact, science and financial objectives as well as development of its strategy.

**Key Result Areas and Duties**

**Impact Science Leadership**

* Create a long-term impact plan for the Program that addresses national challenges and builds the necessary science, collaborative networks and capacity to deliver on Program objectives.
* Develop a culture of science excellence, creativity, innovation and flexibility.
* Stimulate science thinking – develop and encourage science networks, sponsor new initiatives and explore innovative solutions to problems.
* Oversee the Program’s pipeline of projects – facilitate prioritisation and allocation decisions.
* Identify CSIRO-wide opportunities, build and deliver on a pipeline of contracts (3-5 years focus)
* Manage the Program’s Intellectual Property strategy and portfolio.
* Drive the pursuit of external revenue to support the goals of the business unit.
* Engage key stakeholders and clients to build support for investment.
* Support the Business Unit Director, Science Director/Deputy Director in Project, Intellectual Property and Commercialisation Reviews.

**Functional Leadership**

* Contribute to strategic and operational planning for the Business Unit as well as leadership in the implementation
* Proactively lead and support change initiatives across the Research Program and Business Unit.
* Develop strategic proposals aligned with the Business Unit’s strategic direction and lead the promotion and facilitation of their implementation.

**Capability Leadership**

* Drive ’Zero Harm’, lead by example, and actively promote a healthy, safe and environmentally sustainable workplace.
* Demonstrate exemplary behaviour in the workplace and manage people matters proactively in accordance with CSIRO values.
* Attract, develop and retain world class talent which meet current and future needs of the Program.
* Forecast and develop capability which is aligned to the goals of the business unit and supports the delivery of Program’s research.
* Build effective and diverse teams, facilitate career development for staff and actively plan for succession within the Program.

**Engagement and Partnership**

* Build strategic alliances within the organisation to collaboratively execute CSIRO and Energy Business Unit strategies across lines of business.
* Develop and cultivate national and international research collaborations and networks to keep abreast of emerging advances in relevant science fields and industry challenges.
* Communicate Energy’s strategy and Program goals to internal and external stakeholders.
* Identify and pursue high level contact with customers/partners to identify and capitalise on opportunities for future collaboration – externally and within other Programs and Business Units.

**Resource Leadership**

* Lead and manage the Program’s finances, people, infrastructure and other assets to ensure their effective and efficient use.
* Ensure management of infrastructure and resources in a sustainable way.
* Ensure best practice governance and management of commercial activities and intellectual property.
* Manage financial performance of the Program and deliver annual budgets.
* Ensure Program delivers against milestones and quality standards.
* Contribute to the development of science and future infrastructure plans.

**Research Director – Energy**

**Selection Criteria**

***Pre-Requisites:***

1. **Education/Qualifications:** A doctorate and/or equivalent research experience in chemical, electrical or mechanical engineering or other relevant discipline area.
2. **Demonstration of Personal attributes:**
3. **Behaviours:** Reputation of exemplary values and behaviours and active promotion of cross business collaboration. Track record of proactively addressing important and challenging issues in a respectful, tactful and effective way. Models and actively promotes principles of inclusion and diversity and has a personal commitment to Safety.
4. **Leadership:** Established reputation for developing and leading strategic direction in a manner that inspires a large team and supports the achievement of strategic goals combined with an ability to translate the strategy to tangible action plans to deliver on schedule and in budget. Experience in leading correspondingly sized multi‐disciplinary business or research group, preferably including P&L accountability, potentially across several science areas and/or geographic locations.
5. **Communication:** Excellent written and oral communication skills, evidenced by superior reporting, presentation and negotiation abilities, and the capacity to identify and influence critical stakeholders to gain support for contentious proposals/ideas.
6. **Problem Solving:**Proven ability to resolve major scientific, technical, commercial or management problems which have a significant research impact, through the development of original concepts and approaches.
7. **Adaptability:**Demonstrated ability for flexibility to respond to external change and deal with external constraints, including identifying and promoting opportunities arising as a result of change.

***Essential Criteria:***

1. Demonstrated exemplary values and behaviours combined with personal commitment to Safety
2. Evidence of an ability to strategically develop programs and opportunities that respond to national and global research challenges, drawing from knowledge in:
3. Low emission energy technologies, solutions and value chains
4. Energy economics, markets and stakeholder networks
5. Local and national energy policies and regulations
6. Evidence of successful leadership in developing a project pipeline and a portfolio of science, research and innovation opportunities on a national and international scale. The ability to develop, implement and successfully deliver a portfolio of relevant research, including financial and risk management; and experience in growing, reshaping and revitalising a capability area.
7. Evidence of strong industry and/or government engagement and strategic relationship management that grows new impact opportunities and supports positive and sustainable commercial outcomes, e.g. in the development, scale up and commercialisation of technologies in the low emissions energy, industry, and transport sector.
8. The ability to work effectively as an integral member of the Energy Business Unit Leadership Team and as a leader of a multi-disciplinary, regionally dispersed research team, and foster an environment in which there is a high level of co-operation within and between Programs, Groups and Teams.
9. Demonstrated ability to establish productive teams, manage performance, undertake strategic planning and financial management, drive and implement change, operationalise the strategic vision for staff, and gain commitment to the direction chosen.

***Desirable Criteria:***

1. Demonstrated leadership and excellence in a relevant field of science or engineering, as evidenced by high‐quality peer reviewed, published research since PhD (at least ten years) including an established international research reputation and credibility.

**CSIRO is a values-based organisation. You will need to demonstrate behaviours aligned to our values of:**

* People First
* Further Together
* Making it Real
* Trusted

**Position term:** three years.

**Location:** Preferred locations: Newcastle, Brisbane or Melbourne.

**Special requirement:**

To be eligible for this position you must be willing and able to undertake significant domestic and international travel**.**

A National Police Check is required to be lodged by the successful applicant and clearance to be received before commencing.

**CSIRO’s Commitment to diversity**

We’re working hard to recruit diverse people and ensure all our people feel supported to do their best work and empowered to let their ideas flourish. For more on our Diversity and Inclusion strategy go to www.csiro.au/Diversity.

**Flexible working arrangements**

We work flexibly at CSIRO, offering a range of options for how, when and where you work. Talk to us about how this role could be flexible for you. For more information go to www.csiro.au/Careers/The-CSIRO-Experience/Balance

Relocation assistance will be provided to the successful candidate where required.

**Contact**

For further information about this role contact marita.niemelae@csiro.au or call HR at 07 3327 4035.

#### How to Apply

As part of their application, candidates are requested to provide the following in Microsoft Word format:

* **Curriculum Vitae.**
* **Cover Letter –** outlining the motivation and relevant capabilities and experience you could bring to this role**.**
* **Contact details for three Referees** **–** Referees will only be contacted after prior consultation with the candidate. It is the candidate's responsibility to ensure that their referees are willing to provide reports when contacted by CSIRO.
* **Date of commencement –** An indication of the earliest date on which the candidate could commence in the position.

**Please apply online via the CSIRO website:** [**https://jobs.csiro.au/**](https://jobs.csiro.au/)

For further information

Energy Business Unit

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As Australia’s national science agency   
and innovation catalyst, CSIRO is solving   
the greatest challenges through   
innovative science and technology.

CSIRO. Unlocking a better future for everyone.