UQ Summer Research Project Description – 2026

Gas & Energy Transition Research Centre

Project title:	Understanding future Australian energy demands
Hours of engagement & delivery mode	Six weeks, working 25–35 hours per week. The project will be offered on-site, with facilities to work in the Centre. If you are unable to work on-site for a portion of the program, please contact the project supervisor to discuss the possibility of alternative arrangements.
Description:	Characterising future energy demands is a crucial step for planning the infrastructure needed to deliver deep decarbonisation of Australia's energy system. This project will explore and characterise statistical relationships between peak and average daily demands for electricity and gas, enabling these to be incorporated into existing team software for demand scenario development.
Suitable for:	This project will suit a student with a strong background in statistics and quantitative data analysis. Strong skills in coding for analysis (python, R, matlab) are preferred.
Primary Supervisor:	Dr Joe Lane
Further info:	Please contact Dr Joe Lane for more information about the project: joe.lane@uq.edu.au.

UQ Summer Research Project Description - 2026

Project title:	How could disruptive demand-side change affect infrastructure planning for Australia's energy transition
Hours of engagement & delivery mode	Six weeks, working 25–35 hours per week. The project will be offered on-site, with facilities to work in the Centre. If you are unable to work on-site for a portion of the program, please contact the project supervisor to discuss the possibility of alternative arrangements.
Description:	Assessing deep uncertainties over future energy demands is a crucial step for planning the infrastructure needed to deliver deep decarbonisation of Australia's energy system. This project will utilise existing software for assessing risks for Australia's electricity and gas sector systems, focussing on the implications of large uncertainties around the evolution of future energy demand.
Suitable for:	This project will suit a student with a background in engineering and/or quantitative analysis, and a strong interest in understanding long-term energy transition challenges. Strong skills in python are preferred.
Primary Supervisor:	Dr Joe Lane
Further info:	Please contact Dr Joe Lane for more information about the project: joe.lane@uq.edu.au.

UQ Summer Research Project Description - 2026

Project title:	Great Artesian Basin springs: aquifer attribution
Hours of engagement & delivery mode	For the Summer program, students will be engaged for 6 weeks. Hours of engagement must be between 20 – 36 hrs per week and must fall within the official program dates. The Program will be offered through a combination of on-site and remote arrangements - please contact the supervisor for more information.
Description:	The Great Artesian Basin (GAB) is a vital water source for regional Australians, consisting of various aquifers and aquitards across multiple basins and states. GAB groundwater supports many unique springs with both cultural significance for first nations people's, and hosting unique ecosystems. Protecting the springs necessitates correct attribution to the aquifer water source. This project will involve analysing groundwater data collected from GAB aquifers and springs. This will suit a student with a background in chemistry, geochemistry, hydrogeology, or environmental science.
Expected learning outcomes and deliverables:	Scholars may gain skills in data collection, analysis, and may have an opportunity to generate publications from their research. Students will also be asked to produce a report or oral presentation at the end of their project.
Suitable for:	This project is open to applications from students with a background in chemistry, chemical engineering, earth sciences/hydrogeology or geoscience.
Primary Supervisor:	Dr Julie Pearce
Further info:	If you would like more information about the project, please contact Dr Julie Pearce at j.pearce2@uq.edu.au.

UQ Summer Research Project Description - 2026

Project title:	Petitioning Transition: Public Voices in Australia's Energy Politics
Hours of engagement & delivery mode	Six weeks, working 25–35 hours per week. The project will be offered on-site, with facilities to work in the Centre.
Description:	This project examines how Australians utilise parliamentary petitions to engage with issues related to energy and resource transitions. Petitions are one of the few formal channels for public participation in federal decision-making; yet, little is known about the concerns raised and how Members of Parliament respond. The student will collect and categorise energy-related petitions submitted between 2022 and 2025, identify recurring themes (e.g., renewables, gas, climate, mining), and analyse the parliamentary responses. The project will highlight how citizens frame transition politics in their parliamentary engagement, and how representative institutions acknowledge or sidestep those concerns. Students' skills required: Qualitative data analysis (content analysis, preferably using NVivo).
Expected learning outcomes and deliverables:	Students will learn qualitative coding and document analysis by categorising parliamentary petitions on energy and resource transitions. They will deliver a dataset, a thematic report on citizen concerns and MP responses, and a short presentation, with potential for publication.
Suitable for:	Students (final year undergrad or postgrad) in political science, sociology, environmental and/or resource studies, or law with strong analytical skills. Prior qualitative coding experience is helpful but not essential; an interest in public participation and energy transition politics is key.
Primary Supervisor:	Associate Professor Kathy Witt
Further info:	If you would like to learn more about the project, please contact Dr Debashish Dev at d.dev@uq.edu.au.

UQ Summer Research Project Description - 2026

Project title:	Across Boomtowns Spread Tracker
Hours of engagement & delivery mode	Six weeks, working 20–30 hours per week. The project will be offered on-site, with facilities to work in the Centre.
Description:	Track how far apart Queensland's boomtowns are, year by year. This project builds a simple gap monitor across housing, income, crime, population and employment by calculating dispersion measures (range, interquartile range, standard deviation and coefficient of variation) for each indicator and year. Students will produce clear line charts of "spread over time," highlighting years when gaps widened or narrowed against key stages of gas development in those towns, and compile a short but comprehensive briefing that names the indicators and towns driving changes with gas development phases. Student skills required: Basic quantitative social data analysis (Excel or SPSS).
Expected learning outcomes and deliverables:	Students will gain skills in quantitative data analysis, applying dispersion measures to social indicators across Queensland towns where gas development is dominant. They will produce line charts showing changes over time, write a short briefing explaining the findings, and present results to supervisors and peers.
Suitable for:	Students (final year undergrad or postgrad) in social sciences, economics, or related fields. Applicants should have basic quantitative skills (Excel or SPSS) and an interest in regional development and the impacts of resource industries.
Primary Supervisor:	Associate Professor Kathy Witt
Further info:	If you would like to learn more about the project, please contact Dr Debashish Dev at d.dev@uq.edu.au.