

PhD positions: Clean Energy Futures

1. About the project

[UNSW Design Next](#) is hiring two PhD candidates to work on the challenging topic of energy futures. Australia and many other countries around the world are on the cusp of a major energy transition as renewable sources of energy begin to outcompete traditional generators. This has far-reaching implications. Foresight suggests the future of energy will be more distributed, more variable, and involve many more stakeholders taking an active role. We foresee energy generation and storage to move from a centralised structure to one where many types of energy generation, storage and relevant policy come together to deliver reliable power for everyone.

Topic 1: Community-scale energy futures

This emerging trend will impact how organisations and consumers, large and small, think about energy. Of particular interest is community-scale energy and how emerging technologies, existing behavioural drivers, including social structures and policy influence each other. The candidate's research will engage community stakeholders through qualitative (design) research methods to establish a clearer view on how the aforementioned factors influence each other, and how the human side of such technology and its rollout may be given shape.

While we expect elements of design research, design futuring, human-computer interaction, and service design to find a way into the research project, we encourage candidates to shape the research to their strengths and interests.

Topic 2: Digital twins for foresighting community-scale energy

This study concerns the interaction between communities, emerging energy technology, and relevant social and policy drivers from a computational sociology perspective. It takes a more data driven approach by using digital twin simulations to explore a broad range of possible community-scale futures. A successful candidate will be able to identify useful data features, develop models and their outcomes into scenarios, and engage with stakeholders to explore the possible futures further.

Outcomes of this research are expected to contribute to the fast-moving debate around energy in Australia and beyond, and inform future planning for the stakeholders involved.

2. Requirements

- UNSW will recruit prospective talented researchers of any nationality, gender, culture, religion, sexual orientation or age. However, this position is limited to Australian citizens or those in possession of a PR visa.
- Bachelors or Masters degree in a related field, or to be completed in 2021;

- Meet requirements for PhD admission and scholarship eligibility (typically 1st class honours or equivalent);
- An interest in human-technology interaction, and design research;
- For topic 1:
 - Experience with design research and qualitative research methods is expected;
 - Experience with quantitative research methods are 'nice to have';
- For topic 2:
 - Experience with computational modelling and an understanding of design research is expected;
 - Experience with qualitative research methods is 'nice to have';
- The ability to run workshops, co-design activities and collaborate with various stakeholders are 'nice to have';
- Proficiency in English is required, as well as good communication skills, both oral and written;
- Great teamwork skills are valued given the collaborative nature of the project;
- Applicants (Australian citizen or PR visa) must apply for and receive a RTP or UPA scholarship;
- Candidates must currently be located in Australia, and able to commence Term 1, 2022.

3. Conditions of position

[UNSW](#) is one of Australia's leading and highest-ranking universities. It is dedicated to both excellent teaching and world-class research. At UNSW, we pride ourselves on being a workplace where the best people come to do their best work. We have a vibrant campus life with a strong sense of community & inclusion.

Your 3-year research will take place within [Design Next](#), a multi-disciplinary unit dedicated to bringing together design across several faculties at UNSW. The university, and Design Next within that, is at the heart of Australia's energy transition with leading experts on many of its facets just a short walk away.

As a PhD candidate, you will be enrolled in the [UNSW Graduate Research School](#). GRS provides you with a strong research environment and training to develop your research and other skills. As part of enrolment, you'll complete a small number of courses alongside the research work itself.

For fees, costs, scholarship options, and other eligibility criteria, please see the [HDR Programs website](#).

4. How to apply

UNSW Graduate Research Application information: <https://research.unsw.edu.au/submit-application>

Also refer to <https://selfassessment.research.unsw.edu.au/>

Deadline for applications closes on 27 August 2021. Outcome in October, for a Term 1 2022 start.

5. Contact

If you are interested in this opportunity, please contact **Dr Doménique van Gennip** (d.vangennip@unsw.edu.au) or **Prof Ilpo Koskinen** (ilpo.koskinen@unsw.edu.au).

Note that all applications must be done via GRS.

