

Trailblazer for Recycling and Clean Energy (TRaCE) HDR Program Guidelines - University of Newcastle

1. ABOUT TRaCE

The Trailblazer for Clean Energy and Recycling (TRaCE) is a Commonwealth Government supported program to boost prioritised research in recycling and clean energy, and drive commercialisation outcomes with Industry partners. The commercialisation of recycling and clean energy research aims to position Australia as a world leader in the use and export of recycling technology and materials and support the domestic production of price-competitive clean energy using low emissions, scalable technologies.

The TRaCE HDR program will strengthen university-industry collaboration, increasing sovereign capability to support and fast track commercialisation and deliver the critical skills needed to propel clean energy industries into the future.

2. HDR PROGRAM OBJECTIVES AND OUTCOMES

The TRaCE HDR Program will enable candidates to complete a research project designed with Industry, working to solve challenges and address sustainability within the TRaCE Research Themes. The program aims to foster an industry-academia relationship, providing a new generation of researchers with support, motivation and a multidisciplinary context to explore industry challenges and translate solutions that benefit the environment, our economy, and communities.

Through direct industry involvement in the development and execution of HDR Projects, TRaCE will progress the next generation of industry leaders in clean energy and recycling technologies through translational research.

3. TRaCE RESEARCH THEMES

TRaCE targets four complementary technology themes to shift toward renewable energy sources, cost-effective and efficient alternatives to fossil-fuel based products as well as recycling and re-use of waste materials:

NEXT GENERATION SOLAR PV AND SYSTEMS

New projects that accelerate integration and scale of solar technologies.

ELECTRIFICATION, ENERGY SYSTEMS AND STORAGE

New projects that drive manufacturing in industry electrification, clean energy systems and storage.

SUSTAINABLE FUELS AND CHEMICALS MANUFACTURING

New projects that commercialise green fuels and chemicals.

RECYCLING, REFORMING AND REUSE OF MATERIALS

New projects for recycling, reforming and reuse of waste materials.

4. PROGRAM BENEFITS

Industry focused research

- Projects undertaken through the TRaCE HDR Program will be developed in collaboration with industry partners, providing industry with important opportunities to be invested in the next generation of industry leaders working to solve challenges affecting national priorities.
- Embedment with Industry Partner for a minimum of 60 days FTE throughout the duration of candidature.

Support through the Doctoral Training Centres and access to tailored Professional Development

- Candidates will be included in the activities and opportunities provided through the NIER Doctoral Training Centre most applicable to their area of research (DTC Energy or DTC Resources). [Doctoral Training Centres](#) (DTCs) provide industry embedded HDR candidates further training and support to enable impactful research outcomes, job-ready graduates and enhanced collaboration between University and Industry.
- Candidates may also choose to be a part of the [University Industry Engaged PhD Pathway](#).
- Candidates will also receive TRaCE Professional Development Support to enable them to tailor their HDR experience in line with their research and career goals.

UNSW Partnership

- Delivered in partnership with UNSW, the TRaCE program will allow HDR candidates to access services, networks and engagement opportunities across both universities over the duration of candidature.

5. ELIGIBILITY

5.1. Eligible Projects

- Projects must demonstrate alignment with the TRaCE Program and Research Themes.
- Have an Industry partner actively involved in the HDR project as per **Section 5.3**.

5.2. Eligible Candidates

- Must meet eligibility requirements to undertake either a PhD (Level 10 Doctoral Degree (Research) qualification as described by the Australian Qualifications Framework), or Research Masters (Level 9 Masters (Research) qualification as described by the Australian Qualifications Framework).
- Be a domestic candidate; international candidates will be considered where recruitment of a Domestic candidate has been unsuccessful, and subject to the approval of an International Tuition Fee Waiver by the Dean of Graduate Research.

5.3. Eligible Industry Partner

- To be eligible for the Program, an Industry Partner must be a business or organisation with an Australian Business Number (ABN) registered with the Australian Taxation Office or an Australian Company Number (ACN) registered with the Australian Securities and Investments Commission; and
- Meet Minimum funding contributions as outlined in **Section 6**.
- Be willing to accommodate HDR Embedment Requirements as outlined in **Section 8.2**.

6. FUNDING

Eligible projects require a minimum funding contribution from the industry partner, in the form of either a base stipend, or stipend top-up, over a period of 3.5 years FTE (PhD) / 2 years FTE (Research Masters). TRaCE will then contribute a stipend top-up and Professional Development Support, as per guidelines below. Please note, TRaCE does not have the ability to grant an RTP Scholarship, should this be required, this will need to be sought independently of application into the TRaCE HDR Program.

All industry contributions outlined below are subject to Indirect Cost Recovery Charges detailed in **Section 7.1**.

Please note: TRaCE funding will ensure candidates a stipend rate of \$10K p.a. above the base stipend rate. Examples below are based off the current base stipend rate of \$32K p.a. These figures will be adjusted as the base stipend rate is indexed each year.

	Stipend Funding Source		TRaCE Contribution	Total Funding
	Research Training Program (RTP) or similar	Industry contribution		
1	Base Stipend \$32K p.a.	Stipend top-up \$5K - \$9K p.a.	Stipend top-up to bring stipend up to \$42K p.a. \$1K - \$5K p.a. Professional Development Up to \$10K	\$42K p.a. Stipend Up to \$10K Professional Development
2	Base Stipend \$32K p.a.	Stipend top-up >\$10K p.a. ¹	Professional Development Up to \$10K	\$42K p.a. (min) Stipend Up to \$10K Professional Development
3		Base Stipend \$32K p.a.	Stipend top-up \$10K p.a. Professional Development Up to \$10K	\$42K p.a. Stipend Up to \$10K Professional Development
4		Stipend > Base Stipend >\$32K p.a.	Stipend top up to bring stipend up to \$42K p.a. \$0K - \$10K p.a. Professional Development up to \$10K	\$42K p.a. (min) Stipend Up to \$10K Professional Development

¹ Under [Section 1.5 \(2\)](#) of the Commonwealth Scholarships Guidelines (Research) 2017, students receiving an RTP Stipend must not be in receipt of additional award, scholarship or salary related to their course of study that provides a benefit greater than 75% of their annual RTP Stipend rate.

7. INDUSTRY FUNDING CONTRIBUTION

Industry funding contributions must be secured for a minimum of 3.5 years (PhD) / 2 years (Research Masters). Industry contributions are also subject to the below additional charges, that should be taken into consideration when determining budgets.

7.1. Indirect Cost Recovery Charges

- Industry stipends and top-ups are subject to University of Newcastle Indirect-Cost Recovery Charges and the industry partner should include provision for this charge.
- Indirect Cost Recovery Charges are charged and distributed as per the University of Newcastle [Schedule – Indirect Cost Recovery Rates and Distribution](#).

7.2. International Candidate Costs

International Candidates require further funding support, payable by the Industry Partner, comprising of the below:

- [Overseas Student Health Cover \(OSHC\)](#) - International Candidates require Overseas Student Health Cover (OSHC) for the duration of candidature as a requirement to their Visa. Indicative cost of OSHC is currently \$3900 AUD for the duration of candidature.
- [Relocation Allowance](#) – A one-off \$1500 relocation allowance is payable to candidates at the commencement of candidature.

8. PROGRAM CONDITIONS AND REQUIREMENTS

8.1. HDR Candidature

HDR candidates are bound by rules of candidature as set out in University of Newcastle's [Higher Degrees by Research Policy](#).

8.2. Industry Embedment

HDR candidates are required to undertake Research and Development (R&D) activities with their industry partner, which satisfy the below requirements:

- R&D activities must relate to their research area,
- R&D activities can be performed on-site with the end-user, on-campus, and online,
- Activities total a minimum of 60FTE days in duration over the duration of candidature,
- A [Notification of Internship Form](#) confirming this arrangement to be submitted within 18 months of HDR commencement.

8.3. TRaCE Professional Development Support

- Candidates will be provided with Professional Development Support of up to \$10K over the course of candidature.
- Professional Development Support can only be accessed for activities completed within the first 3.5 years of candidature.
- TRaCE Professional Development Support can be accessed to take part in individually approved professional development activities including but not limited to conferences, workshops, training, and travel to approved activities where relevant.
- Support cannot be used to purchase lab consumables, research equipment or other research expenditure, without prior approval from the TRaCE Research Management Committee (Newcastle Subcommittee).

9. APPLICATIONS

Applications are now open and will remain open on a rolling basis.

Chief Investigator (CI) of the project is required to submit applications to the TRaCE Program.

All applications should be submitted following the instructions listed online at:

newcastle.edu.au/trace-hdr

9.1. Application Process

In order to apply to the scheme, the University of Newcastle Chief Investigator (CI) will be required to complete an application, including the below information:

- ▶ A project outline, including expected activities and outcomes.
- ▶ Summary of how this research project will contribute knowledge to one of the Four TRaCE Research Themes
- ▶ Summary of how this project will contribute solutions to decarbonisation and/or sustainability and accelerating a net zero economy.
- ▶ Summary of project outputs and impact.
- ▶ Outline of relevance of industry partner to the project, including an outline of their involvement
- ▶ A proposed arrangement for Stipend funding/industry contributions
- ▶ A link to updated University Research Profile of the Chief Investigator (CI)
- ▶ A letter of support on company letterhead from industry partner outlining: summary of planned engagement, and confirmation of accommodating HDR embedment requirements as per **Section 8.2**.

9.2. Application Review

Upon receipt of application, the application will be reviewed by the TRaCE Research Management Committee (Newcastle Subcommittee), to determine suitability to the program. CI will then be notified of an outcome.

9.3. Candidate Recruitment and Approval

Recruitment for a suitable candidate can commence at any time.

Once a suitable candidate has been selected, they will need to be approved by both the CI and Industry partner via completion of a supplied verification form.

9.4. Admission to the University

Once a candidate has been selected and approved, they will be able to commence the University of Newcastle Admissions Process as outlined [here](#).

Once this process is complete and requirements are met, the candidate will begin their HDR program and their involvement in the TRaCE HDR Scheme will commence.

10. PROGRAM SUMMARY

	TRaCE HDR Program
Duration	3-4 years full time
Candidates	Undertake HDR projects co-designed by the University and industry, embedding in industry settings, which align with TRaCE Research Themes and demonstrate alignment with the TRaCE program.
Embedment	Candidates must undertake R&D activities in an Industry setting for minimum of 60 days FTE over the duration of candidature.
Training	Candidates will be included in the NIER Doctoral Training Centre's, allowing for additional training and industry engagement opportunities contributing to career readiness throughout candidature.
Funding	University
	Indirect Cost Recovery Charges (where applicable)
	Industry Partner
	N/A
	PhD Candidate
	<ul style="list-style-type: none"> ▶ Competitive stipend of a minimum of \$10K p.a. above the Base Stipend Rate, made up of TRaCE and/or Industry Contributions ▶ \$10K Professional Development Support ▶ OSHC and Relocation allowance (International Students)