

Research and Development Program Round 4: FAQs Renewable Hydrogen for Export

Contents

Applicants	1 - 2
Activities	2 - 3
Assessment Process	3 - 5
Finances	5 - 7
Knowledge Sharing	7 - 8
ARENA's Investment Priorities	8

Applicants

Can my organisation apply for funding?

To be eligible for funding, your organisation must hold an Australian Business Number (ABN) and be either an eligible Australian research institution or an Australian entity incorporated under the *Corporation Act 2001* (Cth). The following Australian research institutions are eligible to apply:

- an Australian university (University);
- the Australian Nuclear Science and Technology Organisation (ANSTO);
- the Commonwealth Scientific and Industrial Research Organisation (CSIRO) including Data61;
- the Australian Institute of Marine Science (AIMS);
- the Defence Science and Technology Organisation (DSTO);
- Cooperative Research Centres (CRCs);
- the National Measurement Institute (NMI); or
- Australian Research Council (ARC) Centres of Excellence.

Does ARENA support collaboration between Australian universities?

ARENA encourages collaboration. This includes collaboration between universities as well as between universities, industry and international partners. ARENA may seek to facilitate collaboration between applicants with similar or complementary applications with their prior consent.

Are international research institutions eligible for funding?

International research institutions are not eligible to apply directly for funding as the main applicant. They may apply in collaboration with Australian research institutions, universities or companies. However, the majority of project must take place in Australia. No more than 10% of any ARENA funds awarded to a single project may be spent overseas - with the exception of the purchase or use of equipment and materials. Any overseas spending above this cap can only take place with prior written approval by ARENA.

Does ARENA require applicants to have an industry partner to be eligible for funding?

It is not essential to have an industry partner. Each application will be assessed on its merit against all selection criteria. However, proposals that can identify a pathway to commercialisation may be considered of higher merit.

Activities

What are the priorities of Round 4?

For a project to be eligible for funding it must address one or more of the Round's priorities.

The priorities for Round 4 are to accelerate the development of a potential renewable energy export supply chain, through research and development on one or more of the following:

- the production of gaseous hydrogen (or direct production of a hydrogen carrier suitable for export) using renewable energy, including lowering the cost and/or improving the efficiency of established methods; and/or
- the conversion of gaseous hydrogen to a substance or form suitable for export, including reducing the cost and/or improving the efficiency of established methods; and/or
- the conversion of an exportable substance to hydrogen, including reducing the cost and/or improving the efficiency of established methods; and/or
- the use of hydrogen and/or an exportable substance as an energy source, including reducing the cost and/or improving the efficiency of established methods.

What activities are covered?

This Round covers activities which:

- are between Technology Readiness Level (TRL) 2-6 (inclusive) at the time of application;
- meet one or more priorities of the round;
- involve a renewable energy technology; and
- meet the definition of an R&D project (see below).

R&D includes specialised scientific and technical information services, post-graduate research, the design, construction and testing of prototypes (pilot plants where new data is evaluated) and the implementation of innovations (including trial production and copying of prototypes).

R&D does not include basic or blue sky research (Technology Readiness Level (TRL) 1), education and training of students (except post-graduate research), maintenance of national and international standards, feasibility studies, business models or marketing and market studies.

Are there any specific exclusions to projects?

Projects will not be funded under this Program which;

- use feedstocks from a non-renewable source e.g. coal
- involve commercially ready uses of hydrogen as an energy source e.g. hydrogen fuel cell vehicles
- export biomass.

The export of hydrogen carriers produced through renewable, sustainable biological pathways are included in eligible projects.

What are hydrogen carriers? What are exportable substances?

Hydrogen carriers and exportable substances are defined as any substance that can be converted to or from gaseous hydrogen. This includes;

- liquid hydrogen
- chemicals e.g. ammonia, formic acid, methanol
- a material on which hydrogen can be stored via adsorption

The production method in my project uses natural gas as a feedstock but renewable energy to power the process, is it eligible?

No. Projects which use non-renewable sources as either an energy source *or* a chemical feedstock are not eligible to apply for funding under this Program.

Are there any restrictions on the start and end dates of Projects?

Yes. The maximum Project length is 3.5 years, with the earliest possible start date being 1 July 2018 and the latest possible end date being 31 January 2022.

Assessment Process

How do I apply for funding?

EOIs and full applications must be submitted using ARENA's Grants Management System (GMS). From 20 December 2017, applicants can commence an online application by going to ARENA's online GMS, ARENANet.

Each section of the application contains instructions on what information is required and any word limits which may apply. Applicants can save their application at any time before submitting to ARENA before 5pm (AEDT) 28 February 2018.

How does ARENA decide which project will receive funding?

ARENA will assess eligible projects against each of the five merit criteria. Projects must satisfy all merit criteria to a high standard to be considered for funding. ARENA will engage an expert panel to undertake this process. Each merit criteria will be weighted equally. The merit criteria are:

- A. The capability and capacity of the applicant, project partners and key project personnel to deliver the proposed project.
- B. The extent to which the project will contribute to the program’s objectives and round priorities.
- C. The strength of the project design.
- D. The financial viability of the project, including the level of co-investment and evidence of commitment, both cash and in-kind, to the project.
- E. The value of the knowledge and information generated and the extent to which it will be collected, analysed, stored, used and shared.

When will the round close for applications?

Application and assessment for the round will involve two stages: an EOI and, for those successful at the EOI stage, a full application. The opening and closing dates for each stage are:

Stage	Opening Date	Closing Date and Time
Expression of Interest (EOI)	Wednesday 20 December 2017	5pm Australian Eastern Daylight Time, Wednesday 28 February 2018
Full Application	29 March 2018, ARENA will notify Applicants with successful EOIs. The expected timeframe for preparation of a full application is 6 weeks.	
Application outcome	Notification is expected to take place at the end of June 2018. ARENA will advise all Applicants in writing as to the outcome of their application.	
Negotiation and finalisation of Funding Agreement	June 2018 -August 2018	

How long will the entire process take?

Applications will be assessed once the EOI submission period has closed. It is expected applicants will be notified of the outcome of their assessment within 4 weeks from the closure of the EOI submission period. Successful applicants will be notified, and ARENA anticipates applicants will then have 6 weeks to prepare a full application. It is expected applicants will be notified of the outcome of this assessment by end of June 2018.

What is a portfolio approach?

When selecting projects for funding ARENA may consider how a project will contribute to the program objectives and round priorities, or as part of a suite of complementary ARENA projects. ARENA may elect not to fund an otherwise meritorious project if the aims and outcomes of that project are the same as, or similar to, the aims and outcomes of a project that has previously been funded or is currently under assessment. ARENA's current portfolio of projects is listed on its website <https://arena.gov.au>.

What feedback can I get on my application?

ARENA will provide written feedback to applicants who are unsuccessful at the full application stage only. Feedback on merit will not be provided at the EOI stage for unsuccessful applications.

Finances

How much funding can ARENA provide to my project?

Approximately \$20 million will be invested in research projects through this round. This amount may be varied up or down at the discretion of the ARENA Board. The following funding parameters apply:

- The expected minimum ARENA grant to a project is \$500,000.
- The expected maximum ARENA grant to a project is \$5 million.
- Projects seeking above \$5 million from ARENA must demonstrate exceptional merit.
- No grant greater than \$10 million will be awarded.

Where is the ARENA budget template?

The ARENA budget template can be found on the online ARENANet application form, under 'merit criterion D'.

Is there a required level of co-investment that must be provided?

It is expected that projects will match, with a combination of cash and in-kind contributions, the ARENA grant on a 1:1 basis. Projects which attract a greater degree of commitment of funding from sources other than ARENA may be considered of higher merit. ARENA expects that proposals closer to commercialisation will provide a higher proportion of total funds.

Why does ARENA require co-investment?

ARENA funds projects in order to support commercialisation outcomes over the short-, medium- and long-term. ARENA therefore expects that project proponents should bear some of the cost and risk associated with the project.

ARENA is seeking to fund projects that offer high value for its contribution to the total project cost. Projects that seek a lower proportion of ARENA funding as a share of the total project cost may be considered to be of higher merit. Please refer to Merit Criteria D in the R&D Program Round 4 Guidelines.

Should salaries be counted as in-kind or cash contributions?

Where personnel are already engaged by the recipient prior to the commencement of the Project and have not been engaged specifically to work on the Project, this cost should be classed as an In-kind Contribution, as opposed to a Cash Contribution. Where an existing member of personnel is transferred to work on the Project (for all or part of the time), then the proportion of time that is spent on the Project shall be classed as an in-kind contribution.

Where personnel are specifically hired to work on the Project, this can be classed as a Cash Contribution. Where personnel are specifically hired to work on the Project, but this work does not form their entire role, then the proportion of time that is spent on the Project shall be classed as a Cash Contribution.

Can salary on-costs be counted as contributions?

Yes. Salary on-costs can be calculated as an additional 25 percent of the salary and should be included as eligible expenditure, within the salary budget line.

Will university overheads be accepted as a contribution?

Where overheads are directly related to the Project, e.g. contract negotiation or administration costs incurred as part of the Project management, expenses should be included as eligible expenditure.

Where overheads are related to costs incurred in the normal course of business and do not relate directly to the project, e.g. general administration costs for school or university services, expenses proportional to the Project can be included as ineligible expenditure.

Why does ARENA ask for budget against ineligible expenditures if ARENA funds or contributions do not count towards them?

ARENA understands that there are additional costs in undertaking Projects, that relate to the normal course of business. These costs, proportional to the Project, should be captured

as part of the total cost as it gives a more accurate calculation of the entire value of the work.

How will payments be made if my application is successful?

In general, a payment will be made at the start of the project (50% of the grant value), at the midpoint of the project (30% of the grant value) and at the end of the project (20% of the grant value). Payment of the last two instalments will depend on the applicant achieving their milestone activities for that period, which will be agreed upon during negotiation of the Funding Agreement.

Knowledge Sharing

Will my project be required to share knowledge under ARENA's knowledge sharing function? What does that involve?

ARENA invests public money and knowledge sharing is the return that ARENA gets on that investment. All projects funded by ARENA are required to share knowledge and information gained from the execution of the project. This knowledge is used to inform industry and the broader community about the project's developments and findings, in order to progress the technological feasibility and commercial readiness of the technology or application more broadly.

A Knowledge Sharing Plan, which details the knowledge and information to be shared about a project, must be completed at the full application stage. The plan comprises a minimum set of knowledge sharing activities which ARENA expects all R&D projects to agree to, and the applicant will be invited to add any activities which may increase the merit of the application. This template will be provided at the full application stage. It is expected that projects at later stage TRLs will generate higher value knowledge.

Will ARENA want me to share my commercially sensitive project information? Will I lose my IP?

No. ARENA will not ask proponents to share commercially valuable information or IP that would reduce the value of the project or the proponent. Knowledge sharing refers to lessons learnt throughout the project, the sharing of successful stories, and creating opportunities for collaboration with the wider renewable energy sector. In some cases this may be made publically available, in others it may be restricted to a relevant audience within the specific sector. The information shared only relates to that which is useful to replicate across multiple projects, thereby reducing the costs and risks of future projects and capitalising on ARENA's investment to generate maximum impact.

What are ARENA's requirements surrounding recognition of ARENA funding in communications material?

For any successful applicants, ARENA support must be acknowledged in all communications material distributed by grant recipients in relation to the ARENA-funded project.

ARENA's Investment Priorities

How does this program align with ARENA's investment priorities and its 2017 Investment Plan?

Under the 2017 ARENA Investment Plan, the *Exporting Renewable Energy* investment priority aims to create new, scalable export value chains in renewable energy. Supply chains that include hydrogen (and related materials) are possible mechanisms for the storage and export of renewable energy. These pathways have the potential to make use of renewable energy that would otherwise may be curtailed, and provide a market for Australia to capitalise on its excellent renewable energy resources, beyond meeting domestic demand.

Hydrogen production, conversion to a carrier or substance suitable for export, and transformation into energy at point-of-use are all stages in the supply chain that have significant scope for cost reductions. The capability to supply renewable hydrogen (or a related substance) at a competitive price is likely to drive further investment throughout the rest of the supply chain, including increased support for dedicated renewables for export.