

## **FAQs Research and Development (R&D) Program - Round 3: Solar PV Research**

### **1. What are the priorities of Round 3: Solar PV Research?**

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

The priorities for Round 3: Solar PV Research are to reduce the future cost of solar PV deployment through R&D on:

- established and emerging solar cell technologies, including lower-cost materials, and/or improved efficiency and/or stability and/or reliability and/or scalability;
- established and emerging solar module technologies, including lower-cost materials, and/or improved efficiency and/or reliability and/or durability

### **2. What activities are covered?**

This round covers activities involving solar PV technologies which:

- are between Technology Readiness Level (TRL) 2-4 (inclusive) at the time of application;
- meet the priorities of the round; and
- meet the definition of an R&D project (see below).

**This includes** specialised scientific and technical information services, post-graduate research, and the design, construction and testing of prototypes.

**It does not include** basic or blue sky research (TRL 1), the implementation of innovations (including trial production and copying of prototypes), education and training of students (except postgraduate research), maintenance of national and international standards, feasibility studies, business models or marketing and market studies.

### **3. 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 and methodology.
- 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.

### **4. 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.

## 6. 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
Expression of Interest (EOI)	Wednesday 24 May 2017	5pm Australian Eastern Standard Time, Wednesday 21 June 2017
Full Application	TBA during 2017, ARENA will advise dates to 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 October 2017. ARENA will advise all applicants in writing as to the outcome of their application.	
Negotiation and finalisation of Funding Agreement	December 2017 - January 2018	

## 7. 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 will then have 6 weeks to prepare a full application. It is expected applicants will be notified of the outcome of this assessment by November. Funding agreements will aim to be signed by the end of 2017.

## **8. How do I apply for funding?**

EOIs and full applications must be submitted using ARENA's Grants Management System (GMS). From 24 May 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 (AEST) 21 June 2017.

## **9. 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.

## **10. How much funding can ARENA provide to my project?**

Approximately \$20 million will be invested in research projects through this round. 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.

## **11. 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.

## **12. 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.

## **13. 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.

#### **14. 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 letters will provide a contact officer whom applicants can call for verbal feedback. Feedback on merit will not be provided at the EOI stage for unsuccessful applications.

#### **15. Will university overheads be accepted as a contribution?**

ARENA will accept university research overheads as an in-kind contribution. University research overheads are considered to be ineligible expenditure, therefore ARENA funds cannot be spent on university research overheads.

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 3 Guidelines.

#### **16. 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.

#### **17. 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 or 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>.

#### **18. 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.

#### **19. 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.

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

Round 3: Solar PV Research is the first funding announcement under ARENA's *Accelerating Solar PV Innovation* investment priority - one of four new investment priorities announced on 1 May 2017.

By supporting ongoing research, development and demonstration, ARENA will help to further drive innovation in solar PV in Australia and internationally.

The aim of this investment priority is to make solar PV more affordable and competitive. We want to find further big innovations in solar PV and help fulfil the Australian Government's commitment to double clean energy R&D spending by 2020.

**21. What benefits will this program bring to Australia?**

Round 3: Solar PV Research will contribute to one of the goal's of ARENA's 2017 Investment Plan to lower the future cost of solar PV deployment. Several decades of Australian solar PV R&D innovation has cascaded through global manufacturing supply chains and contributed to the dramatic decline in the cost of deployed solar PV that we see today.

Further solar PV cost reductions will enable solar PV to account for a greater proportion of Australia's energy needs, reducing the cost of meeting national emissions reduction targets. Continued solar PV cost reductions will also allow cheaper construction of 'excess' PV capacity that can be integrated with storage; supporting a more secure and reliable grid. Fundamental research that leads to increased cell and module performance and lower cell and module cost is a significant contributor to overall PV cost reductions, and has flow on cost reductions through rest of the solar PV value chain.

**22. Why is ARENA funding just solar PV research in this competitive round, and not Concentrating Solar Thermal (CST) research?**

Solar PV is fast becoming the cheapest source of renewable energy in Australia and globally. It has the cost competitiveness, modularity and scalability to make a major contribution to emissions reductions in the near-term. Cost reductions in solar PV will help accelerate the uptake of solar PV, and it will also allow solar PV to be integrated with storage at a competitive cost to the end-user.

ARENA also intends to fund further R&D for CST in order to support a range of options for flexible renewable energy capacity and build on niche areas of CST research where Australian R&D is world leading. These activities could contribute to our *Delivering Secure and Reliable Electricity* investment priority in the recently release Investment Plan. This will be funded through existing and new funding measures, to be determined in due course. Any

new funding would seek to fulfil different strategic objectives to that of Round 3 of the R&D Program.

### **23. Why is this funding round only focusing on solar cells and modules?**

The *Accelerating Solar PV Innovation* investment priority aims to achieve further cost reductions in solar PV in Australia by supporting RD&D projects. This competitive round addresses two of the five areas of innovation identified in the ARENA Investment Plan under the *Accelerating Solar PV Innovation* investment priority.

Round 3: Solar PV Research is targeting R&D at the very beginning of the solar value chain - solar cells and modules. Solar modules account for a significant portion - upwards of 40% - of the total cost of a deployed large scale solar system. This means that module cost reductions have a significant effect on solar PV LCOE (levelised cost of energy) reductions.

Improvements in cost, efficiency, stability, reliability, scalability and durability at the cell and module level also contribute to knock-on cost reductions in balance of systems costs, financing costs and other reductions in the cost of deployment.