

# ASI Round 3

## Funding Guidelines

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**For further information contact:**

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# Round 3 Funding Guidelines

## A. ABOUT THE AUSTRALIAN SOLAR INSTITUTE

The Australian Solar Institute (**ASI**) is part of the Australian Government's \$5 billion Clean Energy Initiative and is supported by a funding commitment from 2009 – 2012 of A\$150 million, inclusive of A\$50 million in respect of the U.S. – Australia Solar Energy Collaboration (**USASEC**).

The Commonwealth is initially the sole member of the ASI with the intention that the ASI will attract new partners and investors over time so that it will be sustained beyond its initial term.

### 1. Role

The ASI invests in research and development (R&D) to accelerate innovation in photovoltaic (PV) and concentrating solar thermal (CST) technologies that have the future potential to significantly reduce the levelised cost of solar energy compared to existing stationary electricity generation.

Skills development, knowledge building, and strengthening collaboration between Australian and international solar researchers and industry are also aims of the ASI. This includes dissemination of the knowledge and insights gained from the Australian Government's A\$1.5 billion Solar Flagships program.

### 2. Research Investment Objectives

The ASI's research investment objectives are:

- Advance and accelerate innovative solar CSP and PV technologies in Australia;
- Drive research that will have a major impact on the efficiency and cost effectiveness of solar technologies to increase their competitiveness with other stationary energy generation;
- Retain local and attract international expertise in solar energy research to Australia; and
- Support the growth in skills and capacity in solar technologies for the domestic and international market.

The ASI is discussing with the Australian Centre for Renewable Energy (**ACRE**) how ASI-funded R&D and pilot scale technology demonstration activity might assist in pre-qualifying technologies for support for more substantive demonstration activity.

## B. ABOUT ROUND 3

### 1. ASI Round 3 Priorities

ASI is seeking highly meritorious projects in Round 3 and has identified **concentrating solar power (CSP)** technologies as the focus of this Round of ASI investment. The ASI is seeking proposals that will reduce significantly the levelised cost of solar energy by increasing the efficiency of CSP energy generation and reducing the cost of its capture and delivery. Specific focus areas have been shaped by the outcomes of the ASI's CSP workshop held in Sydney on 20 April 2011, as follows:

- a. Storage and hybrid technologies with the potential to increase commercial deployment of CSP, for example hybrid solar / diesel power systems.
- b. Reducing CSP field costs.
- c. Pilot demonstration of prospective CSP technologies.

Co-funding from project proponents / participants and other critical support from state and territory governments is a priority for the ASI in this funding round. Accordingly, while merit-based assessment criteria will be focused on projects' ability to advance and accelerate innovative CSP technologies in Australia, proposals outside the focus areas will also be considered if they excel against other merit criteria and meet specific state or territory government priority areas and co-funding or other support requirements. In every case, industry partnerships that increase project funding leverage beyond the matched funding criteria and reduce commercialisation risk will be viewed favourably.

Projects may be industry-led (research-provider supported), research-provider led (industry supported), or research-provider only, noting that collaboration is encouraged and forms part of the assessment criteria.

## **2. State and Territory Government Contributions**

To enhance the diversity of the ASI's existing portfolio of solar R&D investments to include projects across Australia, the ASI is committed to working with selected state and territory governments to jointly support projects that meet the ASI's criteria of technical excellence. These projects may be in Round 3 priority areas as well as areas of special interest to particular states and territories, and that in all cases meet both the ASI's and the relevant state or territory government's objectives. In this regard, the governments of the Northern Territory, Queensland, South Australia and Western Australia have expressed interest in reviewing proposals for solar R&D projects in their respective jurisdictions, with a view to supporting those projects. Specific areas of interest for each relevant state or territory government are as follows:

### **a. Northern Territory**

The Northern Territory Government, through the Department of the Chief Minister, is interested in discussing with proponents opportunities in the following areas:

- i. Hosting a utility sized solar energy demonstration project in a specified location south of Katherine, with grid connection to the Darwin Katherine Integrated System. Noting that Power and Water Corporation has commenced an Expressions of Interest process for utility sale (nominally 30 MW) on the Darwin - Katherine System which closes on 30 June 2011.
- ii. Installation of CSP and solar PV on the Yuendumu and Ntaria (Hermannsburg) systems to supplement existing concentrator PV systems.
- iii. Research and development that contributes to:
  - Remote and rural electrification programs, with the emphasis on replacing diesel in remote communities through solar hybrid systems including a demonstration project moving towards 100% renewable energy.
  - Solar integration in the Darwin Katherine Integrated System.
- iv. Enabling projects that will encourage the uptake and efficiencies of solar (CSP and solar PV) deployment in the Northern Territory, such as (but not limited to) those that contribute to the:
  - Development of innovative commercialisation and financing models.
  - Development of grid integration forecasting models.
  - Online monitoring of data and performance of technology, development of techniques for fault finding and performance optimisation.

- Evaluation of solar technology for network support.
  - Techniques for managing high PV penetration.
  - Evaluating the benefits of CSP for regional grid support.
- v. Developing strategic partnerships with the Northern Territory's Centre for Renewable Energy, based at Charles Darwin University.

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 Energy Policy and Climate Change Unit  
 Department of the Chief Minister  
 Northern Territory Government  
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 Telephone: 61-8-8999 7405  
 Facsimile: 61-8-8999 5411  
 Email: [vikki.mcleod@nt.gov.au](mailto:vikki.mcleod@nt.gov.au)

**b. Queensland**

The Queensland Government, through the Office of Clean Energy, is interested in solar R&D projects in **all of the ASI Round 3 Priority areas listed in Section B1** and:

- i. The development of an industry accepted resource measurement methodology for collecting, measuring and verifying solar resource data.
- ii. Demonstration of solar and solar hybrid air conditioning technology in residential and commercial installations to reduce the impact of peak demand.

Contact person: Ms. Elisa Terry  
 Office of Clean Energy  
 Department of Employment, Economic Development and Innovation  
 Level 4, 200 Mary Street, Brisbane Qld 4000  
 PO Box 15216, City East Qld 4002  
 Telephone: 61-7-3404 3025  
 Email: [Elisa.Terry@deedi.qld.gov.au](mailto:Elisa.Terry@deedi.qld.gov.au)

**c. South Australia**

The South Australian Government, through Renewables SA, is interested in excellent solar R&D projects in the ASI Round 3 Priority areas as well as the following areas:

- i. Off-grid CSP applications; and
- ii. CSP applied to reducing peak power loads and in high energy use applications, for example air-conditioning.

Contact person: Mr. Tim O'Loughlin  
 Commissioner for Renewable Energy  
 Renewables SA  
 Level 17, Education Building  
 31 Flinders St, ADELAIDE SA 5000  
 Telephone: 61-8-8207 2323  
 Mobile: 61-419 822 915  
 Email: [tim.o'loughlin@sa.gov.au](mailto:tim.o'loughlin@sa.gov.au)

d. **Western Australia**

The Western Australian Government, through its Department of State Development, is interested in excellent solar R&D projects in the ASI Round 3 Priority areas as well as the following areas:

- i. Off-grid CSP applications, for example in remote mining communities;
- ii. CSP applied to reducing peak power loads and in high energy use applications, for example air-conditioning and water desalination;
- iii. Quality assurance, testing and standards;
- iv. Demonstration of emerging PV technologies;
- v. Development of renewable energy monitoring systems;
- vi. Hybrid CSP / PV systems;
- vii. Solar thermal and thermal energy storage;
- viii. Solar thermal energy conversion systems (heat to electricity);
- ix. Grid integration of mid-scale solar; and
- x. Examining technical, social, economic and regulatory barriers to solar PV and thermal uptake.

Contact person: Dr. Vibhuti Misra  
Senior Manager  
Department of State Development  
Level-6, 1, Adelaide Terrace, East Perth, WA-6004  
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Please note that Expressions of Interest (**EOI**) received in an area of enabling research (for example, standards development) may be subject to a different selection process in consultation with the relevant state or territory government.

Unless an applicant explicitly requests otherwise in writing, the ASI will share with the relevant state or territory government contact person listed above the applicant's Round 3 EOI that proposes an R&D project in that state or territory. Should the proposal as outlined in an EOI meet the ASI's criteria of technical excellence and be shortlisted in the Round 3 assessment process, the ASI will work with the relevant state or territory government to attract co-funding or other critical support.

**Please note that allocation of funding or other support by a state or territory government to any project in the ASI's Round 3 funding program is at the absolute discretion of the relevant state or territory government. Nothing in these guidelines should be construed as an express or implied offer of funding from any state or territory government.**

**Applicants proposing to locate their ASI Round 3 project in the Northern Territory, Queensland, South Australia or Western Australia are encouraged to speak with the ASI's Executive Director or Investment Director, as well as the relevant state or territory government contact person listed above, during development of their EOI.**

The ASI continues to welcome EOIs from applicants in the Australian Capital Territory, New South Wales, Tasmania and Victoria and will engage with governments in those jurisdictions about attracting co-funding or other critical support following review of proposals by the ASI's Research Advisory Committee.

### 3. Funding Limit

Only highly meritorious projects will be funded by the ASI in Round 3. The amount of funding to be released is at the discretion of the ASI Board. Round 3 applicants should note that the ASI has up to \$20 million of uncommitted funds remaining for solar R&D projects and enabling research outside the USASEC initiative.

## C. PROPOSALS

### 1. Timeline

Round 3 will be undertaken in **two** stages. First, a call for Expressions of Interest (**EOI**) will be made followed by an invitation to a shortlist of EOI applicants to submit full funding proposals. The following are the target dates in 2011 but these are subject to change at the discretion of the ASI – please monitor [www.australiansolarinstitute.com.au](http://www.australiansolarinstitute.com.au) for updates:

- **29 June:** Round 3 launched with invitation for submission of EOIs
- **18 August:** closing date for submission of EOIs
- **August - September:** Assessment of EOIs by ASI Research Advisory Committee
- **September:** Proponents advised of EOI outcome
- **27 October:** Closing date for submission of full proposals
- **November:** Assessment of full proposals by ASI Research Advisory Committee
- **December:** ASI Board makes Round 3 funding decisions.

### 2. Consultation

The ASI will provide updated information about progress in Round 3 via its website. The ASI's Executive Director and Investment Director are available to answer questions from proponents over the phone and by email during the preparation of EOIs. Proponents may also seek face to face meetings, though these may not always be possible to arrange within the timeframes for this funding round.

Proponents who are shortlisted through the EOI process and who are **invited** to submit full proposals will be encouraged to work with and consult with the ASI management team, as well as their state or territory government if applicable, as they prepare their full proposals.

### 3. Confidentiality

Subject to the ASI's intention to share proposals with state and territory governments as appropriate and outlined in Part B2 above, the ASI treats all information confidentially unless prior agreement has been reached with the proponent(s).

### 4. Eligible Applicants

To be eligible to apply for ASI funding, an applicant must be able to demonstrate that:

- it is a research institution, university and/or business (ABN or ACN required) that is capable of undertaking leading-edge research and development of a CSP technology in Australia.
  - Applicants must be Australian-domiciled but not necessarily Australian-owned.
- it can fund, as they fall due, the costs of the project that are not met by the ASI's contribution to the total cost of the project.

- it has ownership of, access to or the beneficial use of any background intellectual property necessary to carry out the project.
- its collaborating institution(s) has(have) the demonstrated capability (financial and/or other resources) and commitment to contribute to the successful completion of the project.
- the applicant and its collaborating institution(s) have agreed an arrangement for ownership and use of intellectual property arising out of their proposed joint research project.

## 5. Project Funding Limits

The ASI is seeking well-leveraged R&D proposals that demonstrate solid collaboration with research institutions and/or industry and that preferably demonstrate industry and state or territory government support. The maximum level of ASI funding for any individual Round 3 Project will be \$5,000,000. Within these boundaries, the ASI Board retains absolute discretion as to the amount of funding that may be granted to any project approved for funding in Round 3, including the option of seeking to negotiate project scope and budget with applicants prior to making any formal offer of funding.

- All projects will be stage-gated to ensure continuing support only on the basis of demonstrable achievement of clear, agreed milestones.
- The ASI recognises that there may be projects that could utilise a larger maximum ASI funding contribution. In this case the project could be supported, at the ASI's absolute discretion, on a staged basis as independent but related (i.e. follow-on) projects.

## 6. Value for Money

The ASI is seeking projects that offer high value for its contribution to total project cost. Notwithstanding this, proposals must demonstrate:

- contributions (cash and/or in-kind) from one or more collaborating organisations.
- minimum 1:1 matched funding (cash and/or in-kind), noting that value-for-money is an assessment criterion.

The ASI will make a financial contribution, within the project funding limits set out in the previous section, to meeting no more than half the total cost of any individual project. Proponents and their collaborators must make cash and/or in-kind contributions to finance the balance of total project costs. In submitting EOIs, proponents must set out the intended cash and/or in-kind contribution of their industry and research collaborators as well as any anticipated state or territory government contribution, if applicable.

In-kind contributions are non-cash contributions in the form of existing resources applied to a project, for example:

- Salaries and associated overhead costs of project personnel, for the time they are engaged in the project.
- Access to and use of capital equipment.
- Indirect support costs such as general infrastructure costs.
- Imputed rent on buildings and equipment made available for project use.
- Non-salary, project-specific direct costs, for example, the cost of providing consumables.
- Other costs necessary to enable project completion.

In-kind contributions must be directly attributable to the provider of the in-kind support—and they must be auditable at a reasonable level that verifies their contribution to the total project cost, including overhead levels and/or formulae.

N.B.: ‘In-kind’ contributions do NOT include sunk costs of any kind, including background technology or intellectual property being brought to the project.

**State and territory governments and industry may be co-funders of projects proposed to ASI. While state and territory government contributions *cannot* be used for matching funding, those contributions are actively encouraged. It is recognised that the quantum of state or territory funding that may ultimately be available is likely to be informed by the EOI process. Therefore applicants are encouraged to consider ASI and state or territory government funding as a single funding quantum and ensure the minimum 1:1 matched funding criterion is met based on the total quantum. This will allow the actual public funding sources to be defined during the development of full proposals.**

## **7. Ineligible Expenditure**

The cost of some activities conducted as part of an agreed project may not be eligible expenditure. An applicant must ensure it has adequate funds to meet the cost of any ineligible expenditure associated with its project. Ineligible expenditure categories include, but are not limited to:

- The construction of buildings and/or cost of purchasing or improving land.
- Management studies or efficiency surveys.
- The making of donations.
- The costs of obtaining resources used on the project, including interest on loans and leases, non-standard depreciation of equipment, unreasonable overhead allocations, and application costs including costs of contract negotiations.
- Routine collection of information, intelligence gathering or other advice rendered by experts, advisors or consultants except when identified as a necessary part of the R&D project.
- Any activity related to the reproduction of a commercial product or process by a physical examination or modification of an existing system or from plans, blueprints, detailed specifications or publicly available information.
- Opportunity costs relating to forgone production and downtime arising from the allocation of resources to the project.
- An activity that a local, State, Territory or Australian Government agency has the responsibility to undertake.
- Any activity that the grantee could reasonably be expected to undertake in the normal course of their business.
- Any activity that is or has been supported by another Australian Government program which would lead to ASI funding the same activity more than once.
- Any activity that the proponent must perform to comply with official regulation or legislation.
- Interest on loans for new and pre-existing capital items utilised for the project.
- The costs of protecting proponents’ or collaborating institutions’ intellectual property.
- The costs of recruitment, ex-gratia payments/bonuses or relocation of personnel.

This list is not exhaustive. Other specific expenditure may be ineligible because it is deemed by the ASI’s Executive Director not to directly support the achievement of planned project outcomes or to be contrary to the spirit and/or intention of ASI’s solar R&D funding rounds.



## 8. Project Total Cost

Total project costing must identify all probable known expenses associated with the project. Heads of expenditure costs to be detailed in, and justified for, the project budget are:

- Personnel:* The cost, for the time they are engaged in the project, of staff engaged or to be engaged, including their salary cost and staff-related overheads. All known OVERHEAD COSTS should be provided in detail. If using a formula, please justify its use and provide full details of the factors used in its derivation.
- Equipment:* The cost of equipment to be used on the project including new equipment, depreciation of existing equipment, lease costs, maintenance costs and/or charges for use of existing equipment.
- Materials:* The materials that will be consumed in the project and their cost.
- Subcontract:* The costs of engaging subcontractors.
- Travel:* The costs of domestic and/or overseas travel by project personnel that is directly related to the project.
- Other:* Any other project costs that are not covered above. Of particular importance is technology adoption costs, i.e. any expected costs (including intellectual property protection costs) related to transferring the project results to, or to the next innovation stage towards, commercialisation. **Note that the ASI will not fund the costs of protecting intellectual property relating to the project.**

## 9. Overseas Expenditure

Any expenditure incurred by the submitting organisation outside Australia, other than in respect of equipment or materials, must be limited to no more than 10% of total project cost except in exceptional circumstances that must be justified by the applicant and agreed by the ASI in writing. All such expenditure in any category must be justified as integral to the project.

Proponents should explain why project R&D activity conducted overseas:

- cannot be done in Australia or any equipment or materials supplied from overseas cannot be sourced in Australia; or
- would benefit from being performed outside Australia.

## 10. Project Proposal Formats

EOIs should be submitted by following the EOI format published with these Guidelines, which may be downloaded from the ASI web site.

Full proposals should be submitted by invitees that adhere to the Full Proposal template, which will be downloadable from the ASI website following the EOI stage.

Proponents are encouraged to seek feedback from the ASI's Executive Director or Investment Director during the proposal development process regarding any aspect of the proposal templates or ASI objectives that is unclear. Proposals must address ALL questions in templates and all requested information must be supplied. A failure to do so will result in the proposal not being considered for ASI funding.

Each applicant invited to submit a full proposal will be required to carefully plan the project, define the need for the project, describe the benefits to Australia that will arise from the successful achievement of the project's objectives (assuming successful commercialisation), and justify the technological and financial bases of the project.

An essential component of each full proposal will be a detailed explanation of how the applicant and its collaborating institution(s) intend to own and use intellectual property arising out of their joint research project.

***An important part of the project development process is to verify the relationship of the proposed technology to the global best practice or state-of-the-art. Such rigorous bench-marking is a requirement in the ASI's proposal template.***

## **D. ASSESSMENT**

### **1. Assessment Process**

Each EOI will be assessed against the criteria provided in the Round 3 EOI Evaluation Form published with these Guidelines and available on the ASI web site. Full proposals will be assessed against the criteria provided in the Round 3 Full Proposal Evaluation Form that will be made available following the EOI stage. These are the criteria the RAC will use to assess the merit of each proposal and will be used to assist in the short-listing process.

Details of RAC membership will be provided on the ASI website. The ASI reserves the right to request additional assessments from other international and national experts. Proponents will be given the opportunity to request that individual RAC members not assess their proposals on the grounds of potential conflict of interest. Any conflict of interest that arises in respect of ASI RAC or Board members will be managed to ensure that the relevant member(s) is not included in a project's assessment or selection process. When necessary, additional expert advice will be sought as part of the ASI's assessment process. Any external assessor will be required to sign a confidentiality agreement before any information about a proposal is released to him or her.

Assessments are made using a weighted scoring system, with additional commentary for clarity and/or feedback. A proforma scoring sheet for Round 3 EOIs is provided at the end of these Guidelines.

The high-level merit criteria used and their contribution to an overall assessment of a Round 3 proposal cover:

- **The project (50%)**
  - The strategic, technical, budgetary and 'value for money' merit of the proposed project.
- **The people and their organisations (25%)**
  - The quality of the people and the organisation(s), including their capability to complete and progress the outcomes of the project towards commercialisation emphasising the quality / track record of the people.
- **The contribution to ASI's objectives for its research investments and potential benefits to Australia (25%)**
  - Emphasis on the project's potential to lead to significant benefits to Australia, including the prospect of follow-on larger projects.
  - The level of contribution to the ASI's investment objectives if the technology is successfully commercialised.

## **2. Final Funding Selection**

The ASI Board will consider all full proposals. Based on the assessments and advice provided to it by the RAC and ASI management, the Board will rank the proposals and select those of highest merit. The Board reserves the right in its absolute discretion to decline to fund any project if it does not consider the standard of project proposals to be sufficiently high.

## **3. Post Selection Feedback**

Unsuccessful applicants for Round 3 funding may seek feedback from ASI management. Detailed scoring information will NOT be provided. ASI management will provide qualitative feedback on why a proposal was not successful using the major assessment bands described earlier.