



Proposal Guide (Version 09.01)

Solar R&D Projects

CONTACT INFORMATION

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THE AUSTRALIAN SOLAR INSTITUTE

BACKGROUND

The primary role of the Institute is to use its funds base to pro-actively invest in solar R&D projects, skills development, national outreach and international engagement, specifically in the fields of photovoltaics (PV) and concentrating solar thermal (CST), for the benefit of the Australian solar community and the Australian public at large. The **Mission** of the Institute is:

*To proactively foster and support excellent R&D in Australia
to accelerate commercial deployment
of photovoltaic and concentrating solar thermal technologies.*

The **Objectives** of the Institute are:

- To identify, advance and accelerate innovative CST and PV technologies in Australia:
 - by supporting focused collaborative research in high priority solar technologies
 - in order to increase the competitiveness of solar technologies to other stationary energy generation.
- To retain local, and attract international, expertise in solar energy research to Australia.
- To support the growth in skills and capacity in solar technologies for the domestic and international markets.
- To make Australia a key player in development of solar energy technologies in the Asia-Pacific region.
- To engage with government, industry and the community in promoting, developing and implementing solar technologies and the interests of the solar R&D community.
- To provide a forum to discuss ideas and promote multidisciplinary research and institutional collaboration.
- To set in place arrangements leading to sustainability of the ASI.

RESEARCH INVESTMENT OBJECTIVES

ASI's objectives for its research investments are to

- Advance and accelerate innovative PV and CST technologies in Australia
- Support focused, collaborative R&D in solar technologies
- Significantly increase the competitiveness of solar technologies in their markets

PROGRAMS

ASI will:

- Provide a key entry point and focus for the development of (collaborative) solar R&D projects;
- Support and encourage skills development—postgraduate scholarships and postdoctoral fellowships; and
- Foster knowledge building—linkages and networking nationally and internationally.

Information on the skills development and knowledge building programs is available separately from ASI and they are dealt with separately from R&D projects.

FUNDING OF SOLAR R&D PROJECTS

ASI proactively fosters the development of, and funds and supports, excellent industrial and academic applied R&D (including leading to pilot-scale demonstration) projects designed to move PV and CST technologies to an investment-ready point either for pre-commercial, large-scale demonstration funding or for business-support funding.

ASI's funding of solar R&D projects is based on the "additionality" principle. That is, ASI will fund activities that are additional to what otherwise would have occurred without the funding — either through expanding the scope of a project, enabling a new project to be commenced or attracting new researchers and students into a key PV or CST technology area.

Projects are selected on a competitive basis to meet ASI investment objectives. They are needs-driven so their identified outcomes are or will be of practical use. ASI's project design, selection and management processes emphasise outputs, management, relevance and coherent effort.

AMENDMENTS TO THIS PROPOSAL GUIDE

This Proposal Guide may be amended by the ASI from time to time including after it enters into a funding agreement with the Commonwealth of Australia. If the ASI amends this Proposal Guide, it will either issue an addenda or a new version.

SOLAR R&D PROJECT PROPOSALS

ASI will proactively foster the development of, and fund and support, excellent industrial and academic:

- Applied R&D (including leading to pilot-scale demonstration) projects designed to move PV and CST technologies to an investment-ready point either for pre-commercial, large-scale demonstration funding or for business-support funding.
- Basic R&D projects designed, as the major aim of the project, to establish "proof-of-principle" at an experimental level of a new PV or CST technology.
- Core Institution (40% Component) R&D projects, for which funding is drawn from the 40% allocation by the Commonwealth Government of its ASI funding commitment to the designated Core Institutions: CSIRO, Australian National University and University of New South Wales — and which attract additional assessment criteria to those for Applied R&D projects.

These projects may be industry-only (sole company or consortia); industry-led (research-provider supported); research-provider led (industry supported); or research-provider only, noting that collaboration is encouraged and assessed. ASI may also proactively commission, on a competitive basis, R&D projects that it considers are critical to the PV or CST sectors in Australia.

FOCUS ON EXCELLENCE

ASI will support solar R&D projects that are technically "excellent" that will lead to increased commercial deployment of PV and CST — whether that commercial deployment is in the short, medium or long term. While excellence is a subjective judgement, particularly for commercial considerations, it is important to demand it because ASI is:

- Focused on outcomes; and
- Expects its project proponents to be similarly focused on not just the technical progression of their PV and CST technologies but also their progression through the innovation process to a successful commercial deployment outcome.

CONSULTATION

We work with proponents of proposals to understand their projects and guide development of proposals relevant to ASI's areas of interest. Those who are developing projects and proposals are encouraged to meet and work with ASI's Research Investment Managers (RIMs) during the progress of completing a proposal.

Feedback to proponents at all stages is important—it can save time, energy and disappointment. In providing feedback, RIMs will ensure they are not 'writing' the proposal for applicants. Rather they will indicate where sections in proposals are missing required information or are weak or poorly written, for example.

From time to time RIMs also may play a 'brokering' role and/or utilise their networks to suggest, when requested, possible linkages for proponents in their endeavour to put together the best possible project. Where appropriate, we will help to develop consortia to finance and carry out the project and – if requested by proponents – also may assist proponents' efforts for the outcomes of their project to be adopted by the next point in their innovation process (e.g. scale-up to pilot- or large-scale demonstration).

CONFIDENTIALITY

ASI treats all information confidentially unless prior agreement has been reached with the proponent(s).

ELIGIBLE APPLICANTS

To be an eligible applicant for ASI R&D Project funding support, applicants must be able to demonstrate:

- They are a research institution, university and/or business that has the capability to undertake leading-edge research and development of PV or CST technologies in Australia;
 - Applicants must be Australian-domiciled but not necessarily Australian-owned.
- That they can fund as they fall due the costs of the project that are not met by ASI's contribution to the total cost of the project; and
- That they have ownership of, access to or the beneficial use of any background intellectual property necessary to carry out the project.

PROJECT ELIGIBILITY

Eligible R&D projects for ASI funding are those that cover:

- PV materials, devices and products R&D for flat-plate, concentrating and custom (e.g. building-integrated) applications that will significantly improve the energy cost competitiveness of PV (compared to other electricity sources) in target markets.
- CST processes, products and systems R&D for power generation, fuel and industrial/commercial process (including heating, ventilating and air conditioning (HVAC)) applications that will significantly improve the energy cost competitiveness of CST (compared to other energy sources) in target markets.

- R&D on enabling technologies (e.g. storage, building, electric-grid or application-specific integration) that are PV or CST specific and that will significantly improve the energy cost competitiveness of PV or CST (compared to other energy sources) in target markets.
- Technology-related R&D (e.g. technology and socio-economic assessments; innovation and commercialisation strategies and policy) that is nationally and internationally collaborative and multi-disciplinary in nature and particularly supports the establishment of common principles, definitions and standards for the rapidly-growing solar industry.

PROJECT FUNDING LIMITS

Applied R&D Projects

The minimum funding level for Applied R&D Projects will be \$1 million and the maximum will be \$5 million except in exceptional circumstances that would require significant justification by project proponents.

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

Basic R&D Projects

The maximum funding level for Basic R&D Projects will be \$1,000,000.

VALUE FOR MONEY

ASI is seeking projects that offer it high value for its contribution to the total cost of the R&D project. Notwithstanding,

- A minimum 1:1 funding criterion is required for Applied R&D Projects, noting that value-for-money will remain an assessment criterion.
 - Proponents' contribution to the total cost of the project can comprise cash and/or in-kind components in order not to disadvantage academic, CSIRO and small-medium enterprises whose primary contribution to projects will be provision of in-kind people, facility and equipment resources.
- Basic R&D Projects do not have any matching funding requirement, noting though that value-for-money will remain an assessment criterion.

State governments and industry may be co-funders of projects proposed to ASI.

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, job advertising and recruiting, and contract negotiations.
- Routine collection of information, except as part of the R&D process.

- Any activity related to the reproduction of a commercial product or process by a physical examination 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 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 legislation.
- Interest on loans for new and pre-existing capital items utilised for the project.

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

PROJECT TOTAL COST

The total costing of the project 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 on the project, including their salary cost; recruitment & relocation costs (if applicable); and staff-related overheads. All known OVERHEAD COSTS should be provided in detail or if using a formula then 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 on existing equipment; lease costs; maintenance costs; and/or charges for use of existing equipment.
- Materials:* The materials that will be consumed on this project and their cost.
- Subcontract:* The costs of their engagement or subcontractors.
- Travel:* The costs for domestic and/or overseas travel by project personnel that is directly associated with the project.
- Other:* Any other costs for the project which 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.

N.B.: Any overseas expenditure other than equipment or materials must be limited to no more than 10% of the total cost of the Project.

All overseas expenditure in any category must be justified as integral to the project, including a justification as to why any R&D activities conducted overseas for the project cannot be done in Australia or any equipment or materials supplied from overseas cannot be sourced in Australia.

CONTRIBUTIONS TO THE PROJECT TOTAL COST

ASI will make a financial contribution, within the project funding limits set out earlier in these guidelines, to meeting the total costs of the project. Participants conducting the project may make cash and/or in-kind contributions to finance the balance of the total cost of the project.

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

- Salaries and associated overheads of people working on the project, 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 use by the project.
- 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 costs to the provider of the in-kind support—and they must be auditable at a reasonable level that verifies their contribution to the total cost of the project, including overhead levels and/or formulae.

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

PROJECT PROPOSAL FORMATS

Introductory information (using our *Introductory Information* format – see **Attachment A**) provides sufficient information to allow us to assess eligibility and the relevance to ASI of the proposed project. If the proposed project is eligible and relevant, proponents will be asked to complete a detailed proposal.

The *Project Proposal* format (see **Attachment B**) is self explanatory. It consists of a series of questions to be answered, issues to be addressed and information to be supplied. Proponents are encouraged to seek feedback from ASI's Research Investment Managers during the proposal development process in order for proponents to develop well-written and complete proposals. All questions in the proposal format **MUST** be answered fully and the requested information supplied. Failure to do so will result in the rejection of the proposal.

Our detailed proposals require proponents to plan the project carefully, define the need for the project, describe the benefits which will arise from the successful achievement of the project's objectives (assuming successful commercialisation), and justify the technological and financial base of the project.

An important part of the project development process is to verify the relationship of the proposed technology to the global state-of-the-art. This bench-marking is a requirement in ASI's proposal format.

TIMING FOR SUBMISSION OF R&D PROJECT PROPOSALS

R&D project proposals will be called for twice a year by ASI. Proposals must be submitted in their final form approximately two (2) months prior to the relevant Board meeting. This is to allow sufficient time for our due diligence and evaluation processes to be undertaken.

ASSESSMENT

Proposals are assessed by ASI's Research Advisory Committee and management and submitted to the Board for final selection. Assessments are made using a weighted scoring system, with additional commentary for clarity and/or feedback. Proforma scoring sheets for Applied R&D, Basic R&D and Core Institution (40% Component) R&D projects are provided at Attachments C, D and E respectively.

Any conflicts of interest that arise with regard to Research Advisory Committee or Board members will be managed to ensure that member is not included in the assessment or selection processes. When necessary, additional expert advice will be sought as part of our assessment process. If ASI does seek an external opinion on a project proposal, this will first be discussed with the proponent(s). Any external assessor will be required to sign a confidentiality agreement before any information about an application is released.

Applied R&D Projects

The high-level merit criteria used by ASI and their contribution to an overall assessment of an Applied R&D project proposal cover:

- The project (40%)
 - 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 progress the outcomes of the project towards commercialisation.
- The potential benefits to Australia (20%)
 - The potential benefits ("building the business" of the project applicants together with national economic benefits) to Australia assuming successful commercial use of the outcomes of the proposed project is achieved – and the likelihood of these benefits being realised.
- The contribution to ASI's objectives for its research investments (15%).
 - The level of contribution to ASI's objectives for its investments if successful commercial use of the proposed project's outcomes was achieved.

Basic R&D Projects

The high-level merit criteria used by ASI and their contribution to an overall assessment of a Basic R&D project proposal cover:

- The project (45%)
 - The strategic, technical, budgetary and 'value for money' merit of the proposed project – emphasising the technical merit.
- The people and their organisations (35%)
 - The quality of the people and the organisation(s), including their capability to progress the outcomes of the project towards commercialisation – emphasising the quality/track record of the people.
- The potential benefits to Australia (10%)
 - For Basic R&D projects, their potential to lead eventually to larger projects with significant benefit to Australia is emphasised.
- The contribution to ASI's objectives for its research investments (10%).
 - The level of contribution to ASI's objectives for its investments if successful commercial use of the proposed project's outcomes was achieved.

SELECTION

The Board of ASI will consider all proposals and, based on the assessments and advice provided to it by ASI's Research Advisory Committee and ASI's management, it will rank the proposals and select those of highest merit up to the funding limit for the round.

The Board reserves the right to not select any proposals for funding if the standard is not considered high enough.

POST-SELECTION FEEDBACK

Unsuccessful applicants for R&D project 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.

Unsuccessful applicants may re-submit their proposals in subsequent R&D Project funding rounds.

THE CONTRACT

The broad terms and conditions of ASI's R&D project contract are set out below.

COMPOSITION

The R &D project contract includes general terms and conditions as well as a number of schedules that will address specific matters such as the project description and intended outcomes, pre-existing material, milestones and payment arrangements and reporting requirements.

PERFORMANCE

The contractor must use best endeavours to complete the project to achieve the outcomes set out in the contract, and to exploit commercially its results, in accordance with the terms of the contract. If parts of the project are subcontracted, there must be a written subcontract which does not conflict with ASI's contract.

TERM

The project commences and completes on agreed dates. A project may be extended in time, and new milestones agreed, where ASI determines, after consultation with the contractor, that sufficient reason exists for such extension.

REPORTING

ASI requires the contractor—through the person nominated as project manager—to report on a number of matters including the achievement of milestones, to acquit (on annual and end-of-project bases) the receipt and expenditure of cash and in-kind support for the project, and to provide an End of Project Report that covers the whole of the project and its results.

Confidential information that forms part of an End of Project Report may be attached as a separate, confidential annexure

FINANCIAL

ASI's financial contribution is limited to that specified in the contract. ASI pays the contractor agreed amounts upon successful completion of agreed, measurable milestones. ASI will not make a milestone payment until it is satisfied that the milestone has been achieved.

The contractor is responsible for payment of and accounting for all expenses incurred in relation to the project. ASI reserves the right to independently audit, at its expense, accounts of the contractor related to the project.

ASI's funding is, and all obligations to make payments under the contract are, subject to appropriation by the Commonwealth parliament of sufficient monies to ASI.

PLANT AND EQUIPMENT

Unless otherwise agreed, all plant and equipment used in the project and purchased by the contractor (whether or not using ASI funds) remain the property of the contractor.

INTELLECTUAL PROPERTY

The contractor must take all reasonable steps to secure and protect any project intellectual property. The contractor is required to notify ASI of any intellectual property arising from the project.

Copyright in all milestone reports and the End of Project Report is deemed to vest in ASI—noting that ASI's policy is to publish End of Project reports to promote a community of practice and knowledge sharing. Apart from this requirement, ASI takes no ownership position in intellectual property arising from the project. A schedule to the contract describes background intellectual property being brought into the project by the participants undertaking the work.

ASI is required to publish, either in its annual report or in a separate document, the title of the project, the contractor's name, the amount of ASI's investment in the project, funds expended in a given financial year, and a short (non-confidential) summary of the project.

PUBLICATION OF RESULTS

Within sensible limits of commercial confidentiality, ASI encourages the publication of project results.

ASI's support and involvement must be acknowledged in all publicity surrounding a project, in accordance with the requirements in the contract.

MANAGEMENT OF THE PROJECT

The contractor must appoint a project manager and principal investigator (who may be the same person) for day-to-day project management. If needed, a project committee may be established to liaise with and advise ASI and project participants.

EVALUATION AND REVIEW

The contract stipulates that ASI may evaluate and review the project at any time, after 14 days notice to the project manager. The contractor and any other project participant are expected to fully cooperate with such a review.

PERSONNEL

The contractor must provide adequate numbers of appropriately qualified personnel to perform the project. No such personnel shall be or be deemed to be in the service of ASI or the Commonwealth.

TERMINATION

The contract may be terminated for contractor non-performance or breach of contractual obligations. Depending on how the termination provisions are triggered, periods of one to three months may be allowed to rectify the situation and permit the project to continue.

DISPUTE RESOLUTION

Resolution of a dispute among the parties to the contract must be sought between them in the first instance. If this process fails, then mediation shall be used to achieve a resolution.

INSURANCE AND INDEMNITY

The contractor must maintain adequate insurances including project equipment and public liability insurance, and keep ASI indemnified against claims and actions which may arise from the conduct of the project. The contractor's liability will be reduced proportionately where ASI or its agents or employees are negligent.

VARIATIONS

The contract may be varied by agreement of the parties in writing. This includes, but is not limited to, such matters as changes to milestones, their due dates and/or payments due upon their achievement

ANNEXURES

Also included in the contract as annexures are proforma forms and formats for the:

- annual acquittal report (due by 31 August each year);
- audited final acquittal report (due on or before the agreed completion date of the project, or within six weeks of termination of the contract); and
- milestone report (due each time an agreed milestone has been reached, and without which payment from ASI will not be made).

POST-PROJECT

END OF PROJECT REPORTS

ASI's policy is to publish End of Project reports—they are of interest to industry, end users and the technical community. A copy of every published report also is placed in the National Library. Where appropriate, ASI may write a non-technical summary of the project's results which will be disseminated to parties likely to be interested in the project's outcomes.

Confidential information which forms part of an End of Project Report may be attached as a separate confidential annexe. Any such confidential information will remain confidential to ASI, and will neither be published, lodged in the National Library, summarised nor abstracted by ASI.

TECHNOLOGY ADOPTION

A component of the project must include development of a strategy, and tasks to implement it, so that the project's results will be adopted by the next link in the innovation process.

ASI sees technology adoption and transfer as an integral part of each project from its inception, rather than a separate activity at its end. ASI welcomes projects that are financially supported by end users with the potential to incorporate the results directly into their business operations, or to establish a new business.

ASI will assist the contractor and other project participants in technology adoption and transfer where it is able to do so and where it has a legitimate role in providing such assistance.



Introductory information for a new project

This document provides the FORMAT for the information you need to supply as an introduction to a possible new project for which you are seeking ASI funding support.

It is not a form. It MUST BE READ CAREFULLY AND THOROUGHLY so that your responses answer the questions, and take into account the guidelines, under each heading.

This introductory information should not exceed three (3) pages.

It will be used by ASI management to discuss the proposed project with you in order to determine if you will be invited to complete a proposal for ASI funding. If this invitation occurs then this introductory information also will be used to provide feedback to you including, importantly, the financial limit within the total cost of the project that ASI is prepared to consider (including a value-for-ASI's-money consideration).

Please send one (1) copy of this information to the address below PLUS an electronic copy in PDF format to:

Executive Director
Australian Solar Institute
CSIRO Energy Centre, 10 Murray Dwyer Circuit
Mayfield West NSW 2304

P.O. Box 330,
Newcastle
NSW 2300,

Enquires to Denis Smedley ☐
Australian Solar Institute ☐
Ph: 02 4960 6301 ☐
Mob: 0409 988 651 ☐
email: denis.smedley@australiansolarinstitute.com.au

A Project title

B Submitting Organisation(s) and other project participant(s)

List the submitting organisation(s) AND any other(s) whose involvement and/or assistance with the provision of knowledge and/or resources (whether cash or in-kind) for the project is likely.

C Contact person(s) and contact details

Provide the name, position, organisation, address, phone number and e-mail address of the person(s) ASI should contact to discuss this application further.

D Why is this project needed?

What is the commercial opportunity and/or the technical or commercial problem, either existing now or anticipated, that is driving the need for this project? What sections of industry and/or the community have this real or potential commercial opportunity or problem and are therefore potential users of the project outcomes—in Australia and/or overseas?

E Project objectives

What do you see as the objectives of this project to satisfy the need for it?

F The idea, technology or technique to be developed

Briefly describe the idea(s), technology(ies) and/or technique(s) that are the basis of the proposed project; who devised them; and the innovative features of them.

G Project duration

How long do you think this project will take?

H Rough budget for the total cost of the project

Provide a rough budget for the total cost to undertake the project. Include in-kind and cash expenditures, and use the following outline:

Heads of Expenditure	Year ending 30 June 20__	Year ending 30 June 20__	Year ending 30 June 20__	Year ending 30 June 20__	TOTAL (\$)
Salaries					
Equipment		<i>SAMPLE</i>	<i>TABLE</i>	<i>ONLY</i>	
Materials					
Subcontract		<i>SAMPLE</i>	<i>TABLE</i>	<i>ONLY</i>	
Travel					
Other		<i>SAMPLE</i>	<i>TABLE</i>	<i>ONLY</i>	
TOTAL					

I Rough sharing of the costs

Provide information on how the above rough total cost of the project may be met by the provision of cash and in-kind support, indicating which organisations (including ASI) may provide such support.



Format for proposals for ASi funding contribution to a solar R&D project

This document provides the format for the information you need to supply for a project for which you are seeking ASi funding support.

It is not a form. It **MUST BE READ CAREFULLY AND THOROUGHLY**. Your response should answer the questions, and take into account the guidelines, under each heading.

The proposal should not exceed twenty (20) pages (not including relevant attachments).

ALL PROPOSALS TO ASI ARE EVALUATED ACCORDING TO THIS FORMAT. THEY WILL NOT BE EVALUATED UNLESS ALL INFORMATION REQUESTED IS SUPPLIED TO AN ADEQUATE QUALITY.

Please send one (1) UNBOUND, SIGNED copy of the completed proposal PLUS an electronic copy in PDF format to:

Executive Director
Australian Solar Institute
CSIRO Energy Centre, 10 Murray Dwyer Circuit
Mayfield West NSW 2304

P.O. Box 330,
Newcastle
NSW 2300,

Enquires to Denis Smedley ☐
Australian Solar Institute ☐
Ph: 02 4960 6301 ☐
Mob: 0409 988 651 ☐
email: denis.smedley@australiansolarinstitute.com.au

Certifications

COMPLETED CERTIFICATIONS MUST ACCOMPANY YOUR PROPOSAL.

Copy this page and attach it to your proposal or reproduce the wording exactly as it appears below.

A Certification by project manager

I declare that:

- a. the information given is, to the best of my knowledge, true at the date below;
- b. the participating organisations have the necessary infrastructure to undertake the project within the time proposed; and
- c. the items of equipment or plant for which funds are sought on this project are essential and dedicated to this project.

Signature _____

Date _____

B Certification by responsible officer of each submitting organisation

I declare that:

- a. the salaries quoted for personnel are in accordance with the practice of this organisation; and
- b. if the project is approved for funding and a contract is agreed, this organisation will comply with the provisions of the contract.

Signature _____

Date _____

Designation _____

Organisation _____

Executive Summary

A *non-confidential* Executive Summary of the proposal is to be provided which concisely describes:

- why this project is needed;
- the technology base for the project;
- how the project will be undertaken (i.e. the strategies); and
- what will be achieved if the project is completed successfully.

The Executive Summary is **NOT TO EXCEED ONE PAGE**. It should be written using words and concepts that can be easily understood by readers who do not have a technical or scientific background.

Section 1 – Project Description

1 Project title

2 Submitting Organisation

Name the organisation that is submitting this proposal to ASI and therefore expects to be the signatory to a funding contract with ASI if the proposal is successful.

3 Other participant(s)

List any other organisation(s) participating in and/or providing resources (including cash) to the project.

4 Project manager and contact details

ASI's contract requires that the submitting organisation designates a project manager to fulfil a number of reporting and communication obligations. Provide the name, position, organisation, address, phone number, fax number and e-mail address of this person.

5 Principal investigator and contact details

If the project manager is also the principal investigator of the project, write "AS ABOVE". Otherwise, provide the name, position, organisation, address, phone number, fax number and e-mail address of the principal investigator.

6 Expected project commencement date

This project will commence on the day a contract with ASI is signed, or such earlier or later date as may be agreed by ASI in its sole discretion. If the proposal is approved, you should allow a period of at least three months from the date of submission of the proposal for evaluation, approval and contract negotiation.

7 Planned project duration

Provide the duration that this project is planned to take to successful completion and why it will take this length of time.

8 Why is this project needed?

- i What is the product, process or service to which the results of this project will contribute?
 - ii Why is this product, process or service needed?
For example, what is the commercial opportunity and/or the technical or commercial problem, either existing now or anticipated, which is driving the need for this project? What sections of industry and/or the community have this real or potential opportunity or problem and are therefore potential users of the project outcomes—either in Australia or overseas?
 - iii Finally, why is THIS project needed?
N.B. The need is not the features of the technology or product (to be discussed in Section 12) nor is it the benefits to be realised (to be discussed in section 21).
-

9 Project objectives

Provide them in numbered, point form

- The objectives of the project must be clearly defined to meet the need for the project. As far as possible, each objective should be: Specific, Measurable, Attainable, Results-oriented and Time specific.
 - Express the objectives concisely, using active language. *For example:*
 - *to develop a within years for use by*
 - *to solve by*
 - *to achieve an xx% increase in conversion efficiency of in years*
 - *to have the project results adopted by the industry within years*
 - If only limited knowledge of the market for the technology or product being developed by this project is available, it is suggested that an objective such as:
 - *to assess the market potential of in order to ascertain*is included as one of the earliest objectives to be achieved in the project.
-

10 Strategies to achieve the objectives

FOR EACH OBJECTIVE IN TURN, list in point form the strategies which have been devised to achieve it.

N.B. The strategies describe HOW each objective is expected to be achieved, and may include organisational, personnel, technical and/or commercial strategies.

11 Project schedule of tasks to implement the strategies

Preferably using a Gantt chart format, *provide in a graphic form* a project schedule of the (major) tasks to be undertaken to implement the strategies above. Ensure that sufficient time is allowed for new staff recruitment and/or new equipment purchase, delivery, installation and commissioning.

N.B. The project schedule is to be focused on the tasks to be undertaken during the project, and must not be a simple repetition of the major strategies or milestones.

12 What is the technical basis of the project?

- i Describe the technology(ies) and/or technique(s) which are the basis of the project.
 - ii What is the origin of this background technology or ideas being brought to the project?
 - iii What are *the innovative or new features which are being developed to achieve the objectives of the project?*
-

13 How does this technology base compare to state-of-the-art?

- i Describe how the technology base compares to the state-of-the-art in the world, including who else is known to be working on similar technology(ies) or technique(s) in Australia and overseas.

ATTACHMENT B – PROJECT PROPOSAL FORMAT VERSION 09-01

- ii Provide evidence that appropriate library, database or other searches already have been carried out prior to this proposal being submitted to ASI.
- iii If similar work is being done elsewhere, particularly in Australia, reasons must be given why investment by ASI in this project is warranted.

N.B. If an independent technical review of the technology has been undertaken at any time, please provide a copy in support of this proposal.

14 Project budget (for the total cost of the project)

Provide a project budget table in the following format:

Heads of Expenditure	Year ending 30 June 20__	Year ending 30 June 20__	Year ending 30 June 20__	Year ending 30 June 20__	TOTAL (\$)
Personnel					
Equipment		<i>SAMPLE</i>	<i>TABLE</i>	<i>ONLY</i>	
Materials					
Subcontract		<i>SAMPLE</i>	<i>TABLE</i>	<i>ONLY</i>	
Travel					
Other		<i>SAMPLE</i>	<i>TABLE</i>	<i>ONLY</i>	
TOTAL					

15 Justification of budgeted total costs

The total costing must identify *all probable known* expenses associated with the project. Justify each of the heads of expenditure costs detailed in the project budget (Section 14) as follows:

- Personnel:* List:
- the staff engaged or to be engaged on the project
 - their salary cost to the project;
 - the statutory on-costs for each;
 - staff-related overheads for each; and
 - recruitment and relocation costs (if applicable).

Calculate the amounts against salaries, on-costs and overheads by multiplying the full year value by the percentage of time spent on the project per year. All known OVERHEAD COSTS should be provided in detail; or if using a formula, justify its use and provide full details of the factors used in its derivation.

- Equipment:* List the cost of equipment to be used on the project as follows:
- New (purchase price plus delivery, installation and commissioning costs)
 - Depreciation on existing equipment
 - Lease costs
 - Maintenance costs
 - Charges for use of existing equipment

Why is this equipment needed?

- Materials:* List the materials which will be consumed on this project and their cost. Aggregate the costs of minor or standard materials under generic headings.

Why are these materials needed?

- Subcontract:* List the names of any subcontractors and the costs of their engagement.
N.B. Certain clauses in ASI's contract cover aspects of the responsibility by the contractor for subcontracts.

Why will the subcontractor(s) be engaged?

ATTACHMENT B – PROJECT PROPOSAL FORMAT VERSION 09-01

Travel: List the costs for domestic and/or overseas travel by project personnel which is directly associated with the project.

Why is this travel required?

Other: List any other costs for the project which are not covered above. Of particular importance is technology adoption costs, i.e. any expected costs related to transferring the project results to the next stage towards commercialisation, or to commercialisation.

Why are these other expenses needed?

16 Financial contributions

Provide a financial contributions table in the following format:

Source	Cash Contribution (\$)	In-kind Contribution (\$)	TOTAL (\$)	% of total
ASI's Financial Limit	<i>SAMPLE</i>		<i>SAMPLE</i>	
Contractor(s) <i>(list)</i>	<i>TABLE</i>		<i>TABLE</i>	
Other participant(s) <i>(list)</i>	<i>ONLY</i>		<i>ONLY</i>	
TOTAL				100%

N.B. 'In-kind' contributions must be real costs to the provider of the 'in kind' support. For example, salaries and associated overheads of people working on the project; usage of equipment costs; or other real costs necessary to enable project completion.

N.B. 'In-kind' contributions do NOT include sunk costs of background technology or intellectual property being brought to the project.

17 Milestones

ASI will make payments only against the successful achievement of milestones. The proposed milestones **MUST** be measurable and **MUST** reflect progress towards achievement of the objectives of the project. Milestones are **NOT** the project's objectives, strategies, or the delivery of *progress* reports.

The first milestone **CAN** be the signing of the contract upon which ASI will pay up to 5% of its financial limit if required. ASI will retain 10% of its financial limit until **ALL** finalisation requirements (including End of Project and financial reports) are met by the contractor(s).

Milestone Number	Milestone Date	Milestone Description	Total cost to achieve EACH milestone (\$)	ASI's funding for EACH milestone (\$)
	<i>SAMPLE</i> <i>TABLE</i> <i>ONLY</i>	Signing of contract <ul style="list-style-type: none">••• ASI finalisation requirements met	<i>SAMPLE</i> <i>TABLE</i> <i>ONLY</i>	Up to 5% of ASI's Financial Limit <ul style="list-style-type: none">••• 10% of ASI's Financial Limit
	TOTAL			

18 Personnel to work on the project

List the names and/or positions of all personnel involved on this project and their employing organisation. Indicate those personnel who will be recruited specifically for this project. Indicate the amount of each person's time which will be devoted to this project. This may be in the form of *days per month* or *percentage of working time* or *person days/weeks/months/years*.

Name	Position on project	Organisation	Recruited for this project?	Time on this project	Phone & facsimile numbers
<i>SAMPLE</i>		<i>TABLE</i>		<i>ONLY</i>	

19 What is the experience and capability of these personnel to achieve the project milestones *on time*?

Detail the role, *relevant* experience and capabilities of the known personnel for this project. Where a new, unknown person will be recruited specifically for this project, indicate the role she/he will play and the experience and skills sought. If available, résumés can be included in an appendix.

20 What is the capability of the organisation(s) to support the project and its outcomes?

- i What is the capability of the organisation(s) to support meeting the objectives and tasks of the project?
- ii What is the capability of the organisation(s) to achieve successful adoption and/or commercialisation of the results of this project?

21 What are the benefits to be achieved from this project?

For ASI to consider this project seriously, Australia must benefit from the achievement of the project's objectives—assuming successful commercialisation eventually occurs. On the basis of this assumption:

- i What are the anticipated private benefits to the project participants so their business grows in some tangible way?
- ii What are the anticipated national economic benefits?
For example, increasing existing or creating new exports; decreasing imports; lowering business costs by energy savings or reducing energy costs; increasing employment; etc.

Answers to the questions above MUST include how the benefits are anticipated to be obtained (e.g. product sales, licences, energy savings, etc.) and reasonable quantitative information such as the present size of existing markets; where such markets are; and what the economic benefits may be if a reasonable penetration of these markets is assumed.

- iii When will these benefits begin to accrue?
- iv What are the barriers to achieving these benefits?
This description should include factors such as the likelihood of the project's success; the barriers to—and therefore likelihood of—the adoption/commercialisation by industry or end users of the technology(ies)/technique(s); a possible cost to achieve adoption/commercialisation and where such resources may, or may have to, be sought.

22 How will these benefits be realised?

ASI wants to understand how project proponents intend to achieve the benefits they believe are possible from this project, as set out in Section 21. Please explain inputs–activities–outputs–usage–impacts pathway(s) that you intend to utilise for these benefits to be realised.

ASI is not seeking a quantitative economic impact analysis from project proponents for this project. Rather it is the rigour, quality of thinking and understanding by proponents about the steps they will need to take in order for measurable benefits to be realised—usually but not always by commercialisation of products, processes or services—that ASI will assess.

END

**ASSESSMENT SCORING SHEET
FOR APPLIED R&D PROJECT PROPOSALS**



CONFIDENTIAL

Proposal Number:

Project Title:

Submitting Organisation(s):

The Project (40%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the plan for, and the budgetary and technical merit of, the proposed project.

- a) Merit of the clearly defined NEED, OBJECTIVES and STRATEGIES for this project
- b) Merit and validity of the proposed TECHNICAL BASIS of the project
- c) JUSTIFICATION – in a world context – for undertaking this project in Australia
- d) Adequacy of, and justification for, the proposed BUDGET
- e) LEVERAGE on the amount of funding sought from ASI ('value-for money')

Evaluation	Weighting	Total
<input type="text"/>	5	<input type="text"/>
<input type="text"/>	10	<input type="text"/>
<input type="text"/>	3	<input type="text"/>
<input type="text"/>	3	<input type="text"/>
<input type="text"/>	3	<input type="text"/>
SUB-TOTAL		<input type="text"/>

The People and Their Organisations (25%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the track record of the people and organisations involved in this project.

- f) Experience and capability of the personnel to achieve the objectives of the project
- g) Capability of the organisation(s) to support the project to completion
- h) Capability of the people and organisation(s) to progress the outcomes of the project towards commercialisation

<input type="text"/>	8	<input type="text"/>
<input type="text"/>	3	<input type="text"/>
<input type="text"/>	4	<input type="text"/>
SUB-TOTAL		<input type="text"/>

The Potential Benefits to Australia (20%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the potential benefits to Australia which may result - assuming successful commercialisation.

Size and validity of the claimed benefits to Australia:

- i) "Growth of the business" (i.e. private) benefit
- j) National economic and other benefits (industry development; jobs creation; environmental)
- k) Prospects for successful (commercial) adoption of the results of the project

<input type="text"/>	3	<input type="text"/>
<input type="text"/>	5	<input type="text"/>
<input type="text"/>	4	<input type="text"/>
SUB-TOTAL		<input type="text"/>

The Contribution to ASI's Objectives for its Research Investments (15%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the contribution that would be made to ASI's objectives for its investments if successful commercial utilisation of the outcomes of the project occurs.

- l) Advance and accelerate innovate PV and CST technologies in Australia
- m) Support collaborative R&D in solar technologies
- n) Significantly increase the competitiveness of solar technologies in their markets

<input type="text"/>	2	<input type="text"/>
<input type="text"/>	3	<input type="text"/>
<input type="text"/>	4	<input type="text"/>
SUB-TOTAL		<input type="text"/>

TOTAL (out of 300)

Other Considerations

In what time-frame from project completion do you think the results of the project will enter the market?

To assist ASI management and to provide - if required - feedback to the submitting organisation(s), please attach to this form written comments against each of these criteria

Evaluated By

Date

**ASSESSMENT SCORING SHEET
FOR BASIC R&D PROJECT PROPOSALS**



CONFIDENTIAL

Proposal Number:

Project Title:

Submitting Organisation(s):

Evaluation Weighting Total

The Project (45%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the plan for, and the budgetary and technical merit of, the proposed project.

- a) Merit of the clearly defined NEED, OBJECTIVES and STRATEGIES for this project
- b) Merit and validity of the proposed TECHNICAL BASIS of the project
- c) JUSTIFICATION – in a world context – for undertaking this project in Australia
- d) Adequacy of, and justification for, the proposed BUDGET
- e) LEVERAGE on the amount of funding sought from ASI ('value-for money')

	4	
	12	
	5	
	3	
	3	
SUB-TOTAL		

The People and Their Organisations (35%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the track record of the people and organisations involved in this project.

- f) Experience and capability of the personnel to achieve the objectives of the project
- g) Capability of the organisation(s) to support the project to completion
- h) Capability of the people and organisation(s) to progress the outcomes of the project into the next stage of its innovation process

	12	
	5	
	4	
SUB-TOTAL		

The Potential Benefits to Australia (10%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the potential benefits to Australia which may result - assuming successful commercialisation.

Size and validity of the claimed benefits to Australia:

- i) "Growth of the business" (i.e. private) benefit
- j) National economic and other benefits (industry development; jobs creation; environmental)
- k) Prospects for successful adoption of the results of the project into the next stage of its innovation process

	1	
	2	
	3	
SUB-TOTAL		

The Contribution to ASI's Objectives for its Research Investments (10%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the contribution that would be made to ASI's objectives for its investments if successful commercial utilisation of the outcomes of the project occurs.

- l) Advance and accelerate innovate PV and CST technologies in Australia
- m) Support collaborative R&D in solar technologies
- n) Significantly increase the competitiveness of solar technologies in their markets

	1	
	2	
	3	
SUB-TOTAL		

TOTAL (out of 300)

Other Considerations

In what time-frame from project completion do you think the results of the project will enter the market?

To assist ASI management and to provide - if required - feedback to the submitting organisation(s), please attach to this form written comments against each of these criteria

Evaluated By

Date

**ASSESSMENT SCORING SHEET
FOR CORE INSTITUTION (40% COMPONENT)
R&D PROJECT PROPOSALS
CONFIDENTIAL**



Proposal Number:
Project Title:
Submitting Organisation(s):

Evaluation	Weighting	Total
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The Project (40%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the plan for, and the budgetary and technical merit of, the proposed project.

- a) Merit of the clearly defined NEED, OBJECTIVES and STRATEGIES for this project
- b) Merit and validity of the proposed TECHNICAL BASIS of the project
- c) JUSTIFICATION – in a world context – for undertaking this project in Australia
- d) Adequacy of, and justification for, the proposed BUDGET
- e) LEVERAGE on the amount of funding sought from ASI ('value-for money')

	5	
	10	
	3	
	3	
	3	
SUB-TOTAL		

The People and Their Organisations (25%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the track record of the people and organisations involved in this project.

- f) Experience and capability of the personnel to achieve the objectives of the project
- g) Capability of the organisation(s) to support the project to completion
- h) Capability of the people and organisation(s) to progress the outcomes of the project towards commercialisation

	8	
	3	
	4	
SUB-TOTAL		

The Potential Benefits to Australia (20%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the potential benefits to Australia which may result - assuming successful commercialisation.

- i) Size and validity of the claimed benefits to Australia: "Growth of the business" (i.e. private) benefit
- j) National economic and other benefits (industry development; jobs creation; environmental)
- k) Prospects for successful (commercial) adoption of the results of the project

	3	
	5	
	4	
SUB-TOTAL		

The Contribution to ASI's Objectives for its Research Investments (15%)

Using a scale of 0 (very low merit) to 5 (very high merit), assess the contribution that would be made to ASI's objectives for its investments if successful commercial utilisation of the outcomes of the project occurs.

- l) Advance and accelerate innovate PV and CST technologies in Australia
- m) Support collaborative R&D in solar technologies
- n) Significantly increase the competitiveness of solar technologies in their markets

	2	
	3	
	4	
SUB-TOTAL		

TOTAL (out of 300)

Additional Assessment Criteria for Core Institution (40% component) Projects

Using a scale of 0 (very low merit) to 5 (very high merit), assess the additional merit criteria that apply to Core Institution (40% component) projects.

- Core Institution (40% component) projects should be strategic and longer term in nature
- Core Institution (40% component) projects should build on the major strengths of the Core Institutions
- Core Institution (40% component) projects should complement and build on the Core Institutions' Foundation Projects
- Core Institution (40% component) projects should involve collaboration within the Australian research community.

	5	
	5	
	5	
	5	
TOTAL (out of 100)		

Other Considerations

In what time-frame from project completion do you think the results of the project will enter the market?

To assist ASI management and to provide - if required - feedback to the submitting organisation(s), please attach to this form written comments against each of these criteria

Evaluated By

Date