

Proposal Form - Standards Development Projects

Version: 3.4
Issued: 30 July 2012

This form is to be completed for proposals to initiate projects to produce Australian or Australian/New Zealand Standards or other documents published by Standards Australia. This includes significantly modified adoptions of International Standards. For identical adoptions of International Standards please complete the [Proposal Form – Direct Text Adoptions](#).

Proposals for participation in international Standards development should use the [Proposal Form - Participation in International Standards Development Programs](#).

This form will take some time and care to complete. It is important that all sections are completed, and that stakeholder consultation is conducted and their input is incorporated. This ensures that Standards Australia is presented with the best information on which to prioritise its efforts across a range of sectors and proposals. It also helps to ensure that there is consensus from appropriate communities of interest on the need for and the importance of the Standard, and on the expectations, timetable and direction of the project. All these elements contribute to producing a quality document in the most efficient and quickest manner.

If the proposal includes new or revised joint Australian/New Zealand Standards, Standards Australia will contact Standards New Zealand to ensure appropriate consultation with New Zealand stakeholders.

GUIDANCE

What information do I need to provide?

Section & Title	Requirement
Proponent Details	All proposals need to be submitted by an individual, preferably supported by a national organisation. Provide contact details to be used in any correspondence regarding the proposal.
1. Proposal Details	Specify the title, type, relevant sector(s) and type of work being proposed. If a program of work, further information should be provided in the appendix or attachments.
2. Summary and Demonstration of Net Benefit	Outline the need for, and Net Benefit impact of, the proposed work on the Australian community.
3. Harmonisation and Alignment	List existing related documents and alignment of proposed work to these documents.
4. Pathways for Standards Development	State the desired development pathway and who will fund the proposed work.
5. Stakeholder Support	Provide details of relevant stakeholders across interest groups, the consultation process undertaken and whether they support the proposal.
6. Risks and Dependencies	Highlight known risks and any dependencies that may impact successful completion of the proposed project/program.
7. Additional Information	Provide any additional information which may assist in consideration of the proposal.
8. Declaration	Confirm that all information within the proposal form is true and accurate.
Appendix A: Stakeholder Consultation	Identify the relevant Australian stakeholder organisations which may have an interest in this proposal and provide evidence of consultation and support.
Appendix B: Details of projects within a proposed program of work	Where required, provide details of projects in order of priority for development where multiple projects or a program of work is being proposed.
Appendix C: Project Complexity Matrix	Used for calculation of project complexity in Section 1 and Appendix B.

How do I submit a completed proposal?

1. Complete a pre-submission check to ensure that:
 - ✓ All sections of the form are complete.
 - ✓ The Net Benefit case is fully articulated and, where possible, quantified.
 - ✓ Full stakeholder consultation has been conducted with evidence provided.
 - ✓ The declaration is complete.
 - ✓ All supporting documentation is attached to the proposal.
2. Submit completed proposal along with all supporting documentation by email to mail@standards.org.au
3. If for any reason, you are unable to submit this form by email, please contact Standards Australia (1800 035 822).

PROPOSAL FORM FOR STANDARDS DEVELOPMENT PROJECTS

Proposal Reference Number	<i>Standards Australia to Complete</i>
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Proponent Details

<i>Your name</i>		
<i>Position</i>		
<i>Name of employer</i>		
<i>Address</i>		
<i>Suburb</i>		
<i>State</i>		
<i>Postcode</i>		
<i>Phone number</i>		
<i>Fax number</i>		
<i>Mobile number</i>		
<i>Email address</i>		
<i>Web address</i>		

Supporting/Nominating Organisation Details (if applicable)

<i>Name of proponent's national organisation supporting this proposal</i>	
<i>Contact officer at national organisation</i>	
<i>Contact details</i>	

NOTE:

Standards Australia reserves the right to make public information relating to Standards development projects, including information contained within submitted proposal forms and the attached Net Benefit Case in part or in full.

In the event that Standards Australia publishes proposals on its website, this section and stakeholder contact details provided at Appendix A will not be included. However, with prior agreement, your contact details may be provided to interested parties wishing to contribute or comment on the proposal or the proposed project.

1. Proposal Details

<p>Proposal title Please provide the full and correct title of the proposed document(s).</p>	<p>Revision of AS/NZS 5033 Installation and safety requirements for photovoltaic (PV) arrays</p>
<p>Project Scope Briefly summarise what is being requested within this proposal. Please summarise the scope of the Standard(s) to be produced. Please outline any specific inclusions and exclusions. For programs of work, please include the scope of each project in sufficient detail at Appendix B.</p>	<p>Revision of AS/NZS 5033 to keep pace with a rapidly developing industry. The industry has moved very rapidly in the form of new innovations.</p> <p>There is also the need to constantly review safety issues especially with respect to issues of photovoltaic systems and emergency services personnel.</p> <p>There are some issues with Appendix H and the timing of the implementation of certain equipment requirements.</p> <p>There needs to be more specific descriptive and defining words in certain areas to the text.</p> <p>Keeping up to date with changes in international standards.</p> <p>At a meeting of EL- 42 committee in August it was agreed that a revision of the document was considered necessary that would be reflective of the technology and practice changes being introduced in Australia / New Zealand.</p>
<p>Project or program Please specify if this proposal covers a single project or multiple projects. If a program of work is proposed that covers multiple projects, please include details of each project in Appendix B.</p>	<p>Project</p>
<p>Project type Please indicate whether the project is a new document, amendment, revision or other. If other, please specify. If applicable, please provide the existing Australian or International Standard number and full title of the standard (e.g. AS, AS/NZS, ISO, IEC or other).</p>	<p>Revision of AS/NZS 5033 Installation and safety requirements for photovoltaic (PV) arrays</p>
<p>Product type Please indicate whether the output of this project is to be a Standard, handbook, or other type of document.</p>	<p>Standard</p>

<p>Committee Are you aware of an Australian or International technical committee working in this field? Please provide details, including any related committees that may be affected by this proposal.</p>	<p>EL42 Renewable Energy Power Supply Systems and Equipment and IEC TC82 Solar photovoltaic energy systems</p>
<p>Scale of proposed work Please indicate the size/complexity rating of the proposed project/program, taking account of the size of the document, changes required, expected level of comment etc. For further information, please refer to Appendix C to this form.</p>	<ul style="list-style-type: none"> • Medium

<p>Sector Please delete any non-relevant sectors. Select one or more from:</p>	<ul style="list-style-type: none"> • Mining • Manufacturing and Processing • Building and Construction • Electro technology and Energy • Water and Waste Services • Consumer Products Services and Safety
<p>Relationship to legislation If the document is referenced in legislation in Australia (or New Zealand for joint documents), please provide details here. If so, is this as a primary or secondary reference?</p> <p><i>Note: If this Standard is a primary or secondary reference in the National Construction Code, please refer to the Protocol for the development of National Construction Code referenced documents available at: http://www.abcb.gov.au</i></p>	<p>Secondary reference as AS/NZS 5033 is a normative reference in AS/NZS 3000 which is called up in state legislation</p>
<p>Conformity assessment Does this proposal include any conformity assessment requirements?</p> <p><i>Note: If conformity assessment requirements are being considered for inclusion, please note that an additional miscellaneous publication will be required, and should be included as a separate project item in Appendix B – conformity assessment requirements are <u>not</u> included in Australian Standards. Please see SG-006 Rules for the structure and drafting of Australian Standards for further information.</i></p>	<p>No</p> <p>If yes, please provide additional details as an attachment to this form. The request is to include:</p> <ul style="list-style-type: none"> • the reason for the inclusion; • why regulation is not addressing the matter; • the benefits to the Australian community from a safety aspect; • the benefits to the industry sector; • the cost to the community and to manufacturers; • the risk of its non-inclusion; • technical barriers to trade implications.

2. Summary and Demonstration of Net Benefit

All Australian Standards developed by Standards Australia must demonstrate a Net Benefit, i.e. the Standard must have an overall positive benefit to the Australian community. All proposals for new work must describe a clear need for a Standards solution and the anticipated Net Benefit in the form of a Net Benefit case. Further guidance is available within the [Standards Australia Guide to Net Benefit](#).

Note: Where a more detailed Net Benefit case is required, this may be attached separately.

Need for the proposed work

Please identify and provide evidence of the problem to be addressed, the goals and objectives of the proposed Standard(s), and demonstrate that it is justified and implementation is likely.

A revised AS/NZS 5033 was published in 2012.

During the time to revise this document i.e. approximately two years. The industry has moved very rapidly in the form of new innovations. There is also the need to constantly review safety issues especially with respect to issues of photovoltaic systems and emergency services personnel.

At a meeting of EL- 42 committee in August it was agreed that a revision of the document was considered necessary that would be reflective of the technology and practice changes being introduced in Australia / New Zealand.

The whole renewable energy industry, in particular the photovoltaic industry, in Australia and worldwide is growing rapidly and as such the requirements and drivers for appropriate standards to be relevant and regularly maintained include:

1. Innovation and technology changes being applied by manufacturers causing a rapidly changing environment for application of these standards;
2. Micro inverters and their use and individual PV module control systems.
3. Inverter manufacturers introducing higher and higher D.C. voltages on the output of PV arrays
These higher D.C. voltages come with an increased need for safety and quality control of installations
4. Criticality of personnel safety and fire safety of buildings being absolutely paramount, within the installation and with connection to the grid, in particular the;

- a) Components of the system and the way the components are assembled and installed;
 - b) D.C. systems, unlike A.C. systems, being much more prone to arcing that may cause fires, particularly in current limited systems such as PV arrays;
 - c) Risky installation and maintenance practices, potentially related to PV fires in buildings, are being observed internationally to the point where international workshops are being held to address safety issues with these systems; and
 - d) Updating and maintaining of protection requirements, installation practices, operating conditions and safe earthing practices being critical in maintaining the integrity and safety of these systems and their impact on the grid, in line with industry best practice;
5. An increase in the number of enquiries and requests for clarification of these standards, demonstrates that there is need for revision to improve clarity and avoid the chance of misinterpretation.
6. Misinterpretation of the standard may lead to unsafe installations.

Alignment with national public policy

Please identify and describe how your proposal fits with issues of current national or public policy interest.

State and Federal Governments rely on AS/NZS 5033 to meet the safety outcomes of their policies and specific programs and projects, there is an increasing need for such standards to be up to date, relevant and regularly maintained.

The Federal Government continues to audit installations based on these standards

The renewable energy industry continues to grow rapidly worldwide and the installation of such systems, in particular the photovoltaic systems,

Technology developments and innovation in the renewable energy industry, in particular the PV sector, add to the necessity for regular reviewing, updating and

	<p>maintaining relevant standards that are critical to public safety, in this instance AS/NZS 5033.</p>
<p>Net Benefit</p> <p>Please explain any potential positive and negative impacts, and where possible quantify the costs and benefits, of the proposed Standard(s) on different communities of interest in the following areas:</p>	<ul style="list-style-type: none"> • <i>Public Health and Safety</i> <ul style="list-style-type: none"> · As a consequence of the massive increase in volumes and types of these energy systems being installed in residential, commercial and public premises within Australia these standards are in increasing use. · Clear relevant standards are paramount in ensuring safe systems and safe practices for industry electricity workers, residents/owners, their tradespersons and emergency services. · This standard provides the foundation for accreditation of workers in the industry • <i>Social and Community Impact</i> <p>State and Federal Government policies, strategies and initiatives seek to expand the use and application of renewable energy as one approach in reducing carbon emissions and reaching climate change targets and objectives for Australia. Through such programs, projects and obligatory renewable energy targets the growth is expected to continue at an exponential rate.</p> <ul style="list-style-type: none"> · This standard is important to ensure the long term performance and viability of photovoltaic energy systems, minimising the cost and reducing the impact of climate change. · Rigorous standards for reliability and safety will enhance the confidence and security of the community to embrace the use of sustainable energy systems. • <i>Environmental Impact</i> <ul style="list-style-type: none"> · Australia has an abundance of renewable energy resources, which are viable alternatives for energy generation. · State and Federal Government policies, strategies and initiatives seek to expand the use and application of renewable energy as one approach in reducing carbon dioxide emissions and reaching climate change targets and objectives for Australia. · These standards are important for improving the

use/uptake of renewable energy systems.

- *Competition*

- There are no international standards which cover the issues dealt with in these standards.

- The revision of these standards will not result in any world trade barriers.

- Australia is assisting in the possible development of an IEC standard based on AS/NZS5033:2005 but this will take considerable time to obtain international consensus.

- Development of these standards in Australia can contribute to international developments and lead to harmonization of standards worldwide and facilitate international trade.

- *Economic Impact*

- The Federal Government during the last year has invested in excess of 1 billion dollars in the renewable energy sector and continues to establish policy and incentives for greater penetration and use of renewable energy;

- This standard is critical to ensure energy systems are installed and maintained at an appropriate quality and safe condition;

- Quality, up to date standards will ensure the renewable industry in Australia, the owners of the energy systems and the distribution network do not suffer substantial economic loss through unacceptable performance and safety situations; and

- The occurrence of safety incidents such as fires or electric shock would have a significant negative financial impact on the industry, the owners and the distribution networks.

3. Harmonisation and Alignment

<p>Related documentation</p> <p>Please research and list any known industry, domestic, regional, other national or international standards, guides, codes and research related to the proposal.</p>	<p>The only important standards in this area are our current AS/NZS 5033 and possible developments in the IEC for which the chair of EL42 is also a member of that committee TC82.</p>
<p>Avoidance of duplication</p> <p>How will the proposed document relate to any of the existing material listed above? Please address any apparent or actual duplication between the existing material and the proposed document(s).</p>	<p>EL042 has had close links with EL1 through their liaison committee member Mr Alan Cuthbert who has been instrumental in closely linking AS/NZS 3000 in its latest version with AS/NZS 5033. The last details now require revision of AS/NZS 5033 to resolve a number of issues that have been raised by installers and inspectors of systems.</p> <p>The Chair of EL042 is also the co-convenor of the IEC TC82 WG3 on Photovoltaic Systems</p>
<p>Alignment with International Standards</p> <p>If there is an existing International Standard that covers the scope of this proposal, but is not being adopted, please clarify this position.</p>	<p>None</p>

4. Pathway for Standards Development

<p>Preferred development pathway</p> <p>Please select one. If Other, please provide details of discussions with Standards Australia.</p>	<ul style="list-style-type: none"> • Standards Australia Resourced • 	
<p>Committee capability and capacity</p> <p>If there is an existing Standards Australia committee working in this field, please specify their capability and capacity to take on additional projects relating to this proposal, particularly relating to programs of work described at Appendix B.</p>	<p>EL42 has a demonstrated capability in this area and this program is based on revision of an existing standard under EL42.</p>	
<p>Standards Australia process to be funded by</p> <p>Please select one.</p>	<ul style="list-style-type: none"> • Proponent • Standards Australia • Other 	<p>Standards Australia</p>

Note: For information on the various standards development pathways refer to: <http://www.standards.org.au/DevelopingStandards/Developmentpathways.aspx>

5. Stakeholder Support

<p>Consultation process</p> <p>Provide details on the consultation process undertaken in development of this proposal, including identified stakeholder groups and the outcomes.</p> <p>Please complete Appendix A and provide evidence of stakeholder support.</p>	<p>The diversity and depth of expertise within EL042 will provide significant input into the revision of the standards as part of the consultation process undertaken with the identified stakeholder groups and the outcomes.</p> <p>The details of this standard require harmonisation with the AS/NZS wiring rules, and as such an Australia/New Zealand specific document is essential.</p>
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	<p>EL042 comprises, inter alia electricity network representatives, manufacturers, installers, regulatory bodies and academic experts who each represent all the key stakeholders and as such inputs and draft revisions will be forwarded to stakeholders for consultation.</p> <p>Review process includes;</p> <ul style="list-style-type: none"> · EL042 sub-committee review standard and produce a revised draft · Revised draft forwarded to all EL042 members for review and comment · Final draft available for Standards Australia's consultation and publishing process
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6. Risks and Dependencies

<p>Risks Are there any key risks that you know of that may impact this project? <i>Note: Project risk does not include Standards Australia failing to approve this proposal.</i></p>	<p>A minor risk is one of failure to manage the revision process, but this is not likely.</p> <p>The project is one of revision of a solidly based document by incorporating feedback gained from the industry.</p> <p>EL042 members are experienced in the relevant technology and have many members with a long history of industry experience and standards development which will significantly diminish risk of time delay.</p>
<p>Dependencies Are there any fundamental dependencies on this e.g. changes to legislation, publication or revision of a related Standard or the need to publish concurrently with an Australian or International Standard?</p>	<p>Links to AS/NZS 3000 need to be maintained in alignment. Also alignment is required to international equipment standards such as IEC 62109 which is also developing and being revised as the industry changes</p>
<p>Indicative timelines Taking into account the risks and dependencies identified above, and an average publication cycle of 12 months, please provide estimates of the duration of key project stages.</p>	<p>Development of revision issues for this Standard has already commenced and as soon as approval is given, the work program will commence to provide the following outcomes:</p>

7. Additional Information

<p>Comments Please provide comments (if any) which support this proposal or assist its consideration.</p>	
<p>Supporting documentation Please list (and attach) any information that</p>	<p>Attached supporting letters from: Forwarded previously</p>

supports this proposal or assists its consideration. If a working draft of the proposed document is available, please attach to this proposal.	Clean Energy Regulator ERAC / ESV
Funding declaration Are you aware of any direct or indirect funding for this proposed work, other than employer support to attend and participate in meetings?	No

8. Declaration

Please check your proposal is complete, read and complete the declaration, then forward this proposal and any attached documents to Standards Australia at mail@standards.org.au. The named proponent is deemed to have approved the information contained within this proposal and this declaration. This is required prior to formal consideration of this proposal.

The information provided in this application is complete, true and accurate to the best of my knowledge. I believe the proposed Standard will result in Net Benefit* to Australia. I understand the requirements associated with the Standards development pathway selected. I have consulted with, and have the support of, national organisations with a relevant interest in this project.

Name of Proponent	
Name of Nominating Organisation representative (if supported by a suitable national organisation)	
Date	

* As defined in Standard Australia's Guide to Net Benefit.

Appendix A: Stakeholder Consultation

Please identify the relevant Australian stakeholder organisations which have been consulted or which may have an interest in this proposal. All categories of stakeholders should be considered for consultation and participation, but all are not required. Evidence of consultation and stakeholder responses **must** be provided (organisation/company emails or letterhead only). If the proposal includes new or revised joint Australia/New Zealand Standards, Standards Australia will contact Standards New Zealand to ensure appropriate consultation with New Zealand stakeholders.

Key stakeholder groups	Organisation Name	Contact name	Position	Email	Do they agree with this proposal (Y/N)?
Research and academic organisations					
Consumer interests					
Government organisations					
Regulatory and controlling bodies					
Technical associations					
Professional associations					
Manufacturers' associations					
Suppliers' associations					
User and purchasing bodies					
Testing bodies					
Auditing bodies					
Certification bodies					
Employer representative bodies					
Unions and employee associations					
Independent					
New Zealand					

Appendix C: Project Complexity Matrix

- Use this matrix to complete an initial assessment of project complexity.

- For each question, review the criteria and enter the appropriate Rating (1 to 5) for the project in the far right column.

#	Factor	Rating Number					Rating
		1	2	3	4	5	
1	What is the anticipated duration of the project?	< 3 months	3 - 6 months	6 - 24 months	2 - 3 years	> 3 years	
2	What overall level of risk (technical risk, political risk and consensus risk) is associated with the project in the context of the committee?	Very Low	Low	Moderate	High	Very High	
3	What level of overall technical complexity does the project have?	Very Low	Low	Moderate	High	Very High	
4	What is the size of (the change to) the standard or the consensus document?	1-2 pages	2 - 20 pages	20-100 pages	100 - 300 pages	>300 pages	
5	What is the expected level of public comment/adverse reaction to the project?	Very Low	Low	Moderate	High	Very High	
						TOTAL	
						COMPLEXITY RATING	

Complexity Rating

If the total is **5**, apply the **Simple Complexity rating**.

If the total is **6 to 10**, apply the **Small Complexity rating**.

If the total is **11 to 15**, apply the **Medium Complexity rating**.

If the total is **16 to 20**, apply the **Large Complexity rating**.

If the total is **21 to 25**, apply the **Complex Complexity rating**.

Project Complexity Examples

Simple - Adoption, endorsement of an ISO standard with high consensus.

Small - Technical report with low complexity, low risk and low profile.

Medium - New standard or revision with moderate complexity and risk.

Large - New standard or revision with high complexity and risk.

Complex - New standard or revision with very high complexity, profile, risk and major references in legislation e.g. Wiring Rules Standard

