PV module application checklist

This document specifies the main criteria for the CEC List of Approved PV Modules. It is not an exhaustive list of all requirements. All application supporting documents will be reviewed by the CEC application assessor during the application process and feedback including requests for further information or updates to the documentation will be provided accordingly.

Items to check			Y/N
A		**Certificates of Compliance**	
1.0		Certificate includes all of the following standards: IEC 61215-1:2021 IEC 61215-1-1:2021 (for crystalline silicon modules) or IEC 61215-1-2:2021 (for thin-film Cadmium Telluride (CdTe) modules) IEC 61215-1-3:2021 (for thin-film amorphous silicon modules) IEC 61215-1-4:2021 (for thin-film Cu(In,GA)(S,Se)$_2$ modules) IEC 61215-2:2021 IEC 61730-1:2016 or IEC 61730-1:2023 IEC 61730-2:2016 or IEC 61730-2:2023 Note *: From 1 May 2026, Certificates are required to show conformance to IEC 61730:2023	
2.0		Certificates are issued by a National Certifying Body (NCB) in the IECEE scheme which has the required standards in scope: IEC 61215-1:2021 (https://www.iecee.org/certification/iec-standards/iec-61215-12021) IEC 61215-1-1:2021 (for crystalline modules) (https://www.iecee.org/certification/iec-standards/iec-61215-1-12021) or IEC 61215-1-2:2021 (for thin-film Cadmium Telluride (CdTe) modules) (https://www.iecee.org/certification/iec-standards/iec-61215-1-22021) or IEC 61215-1-3:2021 (for thin-film amorphous silicon modules) (https://www.iecee.org/certification/iec-standards/iec-61215-1-32021) or IEC 61215-1-4:2021 (for thin-film Cu(In,GA)(S,Se)$_2$ modules) (https://www.iecee.org/certification/iec-standards/iec-61215-1-42021) IEC 61215-2:2021 (https://www.iecee.org/certification/iec-standards/iec-61215-22021) IEC 61730-1:2016 or IEC 61730-1:2023 (https://www.iecee.org/certification/iec-standards/iec-61730-12023) IEC 61730-2:2016 or IEC 61730-2:2023 (https://www.iecee.org/certification/iec-standards/iec-61730-22023)	
	2.1	Certificate issue date is after NCB has been accredited by IECEE.	
3.0		Certificate shows that the modules meet Safety Class II.	
4.0		Certificate shows that modules meet the requirements of Fire Class C or better as per UL790.	
	4.1	Alternatively, IEC 61730-2 Test Report shows Fire Testing (MST 23) conducted to UL 790	
	4.2	For co-licence modules if the main certificate references UL790 the co-licence certificate does not need to reference UL790.	

5.0		Certificates are a type that requires periodic factory inspections.	
6.0		Certificate identifies all factories which are covered by the certification.	
	6.1	Alternatively, the CDF/Test Report used to issue Certificate identifies the factories which are covered by the certification.	
7.0		All the model numbers listed on the application are on the Certificate.	
8.0		Each module type has a unique model number that includes the power rating. *Example:* Modules Series ABxxx where xxx denotes a power class, each xxx power class will constitute a unique model number.	
	8.1	Each model number should refer to 1 type of module. Example: Module Numbers AByyxxx where xxx = 250-270W and y = A-Z, applicants must specify both the values for xxx and for y.	
	8.2	Co-Licence modules shall have a different model number from main licence modules.	
	8.3	Where a module is manufactured for more than 1 trademark/brand name, each trademark/module combination should have a unique model number. Example: If a module is manufactured for 2 trademarks under the same certificate, module sold under trademark 1 should have a different model number to module sold under trademark 2.	
9.0		No model number is certified for both 1000V and 1500V system voltage.	
10.0		Testing has been carried out by a CB Test Lab affiliated with the NCB issuing the Certificate and the test lab has the required standards in scope. https://www.iecee.org/members/testing-laboratories	
	10.1	Test Report issue date is after the Test Lab and NCB has been accredited by IECEE.	
	10.2	If Certificate does not show the CB Test Laboratory, a copy of the IEC 61215/61730 Test Report is required to verify CB Test Laboratory.	
	10.3	For co-licence modules, if the test reports are for the original manufacturer's brand and model numbers, the applicant shall provide a document from the certifier to confirm the following: • Equivalent model numbers between the co-licenced brand and the original manufacturer's brand. • The test reports supplied with the application are the same ones referred to by the certifier when preparing the certificate for the co-licenced devices.	
11.0		Certificate is valid as per NCB website/certificate database. (CEC will email NCB for confirmation NCB does not have an online database)	
12.0		No model number on application appears on more than 1 certificates for the same IEC 61215/61730 standards from the same NCB. (Exception can be made where each Certificate has a unique Certification Mark)	
13.0		No model number on application appears on more than 1 certificate across multiple NCB (as listed by CEC). This extends to the entire PV module series.	

B		**Construction Data Form (CDF)**	
1.0		The full CDF is submitted.	
2.0		The CDF is signed and dated.	
3.0		The CDF is an annex to the Certificate or the Test Report and the number is referred to on the Certificate.	
4.0		Module model numbers listed on the CDF includes all the model numbers on application.	
5.0		CDF shows name and address of all factories.	
6.0		CDF shows one maximum overcurrent protection rating for each model number. Example: Where CDF states maximum overcurrent protection rating for PV Module series ABxxx is 15/20A. This is not permitted. The CDF should specify which overcurrent protection rating applies for which model numbers.	
	6.1	A copy of test report is required to verify IEC 61730-2 MST 26 test current if maximum overcurrent protection rating is unclear.	
C		**Serial Numbers Format**	
1.0		Document supplied showing serial number format.	
2.0		Document specifies the place(s) of manufacture and how this is coded in S/No.	
	2.1	Where place(s) of manufacture cannot be decoded from S/No the place of manufacture should be printed on module label.	
	2.2	Document needs to specify how each factory referenced in CDF is coded.	
3.0		Document specifies how the month and year of manufacture are coded in the S/No.	
	3.1	Where date of manufacture cannot be decoded from S/No the date of manufacture should be printed on module label.	
4.0		Co-licence holders must confirm in writing that the co-licence products will be marked with serial numbers conforming to the provided serial number format. This can be the same serial number format as the main-licence holder.	
D		**Installation Manual**	
1.0		Manual provided for all model numbers on application.	
2.0		Manual includes instruction on how to safely handle modules.	
3.0		Manual includes instructions on how to mechanically mount modules.	
	3.1	Manual includes information on clamping zones, number of clamps/bolts required.	
	3.2	If clamps are not recommended this information is also provided in datasheet.	
	3.3	Manual includes information for mounting in high wind or snow conditions if these are claimed on datasheet.	
	3.4	Positive (“+” or downward) and negative (“-” or upward) mechanical design load ratings in Pa excluding test load safety factor. Manual should specify differences in load ratings under different mounting methods	

4.0		Manual includes instructions on how to electrically connect modules.	
	4.1	Manual includes instructions on connecting modules in series/parallel.	
	4.2	Manual includes instructions on earthing/ground of modules.	
	4.3	Manual includes description of electrical installation wiring method. This includes: • Minimum cable diameter • Any limitations on wiring methods/management that apply to the wiring compartment or box • The size, type, material, and temperature rating of the conductors to be used. • The type of terminals for wiring • The bonding method(s) to be used (if applicable) and specified hardware • The type and rating of bypass diodes to be used • The fire ratings and limitations to that rating (e.g. installation slope, sub structure etc) • The specific make and model of connectors to which the PV module connectors can be mated	
5.0		Manual includes information on electrical safety.	
	5.1	Statement describing factors that can increase voltage or current beyond the STC values given in the documentation	
6.0		Manual includes information on maintenance of modules.	
7.0		Technical specs in manual are verified by Test Reports/CDF.	
8.0		Manual is clear and does not contain any misleading information.	
9.0		If any features considered to be an enhanced listing feature by the CEC (PID, salt mist or ammonia resistance, etc) are claimed on the manual the applicant must provide the appropriate test report or certification as required by the CEC.	
	9.1	If applicant wishes to apply for enhanced listing, refer to the CEC Enhanced Listing Checklist for requirements.	
	9.2	Where a manufacturer does not wish to apply for enhanced listing but wishes to still state the additional features on the manual and have provided evidence of testing/compliance, the manual should show the enhanced listing feature as “Optional or “On Request”	
10.0		For Building Integrated PV Modules manual should include a reference to the National Construction Code Example: “For the Australian Market, Building Integrated PV Module installations must comply with the requirements of the National Construction Code and AS/NZS 5033”.	
11.0		Manual is in a form suitable for an installer to use and does not contain any misleading information.	
E		**Datasheet**	
1.0		Datasheet provided for all model numbers on application.	
2.0		Datasheet shows Certificate Holder name.	
3.0		Datasheet shows full model number.	

		The model numbers must be either explicitly stated (e.g. “CEC-180L-550M-1500V”) or clearly defined (e.g. “CEC-180L-xxxM-yyyyV, where xxx = Pmax at STC, yyyy = V_{sys}”). A series name on the datasheet (e.g. “CEC-180L”) alone is not sufficient.	
4.0		Electrical data on datasheet is verified by Certificate/CDF/Test Reports.	
	4.1	Datasheet shows Power Rating at STC.	
	4.2	Datasheet shows Open Circuit Voltage and Short Circuit Current at STC.	
	4.3	Datasheet shows Power Sorting Tolerance (Binning Tolerance) (Refer to Note 1). Negative Sorting Tolerance (Binning Tolerance) shall be no more than -5W from nominal	
	4.4	Datasheet shows Power Measurement Tolerances (Refer to Note 1). Measurement tolerances shall be no more than +/- 5% for crystalline modules.	
	4.5	Datasheet shows Max Overcurrent Protection Rating (Fuse Rating).	
	4.6	Datasheet shows Max System Voltage.	
	4.7	Datasheet shows fire class rating.	
	4.8	Module frame size/dimension conforms to CDF.	
	4.9	Datasheet includes performance at low irradiance: 200 W/m^2, 25 °C.	
5.0		Datasheets show make and full model number of PV Connector. Note: The datasheet does not need to include the full list of PV connectors as per the CDF – only the subset of connectors that will be used for the Australian Market.	
6.0		For Bi-Facial Modules the datasheet should also include: • Voc, Isc and Pmax defined at two irradiance levels – 1000 W/m2 and BNPI (as per IEC 61215:2021) • Short-circuit current bifaciality coefficient, open circuit current bifaciality coefficient, maximum power bifaciality coefficient • Tolerances for the above	
7.0		For flexible modules the datasheet should include the following information: • Minimum radius of curvature	
8.0		Datasheets states country of manufacture (or assembly if cells are manufactured in a different country to where modules are assembled). A company address is insufficient to present country of manufacture – datasheet is required to clearly indicate address is factory address.	
9.0		If any features considered to be an enhanced listing feature by the CEC (PID, salt mist or ammonia resistance, higher wind load ratings etc) are claimed on the datasheet or selected on the application, the applicant must provide the appropriate test report or certification as required by the CEC.	
	9.1	If applicant wishes to apply for enhanced listing, refer to the CEC Enhanced Listing Checklist for requirements.	
	9.2	Where a manufacturer does not wish to apply for enhanced listing but wishes to still state the additional features on the datasheet and have provided evidence of	

		testing/compliance, the datasheet should show the enhanced listing feature as “Optional or “On Request”.	
	9.3	If evidence of testing/compliance to enhanced listing features cannot be provided, then datasheet cannot claim enhanced listing feature.	
10.0		Does not show CEC logo. (The “CEC Member” logo may be used on a datasheet ONLY if the Certificate holder is a financial member of the CEC.)	
11.0		Warranty information on datasheet matches information provided in Warranty T&Cs. For bifacial modules, if the power performance warranty terms only apply to the front-side (STC) performance or have different terms for the rear-side performance, the datasheet should not present the power performance warranty guarantee in a way that can be interpreted to apply to both sides of the PV module.	
12.0		Datasheet is clear and does not contain any misleading information.	
F		**Module Label Design**	
1.0		Sample Label designs are submitted for all model numbers on application.	
	1.1	Alternatively, at least 1 sample label design is submitted for every PV Module series.	
2.0		Label shows Certifier Mark as per IEC 61215/61730 Certificate issued by NCB.	
3.0		Only 1 Certifier Mark for IEC 61215/61730 permitted on the label.	
	3.1	If applicant has been given an enhanced listing, and the certifier issues special certifier marks for enhanced listing standards, the label can show the certifier mark for the appropriate enhanced standard(s).	
4.0		Label shows Certificate Holder name.	
5.0		Label shows full model number.	
6.0		Electrical data on label is verified by Certificate/CDF/Test Reports.	
	6.1	Label shows Power Rating at STC.	
	6.2	Label shows Open Circuit Voltage and Short Circuit Current at STC including tolerances.	
	6.3	Label shows Power Measurement Tolerances (See Note 1).	
	6.4	Label shows Power binning tolerance (See Note 1).	
	6.5	Label shows Max Overcurrent Protection Rating (Fuse Rating).	
	6.6	Label shows Max System Voltage.	
	6.7	For bi-facial modules, the following is also required on the labels: • Voc, Isc and Pmax defined at two irradiance levels – 1000 W/m2 and BNPI • Short-circuit current bifaciality coefficient, open circuit current bifaciality coefficient, maximum power bifaciality coefficient • Tolerances for the above	
	6.8	For flexible modules the following is also required on the labels: • Minimum radius of curvature	

	6.9	For modules certified to IEC 61730: 2023, the following is required on the labels: • Label shows positive and negative design load ratings in Pa. • Label shows connector manufacturer and model used, and reference to manual for designated mating connectors.	
7.0		Label states country of manufacture (or assembly if cells are manufactured in a different country to where modules are assembled). A company address is insufficient to present country of manufacture – datasheet is required to clearly indicate address is factory address.	
8.0		Label identifies the version of IEC 61215/61730 modules are certified to. For example, labels to state “tested to IEC 61215: 2021 and IEC 61730: 2023” or similar.	
9.0		Label does not show CEC logo.	
10.0		Label should not be misleading.	
G		**Warranty Terms and Conditions**	
1.0		Warranty T&Cs document covers all model numbers in application	
2.0		Product guarantee and performance warranty is not misleading and agrees with the warranty conditions on the datasheet.	
3.0		Warranty document includes a statement of consumer rights under Australian Consumer Law (Refer to Note 2).	
4.0		Warranty document has contact details for both manufacturer and importer for claiming warranty – this includes name, address, email address, phone number, web address.	
	4.1	Alternatively, there can be 1 version of the Warranty Terms and Conditions document containing only the contact information for manufacturer and another Warranty Terms and Conditions document per importer contain contact information for manufacturer and importer.	
H		**Manufacturer Requirements**	
1.0		Manufacturer has a website accessible by the public for manufacturers documentation as submitted and approved by the CEC. Documents may be uploaded under an “Australian Market” section to avoid conflict with documents for other markets. Note: This is the last part of the application when documents submitted have been accepted by CEC.	
I		**Importer Requirements**	
1.0		Applicant has provided a full list of importers.	
2.0		Importers have returned a signed copy of CEC importer declaration form to CEC. Note: CEC will send the importer declaration form to importers during application review process.	
3.0		Every importer of the modules to Australia is identified on the application, with ABN website and contact details. (ABN is Verified on ABN Lookup Website)	
4.0		Importer has a website accessible by the public for manufacturers documentation as submitted and approved by the CEC.	

		Note: This is the last part of the application when documents submitted have been accepted by CEC.	
	4.1	Importers who import directly for large scale commercial projects (>100kW) only do not have to upload manufacturers documentation to their website	
	4.2	Importer has a publicly available copy of the Datasheet, Installation Manual, Warranty T&Cs on their website	
	4.3	If importer is Australian subsidiary to global manufacturer documents can be uploaded under Australian Market section on global website or in a separate website for the Australian subsidiary	
	4.4	If importer is Australian subsidiary to global manufacturer and documents are uploaded under Australian Market section on global website, the contact details of the local Australian branch office (if any) should be available on global website	

Note 1: Power rating measurement tolerances & Binning tolerances

Power rating measurement tolerance is the value declared by the manufacturer to account for uncertainty and variance in the manufacturing process, including inaccuracies in measurement equipment during factory testing.

Binning is an internal criteria applied at production to sort any given PV module into a particular power class, and is a criteria chosen and declared by the manufacturer. By specifying a positive binning range (e.g. 0~+5W), a manufacturer can provide their customers with additional assurance that any given PV module will meet or exceed its rated power. Binning is typically defined in watts (W) but can also be defined in % (relative to the maximum power rating stated on the label). The Clean Energy Council expects the factory flash test results to be within the declared binning range for each power class.

In the event the modules are selected for testing in the CEC compliance and testing program, tolerances are only applied if they are stated on both datasheet and label. If tolerances do not match, then they are taken to be 0.

Note 2: Australian Consumer Law mandatory wording

It is a requirement of Australian Consumer Law that a document evidencing a warranty against defects must include mandatory text to ensure consumers are aware that any warranty against defects operates in addition to consumers' rights under the ACL.

The warranty T&CS document should include the following mandatory text for the supply of goods:

> Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

The mandatory text must be written as stated above. No changes to the wording of format is allowed.

For more details please refer to ACCC website: https://www.accc.gov.au/consumers/buying-products-and-services/warranties#toc-mandatory-text-that-businesses-must-include