PV module enhanced listing checklist

Certificate Holder/Manufacturer	
Application Number(s)	

Items to check		**Y/N/NA**
A	IEC TS 62804 Potential Induced Degradation (PID)	
1	IEC TS 62804 Certificate is Valid. (Equivalent certifier standard permitted) (PID testing to IEC 61215 is also accepted, noting the max degradation requirements below) (Certificate validity is checked via Certifier website or email confirmation from Certifier)	
2	Model numbers match IEC 61215/61730 Certificate submitted for CEC PV Module Listing.	
3	Testing Conducted as per Method A only (85degC, 85%RH, 96hr) Both polarities (unless manual specifies one polarity must be connected to ground).	
4	Certifier and Test Laboratory accredited by IECEE with IEC 61215/61730 in Scope.	
5	Certificate/test report shows <3% degradation.	
6	Check BOM for PID Certificate overlaps IEC 61215/61730 CDF submitted for CEC PV Module Listing for critical components.	
7	A Company Declaration is required (see text below).	
8	Certifier Mark for PID Certification on PV Module label permitted only if PID certification is from the same certifier as IEC 61215/61730 Certificate submitted for CEC PV Module Listing.	
B	IEC 61701 Salt Mist Corrosion Resistance	
1	IEC 61701 Certificate is Valid. (IEC 61701:2011 or IEC 61701:2020 accepted) (Certificate validity is checked via Certifier website or email confirmation from Certifier)	
2	Model numbers match IEC 61215/61730 Certificate submitted for CEC PV Module Listing.	
3	Check for Severity 1, 5 or 6 for Ed2 (or Test Method 1, 5, 6); Corrosivity classification C4, C5 or CX for Ed3.	
4	Certifier and Test Laboratory accredited by IECEE with IEC 61215/61730 in Scope.	
5	Check BOM for Salt Mist Corrosion certificate overlaps IEC 61215/61730 CDF submitted for CEC PV Module Listing for critical components.	
6	A Company Declaration is required (see text below).	

7	Certifier Mark for IEC 61701 certification on PV Module label permitted only if IEC 61701 certification is from the same certifier as IEC 61215/61730 Certificate submitted for CEC PV Module Listing.	
C	IEC 62716 Ammonia Corrosion Resistance	
1	IEC 62716:2013 Certificate is Valid. (Certificate validity is checked via Certifier website or email confirmation from Certifier)	
2	Model numbers match IEC 61215/61730 Certificate submitted for CEC PV Module Listing.	
3	Check BOM for Ammonia Corrosion Certificate overlaps IEC 61215/61730 CDF submitted for CEC PV Module Listing for critical components.	
4	Certifier and Test Laboratory accredited by IECEE with IEC 61215/61730 in Scope.	
5	A Company Declaration is required (see text below).	
6	Certifier Mark for IEC 62716 certification on PV Module label permitted only if IEC 62716 certification is from the same certifier as IEC 61215/61730 Certificate submitted for CEC PV Module Listing.	
D	Light and Elevated Temperature Induced Degradation LeTID	
1	IEC TS 63342 Certificate is Valid. (Equivalent certifier standard permitted) (Certificate validity is checked via Certifier website or email confirmation from Certifier)	
2	Model numbers match IEC 61215/61730 Certificate submitted for CEC PV Module Listing.	
3	Testing conducted at 75°C, 2 x (Isc-Imp), 296-320hours (unless Vd'avg>Vd.min+0.3%).	
4	Certificate/test report shows <3% degradation.	
5	Certifier and Test Laboratory accredited by IECEE with IEC 61215/61730 in Scope.	
6	Check BOM for LeTID certificate overlaps IEC 61215/61730 CDF submitted for CEC PV Module Listing for critical components.	
7	A Company Declaration is required (see text below).	
E	**Final Checks**	
1	Where multiple enhanced listings are requested, ensure that for each critical component, there is at least one make/model which is present on all Certificates.	
2	If not, applicant is required remove any enhanced listings claims which cannot technically be met.	
3	If the enhanced listing standard has a BOM which is incompatible with the IEC 61215/61730 CDF submitted for CEC PV Module Listing, then the enhanced listing standard cannot technically be met, it must be removed from the datasheet/manual.	

Text for Company Declaration:

“In consideration of CEC granting an Enhanced Listing for the model numbers specified below, [Certificate holder company] undertakes that the bill of materials (BOM) used for all shipments of the specified model numbers of solar modules supplied to Australia will conform to the CDF for the IEC 61215/61730 Certificate submitted to CEC for PV Module listing, as well as any relevant Enhanced Listing certificates or test reports.

I understand that failure to comply may put the company in breach of the CEC listing Terms and Conditions relating to misleading application information and customer documentation. I understand that we can withdraw the Enhanced Listing at any time without affecting our basic CEC listing.”

- Declaration should list all the relevant model numbers.
- Declaration is to be on Certificate Holder Company letterhead.
- Declaration to be signed and dated by senior management.

Critical components for Enhanced Listings

After consultation with certifiers, the following components of the BOM have been determined as critical to meet both the main certificate CDF and the enhanced testing CDF. All other components will be considered non-critical and not subject to the Enhanced Listing Declaration.

Component	PID	Salt Mist	Ammonia	LETID
Solar cell	Y	N	N	Y
EVA	Y	Y	Y	N
Frontsheet	Y	Y	Y	N
Backsheet	Y	Y	Y	N
Frame	N	Y	Y	N
Frame adhesive	N	Y	Y	N
J-box	N	Y	Y	N
Connector	N	Y	Y	N

Background

The Enhanced Listing program requires the bill of materials (BOM) of modules supplied to Australia to conform to both the IEC 61215/61730 CDF submitted for CEC PV Module Listing and the Enhanced Listing Certificate CDF or test report. This requires a company Declaration to this effect.

The requirement has created problems for companies in unduly restricting their choice of materials. CEC has consulted certifiers to ascertain which components were critical.