

F. No. 283/59/2024-GRID SOLAR-Part(1)

भारत सरकार / Government of India

नवीन और नवीकरणीय ऊर्जा मंत्रालय/ Ministry of New & Renewable Energy (MNRE)

ग्रिड सौर ऊर्जा प्रभाग / Grid Solar Power Division

Atal Akshay Urja Bhawan,
Lodi Road, New Delhi – 110003

Date: 14th May 2025

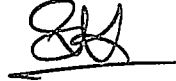
OFFICE MEMORANDUM

Subject: Application Form for applying for enlistment in ALMM (Approved List of Models & Manufacturers) for solar PV cells: reg.

Vide its O.M. No. 283/59/2024-GRID SOLAR dated 24.02.2025, MNRE, had issued the Draft Application Form for applying for enlistment in ALMM List-II for solar PV cells and had sought comments thereupon. The comments received have been examined in consultation with National Institute of Solar Energy (NISE) and the Final Application Form for applying for enlistment in ALMM List-II for solar PV cells is hereby issued along with this O.M.

2. Further, based on the queries raised by the stakeholders, some clarifications on the aforesaid Application Form are also being issued, which are also enclosed herewith.
3. The solar PV cell manufacturers are requested to expeditiously apply for enlistment in ALMM List-II for solar PV cells.
4. The other procedural modalities in respect of enlistment of ALMM for solar PV cells will remain the same as are presently applicable to procedural modalities in respect of enlistment of ALMM for solar PV modules, to the extent applicable for solar PV cells.
5. This issues with the approval of competent authority.

Encl: as above



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To: All concerned

Copy to: Director (Technical), NIC, MNRE, for uploading on MNRE's website.

Application Format to apply for inclusion of Solar Photovoltaic (PV) Cell Model(s) in the List-II of “Approved List of Models and Manufacturers (ALMM) of Solar Photovoltaic Cells”

Part-I

(To be filled separately for each Solar Photovoltaic (PV) Cell type)

(Tick the relevant box wherever applicable)

1.0	Details of Solar Photovoltaic (PV) Cell Manufacturer and Model		
1.1	Name of Company (In case of Indian company, attach a copy of certificate of Incorporation issued by Registrar of Companies) Attachment number _____		
1.2	Registered Office Address		
		Phone:	Fax:
		Email:	
1.3	Communication Address		
		Phone:	Fax:
		Email:	
1.4	Location/Address of Manufacturing Plant including Latitude/Longitude:		
		Phone:	Fax:
		Latitude:	Longitude:
1.5	Whether applying for more than one Solar Cell type	(a). No. (b). Yes. (In case application is being made for enlistment of more than one type of Solar Cell, the relevant entries need to be filled separately for each cell type)	
2.0	Authorized signatory details (Attach a copy of the Board resolution / Power of attorney/ Authorization letter issued by the Chairman/ Managing Director) Attachment number _____	Name: Designation: Phone: Mobile: E-mail:	

3.0	Details of Solar Cells:	
3.1	Solar Cell type Applied for	Cell type: (Monocrystalline / Multi-crystalline) Cell Technology: (Al-BSF / PERC / Topcon / HJT / Others (Pls specify))
3.2	Mean Wattage and efficiency of the cell (Mean wattage and efficiency along with the range (min-max) to be given)	Wattage (W)- Mean: Range: Efficiency (%)- Mean: Range:
3.3	Electrical Data at STC	Cell Efficiency: Pmax (Wp): Tolerance-Pmax (W): Vmp (V): Imp (A): Voc (V): Isc (A): PID Resistance: Yes / No Performance Curves (attach separate sheet of Current- Voltage, Power-Voltage curves):
3.4	Cell construction and Mechanical Data (attach datasheet)	Cell Dimensions (length, breadth) (in mm) and Cell area (in mm ²): Thickness of Cell (μm): Number of front bus bars per cell: Number of back bus bars per cell:
3.5	Wafer (used in fabricating the cell) source and details (Pre-processed / wafers with pre-formed p-n junction are not allowed)	
4.0	Calibration Certificate of Reference Solar Cell (Pl Attach a copy of a valid Calibration document) Attachment number _____	Date of Issue: DD MM YYYY Valid Up to: DD MM YYYY (if available)

5.0	Collaboration / Design Ownership details		
5.1	Whether Collaboration available for this Cell type	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.2	Name, address & contact details of Collaborator and Country	Name	
		Country	
		Address	
		Tel: Fax: Email:	
5.3	Indian Territory Jurisdiction of Collaboration and period of Collaboration	Yes <input type="checkbox"/>	No <input type="checkbox"/>
		Period	From To
5.4	Ownership of design rights of the Solar Cell available with the Indian Companies	Yes <input type="checkbox"/>	No <input type="checkbox"/>
		Partial <input type="checkbox"/>	
6.0	Manufacturing Facility Details (Physical and Financial)		
6.1	Manufacturing capacity of Solar Cells (MW)		
6.2	Location details of the assembly/ manufacturing facility for the above said Cell Model		
6.3	List of Equipment (Manufacturing and Testing) <i>(separate sheets to be attached)</i>		
6.4	ISO Certificate for the assembly/ manufacturing facility, if available		
6.5	Name of the ISO Certification Body		

6.6	ISO Certificate as per standard	
6.7	ISO certificate valid up to (Attach a copy of valid ISO certificate) Attachment number _____	DD MM YYYY
6.8	Name, address and contact details (including contact person and his phone and email) of the certification Body which has accredited ISO Certification, for authentication of ISO Certificate	
6.9	Any other certificate /accreditation Valid up to: (Attach a copy of valid Accreditation certificate) Attachment number _____	DD MM YYYY
6.10	Details of Manufacturing capacity of solar Cells and production therefrom in last one year or the period of existence of such units, whichever is less. <i>(separate sheets to be attached)</i>	
6.11	Details of purchase of raw materials, in last one year or the period of existence of such units, whichever is less <i>(separate sheets to be attached)</i>	
6.12	Details of sales in last one year or the period of existence of such units, whichever is less <i>(separate sheets to be attached)</i>	
6.13	Profit & Loss account for last three years or the period of existence of such units, whichever is less <i>(separate sheets to be attached)</i>	
6.14	Statement of assets & liabilities for last three years or the period of existence of such units, whichever is less <i>(separate sheets to be attached)</i>	
6.15	Balance Sheet for last three years or the period of existence of such units, whichever is less <i>(separate sheets to be attached)</i>	

7.0	Details of Payment of Application Fee	Amount Paid: Mode of Payment: Whether Acknowledgement of Payment attached: Yes/ No
8.0	Details of Payment of Inspection Fee	Amount Paid: Mode of Payment: Whether Acknowledgement of Payment attached: Yes/ No
9.0	Affidavit and Indemnity	
9.1	Affidavit Provided as per Annexure-II (PI Attach the Affidavit) Attachment number _____	Yes <input type="checkbox"/> No <input type="checkbox"/>
9.2	Indemnity bond Provided as per Annexure-III (PI Attach the Indemnity Bond) Attachment number _____	Yes <input type="checkbox"/> No <input type="checkbox"/>

Declaration

I do hereby declare that all information and documents are provided in complete manner. I confirm that all the information provided in the 'Application Form' and in the other documents is true, complete and correct. I agree that in the event of any particular information given being found false or incorrect or any discrepancy at any point of time, our application is liable to be rejected or cancelled or liable to be terminated and the Solar Cell shall be removed from the List, if enlisted, without any prior notice by MNRE. I unconditionally agree to comply with all the requirements, terms and conditions stipulated by MNRE. **I also undertake to provide to MNRE, even after enlistment, any additional information, that is subsequently added to this Standard Application Format, by MNRE or any other agency/ organization, authorized by MNRE to do so.**

Authorized Signatory

(TO BE PRINTED IN Rs.100/- STAMP PAPER (Non-Judicial))

and to be NOTARIZED

AFFIDAVIT SUBMITTED ON BEHALF (COMPANY)

I.....Son/Daughter/Wife of aged about years, having my office at (Address), do hereby solemnly affirm and sincerely state as follows:

1. I am the(Designation)of the (company). I have been authorized by the (company) vide Board Resolution / Power of Attorney / Authorization Letter dated.....to sign this affidavit on behalf of the company.
2. I state that(company) has submitted an Application Form dated(dd/mm/yyyy) for inclusion of its Solar Photovoltaic (PV) Cell Modelin the ALMM. This affidavit is sworn on behalf of the (company) to confirm and verify the true, complete and correctness of the information and documents provided therein. I am competent to swear this affidavit on behalf of the (company).
3. I state that the manufacturer details including the name of the company, incorporation, registered office and communication address provided in the Application Form are true and correct.
4. In case of Joint Venture Company

I state that the(company) is a Joint Venture Company between.....and The share holding pattern in the Joint Venture is as follows(if applicable)

5. I state that(company) has entered into a Collaboration Agreement namely "....."(Specific name of the Agreement) signed on with(company) for the Solar Cell type being applied for the ALMM. The above Collaboration Agreement is valid for the period ofyears from(dd/mm/yyyy) till(dd/mm/yyyy) The Collaboration Agreement is valid as on date and all obligations contained therein are fulfilled. Indian Territory is covered under the Collaboration Agreement.

or

I state that the Design Ownership Right of the Solar Cell type.....being applied for ALMM is owned by (company). There are no patent related issues pending for the Solar Photovoltaic (PV) Cell Model being applied for ALMM till date either against (company) or its Collaborator.

6. I state that there are no insolvency proceedings either initiated or pending against(company) or its Collaborator.
7. I state that(company) undertakes and has made provisions in the Collaboration Agreement for retaining all the required documentation, tools, equipment and other necessary infrastructure required to carry out the Operation and Maintenance of the installed Solar Cell type in case of termination of the Collaboration Agreement.
8. I state that.....(company) undertakes to immediately update any change / modification in the details set out in the Application Form submitted for ALMM as and when the same may occur for review, approval and updated listing.
9. I state that.....(company) has no objections to MNRE uploading the submitted documents Certificate of Incorporation, and ISO Certificate in the ALMM on its website.
10. I do hereby declare that all information and documents are provided in complete manner. I confirm that all the information provided in the "Application Form" and in the other documents are true, complete and correct. I agree that in the event of any particular information given being found false or incorrect or any discrepancy at any point of time, our application is liable to be rejected or cancelled or liable to be terminated and the Solar Cell type shall be removed from the List, if enlisted, without any prior notice by MNRE, Government of India. (Company) unconditionally agree to comply with all the requirements, terms and conditions stipulated by MNRE, Government of India. (Company) undertakes to indemnify MNRE, Government of India and to execute an indemnity bond to that effect against any loss or damages for reasons set forth here above from any parties.

DEPONENT

VERIFICATION:

Verified at _____, this the _____ day of _____ 20____. That the contents in the above affidavit is true and correct to the best of knowledge and belief. No part of this affidavit is wrong and nothing material has been concealed therefrom.

DEPONENT

Solemnly Affirmed at

On this.....day of.....20____

And signed his/her name in my presence

Deponent signed before me

(TO BE PRINTED IN Rs.100/- STAMP PAPER (Non-Judicial))**and to be NOTARIZED****DEED OF INDEMNITY**

THIS DEED OF INDEMNITY executed at _____ on this ----- day of -----, Two Thousand and _____ by M/s.-----, a company registered under the Indian Companies Act, having its Registered office at-----, India represented herein by its Authorised Signatory ----- (Name) the ----- (Designation), hereinafter called the "MANUFACTURER" (the term "MANUFACTURER" shall wherever the context so permits includes its representatives, executors, assigns, successors and successors in interest)

WHEREAS the MANUFACTURER has requested Ministry of New and Renewable Energy (MNRE), Government of India having its office at Atal Akshaya Urja Bhawan, Lodhi Road, New Delhi – 110 003, (herein after referred to as MNRE) for inclusion of M/s.----- along with ----- solar PV cell / module model, in the Approved List of Models and Manufacturers of solar PV cells / modules (ALMM) and has submitted an application dated ----- (dd/mm/yyyy) along with required documents to that effect (hereinafter referred to as the "Application") with MNRE. In this regard, the MANUFACTURER is executing a Deed of Indemnity, which forms part and parcel for the Application dated ----- (dd/mm/yyyy), indemnifying the MNRE against any loss, damages, failures, performance issues, breakdowns, etc., that they may suffer or incur and in order to safeguard the interests of MNRE.

NOW THIS DEED OF INDEMNITY WITNESSETH

1. That in pursuance of the documentation submitted by the MANUFACTURER for inclusion of ----- (company) along with ----- solar PV cell / module model in the Approved List of Models and Manufacturers of Solar Cells/ Modules (ALMM) issued by the MNRE, the MANUFACTURER shall indemnify and keep indemnified MNRE against any loss, damages, failures, performance issues, breakdowns, etc., that may arise on account of such inclusion of the said solar PV cell/ module manufacturer and model in the Approved List of Models and Manufacturers of Solar Cells / Modules (ALMM) issued by MNRE, based on the approval of the MNRE.
2. The MANUFACTURER shall indemnify MNRE against any loss, damages, failures, performance issues, breakdowns, etc., on account of any insurance claim.

3. The MANUFACTURER shall indemnify MNRE against any loss, damage that may arise on account of disputes raised by any third party relating to design rights, intellectual property rights, and all other similar claims as MNRE is in no way connected with it.
4. The MANUFACTURER shall indemnify MNRE against any consequential loss, damages on account of inclusion of the said solar PV cell / module manufacturer and model in the Approved List of Models and Manufacturers of Solar PV Cells/ Modules (ALMM) and any other issues in connection with the MANUFACTURER and solar PV cell / module model.
5. The MANUFACTURER shall indemnify MNRE against any documentation loss, damages if arises.
6. The MANUFACTURER shall indemnify MNRE against any loss, damages, failures, performance issues, breakdowns etc., that may arise on account of providing incorrect/false information and/or documentation.
7. The MANUFACTURER shall indemnify MNRE against any loss, damages, failures, performance issues, breakdowns etc., that may arise on account of any legal dispute arising between MNRE and MANUFACTURER or MNRE and any Third Parties.
8. The MANUFACTURER shall indemnify MNRE against any loss, damages, failures, performance issues, breakdowns, etc., due to any issues related to design, manufacture/ assembly, installation, grid synchronization / commissioning and operation and maintenance of the solar PV cells/ modules.
9. The MANUFACTURER shall indemnify MNRE against any loss, damages, failures, performance issues, breakdowns, etc., or any issues at site(s) including non-compliance of standards.
10. The MANUFACTURER shall indemnify and keep indemnified MNRE against any consequential loss, damages and failures arising out or in connection with the review / verification of documentation and information
11. The MANUFACTURER shall indemnify and keep indemnified MNRE against any loss, damages, failures, claims etc., due to changes / modifications in the Type Certification documents and other documents.
12. The MANUFACTURER shall indemnify MNRE against any loss, damages, failures, performance issues, breakdowns, etc., or any issues at site(s) that may arise on account of any reasons apart from the above mentioned.
13. The MANUFACTURER unconditionally and irrevocably agree and undertake to indemnify and keep indemnified, save, defend and hold harmless MNRE in respect of any actions, claims, suits, demands, costs, damages, expense, failures in solar PV cells / solar PV power projects, causes of any actions for illness, injuries, death or any consequential losses that may arise in the event of such inclusion of -----(company) along with----- solar PV cell / module model in the Approved List of Models and Manufacturers of Solar Cells/ Modules (ALMM).
14. The MANUFACTURER shall indemnify and keep indemnified MNRE that in the event of any loss, liability that they may suffer or any claim that may be made against MNRE would be made good by the MANUFACTURER for the loss, costs, charges, expenses, claims whatsoever

made including any claim that may be made under any act will be fully taken care of and paid only by the MANUFACTURER and no such claim made in whatsoever manner, will be fastened on MNRE.

IN WITNESS WHEREOF, the party hereto has executed this Deed of Indemnity on the date, month and year first above written.

Signature of Authorised Signatory

Name _____

Designation_____

WITNESSES:

1. _____

2. _____

**Check List of Documents/requirements submitted with application for
inclusion of ____solar cell type of ____ (Company)**

S. No.	Document	Status
1.	Application in prescribed format	Yes/No
2.	Copy of Certificate of Incorporation of the applying entity issued by Registrar of Companies, Ministry of Corporate Affairs, Government of India.	Yes/No
3.	GST Certificate of the applying entity	Yes/No
4.	Document authorising the signatory to sign and submit the application.	Yes/No
5.	Details of wafer used for each Solar Cells type applied for ALMM Enlistment	Yes/No
6.	Copy of Calibration Certificate of Reference Solar Cell	Yes/No
7.	Solar cell I-V Curve test report for applied Solar Cell types	Yes/No
8.	Solar cell I-V tester Calibration Report	Yes/No
9.	Solar PV Cell Manufacturing Plant layout	Yes/No
10.	Copy of valid ISO Certificate (9001 & 14001) for quality management & Environment management system issued in the name of Applicant, if applicable	Yes/No
11.	Copy of Accreditation certificate of ISO certifying body	Yes/No
12.	Details of the Manufacturing capacity of solar cells and production therefrom in last three years or the period of existence of such units, whichever is less.	Yes/No
13.	Details of purchase of raw materials, in last three years or the period of existence of such units, whichever is less.	Yes/No
14.	Details of sales in last three years or the period of existence of such units, whichever is less.	Yes/No
15.	Profit & Loss account for last three years or the period of existence of such units, whichever is less.	Yes/No
16.	Statement of assets & liabilities for last three years or the period of existence of such units, whichever is less.	Yes/No
17.	Balance Sheet for last three years or the period of existence of such units, whichever is less.	Yes/No
18.	Details of Payment of Application & Inspection Fee	Yes/No
19.	Affidavit in the prescribed format on non- judicial stamp paper (Rs. 100) duly signed and attested (As in application form)	Yes/No
20.	Indemnity Bond in the prescribed format on non- judicial stamp paper (Rs. 100) duly signed and attested (As in application form)	Yes/No
21.	List of Equipment (Manufacturing & Testing)	Yes/No
22.	Electricity Bill for last 3 months.	Yes/No
23.	Number of working Days (Self Declaration)	Yes/No
24.	All documents duly signed by authorized signatory	Yes/No

Clarifications on queries received from stakeholders on the Application Form for applying for enlistment in ALMM List-II for solar PV cells

S. No.	Clause	Comment	Clarification
1.	3.2 Mean wattage and efficiency of the cell	Does manufacturer need to provide physical samples for highest efficiency of solar cell to be listed or same can be done through product datasheet?	During the ALMM inspection, data will be collected for efficiencies/ wattages of the cells produced. From the data average efficiency will be calculated and the same will be enlisted.
2.		Does solar cell having minor changes in physical size (i.e Change in thickness, length or width by less 20%, Number of bus bars and bus pads) need to be re listed and ALMM audit is required?	Physical ALMM audit will be optional for below changes in the solar cell attributes: Efficiency change within $\pm 2\%$ (relative) Dimension change (L or W) within ± 2 mm Thickness change within $\pm 10 \mu\text{m}$
3.	3.3 Electrical data at STC PID resistance Yes/ No	Which certificate is required for PID resistance or manufacturer declaration is sufficient.	Manufacturer declaration is sufficient.
4.		Does change in process flow/ cell raw material will impact the certificate validity.	Yes. Manufacturer has to provide new declaration.
5.		What will be the process of adding solar cell with PID resistance if Non PID cell is already listed in ALMM in same product family.	PID and non-PID cells will be treated as different product/ family and separately enlisted.
6.	3.5 Temperature characteristics (earlier clause in Draft Application Form; now deleted)	What will be the process of adding solar cell with different temperature coeff? What is the tolerance allowed in temperature coeff value which does not require re-listing.	Generally, temperature coefficient does not change much for a given cell technology. It changes for different technologies. Different cell technologies anyway have to be enlisted separately by filling separate application forms.
7.	4.0 Calibration Certificate of Reference Solar Cell	Please specify the IEC standard and approved lab for certificate.	Reference solar cells will be calibrated as per IEC 60904. Labs like Fraunhofer, NREL, NPL, NISE can be used for the same.
8.	5.4 Ownership of design rights of the Solar Cell available with the Indian Companies	If this pertains to screen design, companies will have the rights. Need elaboration on this point.	In addition to 'Yes' and 'No' options, another option 'Partial' has been added in the application form. In cases where the company has design rights only for certain aspects like for screen design, partial option may be selected and details can be given.
9.	Additional query	There is no clear guideline for re listing of product or product family definition in attached document. Need clarification on this.	Different product families will be there for different cell types/ technologies/ dimensions/ PID/ non-PID. No family

S. No.	Clause	Comment	Clarification
			classification based on cell wattage or efficiency.
10.	3.2 Mean wattage and efficiency of the cell	<p>Insertion of following dataset as a requirement:</p> <p>A. For Minimum Efficiency and Wattage, Current production volume (in % age)</p> <p>B. For Maximum Efficiency and Wattage, Current production volume (in % age)</p> <p>C. Weighted average of Efficiency</p> <p>D. Weighted average of Wattage</p> <p>Rationale: This will give clear manufacturing capacity at various efficiency levels. This will give a clear visibility overall production capacity in India for various Wattage levels for final modules and subsequently for solar installation.</p> <p>"Weighted average of wattage w.r.t to Production volume (in % age)" is better indicator of the Supplier production capacity rather than "mean wattage".</p>	Average efficiency/ wattage will be as per the clarification given in S. No. 1.
11.	3.3 Electrical data at STC	<p>Limitation: In the ALMM application process, there is no provision to add the standard ($\pm 10\%$) cell Wp and cell dimensions directly. This limitation means that any changes in cell specifications, such as the introduction of different models (e.g., M10 R or G12R), or updates in cell efficiency over time (e.g., a 1-2% increase in efficiency), require a factory inspection to be reflected in the application. This increases administrative burden and delays updates to the application.</p> <p>Suggestion: To overcome this limitation, it is suggested to allow the addition of the standard ($\pm 10\%$) cell Wp and cell dimensions directly within the ALMM application. This would enable manufacturers to add details for different cell models, such as M10 R or G12R, and updates in cell efficiency (e.g., a 1-2% increase) without the need for a factory inspection. Implementing this change would streamline the process, reduce delays, and improve the flexibility of the certification system.</p>	Factory inspection will be optional for minor changes, as clarified in S. No 2.