F. No. 283/41/2024-GRID SOLAR

भारत सरकार / Government of India

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

ग्रिड सौर ऊर्जा प्रभाग / Grid Solar Power Division

Atal Akshay Urja Bhawan,
Lodhi Road, New Delhi – 110003.
Dated: 21st May 2025

OFFICE MEMORANDUM

Sub: Updation of List I (Manufacturers and Models of Solar PV Modules) of ALMM Order, 2019 – Reg.

Ref: (i) MNRE's O.M. No. 283/54/2018-GRID SOLAR–Part(1) dated 10.03.2021
(ii) MNRE's O.M. No. 283/22/2023-GRID SOLAR/Pt dated 10.05.2023;
(iii) MNRE's O.M. No. 283/22/2023-GRID SOLAR/Pt dated 22.03.2024;
(iv) MNRE's O.M. No. 32/33/2024-SPV Division dated 06.05.2025;

Reference is invited to this Ministry's O.M.s of even no. dated 10.03.2021, regarding implementation of Approved Models and Manufacturers of Solar Photovoltaic Modules (Requirement for Compulsory Registration) Order, 2019 and publishing List – I (Manufacturers and Models of Solar PV Modules) of ALMM Order, 2019.

2. This Ministry vide its O.M.s referred at (ii), (iii) & (iv) above, inter-alia, directed that only such models of Solar PV Module Manufacturers will be enlisted under ALMM, which comply with the BIS Standards and are having the following minimum module efficiency:

Category	**Application/Use**	**Minimum Module Efficiency required to be eligible for enlistment in ALMM for solar PV modules**	
		For c-Si technology based solar PV modules	**For CdTe thin film technology based solar PV modules**
Category-I	Utility/Grid Scale Power Plants	20.00%	19.00%
Category-II	Rooftop and Solar Pumping	19.50%	18.50%
Category-III	Off-grid projects/applications like solar lamps, solar lights, solar street lights, solar fans, etc. (other than solar powered agricultural pumps and solar PV rooftops) requiring individual capacity of each solar PV module deployed, to be of less than 200 Watt peak	18.00%	18.00%
		(not to be included in main ALMM List-I but to be included in a separate ALMM list called ALMM List-I (DRE)	
Category-IV	Any other application	19.00%	18.00%

3. Post the aforesaid O.M. dated 10.05.2023 and subsequent O.M.s dated 22.03.2024 and 06.05.2025, only such models of Solar PV Modules have been considered for enlistment under ALMM List-I, whose module efficiency is meeting the eligibility criteria as mentioned in table at para-2 above.

4. The List – I (Manufacturers and Models of Solar PV Modules) of ALMM Order, 2019 was last updated on 21.04.2025.

5. The List – I (Manufacturers and Models of Solar PV Modules) of ALMM Order, 2019 is hereby further revised and the Revision-XXXVIII *(in the format of additions / modifications to Revision-XXXVII)* is enclosed at Annexure-I. The last revision no. XXXVII dated 21.04.2025 along with provisional enlistments therein *(excluding those which have been removed on account of inclusion in main ALMM List-I)* is at pages after Annexure-I.

6. The ALMM enlistment validity is subject to valid BIS Registration; else deemed to be delisted.

7. The details of Registration No. (R. No.) which has been allotted by BIS is mentioned against each manufacturer / manufacturing unit enlisted in ALMM and further details related to BIS certification like validity, models included, etc. may be checked from BIS website by using the following link:
https://www.crsbis.in/BIS/Lims_registrationc.do?hmode=getLimsData

8. This issues with the approval of competent authority.

(Sanjay G. Karndhar)
Scientist-E
E-mail: karndhar.sg@nic.in

Encl: as above

To: All Concerned

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

Annexure-I

Revision-XXVIII

A. Correction of errors in revision of ALMM List-I dated 27.03.2025

There were some typographical errors in the ALMM list published on 27.03.2025 and the same are hereby corrected as follows:

1. **M/s. Australian Premium Solar (India) Pvt. Ltd** - Typo error corrected in validity of Model numbers.

   In. Sl. No. 40=> Sl.Nos. (vii) to (xiv)=> ALMM enlistment validity may be read as from 01.09.2023 to 31.08.2027 *(subject to valid BIS Registration, else deemed to be delisted)*

2. **M/s. Mundra Solar PV Limited, co-ALMM with Goldi Sun Private Limited -** Typo Error corrected in validity of Model numbers.

   In. Sl. No. 52=> for entries corresponding to R. No. 72012025, ALMM enlistment validity may be read as from 27.03.2025 to 16.01.2026 *(subject to valid BIS Registration, else deemed to be delisted)*

3. **M/s. PV Power Technologies Private Limited, co-ALMM with Rayzon Solar Private Limited -** Typo Error corrected in validity of Model numbers.

   In. Sl. No. 70=> for entries corresponding to R. No. 72012084, ALMM enlistment validity may be read as from 27.03.2025 to 01.09.2026 *(subject to valid BIS Registration, else deemed to be delisted)*

S. No.	Name of the Manufacturer	Location of Manufacturing Facility	BIS Registration No.	Enlisted Capacity (MWs / Year)	S. No.	Type of Module	Applied Model	Enlisted Models	Module Efficiency (%)	No. of Cells in Module	System Voltage (in Volt)	Validity (subject to valid BIS Registration; else deeemd to be delisted)	
												From	To
5	M/s. Insolation Green Energy Pvt. Ltd (Model Addition & Capacity Addition)	Khasra No 11/1, 1136/9, Chomu, Jatavali, Jaipur-302001, Rajasthan, India	R-84003549	637	i	N-Type TOPCon Module	INA-144THC-WF-560 (560 Wp)	INA-144THC-WF-580	22.45	144 (Half Cut Cells)	1500	31.05.2023	30.05.2027
								INA-144THC-WF-575	22.26				
								INA-144THC-WF-570	22.07				
								INA-144THC-WF-565	21.87				
								INA-144THC-WF-560	21.68				
								INA-144THC-WF-555	21.48				
								INA-144THC-WF-550	21.29				
								INA-144THC-WF-545	21.10				
					ii	Bifacial N-Type TOPCon Module (Glass to Transparent Backsheet)	INA-144THC-TF-560 (560 Wp)	INA-144THC-TF-580	22.45	144 (Half Cut Cells)	1500		
								INA-144THC-TF-575	22.26				
								INA-144THC-TF-570	22.07				
								INA-144THC-TF-565	21.87				
								INA-144THC-TF-560	21.68				
								INA-144THC-TF-555	21.48				
								INA-144THC-TF-550	21.29				
								INA-144THC-TF-545	21.10				
					iii	N-Type TOPCon Module	INA-132THC-WF-520 (520 Wp)	INA-132THC-WF-545	22.94	132 (Half Cut Cells)	1500		
								INA-132THC-WF-540	22.73				
								INA-132THC-WF-535	22.52				
								INA-132THC-WF-530	22.31				
								INA-132THC-WF-525	22.10				
								INA-132THC-WF-520	21.89				
								INA-132THC-WF-515	21.68				
								INA-132THC-WF-510	21.47				
								INA-132THC-WF-505	21.26				
								INA-132THC-WF-500	21.05				
					iv	Bifacial N-Type TOPCon Module (Glass to Transparent Backsheet)	INA-132THC-TF-520 (520 Wp)	INA-132THC-TF-545	22.94	132 (Half Cut Cells)	1500		
								INA-132THC-TF-540	22.73				
								INA-132THC-TF-535	22.52				
								INA-132THC-TF-530	22.31				
								INA-132THC-TF-525	22.10				
								INA-132THC-TF-520	21.89				
								INA-132THC-TF-515	21.68				
								INA-132THC-TF-510	21.47				
								INA-132THC-TF-505	21.26				
								INA-132THC-TF-500	21.05				
					v	N-Type TOPCon Module	INA-120THC-WF-475 (475 Wp)	INA-120THC-WF-495	22.79	120 (Half Cut Cells)	1500		
								INA-120THC-WF-490	22.56				
								INA-120THC-WF-485	22.33				
								INA-120THC-WF-480	22.10				
								INA-120THC-WF-475	21.87				
								INA-120THC-WF-470	21.64				
								INA-120THC-WF-465	21.41				
								INA-120THC-WF-460	21.18				
								INA-120THC-WF-455	20.95				
					vi	Bifacial N-Type TOPCon Module (Glass to Transparent Backsheet)	INA-120THC-TF-475 (475 Wp)	INA-120THC-TF-495	22.79	120 (Half Cut Cells)	1500		
								INA-120THC-TF-490	22.56				
								INA-120THC-TF-485	22.33				
								INA-120THC-TF-480	22.10				
								INA-120THC-TF-475	21.87				
								INA-120THC-TF-470	21.64				
								INA-120THC-TF-465	21.41				
								INA-120THC-TF-460	21.18				
								INA-120THC-TF-455	20.95				
					vii	N-Type TOPCon Module	INA-108THC-WF-430 (430 Wp)	INA-108THC-WF-450	22.94	108 (Half Cut Cells)	1500		
								INA-108THC-WF-445	22.68				
								INA-108THC-WF-440	22.43				
								INA-108THC-WF-435	22.17				
								INA-108THC-WF-430	21.92				
								INA-108THC-WF-425	21.66				
								INA-108THC-WF-420	21.41				
								INA-108THC-WF-415	21.15				
								INA-108THC-WF-410	20.90				

S. No.	Name of the Manufacturer	Location of Manufacturing Facility	BIS Registration No.	Enlisted Capacity (MWs / Year)	S. No.	Type of Module	Applied Model	Enlisted Models	Module Efficiency (%)	No. of Cells in Module	System Voltage (in Volt)	Validity (subject to valid BIS Registration; else deeemd to be delisted)	
												From	To
					viii	Bifacial N-Type TOPCon Module (Glass to Transparent Backsheet)	INA-108THC-TF-430 (430 Wp)	INA-108THC-TF-450	22.94	108 (Half Cut Cells)	1500		
								INA-108THC-TF-445	22.68				
								INA-108THC-TF-440	22.43				
								INA-108THC-TF-435	22.17				
								INA-108THC-TF-430	21.92				
								INA-108THC-TF-425	21.66				
								INA-108THC-TF-420	21.41				
								INA-108THC-TF-415	21.15				
								INA-108THC-TF-410	20.90				
					ix	Bifacial N-Type TOPCon Module (Glass to Glass)	INA-156THC-GGF-610 (610 Wp)	INA-156THC-GGF-630	22.54	156 (Half Cut Cells)	1500		
								INA-156THC-GGF-625	22.36				
								INA-156THC-GGF-620	22.18				
								INA-156THC-GGF-615	22.00				
								INA-156THC-GGF-610	21.82				
								INA-156THC-GGF-605	21.64				
								INA-156THC-GGF-600	21.46				
								INA-156THC-GGF-595	21.29				
								INA-156THC-GGF-590	21.11				
					x	Bifacial N-Type TOPCon Module (Glass to Glass)	INA-144THC-GGF-560 (560 Wp)	INA-144THC-GGF-580	22.45	144 (Half Cut Cells)	1500		
								INA-144THC-GGF-575	22.26				
								INA-144THC-GGF-570	22.07				
								INA-144THC-GGF-565	21.87				
								INA-144THC-GGF-560	21.68				
								INA-144THC-GGF-555	21.48				
								INA-144THC-GGF-550	21.29				
								INA-144THC-GGF-545	21.10				
					xi	Bifacial N-Type TOPCon Module (Glass to Glass)	INA-132THC-GGF-530 (530 Wp)	INA-132THC-GGF-540	22.73	132 (Half Cut Cells)	1500		
								INA-132THC-GGF-535	22.52				
								INA-132THC-GGF-530	22.31				
								INA-132THC-GGF-525	22.10				
								INA-132THC-GGF-520	21.89				
					xii	Bifacial N-Type TOPCon Module (Glass to Glass)	INA-120THC-GGF-465 (465 Wp)	INA-120THC-GGF-475	21.87	120 (Half Cut Cells)	1500		
								INA-120THC-GGF-470	21.64				
								INA-120THC-GGF-465	21.41				
								INA-120THC-GGF-460	21.18				
					xiii	Bifacial N-Type TOPCon Module (Glass to Glass)	INA-108THC-GGF-420 (420 Wp)	INA-108THC-GGF-430	21.92	108 (Half Cut Cells)	1500		
								INA-108THC-GGF-425	21.66				
								INA-108THC-GGF-420	21.41				
								INA-108THC-GGF-415	21.15				
								INA-108THC-GGF-410	20.90				
					xiv	Bifacial N-Type TOPCon Module (Glass to Glass)	INA-96THC-GGF-370 (370 Wp)	INA-96THC-GGF-380	21.62	96 (Half Cut Cells)	1500		
								INA-96THC-GGF-375	21.33				
								INA-96THC-GGF-370	21.05				
								INA-96THC-GGF-365	20.77				
								INA-96THC-GGF-360	20.48				
					xv	Bifacial N-Type TOPCon Module (Glass to Glass)	INA-72THC-GGF-280 (280 Wp)	INA-72THC-GGF-285	21.23	72 (Half Cut Cells)	1500		
								INA-72THC-GGF-280	20.85				
								INA-72THC-GGF-275	20.48				

S. No.	Name of the Manufacturer	Location of Manufacturing Facility	BIS Registration No.	Enlisted Capacity (MWs / Year)	S. No.	Type of Module	Applied Model	Enlisted Models	Module Efficiency (%)	No. of Cells in Module	System Voltage (in Volt)	Validity	
												From	To (subject to valid BIS Registration; else deeemd to be delisted)
39	M/s. Insolation Green Energy Pvt. Ltd	Khasra No 11/1, 1136/9, Chomu, Jatavali, Jaipur-302001, Rajasthan	R-84003549	617	i	Mono PERC c-Si Modules	INA-144MHC-WF-530 (530Wp)	INA-144MHC-WF-520	20.14	144 (Half Cut Cell)	1500	31.05.2023	30.05.2027
								INA-144MHC-WF-525	20.33				
								INA-144MHC-WF-530	20.53				
								INA-144MHC-WF-535	20.72				
								INA-144MHC-WF-540	20.91				
								INA-144MHC-WF-545	21.11				
					ii	Bifacial Mono PERC c-Si Modules	INA-144MHC-TF-530 (530Wp)	INA-144MHC-TF-520	20.14	144 (Half Cut Cell)	1500	31.05.2023	30.05.2027
								INA-144MHC-TF-525	20.33				
								INA-144MHC-TF-530	20.53				
								INA-144MHC-TF-535	20.72				
								INA-144MHC-TF-540	20.91				
								INA-144MHC-TF-545	21.11				
					iii	Mono PERC c-Si Modules	INA-132MHC-WF-490 (490Wp)	INA-132MHC-WF-480	20.19	132 (Half Cut Cell)	1500	31.05.2023	30.05.2027
								INA-132MHC-WF-485	20.41				
								INA-132MHC-WF-490	20.62				
								INA-132MHC-WF-495	20.83				
								INA-132MHC-WF-500	21.04				
					iv	Bifacial Mono PERC c-Si Modules	INA-132MHC-TF-490 (490Wp)	INA-132MHC-TF-480	20.19	132 (Half Cut Cell)	1500	31.05.2023	30.05.2027
								INA-132MHC-TF-485	20.41				
								INA-132MHC-TF-490	20.62				
								INA-132MHC-TF-495	20.83				
								INA-132MHC-TF-500	21.04				
					v	Mono PERC c-Si Modules	INA-120MHC-WF-440 (440Wp)	INA-120MHC-WF-435	20.04	120 (Half Cut Cell)	1500	31.05.2023	30.05.2027
								INA-120MHC-WF-440	20.27				
								INA-120MHC-WF-445	20.50				
								INA-120MHC-WF-450	20.73				
					vi	Bifacial Mono PERC c-Si Modules	INA-120MHC-TF-440 (440Wp)	INA-120MHC-TF-435	20.04	120 (Half Cut Cell)	1500	31.05.2023	30.05.2027
								INA-120MHC-TF-440	20.27				
								INA-120MHC-TF-445	20.50				
								INA-120MHC-TF-450	20.73				
					vii	Mono PERC c-Si Modules	INA-108MHC-WF-395 (395Wp)	INA-108MHC-WF-390	19.86	108 (Half Cut Cell)	1500	31.05.2023	30.05.2027
								INA-108MHC-WF-395	20.11				
								INA-108MHC-WF-400	20.37				
								INA-108MHC-WF-405	20.62				
					viii	Bifacial Mono PERC c-Si Modules	INA-108MHC-TF-395 (395Wp)	INA-108MHC-TF-390	19.86	108 (Half Cut Cell)	1500	31.05.2023	30.05.2027
								INA-108MHC-TF-395	20.11				
								INA-108MHC-TF-400	20.37				
								INA-108MHC-TF-405	20.62				
					ix	Mono c-Si PERC Module	INA-144MHC-WF-555	INA-144MHC-WF-550	21.29	144 Half Cut Cells	1500	31.05.2023	30.05.2027
								INA-144MHC-WF-555	21.48				
								INA-144MHC-WF-560	21.68				
					x	Bifacial Mono c-Si PERC Module	INA-144MHC-TF-555	INA-144MHC-TF-550	21.29	144 Half Cut Cells	1500	31.05.2023	30.05.2027
								INA-144MHC-TF-555	21.48				
								INA-144MHC-TF-560	21.68				