

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: 27th March, 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;

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. No. 283/22/2023-GRID SOLAR/Pt dated 10.05.2023 and O.M. of even no. dated 22.03.2024 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 requirement for crystalline-Silicon technology based Solar PV Modules	Minimum Module Efficiency requirement for Cadmium Telluride Thin Film technology based Solar PV Modules
Category I	Utility / Grid Scale Power Plants	20.0%	19.00%
Category II	Rooftop and Solar Pumping	19.5%	18.50%
Category III	Solar Lighting	19.0%	18.00%

3. Post the O.M. dated 10.05.2023 and subsequent O.M. dated 22.03.2024, 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 17.02.2025.

5. The List – I (Manufacturers and Models of Solar PV Modules) of ALMM Order, 2019 is hereby further revised and the Revision-XXXVI of same is enclosed at Annexure-I. The details of provisional enlistments granted by MNRE in ALMM List-I are 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_registration.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

List of Manufacturers and Models of Solar PV Modules Enlisted under ALMM Order (As on 27th March 2025)													
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 deemed to be delisted)
1	Emmvee Photovoltaic Power Pvt. Ltd.	#13/ 1, International Airport Road (Bellary Road), Bettahalasuru Post, Bengaluru-562157, Karnataka	R-62001074	512	i	Mono C-Si PERC Modules	E390M72 (390 Wp)	E385M72	19.20	72 (Full Cells)	1500	10.03.2023	09.03.2027
								E390M72	19.45				
								E395M72	19.70				
					ii	Mono C-Si PERC Modules	E325M60 (325 Wp)	E320M60	19.04	60 (Full Cells)	1500	10.03.2023	09.03.2027
								E325M60	19.34				
								E330M60	19.64				
2	M/s Sova Solar Ltd.	Layout Plot No: 25, E.P.I.P, Banskopa, Durgapur 713212, West Bengal, India.	R-51000590	1297	i	Mono C-Si PERC Modules	SS535144HCMP (535Wp)	SS520144HCMP	20.16	144 (Half-Cut Cells)	1500	10.03.2023	09.03.2027
								SS525144HCMP	20.35				
								SS530144HCMP	20.54				
								SS535144HCMP	20.74				
								SS540144HCMP	20.93				
								SS545144HCMP	21.13				
								SS550144HCMP	21.32				
								SS555144HCMP	21.51				
					ii	Mono C-Si PERC Bifacial Modules	SS535144HCBP (535Wp)	SS520144HCBP	20.16	144 (Half-Cut Cells)	1500	10.03.2023	09.03.2027
								SS525144HCBP	20.35				
								SS530144HCBP	20.54				
								SS535144HCBP	20.74				
								SS540144HCBP	20.93				
								SS545144HCBP	21.13				
								SS550144HCBP	21.32				
								SS555144HCBP	21.51				
					iii	Bifacial Mono c-Si PERC Modules (Glass to Transparent Backsheet)	SS535144HCMP (535Wp)	SS520144HCMP	20.16	144 (Half-Cut Cells)	1500	10.03.2023	09.03.2027
								SS525144HCMP	20.35				
								SS530144HCMP	20.54				
								SS535144HCMP	20.74				
								SS540144HCMP	20.93				
								SS545144HCMP	21.13				
								SS550144HCMP	21.32				
								SS555144HCMP	21.51				
					iv	N-Type TOPCON Modules (Glass to Glass)	SS565144HCGT (565Wp)	SS580144HCGT	22.48	144 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								SS575144HCGT	22.29				
								SS570144HCGT	22.09				
								SS565144HCGT	21.90				
								SS560144HCGT	21.71				
								SS555144HCGT	21.51				
								SS550144HCGT	21.32				
								SS545144HCGT	21.12				
								SS540144HCGT	20.93				
					v	Mono c-Si PERC Modules (Glass to Transparent Backsheet)	SS490132HCMP (490Wp)	SS505132HCMP	21.27	132 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								SS500132HCMP	21.06				
								SS495132HCMP	20.85				
								SS490132HCMP	20.64				
								SS485132HCMP	20.43				
								SS480132HCMP	20.22				
								SS475132HCMP	20.01				
								SS470132HCMP	19.80				
3	M/s Solex Energy Ltd	Plot No. 131/A Phase-1, G.I.D.C, Vitthal Udyognagar, Anand, Gujarat	R-72002577	21	i	Mono C-Si PERC Modules	SESM24375 (375 Wp)	SESM24370	19.04	72 (Full Cells)	1000	10.03.2023	09.03.2027
								SESM24375	19.30				
								SESM24380	19.55				
					ii	Mono C-Si PERC Modules	SE520CM120W320 (320 Wp)	SE520CM120W320	19.21	120 (Half Cells)	1000	10.03.2023	09.03.2027
								SE524CM144W375	19.01				
								SE524CM144W380	19.30				
					iii	Mono C-Si PERC Modules	SE524CM144W380 (380 Wp)	SE524CM144W385	19.51	144 (Half Cells)	1000	10.03.2023	09.03.2027
4	Saatvik Green Energy Pvt. Ltd.	Village Dubli, Tehsil- Barara, Dist- Ambala -133101, Haryana	R-91003670	1740	i	Mono C-Si PERC Modules	SGE 190-36M (190 Wp)	SGE 190-36M	19.11	36 (Full Cells)	1000	10.03.2023	09.03.2027
					ii	Mono C-Si PERC Modules	SGE 255-48M (255 Wp)	SGE 255-48M	19.37	48 (Full Cells)	1000	10.03.2023	09.03.2027

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 deemed to be delisted)
					iii	Mono C-Si PERC Modules	SGE 285-54M (285 Wp)	SGE 280-54M SGE 285-54M	19.15 19.49	54 (Full Cells)	1000	10.03.2023	09.03.2027
					iv	Mono C-Si PERC Modules	SGE 315-60M (315 Wp)	SGE 310-60M SGE 315-60M	19.08 19.41	60 (Full Cells)	1500	10.03.2023	09.03.2027
					v	Mono C-Si PERC Modules	SGE 375-72M (375 Wp)	SGE 370-72M SGE 375-72M SGE 380-72M	19.09 19.35 19.61	72 (Full Cells)	1500	10.03.2023	09.03.2027
					vi	Mono C-Si PERC Modules	SGE570-156MHC, (570 Wp)	SGE555-156MHC SGE560-156MHC SGE565-156MHC SGE570-156MHC SGE575-156MHC SGE580-156MHC SGE585-156MHC SGE590-156MHC SGE520-144MHC	19.78 19.96 20.14 20.32 20.50 20.67 20.85 21.03 20.13	156 (Half Cut Cells)	1500	10.03.2023	09.03.2027
					vii	Mono C-Si PERC Modules	SGE530-144MHC, (530 Wp)	SGE525-144MHC SGE530-144MHC SGE535-144MHC SGE540-144MHC SGE545-144MHC SGE550-144MHC	20.32 20.52 20.70 20.90 21.10 21.29	144 (Half Cut Cells)	1500	10.03.2023	09.03.2027
					viii	Mono C-Si PERC Modules	SGE485-132MHC, (485 Wp)	SGE470-132MHC SGE475-132MHC SGE480-132MHC SGE485-132MHC SGE490-132MHC SGE495-132MHC SGE500-132MHC	19.78 20.01 20.23 20.41 20.63 20.84 21.05	132 (Half Cut Cells)	1500	10.03.2023	09.03.2027
					ix	Mono C-Si PERC Modules	SGE440-120MHC, (440 Wp)	SGE420-120MHC SGE425-120MHC SGE430-120MHC SGE435-120MHC SGE440-120MHC SGE445-120MHC SGE450-120MHC SGE455-120MHC	19.37 19.60 19.83 20.06 20.29 20.52 20.76 20.99	120 (Half Cut Cells)	1500	10.03.2023	09.03.2027
					x	Mono C-Si PERC Modules	SGE395-108MHC, (395 Wp)	SGE380-108MHC SGE385-108MHC SGE390-108MHC SGE395-108MHC SGE400-108MHC SGE405-108MHC SGE410-108MHC	19.44 19.69 19.95 20.20 20.46 20.71 20.98	108 (Half Cut Cells)	1500	10.03.2023	09.03.2027
					xi	Mono C-Si PERC Modules	SGE 395-72M, (395 Wp)	SGE 385-72M SGE 390-72M SGE 395-72M SGE 400-72M	19.22 19.47 19.72 19.97	72 (Full Cell)	1500	10.03.2023	09.03.2027
					xii	Bifacial Mono c-Si PERC Modules (Glass to Transparent Backsheet)	SGE535-144MBHC (535 Wp)	SGE525-144MBHC SGE530-144MBHC SGE535-144MBHC SGE540-144MBHC SGE545-144MBHC SGE550-144MBHC	20.32 20.52 20.71 20.90 21.10 21.29	144 (Half Cut Cells)	1500	10.03.2023	09.03.2027
					xiii	Bifacial N Type TOPCon Module	SGE425-108TGG (425 Wp)	SGE410-108TGG SGE415-108TGG SGE420-108TGG SGE425-108TGG SGE430-108TGG SGE435-108TGG SGE440-108TGG	20.97 21.22 21.48 21.74 21.99 22.25 22.51	108 (Half Cut Cells)	1500	10.03.2023	09.03.2027
							SGE475-120TGG	SGE460-120TGG SGE465-120TGG SGE470-120TGG	21.21 21.46 21.68				

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 deemed to be delisted)
					xiv	Bifacial N Type TOPCon Module	SGE475-120TGG (475 Wp)	SGE475-120TGG	21.91	120 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								SGE480-120TGG	22.14				
								SGE485-120TGG	22.37				
								SGE490-120TGG	22.60				
					xv	Bifacial N Type TOPCon Module	SGE520-132TGG (520 Wp)	SGE510-132TGG	21.46	132 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								SGE515-132TGG	21.67				
								SGE520-132TGG	21.88				
								SGE525-132TGG	22.09				
								SGE530-132TGG	22.30				
								SGE535-132TGG	22.51				
					xvi	Bifacial N Type TOPCon Module	SGE575-144TGG (575 Wp)	SGE560-144TGG	21.68	144 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								SGE565-144TGG	21.87				
								SGE570-144TGG	22.06				
								SGE575-144TGG	22.26				
								SGE580-144TGG	22.45				
								SGE585-144TGG	22.64				
					xvii	Bifacial N Type TOPCon Module	SGE615-156TGG (615 Wp)	SGE590-144TGG	22.84	156 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								SGE600-156TGG	21.47				
								SGE605-156TGG	21.65				
								SGE610-156TGG	21.83				
								SGE615-156TGG	22.01				
								SGE620-156TGG	22.19				
								SGE625-156TGG	22.37				
					xviii	Mono c-Si PERC Module	SGE500-144 MHC (500 Wp)	SGE500-144 MHC	19.35	144 (Half Cut Cells)	1500	10.03.2023	09.03.2027
					xix	Mono C-Si PERC Modules	SGE555-144MHC (555 Wp)	SGE555-144MHC	21.48	144 (Half Cut Cells)	1500	10.03.2023	09.03.2027
5	Navitas Green Solutions Pvt. Ltd.	Plot No. B-20/3, Road No. 13, 14, Palsana-Baleshwar Rd, Hoziwala Industrial Estate, Sachin, Surat-394230, Gujarat	R-72003140	250	i	Mono C-Si PERC Modules	NSM375 (375 Wp)	NSM370	19.07	72 (Full Cells)	1500	10.03.2023	09.03.2027
								NSM375	19.33				
								NSM380	19.58				
					ii	Mono C-Si PERC Modules	NSM320-60 (320 Wp)	NSM310-60	19.09	60 (Full Cells)	1500	10.03.2023	09.03.2027
								NSM315-60	19.40				
								NSM320-60	19.71				
								NSM325-60	20.02				
								NSM330-60	20.33				
								NSM340-66	19.03	66 (Full Cells)	1500	10.03.2023	09.03.2027
					iii	Mono C-Si PERC Modules	NSM350-66 (350 Wp)	NSM345-66	19.31				
								NSM350-66	19.59				
								NSM355-66	19.87				
					iv	Mono PERC C-Si Module	NSM580-156 (580 Wp)	NSM570-156	20.39	156 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM575-156	20.57				
								NSM580-156	20.74				
								NSM585-156	20.92				
					v	Mono PERC C-Si Module	NSM540-144 (540 Wp)	NSM525-144	20.32	144 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM530-144	20.51				
								NSM535-144	20.71				
								NSM540-144	20.90				
								NSM545-144	21.09				
								NSM550-144	21.29				
								NSM555-144	21.48				
								NSM560-144	21.67				
					vi	Mono PERC C-Si Module	NSM500-132 (500 Wp)	NSM480-132	20.21	132 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM485-132	20.42				
								NSM490-132	20.64				
								NSM495-132	20.85				
								NSM500-132	21.06				
					vii	Mono PERC C-Si Module	NSM445-120 (445 Wp)	NSM435-120	20.09	120 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM440-120	20.33				
								NSM445-120	20.56				
								NSM450-120	20.79				
								NSM455-120	21.02				
								NSM390-108	19.96	108 (Half Cut Cells)	1500	10.03.2023	09.03.2027
					viii	Mono PERC C-Si Module	NSM400-108 (400 Wp)	NSM395-108	20.21				
								NSM400-108	20.47				
								NSM405-108	20.72				

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 deemed to be delisted)
					ix	Mono PERC C-Si Module	NSM360-96 (360 Wp)	NSM410-108	20.98	96 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM350-96	20.06				
								NSM355-96	20.35				
								NSM360-96	20.64				
								NSM365-96	20.92				
					x	Mono PERC C-Si Module	NSM270-72 (270 Wp)	NSM260-72	19.62	72 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM265-72	20.00				
								NSM270-72	20.38				
								NSM275-72	20.76				
								NSM460-156	19.65				
					xi	Mono PERC C-Si Module	NSM470-156 (470 Wp)	NSM465-156	19.86	156 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM470-156	20.07				
								NSM475-156	20.29				
								NSM480-156	20.50				
								NSM485-156	20.72				
								NSM435-144	20.08				
								NSM440-144	20.32				
					xii	Mono PERC C-Si Module	NSM450-144 (450 Wp)	NSM445-144	20.78	144 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM450-144	20.55				
								NSM455-144	21.01				
								NSM460-144	21.64				
								NSM465-144	21.47				
								NSM395-132	19.85				
								NSM400-132	20.10				
					xiii	Mono PERC C-Si Module	NSM405-132 (405 Wp)	NSM405-132	20.35	132 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM410-132	20.60				
								NSM415-132	20.85				
					xiv	Mono PERC C-Si Module	NSM370-120 (370 Wp)	NSM360-120	19.84	120 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM365-120	20.11				
								NSM370-120	20.39				
								NSM375-120	20.66				
					xv	Mono PERC C-Si Module	NSM330-108 (330 Wp)	NSM320-108	19.52	108 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM325-108	19.82				
								NSM330-108	20.13				
								NSM335-108	20.43				
								NSM340-108	20.74				
					xvi	Mono PERC C-Si Module	NSM290-96 (290 Wp)	NSM285-96	19.47	96 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM290-96	19.81				
								NSM295-96	20.15				
								NSM300-96	20.49				
					xvii	Mono PERC C-Si Module	NSM220-72 (220 Wp)	NSM215-72	19.32	72 (Half Cut Cells)	1500	10.03.2023	09.03.2027
								NSM220-72	19.77				
								NSM225-72	20.22				
					xviii	Mono PERC C-Si Module	NSM395 (395 Wp)	NSM385	19.40	72 (Full Cells)	1500	10.03.2023	09.03.2027
								NSM390	19.65				
								NSM395	19.90				
								NSM400	20.15				
					xix	Mono PERC C-Si Module	NSM-WBPR64 - MIO-160(160Wp)	NSM-WBPR64 - MIO-160	19.82	64 (Half Cut Cells)	1000	10.03.2023	09.03.2027
					xx	Mono PERC C-Si Module	NSM-WBPR60 - MIO-225(225Wp)	NSM-WBPR60 - MIO-225	20.28	60 (Half Cut Cells)	1000		
					xxi	Mono PERC C-Si Module	NSM-WBPR56 - MIO-210(210Wp)	NSM-WBPR56 - MIO-210	20.26	56(Half Cut Cells)	1000		
					xxii	Mono PERC C-Si Module	NSM-WBPR52 - MIO-200(200Wp)	NSM-WBPR52 - MIO-200	20.72	52 (Half Cut Cells)	1000		
					xxiii	Mono PERC C-Si Module	NSM-WBPR48 - MIO-180(180Wp)	NSM-WBPR48 - MIO-180	20.13	48 (Half Cut Cells)	1000		
					xxiv	Mono PERC C-Si Module	NSM-WBPR44 - MIO-110(110Wp)	NSM-WBPR44 - MIO-110	19.38	44 (Half Cut Cells)	1000		
					xxv	Mono PERC C-Si Module	NSM-WBPR44 - MIO-165(165Wp)	NSM-WBPR44 - MIO-160	20.05	44 (Half Cut Cells)	1000		
					xxvi	Mono PERC C-Si Module	NSM-WBPR40 - MIO-150(150Wp)	NSM-WBPR40 - MIO-150	19.95	40 (Half Cut Cells)	1000		
					xxvii	Mono PERC C-Si Module	NSM-WBPR36 - MIO-90(90Wp)	NSM-WBPR36 - MIO-90	19.07	36 (Half Cut Cells)	1000		
					xxviii	Mono PERC C-Si Module	NSM-WBPR36 - MIO-135(135Wp)	NSM-WBPR36 - MIO-135	19.83	36 (Half Cut Cells)	1000		
					xxix	Mono PERC C-Si Module	NSM-WBPR32 - MIO-120(120Wp)	NSM-WBPR32 - MIO-120	19.68	32 (Half Cut Cells)	1000		
6	Jakson Engineers Ltd.	Plot No-25, Ecotech-III, Udyog Kendra, Greater NOIDA-201306, Gautam Budha Nagar, Uttar Pradesh, India.	R-93005959	1162	i	Mono C-Si PERC Modules	JH-440M, (440Wp)	JH-420M	19.26	120 (Half-Cut Cells)	1500	17.08.2023	16.08.2027
								JH-425M	19.49				
								JH-430M	19.71				
								JH-435M	19.94				
								JH-440M	20.17				
								JH-445M	20.40				
								JH-450M	20.63				