
MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION
BHOPAL

Sub: In the matter of petition under section 86(1)(b) of the Electricity Act 2003 read with Regulation 32, 54 & 55 of MPERC (Power Purchase & Procurement Process) Regulation - 2004 (Revision-I) (2006) for approval of procurement of RE power.

ORDER

(Date of Order: 31st March' 2022)

**MP Power Management Company Limited,
Shakti Bhawan, Rampur, Jabalpur.**

- Petitioner

Shri Manoj Dubey, Advocate and Shri Rajnish Reja (DGM, Commercial) appeared on behalf of the petitioner.

The petitioner, M.P. Power Management Co. Ltd. has filed the subject petition under Section 86 (1)(b) of the Electricity Act, 2003 read with Regulation 32, 54 & 55 of MPERC (Power Purchase & Procurement Process) Regulation – 2004 (Revision- I) (2006) for approval of procurement of Renewable Energy solar and non-solar power from the renewable generating companies for fulfilling their Renewable Purchase Obligation (RPO). The petitioner also filed an application for condonation of delay in filing the subject petition.

2. Earlier, the petitioner had filed petition No. 65 of 2020 under Section 86(1)(b) of the Electricity Act 2003 seeking approval for electricity purchase and procurement process including the price at which electricity is being procured from renewable generators for solar and non-solar capacity additions for the capacities already added/ to be added in future. Vide order dated 27th May' 2021, the Commission approved the proposed capacity addition with the direction that any capacity additions in future towards power procurement including from renewable sources for RPO compliance, the petitioner must approach the Commission for prior approval.

3. Accordingly, the petitioner filed the subject petition seeking approval for proposed capacity addition from renewable sources of energy. The petitioner broadly submitted the following in the subject petition:

(1) *“As per MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2010 (Revision-I), as an obligated entity, DISCOMs have to fulfill Renewable Purchase Obligation as decided by the Commission from time to time. On behalf of DISCOMs, MPPMCL executed PPA /PSA with RE generators and intermediary procurers for procurement of Renewable Energy for fulfilment of RPO.*

(2) *Following Capacity additions are Proposed for Procurement of RE Energy for fulfillment of Solar & Non- Solar RPO Targets: -*

- A. Capacity Addition of 1199 MW Solar Energy through Rewa Ultra Mega Solar Limited (RUMSL)
- B. Capacity Addition of 300 MW Solar Energy through Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM -A) Scheme
- C. Capacity Addition of 700 MW Blended Energy (Solar & Wind) through SECI (Intermediary Procurer)

A. Capacity Addition of 1199 MW Solar Energy through Rewa Ultra Mega Solar Limited:

- (3) Rewa Ultra Mega Solar Limited (RUMSL) was formed in 2015 and is a Joint Venture Company of Madhya Pradesh Urja Vikas Nigam Limited (MPUVNL) and Solar Energy Corporation of India (SECI). RUMSL has been designated as Solar Power Park Developer (SPPD) by Ministry of New and Renewable Energy (MNRE) to develop large-scale solar parks in the State of Madhya Pradesh. RUMSL is developing solar parks under MNRE's Ultra Mega Renewable Energy Power Projects (UMREPP) scheme. RUMSL undertakes the entire gamut of activities for development of Solar Power Project; this includes conceptualization, market consultations, financial and legal structuring and bid process management, as also development of land and associated infrastructure.
- (4) RUMSL is now developing 1500 MW Solar Parks in Agar, Shajapur, and Neemuch districts in the Northwest region of Madhya Pradesh. RUMSL has initiated the bid process under the Guidelines for Tariff based Competitive Bidding Process for procurement of Power from Grid connected Solar PV Power Projects issued by ministry of Power GoI on 03.08.2017 with certain deviations. Three petitions bearing no. 91/MP/2020, 631/MP/2020 and 672/MP/2020, for obtaining approval of deviations in bidding process were filed before the Central Electricity Regulatory Commission (CERC) jointly by RUMSL, MPPMCL and West Central Railway for respective Solar Parks at Neemuch, Shajapur and Agar. These petitions were disposed by the CERC vide order dated 25.04.2021 as contained in Annexure P-1 hereto. In this pursuit, RUMSL conducted competitive biddings for 1500 MW Agar-Shajapur-Neemuch solar parks. As intimated by RUMSL vide its recent letter dated 16-08-2021, appended as Annexure P/2, wherein, it provided details of Solar Park-wise tariff determined through reverse bidding process and has further requested MPPMCL for obtaining necessary approval from the Commission.
- (5) Further, RUMSL vide its letter dated 08.09.2021 had allocated solar park-wise energy for MPPMCL through respective Solar Park Developer. An abstract of allocation of energy to MPPMCL is as under :-

Solar Park		Agar		Shajapur			Neemuch			TOTAL
Unit	Unit 1	Unit 2	Unit 1	Unit 2	Unit 3	Unit 1	Unit 2	Unit 3		
<i>Capacity in MW</i>	200	350	105	220	125	160	170	170	1500	
<i>Discovered Tariff (Rs/Unit)</i>	2.459	2.444	2.35	2.33	2.339	2.149	2.14	2.15	2.315	
<i>Successful Bidder (Developer)</i>	<i>Avaada Energy</i>	<i>Beem Power</i>	<i>NTPC Renewables</i>	<i>NTPC Renewables</i>	<i>Talettutay i Solar Projects Nine (Solar Arise)</i>	<i>TP Saurya</i>	<i>TP Saurya</i>	<i>Aljomaih Energy & Water Company</i>		
MPPMCL	<i>MSO (MU)</i>	240	465	150	314	191	238	257	235	2090
	<i>GEO (MU)</i>	355	692	202	419	254	356	386	354	3018
	<i>LTOA (MW)</i>	171	299	92	193	109	141	150	150	1305
Railway	<i>MSO (MU)</i>	93	162	47	99	54	73	78	78	684
	<i>GEO (MU)</i>	101	175	51	108	59	85	89	89	757
	<i>LTOA (MW)</i>	29	51	13	27	16	19	20	20	195
TOTAL	<i>MSO (MU)</i>	333	627	197	413	245	311	335	313	2774
	<i>GEO (MU)</i>	456	867	253	527	313	441	475	443	3775
	<i>LTOA (MW)</i>	200	350	105	220	125	160	170	170	1500
MPPMCL Share in Ratio of GEO	77.85%	79.82%	79.84%	79.51%	81.15%	80.73%	81.26%	79.91%	79.95%	
Corresponding Cap. calculated for MPPMCL GEO out of installed Capacity (MW)	155.7	279.4	83.8	174.9	101.4	129.2	138.1	135.8	1199.2	

B. Capacity Addition of 300 MW Solar Energy through Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM -A) Scheme:

- (6) That, Government of India, Ministry of New and Renewable Energy has approved Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyan (PM-KUSUM) Scheme with an objective of increasing farmers' income, provide reliable source for irrigation and de-

dieselise the farm sector. Administrative approval of the Scheme was issued on 08.03.2019 and Scheme Implementation Guidelines were issued on 22.07.2019. Vide Office Memorandum dated 27.08.2021, the timeline for completion of project is stipulated as 12 months from issuance of Letter of Award to farmers / developers, which has been extended till 31-03-2022 considering delay as force majeure on account of Pandemic COVID-19 as well as constraints in extending financing facility to set up the projects by the Developer. The salient features relating to Component A of the PM KUSUM scheme are as under:

Component-A for Setting up of 10,000 MW of Decentralized Grid Connected Renewable Energy Power Plants on barren land:

Under this component, renewable energy based power plants (REPP) of capacity 500 kW to 2 MW will be setup by individual farmers/ group of farmers/ cooperatives/ panchayats/ Farmer Producer Organisations (FPO)/Water User associations (WUA) on barren/fallow land. These power plants can also be installed on cultivable land on stilts where crops can also be grown below the solar panels. The renewable energy power project will be installed within five km radius of the sub-stations in order to avoid high cost of sub-transmission lines and to reduce transmission losses. The power generated will be purchased by local DISCOM at pre-fixed tariff.

Central Financial Assistance (CFA)/ State Government Support:

Component A: Procurement Based Incentive (PBI) @ 40 paise/kWh or Rs. 6.60 lakhs/MW/year, whichever is less, will be provided for the first five years by MNRE to DISCOMs, for buying the power from farmers/developers. Capacities have been sanctioned to various State Government Agencies based on demand received from them.

- (7) That, MNRE, GoI has sanctioned 300 MW capacity of Decentralized Grid Connected Solar Power Plants under the Component A of PM KUSUM Scheme vide its order dated 13.01.2021. Against this scheme, till date, various farmers / developers, as detailed out in Annexure P/7 filed herewith, have been selected for a total of 75.13 MW capacity. For the balance capacity of 224.87 MW bidding is being carried out by M.P. Urja Vikas Nigam.
- (8) The Commission vide order dated 16.02.2021 passed in Petition no. 50 of 2020 filed by M. P. Urja Vikas Nigam determined levelized tariff of Rs. 3.07 / kWh (Ceiling Tariff) under Component-A of KUSUM Scheme, for entire life of the projects which will be commissioned till 31st March' 2024.
- (9) A joint Petition no. 06 of 2021 was filed by Madhya Pradesh Urja Vikas Nigam

(MPUVNL) and MPPMCL for approval of deviations proposed from model Power Purchase Agreement of KUSUM A scheme issued by MNRE, GoI, which was to be executed with solar power generators by MPPMCL.

- (10) *That, during the pendency of aforesaid petition, MPUVNL obtained No Objection from MNRE on the proposed deviation in Model PPA and requested Hon'ble MPERC for permitting withdrawal of the said petition. Considering the request of MPUVNL, the petition was disposed of vide order dated 09.07.2021.*

C. Capacity Addition of 700 MW Blended Energy through SECI:

- (11) *Solar Energy Corporation of India Limited (SECI) has been identified by the Government of India as the nodal agency for implementing MNRE Scheme for setting up of ISTS-connected Wind Power Projects and to act as the Intermediary Procurer under the Guidelines of Tariff Based Competitive Bidding Process for procurement of power from 2500 MW ISTS Connected Wind Power Projects. SECI is a CPSU under the administrative control of the Ministry of New and Renewable Energy (MNRE), set up on 20th September, 2011 to facilitate the implementation of Jawaharlal Nehru National Solar Mission (JNNSM and achievement of targets set therein. It is the only CPSU dedicated to the solar energy sector. It was originally incorporated as a section-25 (not for profit) company under the Companies Act, 1956. However, through a Government of India decision, the company has been converted into a Section-3 company under the Companies Act, 2013. The mandate of the company has also been broadened to cover the entire renewable energy domain.*
- (12) *In the above background, SECI has executed a PSA dated 5th March, 2021 with the Petitioner for sale of 700 MW Blended Wind Power. Blended Wind Power Projects are recognized as ISTS connected RE projects with at least 80% of rated project capacity being wind power with upto 20% being of solar PV power rated capacity.*
- (13) *The effective date of said PSA is 05.03.2021, i.e., from the date of its execution of PSA to remain in force for a period of 25 years from the Scheduled Date of Commissioning (SCOD) or Date of Commissioning (COD) of the respective Projects, whichever is earlier. Notwithstanding the Effective Date, the condition precedent for the enforcement of the obligations of either Party towards the other under the PSA is that, within 120 days of the Effective Date of the PSA, SECI shall obtain order for adoption of tariff from CERC and the Buying Entity, i.e., the Petitioner, shall obtain necessary approval/consent for procurement of the power under the PSA from its State Electricity Regulatory Commission on the terms and conditions contained in the PSA read together with the*

terms and conditions in the PPA entered into between SECI and WPDs.

- (14) *The Contracted Capacity under the said PSA is 700 MW of Blended Wind-Solar Power to the Petitioner at the Delivery Point from the Blended Wind-Solar Power Project. The Delivery Point shall be the point at 220 KV or above where the power from the said Projects is injected into the ISTS. Metering shall be done at said point and for which the WPD shall abide the relevant CERC Regulations, Grid Code and the CEA Regulations applicable from time to time.*
- (15) *The PSA, vide its Article 5, provides that the WPDs - M/s. Vena Energy Vidyuth (P) Ltd. and M/s. JSW Solar Ltd. shall be entitled to Tariffs of Rs. 2.99/kWh and Rs. 3.00/ kWh respectively. Apart from the said Tariff, SECI shall be entitled to a Trading Margin of Rs. 0.07/ kWh. The Petitioner found that the aforesaid rates discovered by SECI through Tariff based Competitive bidding (TBCB) were the cheapest available then for fulfillment of Non Solar RPOs.*
- (16) *That, for the purpose of fulfilment of RPOs, out of the 700 MW Contracted Capacity, 80% (560MW) will be accounted from Wind Energy sources and the balance 20% (140 MW) from Solar Energy sources.*

Justification for present capacity addition:

- (17) *That, earlier, the Petitioner had filed Petition No. 65/2020 for approval of the PPAs and RE Capacity addition. Vide order dated 27th May, 2021, the Hon'ble Commission, appreciating the information submitted by the Petitioner, was pleased to approve the same holding as under:*

“(viii) It is noted that for computation of net energy against annual RPO targets, the petitioner has considered ex-bus energy requirement of Discoms and SEZ based on certain assessments by State Power Cell. The Discoms are required to fulfill Renewable Purchase Obligations on the energy requirement calculated on the basis of normative losses. Therefore, the Commission, in this order, has considered the base figure of power purchase requirement for FY 2020-21 (after taking into account the normative losses) and energy requirement from Hydro sources as per retail supply tariff order for FY 2020-21. Similarly, the power purchase requirement for FY 2021-22 (after taking into account the normative losses) and the energy requirement from Hydro sources for FY 2021-22 is considered on the basis of the petition filed for determination of ARR and retail supply tariff for FY 2021-22. Further, the energy requirement for FY 2022-23 onwards is projected by considering the same escalation rate of the energy requirement as assessed by SPC for FY 2022-23 onwards. Accordingly, the Commission has considered the status of

Solar and Non-Solar energy for RPO compliance, based on the generation of Solar and Non-Solar energy from the capacities already commissioned upto last financial year i.e., FY 2019-20 as submitted by the petitioner and the assessed generation from the capacity additions proposed in this petition during FY 2020-21 to FY 2024-25:

- (18) *On perusal of the analysis in preceding para, it becomes clear that despite of the RE Capacity approved by the Commission, vide order dated 27th May, 2021 in Petition No. 65/2020, there will remain a shortfall in achieving the notified RPO targets in the upcoming years by the DISCOMs, if additional RE Capacity not taken into consideration over and above the already tied-up capacity. In pursuit of same, the approval of present capacity addition is necessary and is being sought as an endeavor to meet out the deficit/shortfall in achieving the RPO targets as mentioned in preceding paragraph.*
- (19) *The PPA executed with SECI (Inter-mediatory Procurer) envisaged Blended Wind & Solar energy aggregating to 700 MW, 80% (560 MW) of which will be from Wind Power and 20% (140 MW) will be from Solar sources, shall meet the deficit of Solar and Non-Solar energy RPO Targets, in successive years. The Proposed capacity additions through Component A of PM KUSUM Scheme, 300 MW (Presently 75.13 MW), RUMS 1199 MW and Blended Power from SECI, 700 MW will result into total capacity addition of approx. 2200 MW, which will fulfil the shortfall in RPO targets for Solar / Non-Solar energy as set out in para 16 herein before. Hence, this requirement for capacity additions as proposed in preceding paras is in tune with the RPO targets for successive years as indicated in Petition No. 65/2020.*
- (20) *Further, the PSA executed with SECI is an outcome based on standard bidding documents and bidding conducted by SECI in transparent manner. The tariffs discovered are competitive and is an endeavor to fulfill the RPO targets as well as for meeting out the criteria of reasonable cost of power procurement.*
- (21) *That, it is also evident that the procurement of power from the selected Bidders under PM KUSUM Scheme Component A is mandatory in order to meet out the objectives of the said scheme. The scheme also envisages providing Procurement Based Incentive (PBI) @ 40 Paise/ kWh or Rs. 6.60 lakhs/MW/year, whichever is less, for the first five years by MNRE to DISCOMs, for procuring power from farmers/ developers. The said procurement shall be made in a transparent manner as provided in the said scheme. The capacity addition proposed from RUMSL is also an outcome of transparent reverse biddings process.*

- (22) That, for reasons aforesaid, the Hon'ble Commission may be pleased to approve the aforesaid capacity Addition of (i) 700 MW Blended Wind Power (with at least 80% of rated project capacity being wind power with upto 20% being of solar PV power rated capacity) under the PSA dated 5th March, 2021 executed by the Petitioner with SECI and the respective PPAs with the respective WPDs, (ii) 300 MW under Component A of PM KUSUM Scheme and (iii) 1100 MW from RUMS

Explanation for non-factoring of proposed capacity addition in Petition No. 65/2020:

- (23) The present PSA, dated 5th March, 2021, was executed during the pendency of Petition No. 65/2020 and the sanction of power under the PM Kusum Scheme was also received during pendency of said petition. In ordinary course, capacity addition to that extent should have factored in the said petition only. The Commission may appreciate that during the said period, the organizations, including the Petitioner, in the State were in restricted functioning mode due to outbreak of 2nd wave of the Covid-19 pandemic. Most of the officers entrusted with the responsibility could not come to the offices for pretty long time for reasons owing to serious threat to their health. A very senior officer of the petitioner, namely Shri N. K. Sharma, who was well conversant with the matter, including that of Petition No. 65/2020, and was throughout actively guiding and instructing the OIC of the case and the counsel representing the Petitioner, unfortunately succumbed to the deadly pandemic during pendency of the said petition. In the facts and circumstances, despite of due diligence, capacity addition to the extent of 700 MW Blended RE Power under the present PSA and 75.13 MW under Component A of PM KUSUM Scheme could not factored in, in the Petition No 65/2020.
- (24) That, even otherwise, a petition seeking Capacity Approval requires the information like the nature of generating station, quantum of contracted energy, the tariff, likely hood of the SCOD to be mentioned therein. In most of the cases, prior approvals of the PPA/ PSA are practically not possible for such information are not available till a generating station is conceived. Present is a regime of tariffs being discovered through Competitive Biddings which are normally being done by third party Nodal Agencies and are floated and completed with a short span of time. Even after executing the PPAs, most of the RE generators, for various reasons, do not achieve the Financial Closures and abandon the projects. In order to ensure sufficient Financial Assistance from their lenders, the generators insist on early execution of PPAs. For want of certainty and required information at very initial and for a very short time available during bidding process and execution of PPAs, it becomes difficult, rather practically not possible, to obtain a prior approval. The Hon'ble Commission may be pleased to appreciate the difficulty

faced by the Petitioner in not factoring the present PSA in Petition No. 65/2020 and instead seeking approval at a belated stage by way of present petition and exercise valuable Powers to Remove Difficulties under Regulations 54 and 55 of the MPERC (Power Purchase and Procurement Process) Regulations, 2004 Revision – 1, 2006 and admit and allow present petition.

(25) *The present status of assessment of fulfilment of RPO Targets based on the ex-bus requirement and hydel generation as per order dated 27.05.2021 in petition no. 65/2021 are annexed as Annexure P/10 & Annexure P/11.”*

4. With the aforesaid submissions, the petitioner prayed the following in the subject matter:

“In the facts and circumstances of the case, it is humbly prayed that the Hon’ble Commission may be pleased condone the delay caused in filing present petition insofar it pertains to approval of capacity addition from SECI and under PM KUSUM Scheme and be further pleased to approve the capacity addition of:

- (i) 700 MW Blended Wind Power (with at least 80% of rated project capacity being wind power with up to 20% being of solar PV power rated capacity) under the PSA dated 5th March, 2021 executed by the Petitioner with SECI and the respective PPAs with the respective WPDs, and*
- (ii) 300 MW under Component A of PM KUSUM Scheme.*
- (iii) 1199 MW from RUMSL.”*

5. At the motion hearing held on 16.11.2021, Ld. Counsel who appeared for the petitioner stated that the PSA for 700 MW Blended Power Capacity additions was executed on 5th March’ 2021 and the sanction of power under PM KUSUM Scheme was received during pendency of petition No. 65 of 2020. He requested to condone delay in filing the subject petition mentioning that most of the responsible officers in the organizations including the petitioner could not come to the offices for a long time due to COVID -19 pandemic. Considering the reasons stated by the petitioner, delay in filing the subject petition was condoned and the petition was admitted.

6. Having heard the petitioner on next hearing held on 22nd February’ 2022, case was reserved for orders.

Commission’s Observations and Findings:

7. On examination of the subject petition, the Commission has observed the following:

- (i) Minimum quantum of electricity to be procured by all the Obligated Entities from

generators of Renewable Energy (including Co-generation from Renewable Sources of electricity) as percentage of their total annual procurement of Electrical Energy (excluding consumption met from hydro sources of power) during each financial year up to FY 2021-22 is provided under MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (Revision-I) Regulations, 2010 and its amendments. Further, the RPO trajectory from FY 2022-23 to FY 2026-27 has been provided in MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (Revision-II) Regulations, 2021 notified on 12th November' 2021.

- (ii) In accordance to the aforesaid Regulations, being obligated entities, Discoms have to fulfill Renewable Purchase Obligation as specified for each financial year under the Regulations. On behalf of the Discoms, the petitioner executed PPA/PSA with RE generators and inter-mediatory procurers for procurement of Renewable Energy for fulfillment of RPO. In the subject petition, the petitioner is seeking approval for procurement of 700 MW Blended Solar & Wind Power through SECI, 300 MW under Component-A of PM KUSUM Scheme and 1199 MW power through Rewa Ultra Mega Solar Limited (RUMSL).
- (iii) Regarding prior approval of the Commission, Regulation 32 of the Madhya Pradesh Electricity Regulatory Commission (Power Purchase and Procurement Process) Regulations, 2004, Revision 1, 2006 (RG-19(I) of 2006) provides as under:
- “Any new power purchase arrangements and agreements or amendments to existing Power Purchase Agreements (PPA’s) entered into by the Distribution Licensee shall be subject to the prior approval of the Commission in view of necessity, reasonableness of cost of power purchase and promotion of working in an efficient, economical and equitable manner.”*
- (iv) The petitioner in its application dated 14.10.2021 submitted that a petition seeking Capacity approval requires information like nature of generating station, quantum of contracted energy, tariff, likely SCOD to be mentioned therein. In most of the cases, prior approvals of the PPA/ PSA are practically not possible as such informations are not available till a generating station is conceived. The petitioner further stated that presently, tariffs are discovered through Competitive Biddings, which are normally being done by third party Nodal Agencies and are floated and completed within a short span of time. Even after

executing the PPAs, most of the RE generators, for various reasons, do not achieve the Financial Closures and abandon the projects. In order to ensure sufficient financial assistance from their lenders, the generators insist on early execution of PPAs. For want of certainty and required information at very initial and for a very short time available during bidding process and execution of PPAs, it becomes difficult, rather practically not possible, to obtain a prior approval.

- (v) Rewa Ultra Mega Solar Limited (RUMSL) is a Joint Venture Company of Madhya Pradesh Urja Vikas Nigam Limited (MPUVN) and Solar Energy Corporation of India (SECI). RUMSL has been designated as Solar Power Park Developer (SPPD) by Ministry of New and Renewable Energy (MNRE) to develop large-scale solar parks in the State of Madhya Pradesh.
- (vi) RUMSL is now developing 1500 MW Solar Parks at Agar, Shajapur, and Neemuch Districts of Madhya Pradesh. RUMSL has initiated the bid process under the Guidelines for Tariff based Competitive Bidding Process for procurement of Power from Grid connected Solar PV Power Projects issued by Ministry of Power GoI on 03.08.2017. RUMSL conducted competitive biddings for 1500 MW Agar-Shajapur-Neemuch solar parks and details of Solar Park-wise tariff discovered through reverse bidding process are as below: -

Sr. No.	Name of Solar Park	MW	Tariff per kWh determined through reverse bidding (Rs.)
1	Agar Solar Park Unit 1	200 MW	2.459
2	Agar Solar Park Unit 2	350 MW	2.444
3	Shajapur Solar Park Unit 1	105 MW	2.35
4	Shajapur Solar Park Unit 2	220 MW	2.33
5	Shajapur Solar Park Unit 3	125 MW	2.339
6	Neemuch Solar Park Unit 1	160 MW	2.149
7	Neemuch Solar Park Unit 2	170 MW	2.14
8	Neemuch Solar Park Unit 3	170 MW	2.15

- (vii) In para 4 of the petition, the petitioner has submitted that the RUMSL had allocated solar park-wise energy for MPPMCL through respective Solar Park Developer as under:

Solar Park	Agar		Shajapur			Neemuch			TOTAL
Unit	Unit 1	Unit 2	Unit 1	Unit 2	Unit 3	Unit 1	Unit 2	Unit 3	
<i>Capacity in MW</i>	200	350	105	220	125	160	170	170	1500

<i>Discovered Tariff (Rs/Unit)</i>	2.459	2.444	2.35	2.33	2.339	2.149	2.14	2.15	2.315
<i>MPPMCL Share in Ratio of GEO (%)</i>	77.85	79.82	79.84	79.51	81.15	80.73	81.26	79.91	79.95
<i>Corresponding Cap calculated for MPPMCL GEO out of installed Capacity (MW)</i>	155.7	279.4	83.8	174.9	101.4	129.2	138.1	135.8	1199.2

- (viii) Government of India, Ministry of New and Renewable Energy has approved Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyan (PM-KUSUM) Scheme with an objective of increasing farmers' income, provide reliable source for irrigation and de-dieselize the farm sector. Administrative approval of the Scheme was issued on 08.03.2019 and Scheme Implementation Guidelines were issued on 22.07.2019.
- (ix) Vide its order dated 13.01.2021, MNRE, GoI has sanctioned 300 MW capacity of Decentralized Grid Connected Solar Power Plants under the Component-A of PM KUSUM Scheme. Against this scheme, till date, various farmers / developers, have been selected for a total of 75.13 MW capacity. For balance capacity of 224.87 MW, bidding is being carried out by M.P. Urja Vikas Nigam. Vide order dated 16.02.2021 in Petition no. 50 of 2020 filed by M. P. Urja Vikas Nigam, the Commission determined levelized tariff of Rs. 3.07 / kWh (Ceiling Tariff) under Component-A of KUSUM Scheme for entire life of the projects which will be commissioned till 31stMarch' 2024.
- (x) Solar Energy Corporation of India Limited (SECI) has been identified by the Government of India as the nodal agency for implementing MNRE Scheme for setting up of ISTS-connected Wind Power Projects and to act as the Intermediary Procurer under the Guidelines of Tariff Based Competitive Bidding Process for procurement of power from 2500 MW ISTS Connected Wind Power Projects.
- (xi) SECI has executed a PSA dated 5th March, 2021 with the petitioner for sale of 700 MW Blended Wind Power. The aforesaid Projects are recognized as ISTS connected RE projects with at least 80% of rated project capacity being wind power and upto 20% being solar PV power rated capacity.
- (xii) The petitioner submitted that the PPA executed with SECI envisaged Blended Wind & Solar energy aggregating to 700 MW, shall meet the deficit of Solar and

Non-Solar energy RPO Targets, in successive years. The proposed capacity additions through Component A of PM KUSUM Scheme, 300 MW (presently 75.13 MW), RUMSL 1199 MW and Blended Power from SECI, 700 MW will result into total capacity addition of approx. 2200 MW, which will fulfil the shortfall in RPO targets for Solar / Non-Solar energy.

- (xiii) The petitioner has worked out assessment of Solar RPO and Non-Solar RPO in Annexures 10 and 11 filed with the petition.
- (xiv) To arrive at the total availability of Solar and Non-Solar energy for RPO compliance after addition of above proposed capacity during FY 2020-21 to FY 2026-27, the petitioner has considered the following basis for Solar capacities and Non-Solar capacities:
- a. RPO targets for FY 2020-21 and FY 2021-22 as provided in MPERC Co-generation Regulations, 2010 and its amendment.
 - b. RPO targets for FY 2022-23 to FY 2026-27 as per MPERC Co-generation Regulations, 2021.
 - c. Ex Bus Energy requirement of DISCOMS and SEZ for FY 2020-21-to FY 2026-27 as assessed by the State Power Cell.
 - d. To arrive deficit energy of solar energy, CUF of new Solar capacity 21% is considered by the petitioner.
 - e. To arrive at deficit energy of non-solar energy, the petitioner has considered average of minimum CUF and maximum CUF as per PPA.
- (xv) It is noted that for computation of net energy against annual RPO targets, the petitioner has considered ex-bus energy requirement of Discoms and on projections made by State Power Cell under MPPMCL. The Discoms are required to fulfill Renewable Purchase Obligations on the energy requirement calculated on the basis of normative losses. Therefore, the Commission, in this order, has considered the base figure of power purchase requirement for FY 2020-21 (after taking into account the normative losses) and energy requirement from Hydro sources as per retail supply tariff order for FY 2020-21 and considered in order dated 27th May' 2021 in petition No. 65 of 2020 filed by MPPMCL. Similarly, the power purchase requirement for FY 2021-22 (after taking into account the normative losses) and the energy requirement from Hydro sources for FY 2021-22 is considered on the basis of details considered in order dated 27th May' 2021 and filed by the petitioner in the subject petition. Further, the energy requirement for FY 2022-23 onwards is projected by considering the same escalation rate of the energy requirement as assessed by SPC for FY 2022-23

onwards and considered in order dated 27th May' 2021.

(xvi) Accordingly, the Commission has considered the following status of RPO compliance, based on the generation of Solar and Non-Solar energy from the capacities already commissioned upto FY 2019-20 (as submitted by the petitioner) and the assessed generation from the capacity additions proposed in this petition during FY 2020- 21 to FY 2026-27:

A. Solar:

S. No.	Particulars	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
1	Energy requirement by DISCOMs (MUs)	71954	79508	84453	89276	93989	99147	104589
2	Less Hydro Generation (MUs)	6840	7357	7357	7357	7357	7357	7357
3	Net energy requirement for calculation of RPO	65114	72151	77096	81919	86632	91790	97232
4	RPO Targets (%)	6.0	8.0	9.0	10.0	11.0	12.0	13.0
5	Solar energy requirement as per RPO targets (MUs)	3907	5772	6939	8192	9530	11015	12640
6	Projected capacity addition in each financial year (MW)	0.0	*1900	**340	1299	100	100	00
7	Generation of energy from the proposed capacity addition in each financial year (MUs)	00	757	426	2100	184	184	00
8	Assessed generation from capacity available upto last financial year (MUs)	3021	3021	7667	8550	11288	11472	11656
9	Total availability of Solar Energy (MUs) after proposed cap. addition including assessed gen. from already installed cap. till last financial year	3021	3778	8093	10650	11472	11656	11656
10	Deficit (-)/Surplus (+) Solar energy (MUs) (9-5)	(-) 885	(-) 1994	1154	2458	1942	641	-984

***Approval for capacity addition accorded vide order dated 27.05.2021 in P- No. 65 of 2020.**

****This capacity includes 200 MW NTPC for which approval for capacity addition accorded vide order dated 27.05.2021 in P- No. 65 of 2020. Approval for balance 140 MW is sought in subject petition under blended capacity.**

Note: Petitioner was unable to present a timeline for commissioning projects under KUSUM - A Scheme. The individual project capacity under this scheme varies between 500 KW to 2000 KW. Therefore, keeping in view the declining trend in RPO fulfillment for solar energy during FY 2023-24 to FY 2025-26, the capacity addition under KUSUM - A has been projected in a phased manner which is 100 MW for each year from FY 2023-24 to FY 2025-26. However, the petitioner is at liberty to add capacity even earlier than projected.

B. Non-Solar:

S. No.	Particulars	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27
1	Energy requirement by DISCOMs (MUs)	71954	79508	84453	89276	93989	99147	104589
2	Less Hydro Generation (MUs)	6480	7357	7357	7357	7357	7357	7357
3	Net energy requirement for calculation of RPO	65114	72151	77096	81919	86632	91790	97232
4	Non-Solar RPO Targets (%)	8.5	9.0	9.5	10.0	10.5	11	11.5
5	Non-Solar energy requirement as per RPO targets (MUs)	5535	6494	7324	8192	9096	10097	11182
6	Proposed capacity addition in each financial year (MW)	0.0	435	560	0.0	0.0	0.0	0.0
7	Generation of energy from the proposed capacity addition in each financial year (MUs)	00	1190	413	00	00	00	00
8	Assessed generation from capacity available upto last financial year (MUs)	4021	4021	5468	7120	7120	7120	7120
9	Total availability of Non-Solar Energy (MUs) after proposed capacity addition including assessed generation from already installed capacity till last financial year	4021	5211	5881	7120	7120	7120	7120
10	Deficit (-)/Surplus (+) Non-Solar energy (MUs) (9-5)	(-) 1514	(-) 1283	(-) 1443	(-) 1072	(-) 1976	(-) 2977	(-) 4062

(xvii) It is observed that in this petition, the petitioner is seeking approval for solar and non-solar capacity additions over and above the capacity additions already approved vide Commission's order dated 27th May' 2021 in petition No. 65 of 2020. Notwithstanding the approval for capacity additions so far, it is observed

that for both solar and non-solar renewable power, there would be deficit in meeting RPO as per the trajectory prescribed by the Commission. Therefore, while the Commission has decided to consider and approve the proposal for capacity addition in the subject petition, the petitioner / obligated entity are directed to ensure appropriate capacity addition in a timely manner so that there is no default in meeting Renewable Purchase Obligations in Madhya Pradesh. However, it is also re-emphasised that any capacity addition in future towards power procurement including from renewable energy sources for meeting RPO compliance, prior approval of the Commission will have to be necessarily sought.

With the aforesaid observations and directions, the subject petition is disposed of.

(Gopal Srivastava)
Member (Law)

(Mukul Dhariwal)
Member

(S.P.S. Parihar)
Chairman