RAJASTHAN ELECTRICITY REGULATORY COMMISSION
JAIPUR

Petition No. RERC/2314/2025

In the matter of

Petition filed under Section 63 (Determination of Tariff by Bidding Process) of the Electricity Act 2003, read with Regulation 19 and 21 of RERC (Transaction Of Business), Regulations, 2021, for approval of levelized tariff discovered through transparent competitive bidding carried out by JVVNL for solar power projects with aggregate capacity of 233.97 MW under Component-C (Feeder Level Solarization) of PM-KUSUM scheme vide TN-13 and TN-14.

Coram:

Dr. Rajesh Sharma, Chairman

Shri Hemant Kumar Jain, Member

Jaipur Vidyut Vitran Nigam Ltd. **Petitioner**

Date of hearing: 22.05.2025

Present : Sh. Sandeep Pathak, Advocate for Petitioner

Date of order 16.06.2025

Order

1. The present Petition has been filed by Jaipur Vidyut Vitran Nigam Limited (hereinafter referred to as 'JVVNL' or 'Petitioner') under Section 63 (Determination of Tariff by Bidding Process) of the Electricity Act, 2003(the 'Act'), read with Regulation 19 and 21 of the RERC (Transaction of Business) Regulations, 2021, for approval of levelized tariff discovered through Transparent Competitive Bidding carried out JVVNL for solar power projects with aggregate capacity of 233.97 MW

under Component-C (Feeder Level Solarization) of PM-KUSUM scheme vide TN-13 and TN-14.

2. The matter was heard on 22.05.2025. Advocate Sh. Sandeep Pathak appeared for the Petitioner.

3. Petitioner in its petition and during hearing mainly submitted as under:

3.1. The Petitioner herein is one of the three Distribution Licensees in the State of Rajasthan and is undertaking the functions of distribution and retail supply of electricity to the public at large in its area of distribution.

3.2. Ministry of New and Renewable Energy (hereby referred to as "MNRE") launched Pradhan Mantri KishanUrja Suraksha evam Uthan Mahabhiyan Scheme (PM-KUSUM) Scheme for farmers on 08.03.2019 which covers three components viz Component-A, Component-B and Component-C. Subsequently, MNRE issued guidelines for implementation of all three components of PM-KUSUM on 22.07.2019.

3.3. On 04.12.2020, MNRE introduced and issued guidelines for implementation of Feeder Level Solarization under Component-C of PM-KUSUM Scheme wherein grid connected solar power plant of capacity that can cater to the annual power requirement of one or more segregated agriculture feeders can be installed either through CAPEX mode or RESCO mode to supply power to that feeder(s).

3.4. In supersession to their Office Memorandum dated 22.07.2019, MNRE issued a comprehensive guidelines on 17.01.2024 for implementation of PM-KUSUM Scheme, with the following components:

Component-A: Setting up of 10,000 MW of Decentralized Ground / Stilt Mounted Grid Connected Renewable Solar or others Renewable Energy based Power Plants of individual plant size up to 2 MW.

Component-B: Installation of 14 lakhs standalone Solar Powered Agriculture Pumps of individual pump capacity up to 7.5 HP.

Component-C: Solarisation of 35 Lakhs Grid-connected Agriculture Pumps including Feeder Level Solarization.

3.5. As per the above comprehensive guidelines, feeder level Solarization under Component-C of PM-KUSUM includes following key provisions:

a. Installation of grid connected solar PV power plant near Discom's substation to meet the annual power requirement of segregated agriculture feeder(s).

b. One SPV Plant may cater power requirement of single or multiple feeders.

c. Solar Plant to feed power at 11 kV or above voltage level side of substation.

d. No capping on capacity of individual solar power plant.

e. Central Financial Assistance (CFA) limited to solar capacity for 7.5 HP pumps.

f. Installation of solar PV power plant either through CAPEX mode or RESCO mode:

(i) **CAPEX mode of implementation:**

- 30% CFA from MNRE and balance through loan from NABARD / PFC / REC.
- Annual subsidy outlay for the solarized feeders / consumers to become zero after repayment of loan.

(ii) **RESCO mode of implementation:**

- Developer to get 30% of the estimated cost of installation of solar power plant or Rs. 1.05 Cr. per MW CFA from MNRE and supply solar power to Discom at levelized tariff for 25 years.
- State government may offer upfront subsidy (currently given to agriculture consumers) to RESCO developer in the form of Viability Gap Funding (VGF) (in addition to 30% CFA), to supply power to farmers of an agriculture feeder at present subsidized rates or any other rate fixed by state Government.

g. Discoms to get Service Charges @2% of eligible CFA from MNRE.

h. Project commissioning timeline of 09 months *(extended maximum up to 12 months vide MNRE order dated 17.01.2024, and further extended maximum up to 18 months vide MNRE order dated 01.03.2024)* from date of issuance of Letter of Award (LoA).

i. Mandatory to use indigenously manufactured solar panels with indigenous solar modules.

j. Farmers to get incentive from Discoms for reduction in energy consumption below benchmark levels.

k. Provision of virtual segregation using feeder level (Internet of Things) IoT.

l. CUF shall be taken as per the solar insolation on site, however, annual CUF of minimum 19% shall be considered for calculation of plant capacity eligible for CFA. No restrictions to be made on installing DC capacity higher than total contracted AC capacity of the plant to help achieve higher CUF.

3.6. On 01.08.2022, MNRE waived off the condition of the domestic content requirement for solar cells as follows:

"3 (ii) The conditions of the domestic content requirement for solar cells has been waived off for the feeder level solarization

under Component – C for the projects awarded by the implementing agency on or before 20.06.2023."

3.7. Further, on 10.03.2023 MNRE exempted the requirement of procuring Solar PV modules from ALMM (Approved List of Models and Manufacturer) vide its order as follows:

"With reference to the Approved Models and Manufacturers of Solar Photovoltaic Modules (Requirements for Compulsory Registration) Order, 2019 and subsequent amendments and clarifications thereto, the undersigned is directed to convey that subject Order is hereby held in abeyance for one financial year, i.e. FY 2023-24. Thus, projects commissioned by 31.03.2024 will be exempted from the requirement of procuring Solar PV modules from ALMM."

3.8. Subsequently, MNRE vide clarification letter dated 29.01.2024 confirmed the provision of indigenous solar cells (DCR) relaxation till 31.03.2024 as follows:

"(2) In this regard, it is to confirm that, the provision of requirement of indigenous solar cells (DCR) under Component C (FLS) of the PM KUSUM scheme has already been relaxed till 31.03.2024".

3.9. On 14.02.2024, MNRE vide OM issued additional clarification regarding comprehensive guidelines of PM-KUSUM as:

"(a) CFA of Rs. 1.05 Cr./MW would be valid for all those LOAs, till any further update is announced by MNRE"

(b) The DCR exemption would be valid for all those Letter of Awards which have been issued on or before 31.03.2024."

3.10. On 29.03.2024, MNRE vide OM issued order on Approved Modules and Manufactures of Solar Photovoltic Modules (Requirements for Compulsory Registration) Order, 2019 as:

"1. Vide MNRE Order of even no. dated 10th March 2023, the Approved Modules and Manufactures of Solar Photovoltic Modules (Requirements for Compulsory Registration) Order (ALMM Order) was held in abeyance for one financial year, i.e

FY 2023-24. It is clarified that the ALMM [Approved List of Modules & Manufacturers] for Solar PV Modules, shall accordingly come into effect from 1st April, 2024."

"2. Each project where the solar pV modules have been received at the project site by 31st March, 2024 and is unable to get commissioned by that day, on account of reasons beyond the control of the renewable power developers, would be examined separately."

3.11. As per scheme guidelines, feeder level solarization under Component C of PM-KUSUM, the provision under Central Financial Assistance (CFA) is limited to solar capacity for 7.5 HP pumps. However, for the purpose of CFA, the annual energy consumption of individual agriculture consumers having pump capacity more than 7.5 HP has been proportionately reduced to the 7.5 HP level and subsequently the individual SPV plant capacity & CFA @ Rs. 1.05 Cr. per MW has been computed.

3.12. On 30.08.2022, MNRE sanctioned 1,00,000 grid connected agriculture pumps to the Distribution licensees of Rajasthan for feeder level solarization under Component-C of PM-KUSUM Scheme for FY 2022-23 target. Subsequently, MNRE vide OM No. 32/54/2018- SPV Division-Part(1) dated 15.09.2023 and OM No. 32/54/2018- SPV Division dated 20.08.2024 sanctioned additional 2,00,000 grid connected agriculture pumps. Further, on the request of the Energy Department, GoR, MNRE sanctioned additional 1,00,000 nos. of Agricultural pumps vide OM No. 32/54/2018-SPV Division dated 03.10.2024 & 27.11.2024, thereby aggregating 4 lakhs Agricultural pumps for the solarization.

3.13. On 11.01.2023, JVVNL published Request for Selection (RfS) on e-procurement portal of Rajasthan (eproc.rajasthan.gov.in) vide Tender No. JVVNL/ACE(PPM)/ XEN(RE-DSM)/TN-01 for design, survey, supply, installation, testing, commissioning, operation & maintenance for 25

years (unless extended by both the parties on mutual agreement) from COD of grid connected solar power plants through RESCO mode, its associated 33 kV OR, 11 kV line to connect the plant with various 33/11 kV sub-stations and RMS of solar power plants for solarization of agriculture consumers connected on 11 kV feeders of various GSS in JVVNL under KUSUM Scheme – Component C (Feeder Level Solarization).

3.14. Subsequently, based on petition filed by JVVNL, the Hon'ble Commission vide order dated 16.06.2023 ordered as under:

> …..
>
> *"(2) The Commission approves **Rs 3.55/kWh as the ceiling tariff** for the solar projects to be set up under PM KUSUM Scheme, Component-C Feeder Level Solarisation.*
>
> *(3) Commission also directs that Discoms will use the above ceiling tariff in their future bids. However, before initiating every future bidding the Discoms will continuously monitor the market condition and in case of any downwards revision in the cost, they should revise the above ceiling tariff downwardly at their own level.*
>
> *(4) In case upward revision is required for future bids in the ceiling tariff the Discoms shall file a separate petition before the Commission.*
>
> *(5) Discoms are advised to preferably select the feeders where maximum CFA from the GoI may be availed so that benefit of lower tariff can be achieved.*
>
> *(6) Discoms will continuously monitor the change in law events and will ensure timely recovery / payment on account of change in law events as per law.*
>
> *(7) Discoms should follow the directions issued by MNRE in respect of implementation of Feeder Level Solarisation under Component-C of PM KUSUM Scheme from time to time."*

3.15. Furthermore, JVVNL published various Request for Selection (RfS) on e-procurement portal of Rajasthan (eproc.rajasthan.gov.in) vide Tender

No. TN-02, TN-03, TN-04, TN-05, TN-07, TN-08, TN-09, TN-10, TN-11 and TN-12 for the work of design, survey, supply, installation, testing, commissioning, operation & maintenance for 25 years (unless extended by both the parties on mutual agreement) from COD of grid connected solar power plants through RESCO mode, its associated 33 kV OR, 11 kV line to connect the plant with various 33/11 kV sub-stations and RMS of solar power plants for solarization of agriculture consumers connected on 11 kV feeders of various GSS in JVVNL under KUSUM Scheme – Component C (Feeder Level Solarization).

3.16. In the recent tenders (TN-11 & TN-12) Commission approved levelized tariff for 208.91 MW Solar PV Plants for 25 years for the projects of feeder level solarization under Component-C of PM-KUSUM Scheme on 11.09.2024, the directives given by the Commission along with response from Petitioner are as tabulated below:

Sr. No.	Relevant Clause as per RERC Order Dated 11.09.2024	Petitioner Response
I.	*(2) Discoms should carry out system studies/load flow studies, if needed, to ensure proper integration of the solar power PV systems with the network and also for optimum utilization of network.*	The Petitioner *(on behalf of all the three Discoms)* is already in process of carrying out system studies / load flow studies at some of the 33/11 kV Sub-stations where solar PV capacity are already commissioned in order to ensure proper integration of these systems with the network and also for optimum utilization of network. Recently, dedicated workshop was organized on 22.03.2025 to highlight transformative initiatives and raise awareness, with a strong focus on improving DISCOM performance through in-depth discussions on grid digitalization, rooftop solar and PM-KUSUM program.
II.	*(3) For future bids, Discoms should continue to do the rate analysis at*	The Petitioner is regularly analyzing the Market Prevalaing Rates and

Sr. No.	Relevant Clause as per RERC Order Dated 11.09.2024	Petitioner Response
	their own level for every tender and conduct bidding through transparent bidding mechanism (as mandated by MNRE) and if the Discoms after all due diligence are satisfied that discovered rates are reasonable and market aligned, they may approach the Commission for adoption of the tariff.	based on past experiences / suggestions / recommendations varying the parameters in every tenders being floated & executed under Component C (feeder level soalrization) of PM-KUSUM Scheme.
III.	*(4) Discoms should also explore the possibility of bidding for multiple substations grouped as one bidding group to discover a lower tariff for benefit of end consumers.*	The Petitioner has already explored the possibility of bidding for multiple substations grouped as one bidding group to discover a lower tariff for benefit of end consumers vide TN-10, however response was not good, as only Cluster No.- I *(out of total 05 clusters)* of 11.59 MW solar PV capacity *(out of 100.74 MW capacity)*.
IV.	*(5) Discoms are advised to preferably select the feeders where maximum CFA from the GoI may be availed so that benefit of lower tariff can be achieved.*	The Petitioner has already carried out exercise where maximum CFA from the MNRE, Government of India in order to avail benefit of lower power purchase cost for the period of 25 years. Apart from this, all 33/11 kV Sub-stations where the farmers / land-owners / solar power developers have offered their lands are considered for implementation of Component C (feeder level solarization) of PM-KUSUM Scheme.
V.	*(6) Discoms are directed to ensure that condition of Domestic content requirement is followed as per the MNRE, orders wherever applicable. Also, while issuing work order / signing of PPA, Discoms are directed to ensure that no liability arise for*	The Petitioner is already following MNRE guidelines for the implementation of feeder level solarisation under Component-C of PM KUSUM Scheme and ensuring 'Change in Law' events.

Sr. No.	Relevant Clause as per RERC Order Dated 11.09.2024	Petitioner Response
	'Change in Law' on account of DCR and in case of any benefit/refund arises of 'Change in Law' on this account the Discom should also recover the same promptly.	
VI.	*(7) In addition, Discom will continuously monitor the change in law events and will ensure timely recovery/ payment on account of change in law events as per the law.*	The Petitioner is continuously monitoring the change in law events and will ensure timely recovery/ payment on account of change in law events as per the law. Recently, the Petitioner has witnessed Change in Law Events on Import of Solar Modules & Cells (as below), however not impacting due to applicability of 100% DCR under this petition. **Basic Custom Duty (BCD)** — Modules : 40% to 20% — Cells : 25% to 20% **Social Welfare Surcharge (SWS)** — Modules : 10% to 0% — Cells : 10% to 0% **Agriculture Infrastructure and Development Cess (AIDC)** — Modules : 0% to 20% — Cells : 0% to 7.5s%
VII.	*(8) Discoms should furnish the progress of implementation of the projects under Component-C in the petitions to be filed by them in future in the matter.*	The Petitioner is submitting the overall implementation progress under Jaipur Discom *(as of 25.03.2025)* as below: • **Awarded (LoI/LoA) Issued:** 932.14 MW, against 362 nos. of solar PV plants and aim to solarize 98,707 nos. of ag. pumps. • **Commissioned:** 82.83 MW,

Sr. No.	Relevant Clause as per RERC Order Dated 11.09.2024	Petitioner Response
		against 31 nos. of solar PV plants wherein 8,383 nos. of ag. pumps are already being solarized.
VIII.	*(9) Discoms should follow the guidelines and directions issued by MNRE in respect of implementation of Feeder Level Solarisation under Component-C of PM KUSUM Scheme from time to time.*	The Petitioner is already following MNRE guidelines for the implementation of feeder level solarisation under Component-C of PM KUSUM Scheme.

Implementation of PM-KUSUM Scheme - Component C (feeder level solarization) in Rajasthan:

3.17. Based on the implementation experience of PM-KUSUM Component-A and Component-C (feeder level soalrization), efforts are being made to maximum decentralized distributed solar generation by utilizing barren or unused land owned by farmers or land owners who can lease it to solar power developer under the mutually agreed terms. As per MNRE guidelines, individual solar PV plant capacity is to be calculated based on the total annual power requirement without capping the capacity, although CFA is capped upto 7.5 HP only. In JVVNL's case many pumps exceed this capacity, slightly raising the levellised tariff but ensuring 100% solarisation benefits while leveraging the scheme's advantage effectively.

3.18. According to the key guidelines followed by the Petitioner for implementation of feeder level solarization under PM-KUSUM Component C, the Discom(s) will float tenders for selection of Renewable Energy Service Company (RESCO) to set up the solar power plants. The selected Developers is to execute 26 years land lease agreement and allowing solar power developers to commission the

projects within 09 months from the date of issuance of letter of award in view of PM KUSUM Scheme sunset by March 2026.

3.19. The Developers will receive CFA from MNRE, while Discoms will procure the power from selected developer(s) at levelized tariff discovered through competitive bidding for 25 years.

3.20. The lease rent is tiered based on prevailing District-Level-Committee (DLC) rates as follows:

Prevailing DLC rate of Land at the time of registration (Rs. per hectare)	**Indicative Annual Lease Rent (Rs. per hectare)**
Upto 8 lakhs	80,000
More than 8 lakhs and less than 12 lakhs	1,00,000
More than 12 lakhs and less than 20 lakhs	1,40,000
More than 20 lakhs	1,60,000

3.21. RUVITL (On behalf of Discoms) to pay the applicable land lease rent (as per above schedule along with escalation in lease rent @5% every two years) directly to the registered farmer / land owner or, authorized individual and will recover the same from the monthly energy payables to developer after commissioning of the solar power plant.

3.22. The applicable lease rent shall be payable to the farmer / land owner / authorized individual on the four conditions-project award to developer and bi-partite agreement between developer and land owner, consent letter for direct payment and completion of tri-partite agreement involving RUVITL.

3.23. Farmer / land owner should provide clear title land free from litigation and any encumbrances, bearing full responsibility for any false information and subsequent legal issues. The developer will be responsible for comprehensive land and due diligence prior to execution of land lease agreement. Under NO circumstances, Discom /

RUVITL will be a party and/or, held responsible for any loss or, dispute arising between the farmer / land owner and the developer.

Tenders (02 nos.) floated by JVVNL for feeder level solarization of 24,841 agriculture consumers under Component C of PM-KUSUM Scheme:

3.24. JVVNL identified 82 nos. solar PV power plants with total capacity of 233.97 MW to be installed in the vicinity of 82 nos. of 33/11 kV Substations having 24,841 nos. connected agriculture consumers for the purpose of setting up grid connected solar power plant to meet the annual power requirement of feeders using solar energy.

3.25. Circle wise breakup of above mentioned 233.97 MW considered under 02 nos. tender of feeder level solarization is as follows:

Name of District / Circle	No. of SPV plants	SPV Capacity (MW)
ALWAR	4	10.46
BARAN	10	37.26
BHARATPUR	9	26.2
BHIWADI	4	11.65
BUNDI	3	5.56
DAUSA	3	8.21
DHOLPUR	2	7.46
JHALAWAR	2	5.99
JPDC - North	1	2.65
JPDC - South	3	8.38
KOTA	21	55.68
KOTPUTLI	6	14.52
SWM	11	31.85
TONK	3	8.1

Name of District / Circle	No. of SPV plants	SPV Capacity (MW)
TOTAL	**82**	**233.97**

3.26. The Petitioner has opted for RESCO mode for implementation of the projects.

3.27. In line with MNRE guidelines, JVVNL computed feeder wise capacities and the admissible CFA by taking each feeder's annual agriculture demand, even though MNRE limits CFA to load by pumps upto 7.5 HP. The computation was also sent to MNRE on 16.01.2023 by e-mail dated 17.01.2023, where MNRE confirmed this methodology. In line with above in principle approval received from MNRE, JVVNL floated various tenders (additional 02 nos. viz, TN-13 and TN-14) for implementation of feeder level solarization of agriculture pumps under component-C of PM-KUSUM Scheme on similar line.

3.28. In line with MNRE guidelines, JVVNL published Request for Selection (RfS) on e-procurement portal of Rajasthan (eproc.rajasthan.gov.in) for design, survey, supply, installation, testing, commissioning, operation & maintenance for 25 years (unless extended by both the parties on mutual agreement) from COD of grid connected solar power plants through RESCO mode, its associated 33 kV OR, 11 kV line to connect the plant with various 33/11 kV sub-stations and RMS of solar power plants for solarization of agriculture consumers connected on 11 kV feeders of various GSS in JVVNL under KUSUM Scheme – Component-C (Feeder Level Solarization). Tender wise details are as follows:

Tender No. & Date	Nos. of GSS	SPV Plants (nos.)	SPV Capacity (MW)	Nos. of Pumps
TN-13 Dated 29.10.2024	72	72	207.20	21,836
TN-14 Dated 04.12.2024	10	10	26.77	3,005

Tender No. & Date	Nos. of GSS	SPV Plants (nos.)	SPV Capacity (MW)	Nos. of Pumps
Total	**82**	**82**	**233.97**	**24,841**

3.29. Subsequently, based on suggestions received from prospective bidders against the floated tenders, corrigendum was issued under TN-13 and TN-14 (as applicable).

3.30. As per the common tender specifications finalized by all Discoms, the scope of RESCO includes:

(1) Detailed site survey

(2) Execute 25 years land lease deeds with farmers

(3) Design, supply and installation of solar power plant connect to the relevant 33/11 kV substation of DISCOMs together with 33/11 kV evacuation line, bays, breakers and metering.

(4) Construction of control room or any other relative civil work

(5) Operation & maintenance of the solar power plant as well as 33 kV / 11 kV line (as the case may be) for 25 years

(6) Injection of power at delivery point for 25 years at the awarded levelized tariff.

(7) Remote Monitoring of installed solar power plant through RMS for 25 years.

3.31. Technical bids were opened and evaluated for the following capacities / tenders based on competent authority's approval:

Tender No. & Date	RfS Floated		Date of Technical Bid Opening	Bid Received		Bidders Participated (nos.)
	SPV Plants (nos.)	SPV Capacity (MW)		SPV Plants (nos.)	SPV Capacity (MW)	
TN-13 Dated	72	207.20	18.12.2024	72	207.20	205

Tender No. & Date	RfS Floated		Date of Technical Bid Opening	Bid Received		Bidders Participated (nos.)
	SPV Plants (nos.)	SPV Capacity (MW)		SPV Plants (nos.)	SPV Capacity (MW)	
29.10.2024						
TN-14 Dated 04.12.2024	10	26.77	22.01.2025	10	26.77	20
Total	**82**	**233.97**	**-**	**82**	**233.97**	**-**

3.32. Based on the technical bid evaluation and CLPC decision, price bids were opened for the qualified bidders. A snapshot of tender wise quoted tariffs is as follows:

Tender No.	Date of Financial Bid Opening	Lowest quoted tariff (Rs./kWh) by Bidder	Quoted Tariff Range (Rs./kWh)
TN-13	10.03.2025	2.711	2.711 – 3.933
TN-14	10.03.2025	2.840	2.840 – 4.440

Modalities considered by JVVNL for Solar PV Plant wise Levelized Tariff Computation under TN-13 and TN-14 of PM-KUSUM Component-C (Feeder Level Solarization):

3.33. The Petitioner computed solar PV plant wise levelized tariff in line with the MNRE guidelines for Component C (Feeder Level Solarization), RERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020 and RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019. The various components and associated assumptions as well as references considered for levelized tariff computation carried out by the petitioner are given below:

Capital Cost:

i. As per Part -III (Financial principles for computing costs and return) of RERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020:

"15.1 The normative Capital Cost shall be as specified in the subsequent technology specific chapters:"

ii. Further as per Part -V (Technology specific parameters for Solar PV Power Project) of the regulation:

"29.1 The Commission shall determine only project specific capital cost considering the prevailing market trends".

iii. The Petitioner has considered the prevailing market trends including inputs received from solar module manufactures, vendors, bidders during negotiation meetings held on dated 22.03.2025 (TN-13 & TN-14) for determination of total project cost.

iv. Since, all the solar PV plants are of different capacity, the Petitioner has computed the capital cost of each solar PV project comprising of two components viz.,

a) **Variable component –** This comprises of cost components which increases proportionately with increase in plant size and hence defined in Rs. Crores Per MW:

Parameters	Ex-works	Applicable GST (@13.8%)**	Total
Total module cost *	2.30	0.32	2.62
BoP and Civil cost (assumption and based on market prevailing rates*)	0.95	0.13	1.08
Grid connectivity charges (@ Rs. 2.5 lakhs per MW as per Regulation 89 of RERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations 2020)	0.03	-	0.03
Other cost (Legal, Contingency, Liason, land development) *	0.05	-	0.05
Total (Rs. Cr.)	**3.33**	**0.45**	**3.78**

***As per prevailing market rate & inputs received from bidders*

*** As per Ministry of Finance notification dated 22.12.2018 and 30.09.2021 of MNRE*

b) **Fixed component –** This comprises of cost components which fixed in nature irrespective of plant size, but linked to the connectivity voltage level and hence, defined in Rs. Crores:

For 11 kV level connectivity (for solar PV plants upto 2.55 MW):

Parameters	Ex-works	Applicable GST (@13.8%)	Total
Cost of **11 kV connecting line** (5 kms)^	0.15	0.02	0.17
Metering systemcost ^ - Plant level (main, check, standby)	0.04	0.01	0.05
Breakers cost (both ends of line)	0.10	0.01	0.11
Total	**0.29**	**0.04**	**0.33**

^ *As per SoR of Rajasthan Discom*

For 33 kV level connectivity (for solar PV plants above 2.55 MW):

Parameters	Ex-works	Applicable GST (@13.8%)	Total
Cost of **33 kV connecting line** (5 kms)^	0.53	0.07	0.60
Metering systemcost ^ - Plant level (main, check, standby)	0.04	0.01	0.05
Breakers cost (both ends of line)	0.20	0.03	0.23
Total	**0.77**	**0.11**	**0.87**

^ *As per SoR of Rajasthan Discom*

3.34. Petitioner has considered the following parameters for solar PV projects:

S.No.	Particulars	Value
1.	Useful life	25 years (Reg 2.1(mm)) of the RERC RE Tariff Regulations, 2020)
2.	Debt Equity Ratio	70:30 (Reg 16.1 of the RERC RE Tariff Regulations, 2020)
3.	Capacity Utilization Factor	19% without any derating factor (i.e. fixed for 25 years)(MNRE clarification dated 7.02.2022 & MNRE comprehensive guidelines dated 17.01.2024)
4.	Loan Tenure	14 years (Reg 17.1.1 of the RERC RE Tariff Regulations 2020)

5.	Interest Rate	11% per annum(Reg 17.2 of the RERC RE Tariff Regulations 2020 and CFA allowed under the guidelines in the first year of operation)
6.	Depreciation	4.67% per annum for first 15 years and remaining depreciation shall be spread over the remaining useful life of the project considering the salvage value of the project as 10% of the project cost (Reg 18.3 of the RERC RE Tariff Regulations 2020)
7.	Return on Equity	16.47% with current MAT rate of 15% for the entire useful life (Reg 19.2 of the RERC RE Tariff Regulations 2020)
8.	Interest on Working Capital	12% p.a (As per Reg 20.1 of the RERC RE Tariff Regulations, 2020)
9.	O& M expenses	The annual O&M cost @ Rs. 5 lakhs per MW with an annual escalation of 3.84%. (Reg 21.2 of the RERC RE Tariff Regulations 2020)
10.	Annual Cash flows Discounting rate	11.49%
11.	Degradation Factor	@2% (for 2nd year) and 0.5% (from 3rd year onwards) as per the prevailing technical norms/manufacture's Guaranteed Technical Parameters (GTP).

3.35. Remote Monitoring System (RMS) for Solar PV project:

As per MNRE guidelines dated 04.12.2020 for PM-KUSUM Component C feeder level solarization, it is mandatory to install RMS system at all solar PV projects commissioned under the scheme. Accordingly, the Petitioner has considered the following associated costs with RMS for computation of levelized tariff:

a) Fixed cost: Rs. 75,000 per system with provision for replacement every 8 years (based on market prevailing rates and inputs received from bidders).

b) Recurring cost: Rs. 100 per month towards internet connectivity for the RMS system.

3.36. Central Financial Assistance (CFA) from MNRE:

(i) As per MNRE guidelines dated 04.12.2020 for PM-KUSUM Component C feeder level solarization:

"… The developer will get CFA @ 30% of the estimated cost of installation of solar power plant i.e. Rs. 1.05 Cr./MW (30% of Rs. 3.5 Cr./MW)…"

(ii) Also, in line with scheme guidelines, the individual solar PV power plant capacity has been computed based on the actual annual energy consumption of agriculture consumers connected on 11 kV feeder(s) and 19% CUF. However, for the purpose of CFA, the annual energy consumption of individual agriculture consumers having pump capacity more than 7.5 HP has been proportionately reduced to the 7.5 HP level and subsequently the individual SPV plant capacity & CFA @ Rs. 1.05 Cr. per MW has been computed. This has resulted in reduced CFA for the tendered Solar PV power plants as mentioned below:

Tender No.	Eligible CFA Range (Rs. Cr. per MW)
TN-13	0.378 – 1.040
TN-14	0.498 – 0.918

(iii) The solar plant wise levelised tariff (Rs. Per unit) based on "Full CFA @ Rs. 1.05 per MW" and based on "Actual CFA due to 7.5 HP capping as per MNRE guidelines" has been compared.

(iv) Impact of above variation in CFA has been considered by the Petitioner for computation of plant wise levelized tariff. there is significant variation in individual plant capacity, applicable CFA and lease rent for the 82 nos. Solar PV plants for which bids has been received by JVVNL under TN-13 and TN-14. Therefore, it is

imperative that impact of these factors are given due consideration while evaluating the plant wise levelized tariff.

Computation of Levelized Tariff based on Applicable Land Lease Rent finalized during CLPC Negotiation Meeting dated 24.06.2024:

3.37. The Petitioner conducted CLPC Negotiation Meetings with the successful bidders under TN-13 and TN-14 under Component C (feeder level solarization) of PM-KUSUM Scheme on 22.03.2025 (TN-13 & TN-14).

3.38. During the CLPC negotiation meeting, the bidders mentioned requirement of higher capital cost (considering mandatory provisions of indigenously manufactured solar cells and solar modules / panels). Apart from this, some of the bidders raised concern over higher land procurement cost / applicable land lease rent on prevailing DLC rates under Jaipur Discom.

3.39. In view of lowest price discovered (i.,e Rs. 2.711/kWh under TN-13, and Rs. 2.840/kWh under TN-14), the competent authority of JVVNL decided the following:

a. The capital cost considered for computation of levelized tariff is aligned with the market prevailing rates *(considering mandatory provision of Domestic Content Requirement),* hence no revisions shall be required.

b. Since, levelized tariff (In Rs./kWh) for maximum numbers of SPV plants lied within acceptable limit, hence no variations under the applicable land lease rent of Rs. 80,000/Hec/Year were considered.

c. Letter of Intent (LoI) shall be awarded to all the successful 'L1 bidders' wherein their quoted levelized tariff is Rs. 3.040 per unit (single case of Rs. 3.041/kWh has also been considered) & below, considering the quoted tariff is below than the Petitioner solar PV power plant wise computation with minimum land lease rent (i.e. Rs. 80,000/Hec/Year).

d. Counter rates shall be offered to all the following 'L1' bidders followed by L2, L3, L4 and so on *(subject to acceptance in their preference of lowest to highest quoted levelized tariff)* of **Rs. 3.040 per unit** (maximum tariff).

Key benefits associated with PM-KUSUM Component-C (feeder level solarization):

3.40. The key benefits are as follows:

a. Potential savings in Power Purchase Cost of Discoms:

i. The landed Average Variable Power Purchase Cost (Rs. Per Unit) for Rajasthan Discoms at 11 kV voltage level for FY 2024-25, considering transmission losses @ ~7.62%, 33 kV level losses @ ~4% and 33 kV transformation losses @ ~3% is as under:

Discom	Landed Cost (Rs. Per Unit)*
JVVNL	4.12
AVVNL	4.02
JdVVNL	3.95
Overall Average	**4.03**

**Provisional Average Variable Power Purchase Cost*

Therefore, the highest offered levelized tariff (i.e. Rs. 3.041 per unit under TN-13, for 'L1' Bidder) awarded by the Petitioner is cheaper than the overall landed average variable power purchase cost of Rajasthan Discoms.

ii. However, the cheap solar power generated from solar PV projects under KUSUM scheme shall primarily replace the existing conventional generation as per Merit Order Dispatch (MoD). Therefore, as per MoD from 01.04.2025 to 03.04.2025, the landed highest variable cost (landed at 11 kV level) ranged from Rs. 4.030 per unit to Rs. 5.720 per unit (12.5 GW –

15 GW of allocated capacity to Rajasthan) which includes intra state transmission losses (~4.5%), 33 kV level losses (~4%) and 33 kV transformation losses (~3%) for Rajasthan Discoms.

Therefore, there is potential savings of upto Rs. 2.680 per unit (indicative) in power purchase cost (variable) of Rajasthan Discoms through feeder level solarization under PM-KUSUM Scheme.

b. Better RPO compliance translating to savings of Re 1 per unit (currently borne by Discoms due to shortfall in compliance).

c. Day time power availability with potential to cater the demand during peak hours.

d. Reduction in the cost of transmission infrastructure for Discoms.

e. Improved voltage profile in rural areas.

Outcome of the Bids received vide TN-13 and TN-14 of JVVNL:

3.41. Based on technical bid evaluation and subsequent recommendations of the competent authority of JVVNL, the price bids of the bidders were opened on 10.03.2025 (TN-13 & TN-14),

3.42. Based on CLPC decision on 22.03.2025 (TN-13 & TN-14), counter offers were issued on 25.03.2025 with last date of acceptance as 27.03.2025 (TN-13 & TN-14).

3.43. As a result of negotiation & counter offer, tender wise outcomes are as follows:

NIT No.	SPV Projects considered under Negotiation/ Counter Offer	SPV Projects duly accepted by Bidders during price Negotiations	SPV Projects duly accepted offered counter rates	Balance SPV Projects/ not accepted by the Bidders
TN-13	**13**	04	09	-
TN-14	**05**	-	05	-

3.44. Therefore, CLPC decided to issue Letter of Intent (LoI) subject to approval of the discovered or negotiated rate (Rs./kWh) from the Hon'ble Commission (RERC) under Section 63 of the Electricity Act, 2003 for all 82 nos. of the Solar PV Projects.

3.45. In view of above, the petitioner issued 82 Nos of LOIs, subject to the approval of discovered or negotiated rate (Rs./kWh) from the Commission under Section 63 of Electricity Act, 2003.

3.46. In view of above, in line with RfS document and as per Section 63 of Electricity Act, 2003, the petitioner prays for approval of following 82 nos. Solar PV plant wise levelized tariff for the projects with total aggregated capacity of 233.97 MW under Component C of PM-KUSUM scheme, which has been discovered through the transparent competitive bidding process of MNRE guidelines and the Rajasthan Transparency in Public Procurement Rules, 2013.

a) List of bidders where JVVNL issued Letter of Intent (LoI) subject to approval approval of discovered or negotiated rate (Rs./kWh) from the Hon'ble Commission under TN-13:

Sr. No.	Bidder Name	Circle	GSS Name	SPV Plant Capacity (MW)	Bidder Rank	Final Tariff (Rs. Per Unit)
Lowest (L1) Levelized Tariff Bidder						
1.	M/s Sun Photonics Private Limited	BHARATPUR	NADBAI CITY	2.13	L1	**2.725**
2.	M/s White Communication Private Limited	BHIWADI	Kithoor	3.04	L1	**3.020**
3.	Deepak Yadav	BHIWADI	MAHESHRA	1.60	L1	**3.040**
4.	Ashu Kulshrestha	BUNDI	33/11 KV	0.51	L1	**2.900**

Sr. No.	Bidder Name	Circle	GSS Name	SPV Plant Capacity (MW)	Bidder Rank	Final Tariff (Rs. Per Unit)
			MAYAZA			
5.	Nehal Chudasama	KOTA	UMARDA	1.15	L1	**2.880**
6.	M/s Prince Enterprises	KOTA	SANGOD	0.93	L1	**3.041**
7.	M/s Sun Photonics Private Limited	BHARATPUR	Nahroli	2.23	L1	**2.725**
8.	M/s Sun Photonics Private Limited	BHARATPUR	SINPINI	3.38	L1	**2.711**
9.	Ram Singh Yadav	BHIWADI	BASANI	3.72	L1	**3.020**
10.	Parmender Singh	KOTPUTLI	KUNDAN S PURA	1.17	L1	**3.030**
11.	M/s Sun Photonics Private Limited	SWM	KHANDEWALA	2.07	L1	**2.762**
12.	M/s Sun Photonics Private Limited	SWM	PACHIPALA	2.51	L1	**2.798**
13.	Manjit Singh	BARAN	KAWARPURA	1.96	L1	**2.990**
14.	M/s Sun Photonics Private Limited	SWM	KHANDAR	3.15	L1	**2.762**
15.	M/s Aadhar Infra Projects Pvt. Ltd.	BARAN	BADWA	4.54	L1	**2.900**
16.	Chhavi Yadav	BHIWADI	KHANPUR AHEER	3.29	L1	**2.920**
17.	Arti Singh Banshiwal	DUDU	DUDU	1.75	L1	**2.830**
18.	M/s Sun Photonics Private Limited	GANGAPUR CITY	NAOGOUN	3.60	L1	**2.781**
19.	M/s K M Trans Logistics Pvt. Ltd.	KOTA	RAILGANV	2.75	L1	**3.020**
20.	Rajkumari Singh	DUDU	RENWAL	4.65	L1	**2.780**

Sr. No.	Bidder Name	Circle	GSS Name	SPV Plant Capacity (MW)	Bidder Rank	Final Tariff (Rs. Per Unit)
21.	M/s Ankit Kejriwal	KOTA	BAROD	1.13	L1	**2.940**
22.	Suvidha Yadav	KOTPUTLI	D K DHANI	2.79	L1	**2.980**
23.	Ankit Sharma	SWM	TALAWADA	2.64	L1	**2.970**
24.	M/s K M Trans Logistics Pvt. Ltd.	BARAN	ATRU	4.64	L1	**3.020**
25.	M/s Anil Kumar	BHARATPUR	BAGREN	3.19	L1	**2.990**
26.	M/s Sun Photonics Private Limited	GANGAPUR CITY	KHANDEEP	3.50	L1	**2.765**
27.	Divya Kumawat	JHALAWAR	DAHIKHEDA	3.91	L1	**2.950**
28.	Ganesh Pareta	KOTA	GENTA	1.36	L1	**3.000**
29.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	SEEMLIYA	2.97	L1	**2.785**
30.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	CHOMA BIBU	3.05	L1	**2.785**
31.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	CHOMA KOT	2.94	L1	**2.790**
32.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	LALAHEDA	2.40	L1	**2.795**
33.	M/s Econ (JV with M/s Swastik Carrier)	SWM	ITAWA	2.75	L1	**2.810**
34.	Ashu Kulshrestha	SWM	BHARJA	2.81	L1	**2.800**
35.	Anchi Yadav	KOTA	BINAYKA	2.11	L1	**2.890**
36.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	MAMOR	3.65	L1	**2.780**

Sr. No.	Bidder Name	Circle	GSS Name	SPV Plant Capacity (MW)	Bidder Rank	Final Tariff (Rs. Per Unit)
37.	M/s Aadhar Infra Projects Pvt. Ltd.	BARAN	KALMANDA	4.79	L1	**2.890**
38.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	BARAN	KHAJURNA KALAN	3.13	L1	**2.785**
39.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	BARAN	MYTHA	2.59	L1	**2.790**
40.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	BARAN	ANTANA	3.72	L1	**2.780**
41.	Anchi Yadav	BUNDI	33/11 KV INDERGARH	2.43	L1	**2.970**
42.	Ramavtar Yadav	JPDC - North	RADAWAS	2.65	L1	**2.859**
43.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	VINOD KHURD	2.84	L1	**2.790**
44.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	MOI KALAN	2.49	L1	**2.795**
45.	Chhavi Yadav	KOTPUTLI	KARODI	1.82	L1	**2.920**
46.	M/s Sun Photonics Private Limited	KOTPUTLI	DANTLI PAHARI	2.49	L1	**2.762**
47.	Santosh Yadav	JHALAWAR	JOLPA	2.08	L1	**2.950**
48.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	BHANDA HEDA	4.22	L1	**2.770**
49.	Shalender Singh Yadav	KOTPUTLI	PATHREDI	2.59	L1	**2.890**
50.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	GALANA	4.50	L1	**2.770**

Sr. No.	Bidder Name	Circle	GSS Name	SPV Plant Capacity (MW)	Bidder Rank	Final Tariff (Rs. Per Unit)
51.	Buti Ram	KOTA	BAPAWAR	4.94	L1	**2.760**
52.	M/s Econ (JV with M/s Swastik Carrier)	BUNDI	33/11 KV UMAR	2.62	L1	**2.830**
53.	Buti Ram	KOTA	DIGOD	1.98	L1	**2.940**
54.	M/s Econ (JV with M/s Swastik Carrier)	SWM	PEEPALWADA	3.32	L1	**2.730**
55.	M/s Sun Photonics Private Limited	KOTPUTLI	LOYATI	3.66	L1	**2.750**
56.	M/s Aadhar Infra Projects Pvt. Ltd.	BARAN	BAMLA	4.88	L1	**2.880**
57.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	BARAN	RATAWAD	3.71	L1	**2.780**
58.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	KOTA	KAMOLAR	4.37	L1	**2.770**
59.	M/s Sri Jyoti Renewable Energy Pvt. Ltd.	BARAN	SORSAN	3.30	L1	**2.785**
Final Negotiated Rate duly accepted by the Bidder						
60.	Akash Mittal	KOTA	MANASGANV GSS	2.58	L1	**3.04**
61.	PANKAJ KUMAR MEHTA	BHARATPUR	KHARERA	3.88	L1	**3.04**
62.	Sanjay Goyal	SWM	GOTHARA	2.86	L1	**3.04**
63.	Tarik Garg	BHARATPUR	UNCH	2.79	L1	**3.04**
Final Counter Offer duly accepted by the Bidder						
64.	Tarik Garg	DHOLPUR	KOLARI	3.81	L1	**3.04**

Sr. No.	Bidder Name	Circle	GSS Name	SPV Plant Capacity (MW)	Bidder Rank	Final Tariff (Rs. Per Unit)
65.	Sujeet Beniwal	KOTA	Manpura	1.80	L1	**3.04**
66.	Sanjay Goyal	BHARATPUR	NADBAI	3.20	L1	**3.04**
67.	M/s K M Trans Logistics Pvt. Ltd.	BHARATPUR	BHIM NAGAR	2.83	L1	**3.04**
68.	M/s Ratan Projects & Engineering Co. Pvt. Ltd.	KOTA	KARADIYA	1.52	L1	**3.04**
69.	Sanjay Goyal	DHOLPUR	NAGLA DULHE KHA	3.65	L1	**3.04**
70.	M/s Vedu Infrastructure Private Limited	BHARATPUR	NATHU KA NAGLA	2.57	L1	**3.04**
71.	M/s Vedu Infrastructure Private Limited	SWM	BHERAWANDA KALAN	2.64	L1	**3.04**
72.	M/s Teerth Gopicon Limited	JPDC - South	WAITKA	1.98	L3	**3.04**

b) List of bidders where JVVNL issued Letter of Intent (LoI) subject to approval of discovered or negotiated rate (Rs./kWh) from the Hon'ble Commission (RERC) under TN-14.

Sr. No.	Bidder Name	Circle	GSS Name	SPV Plant Capacity (MW)	Bidder Rank	Final Tariff (Rs. Per Unit)
Lowest (L1) Levelized Tariff Bidder						
1.	M/s Ankit Kejriwal	TONK	KIRWAL	1.18	L1	**2.840**
2.	Avtar Agarwal	TONK	KHATOLI	3.80	L1	**2.895**

Sr. No.	Bidder Name	Circle	GSS Name	SPV Plant Capacity (MW)	Bidder Rank	Final Tariff (Rs. Per Unit)
3.	Amit Kumar Singhal	TONK	SOP	3.12	L1	**2.920**
4.	Aruna Devi	ALWAR	BARODA KAN S/S	2.61	L1	**3.000**
5.	Pawan Kumar Gurjar	DAUSA	Jaisinghpura	4.32	L1	**3.040**
Final Counter Offer duly accepted by the Bidder						
1.	NAND KISHOR VAID	ALWAR	RAMPURA BHARAMPUR	2.53	L1	**3.04**
2.	ROHIT SAINI	DAUSA	RASIDPUR	2.03	L1	**3.04**
3.	M/s VEDU INFRASTRUCTURE PRIVATE LIMITED	ALWAR	VIJAYPURA	2.56	L1	**3.04**
4.	M/s VEDU INFRASTRUCTURE PRIVATE LIMITED	ALWAR	RASOOLPUR	2.76	L1	**3.04**
5.	M/s VEDU INFRASTRUCTURE PRIVATE LIMITED	DAUSA	OND MEENA	1.86	L1	**3.04**

Future capacity additions for feeder level solarization under Component C of PM-KUSUM Scheme:

3.47. JVVNL is already in process for finalization of approx. 238 MW of solar power plants capacity vide TN-15 under feeder level solarization of Component-C of PM-KUSUM Scheme.

Prayer of the Petitioner:

3.48. The petitioner prayed the Commission as follows:

(i) To admit and approve the petition for approval of the levelized tariff of 82 nos. of Solar PV plants with total aggregated capacity of

233.97 MW as mentioned vide para 3.46 above for 25 years for the projects of Solar PV Plant for feeder level solarization under Component C of PM-KUSUM Scheme. Tender wise break up are in above Para 3.46 above.

(ii) To condone any error / omission and to give opportunity to rectify the same;

(iii) To permit the Petitioner to make further submission, additions and alterations to this Petition as maybe necessary from time to time;

(iv) To pass any such other order/s and/or direction/s, which the Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

3.49. The Commission has imparted directions to the Petitioner vide Record of proceeding dated 22.05.2025 as under:

1. Status of compliance of the earlier directions issued vide earlier order dated 02.04.2025 by the Commission.

2. Number of projects approved by the Commission under KUSUM-C and status of their implementation.

3. Impact of the implementation of the above projects on grid stability, peak demand and load curve.

3.50. In reply to the above, the Petitioner on 28.05.2025 submitted the compliance report to the Commission. The details of compliance status of the Petitioner are as under:

(1). Status of compliance of the earlier directions Issued vide earlier order dated 02.04.2025 by the Commission.

Commission's directions vide order dtd 02.04.2025 under TN-09 of Component-C are as follows:

i. **Discoms should carry out system studies/load flow studies, if needed, to ensure proper integration of these systems with the network and also for optimum utilization of network.**

The Petitioner (supported by M/s Global Energy Alliance for People and Planet and EDGE Electra) is already in progress towards carrying out system studies/load flow analysis in order to ensure proper integration of the solar power PV systems with the network and also for optimum utilization of network. As of now, the Petitioner is conducting pilot project on one of the 33/11 kV Sub-station (Bansur) wherein 4.03 MW solar PV capacity had been successfully commissioned.

In this regard, a dedicated workshop was organized on 22.03.2025 to highlight transformative initiatives and raise awareness, with a strong focus on improving DISCOMs performance through in-depth discussions on grid digitalization, rooftop solar and PM-KUSUM program.

ii. **For future bids, Discoms should continue to do the rate analysis at their own level for every tender and conduct bidding through transparent bidding mechanism (as mandated by MNRE) and if the Discoms after all due diligence are satisfied that Commission for adoption of the tariff.**

The Petitioner is regularly analysing the Market prevailing rates and based on the past experiences / suggestions / recommendation varying the parameters in every tenders being floated & executed under Component-C (Feeder Level Solarisation) of PM-KUSUM Scheme.

iii. **Discoms should also explore the possibility of bidding for multiple substations grouped as one bidding group to discover a lower tariff for benefit of end consumers.**

The Petitioner has already explored the possibility of bidding for multiple substations grouped as one bidding group to discover a lower tariff for benefit of end consumers vide TN-10, however response was not good, as only Cluster No.- 1 (out of MW capacity). Therefore, Discoms decided to proceed with individual solar power projects wherein farmers/land-owners and other stakeholders have their enthusiastic participations under Component-C (feeder level solarization) and even under Component-A of the PM-KUSUM Scheme.

iv. **Discoms are advised to preferably select the feeders where maximum CFA from the GoI may be availed so that benefit of lower tariff can be achieved.**

The Petitioner has already carried out exercise where maximum CFA from the MNRE, Government of India in order to avall benefit of lower power purchase cost for the period of 25 years.

Apart from this, all 33/11 kV Sub-stations where the farmers/land-owners / solar power developers have offered their lands are considered for implementation of Component C (feeder level solarization) of PM-KUSUM Scheme.

v. **Discoms are directed to ensure that the condition of Domestic content requirement is followed as per the MNRE, orders wherever applicable. Also, while issuing work order /signing of PPA, Discoms are directed to ensure that no liability arise for 'Change In Law on account of DCR and in case of any benefit/refund arises of**

'Change in Law' on this account, the Discoms should also recover the same promptly.

The Petitioner is already following MNRE guidelines for the Implementation of feeder level solarisation under Component-C of PM KUSUM Scheme and ensuring 'Change in Law' events.

vi. **In addition, Discoms will continuously monitor the change in law events and will ensure timely recovery/ payment on account of change in law events as per the law.**

The Petitioner is continuously monitoring the change in law events and will ensure timely recovery/payment on account of change in law events as per the law.

Recently, the Petitioner has witnessed Change In Law Events on Import of Solar Modules & Cells (as below), however not impacting due to applicability of 100% DCR under this petition.

Basic Custom Duty (BCD)

- Modules : 40% to 20%
- Cells : 25% to 20%

Social Welfare Surcharge (SWS)

- Modules : 10% to 0%
- Cells : 10% to 0%

Agriculture Infrastructure and Development Cess (AIDC)

- Modules : 0% to 20%
- Cells : 0% to 7.5 %

vii. **Discoms should furnish the progress of Implementation of the projects under Component-C in the petitions to be filled by them in future in the matter.**

Progress has been covered under point no. (2) below.

viii. **Discoms should follow the guidelines and directions issued by MNRE in respect of Implementation of Feeder Level Solarisation under Component-C of PM KUSUM Scheme from time to time.**

The Petitioner is already following MNRE guidelines for the implementation of feeder level solarisation under Component-C of PM KUSUM Scheme.

ix. **The Discoms are directed to strictly adhere to the timelines issued by the MNRE.**

The Petitioner is already adhering to the timelines issued by the MNRE. In view of this, multiple projects had been cancelled, penalty provisions due to delay in submission of Performance Bank Guarantee (PBGs) / delay in signing of the PPAs/delay in project commissioning were exercised by the respective Discoms.

(2). Number of projects approved by the Commission under KUSUM-C and status of their implementation.

It is to submit that for Jaipur Discom, Commission had approved around 601 MW solar power capacities, against 244 nos. of solar projects under Component C (feeder level solarization) of PM-KUSUM Scheme vide TN-01 till TN-12. Out of this 601 MW, Power Purchase Agreement (PPA) has been successfully signed for 548.95 MW (against 226 nos. of plants) while signing of PPA for balance capacities are already in progress and shall be executed soon.

Further, out of 548.95 MW, projects have been successfully commissioned for 101.92 MW, against 39 nos. of solar power plants while balance capacities are likely to be commissioned by Dec 2025 or earlier.

(3). Impact of the implementation of the above projects on grid stability, peak demand and load curve.

It is submitted that JVVNL (on behalf of all three Discoms) conducted pilot study on all the 33/11 kV Sub-stations emanating from 220 kV Bansur Grid Sub-station at the 33 kV voltage level. Initial findings of Load Flow Analysis (LFA) are highlighted as follows:

a) Load Flow Analysis for SPG Capacity Planning:

The LFA optimizes Solar Power Generators (SPGs) capacity by modelling power flows, voltage profiles and losses, ensuring grid stability and efficient investments. The table below represents a sample network connected with a HV Grid Sub-station (TransCo), used for demonstrating LFA-based planning:

TransCo Sub-station	Name of 33 kV Feeders	33 kV Sub-stations (Power Transformer Capacity)	Peak Season Demand Variation	Lean Season Demand Variation	SPG Capacity under KUSUM Scheme
220 kV Bansur GSS	Gunta	Gunta Shahpur (8.2 MVA)	0.5 - 6.3 MW	0.6 - 2.4 MW	2.8 MW
		Kalyan Nagar (6.3 MVA)	0.3 - 2.5 MW	0.2 - 1.3 MW	4.03 MW
		Mothuka (6.3 MVA)	0.3 - 1.5 MW	0.2 - 1.1 MW	2.2 MW
	Loyati	2 (15 MVA)	2.1 - 6.8 MW	2.2 - 5.9 MW	-
	Isra ka Bas	1 (5 MVA)	0.9 - 2.0 MW	0.9 - 2.0 MW	-
	Guwada	1 (5 MVA)	0.2 - 1.6 MW	0.4 - 1.2 MW	-
	Babriya	2 (10 MVA)	0.9 - 3.3 MW	0.9 - 3.3 MW	-
	Harsora	2 (13 MVA)	2.1 - 5.7 MW	3.1 - 5.5 MW	-

The LFA ensures SPG capacities align with feeder load demand, reducing losses and maintaining grid stability.

b) Impact of Live KUSUM SPGs on Load Demand

Agricultural load demand coverage by KUSUM SPGs over a month in the studied network during peak Solar uptime.

Season	Parameters	Gunta Shahpur	Kalyan Nagar	Mothuka
Peak Season	% Demand covered by local SPG (8am - 4pm)	37%	97%	89%
	% local SPG excess power consumed within Gunta feeder (8am - 4pm)	0%	19%	32%
	% local SPG excess power consumed in other 33kV feeder Networks (8am - 4pm)	0.3%	3%	2%
Lean Season	% Demand covered by local SPG (8am - 4pm)	91%	99%	99%
	% local SPG access power consumed within Gunta feeder at GSS (8am - 4pm)	0%	5%	7%
	% local SPG access power consumed in other 33kV Networks (8am - 4pm)	4.7%	60%	40%

The live SPGs on this network significantly reduce grid demand and daily load variations. During peak seasons (e.g., January irrigation), SPGs supply ~52% of demand in Gunta Feeder, reducing grid dependency by 1.4 MU/month. ~98% of solar power generated is locally consumed in the feeder, lowering peak vs non-peak variation from 9.1 MW to 3.3 MW.

In lean seasons (e.g., April, post-harvest), excess solar power from Feeder A is shared with the other 33 kV Feeders via a common bus, reducing grid imports for the entire network by 15% and costs by Rs. 0.37/unit.

Discoms submitted that KUSUM SPGs enhance energy security and sustainability for agriculture consumers. LFA allows optimization of

SPG planning and placement, reducing grid dependency and stabilizing load profiles.

Commission's view:

4. We have considered the submissions made and information furnished and placed on record on behalf of the Petitioner.
5. The present Petition has been filed under Section 63 (Determination of Tariff by Bidding Process) of the Electricity Act 2003, read with Regulation 19 and 21 of the RERC (Transaction of Business) Regulations, 2021, for approval of levelized tariff discovered through Transparent Competitive Bidding carried out JVVNL for solar power projects with aggregate capacity of 233.97 MW under Component-C (Feeder Level Solarization) of PM-KUSUM scheme vide TN-13 and TN-14.
6. As per scheme guidelines, for feeder level solarization under Component-C of PM-KUSUM, the Central Financial Assistance (CFA) is limited to solar capacity for 7.5 HP pumps. However, for the purpose of CFA, the annual energy consumption of individual agriculture consumers having pump capacity more than 7.5 HP has been proportionately reduced by the Petitioner to the 7.5 HP level and subsequently, the individual SPV plant capacity & CFA @ Rs. 1.05 Cr. per MW has been computed.
7. As per the Petitioners submission, CLPC meeting in respect of (TN-13 & TN-14), was held on 22.03.2025 wherein it was decided to issue Letter of Intimation (LoI) subject to approval of the discovered or negotiated rate (Rs./kWh) from the Commission under Section 63 of The Electricity Act, 2003 for all the 82 nos. of Solar PV Projects.
8. In line with RfS document and as per the Section 63 of Electricity Act, 2003, the petitioner has prayed for approval of 82 nos. Solar PV plant wise levelized tariff for the projects with total aggregated capacity of

233.97 MW under Component C of PM-KUSUM scheme, which has been discovered through the transparent competitive bidding process of MNRE guidelines and The Rajasthan Transparency in Public Procurement Rules, 2013.

9. The Petitioner has also submitted Solar PV plant wise final accepted levelized tariff for both TN-13 and TN-14.

10. It is noted from their submissions that the Petitioner has followed transparent bidding process. It is also noted form the submissions of the Petitioner that they have been carrying out the monitoring of the market conditions before and during the negotiation stage. Further, Petitioner during hearing also submitted that the prices have been considered reasonable by their Corporate Level Purchase Committee and accordingly, LOIs have been placed to the lowest bidders on reasonable considered prices.

11. The Commission also observes from petitioner's submission that they have negotiated on the quoted levelized tariff with the bidders within the computed levelized tariff range of 'without lease rent' and 'with maximum lease rent' and other modalities as referred in their petition and further the respective successful bidder, agreed on a reduced levelized tariff offered during counteroffer by Discom which is market aligned.

12. Since, JVVNL has filed the petition under section 63 of the Electricity Act, 2003 for approval of tariff discovered through transparent competitive bidding process, accordingly, in this order, Commission has considered the tariff discovered during the bidding process and recommended by the Petitioner Discom for adoption.

13. As per the submission of the Petitioner out of approved 601 MW solar capacities, against 244 Nos of solar projects for TN-01 to TN-12 so far PPAs for 548.95 MW (against 226 Nos of plants) have been signed.

Further, out of 548.95 MW projects of 101.92 MW capacity, (against 39 nos of plants) have been commissioned.

14. Keeping in view the petition and reply submitted by the petitioner, the Commission observes that the prudent cost analysis of each factor associated in computation of levelized tariff has been done by the petitioner during negotiation. It is also noted from the submissions of the Petitioner that the Petitioner has followed all the due process while in discovering the price under TN-13 and TN-14. Hence, in view of this, the Commission is inclined to approve the tariff discovered during the transparent bidding process and recommended by the Petitioner for adoption.

15. The Commission also observes that since the trend of decentralisation of RE sources is rising, it is necessary to look into the factors which shall be economically scalable for procurement of power from these sources. For this, the Commission in its various earlier orders has directed to explore the possibility of awarding tenders where multiple substations may be grouped as one bidding group to achieve the benefit of economy of scale and SPDs may be permitted to quote the tariff common for all projects under one group and SPD may sign a single PPA with Discom. The Petitioner in its reply has submitted that it has only achieved one cluster of 11.59 MW Solar PV capacities under TN-10. In this regard, the Commission again directs the Petitioner to explore more possibilities under clustering of substation so that lower tariff can be achieved.

16. Further, in line with directions given earlier, all the Discoms are once again directed that they should ensure domestically manufactured panels and indigenous modules through inspection and verification at the manufacturing unit of the respective OEM as per the MNRE order for all tenders under consideration, wherever applicable. Further, Discoms

are directed that while issuing work order/PPA ensure that the liability of 'change in Law' may not arise for them on this account. Also, in case of any refund/ benefit arises on account of the 'change in Law' then Discoms should also claim the same promptly. Considering the experience gained by the Discoms so far, pricing trends and the requirement of approaching the Commission for adoption of tariff after each bid, the Commission had discontinued the practice of specifying the ceiling tariff. It is once again directed that based on the prevalent prices trends, Discoms should do the rate analysis at their own level for every tender and conduct bidding through transparent bidding mechanism (as mandated by MNRE). Also, Discoms, after all due diligence, if satisfied that the discovered rates are reasonable and market aligned, they may approach the Commission for adoption of the tariff.

17. Further, Commission in its various orders has stressed the need for integrating more and more distributed power. If schemes like KUSUM Component-C (feeder level solarization) are implemented in the right earnest by the Discoms, they can prove to be a game changer for the sector as a whole. However, with large number of such plants certain system studies may also be required to be undertaken and need for storage and other balancing measure may arise. In this regard, the Commission has also earlier directed the Discoms to carry out necessary system studies in this light. Petitioner has also submitted the compliance report in this regard, it has carried out pilot study on behalf of all three Discoms at 33/11 kV Sub-stations emanating from 220 kV Bansur GSS at 132 kV Voltage level and have also submitted their initial funding of Load Flow Analysis and impact of Live KUSUM SPGs on Load Demand. It is observed that as more and more plants are likely to come on line under various scheme, the requirement of such studies would increase.

In order to ensure smooth integration of such plants, Discoms are once again directed they continue to conduct the necessary system studies for such plants.

18. Accordingly, considering the submission made by the Petitioner, the Commission orders as follows:

1) The Commission approves the purchase of power from above 82 nos. solar PV plants in TN-13 & TN-14 as noted in para 3.46 above for 25 years under Component-C of PM KUSUM Scheme.

2) Discoms should carry out system studies/load flow studies, if needed, to ensure proper integration of these systems with the network and also for optimum utilization of network.

3) For future bids, Discoms should continue to do the rate analysis at their own level for every tender and conduct bidding through transparent bidding mechanism (as mandated by MNRE) and if the Discoms after all due diligence are satisfied that discovered rates are reasonable and market aligned, they may approach the Commission for adoption of the tariff.

4) Discoms should also explore the possibility of bidding for multiple substations grouped as one bidding group to discover a lower tariff for benefit of end consumers.

5) Discoms are advised to preferably select the feeders where maximum CFA from the GoI may be availed so that benefit of lower tariff can be achieved.

6) Discoms are directed to ensure that the condition of Domestic content requirement is followed as per the MNRE, orders wherever applicable. Also, while issuing work order /signing of PPA, Discoms are directed to ensure that no liability arise for 'Change in Law' on account of DCR

and in case of any benefit/refund arises of 'Change in Law' on this account, the Discoms should also recover the same promptly.

7) In addition, Discoms will continuously monitor the change in law events and will ensure timely recovery/ payment on account of change in law events as per the law.

8) Discoms should accelerate the implementation of PM KUSUM Scheme Component-C in a mission mode and maximize the benefits of distributed generation. It is directed that Discoms should furnish the progress of implementation of the projects under Component-C in the petitions to be filed by them in future in the matter.

9) Discoms should follow the guidelines and directions issued by MNRE in respect of implementation of Feeder Level Solarisation under Component-C of PM KUSUM Scheme from time to time.

10) The Discoms are directed to strictly adhere to the timelines issued by the MNRE from time to time.

24. Copy of this order may be sent to all Discoms.

25. The petition is disposed of accordingly.

(Hemant Kumar Jain)	(Dr. Rajesh Sharma)
Member	Chairman