



TELANGANA ELECTRICITY REGULATORY COMMISSION
'Vidyut Niyamitran Bhavan', G.T.S. Colony, Kalyan Nagar, Hyderabad 500 045

O. P. No. 32 of 2025

Dated : 22.04.2025

Present

Dr. Justice Devaraju Nagarjun, Chairman

1. **Southern Power Distribution Company of Telangana Limited,**
2. **Northern Power Distribution Company of Telangana Limited**

.....Petitioners

ORDER

Background:

1. Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme is for de-dieselization of farm sector, enhancing the income of farmers, increase the share of solar energy in the power mix, decentralised solar power generation, agricultural sustainability and reduce reliance on fossil fuels. MNRE launched the PM KUSUM in the year 2019. Under the Scheme, central government subsidy upto 30% or 50% of the total cost is given for the installation of standalone solar pumps and also for the solarization of existing grid connected agricultural pumps. Further, farmers can also install grid connected solar power plants of 0.5MW to 2MW under the Scheme on their barren/fallow lands and sell electricity to local DISCOM at a tariff determined by State regulator. This scheme is being implemented by the designated departments of the State Government.
2. Ministry of New & Renewable Energy vide Order dated 17.01.2024 has issued comprehensive guidelines for the implementation of the PM-KUSUM Scheme, superseding all previous guidelines and amendments, including O.M. No. 32/645/2017-SPV Division dated 22.07.2019. The scheme consists of the following components:

- i. Component-A: Installation of 10,000 MW of decentralized ground/stilt-mounted grid-connected solar or other renewable energy-based power plants.
- ii. Component-B: Deployment of 14 lakh stand-alone solar agriculture pumps.
- iii. Component-C: Solarization of 35 lakh grid-connected agriculture pumps, including feeder-level solarization.

Present Proposal of TGDISCOMs

3. The TGSPDCL on behalf of TGDiscoms has submitted that the Ministry of New and Renewable Energy (MNRE), Government of India, has sanctioned 4000 MW capacity to Telangana vide order dated 24.06.2024, based on request from the Government of Telangana dated 02.04.2024. The procurement process is aligned with the comprehensive guidelines issued by MNRE for implementation of Component-A of the PM-KUSUM Scheme.
4. The present petition is filed by TGSPDCL on behalf of TGDISCOMs vide Lr. No. CE(IPC) /DE(IPC)/F.PMKUSUM/D.No.1547/2024-25, Dt:18-01-2025 under section 62 (1) (a) & 86(1)(b) of the Electricity Act, 2003 , u/s 21 (4) of Telangana Electricity Reforms Act, 1998 and u/s. 35(2) of Business Regulations,2015 seeking approval for procurement of 4000 MW, decentralized Ground Mounted Grid-Connected solar power for a period of 25 years from the Commercial Operation Date (COD) by TGDISCOMs under Component-A of PM KUSUM Scheme along with draft Expression of Interest (EoI), Model Power Purchase Agreement (PPA) & Model Lease Agreement. This includes 1000 MW capacity for Women SHGs under INDIRA MAHILA SHAKTI SCHEME, for which in principal approval has already been given by this Commission on 06.03.2025.
5. After scrutinizing the proposals, the Commission vide this office letters dated 28.02.2025 & 22.03.2025 directed TGDISCOMs to submit justification and other information in respect of proposed solar power procurement. Accordingly, TGSPDCL on behalf of TGDISCOMs submitted the justification and other information vide letters dated 01.03.2025 and 02.04.2025 for procurement of solar power and also load generation balance to justify the procurement. Considering the proposals and justification submitted, the Commission has decided to take up the issue through public consultation process.

Admission of Petition

6. The petition filed by TGDISCOMs was scrutinized and found to be generally in order as required under the Conduct of Business Regulations No. 2 of 2015. The Commission admitted the petition and the same was taken on record by assigning the Original Petition number as O. P. No. 32 of 2024.
7. Even though the Petitioner has filed this application seeking approval for procurement of 4000 MW (inclusive of 1000 MW capacity for Women SHGs under INDIRA MAHILA SHAKTI SCHEME) under decentralized Ground Mounted Grid-Connected solar power for a period of 25 years from the Commercial Operation Date (COD) by TGDISCOMs under Component-A of PM KUSUM Scheme along with Model Power Purchase Agreement (PPA), draft Expression of Interest (Eol), & Model Lease Agreement, the TGDISCOM/TGDEDCO even prior to taking approval of draft Expression of Interest (Eol) has uploaded the same inviting applications from the interested entrepreneurs. Thereby, in so far as seeking approval of Eol is concerned, the TGDISCOMs are seeking post facto approval which is not permissible. Accordingly, this Commission will not consider the application in so far as for the approval of the Eol. Similarly, the request of REDCO/DISCOMs for giving the approval for Model Lease Agreement can't be considered for the simple reason that the modalities of Lease and terms of Lease Agreement lies with the owner of the land and the person taking land on lease. Giving approval for model lease agreement is not within the purview of this Commission.
8. Therefore, this Petition is considered only in respect of procurement of 4000 MW (inclusive of 1000 MW capacity for Women SHGs under INDIRA MAHILA SHAKTI SCHEME) under decentralized Ground Mounted Grid-Connected solar power for a period of 25 years from the Commercial Operation Date (COD) by TGDISCOMs under Component-A of PM KUSUM Scheme and Model Power Purchase Agreement (PPA).

Notification inviting Suggestions/Objections/Comments

9. The Commission with reference to the provisions of the Electricity Act, 2003, under applicable Regulations decided to take up the matter through public consultation process and accordingly, directed TGDISCOMs to issue public notice in two (2) Telugu, two (2) English and One (1) Urdu newspapers on 03.04.2025. In the Public Notice it was also indicated that the Commission

intends to conduct a Public Hearing in this regard on 17.04.2025 from 11:00 hours onwards at TGERC Court Hall. The Public Notice, filings and supporting material were also hosted on the website of TGDISCOMs as well as the Commission. Copy of the Public Notice is enclosed as Annexure-I.

Public Hearing

10. In response to the above Public Notice, suggestions / comments / objections in writing were received from 4 stakeholders before the public hearing. The details of the stakeholders who have submitted suggestions / comments / objections are enclosed as Annexure-II. The Public hearing was conducted on 17.04.2025 from 11:00 hours onwards at TGERC Court Hall, Hyderabad. CMD/TGSPDCL has given brief presentation on the petition. More than 77 stakeholders have attended the public hearing, out of them 20 stakeholders have submitted their suggestions / objections / comments and TGSPDCL responded to the issues raised during the public hearing.

Justification submitted by TGDISCOMs

11. **Load-generation balance projections for the next 10 years**

As per TGERC Order dated 29.12.2023 in OP No 07 & 08 and 18 & 19 of 2020 in approving Resource Plan and Business Plan for TGDISCOMs for 5th control period and 6th control period, the following were the energy requirements.

Financial Year	Energy requirement (MUs)
FY 25	83,058
FY 26	87,564
FY 27	92,365
FY 28	97,482
FY 29	102,942
FY 30	107,868
FY 31	113,095
FY 32	118,632
FY 33	124,488
FY 34	130,711

12. The actual power purchase by the State in FY24 was 86,823 MUs, surpassing the projected requirement for FY25 as per the resource plan. The

Central Electricity Authority (CEA) has projected the energy requirements from FY25 to FY35 based on the actuals of FY24 in the Report of Resource Adequacy Plan for the State of Telangana. Following table consists of the energy requirement and peak demand as per CEAs Resource Adequacy Study.

	FY 25	FY 26	FY 27	FY 28	FY 29
Energy requirement (MUs), As per CEA Projections	90,962	96,596	102,732	108,932	115,347
Energy Availability (MUs)	95,753	106,637	106,157	105,506	102,784
Surplus/Deficit	4,791	10,041	3,425	(3,426)	(12,563)
	FY 30	FY 31	FY 32	FY 33	FY 34
Energy requirement (MUs), As per CEA Projections	122,627	128,032	133,211	138,600	144,206
Energy Availability (MUs)	97,429	96,334	96,570	96,334	96,334
Surplus/Deficit	(25,198)	(31,698)	(36,641)	(42,266)	(47,872)

13. As evident from the above mentioned tables, TGDIsComs are expected to have an energy deficit from FY 28 onwards and also in FY 25 and FY 26 showing surplus but it is evident that there is surplus only in certain blocks. During the agriculture months TGDIsCOMs are depending on the short-term market to meet the energy demand. The proposed distributed solar power plants will complement the energy demand during agriculture seasons.
14. For better illustration, the energy requirement approved by TGERC under Resource plan vis-à-vis CEA Resource Adequacy report is submitted as under:

Energy Requirement of TGDIsCOMs at State periphery in MU			
FY	As per TGERC approved Resource Plan	As per CEA Resource Adequacy report	Difference
2024-25	83,058	90,962	7,904
2025-26	87,564	96,596	9,032
2026-27	92,365	1,02,732	10,367
2027-28	1,00,285	1,08,932	8,647
2028-29	1,02,942	1,15,347	12,405
2029-30	1,07,868	1,22,627	14,759
2030-31	1,13,095	1,28,032	14,937
2031-32	1,18,632	1,33,211	14,579
2032-33	1,24,488	1,38,600	14,112
2033-34	1,30,711	1,44,206	13,492
2034-35	-	1,50,040	-

15. Taking into consideration the CEA Resource adequacy report, revised energy availability projections are as under:

FY	TGERC approved Surplus/ Deficit (MU)	Difference energy requirement as per CEA report (MU)	Revised Surplus/ Deficit (MU)
2024-25	12,696	7,904	4792
2025-26	19,073	9,032	10041
2026-27	13,793	10,367	3426
2027-28	8,024	8,647	-623
2028-29	-158	12,405	-12563
2029-30	-10,440	14,759	-25199
2030-31	-16,761	14,937	-31,698
2031-32	-22,062	14,579	-36,641
2032-33	-28,153	14,112	-42,265
2033-34	-34,376	13,492	-47,868

16. The estimated energy requirement is expected to enhance further with the advent of new proposals/developments in the State such as:

- i. EV policy which requires extending reliable green power supply to EV Charging Stations, thereby promoting adoption of e-mobility in the State;
- ii. Establishment of Data Centres;
- iii. Extension of Metro corridor;

17. It is further submitted that though there is energy surplus on an annual basis, there is power deficit during many blocks during the day which has to be met through market purchases.

18. Hence, proposed procurement of solar power under PM KUSUM scheme Component A, shall assist TGDIs to mitigate the energy deficit in the ensuing years, and ensure TGDIs Power supply commitments to the consumers of Telangana in a reliable manner.

19. As per the MOP's (Ministry of Power) Renewable Purchase Obligation (RPO) dated 20.10.2023, following are the RPO targets for the TGDIs:

Year	Wind Renewable Energy	Hydro Renewable Energy	Distributed Renewable Energy*	Other Renewable Energy	Total Renewable Energy
2024-25	0.67%	0.38%	1.50%	27.35%	29.91%
2025-26	1.45%	1.22%	2.10%	28.24%	33.01%
2026-27	1.97%	1.34%	2.70%	29.94%	35.95%
2027-28	2.45%	1.42%	3.30%	31.64%	38.81%
2028-29	2.95%	1.42%	3.90%	33.10%	41.36%
2029-30	3.48%	1.33%	4.50%	34.02%	43.33%

20. Telangana, with its current contracted renewable energy (RE) capacity, cannot meet the Renewable Purchase Obligation (RPO) targets set by the

Ministry of Power (MoP). This shortfall could result in a significant **penalty of approximately Rs. 3.72 per kWh**. The following table outlines the year-wise RPO shortfall for Telangana, which could lead to penalties imposed by the MoP.

Particulars	UoM	FY25	FY26	FY27	FY28	FY29	FY30
Demand	MW	16,877	18,138	19,529	20,968	22,488	24,215
Energy requirement	MUs	90,962	96,596	102,732	108,932	115,347	122,627
RPO Target	%	29.91%	33.01%	35.95%	38.81%	41.36%	43.33%
	MUs	27,207	31,886	36,932	42,277	47,719	53,134
Existing Total RE Generation in Telangana	MUs	16,266	21,033	21,033	21,033	21,025	20,975
RPO Shortfall (With contracted RE capacity)	MUs	10,941	10,853	15,899	21,244	26,694	32,159
RPO Penalty	Rs. Crores	4,041	5,920	7,909	9,934	11,973	4,041

21. It is also submitted that some of the Commercial & Industrial (C & I) consumers are voluntarily opting for green power, and they have approached TGDISCOMs for availing green power. Apart from meeting the RPO, procurement of solar power is expected to reduce the power purchase cost of the TGDiscoms. Since the proposed procurement of solar power at INR 3.13/kWh is lower than the estimated average power purchase cost of INR 5.15 kWh (FY 2025-26). Further, the solar tariff is single part levelized tariff fixed for 25 years, unlike thermal power tariff being two parts with an increasing Variable Cost component.
22. Considering the above points, the proposed procurement of RE power will enable the TGDiscoms to comply with RPO and in reducing the power purchase cost. This will enable discomfort in reducing the PP cost and the consequent financial burden on the consumers.
23. In addition to the above, it is submitted that as these proposed solar power plants are to be installed near the load centres i.e., injection at 11 kV level in 33 /11 kV substation, it will reduce the Transmission & Distribution losses. At the same time energy pumped at 11 kV level will also avoid Transmission charges and investment towards transmission infrastructure.

24. As per Clause 3 of Regulation No 7 of 2022 (TGERC Renewable Power Purchase Obligation (Compliance by purchase of Renewable Energy/Renewable Energy Certificates) Regulation, 2022) for compliance of RPPO by obligated entities for FY 2022-23 to FY 2026-27, following are the RPPO targets for the Telangana State:

Year/RPPO	2022-23	2023-24	2024-25	2025-26	2026-27
Solar	7.50%	8%	9%	10%	11%
Non-Solar	1%	1.25%	1.50%	1.75%	2%
Total	8.50%	9.25%	10.50%	11.75%	13.00%

25. As against the RPPO requirement of 9.25% as per TGERC, TGDISCOMs have achieved RPPO of approximately 14% during FY 2023-24. However, while entering the PPAs for purchase of RE power, TGDISCOMs have examined the RPPO targets in vogue both at State level & National level. Going further RPPO targets of the State are further likely to be enhanced as the targeted RE capacity addition at India level has been revised to 450 GW by 2030 (350 GW Solar and 100 GW Non-Solar).
26. TGDISCOMs to comply with the MoP notified RPPO trajectory, it is likely that the State RPPOs may be required to align with the MoP RPPO. It is to submit that, the MoP, Govt of India vide Gazette dated 20.10.2023 has specified the following minimum share of consumption of renewable energy by the TGDISCOMs as a percentage of total share of energy consumption for different designated consumers (including DISCOMs as a percentage of their total share of energy consumption) under the Energy Conservation Act, 2001:

Year	Wind (%)	Hydro (%)	Distributed renewable energy (%)	Other renewable energy(%)	Total renewable energy (%)
2024-25	0.67	0.38	1.50	27.35	29.91
2025-26	1.45	1.22	2.10	28.24	33.01
2026-27	1.97	1.34	2.70	29.94	35.95
2027-28	2.45	1.42	3.30	31.64	38.81
2028-29	2.95	1.42	3.90	33.10	41.36
2029-30	3.48	1.33	4.50	34.02	43.33

*Above targets are effective from 01.04.2024

27. Further, it was stipulated that any shortfall in above specified RE consumption targets shall be treated as non compliance and penalty shall be imposed at such rate specified under sub section (3) of section 26 of the said Act.

Guidelines of Component-A of the PM KUSUM Scheme

28. Salient Features:

- i. This Component-A aims at setting up of 10,000 MW of Decentralized Ground / Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants by farmers on their land.
- ii. Solar or other Renewable Energy based Power Plants (REPP) of capacity of 500 kW to 2 MW will be setup by Renewable Power Generator (RPG).
- iii. The REPP will be preferably installed within five km radius of the sub-stations in order to avoid high cost of sub-transmission lines and to reduce transmission losses.
- iv. The total energy purchased from these RE plants will be accounted for Renewable Purchase Obligation (RPO) under Decentralized Renewable Energy (DRE) category by the DISCOM.

Eligibility :

- i. The REPP under the scheme would be installed by the farmers on his own land either directly by himself or in partnership with group of farmers/ cooperatives/ panchayats/ Farmer Producer Organizations (FPO)/Water User associations (WUA), or through a developer.
- ii. Group of farmers / cooperatives/ panchayats/ Farmer Producer Organizations (FPO)/ Water User associations (WUA) etc. can opt for developing the REPP through developer(s). The farmer may provide his land to the DISCOM, which will then be considered as Renewable Power Generator (RPG) in this case. In such a case, the land owner will get lease rent as mutually agreed between the parties. The lease rent may be in terms of Rs. per year per acre of land or in terms of Rs. per unit energy generated per acre of land area. The farmer(s) may opt for payment of lease rent directly in their bank account by the DISCOM, from the payment due to the developer. A model Land Lease Agreement to facilitate the beneficiaries is provided as Annexure to the guidelines. However, the terms of Land Lease Agreement may be finalised with mutual consent of concerned parties.

Notification of sub-station wise generation capacity and intent to setup REPP :

- i. DISCOM shall assess and notify RE generation capacity that can be injected into 33/11 kV or 66/11 kV or 110/11 kV sub-station in rural areas and place such notification on its website for information of all stakeholders.
- ii. DISCOMs will notify sub-station wise surplus capacity which can be fed from such RE power plants to the Grid.
- iii. DISCOMs should prefix the levelized tariff.
- iv. DISCOM shall invite applications from interested beneficiaries for setting up the renewable energy plants.
- v. The renewable power generated will be purchased by DISCOMs at the pre-fixed levelized tariff.
- vi. In case the aggregate capacity offered by applicants is more than notified capacity for a particular sub-station, bidding route will be followed by DISCOMs to select Renewable Power generator and in such cases the pre-fixed levelized tariff will be the ceiling tariff for bidding.
- vii. For setting up of plant, land will be required. To facilitate farmers willing to lease out their land for development of RE plants near the notified substation(s), DISCOMs may make a list of such farmers and place that list on their website. However, the leasing of land of any farmers will be a bi-partite agreement between the farmer and the developer, and the DISCOM will not be held responsible for failure in getting the land leased out to a developer.

Application procedure & Selection of REPP:

- i. DISCOM may invite applications for Expression of Interest (EOI) from prospective RPGs, through their online portal.
- ii. The RPGs shall submit their application for setting up REPP to DISCOM/SIA, as per prescribed format.
- iii. The application should be submitted along with a non-refundable processing fee from the interested RPGs, which in no case shall be higher than Rs. 5000 per MW or part thereof of the capacity applied for.
- iv. In case the total aggregate capacity of eligible applications received for a particular substation is less than or equal to the capacity notified for connectivity at the sub-station, Letter of Award (LoA) will be awarded to

all eligible applicants for procurement of renewable power at a pre-fixed levelized tariff on first come first serve basis within one month from the receipt of application.

- v. In case the total aggregate capacity of eligible application received for a particular substation is more than the capacity notified for connectivity at the sub-station, then DISCOM or any agency authorized by the DISCOM shall invite Bids from all these applicants.
- vi. Selection of bidders will be based on the lowest tariff offered in the ascending order as quoted by the bidders in the closed bid or e-reverse auction. In such cases, the pre-fixed levelized tariff will be the ceiling tariff for bidders. In case of bidding, all eligible applicants will have to submit tariff bids within a prescribed time. Selection of bidders will be based on the lowest tariff offered in the ascending order as quoted by the bidders in the closed bid. LoA will be awarded to all successful bidders.

Clearances required from the State Government and other local bodies :

- i. The RPG is required to obtain necessary clearances as required for setting up the REPP in coordination with DISCOMs. District Collectors should facilitate the clearances required for issues related to land permissions, right of way, etc.

Power Purchase Agreement (PPA):

- i. A model PPA (Power Purchase Agreement) to be executed between RPG and DISCOMs is as per Annexure II of the Guidelines.
- ii. The duration of PPA will be 25 years from Commercial Operation Date (COD) of the project.
- iii. The PPA will have to be executed by RPG within two months from the date of issue of LoA by DISCOM or any agency authorized by the DISCOM.
- iv. The DISCOM will be obliged to buy the entire power from RPG within the contract capacity.
- v. The RPG will be free to operate the plant after expiry of the 25 years of PPA period if other conditions (like land lease, etc.) permits. However, any extension of the PPA period beyond 25 years shall be through mutual agreement between the RPG and DISCOM.

- vi. As a payment security measure, DISCOM will have to maintain Escrow Arrangement as defined in the PPA.

Bank Guarantees (BG):

- i. In case of bidding, the RPG shall provide Earnest Money Deposit (EMD) of Rs. 1 Lakh/MW in the form of Bank Guarantee along with EoI.
- ii. The EMD of Rs. 1 Lakh per MW will be converted into Performance Bank Guarantee (PBG) for the successful bidders, who have signed the PPA within stipulated time period.
- iii. In case the selected RPG fails to execute the PPA within the stipulated time period, the Bank Guarantee equivalent to EMD shall be encashed by DISCOM as penalty.
- iv. In case any bidder is not selected, DISCOM shall release the EMD within 15 days of the date of issue of LoA to selected RPG(s).
- v. The PBGs shall be valid for a period of 15 months from the date of issue of LoA for the REPP.
- vi. The PBG will be returned to the RPG immediately after successful commissioning of REPP, after considering any penalties due to delay in commissioning as per provisions stipulated in the guidelines.

Connectivity:

- i. The selected RPG will be responsible for laying of dedicated 11 or 33 kV, 66/11 kV or 110/11 kV line from REPP to sub-station, construction of bay and related switchgear at sub-station where the plant is connected to the grid and metering is done.
- ii. RPG can get the transmission line constructed through DISCOM by paying the applicable cost and other charges. RPG will generally be responsible for maintaining this dedicated transmission line.
- iii. In case more than one bidder are awarded projects to be connected to same sub-station, they shall be permitted to co-ordinate with each other for setting up common transmission line for feeding to Sub-Station if they so desire and with the approval of DISCOM. The RPG shall comply with grid connectivity and other regulations as applicable.

Release of Performance Based Incentive (PBI) to DISCOM:

- i. DISCOM will be eligible to get Performance Based Incentive (PBI) @ Rs. 0.40 per unit purchased or Rs. 6.6 lakh per MW of capacity installed, whichever is less, for a period of five years from the COD.

- ii. To avail the PBI, DISCOM shall submit following documents after completion of one year from the COD and every year thereafter till five years:
 - (a) Timely payment of monthly lease rent, if applicable, to the land owner of the project.
 - (b) Monthly units purchased from the plant and corresponding payment made to the project developer.
- iii. Applicable PBI would be released to the DISCOM after submission of these documents by DISCOM to MNRE.
- iv. The DISCOMs can, if they desire so, pass on the PBI given to DISCOMs by the Central Government under this component, to the REPP owner to get more competitive tariff of RE Power.

Timeline and Penalty:

- i. The selected RPG shall commission the solar power plant within 15 months from date of issuance of LoA.
- ii. The DISCOM is obliged to purchase power from the commissioned REPP even in case of early commissioning.
- iii. A duly constituted Committee of DISCOM officials will physically inspect the Plant in not more than 03 days from the date of receiving a call from the RPG and certify successful commissioning of the plant.
- iv. In case any RPG fails to achieve this milestone, DISCOM shall encash the Performance Bank Guarantee (PBG) in the following manner:
 - (a) Delay up to six months – The PBG on per day basis and proportionate to the balance capacity not commissioned.
 - (b) In case the commissioning of the solar power plant is delayed over six months, the PPA capacity shall stand reduced / amended to the Project capacity commissioned at the end of six month from scheduled commissioning Date.
- v. In case of delays of plant commissioning due to the reasons beyond the control of the RPG, DISCOM after having satisfied with documentary evidences produced by the RPG for the purpose, can extend the time for commissioning date without any financial implications to the RPG.

Quality Control, Monitoring and Maintenance:

- i. In order to ensure only quality systems are installed, prevailing MNRE/BIS specifications and quality control orders applicable for solar modules, inverters, Balance of System (BoS) and other equipment shall be followed. These shall be monitored by State Implementing Agency (SIA) periodically.
- ii. The SIA would be responsible for ensuring Quality Control, proper maintenance and monitoring of REPPs.
- iii. SIA may assign technical consultants to assist farmers with the preparation of DPR and financial models who could also provide capacity building and guidance on the best practices of system installation and O&M.

Roles and responsibilities of stakeholders:

1) Ministry of New and Renewable Energy

- i. MNRE will provide Procurement Based Incentive (PBI) to the DISCOMs @ 40 paise/kWh or Rs.6.60 lakhs/MW/year, whichever is lower, for buying solar/ other renewable power under this scheme.
- ii. The PBI will be given to the DISCOMs for a period of five years from the Commercial Operation Date of the plant. Therefore, the maximum PBI that shall be payable to DISCOMs will be Rs. 33 Lakh per MW for the entire period.

2) DISCOMs

- i. The DISCOMs/SIAs shall aggregate the demand and send their proposal for sanction under the scheme along with details on their readiness to implement the Component A of the scheme, to MNRE.
- ii. Implementing Agencies will ensure transparency & objectivity in allocating capacity.
- iii. The DISCOMs will ensure “must-run” status to the solar/ other renewable power plants installed under this scheme and will keep the feeders ‘ON’ during sunshine hours of a day.
- iv. DISCOM shall act as facilitator to the beneficiaries in implementation of this scheme. In case RPG has taken land from a farmer/group of farmers on lease for the project, the amount of

monthly lease rent would be paid by the DISCOMs to the lessor directly in his/her bank account before 5th day of the month following the month for which the lease rent is due. In such a case, the lease rent paid by the DISCOM will be deducted from monthly payment due to the RPG.

3) State Implementing Agency (SIA) :

- i. SIA will coordinate with State, DISCOM and farmers for implementation of the scheme.
- ii. SIA will assist the farmers in project development activities including formulation of DPR, PPA/EPC contracts, getting funds from financial institutions, etc.
- iii. SIAs will provide the handholding support required by farmers/developers, like availing financing from banks, etc. It will also coordinate with District Authorities for ease of implementation.
- iv. A State level Committee under the chairmanship of Principal Secretary (Renewable Energy/Energy) will be setup by the participating SIA of that State. The committee will be responsible for settlement of any issues arising during selection of solar/ other renewable energy based power plants and their implementation.
- v. SIA will be responsible for coordinating/organizing the quarterly meetings of the State Level Committee.
- vi. SIAs shall ensure publicity of the scheme and create awareness through advertisements etc, and monitor the implementation of the scheme.
- vii. The SIA will be eligible to get service charge of Rs. 0.25 Lakh per MW after commissioning of the projects.

4) Renewable Power Generator (RPG) :

- i. RPG will be responsible for signing PPA and installing the plant as per provisions of scheme guidelines.
- ii. RPG must adhere to applicable rules and regulations and make necessary compliances towards proper commissioning and operation of the plant during the PPA period.

**Objections/Suggestions/Comments of Stakeholders, Replies of TG
Discoms and Commission's Analysis and Findings**

29. The following is the analysis of the objections/suggestions of the stakeholders who have given in writing or submitted orally and the Commission's view in the matter of proposals of TGDISCOMs for procurement of 4000 MW (inclusive of 1000 MW capacity for Women SHGs under INDIRA MAHILA SHAKTI SCHEME) decentralized Ground Mounted Grid-Connected solar power for a period of 25 years from the Commercial Operation Date (COD) under Component-A of PM KUSUM Scheme of MNRE along with draft Expression of Interest (EoI), Model Power Purchase Agreement (PPA) & Model Lease Agreement.

CAPACITY ALLOCATED UNDER KUSUM COMPONENT-A

Stakeholder's Submissions

30. The stakeholders have submitted that though originally MNRE has sanctioned 4000 MW under KUSUM Component-A to Telangana on 20.06.2024, as per the State wise approval details, available on the KUSUM website of MNRE and also as per MNRE order dated 31.01.2025, the revised approved capacity for Telangana under KUSUM Component-A is 1000MW. One of the stakeholders have sought clarification as to how and whom the petitioner is going to allot the 1000 MW in case the MNRE does not accept the revision from 1000 MW to 4000 MW.
31. One of the stakeholders has submitted that there are many new challenges in the proposed scheme such as SHGs (Self Help Groups) and farmer associations and that few acres of land parcels have to be identified at multiple locations and that total land required for 4000 MW would be around 20,000 acres. The stakeholder has submitted that the petition does not disclose availability of land near substations and that Substation-wise feasibility assessment has not been carried out by the Discoms and after the commissioning, the O&M eco-system has to be set up and stabilised. It is further suggested that a phased approach to implement this scheme be considered wherein after first phase (say 50 MW of SHG based and 100 MW of other), the lessons learned could be used in the next phase and that substations for the first phase could be prioritised using a variety of factors such as land availability, spare capacity, power supply reliability etc.

Responsibility for land leasing is now with the developers. The stakeholder has also suggested that the State government could consider land pooling and making arrangements for land leasing. Such arrangements could be tried and stabilised during the first phase.

Petitioner's Replies

32. The TGDIs have submitted that MNRE had initially allocated 4000 MW capacity to Telangana under KUSUM Component-A in June 2024 however, this allocation was subsequently revised to 1000 MW by the end of January, 2025. By that time the State had already invited Expressions of Interest (EoIs) from eligible applicants for the full 4000 MW capacity, with detailed notification issued for identified substations across the State and that the State Government is actively pursuing with MNRE for the restoration of the original allocation of 4000 MW under Component-A.
33. It is further submitted that the State has consciously decided to adopt a distributed generation model under KUSUM Component-A, primarily in view of prevailing land constraints as this scheme encourages utilization of small, scattered land parcels either owned or leased by farmers, it helps to overcome the typical challenges associated with large scale land acquisition.

Commission's Analysis and Findings

34. One of the stakeholders has submitted that there are certain challenges in the proposed scheme such as SHGs and farmer associations who do not have experience in entrepreneurship are being involved and that few acres of land parcels have to be identified at multiple locations and that total land required for 4000 MW would be around 20,000 acres. It is true that the TGDIs have to confront with SHG, small farmers and farmer associations as some of them have own lands and some of them have taken the land on lease. There are different business models which have emerged posing various challenges to the TGDIs and TGREDCO during the course of execution of the scheme. Hence, the TGDIs and TGREDCO are directed to study the challenges involved in the implementation of the scheme in other States for successful implementation of the scheme in the State.
35. Originally the TGREDCO has invited Expression of Interest for 4000 MW under the scheme but ultimately MNRE has reduced the capacity to 1000 MW from 4000 MW. Most of the stakeholders have sought clarification as to

how the TGDIs will allot 1000 MW in case if the MNRE denies the restoration of allocation of capacity from 1000 MW to 4000 MW. The concerns of the stakeholders are very genuine.

36. The learned CMD of TGSPDCL while replying to this issue has submitted that there is huge response to the invitation of EoI from the farmers thereby they are making all out efforts to see that MNRE restores back the 4000 MW to the Telangana. He has also added that in case if MNRE is not coming forward to restore 4000 MW under component-A, the State government may consider ways and means to accommodate rest of the allocation of 3000 MW in favour of eligible farmers, subject to the approval of policy by the Government.
37. As per the MNRE portal, the total sanctioned capacity for all States, under KUSUM Component-A is 10,000 MW however as of now the installed capacity is only 563.48 MW, thereby the TGDIs are confident that they will be able to persuade the MNRE in getting the approval of entire 4000 MW
38. Considering all the above, the Commission deems it fit to accord consent for 4000 MW instead of phased manner in anticipation of MNRE restoring the allocation to 4000 MW.

CAPACITY ALLOCATION UNDER KUSUM B & C AND COMPARISON OF BENEFITS

Stakeholder's submissions

39. One of the stakeholders have submitted that no capacity is approved under KUSUM Component-B (off grid pumps) and that under KUSUM Component-C (pump set solarisation) 28,000 pump sets are sanctioned, and nothing is sanctioned under feeder solarisation and sought clarification on the capacity approved under B and C for Telangana.
40. Other stakeholder has requested the Commission to examine the three components of KUSUM scheme and determine which is more beneficial and give appropriate direction to the TGDIs and a piece of advice to the State Government.

Petitioner's Replies

41. TGDIs have submitted that an allocation of 28,000 individual pump sets has been sanctioned for Telangana under Component -C. But, so far as Component-B (off-grid solar pumps) is concerned as of now there is no allocation to the State and that the State Government is actively pursuing

with MNRE for allocations under Component-B to enable comprehensive implementation of the KUSUM scheme in Telangana.

Commission's Analysis and Findings

42. The Commission has taken note of the fact that so far there is no allocation under Component-B for the State of Telangana. However, the present petition is for consent of procurement under component A and hence the discussion is limited to component A only. This Commission hopes that the TGDISCOMs will continue their efforts in respect of allotment of Component-B as well and report the developments to the Commission.

SURPLUS POWER

Stakeholder's submissions

43. Many stakeholders have vehemently encountered the proposal of TGDISCOMs to procure 4000 MW on the ground that the power is available more than the demand and that any addition to the existing capacity by the TGDISCOMs will ultimately end up paying huge amounts to the generators which will affect the consumers adversely. According to them the TGDISCOMs have projected a 30% power surplus (28,504 MU) for current financial year, yet proposed to add 4000 MW solar, generating 6,656 MU annually. This solar addition could increase surplus, especially as solar cannot meet evening or morning peaks, leading to thermal backing down and burden of fixed charges. Approved projections show continued surplus till FY 2028-29, except for a minor deficit in that year. The TGDISCOMs have not explained whether there will be deficit of power during the day time to meet demand, if the proposed 4000 MW solar is not purchased till FY 2028-29.
44. Stakeholders have further submitted that, as per the resource adequacy report of the CEA, availability of surplus power during the 5th control period is very much lesser than what is determined by the Commission for the same period. But the factual position for the FY 2024-25 confirms that the projections of the CEA under Electric Power Survey have turned out to be unrealistic. It confirms the need for reviewing and revising the projections periodically based on changing factual position.
45. The stakeholder has suggested that it is advisable to take into account estimates approved by the Commission for Resource Plans of 5th and 6th control periods while planning RE/solar power capacity additions.

Petitioner's Replies

46. TGDISCOMs have submitted that though they are able to meet the energy requirement, there is still a need for power procurement to meet the peak power requirement during certain hours. The actual power purchased for FY 2024-25 is 86,823 MUs. The State of Telangana has been witnessing high peak demand during day time. The actual power purchased by the State in FY 24 was 86,823 MUs, surpassing the projected requirement for FY25 as per the resource plan. Regarding CEA projections, the TGDISCOMs submitted that for FY 25, a peak demand of 17,162 MW was successfully met by TGDISCOMs as against the projected CEA peak demand of 16,877 MW. The projected load growth is reflective of the increasing demand in the State of Telangana.

Commission's Analysis and Findings

47. As submitted by TGDIscoms short term fluctuations in demand and supply within 15-minute time block may lead to instances of temporary surplus or deficit power. It is essential to consider the broader context of energy demand and supply dynamics. Even though the TGDISCOMs have projected surplus, the variability of demand due to seasonal changes and unforeseen circumstances can render these projections unreliable. Relying solely on surplus figures without accounting for potential spikes in demand could lead to energy shortages, which would ultimately harm consumers more than fixed charges would. Fixed charges associated with the PPA can be viewed as a form of insurance against future shortfalls. It is crucial to ensure energy stability, which sometimes necessitates maintaining capacity even when not fully utilized. The long-term benefits of reliability and stability in energy supply may outweigh the short-term costs, providing consumers with assurance and preventing potential financial losses from outages or insufficient supply.
48. This Commission is also conscious of the fact that the Government of India is party to the Paris Agreement and has committed to achieve net zero by 2070. Similarly, the Government of India also aims at sourcing 50% of its energy requirement by the way of renewable energy by 2030. Therefore, in order to reach the set targets the Integration of renewable energy is required. This Commission has noted the comments of some of the stakeholders that irrespective of commitments of Government of India in international forums,

the procurement of power shall be only in the interest of the consumers and not otherwise.

49. Recently TGGENCO has issued tenders, which are about to be finalised, for 500 MW of Battery Energy Storage System. Once it is finalised, the TGGENCO will have 500 MW of storage facility. According to TGGENCO and TGDIscoms the excess energy available through solar will be stored in the Battery Energy Storage System and will use the same in peak hours thereby TGDIsCOMs will save lot of money on account of not purchasing part of peak demand power from open market for higher price.
50. Further, the issue of whether CEA projections have to be taken into consideration or the projections made by this Commission in the resource plan is not the issue to be considered at this point of time. The statistics shows that the demand in this State is going to increase leaps and bounds. These PPAs will remain for 25 years. The Variable cost of thermal power is increasing day by day. In contrary, the energy charges through solar is static and likely to decrease. Thereby considering from many angles though it appears that the State has got excess power, still keeping in view of future needs, this Commission is of the opinion that permitting the TGDIscoms to go ahead with this 4000 MW is not unjustified.

RPPO COMPLIANCE

Stakeholder's submissions

51. As per the information furnished by the TGDIsCOMs, they have exceeded their obligations to purchase RE as per RPPO order in force by almost 100% during the last three years, achieved 15.08% against target of 8.50% for FY 2022-23, 17.96% against 9.25% and 18.28% against 10.50% for FY 2023-24. Even with continuation of purchase of RE as per the PPAs in force as of now, the TGDIsCOMs can achieve the targets fixed by the Commission in the RPPO order of 11.75% for FY 2025-26 and 13% for FY 2026-27. Though the TGDIsCOMs have claimed that, with the demand growing approximately at 10% annually, it would be difficult for them to comply with RPPO targets specified by the Commission, they have not substantiated their claim.
52. The targets notified by the MoP for purchase of RE under RPO, under Energy Conservation Act, are abnormal, starting with 29.91% for FY 2024-25 and ending with 43.33% for FY 2029-30. Adoption and implementation of such whimsical targets would lead to disastrous consequences much to the

detriment of the interests of the TGDISCOMs and their consumers. MoP used to make it clear that its proposals for RPO were guidelines only and that it was for the SERCs to determine the targets under RPO. It is because conditions are different in different States in terms of requirement of power, opportunities for developing RE, etc. It implies that uniform targets under RPO cannot be imposed on the States. Fixing targets under RPPO is within the regulatory jurisdiction of the Commission. The powers conferred on the Commission under Electricity Act, 2003, cannot be taken away by the orders or notifications of the Central and State Governments, in so far as they are inconsistent with the Act, Energy Conservation Act cannot override EA, 2003. The notification issued by MoP fixing targets under RPO under Energy Conservation Act, is not binding on the Commission and the TGDISCOMs.

- 53.** In its order dated 20.12.2024, the Hon'ble High Court of Karnataka, in WP No.11235 of 2024 and others, has asserted that "if the Parliament made a law specifically conferring power on the Regulator to frame Regulations which governed every aspect of open access, it is inconceivable that the Central Government can side-step the requirement of the Parliament enacting law in that regard and straight away proceed to frame the impugned Rules.
- 54.** RPPO order issued by the Commission fixes minimum target of purchase of RE by the TGDISCOMs. It does not prohibit the DISCOMs from purchasing RE more than the minimum target and getting consent of the Commission. That the TGDISCOMs are taking shelter under the notification issued by MoP, under Energy Conservation Act, fixing targets for RPO, indicates that it is difficult for them to justify their proposal, of course, at the behest of the State government, to purchase the proposed 4000 MW solar power.
- 55.** The apprehension of the TGDISCOMs that, if they do not follow the notification of MNRE , for purchasing RE, additional penalty would be imposed on the DISCOMs up to Rs.3.72 per unit of shortfall in meeting the RE consumption norm, as conveyed in its letter dated 01.02.2024, is unwarranted.
- 56.** Another stakeholder has submitted that misinterpretation of MoP Notification Dated 20.10.2023 TGDISCOMs have cited Renewable Purchase Obligation (RPO) targets from the Ministry of Power's (MoP) notification dated 20.10.2023 as the notification is not applicable to distribution licensees. It

specifically pertains to designated consumers under Sections 14(n) and 14(x) of the Energy Conservation Act, 2001, and hence, cannot be used as a binding basis to justify obligations on TGDISCOMs. The projected RPO compliance cost of Rs. 3.72/unit claimed by TGDISCOMs is grossly exaggerated and not reflective of actual market trends.

Petitioner's Replies

57. The TGDISCOMs have submitted that the State of Telangana has been witnessing robust growth due to the progressive policy and economic environment in the State. Similar growth trajectory is expected in the coming years and the TGDISCOMs have planned capacity additions to meet the growing demand. In view of this ground reality of higher growth, TGDISCOMs have to plan in advance and necessary measures have been initiated including capacity addition under KUSUM Component-A.
58. The TGDISCOMs have submitted that under Energy Conservation Act , 1 TOE = 11,630 kWh, Value of 1 TOE = INR 21,650 (as per MoP Gazette Notification dated 26th Dec 2023). Penalty for 1 unit of RPO = $2 \times \text{INR } 21,650 / 11,630 \text{ kWh} = \text{INR } 3.72 / \text{unit}$. That under the energy conservation Act, a penalty of INR 3.72/ unit imposed for not complying with RPO and not the cost of REC.
59. Other pertinent point that needs to be considered is that the market for REC is not sufficiently mature. Since Jan 24 till the last trading session of RECs, the price of REC has varied between INR 110/REC to INR 350/REC. The clearance volume in the trading sessions varies significantly and the lowest REC volume cleared was 23,644 RECs. In view of these factors, depending completely on REC market for meeting RPO targets is prone to risks of higher cost/ non-clearance at the desired price point. REC market can be used as a supplemental measure for meeting RPO and cannot be 100% dependent on RECs in view of the points mentioned above. As the market for RECs matures, all the stakeholders including the TGDISCOMs stand to benefit.

Commission's Analysis and Findings

60. As per the relevant provisions of the Tariff Policy, 2016 as notified by the Government of India and under the provisions of Section 86(1)(e) of the Electricity Act, 2003 the appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution

licensee for purchase of energy from renewable energy sources, taking into account availability of such resources and its impact on retail tariffs. Cost of purchase of renewable energy shall be taken into account while determining tariff by SERCs. As per the above provisions, the Commission has fixed RPPO targets vide Regulation No. 7 of 2022.

61. The Commission has recorded the concerns of the stakeholders that MoP targets for purchase of renewable energy is much more than the RPPO targets fixed by the Commission under Regulation No. 7 of 2022. The stakeholders as well as the petitioners have submitted that the TGDIs are bound by the regulations of this Commission and the obligations of MNRE under Energy Conservation Act are only guidelines.
62. The question whether the RPPO targets fixed by MNRE under Energy Conservation Act are binding on the TGDIs and whether MNRE can impose penalty on TGDIs for not following the directions is a debatable aspect. However, this Commission is not in agreement with one of the stakeholders who have submitted that even as per the Energy Conservation Act, TGDIs are not obligated entities. In any case the targets fixed by the Commission under Regulation No. 7 of 2022 or targets fixed by GoI under Energy Conservation Act only guide the TGDIs to see that more and more renewable energy is integrated into the system which ultimately will be helpful in reducing use of the thermal energy so that carbon emission will get reduced. Whether there are targets or not, the TGDIs shall make all the efforts to see that the renewable energy integration is increased year by year. However as rightly submitted by stakeholders, while taking various steps for integration of renewable energy, the interest of the consumers must be taken into consideration, so that common consumers are not affected adversely. Therefore, keeping in view of totality of the circumstances this Commission is of the view that the efforts being made by TGDIs in integrating the renewable energy can be encouraged.

LEVELIZED TARIFF FOR KUSUM COMPONENT A

Stakeholder's submissions

63. The stakeholders have submitted that the tariff of Rs.3.13 per unit of solar power to be purchased by the TGDIs under KUSUM scheme fixed by the Commission on 02.01.2021 is outdated and selecting beneficiaries for setting up solar power units based on such unwarranted tariff is an unhealthy

practice and stated further that the TGDISCOMs have also maintained that they would approach the Commission for adoption of tariff, before they enter into PPAs. It is further submitted that the Commission is requested to direct the TGDISCOMs to go in for competitive bidding to select prospective beneficiaries based on the lowest tariffs quoted by them. Or, the Commission may determine tariff, taking into account the latest lowest tariff for solar power discovered in the country through competitive biddings so far, as far as component A of PM KUSUM scheme is concerned. Since the beneficiaries are self-help groups of women, the Commission may consider addition of ten per cent to the said lowest tariff with a view to encouraging such groups and helping them to earn some income.

64. Another stakeholder has mentioned about significant changes which impacted project costs since 02-01-2021, such as INR depreciation (from Rs.73.2/USD in Jan 2021 to Rs. 86.8/USD currently), steep fluctuations in module prices and shipping costs post-COVID, rising interest rates and financing challenges. As of October 2021 the GST rate on solar modules and related components was increased from 5% to 12%, imposition of Approved list of Module Manufacturers by MNRE and import duty changes. Hence, the tariff fixed in early 2021 is no longer reflective of the current market realities and is therefore not appropriate basis for inviting fresh EoIs. A revised and updated tariff determination exercise is essential to ensure that the scheme remains attractive and bankable for prospective farmers, Self Help Groups (SHGs), and developers. Moreover, considering the sunset clause for KUSUM Component-A ending in March 2026, the current approach imposes an impractical timeline. It poses a significant execution risk for stakeholders, especially when tariff certainty is lacking and project planning must accommodate upcoming monsoon seasons and global procurement uncertainties. A timely revision of the tariff structure will not only improve project viability but also enhances the scheme's implementation success within the remaining timeframe.
65. One of the stakeholders submitted that the Rajasthan Electricity Regulatory Commission (RERC) has recently issued a tariff order on 25.03.2025, fixing the tariff at Rs. 3.04/unit for PM-KUSUM projects. Rajasthan, however, has significantly higher solar radiation (5.5 to 6.2 kWh/m²/day) compared to Telangana's 5.0 to 5.5 kWh/m²/day. Based on a 10% irradiation adjustment,

a fair tariff for Telangana would be Rs. 3.04 + 10% = Rs. 3.34/unit, which is higher than the currently proposed Rs. 3.13/unit. This supports the earlier request to revise the tariff upward for Telangana. Even with the Rs. 3.13/unit tariff, the calculations show that farmers face a payback period of 14-15 years on their solar investments. Given that PM-KUSUM Component-A does not offer upfront subsidies to farmers, this long payback period is not attractive enough to encourage wide participation.

66. The stakeholder has submitted that, the Commission has considered the interest on long term loan at 10 % while determining the Levelized tariff for KUSUM Component-A, but most banks are currently quoting interest rates exceeding 11%, especially when CGTMSE charges are factored in and suggested for revisiting the assumption.

Petitioner's Replies

67. Competitive bidding is not mandatory under the KUSUM Component-A scheme. However, in instances where the number of eligible applications received exceeds the notified capacity at a particular substation, a transparent selection process becomes unavoidable. In such cases, competitive bidding may be adopted to ensure fairness and adherence to scheme guidelines.
68. The TGDIsCom in the petition has submitted that the solar power generated under this initiative will be purchased by TGDISCOMs at a prefixed Levelized tariff as approved by the Commission at Rs.3.13/kWh in its order dated 02.01.2021. However, a fresh acceptance will be obtained from the Commission by the TGDISCOMs towards tariff determination.
69. The petitioner further submitted that the proposed tariff of Rs. 3.13/kWh was determined based on the prevailing market rates of panels and other materials for solar power, assuming a project cost of Rs. 3.6 Crores, during the year 2021. With advancements in technology, the cost of solar panels has decreased, and their efficiency has increased. However, TGDISCOMs will adhere to the price determined by the TGERC.
70. The petitioner submitted that assumption of interest on loan at 10% in Tariff order is under purview of the Commission

Commission's Analysis and Findings

71. The Commission is confronted with diametrically opposite views from the stakeholders, one for increasing the prefixed levelized tariff from Rs.3.13

/kWh and the other to decrease it, by quoting various reasons. The stakeholders who have batted for increasing the tariff have submitted that there is significant change in project cost and Rupee has become weak when compared to US\$. But others have argued that the costs of Photo Voltaic Cells have come down there by the tariff has to be reduced.

72. This Commission is conscious of the fact that the scheme has been developed in order to encourage small farmers to become entrepreneurs. They will get integrated into the system of electricity production and help for integration of renewable energy. The farmers who have come forward to generate electricity required to spend huge money towards investment for establishment of plant but also for erecting the transmission lines from the point of generation to the Substation and also require to spend money to engage technicians, pay interest to banks towards the loan borrowed for investment etc.
73. The Commission has determined prefixed levelized tariff at Rs. 3.13/kWh in order dated 02.01.2021 in O.P. No. 24 of 2020. The implementing agency has invited Eols on the basis of the prefixed levelized tariff at Rs. 3.13/kWh. The applicants must have given their Expression of Interest to install solar plant as they will get Rs 3.13/kWh. If at this stage this Commission alters the tariff it may upset either of the parties. Therefore, the Commission deems it fit not to revise the tariff at this stage and as of now the prefixed levelized tariff of Rs.3.13 /kWh stands continued.

METHODOLOGY FOR SUB-STATION-WISE (S-S WISE) CAPACITY ALLOCATION

Stakeholder's submissions

74. Stakeholders have submitted that, the methodology adopted by the TGDISCOMs in identifying and notifying sub-station-wise capacities under the KUSUM scheme is inefficient, sub-optimal, and technically flawed. Currently, TGDISCOMs have proposed to use the existing transformer capacity and the connected solar capacity on the 11 kV side of 33/11 kV sub-stations as the basis for capacity allocation. This simplistic approach aims at reducing network losses fails to account for the dynamic nature of load profiles and solar generation.
75. Stakeholders have quoted the example that a 33/11 kV sub-station with a 10 MW transformer and a connected 10 MW solar plant at the 33 kV level is still being allocated an additional 6 MW of solar capacity under the scheme. In

such a case, where the local load is already saturated, the new generation will be injected upstream into the grid, causing reverse power flow and a high risk of feeder tripping or transformer overload. This risks grid reliability and undermines the core objective of distributed solar local generation for local consumption.

76. Further Stakeholders have submitted that, States like Rajasthan, Gujarat and Andhra Pradesh have adopted a more holistic and technically sound approach. Instead of basing allocations solely on transformer ratings, they analyse the hourly load curves of each sub-station and match them with typical solar generation profiles to determine net local-absorbing capacity. This approach ensures that optimal absorption of generated power within the local distribution network, minimal reverse power flow, enhanced grid stability and efficient transformer utilization.

Petitioner's Replies

77. The TGDISCOMs have submitted that, network strengthening works would be undertaken as per the resource plan approved by the Commission. This would allay any concerns on the adequacy of the network in meeting the demand as well as to absorb solar generation.

Commission's Analysis and Findings

78. This Commission is in agreement with the concerns expressed by the stakeholders that certain States like AP, Rajasthan, Gujarat have taken holistic and technically sound approach by analysing the hourly load curves of each of the substations and matching them with the solar generation profiles connected to the substations. However, the learned CMD has replied that once the selection process is over and after the SPGs (Solar Power Generators) are identified based on the documents submitted, the TGDISCOMs will also identify net local absorption capacity and will take all relevant steps to strengthen the network so that grid stability and security is maintained. Therefore, the TGDISCOMs are directed to inform the Commission, the steps taken for optimal absorption of generated power within the local distribution network, minimal reverse power flow, enhanced grid stability and efficient transformer utilization.

POWER PURCHASE AGREEMENT (PPA)

The concerns expressed by some of the stakeholders including farmers in respect of some of the clauses of draft model PPA, replies of TGDIs and views of the Commission are as under:

A. LIMITED TIMELINES AND IMPLEMENTATION FEASIBILITY

Stakeholder's submissions

Stakeholders have submitted that the proposed commissioning deadline of December 2025 is unrealistic as solar projects typically require 15–18 months post signing of PPA, farmers and SHGs require more handholding. The stakeholders have requested to seek MNRE extension to avoid rushed execution and implementation failures.

Petitioner's Replies

79. The petitioner has replied that MNRE, has stipulated the scheme duration up to 31.03.2026 applicable across the country which is already an extended timeline and MNRE is also preparing for the launch of KUSUM Scheme Phase-II. In order to ensure timely submission of all necessary data and progress reports within the stipulated period, the commissioning deadline has been set as 31.12.2025. The internal milestones are intended to facilitate smooth implementation and alignment with the overall scheme objectives and timelines.

Commission's Analysis and Findings

80. The Commission has considered the concerns of the stakeholders that in order to complete the solar project, it takes 15-18 months. However, in the proposed KUSUM scheme component-A, the deadline for completion of the project is 31.12.2025 which according to them is unrealistic. However, the TGDIs have submitted that the MNRE is in process of declaring 2nd phase of KUSUM Scheme and that the deadline for execution of the scheme is not in the purview of TGDIs. However, keeping in view of the issue of delay in identifying the Solar Power Generators and other issues, the TGDIs are directed to consider the request of the stakeholders sympathetically to cooperate for either early completion of project or seek for extension from MNRE.

B. INCOME TAX REIMBURSEMENT

Stakeholder's submissions

81. The stakeholders have submitted that normally the tariff assumes income tax reimbursement, the draft PPA has no such clause and have requested for explicit inclusion in the final PPA.

Petitioner's Replies

82. The PPA was drafted in line with MNRE Model PPA, so the particular clause was not specifically mentioned. Inclusion in the PPA will be done as per Commission's instructions.

Commission's Analysis and Findings

83. This Commission while fixing levelized tariff in O.P. No. 24 of 2020 has specifically mentioned at paragraph 68 that the TGDIs are required to reimburse the income tax paid by the SPG on submission of challans and this order has become final. This Commission has taken into consideration that normally the income tax paid by the SPGs will be reimbursed by the TGDIs. In case if the TGDIs are not going to reimburse the income tax, the levelized tariff fixed at Rs. 3.13 /kWh may not be sufficient. Therefore, keeping in view of the earlier orders in O. P. NO. 24 of 2020 of the Commission, the TGDIs are hereby directed to reimburse the Income Tax paid by the SPG on submission of challan.

C. CONSISTENCY IN TERMINOLOGY

Stakeholder's submissions

84. It is the complaint of the stakeholders that in the draft PPA, the terms "Solar Power Developer (SPD)" and "Solar Power Generator (SPG)" are used interchangeably and causing confusion for the stakeholders, as both terms could be interpreted in different ways depending on the context. Thereby to ensure clarity and avoid ambiguity, stakeholders strongly recommended that the document consistently uses the term "SPG" (Solar Power Generator) throughout the entire document. This will help to streamline communication and avoid potential confusion for stakeholders, such as developers, financiers, and regulators.

Petitioner's Replies

85. Both the terms Solar Power Developer (SPD) and Solar Power Generator (SPG) mean the same. "Solar Power Developer" in the PPA, may also be

considered as “Solar Power Generator”. However, the same will be corrected in PPA as Solar Power Generator (SPG).

Commission’s Analysis and Findings

86. The Commission has noted the issues with regard to terminology of solar developers as SPD and sometimes SPG and hopes that while executing the PPA, the TGDISCOMs will follow uniform pattern in terminology as Solar Power Generator (SPG).

D. CAPACITY UTILISATION FACTOR (CUF)

Stakeholder’s submissions

87. Capacity Utilization Factor CUF of 19% (equal to ~16.64 lakh units/MW/year) is unachievable in Telangana without DC overloading. Achieving this would increase capital cost. Stakeholders requested for either a lower CUF assumption or a higher tariff than Rs. 3.13/unit to ensure viability.
88. The draft PPA defines the Capacity Utilization Factor (CUF) based on DC (kWp) capacity, which is impractical and unrealistic in Telangana. Given the local climatic and operational conditions, achieving a CUF of 19% based on DC capacity would require significant overloading of the system, leading to potential technical and financial challenges.
89. Stakeholders submitted that that the definition of CUF be revised to align with more practical conditions and the standard approach used by regulatory bodies. Specifically, CUF should be calculated based on AC (kW) capacity instead of DC (kWp) capacity, which reflects the actual output that can be delivered to the grid. The CUF should be calculated as : $CUF = (\text{Cumulative Energy Output (in kWh)}) / (\text{Installed AC Capacity (in kW)} \times 24 \times 365)$. This method aligns with practical field conditions, CERC guidelines, and the PPA definition of Project Capacity (which is based on AC output at the delivery point).
90. The current draft mandates a minimum CUF of 19%, with a $\pm 10\%$ variation. This target is extremely stringent, especially in the Telangana region, where solar radiation levels are not as high as in States like Rajasthan or Gujarat. Achieving this CUF would necessitate additional capital expenditure due to the need for larger than necessary solar module installations.
91. Given the challenges of meeting such a high CUF target, Stakeholders proposed that the minimum CUF requirement be reduced to 17%. This would allow for a more realistic and financially viable expectation, considering:

- a) Seasonal Fluctuations: weather-related variations, such as cloudy periods, impact solar generation, which is beyond the control of the SPG.
 - b) Module Degradation: The performance of solar modules degrades over time, typically by around 2% in the first year and 0.5%–0.6% per year thereafter. This degradation needs to be factored into CUF expectations.
 - c) Overdesign of Early Years: Developers often overdesign their systems in the initial years to mitigate the impact of degradation and variability, but this comes with a cost.
92. The Stakeholder requested to : a) Revise CUF obligation to 15%, as prescribed by MNRE. b) Remove penalties for under-generation or excess generation. c) Encourage farmer participation by keeping provisions flexible, in line with national policy.
93. A penalty of 25% for CUF shortfall is overly punitive, especially considering the variability in solar generation due to factors like weather, seasonal changes, and module degradation. Moreover, the treatment of excess generation as “inadvertent” and not compensated dis-incentivizes SPGs from achieving greater efficiency. Stakeholders have recommended the following revisions to ensure fairness and promote efficiency:
- a) Excess Generation: Allow for excess generation up to +20% of the contracted CUF, instead of the current +10%, to encourage SPGs to generate as much power as possible without being penalized.
 - b) Shortfall Penalty: Reduce the minimum CUF requirement to 17%, or waive or soften shortfall penalties during the initial years to account for startup challenges.
 - c) Efficiency Incentive: Consider introducing incentives for SPGs that consistently exceed their CUF target, thereby encouraging optimal performance.

Petitioner's Replies

94. The Petitioner submitted that the CUF of 19% is considered as per the TGERC order dated 23.09.2021 for which the tariff was fixed by TGERC as Rs. 3.13 /kWh.
95. In terms of section 61(a) of the Electricity Act, 2003, the principles and methodologies specified by CERC shall be guiding and are not mandatory.

As per the Scheme guidelines, the TGDISCOMs would be eligible to get PBI of Rs. 0.04 /kWh or Rs. 6.6 lakh per MW of capacity installed, whichever is less for a period of 5 years from COD. The saleable energy computed considering the amount of Rs. 6.6 lakh for 1 MW capacity at the per unit value of Rs. 0.40/kWh works out to CUF of 19%. Further, the guidelines dated 04.12.2020 issued for component C specifies the average CUF of 19%.

96. Standard formula of CUF was mentioned in the PPA. However, the solar power generator may install additional panels to meet the desired CUF. The CUF of 19% is considered as per the TGERC order dated 23.09.2021. 25% penalty was taken as per MNRE Model PPA.

Commission's Analysis and Findings

97. In respect of the Capacity Utilisation Factor (CUF) many stakeholders have raised the concern stating that the solar production units / plants in our State may not achieve 19% of CUF for various reasons. This Commission at this point of time is not inclined to go into details of reasons for not achieving 19% CUF in our State when compared to other States. However, this Commission is conscious of the fact that the levelized tariff has been fixed by this Commission at the rate of Rs. 3.13 /kWh on 02.01.2021. While fixing the levelized tariff this Commission has taken into consideration 19% CUF as normative and arrived at pre fixed levelized tariff of Rs. 3.13/kWh. Therefore, in case if this Commission alters CUF from 19% consequently, the pre fixed levelized tariff also requires to be meddled with. This Commission is conscious of the fact that under KUSUM Component-A most of the small farmers have come forward to become entrepreneurs and if the project is not economically viable, they get discouraged. Therefore, while advising the TGDISCOMs to consider this aspect sympathetically, this Commission is not in a position to intervene since the CUF percentage determined by this Commission earlier is reflected in the draft PPA. The Commission directs the TGDISCOMs to study the issue immediately and if really the concerns of the stakeholders are correct, the TGDISCOMs shall come forward with an amendment to the PPA to reduce the CUF to mutually agreeable realistic level.

E. CLAUSE 16.1 – ASSIGNMENT OF PPA

Stakeholder's submissions

98. The draft PPA prohibits assignment or novation, which limits flexibility for developers from assignment and may hinder financing and partnership opportunities. This is particularly relevant for projects involving multiple stakeholders, such as land owning farmers who may want to involve third-party investors or operators.
99. Stakeholders have recommended that the Commission allows PPA assignment to third parties under certain conditions. This would enable developers to enter into flexible financing arrangements, partnerships, or joint ventures. Stakeholders proposed that any assignment be subject to a facilitation fee or other minor charges to cover administrative costs.

Petitioner's Replies

100. No reply from TGDIsComs.

Commission's Analysis and Findings

101. In respect of assignment of PPA is concerned, while answering the concerns of the stakeholders the VC & MD of TGREDCO has informed that the TGREDCO is considering the issue and will come up with a solution shortly. Therefore, this Commission is not inclined to make any comment. Further the Solar Power Generators have come forward expressing their interest to agree for generation of solar plant under KUSUM Component- A through all the conditions under draft PPA given by the MNRE. The TGREDCO is directed to resolve this issue and come forward with amicable solution and inform the same as SOP or otherwise as quickly as possible.

F. CLARITY IN DEFINITIONS - INSTALLED CAPACITY VS PROJECT CAPACITY VS CONTRACTED CAPACITY

Stakeholder's submissions

102. The terms "Installed Capacity," "Project Capacity," and "Contracted Capacity" are used in various clauses without clear definitions, leading to potential confusion. Misinterpretation of these terms could result in disputes over penalties and incentives.
103. Stakeholders have proposed the following clear definitions for consistency across the document:
- a) Installed Capacity: The nameplate capacity of solar PV modules (DC side).

- b) Project Capacity: The rated output capacity of the inverter (AC side) that can be delivered to the grid.
- c) Contracted Capacity: The maximum AC capacity, in kW, agreed upon between the SPG and the Procurer under the PPA, which will be used for energy accounting, CUF calculations, penalties, and incentives.

Petitioner's Replies

104. Installed Capacity, Project Capacity and Contracted Capacity have been defined in the PPA under Article 1.

Commission's Analysis and Findings

105. One of the stakeholders has raised concerns in respect of not having proper definitions of Installed capacity, projected capacity and contract capacity in various clauses of PPA. However, on going through the terms of the PPA it appears that there is no ambiguity in respect of definitions. TGDIs are directed to look into these aspects for any further clarification and consider the same while executing the PPAs.

G. Clause 10.4 – Auxiliary Consumption from TGDIs **Stakeholder's submissions**

106. The current limit of 0.1% for auxiliary consumption is too restrictive, particularly for larger systems or those with specialized operational needs. This could lead to operational inefficiencies. Stakeholders have submitted to increase the allowable auxiliary consumption up to 1% of the installed capacity annually or clarifying the basis for the 0.1% figure.
107. The stakeholders have suggested the following revision in clause:
Revised Clause: "SPG shall be entitled to draw auxiliary power from the grid up to 1.0% or 1.5% of the Installed Capacity annually. Any excess drawl will be charged as per the prevailing HT-1 tariff, with net drawl assessed on an annual basis."

Petitioner's Replies

108. The proposed clause is incorporated as per the existing Solar PPAs approved by TGERC.

Commission's Analysis and Findings

109. The Commission has considered both the views in respect of auxiliary energy consumption from the TGDIs. The stakeholders wanted this Commission to consider enhancing the limit of 0.1% to 1% or 1.5%. On the

contrary the TGDIsComs have submitted that 0.1% auxiliary consumption mentioned in the PPA is based on the existing solar PPAs approved by this Commission.

110. This Commission has earlier, as rightly submitted by the TGDIsComs, has considered 0.1% of auxiliary consumption, while giving approval to the model solar PPA. However, in so far as this KUSUM Component-A is concerned when the Commission was asked to fix the prefixed levelized tariff has done lot of exercise for arriving at the fair tariff wherein the auxiliary consumption was taken as 0.75%. In case if it is reduced to 0.1% or in case if it is increased to 1%, it will upset the prefixed levelized tariff which was fixed by this Commission at Rs. 3.13/kWh. Therefore, since prefixed levelized tariff is considered at Rs. 3.13/kWh with the auxiliary consumption at 0.75%, this Commission directs both the parties to stick on to 0.75% of auxiliary consumption.

H. GENERATION COMPENSATION

Stakeholder's submissions

111. The stakeholders have pointed out that the draft PPA issued by TGDIsCOMs omits Clause 4.9 from the KUSUM model PPA, which addresses compensation for generation loss due to non-availability of grid. The stakeholders have requested for clarification from TGDIsCOMs on the reason for its removal and their plan for ensuring compensation in such scenarios.
112. There is no clear mechanism for documenting or certifying such non-availability. SPGs should not be penalized for reasons not attributable to them, and there must be a transparent and accountable system for certifying grid outages.
113. Few other stakeholders have requested to direct the TGDIsCOMs to arrange for payment of average production units cost to the SPG.

Petitioner's Replies

114. The petitioner submitted that, proposed plants will be connected at 11 kV level, thereby there will be no possibility of, off take constraints in Transmission voltage level. The Petitioner has also submitted that the information about outages will be available in the control rooms of the respective circles.

Commission's Analysis and Findings

115. This Commission has considered the issue with regard to deletion of clause 4.9 from the MNRE model PPA about generation compensation for off take constraints. It is submitted by stakeholders that they may face generation loss due to non-availability of grid and as per the model PPA agreement clause 4.9 of MNRE, the compensation was to be given by the TGDIs to the generator. However, such clause is deleted by the TGDIs in the model PPA. Therefore, this Commission directs the TGDIs to include clause 4.9 generation compensation for off take constraints as per standard PPA of MNRE in the draft PPA to be entered with the SPG.

I. Clause 10.3: Harmonics under Article-10

Stakeholder's submissions

116. The stakeholders have highlighted that TGDIs are undertaking detailed harmonic testing (voltage harmonics, THD, TDD) even for SPGs under PM-KUSUM, despite these plants being connected at 11 kV alongside agricultural loads which inherently contribute to harmonics.
117. The current testing practice, which measures harmonics only on the SPG feeder, often misattributes distortions caused by other loads to the SPG, leading to disputes. The stakeholders have requested the following:
- Appoint a technical committee to identify actual harmonic sources in mixed-load feeders.
 - Standardize PQT parameters so SPGs aren't held liable for harmonics from non-SPG loads.
 - Define a clear, fair testing protocol for SPGs under PM-KUSUM, aligned with rural grid conditions and CEA standards.
 - Meter testing periodicity: Clarify every 5 years as per CEA.

Petitioner's Replies

118. The Petitioner has submitted with respect to Meter testing periodicity, that the same has been mentioned as per previous solar PPAs which were approved by TGERC.

Commission's Analysis and Findings

119. The Commission after going through the concerns raised by the stakeholders regarding power quality test, directs the TGDIs to evolve standard testing practices as per CEA regulations.

120. During the course of Public Hearing, many stakeholders and SPGs have raised many issues which are not directly connected with the issue relevant to this petition. The learned CMD/TGSPDCL and VC & MD of TGREDCO have also cleared some of the doubts in the Public Hearing. The issues raised by stakeholders, replies given by TGSPDCL/TGREDCO and Directives of this Commission are placed in Annexure-IV of this Order.

121. Summary and Commission's findings

The Commission considered the submissions of the petitioner, objections / suggestions of stakeholders and perused the records available with the Commission. The Commission has drawn the power to pass the orders as sought for by the TGDISCOMs basing on the relevant provisions of Electricity Act, 2003 and Electricity Reforms Act, 1998. The relevant provisions are extracted here under :

Provisions under the Electricity Act, 2003 and Regulations

122. Following are the Regulatory provisions in the matter of approval for consent of arrangement (PPA) for the purchase of electricity by a distribution licensee from any person or Generating Company and determination of tariff by the Commission.

"Section 21 (4) of the Telangana Electricity Reform Act, 1998 (Act 30 of 1998) r/w the Telangana Gazette No.130 dated 1st June, 2016 and G.O.Ms.No.45, Law (F), 1st June, 2016 [Restrictions on licensees and Generating Companies]

(4) A holder of a supply or transmission licence may, unless expressly prohibited by the terms of its licence, enter into arrangements for the purchase of electricity from, -

- (a) the holder of a supply licence which permits the holder of such licence to supply energy to other licensees for distribution by them; and
- (b) the ... any person or Generating Company with the consent of Commission

Section 86 (1) (b) of the Electricity Act, 2003 [Functions of State Commission]

- (b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or

licensees or from other sources through agreements for purchase of power for distribution and supply within the State.

Section 62 (1) (a) of the Electricity Act, 2003 [Determination of Tariff]

- The Appropriate Commission shall determine the tariff in accordance with the provisions of this Act for- (a) supply of electricity by a generating company to a distribution licensee:
.....”

The Commission has considered the following for approval of procurement for 4000 MW (inclusive of 1000 MW capacity for Women SHGs under INDIRA MAHILA SHAKTI SCHEME) decentralized Ground Mounted Grid-Connected solar power for a period of 25 years from the Commercial Operation Date (COD) by TGDISCOMs under Component-A of PM KUSUM Scheme along with Model Power Purchase Agreement (PPA).

- a) To meet the additional demand arising out of load growth, 24x7 reliable and quality power supply to all the categories of supply including agriculture and Lift Irrigation Schemes;
- b) To meet solar RPPO targets set out by the Commission and reduce emissions;
- c) As a part of cost mitigation measures;
- d) Procurement of solar power at 11 kV level under this scheme results in reduction of the power purchase cost as T&D losses are avoided and voltage profile also improves in distributed generation model;
- e) Grid enhancements at higher voltages can be minimized / deferred as the solar power injected at the 11 kV level results in saving in the capital investments by TGDISCOMs;
- f) This scheme creates employment opportunities in installation, maintenance and local operations thus boosting rural economy;
- g) Decentralisation of solar power reduces grid congestion and reduces transmission losses;
- h) The PM KUSUM scheme aims at strengthening the financial status of farmers and development of rural areas.

123. In view of the discussion in the foregoing paragraphs and considering the issues / suggestions / objections / comments of the stakeholders, replies by

the TGDISCOMs and after analysing the KUSUM scheme and the Clean and Green Energy Policy of Government of Telangana, finally keeping in view of the financial health of the TGDISCOMs and interest of the consumers more particularly consumers of marginalised sector :

- A) The Commission hereby accords consent under Section 86 (1) (b) of the Electricity Act, 2003 for i) procurement of 4000 MW (inclusive of 1000 MW capacity for Women SHGs under INDIRA MAHILA SHAKTI SCHEME) decentralized Ground Mounted Grid-Connected solar power for a period of 25 years from the Commercial Operation Date (COD) by TGDISCOMs under Component-A of PM KUSUM Scheme ii) Model PPA.
- B) The PPAs shall be executed as per approved model PPA with modifications as directed in this order duly correcting the typographical errors found in the model PPA as indicated in the **Annexure-V**.
- C) TGDISCOMs are directed to submit copy of the PPA duly executed for record of the Commission.
- D) TGDISCOMs and TGREDSCO shall ensure compliances with all technical, financial and other requirements as per MNRE guidelines.
- E) The TGDISCOMs shall submit quarterly progress reports on scheme implementation.
- F) The Commission is not inclined to pass any orders in respect of Expression of Interest for procurement of 4000 MW since TGREDSCO which is the State Implementing Agency has already notified the EoI inviting applications from the interested entrepreneurs prior to the approval of the Commission.
- G) The Commission is also not inclined to pass any orders in respect of approval of Model Agreement for Lease of Land, as it is not in the purview of the Commission.

124. Accordingly, this petition is disposed of.

This Order is typed to dictation, corrected and signed on this 22nd day of April, 2025.

Sd/-

(Dr. JUSTICE DEVARAJU NAGARJUN)
CHAIRMAN

//CERTIFIED COPY//

Annexure-I

Public Notice

**BEFORE THE HON'BLE
TELANGANA ELECTRICITY REGULATORY COMMISSION
Vidyut Niyantran Bhavan, G.T.S. Colony, Kalyan Nagar, Hyderabad 500 045**

**Southern Power Distribution Company of Telangana Ltd (TGSPDCL)
Northern Power Distribution Company of Telangana Ltd (TGNPDCL)**

PUBLIC NOTICE

TGDISCOMS viz., Southern Power Distribution Company of Telangana Limited (TGSPDCL) and Northern Power Distribution Company of Telangana Limited (TGNPDCL) submitted before the Telangana Electricity Regulatory Commission (TGERC) seeking consent for procurement of 4000 MW (inclusive of 1000 MW capacity for Women SHGs under INDIRA MAHILA SHAKTI SCHEME) and Model Power Purchase Agreement (PPA) for decentralized Ground Mounted Grid-Connected solar power for a period of 25 years from the Commercial Operation Date (COD) by TGDISCOMs under Component-A of PM KUSUM Scheme vide OP. NO: 32/2025

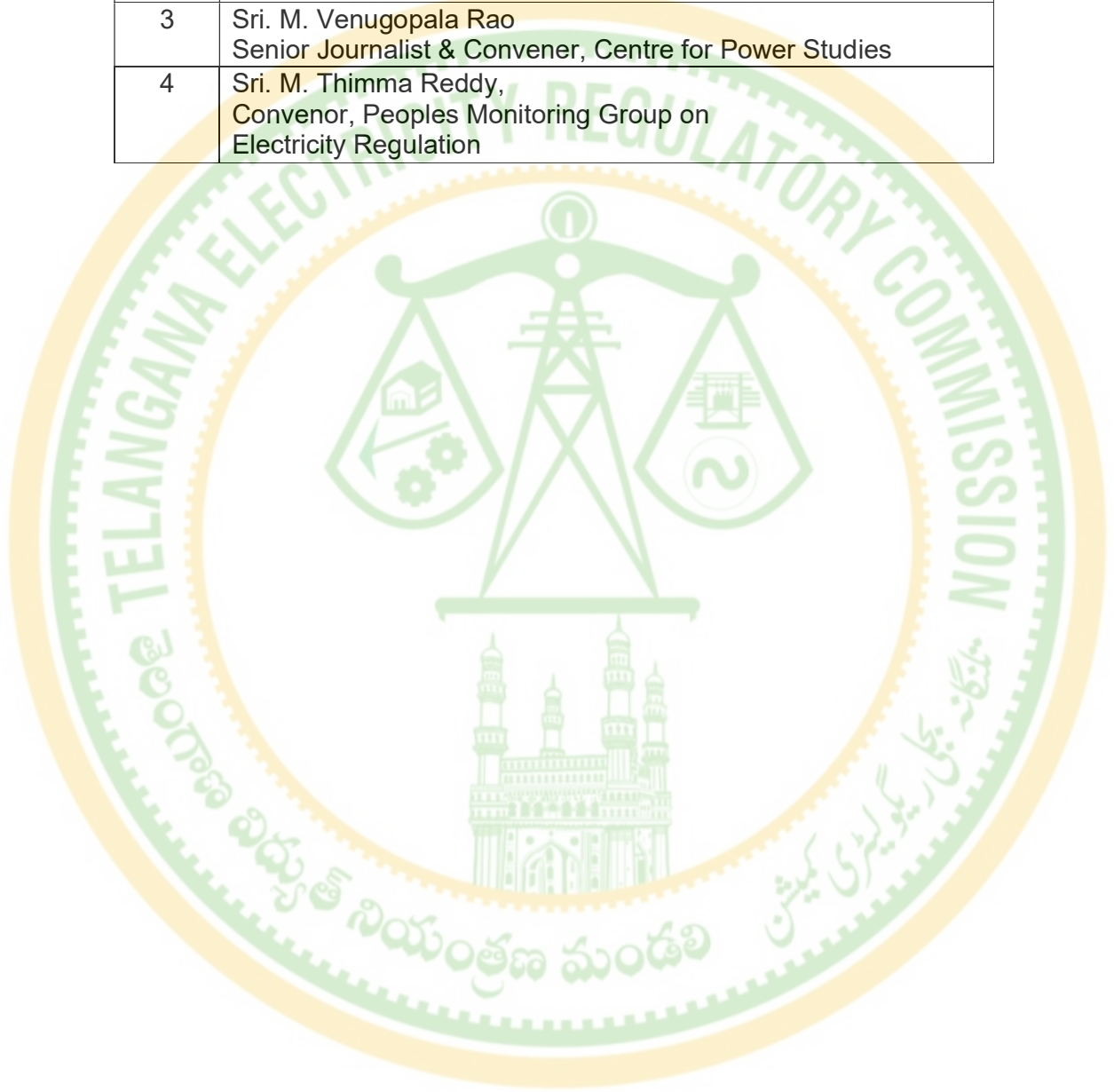
Copies of these filings along with the related documents are uploaded on the Commission's website www.tgerc.telangana.gov.in and also in TGDISCOMs website <https://tgsouthernpower.org/> , <https://tgnpdcl.com/> . Suggestions / Objections / Comments if any, in the subject matter are invited from all stakeholders and public in large, so as to reach the following address on or before 11-04-2025 by 5.00 PM.

**Commission Secretary,
Telangana Electricity Regulatory Commission,
Vidyut Niyantran Bhavan, G.T.S. Colony, Kalyan Nagar,
Hyderabad, 500 045.
Email ID: secy@tserc.gov.in**

The Public Hearing in the subject matter will be held on 17-04-2025 from 11:00 hrs onwards at TGERC Court Hall.


Commission Secretary

<u>Annexure-II</u>	
List of Stakeholders who submitted written suggestions and comments before public hearing	
Sl.No.	Name of the Stakeholder
1	Sri. Sreekumar Nhalur and Saumendra Aggrawal M/s. Prayas (Energy Group)
2	Sri. Venkata Naresh Kumar Konakandla
3	Sri. M. Venugopala Rao Senior Journalist & Convener, Centre for Power Studies
4	Sri. M. Thimma Reddy, Convener, Peoples Monitoring Group on Electricity Regulation



Annexure-III	
List of Stakeholders who submitted suggestions and comments in Public Hearing	
Sl.No.	Name of the Stakeholder
1	Sri. M. Venugopala Rao Senior Journalist & Convener, Centre for Power Studies
2	Sri. Sreeekumar Nhalur and Saumendra Aggrawal Prayas (Energy Group)
3	Sri. Venkata Naresh Kumar Konakandla
4	Sri.K. Srinivas CEO, Solar Bull Energy LLP
5	Sri B. Madhusudhan Reddy
6	Sri. Pandarivarma Dasaraju ,Member- TSOADA
7	Sri Srinivas
8	Sri M Adhinarayana Raju
9	Sri.B. Goutham Reddy
10	Sri.Naresh Kumar
11	Sri.Prashanth
12	Sri.Sudheer
13	Sri.Sai Pavan Atmakur, Farmer and Financial Consultant
14	Dr. Smt.Vimala
15	Sri. Srinivas Rao, Shadnagar
16	Sri.Srinivas
17	Sri. K.Srinivas
18	Sri. Sadashiva Reddy
19	Sri.Banoth Mothilal
20	Sri.Ajay

Annexure-IV

OTHER ISSUES.

Apart from the issues discussed in the order, the stakeholders have raised many issues connected with installation of Solar Plants under KUSUM Component-A scheme. However, they are not directly relevant to the issues involved in this petition as to whether TGDISCOMs can be given consent for procurement of the 4000 MW. All such issues raised by the stakeholders are mentioned hereunder.

I. REQUEST FOR COORDINATION COMMITTEE

Stakeholder's submissions

1. Some of the Stakeholders have requested the Commission to advise TGREDCO to constitute a Coordination Committee comprising: a) Senior officials from TGREDCO and TGDISCOMs b) Representatives from Telangana Solar Energy Association (TSEA) c) Representatives from Federation of Telangana Chambers of Commerce & Industry (FTCCI) Other relevant stakeholders as deemed fit.
2. The Stakeholders have further requested the Commission that the Coordination Committee convene at least once a month to: a) Review field-level issues raised by SPGs/farmers b) Facilitate timely redressal of implementation bottlenecks c) Ensure alignment between policy intent and on-ground execution.
3. The Stakeholder requested the Commission, TGREDCO and TGDIscoms, to collaboratively develop a viable financial model in conjunction with the banking sector. This model should aim to ensure long-term financial sustainability and provide a stable income from day one, for small farmers in Telangana who wish to participate in the PM KUSUM Component-A.

Petitioner's Replies

4. The Petitioner submitted that the request will be reviewed by TGDISCOMs and TGREDCO.

II. ROLE OF STATE IMPLEMENTING AGENCY (SIA)

Stakeholder's submissions

5. While the TGREDCO as State Implementing Agency (SIA) is responsible for facilitating bank finance and coordinating with local authorities, several

farmer-developers complained in the public hearing that they are facing challenges in obtaining answers to basic queries related to project implementation. Many farmers are stated to be repeatedly visiting TGREDCO offices, by spending time and money and causing avoidable strain on officials, but the issues are not being resolved. Stakeholders have suggested that TGREDCO provide clearer, consolidated guidance on key issues such as:

- a) Transmission Line Queries: Can multiple solar plants be connected via a single transmission line?
- b) Bank Loans: What are the terms and conditions for obtaining loans for solar projects?
- c) Sub-Project Splitting: Can a 2 MW project be split into smaller sub-projects (e.g., 0.5–1 MW)?
- d) Permissions and Schemes: What government permissions are required, and are there any post-installation schemes, such as Rythu Bharosa, that farmers can access?

6. Stakeholder submitted that in the present context, the Solar Power Generator (SPG) comes from a farming background and is facing significant challenges in navigating the numerous procedural requirements involving multiple departmental offices. This process has become a considerable burden, diverting their attention from the timely and efficient establishment of the plant. Therefore, the stakeholders have requested the Commission to:

- a) Issue directions to TGREDCO/ TGDISCOMs to establish a Single Window Clearance System, wherein the SPG may submit all necessary applications and documents at a single point, which may streamline the approval process and enable the SPG to focus on the timely and effective development of the project.
- b) To publish guidelines for 50% GST return.
- c) To form a cell to educate the farmers to submit necessary documents for arrangement of PPA.
- d) To reuse the existing poles for laying the transmission lines from the SPG location to the allotted substations.
- e) To extend support to farmers for availing financial assistance from banks.

- f) To make a provision for updating the details of their applications.

Petitioner's Replies

7. The distribution of losses among generators may lead to disputes and potential legal issues. To prevent such problems, the use of a single transmission line is not permitted. CMD/TGSPDCL has suggested exploring the possibility of fixing sub-meters at generating plant level so that transmission lines can be shared by more than one person.
8. TGREDCO has held a meeting with bankers and they will convene another meeting after entering into the Power Purchase Agreement (PPA).
9. The issue of splitting into smaller sub-projects will be shortly decided by TGDISCOMs.
10. TGREDCO will assist generators in connecting with the appropriate contacts within government departments.
11. Post-installation eligibility for Rythu Bharosa and other schemes is not applicable.
12. TGREDCO is the State Nodal Agency and will assist SHGs/farmers being single point of contact.

III. SUGGESTIONS FOR BETTER IMPLEMENTATION

Stakeholder's submissions

13. Stakeholders requested the Commission to kindly advise TGREDCO to compile and publish:
 - A comprehensive FAQs document or circular covering the above farmer queries and make it publicly accessible via the TGREDCO and TGDISCOM websites.
 - All relevant internal circulars/memos on metering, transmission lines, substation connectivity, inspection, and synchronization processes.
 - Standardized timelines for service-level approvals.
14. Stakeholder stated that JVVNL has published a well-structured SOP with:
 - **Approval timelines:**
11 kV Line – 7 days (by AEN); 33 kV Line – 10 days (by XEN)
 - **Line Shifting:**
LT – 15 days, HT – 30 days
 - **PDI & ABT Meter Testing:**
7 days for inspection, 5 days for testing
 - **Synchronization & Commissioning:**

Site visit report within 5 working days

- **Redressal Mechanism:**

Consumer Grievance Redressal Forum and Electricity Ombudsman

15. Stakeholder requested the Commission to direct the TGDISCOMs to extend full support and necessary coordination in the laying of transmission lines required for the evacuation of power from the project site. Timely assistance in this regard is crucial for the successful commissioning of the plant and to avoid unnecessary delays in project execution.

Petitioner's Replies

16. The petitioner submitted that
- FAQ document will be prepared shortly and will be uploaded on the TGREDCO website.
 - SOPs specifying the standard timelines are published in the TGDISCOMs website.
17. TGTRANSCO / TGDISCOMs will assist in execution of transmission line to the extent of where there are no ROW / Legal problems.

IV. INTERCONNECTION RESPONSIBILITY

Stakeholder's submissions

18. As per Clause 5.1 full responsibility for interconnection approvals and facilities lies with the Solar Power Generators (SPGs). This could be challenging, particularly for smaller developers, such as farmer-based SPGs in the SHG tender, who may not have the technical or financial resources to handle the full interconnection process.
19. Stakeholders have requested for clarification on the interconnection responsibilities for different types of developers. Specifically:
- a) For SHG Developers: It is essential to provide more support and facilitate the process through TGREDCO/TGDISCOM, especially for small farmer-SPGs. These developers may need more guidance and assistance, such as simplified approval processes and technical support.
 - b) Clarification Request: The role of TGREDCO/TGDISCOM should be clearly defined, especially in terms of their support for SHG developers, to ensure that smaller developers are not overwhelmed by the interconnection responsibilities.

Petitioner's Replies

20. For all capacities ranging from 0.5 MW to 2 MW, the responsibility for interconnection shall lie with the Solar Power Generator (SPG).
21. TGREDCO is the State Nodal Agency and will assist SHGs/farmers being single point of contact.

V. LATE PAYMENT SURCHARGE

Stakeholder's submissions

22. With respect to clause 11.4, the stakeholder submitted that as per the current provisions of the Power Purchase Agreement (PPA), the Late Payment Surcharge (LPS) becomes applicable only after 30 days from the date of invoice submission by the Solar Power Generator (SPG). In practical implementation, the SPG typically raises invoices in the first week of every month. If the TGDSCOM utilizes the full 30-day payment window, the SPG is compelled to manage at least one month's EMI payment to banks from their own working capital. This situation creates a cash flow burden, particularly for small and marginal SPGs including farmers and cooperatives operating under schemes like PM-KUSUM who may not have access to significant reserves or flexible credit.
23. In view of the above the stakeholder requested the Commission to amend the 30 day payment window to 15 days, thereby ensuring that payments from TGDSCOMs are received in a timely manner, enabling SPGs to meet their financial commitments particularly loan EMIs and O&M expenses without default risks or cash strain. This amendment would enhance financial discipline, promote investor confidence in decentralized solar generation, and protect small-scale renewable energy developers from unnecessary financial stress.

Petitioner's Replies

24. The petitioner submitted that 30 days has been mentioned as per MNRE Model PPA.

VI. Payment Security Mechanism

Stakeholder's submissions

25. While the Letter of Credit (LoC) is mentioned as a payment security mechanism, there is no mention of escrow accounts or backstop mechanisms for SHG developers.

26. Stakeholders have recommended introducing provisions for optional credit enhancements, such as escrow mechanisms or guarantee funds, to improve payment security for smaller developers and proposed the following revision in the clause:

Proposed Revised Clause: "For SHG or small farmer SPGs, the Procurer may, at its discretion, provide an escrow mechanism or guarantee fund support to enhance the payment security framework."

Petitioner's Replies

27. The petitioner replied that Letter of Credit (LOC) is the standard payment security mechanism as per the existing Solar Power Purchase Agreements (PPAs), and this has been duly mentioned.

VII. Early Termination and Asset Treatment

Stakeholder's submissions

28. The draft lacks clarity regarding how capacity will be reallocated and how the Performance Bank Guarantee (PBG) will be treated if a project is terminated early due to Force Majeure or unviable financing.
29. Stakeholders have proposed to include a clause that addresses how the capacity will be handled upon termination and provides for the refund of the PBG based on work completed and suggested the following revision in the clause:

Revised Clause: "In case of project termination due to proven Force Majeure or unviable financing terms, the SIA shall have the right to reallocate the capacity. The SPG shall be eligible for partial or full refund of PBG based on work completed and proper documentation."

Petitioner's Replies

30. The petitioner replied that the if the Force Majeure Event or its effects continue to be present beyond a period as specified in Article 4.4 of the PPA, either party shall have the right to cause termination of the Agreement. In such an event, this Agreement shall terminate on the date of such Termination Notice without any further liability to either party from the date of such termination.

VIII. LANGUAGE AND STRUCTURAL IMPROVEMENTS

Stakeholder's submissions

31. Several clauses are written with complex sentence structures, making them difficult to interpret and enforce. Stakeholders have recommended

simplifying the language of key clauses, breaking them down into numbered lists or bullet points for greater clarity and enforceability.

Petitioner's Replies

32. The petitioner submitted that the PPA was drafted in line with MNRE Model PPA.

IX. GRIEVANCE REDRESSAL & APPROVAL TIMELINES

Stakeholder's submissions

33. The draft PPA does not clearly outline a grievance redressal mechanism or established timelines for key approval processes, which could lead to delays and disputes.
- a) Grievance Redressal: Introduce a clause mandating that TGREDCO publishes the contact details of a designated nodal officer for redressal of developer grievances, such as issues with payments, approvals, and synchronization.
 - b) Approval Timelines: Annex timelines for the approval process, similar to the Rajasthan SOP, to ensure timely processing of approvals such as interconnection and synchronization.

Petitioner's Replies

34. The petitioner submitted that
- Circle wise nodal officers are assigned by TGREDCO, and the details are available on the TGREDCO website.
 - SOPs for timelines are mentioned in TGDISCOMs websites.

X. DISPATCH AND SCHEDULING

Stakeholder's submissions

35. The stakeholders have requested that the current exemption from day-ahead scheduling for solar power plants up to 5 MW, as provided under Regulation No. 1 of 2024, be retained in the future as well. This exemption ensures operational ease and supports the financial viability of small-scale generators.

Petitioner's Replies

36. The petitioner submitted that this is under purview of Commission.

Commission's Directives

37. During the course of public hearing many stakeholders and SPGs who were present have raised number of questions, concerns and issues in respect of

modalities under KUSUM Component-A. Some of the concerns are not directly relevant in respect of giving approval for 4000 MW under KUSUM Component-A and in respect of clauses of draft model PPA. These concerns include and not limited to:

- i. Issues with regard to documents to be submitted.
- ii. Deadlines for each of the stages and not having proper SOP.
- iii. Not having proper representative of the TGREDCO to seek clarification of the issues with regard to maintenance, banking, technical and other service issues.
- iv. Request for Coordination Committee.
- v. Role of State Implementing Agency (SIA).
- vi. Suggestions for better implementation .
- vii. Interconnection responsibility.
- viii. Late payment surcharge.
- ix. Payment security mechanism.
- x. Early termination and asset treatment.
- xi. Language and structural improvements.
- xii. Grievance redressal & Approval timelines.
- xiii. Dispatch and scheduling.

38. The VC& MD of TGREDCO who is present has given replies to many of the queries. However, there are many issues that are unresolved during the course of public hearing. The VC & MD of TGREDCO has submitted to this Commission that shortly a meeting will be convened with SPGs at State/ District/Region wise and clarify the concerns of the SPGs.

39. This Commission directs the TGREDCO/ TGDISCOMs to prepare FAQs and SOPs in respect all the issues that were raised by the stakeholders, farmers and others pertaining to KUSUM Component-A and upload them in the websites of the TGREDCO/TGDISCOMs in English as well as in Telugu as quickly as possible and report the same to this Commission.

Sd/-

(Dr. JUSTICE DEVARAJU NAGARJUN)
CHAIRMAN

Annexure-V

Sl. No.	Page No.	Para/ Clause	Existing Clause	To be read as
1	8 and 9	Due Date	shall mean the 45 th (forty fifth day) after a Monthly Bill (including all the relevant documents) or a Supplementary Bill is received in hard copy and duly acknowledged by the Discom or, if such day is not a Business Day, the immediately succeeding Business Day, by which date such Monthly Bill or a Supplementary Bill is payable by the Discom per Article 13.2 of this Agreement.	shall mean the 45 th (forty fifth) day after a Monthly Bill (including all the relevant documents) or a Supplementary Bill is received in hard copy and duly acknowledged by the Discom or, if such day is not a Business Day, the immediately succeeding Business Day, by which date such Monthly Bill or a Supplementary Bill is payable by the Discom as per Article 11 of this Agreement.
2	10	LOA" or "Letter of Award"	means the letter of award referred to in Recital (G)	shall mean Letter of Award issued by the SIA/DISCOM to the SPG for the project
3	10	MNRE	shall mean Ministry and New Renewable Energy, Government of India	shall mean Ministry of New and Renewable Energy, Government of India
4	12	TGERC	shall mean the Telangana State Electricity Regulatory Commission.	shall mean the Telangana Electricity Regulatory Commission.
5	16	4.3.4 (a): In case of short-fall of energy:	If the SPG failed to supply minimum energy as mentioned in the clause 4.2 sub clause- IV on account of reasons solely attributable to SPG other than Article 14 (Force Majeure), the SPG shall be liable to compensate the TGDISCOMs for shortfall in minimum generation calculated at 25% (twenty- five percent) of the cost of PPA tariff towards the annual shortfall of energy units under this Agreement.	If the SPG failed to supply minimum energy as mentioned in the clause 4.3.2 on account of reasons solely attributable to SPG other than Article 14 (Force Majeure), the SPG shall be liable to compensate the TGDISCOMs for shortfall in minimum generation calculated at 25% (twenty- five percent) of the cost of PPA tariff towards the annual shortfall of energy units under this Agreement.
6	17	4.3.4 (b): In case of any excess energy:	Energy fed to the grid of TGDISCOMs at interconnection/delivery point in excess of the energy as mentioned in the clause 4.2 sub clause- IV in _____ MUs worked out for the contracted capacity corresponding on annual basis shall be treated as “inadvertent power” and shall be deemed to have been supplied to TGDISCOMs at free of cost.	Energy fed to the grid of TGDISCOMs at interconnection/delivery point in excess of the energy as mentioned in the clause 4.3.2 in _____ MUs worked out for the contracted capacity corresponding on annual basis shall be treated as “inadvertent power” and shall be deemed to have been supplied to TGDISCOMs at free of cost.

Sl. No.	Page No.	Para/ Clause	Existing Clause	To be read as
7	17	4.4.2	In cases extension due to reason specified in Article 4.1 (b) and (c), and if such Force Majeure Event continues even after a maximum period of three (3) months, any of the Parties may choose to terminate the Agreement as per the provisions of Article 14.5. In case neither party terminates the agreement under this clause, the agreement shall stand terminated on the expiry of twelve (12) months of continuation of the Force Majeure event unless the parties mutually agree to extend the agreement for further period.	In case of extension due to reasons specified in Article 4.4.1. (b) and (c), and if such Force Majeure Event continues even after a maximum period of three (3) months, any of the Parties may choose to terminate the Agreement as per the provisions of Article 14.5. In case neither party terminates the agreement under this clause, the agreement shall stand terminated on the expiry of twelve (12) months of continuation of the Force Majeure event unless the parties mutually agree to extend the agreement for further period.
8	18	4.4.6	Delay in commissioning of the Project beyond the Schedule Commissioning Date for reasons other than those specified in Article 4.1 shall be an Event of Default on part of SPG and shall be subject to the consequences specified in Article 4.5	Delay in commissioning of the Project beyond the Schedule Commissioning Date for reasons other than those specified in Article 4.4.1 shall be an Event of Default on part of SPG and shall be subject to the consequences specified in Article 4.5
9	18	4.5.1: 1 st para	If the SPG is unable to commence supply of power to TGDSCOMs by the SCOD other than for the reasons specified in Article 4.1, the SPG shall pay to DISCOM, liquidated damages for the delay in such commencement of supply of power and making the Contracted Capacity available for dispatch by the SCOD as per the following:	If the SPG is unable to commence supply of power to TGDSCOMs by the SCOD other than for the reasons specified in Article 4.4.1, the SPG shall pay to DISCOM, liquidated damages for the delay in such commencement of supply of power and making the Contracted Capacity available for dispatch by the SCOD as per the following:
10	11	"Scheduled Commissioning Date" (SCOD)	shall mean Nine (9) months from the date of issuance of LOA by TGREDSCO to SPG	shall mean Nine (9) months from the date of signing of PPA.
11		4.5.1: 2 nd para	Delay beyond the SCOD upto (& including) the date as on eleven (11) months from the date of issue of LOA, the Performance Bank Guarantee (PBG) amount shall be encashed on per day basis proportionate to the balance capacity not commissioned in the following manner:	Delay beyond the SCOD upto (& including) the date as on eleven (11) months from the date of signing of PPA, the Performance Bank Guarantee (PBG) amount shall be encashed on per day basis proportionate to the balance capacity not

Sl. No.	Page No.	Para/ Clause	Existing Clause	To be read as
				commissioned in the following manner:
12		4.5.2	The maximum time period allowed for commissioning of the full project capacity with encashment Performance Bank Guarantee (PBG) except the provisions mentioned at Article 4.1 & 4.2 shall be limited to eleven (11) months from the date of signing of PPA. In case, the commissioning of the Solar Power Project is delayed beyond the stipulated time as stated above i.e., beyond two months (max. of 60 days) from the date of SCOD, it shall be considered as an SPG's Event of Default and provisions of Article 16 shall apply and the Contracted Capacity shall stand reduced/amended to the Project Capacity commissioned at the end of eleven (11) months from the date of signing of PPA and PPA for the balance capacity will stand terminated and shall be reduced from the Project Capacity.	The maximum time period allowed for commissioning of the full project capacity with encashment Performance Bank Guarantee (PBG) except the provisions mentioned at Article 4.4 shall be limited to eleven (11) months from the date of signing of PPA. In case, the commissioning of the Solar Power Project is delayed beyond the stipulated time as stated above i.e., beyond two months (max. of 60 days) from the date of SCOD, it shall be considered as an SPG's Event of Default and provisions of Article 14 shall apply and the Contracted Capacity shall stand reduced/amended to the Project Capacity commissioned at the end of eleven (11) months from the date of signing of PPA and PPA for the balance capacity will stand terminated and shall be reduced from the Project Capacity.
13	28	11.6.2	Not later than one (I) Month before the start of supply, DISCOM through a scheduled bank open a better of Credit in favour of the SPG's, to be made operative from a date prior to the Due Date of its first Monthly Bill under this Agreement. The Letter of Credit shall have a term of twelve (12) Months and shall be renewed annually, for an amount equal to: <ul style="list-style-type: none"> i) for the first Contract Year, equal to the ii) \estimated average monthly billing; iii) for each subsequent Contract Year, equal to the average of the monthly billing of the previous Contract Year. 	Not later than one (I) Month before the start of supply, DISCOM through a scheduled bank open a letter of Credit in favour of the SPG's, to be made operative from a date prior to the Due Date of its first Monthly Bill under this Agreement. The Letter of Credit shall have a term of twelve (12) Months and shall be renewed annually, for an amount equal to: <ul style="list-style-type: none"> iv) for the first Contract Year, equal to the estimated average monthly billing; v) for each subsequent Contract Year, equal to the average of the monthly billing of the previous Contract Year.
14	30	11.8.2	The Parties, therefore, agree that as soon as all such data in respect of any quarter of a Contract Year or	The Parties, therefore, agree that as soon as all such data in respect of any quarter of a Contract Year or

Sl. No.	Page No.	Para/ Clause	Existing Clause	To be read as
			a full Contract Year as the case may be has been finally verified and adjusted, the SPG's and DISCOM shall jointly sign such reconciliation statement. Within fifteen (15) days of signing of a reconciliation statement, the SPG's shall make appropriate adjustments in the next Monthly Bill. Late Payment Surcharge/ interest shall be payable in such a case from the date on which such payment had been made to the invoicing Party or the date on which any payment was originally due, as may be applicable. Any Dispute with regard to the above reconciliation shall be dealt with in accordance with the provisions of Article 17.	a full Contract Year as the case may be has been finally verified and adjusted, the SPG's and DISCOM shall jointly sign such reconciliation statement. Within fifteen (15) days of signing of a reconciliation statement, the SPG's shall make appropriate adjustments in the next Monthly Bill. Late Payment Surcharge/ interest shall be payable in such a case from the date on which such payment had been made to the invoicing Party or the date on which any payment was originally due, as may be applicable. Any Dispute with regard to the above reconciliation shall be dealt with in accordance with the provisions of Article 17.
15	30	11.9.2	DISCOM shall remit all amounts due under a Supplementary Bill raised by the SPG's to the SPG's Designated Account by the Due Date, except open access charges, RLDC or scheduling charges and transmission charges (if applicable), For Supplementary Bill on account of adjustment required by energy account, Rebate as applicable to Monthly Bills pursuant to Article 11.5 shall equally apply. No surcharge will be applicable other than that on the monthly energy payment and associated debit and credit note.	DISCOM shall remit all amounts due under a Supplementary Bill raised by the SPG's to the SPG's Designated Account by the Due Date, except open access charges, SLDC or scheduling charges and transmission charges (if applicable), For Supplementary Bill on account of adjustment required by energy account, Rebate as applicable to Monthly Bills pursuant to Article 11.5 shall equally apply. No surcharge will be applicable other than that on the monthly energy payment and associated debit and credit note.
16	30	11.9.3	In the event of delay in payment of a Supplementary Bill by either Party beyond its Due Date, a Late Payment Surcharge shall be payable at the same terms applicable to the Monthly Bill in Article 11.3.	In the event of delay in payment of a Supplementary Bill by either Party beyond its Due Date, a Late Payment Surcharge shall be payable at the same terms applicable to the Monthly Bill in Article 11.4.
17	36	14.3.1	Upon the occurrence and continuation of any SPG Event of Default under Article 16.1 TGDISCOMs shall have the right to deliver to the SPG, with a copy to the representative of the lenders to the SPG with whom the	Upon the occurrence and continuation of any SPG Event of Default under Article 14.1 TGDISCOMs shall have the right to deliver to the SPG, with a copy to the representative of the lenders to the SPG with whom the

Sl. No.	Page No.	Para/ Clause	Existing Clause	To be read as
			SPG has executed the Financing Agreements, a notice stating its intention to terminate this Agreement (TGDISCOM Preliminary Default Notice), which shall specify in reasonable detail, the circumstances giving rise to the issue of such notice.	SPG has executed the Financing Agreements, a notice stating its intention to terminate this Agreement (TGDISCOM Preliminary Default Notice), which shall specify in reasonable detail, the circumstances giving rise to the issue of such notice.
18	37	14.4.1	Upon the occurrence and continuation of any TGDISCOM Event of Default specified in Article 16.2, the SPG shall have the right to deliver to TGDISCOM, a SPG Preliminary Default Notice, which notice shall specify in reasonable detail the circumstances giving rise to its issue.	Upon the occurrence and continuation of any TGDISCOM Event of Default specified in Article 14.2, the SPG shall have the right to deliver to TGDISCOM, an SPG Preliminary Default Notice, which notice shall specify in reasonable detail the circumstances giving rise to its issue.
19	13	3.1(A): PERFORM ANCE BANK GUARANT EE:	The successful bidder will be required to furnish Performance Bank Guarantee of Rs. 5 lakhs per MW to TGREDSCO in the format to be provided by TGREDSCO within 10 days from the date of issue of LOA The PBG will be returned to the SPG by TGREDSCO after 6 months of successful commissioning of the Solar Plant after taking into account / recovery of Liquidated Damages if any due to delay in commissioning of the plant as provided in the PPA. The PBG shall initially be valid for a period of 15 Months from the date of issue of LOA with a claim period of 3 months thereafter.	The successful bidder will be required to furnish Performance Bank Guarantee of Rs. 1 lakh per MW to TGREDSCO in the format to be provided by TGREDSCO within 10 days from the date of issue of LOA The PBG will be returned to the SPG by TGREDSCO after 6 months of successful commissioning of the Solar Plant after taking into account / recovery of Liquidated Damages if any due to delay in commissioning of the plant as provided in the PPA. The PBG shall initially be valid for a period of 15 Months from the date of issue of LOA with a claim period of 3 months thereafter.
20	18	Delay up to two months from SCOD	The PBG will be en-cashed for recovering liquidated damages of Rs. 8,333/MW/Day and proportionate to the capacity not commissioned (Total liquidated damages will be limited to the amount of PBG).	The PBG will be en-cashed for recovering liquidated damages of Rs. 1,666/MW/Day and proportionate to the capacity not commissioned (Total liquidated damages will be limited to the amount of PBG).

Sd/-
(Dr. JUSTICE DEVARAJU NAGARJUN)
CHAIRMAN