**VENAKAT N.K.K,**

***GENERAL SECRETARY* - TELANGANA STATE SOLAR OPEN ACCESS DEVELOPERS' ASSOCIATION(TSOADA)**

***MEMBER- ENERGY COMMITTEE*- FEDERATION OF CHAMBER OF COMMERCE OF TELANGANA (FTCCI)**

***INDEPENDENT MEMBER*- CGRF (RURAL)- TGSPDCL.**

To, Dated:10-04-2025

**The Commission Secretary/TGERC,**

Vidyut Niyantran Bhavan, Sy.No.145-P, G.T.S. Colony,

Kalyan Nagar, Hyderabad 500 045.

**Email id:** secy@tserc.gov.in

Dear Sir,

**Sub: -** Comments and Suggestions on petition filed by TGDISCOMS 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 in OP.NO: 32/2025- Reg.

**********

## (1) Capacity Revision by MNRE to 1000 MW :-

At the outset, it is pertinent to note that the KUSUM scheme allocation capacity for Telangana, as per the official PM-KUSUM website (https://pmkusum.mnre.gov.in/#/landing/more-about-A), is indicated as 1000 MW. Accordingly, all comments and suggestions presented in this letter are made with the understanding that the Telangana DISCOMs' proposal pertains to the full allocated capacity of 1000 MW only.

## (2) Tariff Benchmarking Based on Outdated Determination Dated:02-01-2021:-

It is respectfully submitted before the Hon'ble Commission that the Telangana DISCOMs have invited Expressions of Interest (EOIs) based on a pre-fixed levelized tariff determined on 02-01-2021, as per the TGERC order dated 02-02-2021. However, since that determination, the market landscape has undergone considerable changes—both in terms of material costs and broader industry dynamics. A few of the notable changes include significant fluctuations in the prices of solar modules and balance of systems, supply chain disruptions, increased logistics costs, and global economic uncertainty, particularly due to the impact of US tariffs and evolving geopolitical conditions.

***Few of the significate changes that impacted project costs since 02-02-2021 are noted below:-***

- INR depreciation (from ₹73.2/USD in Jan 2021 to ₹86.8/USD currently),
- Given that a substantial portion of solar project components—such as PV modules, inverters, and trackers—are either fully imported or linked to global pricing benchmarks, this currency depreciation has had a direct and material impact on capital costs.
- 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 ALMM.**

| S.No | Description | Period | Remarks |
|---|---|---|---|
| 1 | Initial ALMM Order Issued | 02-01-2019 | |
| | Effective Implementation Date (Initial) | 01-04-2020 | |
| | | | |
| 2 | Clarifications and Amendments | | |
| | Amendment 1 | Feb-21 | Usage of ALMM restricted to Government Projects |
| | Amendment 2 | Jan-22 | The scope expanded to OA and Net metering |
| | Amendment 3 | Mar-23 | Suspension for One Financial Year |
| | Amendment 4 | 09-02-2024 | reimposition of the ALMM, with 2 exemptions |
| | | | a) Projects under open access and captive |
| | | | b) Projects identified as "in advanced stages of construction |

| | | | |
|---|---|---|---|
| | Amendment 5 | 15-02-2024 | abeyance pending further clarification on Feb 9th Order |
| | Amendment 6 | 29-03-2024 | **Final Reimposition of ALMM** |
| | | 01-04-2024 | all government-sponsored projects and government -assisted projects (including open access and net-metering projects) must source solar modules only from the ALMM-approved list. |

- **Import Duty changes:-**

| | **Safeguard Duty (SGD)** | **Basic Customs Duty (BCD)** |
|---|---|---|
| **Effective Date (Initial)** | Jul-18 | April 1, 2022 |
| **Announcement Date (Initial)** | **Ministry of Finance Notification:** July 30, 2018 | **Finance Ministry Notification:** March 2021 |
| **Duty Rates** | Initially 25%, phased down over time (e.g., 15% in 2020-21) | Initially 25% on cells, 40% on modules |
| **Current Duty Rates** | Expired (last extension until July 29, 2021) | 20% on both solar cells and modules |
| **Social Welfare Surcharge (SWS)** | Applicable on top of SGD | Applicable on top of BCD (initially 10% of BCD) |
| **Agriculture Infrastructure and Development Cess (AIDC)** | NA | 7.5% on cells, 20% on modules as of Feb 2025 |

In view of the above, 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 enhance the scheme's implementation success within the remaining timeframe.

## (3) Inefficiencies in TG DISCOMs' Methodology for Sub-Station-Wise (S-S Wise) Capacity Allocation:-

It is respectfully submitted that the methodology adopted by the TG DISCOMs in identifying and notifying sub-station-wise (S-S wise) capacities under the KUSUM scheme is inefficient, sub-optimal, and technically flawed.

Currently, TG DISCOMs have proposed to use:

(a) the existing transformer capacity, and

(b) the connected solar capacity on the 11 kV side of 33/11 kV sub-stations,

as the basis for capacity allocation. This simplistic approach, aimed at reducing network losses, fails to account for the dynamic nature of load profiles and solar generation.

**Why This Approach is Problematic??**

For example, 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**.

**Best Practices from Other States**

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 analyze 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:

- Optimal absorption of generated power within the local distribution network
- Minimal reverse power flow
- Enhanced grid stability
- Efficient transformer utilization.

## (4) Omission of Ongoing Generation Projects in Energy Availability Projections:-

It is respectfully submitted that the energy availability projections provided by TG DISCOMs appear to overlook several critical upcoming generation sources, thereby underestimating the state's medium-term energy supply position.

Based on an assumed Plant Load Factor (PLF) of 85%, the following ongoing thermal projects are expected to contribute significantly to the state's energy availability:

- **Yadadri Thermal Power Station (YTPS)**:
  5 units × 800 MW = **4,000 MW**,
  Expected annual generation: **~29,784 MUs**
- **Singarenis Thermal Power Project (STPP), Stage-II**:
  1 unit × 800 MW = **800 MW**,
  Expected annual generation: **~7,446 MUs**
- **Telangana STPP, Stage-II**:
  1 unit × 800 MW = **800 MW**,
  Expected annual generation: **~7,446 MUs**

Together, these projects are estimated to contribute **over 44,000 MUs** annually. However, these figures do not appear to be factored into the DISCOMs' current projections of future energy availability.

This omission could lead to skewed planning decisions, including unnecessary procurement and sub-optimal integration of renewable capacity. A comprehensive and realistic assessment of future energy availability—factoring in the scheduled commissioning timelines of these major generation assets—is essential for transparent and efficient power procurement planning.

I respectfully urge the Hon'ble Commission to direct TG DISCOMs to revise their projections with the inclusion of these ongoing generation capacities to ensure a more accurate and balanced assessment of the state's energy landscape.

## (5) Contradiction Between Additional Surcharge Claims and Future Energy Requirement Projections:-

It is respectfully submitted that the Telangana DISCOMs have consistently claimed Additional Surcharge on the grounds that their existing assets—particularly long-term contracted

capacity—are getting stranded due to declining demand from certain consumer categories as they are opting for open access.

In this context, their current projection of significantly high future energy requirements appears inherently contradictory. On one hand, the DISCOMs argue that surplus capacity is leading to fixed cost burdens and under-utilized assets (justifying the imposition of Additional Surcharge), while on the other hand, they project a substantial rise in demand that seemingly negates the very basis of those earlier claims.

This inconsistency calls into question the accuracy and objectivity of the demand forecasts being presented and warrants a more transparent and reconciled approach. I respectfully urge the Hon'ble Commission to seek clarification from the DISCOMs and direct that future energy projections be aligned with proper rationale to ensure consistency and regulatory integrity.

## (6) Misplaced and Misrepresented Facts in Support of TG Discoms' Current Proposals:-

It is respectfully submitted that certain claims made by TG DISCOMs to support their current proposals appear factually misplaced or overstated, thereby necessitating a closer examination by the Hon'ble Commission:

**(a) Misinterpretation of MoP Notification Dated 20.10.2023**

TG DISCOMs have cited Renewable Purchase Obligation (RPO) targets from the Ministry of Power's (MoP) notification dated 20.10.2023. However, this 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 DISCOMs.

**(b) Exaggerated RPO Penalty Cost**

The projected RPO compliance cost of ₹3.72/unit claimed by TG DISCOMs is grossly exaggerated and not reflective of actual market trends. As of March 2025, the closing inventory of REC

certificates stood at 4,04,90,242 certificates (equivalent to 40,490 MUs). The average trading price of RECs on the Indian Energy Exchange (IEX) has remained around ₹0.35/unit.
Sources:

"REC Registry of India – REC Inventory" &

"IEX REC Market Data"

These facts clearly indicate that RPO compliance, if needed through REC purchases, could be achieved at a fraction of the cost (Rs.0.35/Unit) being projected by the DISCOMs.

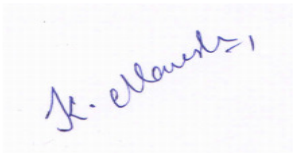
**(c)** At best, the RPO targets referred to by TG DISCOMs may stem from the MoP's order dated 22nd July 2022, which outlines a trajectory for RPO obligations. However, it is crucial to note that the MoP has explicitly empowered State Electricity Regulatory Commissions (SERCs) to fix binding targets for their respective jurisdictions. The targets are indicative in nature and not directly enforceable unless formally adopted by the Hon'ble Commission through a notified regulation.

In light of the above, I request the Hon'ble Commission to critically re-examine the factual basis of the TG DISCOMs' proposals and ensure that regulatory decisions are made based on accurate and contextually appropriate data.

**(d) A simplistic comparison between the average cost of electricity market purchases in FY23-24 (₹5.56/unit) and current solar tariffs overlooks the complexities of power procurement.** Market purchases are typically driven by real-time demand from DISCOMs, often during peak load conditions or supply shortfalls. This inherently leads to higher and more volatile pricing, often determined on an ad hoc or short-term basis. In contrast, solar power procurement is generally structured through long-term power purchase agreements (PPAs) with fixed tariffs, offering price stability and predictability. Thus, while solar tariffs may appear lower on paper, the comparison does not account for the dispatchability, timing, and reliability aspects of market purchases versus scheduled renewable generation.

I firmly believe that the suggestions outlined above offer valuable insights that will support the Hon'ble Commission in arriving at sound and forward-looking conclusions.

**Thanks & Regards,**



**Venkata Naresh Kumar Konakandla (Venkat N.K.K),**
**(B.E (Anna University), M.B.A (SPJAIN), L.L.B (Osmania University))**

**Address:** G-202, Aditya Hilltop, Veterinary colony, Road No. 82,

Jubliee Hills, Film Nagar, Hyderabad- 500096

**Mob: +91-9666 22 99 75.**

**Copy Communicated To:**

(1) The Chief Engineer(IPC)/TGSPDCL

**VENAKAT N.K.K,**

***GENERAL SECRETARY* - TELANGANA STATE SOLAR OPEN ACCESS DEVELOPERS' ASSOCIATION(TSOADA)**

***MEMBER- ENERGY COMMITTEE*- FEDERATION OF CHAMBER OF COMMERCE OF TELANGANA (FTCCI)**

***INDEPENDENT MEMBER*- CGRF (RURAL)- TGSPDCL.**

To, Dated:10-04-2025

**The Commission Secretary/TGERC,**

Vidyut Niyantran Bhavan, Sy.No.145-P, G.T.S. Colony,

Kalyan Nagar, Hyderabad 500 045.

**Email id:** secy@tserc.gov.in

Dear Sir,

**Sub: -** Comments and Suggestions on petition filed by TGDISCOMS 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 in OP.NO: 32/2025- Reg.

**********

## (1) Capacity Revision by MNRE to 1000 MW :-

At the outset, it is pertinent to note that the KUSUM scheme allocation capacity for Telangana, as per the official PM-KUSUM website (https://pmkusum.mnre.gov.in/#/landing/more-about-A), is indicated as 1000 MW. Accordingly, all comments and suggestions presented in this letter are made with the understanding that the Telangana DISCOMs' proposal pertains to the full allocated capacity of 1000 MW only.

## (2) Tariff Benchmarking Based on Outdated Determination Dated:02-01-2021:-

It is respectfully submitted before the Hon'ble Commission that the Telangana DISCOMs have invited Expressions of Interest (EOIs) based on a pre-fixed levelized tariff determined on 02-01-2021, as per the TGERC order dated 02-02-2021. However, since that determination, the market landscape has undergone considerable changes—both in terms of material costs and broader industry dynamics. A few of the notable changes include significant fluctuations in the prices of solar modules and balance of systems, supply chain disruptions, increased logistics costs, and global economic uncertainty, particularly due to the impact of US tariffs and evolving geopolitical conditions.

***Few of the significate changes that impacted project costs since 02-02-2021 are noted below:-***

- INR depreciation (from ₹73.2/USD in Jan 2021 to ₹86.8/USD currently),
- Given that a substantial portion of solar project components—such as PV modules, inverters, and trackers—are either fully imported or linked to global pricing benchmarks, this currency depreciation has had a direct and material impact on capital costs.
- 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 ALMM.**

| S.No | Description | Period | Remarks |
|---|---|---|---|
| 1 | Initial ALMM Order Issued | 02-01-2019 | |
| | Effective Implementation Date (Initial) | 01-04-2020 | |
| | | | |
| 2 | Clarifications and Amendments | | |
| | Amendment 1 | Feb-21 | Usage of ALMM restricted to Government Projects |
| | Amendment 2 | Jan-22 | The scope expanded to OA and Net metering |
| | Amendment 3 | Mar-23 | Suspension for One Financial Year |
| | Amendment 4 | 09-02-2024 | reimposition of the ALMM, with 2 exemptions |
| | | | a) Projects under open access and captive |
| | | | b) Projects identified as "in advanced stages of construction |

| | | | |
|---|---|---|---|
| | Amendment 5 | 15-02-2024 | abeyance pending further clarification on Feb 9th Order |
| | Amendment 6 | 29-03-2024 | **Final Reimposition of ALMM** |
| | | 01-04-2024 | all government-sponsored projects and government -assisted projects (including open access and net-metering projects) must source solar modules only from the ALMM-approved list. |

- **Import Duty changes:-**

| | **Safeguard Duty (SGD)** | **Basic Customs Duty (BCD)** |
|---|---|---|
| **Effective Date (Initial)** | Jul-18 | April 1, 2022 |
| **Announcement Date (Initial)** | **Ministry of Finance Notification:** July 30, 2018 | **Finance Ministry Notification:** March 2021 |
| **Duty Rates** | Initially 25%, phased down over time (e.g., 15% in 2020-21) | Initially 25% on cells, 40% on modules |
| **Current Duty Rates** | Expired (last extension until July 29, 2021) | 20% on both solar cells and modules |
| **Social Welfare Surcharge (SWS)** | Applicable on top of SGD | Applicable on top of BCD (initially 10% of BCD) |
| **Agriculture Infrastructure and Development Cess (AIDC)** | NA | 7.5% on cells, 20% on modules as of Feb 2025 |

In view of the above, 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 enhance the scheme's implementation success within the remaining timeframe.

## (3) Inefficiencies in TG DISCOMs' Methodology for Sub-Station-Wise (S-S Wise) Capacity Allocation:-

It is respectfully submitted that the methodology adopted by the TG DISCOMs in identifying and notifying sub-station-wise (S-S wise) capacities under the KUSUM scheme is inefficient, sub-optimal, and technically flawed.

Currently, TG DISCOMs have proposed to use:

(a) the existing transformer capacity, and

(b) the connected solar capacity on the 11 kV side of 33/11 kV sub-stations,

as the basis for capacity allocation. This simplistic approach, aimed at reducing network losses, fails to account for the dynamic nature of load profiles and solar generation.

**Why This Approach is Problematic??**

For example, 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**.

**Best Practices from Other States**

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 analyze 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:

- Optimal absorption of generated power within the local distribution network
- Minimal reverse power flow
- Enhanced grid stability
- Efficient transformer utilization.

## (4) Omission of Ongoing Generation Projects in Energy Availability Projections:-

It is respectfully submitted that the energy availability projections provided by TG DISCOMs appear to overlook several critical upcoming generation sources, thereby underestimating the state's medium-term energy supply position.

Based on an assumed Plant Load Factor (PLF) of 85%, the following ongoing thermal projects are expected to contribute significantly to the state's energy availability:

- **Yadadri Thermal Power Station (YTPS)**:
  5 units × 800 MW = **4,000 MW**,
  Expected annual generation: **~29,784 MUs**
- **Singarenis Thermal Power Project (STPP), Stage-II**:
  1 unit × 800 MW = **800 MW**,
  Expected annual generation: **~7,446 MUs**
- **Telangana STPP, Stage-II**:
  1 unit × 800 MW = **800 MW**,
  Expected annual generation: **~7,446 MUs**

Together, these projects are estimated to contribute **over 44,000 MUs** annually. However, these figures do not appear to be factored into the DISCOMs' current projections of future energy availability.

This omission could lead to skewed planning decisions, including unnecessary procurement and sub-optimal integration of renewable capacity. A comprehensive and realistic assessment of future energy availability—factoring in the scheduled commissioning timelines of these major generation assets—is essential for transparent and efficient power procurement planning.

I respectfully urge the Hon'ble Commission to direct TG DISCOMs to revise their projections with the inclusion of these ongoing generation capacities to ensure a more accurate and balanced assessment of the state's energy landscape.

## (5) Contradiction Between Additional Surcharge Claims and Future Energy Requirement Projections:-

It is respectfully submitted that the Telangana DISCOMs have consistently claimed Additional Surcharge on the grounds that their existing assets—particularly long-term contracted

capacity—are getting stranded due to declining demand from certain consumer categories as they are opting for open access.

In this context, their current projection of significantly high future energy requirements appears inherently contradictory. On one hand, the DISCOMs argue that surplus capacity is leading to fixed cost burdens and under-utilized assets (justifying the imposition of Additional Surcharge), while on the other hand, they project a substantial rise in demand that seemingly negates the very basis of those earlier claims.

This inconsistency calls into question the accuracy and objectivity of the demand forecasts being presented and warrants a more transparent and reconciled approach. I respectfully urge the Hon'ble Commission to seek clarification from the DISCOMs and direct that future energy projections be aligned with proper rationale to ensure consistency and regulatory integrity.

## (6) Misplaced and Misrepresented Facts in Support of TG Discoms' Current Proposals:-

It is respectfully submitted that certain claims made by TG DISCOMs to support their current proposals appear factually misplaced or overstated, thereby necessitating a closer examination by the Hon'ble Commission:

**(a) Misinterpretation of MoP Notification Dated 20.10.2023**

TG DISCOMs have cited Renewable Purchase Obligation (RPO) targets from the Ministry of Power's (MoP) notification dated 20.10.2023. However, this 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 DISCOMs.

**(b) Exaggerated RPO Penalty Cost**

The projected RPO compliance cost of ₹3.72/unit claimed by TG DISCOMs is grossly exaggerated and not reflective of actual market trends. As of March 2025, the closing inventory of REC

certificates stood at 4,04,90,242 certificates (equivalent to 40,490 MUs). The average trading price of RECs on the Indian Energy Exchange (IEX) has remained around ₹0.35/unit.
Sources:

"REC Registry of India – REC Inventory" &

"IEX REC Market Data"

These facts clearly indicate that RPO compliance, if needed through REC purchases, could be achieved at a fraction of the cost (Rs.0.35/Unit) being projected by the DISCOMs.

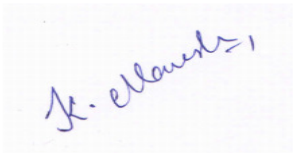
**(c)** At best, the RPO targets referred to by TG DISCOMs may stem from the MoP's order dated 22nd July 2022, which outlines a trajectory for RPO obligations. However, it is crucial to note that the MoP has explicitly empowered State Electricity Regulatory Commissions (SERCs) to fix binding targets for their respective jurisdictions. The targets are indicative in nature and not directly enforceable unless formally adopted by the Hon'ble Commission through a notified regulation.

In light of the above, I request the Hon'ble Commission to critically re-examine the factual basis of the TG DISCOMs' proposals and ensure that regulatory decisions are made based on accurate and contextually appropriate data.

**(d) A simplistic comparison between the average cost of electricity market purchases in FY23-24 (₹5.56/unit) and current solar tariffs overlooks the complexities of power procurement.** Market purchases are typically driven by real-time demand from DISCOMs, often during peak load conditions or supply shortfalls. This inherently leads to higher and more volatile pricing, often determined on an ad hoc or short-term basis. In contrast, solar power procurement is generally structured through long-term power purchase agreements (PPAs) with fixed tariffs, offering price stability and predictability. Thus, while solar tariffs may appear lower on paper, the comparison does not account for the dispatchability, timing, and reliability aspects of market purchases versus scheduled renewable generation.

I firmly believe that the suggestions outlined above offer valuable insights that will support the Hon'ble Commission in arriving at sound and forward-looking conclusions.

**Thanks & Regards,**



**Venkata Naresh Kumar Konakandla (Venkat N.K.K),**
**(B.E (Anna University), M.B.A (SPJAIN), L.L.B (Osmania University))**

**Address:** G-202, Aditya Hilltop, Veterinary colony, Road No. 82,

Jubliee Hills, Film Nagar, Hyderabad- 500096

**Mob: +91-9666 22 99 75.**

**Copy Communicated To:**

(1) The Chief Engineer(IPC)/TGSPDCL

**VENAKAT N.K.K,**

***GENERAL SECRETARY* - TELANGANA STATE SOLAR OPEN ACCESS DEVELOPERS' ASSOCIATION(TSOADA)**

***MEMBER- ENERGY COMMITTEE*- FEDERATION OF CHAMBER OF COMMERCE OF TELANGANA (FTCCI)**

***INDEPENDENT MEMBER*- CGRF (RURAL)- TGSPDCL.**

To, Dated:10-04-2025

**The Commission Secretary/TGERC,**

Vidyut Niyantran Bhavan, Sy.No.145-P, G.T.S. Colony,

Kalyan Nagar, Hyderabad 500 045.

**Email id:** secy@tserc.gov.in

Dear Sir,

**Sub: -** Comments and Suggestions on petition filed by TGDISCOMS 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 in OP.NO: 32/2025- Reg.

**********

## (1) Capacity Revision by MNRE to 1000 MW :-

At the outset, it is pertinent to note that the KUSUM scheme allocation capacity for Telangana, as per the official PM-KUSUM website (https://pmkusum.mnre.gov.in/#/landing/more-about-A), is indicated as 1000 MW. Accordingly, all comments and suggestions presented in this letter are made with the understanding that the Telangana DISCOMs' proposal pertains to the full allocated capacity of 1000 MW only.

## (2) Tariff Benchmarking Based on Outdated Determination Dated:02-01-2021:-

It is respectfully submitted before the Hon'ble Commission that the Telangana DISCOMs have invited Expressions of Interest (EOIs) based on a pre-fixed levelized tariff determined on 02-01-2021, as per the TGERC order dated 02-02-2021. However, since that determination, the market landscape has undergone considerable changes—both in terms of material costs and broader industry dynamics. A few of the notable changes include significant fluctuations in the prices of solar modules and balance of systems, supply chain disruptions, increased logistics costs, and global economic uncertainty, particularly due to the impact of US tariffs and evolving geopolitical conditions.

***Few of the significate changes that impacted project costs since 02-02-2021 are noted below:-***

- INR depreciation (from ₹73.2/USD in Jan 2021 to ₹86.8/USD currently),
- Given that a substantial portion of solar project components—such as PV modules, inverters, and trackers—are either fully imported or linked to global pricing benchmarks, this currency depreciation has had a direct and material impact on capital costs.
- 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 ALMM.**

| S.No | Description | Period | Remarks |
|---|---|---|---|
| 1 | Initial ALMM Order Issued | 02-01-2019 | |
| | Effective Implementation Date (Initial) | 01-04-2020 | |
| | | | |
| 2 | Clarifications and Amendments | | |
| | Amendment 1 | Feb-21 | Usage of ALMM restricted to Government Projects |
| | Amendment 2 | Jan-22 | The scope expanded to OA and Net metering |
| | Amendment 3 | Mar-23 | Suspension for One Financial Year |
| | Amendment 4 | 09-02-2024 | reimposition of the ALMM, with 2 exemptions |
| | | | a) Projects under open access and captive |
| | | | b) Projects identified as "in advanced stages of construction |

| | | | |
|---|---|---|---|
| | Amendment 5 | 15-02-2024 | abeyance pending further clarification on Feb 9th Order |
| | Amendment 6 | 29-03-2024 | **Final Reimposition of ALMM** |
| | | 01-04-2024 | all government-sponsored projects and government -assisted projects (including open access and net-metering projects) must source solar modules only from the ALMM-approved list. |

- **Import Duty changes:-**

| | **Safeguard Duty (SGD)** | **Basic Customs Duty (BCD)** |
|---|---|---|
| **Effective Date (Initial)** | Jul-18 | April 1, 2022 |
| **Announcement Date (Initial)** | **Ministry of Finance Notification:** July 30, 2018 | **Finance Ministry Notification:** March 2021 |
| **Duty Rates** | Initially 25%, phased down over time (e.g., 15% in 2020-21) | Initially 25% on cells, 40% on modules |
| **Current Duty Rates** | Expired (last extension until July 29, 2021) | 20% on both solar cells and modules |
| **Social Welfare Surcharge (SWS)** | Applicable on top of SGD | Applicable on top of BCD (initially 10% of BCD) |
| **Agriculture Infrastructure and Development Cess (AIDC)** | NA | 7.5% on cells, 20% on modules as of Feb 2025 |

In view of the above, 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 enhance the scheme's implementation success within the remaining timeframe.

## (3) Inefficiencies in TG DISCOMs' Methodology for Sub-Station-Wise (S-S Wise) Capacity Allocation:-

It is respectfully submitted that the methodology adopted by the TG DISCOMs in identifying and notifying sub-station-wise (S-S wise) capacities under the KUSUM scheme is inefficient, sub-optimal, and technically flawed.

Currently, TG DISCOMs have proposed to use:

(a) the existing transformer capacity, and

(b) the connected solar capacity on the 11 kV side of 33/11 kV sub-stations,

as the basis for capacity allocation. This simplistic approach, aimed at reducing network losses, fails to account for the dynamic nature of load profiles and solar generation.

**Why This Approach is Problematic??**

For example, 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**.

**Best Practices from Other States**

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 analyze 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:

- Optimal absorption of generated power within the local distribution network
- Minimal reverse power flow
- Enhanced grid stability
- Efficient transformer utilization.

## (4) Omission of Ongoing Generation Projects in Energy Availability Projections:-

It is respectfully submitted that the energy availability projections provided by TG DISCOMs appear to overlook several critical upcoming generation sources, thereby underestimating the state's medium-term energy supply position.

Based on an assumed Plant Load Factor (PLF) of 85%, the following ongoing thermal projects are expected to contribute significantly to the state's energy availability:

- **Yadadri Thermal Power Station (YTPS)**:
  5 units × 800 MW = **4,000 MW**,
  Expected annual generation: **~29,784 MUs**
- **Singarenis Thermal Power Project (STPP), Stage-II**:
  1 unit × 800 MW = **800 MW**,
  Expected annual generation: **~7,446 MUs**
- **Telangana STPP, Stage-II**:
  1 unit × 800 MW = **800 MW**,
  Expected annual generation: **~7,446 MUs**

Together, these projects are estimated to contribute **over 44,000 MUs** annually. However, these figures do not appear to be factored into the DISCOMs' current projections of future energy availability.

This omission could lead to skewed planning decisions, including unnecessary procurement and sub-optimal integration of renewable capacity. A comprehensive and realistic assessment of future energy availability—factoring in the scheduled commissioning timelines of these major generation assets—is essential for transparent and efficient power procurement planning.

I respectfully urge the Hon'ble Commission to direct TG DISCOMs to revise their projections with the inclusion of these ongoing generation capacities to ensure a more accurate and balanced assessment of the state's energy landscape.

## (5) Contradiction Between Additional Surcharge Claims and Future Energy Requirement Projections:-

It is respectfully submitted that the Telangana DISCOMs have consistently claimed Additional Surcharge on the grounds that their existing assets—particularly long-term contracted

capacity—are getting stranded due to declining demand from certain consumer categories as they are opting for open access.

In this context, their current projection of significantly high future energy requirements appears inherently contradictory. On one hand, the DISCOMs argue that surplus capacity is leading to fixed cost burdens and under-utilized assets (justifying the imposition of Additional Surcharge), while on the other hand, they project a substantial rise in demand that seemingly negates the very basis of those earlier claims.

This inconsistency calls into question the accuracy and objectivity of the demand forecasts being presented and warrants a more transparent and reconciled approach. I respectfully urge the Hon'ble Commission to seek clarification from the DISCOMs and direct that future energy projections be aligned with proper rationale to ensure consistency and regulatory integrity.

## (6) Misplaced and Misrepresented Facts in Support of TG Discoms' Current Proposals:-

It is respectfully submitted that certain claims made by TG DISCOMs to support their current proposals appear factually misplaced or overstated, thereby necessitating a closer examination by the Hon'ble Commission:

**(a) Misinterpretation of MoP Notification Dated 20.10.2023**

TG DISCOMs have cited Renewable Purchase Obligation (RPO) targets from the Ministry of Power's (MoP) notification dated 20.10.2023. However, this 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 DISCOMs.

**(b) Exaggerated RPO Penalty Cost**

The projected RPO compliance cost of ₹3.72/unit claimed by TG DISCOMs is grossly exaggerated and not reflective of actual market trends. As of March 2025, the closing inventory of REC

certificates stood at 4,04,90,242 certificates (equivalent to 40,490 MUs). The average trading price of RECs on the Indian Energy Exchange (IEX) has remained around ₹0.35/unit.
Sources:

"REC Registry of India – REC Inventory" &

"IEX REC Market Data"

These facts clearly indicate that RPO compliance, if needed through REC purchases, could be achieved at a fraction of the cost (Rs.0.35/Unit) being projected by the DISCOMs.

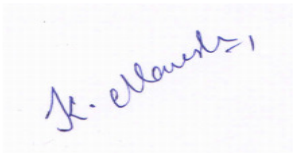
**(c)** At best, the RPO targets referred to by TG DISCOMs may stem from the MoP's order dated 22nd July 2022, which outlines a trajectory for RPO obligations. However, it is crucial to note that the MoP has explicitly empowered State Electricity Regulatory Commissions (SERCs) to fix binding targets for their respective jurisdictions. The targets are indicative in nature and not directly enforceable unless formally adopted by the Hon'ble Commission through a notified regulation.

In light of the above, I request the Hon'ble Commission to critically re-examine the factual basis of the TG DISCOMs' proposals and ensure that regulatory decisions are made based on accurate and contextually appropriate data.

**(d) A simplistic comparison between the average cost of electricity market purchases in FY23-24 (₹5.56/unit) and current solar tariffs overlooks the complexities of power procurement.** Market purchases are typically driven by real-time demand from DISCOMs, often during peak load conditions or supply shortfalls. This inherently leads to higher and more volatile pricing, often determined on an ad hoc or short-term basis. In contrast, solar power procurement is generally structured through long-term power purchase agreements (PPAs) with fixed tariffs, offering price stability and predictability. Thus, while solar tariffs may appear lower on paper, the comparison does not account for the dispatchability, timing, and reliability aspects of market purchases versus scheduled renewable generation.

I firmly believe that the suggestions outlined above offer valuable insights that will support the Hon'ble Commission in arriving at sound and forward-looking conclusions.

**Thanks & Regards,**



**Venkata Naresh Kumar Konakandla (Venkat N.K.K),**
**(B.E (Anna University), M.B.A (SPJAIN), L.L.B (Osmania University))**

**Address:** G-202, Aditya Hilltop, Veterinary colony, Road No. 82,

Jubliee Hills, Film Nagar, Hyderabad- 500096

**Mob: +91-9666 22 99 75.**

**Copy Communicated To:**

(1) The Chief Engineer(IPC)/TGSPDCL