



सेंट्रल ट्रांसमिशन यूटिलिटी ऑफ इंडिया लिमिटेड

(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड के स्वामित्व में)

(भारत सरकार का उद्यम)

CENTRAL TRANSMISSION UTILITY OF INDIA LTD.

(A wholly owned subsidiary of Power Grid Corporation of India Limited)

(A Government of India Enterprise)

Ref No. CTU/S/5/Conn/INT-1A-2200001739

Date: 11.07.2025

Ms. Anita

DGM

Solar Energy Corporation of India Ltd.
6th Floor, Tower-2, NBCC Office Block,
East Kidwai Nagar, New Delhi -110023
anitaag@seci.co.in
ashutosh.shandilya@seci.co.in

Sub: Intimation for in-principle Grant of Connectivity for 50 MW to M/s Solar Energy Corporation of India Ltd. at Tumkur (Pavagada) PS- Reg.

- Ref: 1. Connectivity application, no. 2200001739 (50 MW) dated 06.02.2025.
2. Minutes of 37th CMETS-SR meetings, held on 17.04.2025.

Dear Madam,

With reference to above, please find attached intimation for in-principle grant of Connectivity for 50 MW to M/s Solar Energy Corporation of India Ltd. at Tumkur (Pavagada) PS.

You are required to submit applicable Conn-BGs within one month, from the date of issuance of this intimation, failing which the application for Connectivity shall be closed and application fee shall be forfeited.

You may contact at the following address for submission of Conn-BGs.

Sr. General Manager (BCD & BG and Agreement & Regulatory)
Central Transmission Utility of India Ltd
Plot No. 16, IRCON International Tower (Tower-1)
Institutional Area, Sector 32
Gurugram, Haryana – 122001
Tel: 0124-2012915

Thanking you,

Yours faithfully,

(Anil Kr Meena)
General Manager

Copy to:

1. Chief Engineer (PSP&A-I) Central Electricity Authority Sewa Bhawan, R K Puram New Delhi – 110 066.	2. Member Secretary Southern Regional Power Committee, 29, Race Course Cross Road, Bangalore – 560 009
3. Director (Power System) Solar Energy Corporation of India Ltd. 6 th Floor, Plate-B, NBCC Office Block Tower-2, East Kidwai Nagar, New Delhi- 110023	4. Executive Director Southern Regional Load Dispatch Centre 29, Race Course Cross Road, Bangalore – 560 009

INTIMATION FOR IN-PRINCIPLE GRANT OF CONNECTIVITY UNDER REGULATIONS**7.1 and 7.2****A General**

1.	Intimation No	:	CTU/S/5/Conn/INT-1A-2200001739
	Date	:	11.07.2025
2.	Ref. Application No.	:	2200001739
	Date	:	06.02.2025
3.	Name of the Applicant	:	M/s Solar Energy Corporation of India Ltd.
4.	Address for Correspondence	:	6 th Floor, Tower-2, NBCC Office Block, East Kidwai Nagar, New Delhi -110023
5.	Location of the Generating Station	:	Ramagiri, Sri Sathya Sai
	Latitude	:	14.157204
	Longitude	:	77.509271
	State	:	Andhra Pradesh
6.	Nature of the Applicant	:	Generator
7.	Installed Capacity [Thermal/ Hydro/ Nuclear/ Wind/ Solar/ PSP/ BESS etc.]	:	50 MW [Wind]

B Connectivity Details

8.	ISTS Connectivity details	:	
i.	Point at which connectivity is granted	:	Tumkur (Pavagada) PS
ii.	Voltage level of allocated terminal bay	:	220kV
iii.	Terminal bay at ISTS end already available	:	No
iv.	Terminal bay at ISTS end to be constructed under ISTS	:	No [Bay already allocated to M/s Solar Energy Corporation of India Ltd. for application no. 1200003590]
v.	Bay no. and SLD	:	Bay no. – 218 [SLD Enclosed]
vi.	Capacity (MW) for which connectivity is granted	:	50
9.	Dedicated Transmission Line (DTL)	:	<ul style="list-style-type: none"> • Through dedicated connectivity transmission system of M/s SECI for app. no. 1200003590 i.e. Generation Station of M/s Solar Energy Corporation of India Ltd. – Pavagada (Tumkur) PS 220 kV S/c line on D/c

		<p>tower* - all arrangement under the scope of applicant.</p> <ul style="list-style-type: none"> SECI has already granted connectivity for 100 MW (app. no. 2200000057) through dedicated connectivity transmission system of app. no. 1200003590.
10.	ATS/ Augmentation	
10a	Associated Transmission System (ATS) Including broad design features	: Nil
i.	Scheme details	: NA
ii.	Scheduled commissioning date of ATS	: NA
iii.	Estimated Cost of ATS	: NA
10b	Augmentation (Other than ATS)	
i.	Scheme details	: Common Transmission system required for effectiveness of connectivity/GNA (Augmentation other than ATS): <ul style="list-style-type: none"> ISTS Network Expansion scheme in Western Region & Southern Region for export of surplus power during high RE scenario in Southern Region as per Annexure-I. Augmentation of 8th – 10th 400/220 kV ICTs at Pavagada PS.
ii.	Scheduled commissioning date of Augmentation	: <ul style="list-style-type: none"> ISTS Network Expansion scheme in WR & SR for export of surplus power during high RE scenario in SR as per Annexure-I, SCOD: 16.07.2024 [Anticipated COD: 30.09.2025 as per 49th JCC meeting] Augmentation of 4x500 MVA, 400/220 kV (8th- 10th) ICTs at Pavagada PS: 21.05.2026.
11.	Start date of Connectivity	: 03.09.2027 [With the availability of common transmission system required for effectiveness of Connectivity/GNA]

C Bank Guarantees to be submitted

i.	Amount of Conn-BG1	: Rs. 50 lakhs
ii.	Amount of Conn-BG2	: NA

iii.	Amount of Conn-BG3 @2 lakh/MW	:	Rs. 1.0 Cr (@Rs.2 lakhs/MW)
D Details of communication system			
i.	Details of communication system	:	As per Annexure-II

Connectivity Grantee/Applicant may get updated status towards COD of common transmission system from the TSP for readiness of its generation project in matching time frame.

Note: Connectivity is granted to the ISTS with following:

1. Conn-BG1 and Conn-BG3 shall be furnished within 1 (one) month of this intimation, failing which the application for Connectivity shall be closed, and the application fee shall be forfeited. No extension of time shall be granted to furnish the requisite bank guarantee, and in such case this in-principle grant of Connectivity shall be revoked under intimation to the Connectivity grantee/applicant.
2. The Grantee shall abide by all provisions and its amendments thereof or re-enactment of:
 - i) Electricity Act, 2003;
 - ii) CERC (Connectivity and General Network Access to the inter-State transmission System) Regulations, 2022 and corresponding Detailed Procedure for Connectivity and GNA;
 - iii) CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007
 - iv) CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020
 - v) CEA (Technical Standards for construction of Electrical Plants and Electric Lines) Regulations, 2022;
 - vi) CEA (Grid Standard) Regulations, 2010;
 - vii) CEA (Safety requirements for construction, operation and maintenance of Electrical Plants and Electrical Lines) Regulations, 2011;
 - viii) CEA (Measures relating to Safety and Electricity Supply) Regulations, 2023;
 - ix) CEA (Installation and Operation of Meters) Regulations, 2006;
 - x) CEA (Technical Standards for Communication System in Power System Operations) Regulations, 2020;
 - xi) CERC (Communication System for Inter –State transmission of Electricity) regulations, 2017;
 - xii) CERC (Indian Electricity Grid Code) Regulations, 2023.
 - xiii) CEA (Cyber Security in Power Sector) Guidelines, 2021;
 - xiv) CEA (Manual of communication planning in Power System operation), March 2022;
 - xv) CEA Guidelines for Unified Philosophy for Placement of Phasor Measurement Units (PMUs) in Indian Grid, March 2025;
 - xvi) Any other applicable Act / Rules / Guidelines / Standards / Regulations / Procedures etc.
3. The applicant shall keep the CTU and RLDC/NLDC indemnified at all times and shall undertake to indemnify, defend and keep the CTU, RLDC/NLDC harmless from any and all damages, losses, claims and actions including those relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and; all other obligations by or to third parties, arising out of or resulting from the Connectivity.

4. Towards monitoring of the projects, Connectivity grantee shall comply with Regulations 11 of GNA Regulations 2022, else suitable action shall be taken up as per applicable CERC Regulations. Format for furnishing the progress (through on-line facility) of the project is provided at **FORMAT-CONN-STATUS-CG** on CTU web portal.
5. **a) For 220kV Lines:** Considering Right-of-Way near substation for termination of number of 220kV transmission lines (including Dedicated Transmission Lines), the entities shall coordinate among themselves for implementation of 220kV lines through multi circuit tower near the substation entry for about 2-3 kms stretch. Termination of line from multi-circuit tower to substation gantries shall be done using double-circuit dead-end towers, in coordination with the substation developer/developer(s) of other 220kV lines, if required as per site conditions.
 - b)** As per CEA's Manual on Transmission Planning Criteria, line approaching substation shall normally be perpendicular to the substation boundary for a stretch of 2-3 kms.
6. Depending on the topology and transmission system requirement, CTU may plan the Connectivity of any generating station(s) at terminal bay of an ISTS substation already allocated to another Connectivity applicant/grantee (such as through Loop-in Loop-out (LILO) of DTL) or at switchyard of a generating station having Connectivity to ISTS for connection and injection of power. In such cases, an agreement (model agreement as per **FORMAT-CONN-SHARE**) shall be duly signed within one (1) month of the intimation regarding the sharing of DTL and/or terminal bay between the applicants/grantee for sharing the terminal bay / switchyard / dedicated transmission line, failing which the intimations for grant of Connectivity of applicants / grantee shall be liable for revocation.
7. **Instruction regarding submission of Technical data for signing of Connectivity Agreement:**
 - a. Connectivity grantee shall comply with CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 & amendment(s) thereof and shall have to furnish technical data and requisite compliance as per **FORMAT-CONN-TD-1 / FORMAT-CONN-TD-2 / FORMAT-CONN-TD-3** (as applicable) of Detailed Procedure to CTU within thirty (30) days from final grant of Connectivity for signing of "Connectivity Agreement viz. **FORMAT-CONN-CA-5**".
 - b. If the submitted Technical Data is tentative, then the Connectivity Agreement as per **FORMAT-CONN-CA-5** shall be signed within thirty (30) days of submission of the tentative Technical Connection Data. In such case, the final technical data shall be provided at least one (1) year prior to physical connection.
 - c. After receipt of final data, CTU shall scrutinize the submitted data within thirty (30) days and inform regarding discrepancies (if any). Upon rectification of all discrepancies by entity, CTU within thirty (30) days shall intimate the connection details as per **FORMAT-CONN-TD-4**. Thereafter the Connectivity Agreement as per **FORMAT-CONN-CA-5** shall be signed within thirty (30) days. If Connectivity Agreement as per **FORMAT-CONN-CA-5** has already been signed with tentative data, then **FORMAT-CONN-TD-4** shall become

(Ans)

an integral part of already signed **FORMAT-CONN-CA-5**. Physical connection to ISTS shall be permitted only after signing of **FORMAT-CONN-CA-5**.

- d. Subsequent to issuance of **FORMAT-CONN-TD-4**, if there is any change in technical connection data provided by the applicant, it shall submit the revised technical data to CTU with full justification following which CTU shall process the same for revision in **FORMAT-CONN-TD-4** within thirty (30) days after receipt of complete data. Such request shall be allowed only once at least three (3) months prior to physical connection to ISTS. However, upon physical interconnection with ISTS, revised technical data, if any, shall be provided to CTU for information and record.



Place: Gurugram

Date: 11.07.2025

(Anil Kr Meena)

General Manager

ISTS Network Expansion scheme in Western Region & Southern Region for export of surplus power during high RE scenario in Southern Region

Sl.	Scope of the Transmission Scheme	Capacity /km
1.	Narendra New (GIS) – Pune (GIS) 765kV D/c line with 1x330MVAr switchable line reactor on each ckt at both ends	<ul style="list-style-type: none"> • 765 kV line bays -2 (GIS) (at Narendra New) • 765 kV line bays -2 (GIS) (at Pune) • 765 kV, 330 MVAr SLR – 2 nos. (7 X 110 MVAr incl. 1 switchable spare unit) at Pune (GIS) • 765 kV, 330 MVAr SLR – 2 nos. (6 X 110 MVAr) at Narendra (New) (GIS)
2.	Upgradation of Narendra (New) (GIS) to its rated voltage of 765 kV level along with 4x1500 MVA transformer and 2x330 MVAr Bus Reactor.	<ul style="list-style-type: none"> • 765/400 kV, 1500 MVA- 4 no. (13 X 500 MVA incl. 1 spare unit) • 765 kV ICT bays- 4 nos. (GIS) • 400 kV ICT bays- 4 nos. (GIS) • 765 kV, 330 MVAr BR – 2 nos. (7 X 110 MVAr incl. 1 switchable spare unit to be used for both bus/line reactors) • 765 kV Bus Reactor bays – 2 nos. (GIS)

Details of communication system and Integration with UNMS

1. Connectivity grantee shall provide Fiber Optic based communication system comprising OPGW cable (having minimum 12 Fibers) & hardware fittings for the dedicated transmission line and with FOTE (STM-16) terminal equipment, FODP, and approach cables at both ends in case the internal connectivity of upcoming Generation (50 MW to Solar Energy Corporation of India Ltd.) with Common Pooling station of Solar Energy Corporation of India Ltd. under application no 1200003590 is on 110kV or above transmission line. The communication system shall facilitate telemetry data communication, voice communication and tele-protection. Further, the Connectivity grantee also needs to provide Phasor Measurement Units (PMU) as per CEA "Guidelines on Unified Philosophy for placement of PMUs in Indian Grid", notified in March 2025 which specifies both optimized locations for PMUs placement and optimized list of Signals to be telemetered from PMU's and amendments thereof.
2. Further, the Connectivity guarantee shall share communication infrastructure (FOTE, OPGW, approach cable, etc.) under application number 1200003590 at both ends viz, i.e. Common Pooling Station of M/s Solar Energy Corporation of India Ltd. and Tumkur (Pavagada) PS
3. Applicant to provide the dual channel (2+2) to the Main Control Centre & Backup Control Centre as per guidelines of the CERC Interface requirements of Communication system clause 4.1.
4. Applicant to provide Next Generation Firewall as per the specification/ features at CTU website.
5. The new communication equipment/ system under the present scope shall be compatible for integration with existing regional level NMS system/ Centralized Supervision & Monitoring System (CSMS) i.e. Regional UNMS. The local configuration of the new communication equipment/ system at the station end shall be the responsibility of Applicant. The configuration work in the existing centralized NMS/ UNMS at Control center end, for integration of new Communication equipment/ system shall be done by Regional ULDC Team/ NMT, however all the necessary support for full-fledged integration in this regard shall be ensured by Applicant.