

CHAMUNDESHWARI ELECTRICITY SUPPLY CORPORATION LIMITED (Government.of Karnataka under taking)

Phone: 24499906, Fax: 2440121, Email: www.eeenrmohalla@gmail.com Office of the Executive Engineer (Elec). NR.Mohalla Division, MP&L Buildings, Sri Harsha road, Mysura.

EE (E) / AEE (E) (O) / AE (T) / SRTPV / 2015-16 / 10793

dated: 11: 2.16

To,

The Chairman, Academy for Technical & Management Excellence, #2904 CH67, 2nd Floor, Saraswathipuram, Near fire station, Mysuru-570009.

Madam/Sir,

Sub: Approval for installing 95 kWp solar RTPV system.

- Ref: 1. Application Reg. No.0002908 dated: 21.01.2016
 - 2. Technical details submission letter No. AEE(E)/AE(T)/NRM/2015-16/ dated 25.02.2016 of NR Mohalla subdivision

Approval is herewith accorded, after verifying the technical details furnished by you, for installing Solar RTPV system of 95kWp on your rooftop with the following conditions.

- 3. Bi-directional meter shall be purchased from CESC or any other ESCOMs approved vendors and to be fixed at net-metering point.
- 4. The existing metering, wiring, service main work and the capacity of existing DTCs to be changed suitably by the consumer on his own cost to solar power generation side in presence of AEE/EE, MT Division, CESC, Mysore to measure solar generation.
- 3. You are requested to submit the following documents after completion of Solar RTPV system installation:
- Facilitation fee of Rs.5000.00 shall be paid and enclose the copy of receipt.
- Test Certificate of bi-directional meter from MT division. CESC.Mysore.
- Inspection Report by AEE (Below 10 kWp)/ CEI. GoK (For capacity above 10kWp)
- Copy of Power Purchase Agreement on Rs.200 stamp paper with CESC. Mysore.
- Work completion report from system Installer as per Format-6A.
- Facing sheet of Bank pass book containing details of Name of the Bank. Type of account. Account No, Name of Branch, IFSC code etc.

This approval is valid for 180 days from the date of this letter and the SRTPV system is to be commissioned within this period, failing which the approval will be treated as cancelled.

Yours fauhfully vecutive Engine

ಕಾರ್ಯನ್ರಿರ್ವಾಹಕ ಇಂಜನೆಯರ್ (ಶ) ಜಾ.ವಿ.ಸ.ಸ.ಸಿ. ಕಾರ್ಯಮತ್ತು ಚಾಲನ ಎನ್.ಆರ್. ಮಾಹರಾ ವಿಶಾಗಿಯನ್ನು ಚಾಲನ

Copy for the information to:

- The Assistant Executive Engineer (Elec), N.R.Mohalla Sub division, CESC, Mysuru
- AEE (E) (O)/T-1



PRINCHPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028

List of Documents

SI.No	Particulars	Available (Yes/No)
1	Copy of Format – 8A – Certificate of Synchronisation dated 15th Sept 2016	Yes
2	Copy of Format – 7 – Approval for Commissioning & Synchronisation dated 8 th Sept 2016	Yes
3	Copy of Format – 6C–Checklist for Solar Rooftop PV System grid safety qualification dated 8 th Sept 2016	Yes
4	Copy of CEIG electrical safety approval letter dated 12 th Sept 2016	Yes
5	Original CEIG drawing approval dated 7 th Sept 2016	Yes
6	Copy of Approval for dismantling of 1*100KVA 11kV/433V Transformer dated 12 th Sept 2016	Yes
7	Warranty terms & conditions – Seraphim Solar PV Modules along with confirmation letter from Seraphim Solar Systems Co., Ltd	Yes
8	Warranty terms & conditions – GoodWe Inverters	Yes
9	Test Report for GoodWe Inverters	Yes



ATME College of Engineering 13th KM Myšuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 028 Format - 8A ChamundeshwariElectricity Supply Corporation Limited, Mysore (Government of Karnataka undertaking)

Office of the

AEE/Executive Engineer(Ele) O&Mostandary draston, CESC ಚಾ.ವಿ.ಸ.ನಿ.ನಿ., ಕಾರ್ಯ ಮಲ್ತು ಬಾಲನ ಎನ್.ಆರ್. ಮೊಹಲ್ಲಾ ವಿಭಾಗ, ಪ್ರುಸೂರಾ

ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 028

Format - 7

Office of the EE/ AEE (Elec.)

(Government of Karnataka undertaking)

Date: Telephone : Email ID EE (E) AEE (O) (AE(T) SRTPV/2015-16/11051A To, Chairman, ATME College of Engineering, 13th KM Milestone, Mysore - Kanakapura - Bangalore Road, Mysore - 28 Madam/Sir, Ref: 1. This office approval letter No. 1051A dtd: 17-3-2016 _kWp of Solar RTPV After verifying, all the documents submitted by you, system is approved for arranging testing, commissioning and synchronization of the SRTPV system with CESC grid Yours faithfully,

Copy submitted to:

- 1. General Manager (Tech), Corporate office, CESC, Mysore.
- 2. Superintending Engineer Elec., Commercial, CESC, Mysore

ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 028



CHAMUNDESHWARI ELECTRICITY SUPPLY CORPORATION LIMITED, Mysore (Government of Karnataka Undertaking)

Office of the AEE,

O&M Sub division

No. 110SIA

Date: 08-09-2016

CHECKLIST FOR SOLAR ROOFTOP PV GRID SAFETY QUALIFICATION

1.0 Solar RTPV - Customer and Location Data

1	Customer Name	Chairman ATME Calle
2.	Address	of Engineering, 13th KM Milestone,
3.	RR No.	HT 16
4.	Customer Contact- Email	allia Asta a
5.	Customer Contact- Mobile no.	office @ atme. in
6.	SRTPV Installer - Name & address	Evervalt Solar Prt. Ltd, # 39/40, 4th Mn, Telecom Layout, Bangalore - 560025
9.	CESC- officer in Charge	AFF NO DIALOUS CUL
2.0	Component Inspection Checklist	ALL INK Monaula Jub-awyren

Item type	YES	NO
Installation layout - is it as per drawing?		
Inverter IS / IEC standards qualified		
PV panel IS / IEC standards qualified	1	
PV isolators/PV cables IS/ IEC standards qualified		**************************************
AC disconnect manual switch provided		
Meters from MT staff approved? (as per meter regulations)		
Any other critical component IS / IEC standards certified	~	
	Installation layout - is it as per drawing? Inverter IS / IEC standards qualified PV panel IS / IEC standards qualified PV isolators/PV cables IS/ IEC standards qualified AC disconnect manual switch provided Meters from MT staff approved? (as per meter regulations)	Installation layout - is it as per drawing? Inverter IS / IEC standards qualified PV panel IS / IEC standards qualified PV isolators/PV cables IS/ IEC standards qualified AC disconnect manual switch provided Meters from MT staff approved? (as per meter regulations)

3.0 Grid -Functional Safety Checklist

Sl No.	Item type	YES	NO
1	Check-PV inverter anti islanding (utility side). Disconnect Grid and check whether PV generator seizes Generation immediately	~	
2.	Check Reconnect time.: Reconnecting to the Grid, PV generator reconnects to grid with minimum 60 seconds later (Single phase) or minimum 300 seconds later(Three phase connectivity)	-	
3.	Bi-directional flow recorded on CESC Meter	~	
4.	Consumption (Import) only mode ok?		
5.	PV inverter anti islanding tested at array side	1	
6.	Solar Generation meter OK?	1	
7.	Check all earthing provided at ACDB/DCDB/LA		

I hereby certify that the PV installation is qualified to be connected to CESC Grid.

ABE (Ele). O&M sub-division, CESC

PRINOPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 028

ಕರ್ನಾಟಕ ಸರ್ಕಾರ

(ವಿದ್ಯುತ್ ಪರಿವೀಕ್ಷಣಾ ಇಲಾಖೆ)

Office of the Additional Chief Electrical Inspector, No.1360, Anikethana Road, "G" & "H" Block, Kuvempunagar, Mysuru -570 023 Date: 07 - 09 - 2016

No: ACEI(MYS)/01 TEC/57 ACI/2016-17/ 4109

To, THE CHAIRMAN, ATME COLLEGE OF ENGINEERING, 13TH KILOMETER, MYSURU-KANAKAPURA-BENGALURU ROAD, MYSURU - **570** 028.

Sir,

- Sub: Approval of drawings pertaining to the 95kWP solar roof top PV installation, replacement of existing HT Metering cubicle with new HT Metering cubicle & 1x250kVA 11kV/433V transformer sub-station replaced in place of the existing 1x100kVA 11kV/433V transformer HT installation bearing CESC R.R.No:HT-466 installed at ATME College of Engineering, 13th Kilometre, Mysuru-Kanakapura - Bengaluru Road, Mysuru.
- Ref : Your Letter dated:06.09.2016 seeking approval for the said installation drawings.

Please find herein enclosed the drawings in duplicate referred to the above duly approved after effecting necessary corrections and with observations in the note in Red Ink. You may take up the work through a Licensed Electrical Contractor of Class 1 or above as per the approved drawings and after completing the work contact the undersigned along with the following particulars to arrange for inspection.

- 1. Test Reports of PV modules from MNRE approved agencies.
- 2. Original challon for having remitted in to the Govt. treasury (Budget Head: 0043 Non Plan T & D on Electricity) Inspection fees of ₹: 6,600/- (Rupees Six Thousand Six Hundred Only).
- 3. Manufacturers Test report of the Inverter, Transformer, Cable, & Metering System.
- 4. Calibration test certificate of the metering system viz. current transformer & Energy meters.
- 5. Copy of Dismantling Approval of the existing HT Metering cubicle & 100kVA 11kV/433V transformer obtained from this department.
- 6. Completion Report of the Licensed Electrical contractor in Form-B1 for having completed the works as per the approved drawings along with the following details:
 - a. Copy of Electrical contractor license
 - b. Copy of Supervisor permit along with endorsement
 - c. Copy of Form-Z
 - d. Form-A1

NOTE: 1. SOLAR GENERATION METER AND BI-DIRECTIONAL METER SHALL BE AS PER CEA GUIDELINES & SHALL BE PROCURED FROM APPROVED VENDORS OF CESC, MYSURU.

2. ALL THE TEST CERTIFICATE OF THE EQUIPMENTS SHALL BE IN ACCORDANCE TO INDIAN STANDARD/IEC.

3. TYPE TEST CERTIFICATE OF THE EQUIPMENTS SHALL BE FURNISHED.

Further, drawing scrutiny fee of ₹:1250/- (Rupees One Thousand Two Hundred and Fifty only) paid vide challon No:16 dated:20.08.2016 at SBM, Treasury Branch, Mysuru is hereby acknowledged.

Yours faithfully,

ADDITIONAL CHIEF ELECTRICAL INSPECTOR ADDITIONAL CHIEF ELECTRICAL INSPECTOR

Copy to: The Deputy Electrical Inspector, Mysuru North, Mysuru for information. MYSURU

PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Meitahalli Mysuru-570 ()28

ದೂರವಾಣಿ: 0821-2463177

ಕರ್ನಾಟಕ ಸರ್ಕಾರ (ವಿದ್ಯುತ್ ಪರಿವೀಕ್ಷಣಾ ಇಲಾಖೆ)

> ಅವರ ಮುಖ್ಯ ವಿದ್ಯುತ್ ಪರಿವೀಕ್ಷಕರ ಕಚೇರಿ. ನಂ:1360, 'ಚಿ' & 'ಹೆಚ್' ಬ್ಲಾಕ್, ಅಸಿಕೇತನ ರಸ್ತೆ. ಕುವೆಂಮನಗರ, ಮೈಸೂರು.

No: ACEI(MYS)/TEC 233 DIN/ 4/98-972016-17

Date: 12/09/16

TO,

ACADEMY FOR TECHNICAL & MANAGEMENT EXCELLENCE (ATME), 13th KM, MELLAHALLI CIRCLE, MYSURU-BANNUR ROAD, MYSURU TALUK & DISTRICT.

Sir,

- Sub: Dismantling approval for the 1 x 100KVA 11kV/433V transformer at the said premises.
- Ref: 1. Letter No: DCEI/MYS/EI-N/HT/2945-47 dt: 20.9.2010 from the Electrical Inspector, Mysuru North, Mysuru according commissioning approval for the 100KVA 11kV/433V transformer.
 - 2. Your Letter No: NIL dt: 8.9.2016 received at this office on 12.9.2016 seeking dismantling approval for the 100KVA 11kV/433V transformer.

With reference to the above, approval is hereby accorded to dismantle the 100 KVA 11kV/433V transformer with the following details of ATME college of Engineering, 13TH Km Mile stone, Mysuru-Kanakapura-Bangalore Road, Mysuru.

This approval is accorded as per your specific request under ref(2)

Equipment Details:

1.100KVA 11KV/433V Transformer.

1. Transformer:

Make: Techno Power Corporation, 100 KVA, 11kV/433V, Sl.No: TPC-100106021.

Fee of Rs 700/- (Rupees Seven Hundred only) towards issue of dismantling certificate paid vide D.D. No: 203692 dt: 9.9.2016 at ICICI Bank is hereby acknowledged.

Yours Faithfully DEPUTY ELECTRICAL INSPECTOR

MYSURU NORTH

Copy for information to

- 1. The Assistant Executive Engineer(Ele), O & M, CESCOM, N.R. Mohalla S/D, Mysuru.
- 2. MC/OC.

ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Meitahalli Mysuru-570 028

ಕರ್ನಾಟಕ ಸರ್ಕಾರ (ಎದ್ಯುತ್ ಪರಿವೀಕ್ಷಣಾ ಇಲಾಖೆ)

Office of the Additional Chief Electrical Inspector, No.1360, Anikethana Road, "G" & "H" Block, Kuvempunagar, Mysuru -570 023. Date: 12[03]2016

NO: ACEI(MYS)/02 TEC/58 ACI/2016-17/ 4184-85

SPP No: ACEI/MYS/13 SPP/2016-17

To, THE CHAIRMAN, ATME COLLEGE OF ENGINEERING, 13TH KILOMETRE, MYSURU-KANAKAPURA-BENGALURU ROAD, MYSURU - 570 028.

Sir,

- Sub: Electrical Safety approval for the 95kWP solar roof top PV installation, replacement of existing HT Metering cubicle with new HT Metering cubicle & 1x250kVA 11kV/433V transformer sub-station replaced in place of the existing 1x100kVA 11kV/433V transformer HT installation bearing CESC R.R.No:HT-466 having existing 1x100kVA 415V DG Set installed at ATME College of Engineering, 13th Kilometre, Mysuru - Kanakapura - Bengaluru Road, Mysuru.
- Ref: 1.This Office Letter No: ACEI(MY5)/01 TEC/57 ACI/2016-17/4102 dated: 07.09.16 – approving the drawings.
 - 2.Your Letter dated:08.09.2016 seeking approval for the said installation.

With reference to the above, your above mentioned electrical installation was inspected on 09.09.2016 and Electrical Safety approval as required under Regulation 32 & 43 of Central Electricity Authority (Measures relating to safety & Electric Supply) Regulations 2010, is hereby granted for your 95kWP solar roof top PV installation, replacement of existing HT Metering cubicle with new HT Metering cubicle & 1x250kVA 11kV/433V transformer sub-station replaced in place of the existing 1x100kVA 11kV/433V transformer HT installation bearing CESC R.R.No:HT-466 at ATME College of Engineering, 13th Kilometre, Mysuru-Kanakapura – Bengaluru Road, Mysuru.

This approval is strictly subject to your full compliance with the relevant provisions of Central Electricity Authority (Measures relating to safety & Electric Supply) Regulations 2010 (as amended to date) in every respect and subject to the conditions mentioned overleaf. Equipment Details:

- 1. CESC R.R No. of the Existing Electrical Installation: HT-466.
- 2. Total No of Modules

:302 each of 315WP totaling to approx. 95kWP.

3. Inverter(4 numbers)

:Make: Goodwe, Type:GW25K-DT, DC Input: 1000Vdc max, MPPT 260-850Vdc, 640Vdc nom, 27/27Amax, AC Output: 380/400Vac, 37Aa.c, 50/60Hz, 25kVA SI.No: 1025KDTU168R0024, 1025KDTU168R0025, 1025KDTU168R0026, 1025KDTU168R0027.

> ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 028

4. LT switchgear	:Make: L & T, ABB, 200A 4P MCCB - 2 Numbers,	
5. HT Switchgear (Existing DP Structure)	:11kV 200A S/B GOS, 9kV 10kA Lightening Arrestor & HG fuse unit	
6. HT Cable	:2R x 3C x 185 Sq.mm HT UG cable from existing DP structure to HT Metering Cubicle with LBS Panel.	
7. HT Metering Cubicle with LBS	:Panel Make: Quality Engineering Works Panel Sl.No: 053/16-17/MDS. LBS Make: Pentagon Switchgear Pvt. Ltd., 11kV, 630A, Sl.No: LB1652.	
i. Metering CTs	:Make: Kalpa Electrical Pvt. Ltd., Ratio 5/1-1A, 2.5VA, Class 0.2, Sl.No: 127065/16, 127066/16, 127067/16.	
ii. Metering PTs	:Make: Kalpa Electrical Pvt. Ltd., 11kV/v3/110V/v3, 25VA, Class 0.2, Sl.No: 127071/16, 127072/16, 127073/16.	
iii. Bidirectional Energy meter	:Make: L&T Electronic Trivectormeter, 3 Phase 4 Wire, ER-300P, 3x63.5V, -/1A, Class 0.2s, Sl.No: 16192366, 16192403.	
8. HT Cable	:1R x 3C x 185 Sq.mm HT UG cable from HT Metering Cubicle with LBS Panel to transformer.	
9. Transformer	:Make: Techno Power Corporation Ltd., 250kVA, 11kV/433V, 13.12/347.8A, SI.No: TPC-23037.	
10. LT Cable	:2R x 3.5C x 185 Sq.mm LT AI UG cable from transformer to LT Kiosk.	
11. LT Kiosk	:Make: Indo Asian, 400A 4P MCCB.	
12. Solar Metering:		

i.Current Transformer:Make: Kalpa, Ratio 200/5A, 3.75VA, Class 0.5s, Sl.No: 240611/15, 240612/15, 240614/15, 240633/15.

PRINCIPAL ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Meilahalli Mysuru-570 028 ii. Energy meter

:Make: Landis + Gyr Limited, 3 Phase 4 Wire, Model: E 650, 3x240V, 3 x -/5A, Class: 0.5s, 50Hz, Sl.No: P0052834, Initial Reading: 0000000.3 Multiplying Constant: 40.

Initial Inspection fees of ₹: 6,600/- (Rupees six thousand six hundred only) paid vide ICICI Bank DD No. 203691 dated: 09.09.2016 is hereby acknowledged.

CONDITION

- 1. This approval is subject to condition of compliance of Central Electricity Authority (Measures relating to safety & Electric Supply) Regulations 2010, Electricity Act, 2003 and Karnataka Electricity (Taxation on consumption or Sale) Act, 2015.
- 2. License under Section 14 of Electricity Act 2003 shall be obtained from the KERC to transmit electricity or to distribute electricity or to undertake trading in electricity.
- 3. Monthly tax returns shall be filed in Form G and same shall be sent to the Office of Additional chief Electrical Inspector, Mysuru.
- 4. This approval shall be displayed in the control room.
- 5. Log book detailing/ showing day-to-day generation/consumption of energy shall be maintained.
- 6. The energy meter and CT's shall be got calibrated once in a year. Calibration may be done by the KPTCL or any other approved agencies.
- 7. The installation shall always be kept open for inspection of Electrical Inspectorate authorities.
- 8. Any change in the installation shall be intimated to this office and fresh approval shall be obtained.
- 9. It shall be the responsibility of the owner to maintain and operate the installation in a condition free from danger and as recommended by the manufacturer or by the relevant codes of practice of the Bureau of Indian Standards.
- 10. This approval can be withdrawn at any point of time if there is any objection raised from local competent authority.

Yours faithfully,

ADDITIONAL CHIEF ELECTRICAL INSPECTOR ADDITIONAL CHIEF-ELECTRICAL INSPECTOR MYSURU

Copy Submitted to: The Chief Electrical Inspector to Govt., Bengaluru for kind information. Copy to: The Deputy Electrical Inspector, Mysuru North, Mysuru.

ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mettahatti Mysuru-570 028



सत्यमेव जयते

Certificate No.

Certificate Issued Date Account Reference Unique Doc. Reference Purchased by Description of Document Description Consideration Price (Rs.)

First Party Second Party Stamp Duty Paid By Stamp Duty Amount(Rs.)

INDIA NON JUDICIAL Government of Karnataka

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- 15-Mar-2016 11:04 AM
- : NONACC (BK)/ kakscub08/ MYSORE SOUTH4/ KA-MY
- : SUBIN-KAKAKSCUB08838926963004640
- CHAIRMAN ATME COLLEGE OF ENGINEERING
- Article 12 Bond
- AGREEMENT
- 0 (Zero)
- CHAIRMAN ATME COLLEGE OF ENGINEERING
- : CESC MYSORE
- CHAIRMAN ATME COLLEGE OF ENGINEERING
 - 200
 - (Two Hundred only)



of Engineering

Mellahalli Mysuru-5

POWER PURCHASE AGREEMENT FOR ROOFTOP SOLAR PV PLANTS WITH NET METERING ARRANGEMENT

.Please write or type below this line

This Power Purchase agreement is entered into at <u>Mysore</u> on this <u>17th day of March 2016</u> between <u>Chamundeshwari Electricity Supply Company Limited</u> (CESCOM), a Government of Karnataka undertaking, a Company formed and incorporated in India under the Companies Act-1956, with its registered office located at <u>Mysore</u> Karnataka State, hereinafter referred to as the "CESCOM", (which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns) as party of the first part represented by and <u>Chairman, ATME College of Engineering, Mysore</u> the consumer of CESCOM residing at 13th Kilometer, Mysore-kanakapara-Bangalore Road, Mysore <u>570</u> 022, hereinafter

www.shcilestamp.com'. Any

Statutory Alert: 1. The authenticity of the Status Gauge at showe be verified at 'www. available on the website enders in Invalid. 2. The onus of checking the legitimacy is on the users of the certificate. 3. In case of any discrepancy please inform the Competent Authority.

for ATME

ಕಾಂಗ್ಯಾ ಜರ್ಮಾಹಕ ಇಂಜಿನಿಯರ್ (ವಿ) ಟಾಲಕ್ಷಾ ಕ್ಷೇತ್ರ ಕಾರ್ಯ ಗರ್ಗಾ ಹಿತ್ತಾರೆ 1 of ಚಾ.ವಿ.ಸ.ನಿ.ನಿ. ಕಾರ್ಯ ಮತ್ತು ಬಿಹಾರ 1 of ಎನ್.ಆರ್. ಮೊಹಲ್ಲಾ ವಿಭಾಗ, ಮೈಸೂರು referred to as the "Seller" (which expression shall, unless repugnant to the context or meaning thereaf, include the part and expedited assists to an earty of the second parts.

Whereas,

- a. The Seller intends to connect and operate the Solar Roof Top Photo Voltaic (SRTPV) system with ESCOM's HT/LT Distribution system for sale of Solar Power to ESCOM in terms of the Karnataka Electricity Regulatory Commission (KERC) Order No. S/03/01/2013 dated: 10.10.2013 or as amended from time to time.
- b. The Seller intends to install/has installed a SRTPV system of <u>95 kWp</u> capacity on the roof top of the premises situated at <u>ATME College of Engineering 13th Kilometer</u>. <u>Mysore-kanakapura-Bangalore Road,Mysore 570 028</u> and connected to electricity service connection bearing number <u>RR. No: HT466</u> in the same premises under <u>N.R. Mohalla Sub-Division of CESCOM</u>.
- c. The Seller intends to sell net energy exported from the SRTPV system to ESCOM as recorded in the bi-directional meter installed in the seller's premises, from the date of commissioning of the SRTPV system.
- d. ESCOM intends to purchase net energy exported by such SRTPV system at the tariff determined by the KERC.

Now therefore, in consideration of the foregoing premises the parties hereto, intending to be legally bound hereby agree as under:

1. Technical and Interconnection Requirements: Seller shall ensure his SRTPV system complies with the following technical and interconnection requirement and shall:

1.1 Comply with the standards and conditions in respect of integrating the SRTPV system with the grid/distribution system.

1.2 Connect the SRTPV system to ESCOM's distribution system and shall be bound by requirements of State Grid and distribution Code as amended from time to time.

1.3 Install, prior to connection of SRTPV system to ESCOM's distribution system, an inverter with an automatic inbuilt isolation devise.

1.4 Provide external manual isolation mechanism with suitable locking facility so that SRTPV system will not back-feed into the ESCOM's network in case of power outage of the ESCOM's distribution system, and it shall be accessible for officials of ESCOM to operate, if required, during maintenance / emergency conditions.

1.5 Install all the equipment of SRTPV system compliant with relevant International (IEEE/IEC) and Indian standards (BIS).

1.6 SRTPV system shall be designed, engineered and constructed and operated by the seller or on his behalf with reasonable diligence subject to all applicable Indian laws, rules, Regulations as amended from time to time and orders having the force of law.

1.7 Adhere to the following power quality measures as per the International and Indian standards and/or such other measures stipulated by KERC/ESCOM:

a. Harmonic current: Harmonic current injections from a generation unit shall not exceed the limits specified in IEEE 519.

b. Voltage at the injection point should be in the operating range of 80% to 110% of the nominal connected voltage.

c. Flicker: Operation of Photovoltaic system shouldn't cause voltage flicker in excess of the limits stated in the relevant sections of IEC standards or other equivalent Indian standards, if any.

for ATME hairman

Page 2 of 5 IPAL

ATME College of Engineering 13th KM Mysuru-Kanakapura-Bangalore Road Mellahalli Mysuru-570 028 d. Frequency: When the Distribution system frequency deviates outside the specified conditions (50.05 Hz on upper side and 47.5 Hz on lower side), the SRTPV system shall shift to island mode.

e. DC Injection: Photovoltaic system should not inject DC power more than 0. 5% of full rated output at the interconnection point or 1% of rated inverter output current into distribution system under any operating conditions.

f. Power Factor: While the output of the inverter is greater than 50%, a lagging power factor of greater than 0.9 shall be maintained.

1.8 The SRTPV system in the event of voltage or frequency variations must island/disconnect itself as per IEC standards within the stipulated period.

2. The seller shall comply with the following safety measures:

2.1 The seller shall comply with the Central Electricity Authority (Measures Relating to Safety and Electricity Supply) Regulations 2010.

2.2 The seller shall ensure that, the design, installation, maintenance and operation of the SRTPV system are in a manner conducive to the safety of the SRTPV system as well as the ESCOM's distribution system.

2.3 If the Seller's SRTPV system either causes damage to and/or produces adverse effects on the other consumers' or ESCOM's assets, Seller will disconnect SRTPV system immediately from the distribution system by himself or upon directions from the ESCOM and rectify the same at his own cost before reconnection.

3. Clearances and Approvals: The Seller shall obtain ESCOM's and other statutory approvals and clearances before connecting the SRTPV system to the distribution system.

4. Access and Disconnection:

4.1 ESCOM shall have access to metering equipment and disconnecting device of SRTPV system, both automatic and manual, at all times.

4.2 In emergency or outage situation, where there is no access to a disconnecting device either automatic or manual, the CESCOM shall have the right to disconnect power supply to the premise.

5. Liabilities: The Seller shall be solely responsible for availing any fiscal or other incentive provided by the State/ Central government, at his own expenses.

6. Commercial Settlement:

6.1 Tariff:

a. The CESCOM shall pay for the net metered energy at <u>Rs. 9.56 per KWh</u> as determined by the KERC for the term of the agreement.

b. The Seller shall pay the Electricity tax and other statutory levies, pertaining to SRTPV generation, as may be levied from time to time.

c. The seller shall not have any claim for compensation, if the Solar power generated by his SRTPV system could not be absorbed by the distribution system due to failure of power supply in the grid/ distribution system for the reasons, such as line clear, load shedding and line faults, whatsoever.

for ATME Charman

ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್ (ಪ) ಟಾ.ವಿ.ಸ.ನಿ.ನಿ.. ಕಾರ್ಯ ಮತ್ತು ಪಾಲನೆ ಎನ್.ಆರ್. ಮೊಹಲ್ಲಾ ವಿಭಾಗ. ಮೈಸೂರು

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7. Metering:

7.1 The parties shall arrange to shift the existing meter to the generation side of SR1PV to measure solar power generation and install Bi-directional meter (whole current/CT operated) for recording export and import of energy at the point of interconnection to the distribution system. The bi directional meter shall comply with the Central Electricity Authority (Installation and operation of meters) Regulations, 2006 and shall have the following features:

i. Separate registers for recording export and import energy with facility to download by Meter Reading Instrument (MRI).

ii. kVA, kW and kVAR measuring registers for both import and export.

iii. Meter shall have RS232 (or higher) communication optical port / Radio Frequency (RF) port to support Automatic Meter Reading (AMR).

7.2 The seller shall install the meter of SRTPV system and bi directional meter in separate meter boxes in the same proximity or at a suitable place in the premises accessible for the purpose of recording the reading whenever necessary.

8. BILLING AND PAYMENT:

8.1 ESCOM shall issue monthly electricity bill for the net metered energy on the scheduled date of meter reading.

8.2 In case, the exported energy is more than the imported energy, ESCOM shall pay for the net energy exported as per Tariff agreed in this agreement with in 30 days of issue of bills duly adjusting the fixed charges and electricity duty if any.

8.3 In case, the exported energy is less than the imported energy, the seller shall pay CESCOM for the net imported energy as per the prevailing retail supply tariff determined by the Commission from time to time.

8.4 ESCOM shall pay interest at the same rates as is being levied on the consumers for late payment charges in case of any delay in payment for the net energy exported beyond 30 (thirty) days period from the date of issue of bill.

Explanation: Net metered energy means the difference of meter readings of energy injected by the SRTPV system into the grid (export) and the energy drawn from the grid for use by the seller (import) recorded in the bi-directional meter.

9. Term and Termination of the Agreement:

9.1 This agreement shall be in force for a period of 25 years from the date of commissioning of the SRTPV system unless terminated otherwise as provided here under.

9.2 The Seller shall have the right to terminate this agreement at any time by serving a written notice 60 (sixty) days in advance to ESCOM.

9.3 if the Seller commits any breach of the terms of the Agreement, ESCOM shall serve a written notice specifying the breach and calling upon the seller to remedy/ rectify the same within 30 (thirty) days or at such other period and at the expiry of 30 (Thirty) days or such other period from the delivery of the notice, ESCOM may terminate the agreement by delivering the termination notice, if the seller fails to remedy/ rectify.

9.4 Upon termination of this Agreement, seller shall disconnect the SRTPV system from the distribution system and intimate the same to ESCOM.

for ATME

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10. Dispute Resolution:

All the disputes between the parties arising out of or in connection with this agreement shall be first tried to be settled through mutual negotiation. The parties shall resolve the dispute in good faith and in equitable manner. In case of failure to resolve the dispute, either of the parties may approach the appropriate Forum of law.

IN WITNESS WHEREOF, the Seller and the CESCOM have entered into this Agreement executed on the date and year first set forth above.

For AND ON BEHALF OF Electricity Supply Company Limited	For AND ON BEHALF OF SELLER	
By: (Name) : Designation: Address: ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜನಿಯರ್ (ವಿ) ಟಾ.ವಿ.ಸ.ನಿ.ನಿ. ಕಾರ್ಯ ಮತ್ತು ಪಾಲನೆ	By: (Name): Chairman, ATME College of Engineering, Mysore RR No: HT 466 Address: ATME College of Engineering, 13th Kilometer, Mysore kanakapura	
ಟಾ.ವಿ.ಸ.ಸ.ಸ. ಕಾರ್ಯ ವ್ಯಾಸೂರು ಎನ್.ಅರ್. ಮೊಹಲ್ಲಾ ವಿಭಾಗ. ಮೈಸೂರು WITNESS : In Presence of	13th Kilometer, Mysore-kanakapura- Bangalore Road, Mysore – 570 028	
withESS. In Fresence of	WITNESS : In Presence of	
Name:	Name: Mohan M.	
Designation:	Designation: Assistant Professor, E& E Dept, ATME College of Engineering, Mysore	
WITNESS : In Presence of	WITNESS : In Presence of	
Name:	Name:	
Designation:	Designation:	

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