



ప్రదేశ్ ఆంధ్ర ప్రదేశ్ ANDHRA PRADESH

15.2.2012/00/
శ్రీ. జయ వెంకట కృష్ణ ఆ సోలార్ డి.ఎస్.ఆర్. పుట్టూరు

BT 2034
K.J. SUKUMAR
LICENSED STAMP V
No. 1147-025
Puttur - 517583

AGREEMENT

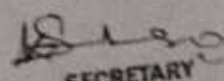
The Agreement executed on this 15th day of February between M/s / Mr. / Mrs. S/o / D/o / W/o _____ which means their/ his/its /theirs, successors as ONE PART herein after called as "Prosumer" and the Northern Power Distribution Company of A.P Limited, a DISCOM incorporated under the provisions of Companies Act 1956 consequent to the AP Electricity Reforms Act, 1998 (which means its authorized representatives assigns, executors and its successors) as OTHER PART, herein after called the "DISCOM")

1. Installation of Solar Grid Interactive rooftop and small SPV power plant

In accordance with the policy announced by GoAP vide G.O.Ms No 22, Dt.25.03.2013, DISCOM has introduced the scheme of "Solar Net Metering" for those consumers who intend to encourage solar green energy and set up solar PV plants at unutilized places on rooftops, waste lands, buildings of individual households, industries, offices, institutions, residential complexes etc.

2. Capacity of the SPV plant and Maximum contracted load of the premises

Prosumer is proposing to install rooftop solar power plant of _____ KW capacity under Solar net metering facility at D.No. _____, Street _____ (V) _____ (M) having electrical Service Connection No. _____ for a contracted load of _____ KWHP/KVA. The Prosumer have requested DISCOM to provide grid connectivity/necessary permissions to connect rooftop solar power plant and supply solar energy into the distribution network of DISCOM at _____ voltage level.


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JNTU, SURBER, A.P.

Governing Provisions

Prosumer hereby undertake to comply with all the requirements of the Electricity act, 2003, the Rules and Regulations framed there under, provisions of the tariffs, applicable Charges and the General Terms and Conditions of Supply prescribed by the DISCOM with the approval of the Andhra Pradesh Electricity Regulatory Commission herein after called as "Commission" from time to time and agree not to dispute the same.

Strategy of implementation

Implementation of net metering facility will be as per the following guidelines.

- i. Under this facility, Prosumer will generate solar power for self consumption and feed excess power into DISCOM network.
- ii. Net metering is the concept, which records net energy between export of generated energy and import of DISCOM energy for a billing month. Alternatively, the meter, having the feature of recording both the import and export values, besides other parameters notified by CEA metering regulations and APTRANSCO/DISCOM procedures in vogue, shall also be allowed for arriving net energy for the billing period.

Settlement of energy charges

The Prosumer shall pay for the net energy in a billing month as per applicable retail supply tariff decided by regulatory commission to the concerned DISCOM, if the supplied energy by the DISCOM is more than the injected energy by the solar PV sources of the Prosumer(s). Any excess/ surplus energy injected in to DISCOM network in a billing month will be treated as inadvertent and no payment will be paid for such energy.

1. Any modification/ amendment in the Policy and change in law would be made applicable and corresponding amendment(s) will be made in the agreement from time to time with the approval of APERC.

Safety, Security & Insurance

The Prosumer is required to provide an appropriate protection system on their incoming side/ consumer premises with the feature of "Islanding the SPV Generator" when incoming supply fails or any interruption on the connected line due to failure of equipment/line or Line Clear taken for carrying any maintenance work. As a part of security check, the feature of "Islanding the SPV generator" shall have to be checked up for its healthiness twice in a year. In order to meet the expenditure that may arise due to electrocution in the event of failure of the connected protective and switch gear, the Prosumer is required to provide an insurance coverage of 5,00,000 per annum.

Metering Arrangement

The Prosumer shall bear the entire cost of metering arrangement provided including its accessories. The installation of meters including CTs & PTs, wherever applicable, shall be carried out as per the departmental procedures in vogue with prior permission of DISCOMs. Alternatively DISCOM will provide the metering arrangement at the Prosumer premises after receipt of entire estimated cost from the Prosumer.

[Signature]


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Request for Connectivity

The Prosumer will submit the required information in the prescribed format to the DISCOM and get the proper acknowledgement and shall also provide related interconnection equipment as per the DISCOM's technical requirements, including safety and performance standards. To prevent a net metering prosumer from back-feeding a de-energized line, the Prosumer shall install an isolator switch that is accessible to Company personnel at all hours.

The Customer shall not commence parallel operation of the net metering facility until the Customer has received approval to operate from the competent authority of DISCOM.

Modifications or changes made to a Generator shall be evaluated by the DISCOM prior to modifications/changes. The Prosumer shall provide detailed information describing the modifications or changes to the DISCOM in writing prior to making the modification to the generating facility. The DISCOM shall review the proposed changes to the generating facility and provide the results of its evaluation to the Prosumer within forty-five (45) calendar days of receipt of the Customer's proposal. Any items that would

prevent parallel operation due to violation of applicable safety standards and/or power generation limits shall be explained along with a description of the modifications necessary to remedy the violations.

Standards for Solar panels

The Solar PV panels proposed to be installed shall meet the requirements of Indian as well as IEC standards. Further, the documentary evidence proving the prescribed standards has to be furnished by Prosumer to the concerned authority (DE/Operation) of the DISCOM before commencing the plant into operation. The Prosumer shall get the statutory approvals from appropriate safety authority (CEIG) of the connected electrical equipment and solar panels before plant energization.

Injection of Solar Power

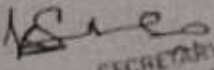
The Solar power produced shall be injected in to the DISCOM network only after obtaining prior approval from Divisional Engineer/Operation/---/APNPDCL and meeting all the requirements of departmental standards, viz., protection switchgear, metering, feasibility approval etc.

Date of enforceability of the Agreement

This agreement will be in a force for a period of 20 years from the date of commencement of this agreement, after meeting all the requirements by the Prosumer under the conditions of this Agreement and in accordance with the policy on Solar net metering and its future amendments, if any.

Interruption or Reduction of delivery

The DISCOM shall not be obligated to accept and may require Prosumer to interrupt or reduce deliveries when necessary in order to construct, install,


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[Signature]
MVA DISCOM, PUNE
PUNE - 411 004, M.P.

repair, replace, remove, investigate, or inspect any of its equipment or part of its system; or if it reasonably determines that curtailment, interruption, or reduction is necessary because of emergencies, forced outages or compliance with prudent electrical practices. Whenever possible, the DISCOM shall give the Prosumer reasonable notice of the possibility that interruption or reduction of deliveries may be required

8.

Access to premises

The DISCOM's personnel may enter the Prosumer's premises to inspect the Prosumer's protective devices and read or test the meter.

9.

Dispute Resolution

If at any time the DISCOM reasonably determines that either the Prosumer may endanger the DISCOM's personnel or other persons or property, or the continued operation of the Prosumer's generator may endanger the integrity or safety of the DISCOM's electric system, or the Prosumer is not operating the system in compliance with the terms and conditions of this agreement the DISCOM shall have the right to disconnect and lock out the SPV Generator facility from the Company's electric system until the DISCOM is reasonably satisfied that the SPV Generator can operate in a safe and compliant manner.

Any other dispute arising under/out of this agreement shall be resolved promptly in good faith and in an equitable manner by both the parties. Failing

resolution of the dispute, party may approach the commission under section 86 (1) (f) of EA 2003.

10.

Termination of the Agreement

The agreement will be terminated only after its completion period until all the safety standards are adhered to. The DISCOM has the right to terminate the agreement on breaching of any of the rules agreed upon with one month notice. If Prosumer intends to pre close or terminate the agreement, Prosumer may do so with 3 months prior notice.

10.

Re-Sale of Electric Power

The Prosumer shall not sell electricity generated under this agreement without the sanction in writing obtained from the DISCOM.

11.

Obligation of Consumer to pay all charges levied by DISCOM

The Prosumer shall abide by the rules and shall pay the Maximum Demand Charges, energy charges, surcharges, meter rents and other charges, if any, to the DISCOM in accordance with the notified Tariff besides the applicability of the General Terms and Conditions of Supply prescribed by the APERC from time to time.

12.

Right of DISCOM to amend the Agreement

DISCOM shall have the right to amend any of the section of the agreement according to the exigencies. Further, the DISCOM shall have the right to reduce/enhance the rates chargeable for supply of electricity as per retail supply tariff announced by commission from time to time.

[Signature]
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Monthly Minimum Charges

The Prosumer shall pay the minimum charges every month as prescribed in retail supply Tariff and as per General Terms and Conditions of supply, even if no electricity is consumed for any reason whatsoever

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Theft of electricity or unauthorised use of electricity

Prosumer, found indulging in theft of electricity or unauthorised use of electricity shall pay the penal/additional charges as may be levied by the DISCOM besides disconnection of supply as per the provisions of IE Act 2003 and General Terms and Conditions of supply

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Prosumer has agreed to pay the monthly meter rentals besides other charges as may be fixed by the commission from time to time

Signature of Prosumer
Date

[Signature]
Signature of Prosumer
Date

Witness 1

Witness 2

Signature *[Signature]*

Signature *R. Subramanyam*

Name & Address: *D. Lokanath Raju*
Date

Name & Address: *R. Subramanyam*
Date

*A.H. Poom Vithalappa
Vidyanalaya
Hady
Chittoor Dist*

*167, Main Road
Narayana Nagar
Chittoor Dist*

**Project completion Report for Solar Power Plants (51- 500kWp)
Part-A (By The Installer)**

S No	Component	Observation
1	Sanction No & Date	03/38/2015-16/GCRT 31-12-2015
2	Category:-Nodal Agency/ Channel partner (Name) and Complete Address	New & Renewable Energy Development Corporation of Andhra Pradesh, (NREDCAP) 5-8-207/2, Pishah Complex, Nampally, Hyderabad-500 001
	Site/Location with Complete Address	Jaya Educational Society, Siddhartha Nagar Narayanavanam Road, Puttur -517 583, Tirupati, Chittoor Dist, Andhra Pradesh.
	Longitude/Latitude	13.42°N/79.58°E
3	Capacity of system Installed (kWp)	500kWp
4	Specification of the Modules	
	Type of modules(multi/mono)	Multi
	Make of Modules and year of manufacturing	Vikram Solar, 2016/17
	Wattage and no of modules	250Wp. & 1920 No's
	Module Efficiency	16%(I-V Curve of 5 Modules Enclosed)
	No of series & Parallel combinations	20 Modules are Connected in series in each array string. 96 such strings have been connected in Parallel.
	Tilt Angle of Modules	10° Degrees
4.1	Date of issue Agency Validity Enclose a IEC certificate	28 May 2015 TUV Rheinland Japan Ltd 27 January 2020 Copy Enclosed- Annexure-1
4.2	Whether imported or indigenous.	Indigenous
4.3	RFID tag is pasted inside or outside	Pasted Inside
4.4	Type of RFID	Passive
5	PCU	
	Make, & rating Type of Charge controller/MPPT	Toshiba Mitsubishi-Electric Industrial Systems Corporation MPPT Charge Controller
	Capacity of inverter and year of manufacturing	750KVA Inverter System April-2016
	AC Output	380Vac
	Whether hybrid or stand alone	Stand-Alone
	Whether indigenous or imported	Indigenous


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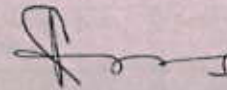
	Enclose test certificate as per MNRE requirement	Enclosed - Annexure-2
	Input Voltage to Inverter	Maximum - 1000Vdc
6	Batteries	
	Make of batteries and year of manufacturing	NA
	Type: Tubular Lead Acid /VRLA/GEL	NA
	Rating and no.	NA
	No of series and parallel combinations	NA
	Enclose test certificate as per MNRE requirement	NA
7	Depth of Discharge Proposed	NA
	Autonomy(Days)	NA
8	Structures	
	Tracking or non-tracking	Non Tracking
	Indigenous or imported	Indigenous
9	Cables Make and size	Poly Cab & Siechem 1) 4 Sq mm Single Core cable 2) 2C*95Sq mm AL Armoured Cable 3) 3C*95 Sq mm AL Armoured Cable
	Enclose Certificate: Rating:-	Enclosed Annexure-3 1.1KV Grade
	voltage of cable	1.1KV Grade
10	Distribution Box	
	Name	Array Combiner Box
	Make	Trinity Touch
	Certificate	Enclosed Annexure-4
11	Earthing and protections	Chemical Type Maintenance Free
	Lightening Arrester (Type)	Lightning Rod (ESE)
12	Date of Commissioning	12-03-2017, Annexure-5
13	Enclose Generation data for One month (for without battery systems)	Enclosed - Annexure-6
13a.	Enclose energy consumption Data for one month (for battery based systems)	NA
14	Monitoring Mechanism for the installed System	Remote & SCADA System
15	Technical Person Trained to maintain the system Name and Mobile No.	Yes,


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No:
PLACE OF VISIT
PURPOSE

Declaration

It is to certify that all the components/subsystems and materials including junction boxes, cables, distribution boards, switches, circuit breakers used areas per MNRE requirement and as per DPR submitted.



(Channel Partner/SNA) With seal

Date:

Place:

K. Srinivas

PRINCIPAL

Siddharth Institute of Engineering & Technology

Siddharth Nagar

,PUTTUR - 517583, Chittoor Dist.

NET METER Solar Generating Unit Synchronisation Report/ Test Report

SOUTHERN POWER DISTRIBUTION COMPANY OF A.P.LTD

Asst.Divisional Engineer
HT Meters, Tirupati
Tirupati.

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The Asst. Divisional Engineer
Operation,
Puttur

Lr. No. ADE/HTM/TPT/F.HT 401/ D.No. 192 / 17 dt: 14-03-2017

Sir,
Sub:- APSPDCL - HT Meters- Tirupati - Attending for replacement of existing HT Trivector meter with HT Net meter by replacing existing cubicle of 10/5A of class 0.5s with healthy cubicle of 40/5A of class 0.2s and 5VA Burden to HT TPT 401 M/s. Jaya Educational Society for synchronization of 500KW Solar Power Plant erected in (O) Section Narayanavanam -Vide releasing order SE/O/TPT/DE/T/ADE/AEE/Coml/F/D.No. 377/17 dt: 23.02.2017.

* * * * *

The HT Sc.401 (CMD: 190KVA) M/s. Jaya Educational Society, Narayanavanam for replacement of existing HT Trivector meter with HT Net meter by replacing existing cubicle of 10/5A class 0.5s with healthy cubicle of 40/5A of class 0.2s and 5VA burden for synchronization of 500KW Solar Power Plant erected on Rooftop under HT cat-II has been inspected on 11.03.2017. The following observation are :

Before replacing existing meter is tested and found satisfactory and meter data is downloaded and final readings noted.

Meter Particulars		
Removed	Make	Fixed
Secure	Make	Elster
APS06175	SL.No	05294614
11KV/110V	P.T Ratio	-/110V
10/5A	C.T Ratio	-/5A
E3M055	Type	Alpha R++
0.5s	Class	0.2s
119/07-08 dt: 11.09.07	Pu.No	510000 dt: 11-2014

Cubicle Particulars		
Removed	Make	Fixed
Vishal	Make	G.S Electricals
VTS/Dec/022/308-029	SL.No	GS/MC/16-17/1030
11KV/110V 30VA	P.T Ratio	11KV/110V 10VA 0.2
10/5A 10VA 0.5	C.T Ratio	40/5A 5VA 0.2s
222/08-09 dt:14.11.08	Pu.No.	5100003309 dt: 30.08.16
2009	Y/M	2016-17

New erected cubicle is meggered and found IR values as

Primary to body > 1000MΩ

Secondary to body > 1000MΩ

Primary to secondary > 1000MΩ

DC resistance RY=YB=BR= 3.56KΩ

CTPT polarity test is conducted and found connections are satisfactory

CTPT ratio test is conducted and confirmed as 40/5A and 11KV/110V respectively

The cubicle is test charged at on 11.03.2017 and voltages found at TTB:

RY: 107.7V YB: 107.0V BR: 107.8V
Rn: 62.4V Yn: 61.9V Bn: 61.8V

11.03.2017 and reading are noted in the meter


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R old meter	Parameters	LR of New meter	
		Imp	Exp
2702100	KWh	0.3	0.0
453102	KVAh (G)	0.1	0.0
267634	KVAh (D)	0.0	0.0
2762951	KVAh	0.4	0.0
51.7	MD	0.0	0.0
113	Bills	01	
11295.0	CMD	0.22	0.0
6.38	V1	64.05	
6.39	V2	63.65	
6.41	V3	62.87	
5.315	A1	0.040	
5.873	A2	0.041	
5.192	A3	0.045	
306869	Kwh 5C	0.0	
314873	KVAh 5C	0.0	
101.3	KVA 5C	0.0	

Multiplication factor = $11KV/110V \times 40/5A = 800$ for all
 $-110V \times -5A$

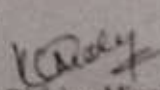
Sealing particulars:

Seals cut		Sealing point	Seals Provided	
Impression	Number		Number	Impression
		MC Top Impn	A1237099, 100	Plastic seal
		MC Top Impn cover	A1237101, 02	-do-
SD/ TPT	TPT231523, 24	LC cable box door	A1237103, 04	-do-
	5441973, 76	MC secondary	A1237105 to 08	-do-
		Meter board fixed bolts	A1237109 to 11	-do-
SPDCL ADE-HT 1200	11610S, 13S	Meter cover fixed bolts	A1237112 to 115	-do-
SPDCL MRT-T 1200		Meter cover	A1237116, 117	-do-
		Meter TC	A1237118, 119	-do-
SPDCL ADE-HT 1200	11614S, 15S	Meter RS port	A1237120	-do-
SPDCL MRT-T 1200		Meter OP	A1237121	-do-
		Meter MD	A1237122	-do-
		TTB	A1237123, 24	-do-
Plastic seal	A830145, 46	Box Door	A1237125, 26	-do-
-do-	742511, 12			

Remarks: - 1) The existing meter and cubicle is a replaced with healthy cubicle of 40/5A and HT Net Meter at 11.03.2017.

2) Old and new fixed meters data down loaded for analysis.

3) OMF is changed from 1.0 to 800 w.e.f 11.03.2017.


 Asst. Divisional Engineer
 H.T. Meters - Tirupati

Copy submitted to

The Superintending Engineer/operation/ Tirupati.

The Senior Account officer/O/o the SE/Operation/Tirupati.

The Divisional Engineer /Meters & Protection/ Tirupati

The Divisional Engineer /Operation/Puttur

The Divisional Engineer/DPE/Tirupati.

Copy to the Electrical Engineer/M/s. Jaya Educational Society, Narayanavaram

Copy to the Asst. Divisional Engineer /DPE/HT/Tirupati

Name: M/s Jaya Educational Society,
Section : Narayanavanam

HT SC NO. TPT 401

Month	KWH Readings		KVAH Readings		TOD KWH		TOD KVAH		KVARH				Maximum		TOD		CMD			
	Import	Export	Import	Export	Import	Export	Import	Export	IMPORT	Lead	Lag	Lead	EXPORT	IMPO RT	EXPO RT	IMPOr T	EXFOR T	IMPO RT	EXFOR T	
01.01.21	2096.6	917.8	2261.0	917.9	498.7	0	514.5	0	739.6	523.8	0.1	12.1	0.1	0	0.28	0	11.57	12.78	47	
01.12.20	2030.2	894.6	2243.1	894.6	494.4	0	510.1	0	733.7	515	0.1	11.7	0.15	0	0.29	0	11.47	12.5	46	
Difference	16.4	23.2	17.9	23.3	4.3	0	4.4	0	5.9	8.8	0	0.4								
MF	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800			
Consumption	13120	18560	14320	18640	3440	0	3520	0	4720	7040	0	320	80	0	224	0				
	P.F		0.92																	

Director
Operation :: A&S/O&C, Puttur

Name: M/s Jaya Educational Society,
Section : Narayanavanam

HT SC NO. TPT 401

Month	KWH Readings		KVAH Readings		TOD KWH		TOD KVAH		KVARH			Maximum		TOD		CMD		Bills		
	Import Reading RS	Export Reading S	Import Reading RS	Export Reading RS	Import Reading S	Export Reading S	Import Reading RS	Export Reading S	IMPORT Lag	EXPORT Lead	EXPORT Lead	IMPOR T	EXPO RT	IMPOR T	EXPO RT	IMPOR T	EXPO RT			
01.02.21	2075	941.4	2292.5	941.4	505.4	0	521.5	0	750.3	535	0.1	12.4	0.21	0	0.28	0	11.78	13.06	48	
01.01.21	2046.6	917.8	2261.0	917.9	498.7	0	514.5	0	739.6	524	0.1	12.1	0.1	0	0.28	0	11.57	12.78	47	
Difference	28.4	23.6	31.5	23.5	6.7	0	7	0	10.7	11.1	0	0.3								
MF	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800			
Consumption	22720	18880	25200	18800	5360	0	5600	0	8560	8880	0	240	168	0	224	0				
P.F.	0.90																			

Deputy Executive Engineer
Operation :: AFSPDCL, Puttur

Kennedy
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PUTTUR - 517683, Chittoor Dist.