

# SunPower & Consultants Pvt. Ltd

**Corporate  
Presentation**

**Sun Power Solar**

**Sunpower & Consultants Pvt. Limited**

**605, DLF TOWER-B, 6TH FLOOR  
JASOLA DISTRICT CENTRE, JASOLA,  
NEW DELHI - 110025**

**Branch Office: 26, Baduzai-II, Town Hall, Shahjahanpur,  
Uttar Pradesh - India**

# Profile - Introduction

**“SunPower & Consultants Private Limited”** has ventured into solar power systems in 2012 (Erstwhile “Seaborne Sun & Power Pvt Ltd” until May2015). We are in Development/EPC/consultancy of Solar Projects (Grid tied/Off grid/Standalone (DC/AC)) including T&D lines & micro/mini grids, We also undertake the work of operation and maintenance of solar plants & execution of Solar pumping system (AC/DC solutions both) on a turnkey basis.

**“SunPower & Consultants Private Limited”** is also in the sourcing / SCM of solar energy products including Solar Modules (mono / poly), Solar Inverters (String / Central / Hybrid / Modular), Solar Batteries (LA (Flooded / AGM / Gel / ABS) / LI (LFP / NMC)), Solar cables (DC / AC) & connectors (MC4 / Bi metallic Lugs), Cable ties (PVC UV protected/ SS), Solar MPPT charge controllers (UniPower-USA), Junction / Distribution boxes, Module mounting structures (RCC / Metal roof / ground mount) and data logging devices including sensors (Irradiance / module / ambient).

**“SunPower & Consultants Private Limited”** also offers consultancy job of acquiring certificates from Government bodies for solar products under MNRE / DDG / Saubhagya Schemes of GOI.

# Profile – Certifications/Experience

“SunPower & Consultants Private Limited” is:-

- 1). **MNRE approved channel partner** for Grid Connected Rooftop and small solar power plants program
- 2). Corporate leadership is empaneled as Solar expert & third party inspector under SECI, GOI RT program
- 3). Have empaneled with NPTI, GOI
- 4). Registered with National Small Industries Corporation (**NSIC**), **ESI, PF &** Ministry of Micro, Small and Medium Enterprises (**MSME**)
- 5). Have also awarded with **A-Class Electrical Contractor License** by Uttar Pradesh Govt. for past four years.
- 6). Have successfully executed close to 100 no. Purchase Orders & team was involved into project management of 450MWp solar power projects including >500 RT, 5000 solar water pumps, >100 minigrids & >30000 standalone system of 48v/12v with 200/250/300Wp solar PV panels in India & abroad.

# Our Leadership



Ajay Chaturvedi – MD

- ❖ More that 33 years of experience in the power sector - **Generation, Transmission, Distribution, Policy & Regulation including Renewables**
- ❖ **Harvard Business School, Boston, USA**
- ❖ **Bachelor of Technology in Electrical (NIT Kurukshetra)**
- ❖ **MBA in Finance**
- ❖ **FIE (Fellow Member of Institute of Engineers)**
- ❖ **Member of Advisory Board of Cygni Energy Systems Pvt. Ltd, Hyderabad, Lineage Power Systems Pvt Ltd, Bengaluru & Quant Solar Technologies, Vizag (A floating solar company)**
- ❖ **Solar Expert & Empaneled with NPTI as partner & as third party Inspector with SECI, Govt. of India companies.**
- ❖ **Technical Consultant to Yoma Micro Power, Myanmar & Scott Power, Dubai.**

## Positions Held:

- Sep2018 to till date – **Managing Director of SunPower & Consultants Pvt Ltd, India**
- July2016 to Sept 2018 – **Global CEO of MKG Energy Pte Ltd, Singapore**
- May2011 to July 2016 - **Managing Director of SunEdison –India (A US based Renewable company)**
- Sep1986 to May2011 - **State Unit Head of MP state, NTPC, Government of India**

## Experience:

- APAC & Middle East Operations in Solar domain includes Utility, Roof Top, Floating Solar, Solar Water Pumps & minigrid for the rural electrification & Telecom solarisation.
- More than 150 villages were provided with reliable & affordable electricity from solar mini-grids, out of which 55 of the solar plants are also connected & feeding power 24\*7 to 110 telecom tower in UP.
- Led the effort of installing 500 rooftop solar plants (Including Gandhinagar Solar city), 5000 solar water pumps & 450 MW of large-scale solar plants across India, Nepal, Bangladesh, Myanmar, Dubai & Philippines.
- The major beneficiary states in India are: Delhi, Haryana, Punjab, Rajasthan, Karnataka, Gujarat, Chhattisgarh, Maharashtra, Telangana, MP, UP, UK, AP & TN.
- Worked as Power Engineer for 25 years in NTPC having Installed capacity of close to **50 GW**,
- Served for 6 years as Advisor cum Consultant to GOI's Ministry of Power on deputation wherein Accountable for power distribution reforms in India in the advisory role.
- Strengthened electricity to 2100 villages (including 72 un-electrified) of Madhya Pradesh state from the national grid & 34 grid sub-stations under RGGVY flagship program of GOI.

Thank – You

Back-Up Slides –  
Contd.

# Our Team



**“Sujay Chaturvedi is B.E (Electrical) and MBA with over 27 years of experience in Power Distribution in**

- Commercial, Metering Billing ,Collection ( Meter To Cash Cycle),
  - Execution of rural electrification projects ( RGGVY,DDUDJY) ,New Meter Installation, Installation Of Prepaid Meters, New Sub-stations 33/11kv, Augmentation Of Transformers,
  - Smart Meter Installation, Consumer Services, Loss Reduction Activities (LRA),
  - Business Development Of Newly DF/DL, Roof Top Solar, Smart Metering, Smart City, Water,
  - Roof Top Solar ( Net Metering ) And Roads ( Road Lights), Meter Replacement ,Installation Of Smart Meters And AMR On 11kv Feeders & Distribution Transformers . Over Head To Underground Cabling, AB Cabling In IPDS,
  - Business Development Team For Various MBC (Metering, Billing & Collection) Projects, Analysis Of Data For New Upcoming DL/DF, AMR & AMI Projects,
  - Power Exchange/ Trading, Open Access,
  - Preparing And Executing New Electrification Schemes Of Un-electrified Areas,
  - Tendering, Finalization of contracts with the clients,
  - Erection and commissioning of Transformers,
  - Predictive Index Analyst
- **Worked In ESSEL UTILITIES DISTRIBUTION COMPANY LIMITED, Noida Power Company Limited, BSES, Rajasthan State Electricity Board.**

## Our Team



"**Amit Sharma** is B.E (Electrical) and MBA from NPTI with over 14 years of experience that consists of power distribution & transmission , power exchange/ trading, application / software development ,pre-sales , open access; business process re-engineering; profit & loss management; project delivery; business development, project management, strategic business planning; operations; regulatory affairs like preparation of tariff orders / regulations etc with renowned power sector companies/ institutions like Jaypee Power grid Limited, Indian Energy Exchange, Noida Power Company Limited, HCL infosystems Ltd; Delhi Electricity Regulatory Commission "

## Our Team



**“Rakesh Dutt has done B.Tech in Electronics & Instrumentation Engineering in 2010 from West Bengal University. With 8 Yrs. of Professional Experience Rakesh started his career with SunEdison India.**

Currently working with Sunpower & Consultants Pvt. Ltd. as an Operation Head. His core area of expertise is as follows:

- Forensic Technical Audit of Solar PV Power Plants
- Solar Plant’s Asset Evaluation in terms of reliability, performance, power output, and estimation of residual life.
- Techno-commercial feasibility analysis of solar PV Plants
- EPC Project Management Services, Quality Control and Monitoring
- Selection and procurement of modules and inverters
- Hands on experience of working on design to commissioning roof-top projects and has lead teams for execution.



# **Registrations & Certifications in India & Abroad**

# GSTIN Registration: SunPower

## GSTIN- Delhi



Government of India  
Form GST REG-06  
[See Rule 10(1)]

### Registration Certificate

Registration Number :09AAVCS7915C1ZV

1.	Legal Name	SUNPOWER & CONSULTANTS PRIVATE LIMITED			
2.	Trade Name, if any	M/S SUNPOWER AND CONSULTANTS PRIVATE LIMITED			
3.	Constitution of Business	Private Limited Company			
4.	Address of Principal Place of Business	BADUZAI 2, BADUZAI 2, SHAHJAHANPUR, Shahjahanpur, Uttar Pradesh, 242001			
5.	Date of Liability	01/07/2017			
6.	Period of Validity	From	01/07/2017	To	NA
7.	Type of Registration	Regular			
8.	Particulars of Approving Authority				
Signature					
Name					
Designation					
Jurisdictional Office					
9.	Date of issue of Certificate	25/11/2017			
Note: The registration certificate is required to be prominently displayed at all places of business in the State.					

## GSTIN- Uttar Pradesh



Government of India  
Form GST REG-06  
[See Rule 10(1)]

### Registration Certificate

Registration Number :07AAVCS7915C1ZZ

1.	Legal Name	SUNPOWER & CONSULTANTS PRIVATE LIMITED			
2.	Trade Name, if any	SUNPOWER & CONSULTANTS PRIVATE LIMITED			
3.	Constitution of Business	Private Limited Company			
4.	Address of Principal Place of Business	605, DLF TOWER - B, JASOLA DISTRICT CENTER, JASOLA, New Delhi, Delhi, 110025			
5.	Date of Liability	01/07/2017			
6.	Period of Validity	From	01/07/2017	To	NA
7.	Type of Registration	Regular			
8.	Particulars of Approving Authority				
Signature					
Name					
Designation					
Jurisdictional Office					
9.	Date of issue of Certificate	19/09/2017			
Note: The registration certificate is required to be prominently displayed at all places of business in the State.					

This is a system generated digitally signed Registration Certificate issued based on the deemed approval of the application for registration

This is a system generated digitally signed Registration Certificate issued based on the deemed approval of the application for registration

# SunPower Certification

## MSME

**उद्योग आधार Udyog Aadhaar**

**D**

Type of Enterprise	Micro	Small	Medium
Manufacturing	A	B	C
Services	D	E	F
UAN	DL1302022590259		

**Udyog Aadhaar Memorandum**

- Aadhaar Number: 9548782030602
- PAN Number: ANCS7915C
- Name of Entrepreneur: SATISH KUMAR
- Social Category of Entrepreneur: GENERAL
- Gender: Male
- Physically Handicapped: No
- Name of Enterprise: SUNPOWER AND CONSULTANTS PRIVATE LIMITED
- Type of Organization: Private Limited Company
- Location of Plant Details:
 

S/N	Plant/Block No.	Name of Premises/Building	Village	Road/Street/Lane	Area/Locality	City	Pin	State	District
1	005	DLF Tower-B		Jasola District Center	Jasola	New Delhi	110025	DELHI	NEW DELHI
- Official Address of Enterprise:
 

Address	605, DLF TOWER-B, JASOLA DISTRICT CENTER, JASOLA, NEW DELHI- 110025
District	NEW DELHI
State	DELHI
Pin	110025
Mobile No.	9953487072
Email	satish@sunpowerconsultant.com
- Date of commencement: 01/05/2015
- Previous Registration details-if any: -NA
- Bank Details:
 

IFS Code	UTIB0001146
Bank Account	91502022590259
- Major Activity: SERVICES
- Investment (Plant & Machinery / Equipments): 1 (Rs. In Lakhs)
- District Industry Centre: DELHI

**Declaration**  
I hereby declare that information given above is true to the best of my knowledge. Any information, that may be required to be verified, shall be provided immediately before the concerned authority.

## A-Class Electrical License

**उत्तर प्रदेश शासन**

**बिजली के ठेकेदारों को लाइसेन्स**

(सरकारी विज्ञापन संख्या 1135-ई एल/XXIII-पी बी-94-ईएल-05-58, दिनांक 11 मई, 1967 द्वारा प्राधिकृत)

को प्राप्त किया

सर्वश्री **सुनपावर एंड कंसल्टन्ट्स प्राइवेट लिमिटेड**

संजोत-एनएचएम-डी.ए.आर.हाल, शाहजहाँपुर

को विज्ञापन संख्या 1135-ई एल/XXIII-पी बी-94-ईएल-05-58, दिनांक 11 मई, 1967 के अन्तर्गत उत्तर प्रदेश सरकार द्वारा नगरे में विद्युत अधिष्ठापन कार्य करने के लिये एतद्वारा प्राधिकृत किया जाता है।

उत्तर-प्रदेश

साइनेस संख्या **SHR-111**

निर्मित करने का दिनांक **11.03.16**

अवधि समाप्ति का दिनांक **31.3.16**

वार्षिक निरीक्षण शुल्क का प्रदायन प्रत्येक वर्ष 30 फिफथ एफ तक तथा नवीकरण शुल्क के प्रदायन के साथ लाइसेंस 11 मई तक निदेशक, विद्युत सुरक्षा के कार्यालय में पहुँच जाता चाहिये। इस सम्बन्ध में सभी शुल्क उत्तर प्रदेश के किसी राजकोष में निग्न हेतु अफ एकाउन्ट के अन्तर्गत जमा किये जाने चाहिये।

\*004) विद्युत कर तथा शुल्क (102) भारतीय विद्युत निगमवली के अन्तर्गत कोश\*

नवीकरण का दिनांक	अवधि समाप्ति का दिनांक	सरकार के निदेशक के हस्ताक्षर	नवीकरण का दिनांक	अवधि समाप्ति का दिनांक	सरकार के निदेशक के हस्ताक्षर
01-4-16	31-3-2017		01-4-17	31-3-2018	
1-4-2018	31-3-2019				

कार्यालय निदेशक, विद्युत सुरक्षा, उत्तर प्रदेश सरकार।

प्री-एल-05-58-एल-05-58-1। विद्युत सुरक्षा-17-06-2010-(501)-3002-कम्प्यूटर/आफसेट।

## NSIC

Company Certificate  
एन एस आइ सी  
**NSIC**  
1982-2009 / 2009

**राष्ट्रीय लघु उद्योग निगम लिमिटेड**  
THE NATIONAL SMALL INDUSTRIES CORPORATION LIMITED  
(A Government of India Enterprise)

Sr. No. **60318** S.No. DEL-0000472

Branch Office NSIC Complex, Okhla Industrial Estate, New Delhi-110020  
Ph : 011-26382707 Fax : 011-26382427  
Email : delhinsic@nsic.co.in Website : www.nsic.co.in

**GOVERNMENT PURCHASE ENLISTMENT CERTIFICATE**

(Valid From 09/11/2017 to 08/11/2019) Date: 13/11/2017

Ref.No NSIC/GP/DEL/2017/55816 Factory Address: 1, 925, DLF Tower-B, Jasola, District Center, Jasola New Delhi, DELHI -110025

M/s. Sunpower & Consultants Pvt Ltd  
925, DLF Tower-B, Jasola District Center, Jasola New Delhi, DELHI -110025

Name of the Directors  
1. Sh. Satish Kumar  
2. Sh. Neeraj Kumar  
3. Sh. Ajay Chaturvedi

Constitution of the firm- Private Limited Enterprise Social Class: GENERAL  
GOVERNMENT PURCHASE REGISTRATION NO: NSIC/GP/DEL/2016/0029021  
Monetary Limit: ₹ 44 lakhs ( ₹ Forty Four Lakh Only)  
TURNOVER (Rupees in Lakhs)

Financial Year	Annual Turnover
2015-16	86.92
Monetary Limit	44

Your name has been registered as a SSI Unit eligible for participation in the Central Government Store Purchase Programme as per the Single Point Registration Scheme for the following Item(s)/Store (s)/Service(s).

Name of the Store(s)/ Service(s)	Specification(s)	Qualitative Capacity	Quantitative Capacity P.A.
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"As per List Attached" (1 item only)

Disclaimer- The purchasing agencies are advised to satisfy themselves with the store details in the certificate while doing the Technical Evaluation stage before placing the tender/order on the unit, certified by NSIC.

Branch Office  
DELHI

M/s. Sunpower & Consultants Pvt Ltd  
"Authenticity of the certificate can be checked through the web portal: www.nsicsonline.com"

# MNRE (Govt. Of India) Channel Partner Certification

File No. : 5/22/2013-14/RT(Part)  
Government of India  
Ministry of New and Renewable Energy  
Grid Connected Rooftop Division

Empanelment No. : MNRE/CP/GCRT/C/2147  
Date : 15-05-2017

To

SunPower and Consultants Private Limited  
C-609, Sarita Vihar, New Delhi-110076  
New Delhi  
NCT OF DELHI

**Sub : Empanelment as Channel partner for Grid Connected Rooftop and Small Solar Power Plants Programme of Ministry of New and Renewable Energy.**

Sir/Madam,

With reference to your online application and rating report by Credit Analysis & Research Ltd. (CARE) for your Company/firm, it is to inform you that Ministry has accepted the Rating Report and empanelled your Company as Channel Partner for Grid Connected Rooftop and Small Solar Power Plants Programme.

- The validity period of empanelment of your company as Channel Partner is One Year from the date of issue of this letter.
- Channel Partner code of your company is MNRE/CP/GCRT/C/2147
- Being a Channel Partner you have to install systems with standards/specifications specified for the programme with or without subsidy. In case any sub-standard components are installed and systems are not functioning as per the requirement of the programme, the Ministry will withdraw empanelment with immediate effect by giving advance notice to the Company.
- As Channel Partner, your company/firm is entitled to work in any state(s) of your choice. However, your company should have an office/service centre in any part of that state(s) with all tax/registrations according to that State Government and billing must be from the office of the concerned state.
- All the systems to be installed as channel partner must be with 5 years warranty and comprehensive maintenance contract which is mandatory.
- Ministry also anticipates that, as channel partner, your company will create awareness and educate beneficiaries about the programme. The beneficiaries must not

be misguided for subsidy claims and low quality products.

- Government of India's logo and/or name of the Ministry is not allowed to be used in any of your company's letter heads/ any other communications for taking undue advantage of empanelment.
- This empanelment is purely on temporary basis and only to participate in promoting the Grid Connected Rooftop and Small Solar Power Plants programme. This empanelment does not impart the right to participate in any tender and the company must follow all the conditions laid upon by the tendering authority.
- Renewal of channel partnership for another 1 year is based on the activity/progress reports that have to be submitted to the Ministry on monthly basis through online portal - SPIN (<http://www.solarrooftop.gov.in>)
- Ministry has no role in the agreement between user and company, any legal matter raised will be responsibility of channel partner only. The beneficiaries/organisations are also advise to verify all the procedures/claims before engaging with the company. MNRE shall not be held responsible for any disputes arising from the activities of the company.
- Any complaint received from the beneficiary against the company regarding non-functioning of system (with or without subsidy) or any fraudulent activity performed by the company, will be posted on Ministry's website till the time the problem gets resolved.
- In case of any changes in the credentials of the company, the company shall submit authenticated documents to the tendering authority and new/modified certificate would not be issued in any case.
- This letter is valid only when the agency is live in the online portal of the Ministry (<http://www.solarrooftop.gov.in>)

Yours faithfully,

Dr. G. Prasad  
Senior Director  
Authorized Signatory



SCAN QR Code  
Please verify the authenticity from [www.solarrooftop.gov.in](http://www.solarrooftop.gov.in) > List of Empanelled Agencies

# SECI (Govt. Of India) Empanelment Agreement Letter



सोलर एनर्जी कॉर्पोरेशन ऑफ इंडिया लिमिटेड  
(भारत सरकार का उपक्रम)  
**Solar Energy Corporation of India Ltd.**  
(A Government of India Enterprise)

स्वच्छ भारत - स्वच्छ ऊर्जा

SFCI/Cont./RTPV/Experts/2019/Empanelment Agreement/28044 Date: 02.01.2019

Mr Ajay Chaturvedi,

114,,GF,Jasola,Pocket-1,  
New Delhi-110025

E Mail: md@sunpowerconsultant.com  
Mobile: 9560922344

**Subject: Empanelment Agreement as a "Solar Expert" for the inspection cum third party verification for Grid connected SPV Power Plant under various phases of Rooftop schemes of SECI.**

Dear Sir/Madam,

This is with reference to EOI for Empanelment for Experts with SECI for Inspection cum third party verification of solar SPV power plants under various roof top scheme having EOI No. SECI/Cont./RTPV/Experts/2018/06 dated 28/08/2018. You have been empaneled as **Solar Expert by SECI** on the following terms and conditions as mentioned in Annexure - A.

Thanking You  
For Solar Energy Corporation of India Limited

Sunil  
Senior Engineer (C&P)



# NPTI (Govt. Of India) Empanelment Letter



राष्ट्रीय विद्युत प्रशिक्षण प्रतिष्ठान  
**National Power Training Institute**  
An ISO 9001 : 2008 & 14001:2004 Organisation  
(Ministry of Power, Govt. Of India)



No. NPTI/HQ/BDD/SUNPOW/2019/ 481

Date: 20/05/2019

To

**M/s Sunpower and Consultants Pvt. Ltd.**  
605, DLF Tower B, Jasola District Centre,  
Jasola,  
New Delhi

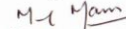
**SUB: Letter of Award for empanelment of consultant with NPTI**

**Ref: Tender No: NPTI/NR/BD/EMP-CON/2019**

Dear Sir,

This has reference to your bid with reference to our "Expression of Interest (EOI)" for empanelment of consultant Tender No: NPTI/NR/BD/EMP-CON/2019. We are pleased to declare that your organization has been found successful for empanelment as Consultants to work jointly with NPTI on revenue sharing basis, whereas, Revenue sharing mechanism would be, that NPTI will retain 60% of the consultancy fees/assignment fees for their contribution and will pay a balance 40% of the consultancy fees to the empanelled consultant, for undertaking consultancy assignments in Power Sector or any other Infrastructure Sector in which NPTI shall remain prime bidder only. We are pleased to issue you the Letter of Award/ Letter of Intent for empanelment as consultant.

You are requested to sign a contract agreement on Rs. 100 non judicial stamp paper (draft agreement attached) with NPTI for empanelment within fifteen days of receipt of this letter. You are required to submit the Contract Performance Guarantee in the form of a Bank Guarantee (BG) equivalent to Rs. 3,00,000/- (Rupees Three Lakhs Only). The BG shall be as per proforma provided as part of the Draft Contract (Appendix – C of the Contract). However Performance Bank Guarantee is exempted for Govt. Institutions. This letter of award would be valid only after signing of formal contract agreement. After signing of the contract agreement, a formal letter of empanelment would be issued.

  
(Manju Mam)  
Director (BDD)

मुख्यालय : एन.पी.टी.आई कॉम्प्लेक्स, सेक्टर-33, फरीदाबाद-121 003, हरियाणा, दूरभाष : 0129-2275308, 2275309, 2272142 फैक्स : 0129-2277412  
Corporate Office : NPTI Complex, Sector-33, Faridabad - 121 003, Haryana, Phone : 0129-2275308, 2275309, 2272142 Fax : 0129-2277412  
स्वहित एवं राष्ट्रहित में ऊर्जा बचाएँ

Save Energy for Benefit of Self and Nation

# **MOUs & Channel Partner Agreements in India & Abroad**

# MOU With Cleanmax for the Business / Solar Project Development in Middle East & North Africa Region

**Memorandum of Understanding between  
Mr. Ajay Chaturvedi & Clean Max Solar MENA FZCO**

Date: 9<sup>th</sup> September 2018

Mr. **Ajay Chaturvedi**, an Indian national with Passport No. Z4730084 AND Clean Max Solar MENA FZCO (Clean Max) (hereafter called 'partners') have come together to work jointly in order to develop the market for solar (PV) power systems

WHEREAS the partners, having entered into a confidentiality agreement, agree to this Memorandum of Understanding to collaborate on and co-develop solar (PV) power projects

WHEREAS, Mr. **Ajay Chaturvedi** and Clean Max will work together to develop solar solutions for (but not limited to) large city developments, business parks, industries and commercial real estate (such as offices, hotels and hospitals).

WHEREAS, the partners, through this Memorandum of Understanding, set forth the roles and responsibilities of the respective companies, to enable the partners to provide Build-Own-Operate or Capex/System sale of solar PV solutions to potential customers for mutual benefit of the partners.

WHEREAS, the desired Memorandum of Understanding will also set forth any confidentiality, exclusivity clauses, liabilities of each partner and duration of proposed collaboration between the interested parties.

**I) Description of Partners**

Clean Max invests in, develops, and owns onsite green power generation assets that supply buildings, industries and facilities with cheaper utilities. Clean Max's business model enables their customers to save capital expenditure on non-core assets, operational cost savings, and substantial reduction in their building/project's carbon footprints. The firm is founded by a team of professionals with experience and expertise in developing and managing clean building energy projects.

Mr. **Ajay Chaturvedi** is a professional that acts in the interest of facilitating deals between clients and developers for various solar products

**II) Description of Opportunity**

The partners will seek to jointly develop and implement solar (PV) power plant projects. It is intended that Mr. **Ajay Chaturvedi**'s network of clients be leveraged by way of offering Clean Max's on-site solar PV solutions to them. Clean Max shall endeavour to enter into a Solar Lease Agreement (SLA) or Purchase Order (PO) with Mr. **Ajay Chaturvedi**'s potential client.

**III) Roles and Responsibilities**

NOW, THEREFORE, it is hereby agreed by and between the partners as follows:

1. Mr. **Ajay Chaturvedi** will offer Clean Max's solar PV solutions to potential clients with the intent of co-developing them with Clean Max. Clean Max may also seek such an introduction to a Mr. **Ajay Chaturvedi**'s potential client.

For Sunpower & Consultants Pvt. Ltd.

*Ajay Chaturvedi*

Director

e. The seat or legal place of arbitration shall be Dubai and any award shall be treated as final and binding on the Parties. The language to be used in the arbitral proceedings shall be English.

**SIGNED AND DELIVERED**

by the within named Clean Max

*Sybilant Arora*

CEO,

Clean Max Solar MENA FZCO



by the within named Mr. **Ajay Chaturvedi**

For Sunpower & Consultants Pvt. Ltd.

*Ajay Chaturvedi*

Director



Signing of papers in Cleanmax Dubai office





# MOU With Cygni for the Business / Solar Project Development in India, Myanmar & Africa Region

Signing of papers in Cygni Hyderabad office



తెలంగాణ తెలంగాణ TELANGANA

Sl.No. 29216 Date: 15-11-2018, Rs.100/-  
 Sold To: PIANI KUMAR,  
 S/O. BABU, R/O.HYD  
 FOR WHOM : CYGNI ENERGY PVT LTD

**KONDA KAVITHA**  
 Licensed Stamp Vendor  
 SVL No: 16-01-06/2016  
 H.No. B-2-460/01, Road No.1  
 Sukdev Nagar, Banjara Hills, Hyderabad

## Memorandum of Understanding between SunPower & Cygni

The MoU signed as on 16<sup>th</sup> Nov, 2018 between the parties mention below:

M/s Cygni Energy Pvt. Ltd., a Company registered in India and having its office Lansum house, Plot no. 283, Road no. 78, Jubilee Hills, Hyderabad, India

### Other T&C:

- 1). Cygni will designate Mr. Ajay Chaturvedi, Managing Director, SunPower as Member of Cygni advisory board with effect from the date of signing of the agreement.
- 2). Cygni & SunPower will work in collaboration for the reduction of the overall / individual item cost of the system. To achieve, Cygni may award a contract to SunPower to procure the identified material and/or execute the job on mutually agreed terms & conditions.

### SIGNED AND DELIVERED

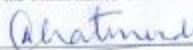
by the within named Cygni

  
 Paramjit Singh

COO,

Cygni Energy Private Limited

by the within named SunPower




Ajay Chaturvedi

MD,

SunPower & Consultants Private Limited

# Contract Agreement With NTPI for the Business / Solar Project Development in India, Myanmar & Africa Region

**INDIA NON JUDICIAL**  
**Government of National Capital Territory of Delhi**  
**e-Stamp**

  
सत्यमेव जयते

Certificate No.	: IN-DL91221689175473R
Certificate Issued Date	: 20-May-2019 01:59 PM
Account Reference	: IMPACC (IV)/ di777003/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DL7700387657593336927R
Purchased by	: SUNPOWER AND CONSULTANTS PVT LTD
Description of Document	: Article 5 General Agreement
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: SUNPOWER AND CONSULTANTS PVT LTD
Second Party	: Not Applicable
Stamp Duty Paid By	: SUNPOWER AND CONSULTANTS PVT LTD
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)

Please write or type below this line.....

**CONTRACT FOR CONSULTANTS' SERVICES**

This CONTRACT (hereinafter, together with all Appendices attached hereto and forming an integral part hereof, called the "Contract") is made the 21<sup>st</sup> day of the month of May 2019, between, on the one hand National Power Training Institute (NPTI) (hereinafter called "Owner") and, on the other hand, SUNPOWER & CONSULTANTS PVT LTD.,NEW DELHI (hereinafter called the "Consultants").

डा. मंजु माम/Dr. Manju Mam  
निदेशक (कैम्पस)/Director (CAMPUS)  
राष्ट्रीय विद्युत प्रशिक्षण प्रतिष्ठान  
National Power Training Institute  
(विद्युत विभाग, भारत सरकार)  
(Ministry of Power, Govt. of India)

For Sunpower & Consultants Pvt. Ltd.  
*Rhatmual*

**Statutory Alert:**

1. The authenticity of this Stamp Certificate should be verified from the website [www.stamps.gov.in](http://www.stamps.gov.in). Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the purchaser of the Stamp Certificate.
3. In case of any discrepancy please inform the Competent Authority.

# Consortium Agreement With Chloride Power Systems & Solutions (Exide) for the Solar Floating Project Development of 6.5MWp for JSW, Bellary, Karnataka, India



পশ্চিমবঙ্গ পশ্চিম বঙ্গাল WEST BENGAL

AC 117178

## CONSORTIUM AGREEMENT

Agreement is made on this 23<sup>rd</sup> day of May, 2019

### BETWEEN

M/s. Chloride Power Systems and Solutions Limited, an entity constituted in accordance with the laws of India and having its Registered Office at "Exide House" 59E, Chowringhee Road Kolkata-700020, acting through its duly authorized representative, Mr. Satyabrata Pattanayak, Head-Solar Sales (hereinafter referred to as the 'First Participant Member' which expression unless excluded by or repugnant to the subject or context be deemed to mean and include its successors-in-interest, authorized representatives, administrators, and permitted assigns) of the First Part;

### AND

M/s. QuantSolar Technologies Private Limited, a company incorporated under the Companies Act, 1956, having its registered office at No. 5, Eloora Market, 2, Sourin Roy Road, Kolkata - 700034, acting through its duly authorized representative, Mr Siddhant Agarwal, Director (hereinafter referred to as the 'Second Participant Member' which expression unless excluded by or repugnant to the subject or context be deemed to mean and include its successors-in-interest, authorized representatives, administrators, and permitted assigns) of the Other Part.

### AND

M/s. SunPower & Consultants Private Limited, an entity constituted in accordance with the laws of India and having its Registered Office at #605, DLF Tower-B, Jaspal, New Delhi-110025, acting through its duly authorized representative, Mr. Ajas Chaturvedi (hereinafter referred to as the 'Third Participant Member' which expression unless excluded by or repugnant to the subject or context be deemed to mean and include its successors-in-interest, authorized representatives, administrators, and permitted assigns) of the Other Part.



# MOU With Quant Solar for the Solar Floating Project Development in India, Myanmar & Africa Region

## Memorandum of Understanding between SunPower & QuantSolar Technologies

The MoU signed as on 15<sup>th</sup> May, 2019 between the parties mention below:

M/s Quant Solar Technologies Pvt. Ltd, a Company registered in India and having its office at No.5, Ellora Market, 2 Sourin Roy Road, Kolkata-700034 (hereinafter referred to as the "Quant", which expression shall be deemed to mean and include its successors and permitted assigns) of the FIRST PART,

AND

M/s SunPower & Consultants Pvt. Ltd, a Company registered in India and having its office at 605, DLF Tower-B, Jasola, New Delhi-110025 (hereinafter referred to as the "SunPower", which expression shall be deemed to mean and include its successors and permitted assigns) of the SECOND PART.

"Quant" is an India based clean technology company with experience and expertise in the field of designing, engineering and manufacturing floating solar system and installing Floating solar plants on all types of water bodies.

"SunPower" is engaged in consultancy, System Integration and undertakes the design, Construction, Operation and Maintenance of grid connected and off grid solar systems including solar pumping system (AC/DC solutions both) on a turnkey basis. "SunPower" is having expertise in Mini-Grid constructions in the villages. "SunPower" is also in the distribution and supply of solar energy products including solar cables and connectors, solar charge controllers, Inverters, Junction boxes, mechanical structures, drives/controllers and data logging devices in India & abroad. It provides turnkey solutions for rooftop and ground mounted solar systems in India & abroad. "SunPower" offers consultancy job of acquiring certificates/approvals/technical due diligence from Government bodies for solar products including solar home system (Standalone) and also provides transaction consultancy services to investors who are willing to invest in the Solar Energy Sector. "SunPower" also offers Operating and Maintenance Services on periodical basis.

"SunPower" has expressed its willingness to extend its support towards consulting for client meetings, business development & marketing of their product/technology in India and abroad within the mutually agreed terms & conditions.

The objective of this MOU is to establish the basis for a cooperative institutional relationship aimed at encouraging and promoting cooperation on development of energy conservation/ saving & automation projects in India & abroad for mutual & national benefits.

### Term

This MoU is effective upon the day and date signed and executed by the duly authorized representatives of the parties to this MoU and shall remain in full force and effect until terminated by either party after giving the other one a written advance notice of 60 days.

WHEREAS the partners, having entered into a confidentiality agreement, agree to this Memorandum of Understanding to collaborate on and co-develop Floating solar (PV) power projects.

WHEREAS, SunPower and Quant will work together to develop Floating solar solutions for water reservoirs in (but not limited to) Thermal Power Plants, Steel Plants, Heavy Industries, Smart cities, other industries and commercial real estate with water bodies (such as offices, hotels and hospitals) & the individuals.

WHEREAS, the partners, through this Memorandum of Understanding, set forth the roles and responsibilities of the respective companies, to enable the partners to provide Build-Own-Operate or Capex/System sale of solar PV solutions to potential customers for mutual benefit of the partners.

WHEREAS, the desired Memorandum of Understanding will also set forth any confidentiality, exclusivity clauses, liabilities of each partner and duration of proposed collaboration between the interested parties.

### Description of Partners

Quant is engaged in design, engineering and manufacturing of Floating System for Floating Solar Power Plant. Quant is also engaged in executing turnkey projects of Floating Solar Plant. The technology of Floating Solar Plant is emerging in India in a big way and holds huge business potential due to its inherent benefits such as saving precious land, generating solar power at higher efficiency and conserving precious water. Quant is also deeply engaged in continuous R & D activities to improve the Floating Solar Technology. The continuous effort



**Sunpower & Consultants Pvt. Ltd. has been selected as a project co-ordinator by Energy China to start work of EPC of 100 Nos. plants with Battery back- up(each of 18kWp) in state of U.P and others if comes in future in India**

To: Mr. Rohit Chandra  
Chief Executive Officer  
OMC Power Private Limited  
Gurgaon, Haryana, India

**Subject: Letter of Interest (LOI) for Participating in Indian 100 telecom towers with 18 kW solar power and 48V1000AH battery at each tower in the state of Uttar Pradesh.**

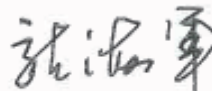
Dear Sir,

We know the project, 100 telecom towers in the state of Uttar Pradesh, Indian, is on process and very important for the district. We are keen to cooperate with, help and support you by providing EPC services as EPC contractor based on our extensive experiences.

Energy China (CEEC) is a mega Chinese State-Owned conglomerate with its headquarter in Beijing and publicly listed in Hong Kong Stock Exchange. Energy China is a total solution provider in Energy/Power sector and infrastructure development, providing services with extensive experiences in EPC, operation, maintenance, investment and financing, etc. We have a strong team of approximately 160,000 employees reaching out to over 200 overseas offices in about 80 countries and regions. Our market occupancy of design and construction in power sector is about 80% in China. Energy China ranks 333rd among the "Fortune Global 500 Companies", 4th among "The Top 150 Global Design Firms" and 11th among "The Top 250 Global Contractors".

In order to promote our cooperation, please provide a RFQ/RFP for our preparation. CHC and M/s sunpower & Consultants Pvt. Ltd will be the coordinator on this project and maybe more similar projects in the future, and they will be on behalf of Energy China to communicate and coordinate with concerned company and/or authority. Sincerely wish our cooperation successful. We look forward to hearing from you.

Sincerely yours.



2019.4.8

**Long Haijun**

General Manager of International Marketing No.1  
China Energy Co., Ltd.



# Our Services & Business Models



Survey & Feasibility Study



Funding & Development



Designing & Business proposal



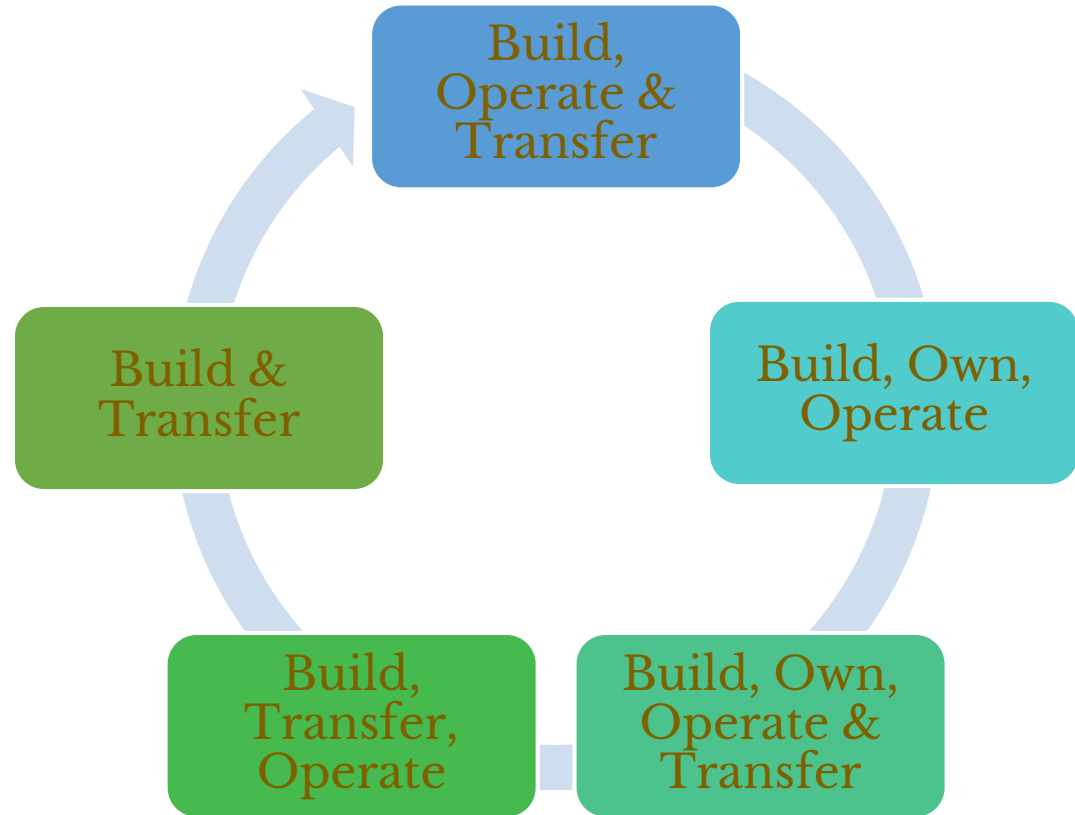
Engineering, Procurement & Construction



Installation & Commissioning



Operations & Maintenance



# Our Services & Business Models

- **Analysis of ARR petitions (including True up ;Annual Performance Review) filed by GTD (including SLDC , if filed separately) companies operating in a state**
- **Analysis of Power Purchase Cost Adjustments (PPAC) petitions filed by Discoms on quarterly basis**
- **Analysis of various petitions in general like approval of PPA's; section 142; Various CAPEX Schemes focused on Demand Side Management /Energy Efficiency like replacement of non star rated AC's with 4/ 5 Star rated AC's ; replacement of CFL's/ Sodium Vapour Lamps / incandescent bulbs/ Tubelights with LED's both for street lights as well as households ; replacement of fans with super energy efficient fans (SEEP) etc**
- **Optimization of power purchase cost with the help of “Demand Response” and other important aspects including but not limited to surrender of power; making SLDC more accountable towards discharging their functions wrt scheduling & dispatching of power ; non violation of Merit order principle etc**
- **Framing multi year tariff (MYT) regulations separately for GTD or collectively .**
- **Framing various other regulations like net metering ; RPO ; Tariff Regulations wrt renewable sources of energy like solar / wind/ hydro etc Waste to energy regulations; Human Resource Regulations ; State Grid Code ; Performance standard / Electricity Supply code regulations ; conduct of business regulations ; Ancilliary services ; Open Access regulations ; Trading regulations etc**
- **Assisting O/ o Electricity Ombudsman for discharging their duties in line with the EA 2003 because it has been observed that in most of the states the O/ o Electricity Ombudsman is clubbed with the O/ o Regulatory Commissions.**

# Our Services & Business Models

- **Preparing replies against various RTI's ; state assemblies; lok sabha / rajya sabha enquires filed in the Commission**
- **Representing / Assisting Commission in the various meetings at the state level / Centre level**
- **Assisting the Commission for discharging their duties / obligations towards Forum of Regulators . For instance , various types of information have been asked by FOR from time to time .**
- **Physical Verification of CAPEX done / assets created by the GTD companies**
- **Conducting energy audit of the state discoms for establishing the baseline of AT&C losses at various voltage levels**
- **Physical verification of the various central govt funded schemes like IPDS etc**
- **As we all know that as per draft EA 2016 , very soon there will be an separation of carrier and content . Once implemented, the work of regulatory commissions are going to increase manifold as separate regulations vis-à-vis monitoring mechanism needs to be developed for each function / parties involved**
- **Representing Commission through a team of lawyers in APTEL / High Court /Supreme against the various petitions filed by the concerned parties**
- **Verification of various compliance reports to be submitted by the GTD , may be on quarterly / monthly basis**
- **Determination of cross subsidy surcharge ; Additional Surcharge ;open access charges etc at various voltage levels**
- **Assisting / representing the Commission at international / domestic level like seminars ; conferences etc**
- **Deputing the manpower / resources at the Commission office permanently and that too at low cost for providing various types of assistances to the Commission**
- **Any other miscellaneous work that have been assigned by the Commission**



# Vendor Tie-ups

**SunPower** India has made strong business Tie-ups with reputed Vendors:

## **A). Modules:**

Overseas:

1). Trina (Tier1) (China), 2). Canadian (Tier1) (China) , 3). JA Solar (China)

Indian:

1). Vikram (Tier1) , 2). Adani , 3). Sova, 4). Gautum, and 5). Waaree

## **B). Batteries (LA/LI-LFP/NMC):**

1). Exide, 2). HBL, 3). SBL, 4). NED, 5). Amara Raja & 6). Coslight - China

## **C). Inverters:**

Indian:

1). Statcon Hybrid, 2). Neo-Watt (Consul) Hybrid, 3) Schneider Hybrid, 4) Delta Grid Tied,

5). Emerson Hybrid, 6). Lineage (Hybrid)

Overseas:

1). SunGrow Grid Tied (China), 2) Huawei Grid Tied (China), 3) SMA Grid Tied/Off grid (Germany),

4) Solax Grid Tied (China), 5). Ingeteam (Spain) 6). Solis (China) and 7). Eltek (Taiwan)

## **D). Module Mounting Structure:**

1). Ganges, 2). Sapa, 3). Met Craft 4). Evost and 5). Swastic

# Our Customers & Partners



# Our Team in India

## Our Alliances & Partnerships in India

NCR - Satnam Global Infrastructure Pvt.Ltd – (BD/EPC)

Gujarat - Hemina Solar (EPC)

Rajasthan - WelSun Power Infra(P) Ltd. – (EPC)

J&K - Big Deal Enterprises Kargil – (BD/EPC)

Aright Solar – (BD)

Access of manpower resource >400

Experience of execution of >200Mw

Provoltus – (BD)

D R Engineers – (EPC)

NCR - Pious – (EPC)

NCR - KCS Solar – (BD)

Nu Energie – (EPC)

NCR - Green Life Corporate Solutions – (BD)

# **Projects Executed in India & Abroad**

**List of Purchase Orders/ Service Orders received from May 2015 to May 2016**

S.NO	PO/SO NO.	PO/SO DATE	CLIENT NAME	Nature of Work	Location	Amount	Status	Capacity (Kw)
1	FESPL/025/15-16	06.05.2015	FREYR	ERECTION & COMMISSIONING	SANDA	145,050.00	Completed	36
2	OMC/PO/098/15-16	25.05.2015	OMC	ERECTION OF POLES CABLES ETC.	NIGOHI	152,286.00	Completed	27
3	OMC/PO/099/15-16	25.05.2015	OMC	SERVICE CONNECTIONS	NIGOHI	45,600.00	Completed	
4	OMC/SO/040/15-16	25.05.2015	OMC	SERVICE CONNECTIONS	NIGOHI	17,528.00	Completed	
5	OMC/SO/041/15-16	25.05.2015	OMC	ERECTION OF POLES CABLES ETC.	NIGOHI	48,728.00	Completed	
6	OMC/PO/100/15-16	25.05.2015	OMC	ERECTION OF POLES CABLES ETC.	SHAHBAZ NAGAR	152,286.00	Completed	27
7	OMC/PO/101/15-16	25.05.2015	OMC	SERVICE CONNECTIONS	SHAHBAZ NAGAR	45,600.00	Completed	
8	OMC/SO/042/15-16	25.05.2015	OMC	SERVICE CONNECTIONS	SHAHBAZ NAGAR	17,528.00	Completed	
9	OMC/SO/043/15-16	25.05.2015	OMC	ERECTION OF POLES CABLES ETC.	SHAHBAZ NAGAR	48,728.00	Completed	
10	OMC/PO/102/15-16	25.05.2015	OMC	ERECTION OF POLES CABLES ETC.	KAMALPUR	152,286.00	Completed	27
11	OMC/PO/103/15-16	25.05.2015	OMC	SERVICE CONNECTIONS	KAMALPUR	45,600.00	Completed	
12	OMC/SO/044/15-16	25.05.2015	OMC	SERVICE CONNECTIONS	KAMALPUR	17,528.00	Completed	
13	OMC/SO/045/15-16	25.05.2015	OMC	ERECTION OF POLES CABLES ETC.	KAMALPUR	48,728.00	Completed	
14	OMC/PO/133/15-16	06.06.2015	OMC	ERECTION OF POLES CABLES ETC.	ATAIPUR	152,286.00	Completed	36
15	OMC/PO/134/15-16	06.06.2015	OMC	SERVICE CONNECTIONS	ATAIPUR	45,600.00	Completed	
16	OMC/SO/062/15-16	06.06.2015	OMC	SERVICE CONNECTIONS	ATAIPUR	17,528.00	Completed	
17	OMC/SO/063/15-16	25.05.2015	OMC	ERECTION OF POLES CABLES ETC.	ATAIPUR	48,728.00	Completed	
18	OMC/PO/136/15-16	11.06.2015	OMC	ERECTION OF POLES CABLES ETC.	BERUWA	152,286.00	Completed	27
19	OMC/PO/137/15-16	11.06.2015	OMC	SERVICE CONNECTIONS	BERUWA	45,600.00	Completed	
20	OMC/SO/073/15-16	11.06.2015	OMC	SERVICE CONNECTIONS	BERUWA	17,784.00	Completed	
21	OMC/SO/074/15-16	11.06.2015	OMC	ERECTION OF POLES CABLES ETC.	BERUWA	49,440.00	Completed	
22	CMES/Mumbai/PO/NBC-M/001	14.07.2015	Clean Max	Instalation and Commissionig	IIMT-Manesar	185,250.00	Completed	50
23	8049322	20.07.2015	SURYA GREEN	SUPPLY OF BOS FOR 2KW	PATAN	160,000.00	Completed	2
24	8049323	20.07.2015	SURYA GREEN	INSTALLING TESTING	PATAN	43,000.00	Completed	
25	8049692	13.08.2015	SURYA GREEN	INSTALLING TESTING	KISHAN GARH	87,364.00	On Hold	2
26	8049693	13.08.2015	SURYA GREEN	SUPPLY OF BOS FOR 2KW	KISHAN GARH	299,860.00	On Hold	
27	OMC/PO/131/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	KHUDAGANJ	152,286.00	Completed	27
28	OMC/PO/132/15-16	11.08.2015	OMC	SERVICE CONNECTIONS	KHUDAGANJ	40,800.00	Completed	
29	OMC/SO/060/15-16	11.08.2015	OMC	SERVICE CONNECTIONS	KHUDAGANJ	17,528.00	Completed	
30	OMC/SO/061/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	KHUDAGANJ	48,728.00	Completed	
31	OMC/PO/157/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	BHARIYA	209,726.00	Completed	27
32	OMC/SO/085/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	BHARIYA	62,380.00	Completed	
33	OMC/PO/161/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	ADHACHAT	209,726.00	Completed	68
34	OMC/SO/089/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	ADHACHAT	62,380.00	Completed	
35	OMC/PO/162/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	MAILANI	209,726.00	Completed	27
36	OMC/SO/090/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	MAILANI	62,380.00	Completed	
37	OMC/PO/163/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	SINDHAULI	209,726.00	Completed	27
38	OMC/SO/091/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	SINDHAULI	62,380.00	Completed	
39	OMC/PO/164/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	KAANTH	209,726.00	Completed	36
40	OMC/SO/092/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	KAANTH	62,380.00	Completed	
41	OMC/SO/158/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	Kalyanmal	62,253.00	Completed	27
42	OMC/SO/086/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	Kalyanmal	62,380.00	Completed	
43	OMC/PO/181/15-16	27.08.2015	OMC	ERECTION OF POLES CABLES ETC.	GONDA DEORIA	192,565.00	Completed	27
44	OMC/SO/107/15-16	27.08.2015	OMC	ERECTION OF POLES CABLES ETC.	GONDA DEORIA	62,253.00	Completed	
45	OMC/SO/087/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	BHARIAL	62,380.00	Completed	27
46	OMC/PO/159/15-16	11.08.2015	OMC	ERECTION OF POLES CABLES ETC.	BHARIAL	209,726.00	Completed	
47	OMC/SO/108/15-16	27.08.2015	OMC	ERECTION OF POLES CABLES ETC.	KOTHRA	62,253.00	Completed	27
48	OMC/PO/182/15-16	27.08.2015	OMC	ERECTION OF POLES CABLES ETC.	KOTHRA	192,565.00	Completed	
49	CMES/2016/O&M/NBC Manesar/001	1.11.2015	Clean Max	O&M of NBC Manesar_50Kw	Haryana	60,000.00	Completed	50
50	7117969	10.01.2016	SunEdison	UPNEDA civil Service works	Lakhimpur	2,494,254.26	Partially Completed	
51	8050984	10.01.2016	SunEdison	UPNEDA civil Material works	Lakhimpur	9,179,325.76		
52	220541	17.03.2016	Thermax	O&M of PWD Delhi_100Kw	Delhi	178,176.00	Completed	100
53	7119698	21.03.2016	SunEdison	UPNEDA T&D services works	Lakhimpur & Behraich	5,789,059.31	Partially Completed	313
54	8051552	21.03.2016	SunEdison	UPNEDA T&D material works	Lakhimpur & Behraich	17,866,644.87		
55			Thermax	Mother Dairy, Itawa	Itawa	229,000.00	Completed	100
56			Thermax	CEIG_Mother Dairy, Itawa	Itawa	171,750.00	Completed	
57	CMES/AJ/O&M_TCL_DELHI/41/2016-17	13.01.2016	Clean Max	TCIL	New Delhi	100,000.00	Completed	500
58	CMES/UNITECH/RS/01	13.01.2016	Clean Max	Unitech	Gurgaon	990,000.00	Completed	450
59	LOI throught mail	05.05.2016	OMC	ERECTION OF POLES CABLES ETC.	UP	1,358,291.00	Completed	240

# Our Signature RT Projects in India – Contd. June 2016 to March2018

India	No.	Project Name	Project Type	Inception	kWp	Status
		IIT BHU (1.5 MW), UP				
	60	Electrical old Building			126	Completed
	61	Electrical New Build.			88.2	Completed
	62	Civil Old Building			81.9	Completed
	63	Civil new Building			63	Completed
	64	Electronics Building			119.7	Completed
	65	Chemistry Building			37.8	Completed
	66	Library+Director Build.	RT – Grid Tied (1.5Mw) – From Cleanmax	29/Jul/16	63	Completed
	67	Mechanical Building			113.4	Completed
	68	Pharmacy Building			151.2	Completed
	69	S N Bose Building			63	Completed
	70	Vishweshvriya Build.			88.2	Completed
	71	Aryabhatta Building			220.5	Completed
	72	Mining Building			214.2	Completed
	73	Ceramic Building			88.2	Completed
	74	KEI Chopanki, Haryana	RT – Grid Tied	29/Jul/16	1000	Completed
	75	Mother Dairy- Peeragadi, Delhi	RT – Grid Tied	26/Dec/16	100	Completed
	76	Glaxo- Sonapat, Haryana	RT – Grid Tied	30/Dec/16	440	Completed
	77	RIBA- Panipat, Haryana	RT – Grid Tied	03/Jan/17	600	Completed
	78	KAJARIA – Sikandrapur, UP	RT – Grid Tied	15/Feb/17	896	Completed
	79	Air Force Station – Allahabad, UP	RT – Grid Tied	20/Feb/17	200	Completed
	80	RAS Polytex – VARANASI, UP	RT – Grid Tied	07/Mar/17	250	Completed
	81	Mohammadpur - Haryana	Water/Power Security	31/March/17	2.4	Completed
	82	Shaheed Bhagat Singh –Rudrapur, UK	RT – Battery+Grid	06/Apr/17	50	Completed
	83	Kishan Mandi, Sitarganj, UK	RT – Battery+Grid	17/Apr/17	100	Completed
	84	ITI – UP (4 nos * 40kWp)	RT – Battery+Grid	17/Jul/17	160	Completed
	85	O&M of PWD Delhi – 100kW	Thermax	July2017	100	Completed
	86	ITI – UP (11 nos * 40kWp)	RT – Battery+Grid	29/March/18	440	Completed
	87	LT lines for Mini grid in 17 villages of UP	OMC - Mini-Grid	31/March/18	510	Completed

# Our Signature RT Projects in India – Contd. May 2018 to till date

## India + Myanmar

No.	Project Name	Project Type	Inception	kWp	Status
88	Supply of materials (DBs/JBs/LA/WS etc)	KPI-Myanmar	10/May/18	52.65	Completed
89	Supply of Sensor module - SMA	A5/Campus - Myanmar	26/May/2018	103	Completed
90	LT lines for Mini grid in 2 villages of UP	OMC - Mini-Grid	30/June/18	60	Completed
91	O&M of PWD Delhi – 100kW	Thermax	July2018	100	On Going
92	LT lines for Mini grid in 23 villages of UP	OMC - Mini-Grid	21/Nov/18	690	Completed
93	Earthing work in 23 villages of UP	OMC - Earthing	21/Nov/18	690	Completed
94	Statcon make IHS proto	OMC	28/Dec/2018	20.8	Completed
95	IIT – BHU – 1Mw	Chloride-Exide	May2019	1000	WIP
96	Yoma Excel Cool Coat Paint	Efficiency Up	May2019	100	WIP

## Mini-Grid Construction in Uttar Pradesh - India

“Sunpower & Consultants Private Limited” has been awarded the job by M/s OMC Pvt Limited for the construction of Mini-Grid for Solar PV plant in Uttar Pradesh . The following villages have been successfully Electrified:

1. Sanda
2. Sehvaj Nagar
3. Nigohi
4. Kampil Khas
5. Ataipur
6. Kamalpur
7. Sandhila
8. Kanth
9. Khudaganj
10. Beheria
11. Bharial
12. Gangsara
13. Mailani
14. Kottra
15. Gonda Deoria
16. Abhaypur
17. IC Grant
18. Banda
19. Ahirori
20. Choudhera
21. Sindhauli
22. Mahadev Atra
23. Bhejam
24. Hargaon
25. Pratap Nagar
26. Atrouli
27. Behat Gaur
28. Basanta Pur
29. Adhichat

Total >50Km  
LT O/H line  
Executed.



# Mini-Grid Construction in Uttar Pradesh

**“Sunpower & Consultants Private Limited”** has been awarded the job by **M/s OMC Pvt Limited** for the construction of Mini-Grid for PV solar plant in Uttar Pradesh . The following projects have been successfully completed:

List of Villages where Mini Grid built			
Sl No	Plant Name	Site Status	Client Name
1	Sanda	Live	OMC
2	Shehwaj Nagar	Live	OMC
3	Nigohi	Live	OMC
4	Kanalpur	Live	OMC
5	Kaanth	Live	OMC
6	Beruwa	Live	OMC
7	Bhadail	Live	OMC
8	Kalyanmal	Live	OMC
9	Beheria	Live	OMC
10	Attaipur	Live	OMC
11	Khudaganj	Live	OMC
12	Sindhauri	Live	OMC
13	Basantapur	Live	OMC
14	Gonda Devria	Live	OMC
15	Kottara	Live	OMC
16	Mailani	Live	OMC
17	Gangsara	Live	OMC
18	Atrauly	Live	OMC
19	Aadhachat	Live	OMC
20	Bhejam	Live	OMC

# Mini-Grid Service Connections in Uttar Pradesh

List of Villages where Service Connections are being done/maintained			
SI No	Plant Name	Service Connection	Client Name
1	Sanda	Completed	OMC
2	Shehwaj Nagar	Completed	OMC
3	Nigohi	Completed	OMC
4	Kanalpur	Completed	OMC
5	Kaanth	Completed	OMC
6	Beruwa	Completed	OMC
7	Bhadail	Completed	OMC
8	Kalyanmal	Completed	OMC
9	Beheria	Completed	OMC
10	Attaipur	Completed	OMC
11	Khudaganj	Completed	OMC
12	Sindhauri	Completed	OMC
13	Basantapur	Completed	OMC
14	Gonda Devria	Completed	OMC
15	Kottara	Completed	OMC
16	Mailani	Completed	OMC
17	Gangsara	Completed	OMC
18	Atrauly	Completed	OMC
19	Aadhachat	Completed	OMC
20	Bhejam	Completed	OMC
21	Banda	Completed	OMC
22	Bhurwara	Completed	OMC
23	Sansarpur	Completed	OMC

# **Projects Experience in India & Abroad**



**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Sun Edison Energy India Pvt. Ltd., have successfully completed a 14.16 KWP battery bank solar PV system at RKBK Ltd. Gulamipur Retail outlet NH2 Kanpur / Allahabad section, Kaushambi District, UP. The Power plant has been operational since 31<sup>st</sup> March 2013.

The scope of the Solar power plant installation work included Design, Engineering, Manufacturing, Procurement, Supply, Erection, Testing & Commissioning of the Plant including associated civil and electrical materials and equipments.

For RKBK Ltd,

Seal and signature

Date:

Place:

**RKBK Limited**

Poddar House, Aish Bagh Road, Naka Hindola, Lucknow - 226 004

Phone : (0522) 2691371, 2691059 + Fax : (0522) 2693088

Registered Office : Shree Ganesh Centre, 216 Acharya J C Bose Road, Kolkata-700 017

e-mail : lucknow@rkbk.co.in

### Work Completion-Performance Certificate

Date: June 23<sup>rd</sup>, 2017

We are pleased to certify that M/s SunPower & Consultants Pvt. Ltd. have been exceptional in successful completion of the EPC of 200kWp solar power grid tied project at AirforceManauri, Allahabad on 31<sup>st</sup> of March 2017.

We appreciate their consistent deliveries across different verticals of solar power project commissioning and cross-functionality with overall procurement of complete material on turnkey basis on time.

We congratulate M/s SunPower & Consultants team for successfully executing Underground laying of LT cable to connect solar plant to the grid.

We appreciate M/s SunPower & Consultants for completing the project in desired timeline & quality and performing well.

Wishes them Good Luck for their future.

Thanking you,



Meenakshee Sharma  
Manager  
Statcon Energiaa Pvt. Ltd.

### Work Completion- Performance Certificate

Date: October 20, 2018

We are pleased to Certify that **M/s SunPower & Consultants Pvt. Ltd, New Delhi** have been exceptional in successful completion of the EPCof **160KWp** Solar Power PV Project with Battery (360V/700AH) at **Jayanita**, on **18.10.2016** against the LOI no. **SEPL/15-16/PV/JE/32**. The very projects was awarded to us by **Statcon Energiaa Pvt. Ltd.**

We appreciate their consistent deliveries across different verticals of solar power project commissioning and cross-functionality with overall Engineering, Procurement, Installation & Commissioning on turnkey basis on time.

It is also stated that the very project has been successfully in operation for past more than two years since inception.

We Congratulate & appreciates **M/s SunPower & Consultants** for completing the project in desired timeline & quality and performing well.

Wishes them Good Luck for their future.

Thanking you,

For Statcon Energiaa Pvt. Ltd.



(Authorized Signatory)

**Work Completion- Performance Certificate**

**Date: October 17, 2018**

We are pleased to Certify that M/s SunPower & Consultants Pvt. Ltd, New Delhi have been exceptional in successful completion of the EPC of 100KWp Solar Power PV Project with Battery (240V/1000AH) at Transition Solutions, on 12.03.2017 against the LOI no. SEPL/15-16/PV/TS/51. The very projects was awarded to us by Statcon Energiaa Pvt. Ltd.

We appreciate their consistent deliveries across different verticals of solar power project commissioning and cross-functionality with overall Engineering, Procurement, Installation & Commissioning on turnkey basis on time.

It is also stated that the very project has been successfully in operation for past more than two years since inception.

We Congratulate & appreciates M/s SunPower & Consultants for completing the project in desired timeline & quality and performing well.

Wishes them Good Luck for their future.

Thanking you,

For Statcon Energiaa Pvt. Ltd.

  
(Authorized Signatory)



**Work Completion- Performance Certificate**

**Date: 27-07-2017**

We are pleased to Certify that **M/s SunPower & Consultants Pvt. Ltd, New Delhi** have been exceptional in successful completion of the EPCof 50 KW solar power grid tied project at Mrs. Seema Kaushik Petwal, Near SBI Main Branch, Dehradun Uttarakhand on 06<sup>th</sup> June'2017. The very projects was awarded to us by Mrs. Seema Kaushik Petwal.

We appreciate their consistent deliveries across different verticals of solar power project commissioning and cross-functionality with overall procurement of complete material on turnkey basis on time.

We Congratulate & appreciates **M/s SunPower & Consultants** for completing the project in desired timeline & quality and performing well.

Wishes them Good Luck for their future.

Thanking you,



S. Bisht  
Managing Director  
Ados Renewable Pvt. Ltd





Date 23.05.2016

### To Whom So Ever Concern

This is to certify that M/s. SunPower & Consultants Pvt. Ltd. has installed and commissioned 500 kVA Transformer along with all the cabling electrical work at our Solar project Site. Transformer is charged and working satisfactory.

For CleanMax Enviro Energy Solutions Pvt. Ltd.

A handwritten signature in blue ink, appearing to read "A. P. J.", is written over a horizontal line.



Signature

**THERMAX LIMITED** ENVIRONMENT HOUSE, PLOT NO. 90-92,  
BG BLOCK, MIDC, BHOSARI, PUNE 411026. INDIA TEL.: (20) 67156000,  
67156222 □ FAX : (20) 67156662 □ Website : www.thermaxglobal.com  
□ IT PAN - AAAC 3910D □ Customer Care : 18002090115 (India Toll Free)



Power Division

Ref No: TL/Solar/O & M/PWDD/2019-20/001

Date: 8<sup>th</sup> April 2019

**To whom so ever it may concern**

This is to certify that M/s Sun Power & Consultants Pvt. Ltd has been successfully providing Operation and Maintenance Services at 100 kWp Roof-Top Grid Tied Solar PV Plant at our customer premises at Vikas Bhavan-II, Bella Road, Civil Lines, Delhi-110054 since July 2015 against Purchase orders issued by M/s Thermax Limited.

Services provided by M/s Sun Power & Consultants Pvt. Ltd are observed to be satisfactory.

This certificate is being issued to M/s Sun Power & Consultants Pvt. Ltd on his request for submission of Nagaland tender (BID NO: NHP/PP/2018/021)

Thanking you.

For Thermax Limited

A handwritten signature in blue ink, appearing to read "Ashel", written over a horizontal line.

Name: Mr. Guruprit Singh Sohal



Designation: Head- Projects and Constructions, Power-Solar

# **ADOS RENEWABLE PVT. LTD.**

**Office & Corres. Add. :** G-28, Nehru Colony, Dehradun Uttarakhand  
**Factory :** D-12 C, Sector 1, Siggaddi Growth Center, SIDCUL, Kotdwar, Uttarakhand  
E-mail : adosmail@rediffmail.com, Web : www.adossolar.com  
Tel. : 7895813751, 9105910131

## **Work Completion- Performance Certificate**

**Date: May 29th, 2017**

We are pleased to Certify that **M/s SunPower & Consultants Pvt. Ltd.** have been exceptional in successful completion of 100 Kwp solar power grid tied with Battery Bank project at Aanaj Mandi, Sitarganj and 50 Kwp solar power grid tied with Battery Bank project at Sardar Bhagat Singh Degree Collage, Rudrapur, Uttarakhand on **15th of May 2017.**

We appreciate **M/s SunPower & Consultants** for completing the project in desired timeline & quality and performing well.

Wishes them Good Luck for their future.

Thanking you,



# Our Signature Projects

India

*Etawah 100 Kw Roof Top, Thermax Solar*

July' 2016



*Commissioned in 15 days*

*Unitech Gurgaon, India 200 Kw Roof Top, Clean Max Solar*

July' 2016



*Commissioned in 21 days*

*KEI Chaupanki, India 1 MWp Roof Top, Clean Max Solar*

August' 2016



*Commissioned in 40 days*

*IIT BHU, India 1.5 Mw Roof Top Chemistry Dept, Clean Max Solar*

July' 2016



# Our Signature Projects

## India

*Mother Dairy, Delhi, India 0.1 MWp Roof Top, Thermax*

November 2016



*GSK, Sonapat- Haryana, India 0.44 MWp Roof Top, Thermax*

December 2016



Commissioned in 30 days

*Riba Textiles, Panipat- Haryana, India 0.6 MWp Roof Top, Thermax*

January 2016



Commissioned in 21 days

*Etawah 100 Kw Roof Top, Thermax Solar*

February 2016



Commissioned in 15 days

# Bharti Airtel Limited 100 KWp Project at Lucknow

“Sunpower & Consultants Private Limited” has been awarded back to back PO by **M/s DAYLIT ENERGY (P) LTD, NEW DELHI** for job of largest solar power plant of 100 KWp at the roof top of one of the top telecom company. The project has been constructed in record time of 15 days on 31<sup>st</sup> Aug. 2012.



# Raja Sahab Gurdwara 100 KWp Project at Navasahar-Punjab

**“Sunpower & Consultants Private Limited”** has been awarded back to back PO by **M/s Best Towers, Bhopal** for job of Installation & Commissioning of solar power plant of 100 KWp at the roof top of Gurudwara, Navasahar, Punjab. The project has been successfully commissioned in March 2013.



## Executed Project – Daimler, Chennai, TN

- 1). 300 KWp SPV Roof Top at Daimler, Chennai, TN has been commissioned **15 days ahead of schedule on 27<sup>th</sup> Dec. 2012** with;
  - a) Largest RT in TN.
  - b) Slanting Metal roof Structure SPV.





**HEC – GANDHINAGAR – 100Kw  
COMMISSIONED ON 31ST MARCH 2013**



**HEC – GANDHINAGAR – 100Kw  
COMMISSIONED ON 31ST MARCH 2013**



# **Solarization of Petrol Stations in India**

# RKBK Gulamipur – Uttar Pradesh

## 3.2.3 Single-Cluster System (Three-Phase)

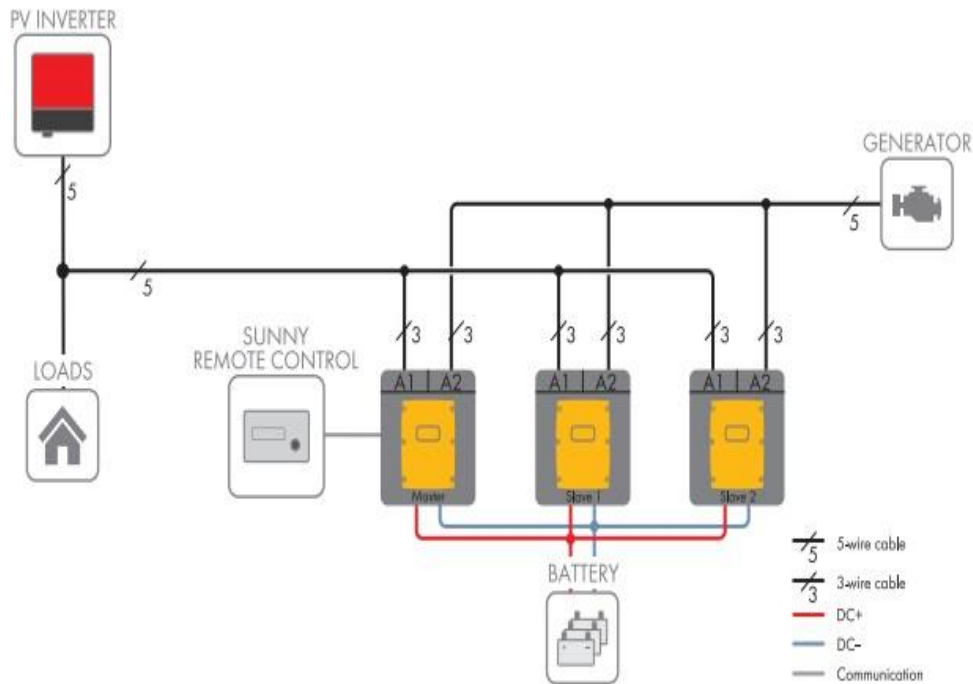


Figure 3: Block circuit diagram

In a three-phase single-cluster system up to three Sunny Island inverters are connected to one battery forming a cluster. The Sunny Island inverters are connected on the AC side to three different line conductors.

A cluster that consists of different device types is only supported by SI6.0H-11 and SI8.0H-11. If the device types within the cluster are different, the master must be an SI8.0H-11 (see Section 3.3 "Information on Off-Grid Systems", page 14).



Module layout



Sunny Island Inverter from SMA, Germany with Battery Bank

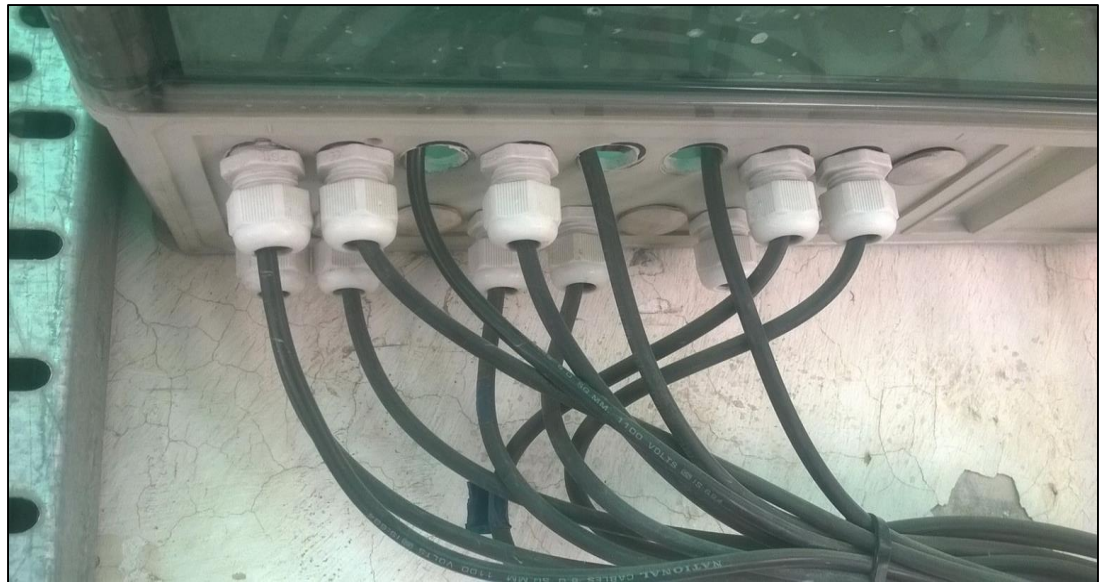
**RKBK Limited**  
**15 KWp Project at Gulamipur**  
**Uttar Pradesh**

**“Sunpower & Consultants Private Limited”** has been awarded the job by **M/s RKBK Limited** for the installation an additional Battery Bank to increase the power back-up of 15 KWp roof top plant at Gulamipur Retail Outlet of Indian Oil. The project has been successfully completed in December-2014.



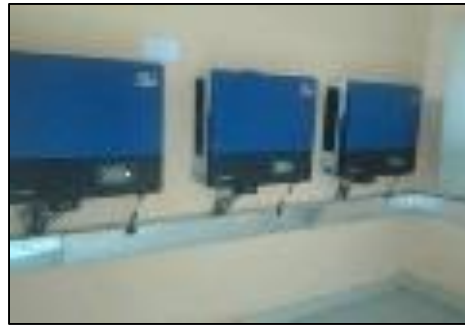
**RKBK Limited**  
**15 KWp Project at Jhusi-**  
**Uttar Pradesh**

**“Sunpower & Consultants Private Limited”** has been awarded the job by **M/s RKBK Limited** for the installation a Voltage Stabilizer for regular power the power fluctuations for 15 KWp roof top plant at Jhusi Retail Outlet of Indian Oil . The project has been successfully completed in December- 2014.



# **BENT College 50 KWp Project at Gurdaspur-Punjab**

**“Sunpower & Consultants Private Limited”** has been awarded back to back PO by **M/s Best Towers, Bhopal** for job of Installation & Commissioning of solar power plant of 50 KWp at the roof top of BEANT College (PEDA – Govt. of Punjab), Gurdaspur. The project has been successfully commissioned in March 2013.



## Raja Sahab Gurdwara 100 KWp Project at Navasahar-Punjab

“Sunpower & Consultants Private Limited” has been awarded back to back PO by M/s Best Towers, Bhopal for job of Installation & Commissioning of solar power plant of 100 KWp at the roof top of Gurudwara, Navasahar, Punjab. The project has been successfully commissioned in March 2013.





**Shivalik Public School  
50 KWp Project at  
Navasahar-Punjab**

**“Sunpower & Consultants Private Limited”** has been awarded back to back PO by **M/s Best Towers, Bhopal** for job of Installation & Commissioning of solar power plant of 50 KWp at the roof top of Shivalik School, Navasahar, Punjab. The project has been successfully commissioned in June 2013.



# PGCIL 50 KWp Project at Manesar- Haryana

“Sunpower & Consultants Private Limited” has been awarded back to back PO by M/s Thermax Ltd, Pune for job of Installation & Commissioning of solar power plant of 50 KWp at the roof top of PGCIL (A Govt. of India Undertaking), Manesar, Haryana. The project has been successfully commissioned in Sep. 2013.

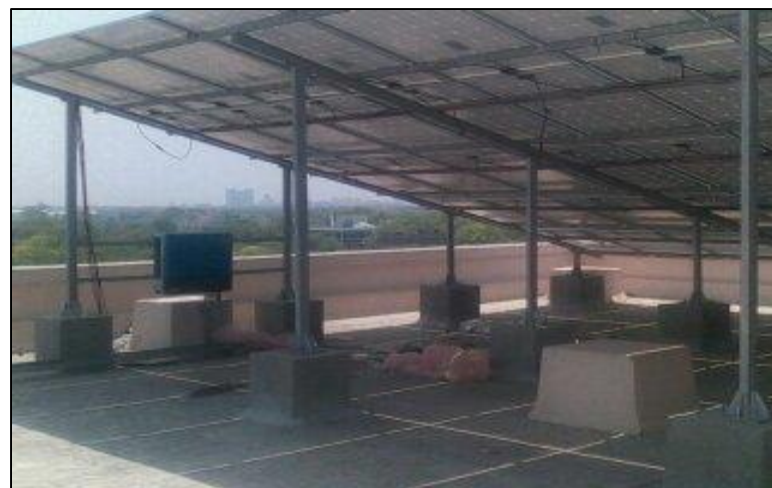


**IRCON**  
**40 KWp Projects at**  
**Noida & Greater Noida-UP**

“Sunpower & Consultants Private Limited” has been awarded the PO by M/s Hemina Solar, Ahmedabad for the installation & commissioning job of solar plant of 40 KWp (2 no. 20 Kwp each) at the roof top of IRCON (A Govt. of India Undertaking), Noida & G. Noida. The projects have been successfully commissioned in Sep. 2013.



# Snaps of IRCON and PWD Sites



# Off Grid Solar with Mini-Grid



# Mini-Grid - Impact



# Project Report - Patan – AC Minigrid Project

Name of the Village	Patan, Aron ,Guna
Address of the Village	Gram Patan, Gram Panchayat Patan Block Aron, Distt. Guna, Madhya Pradesh.
Capacity of Solar Power plant	2.00 kW
Total population to get power	Approx.200 (36 households)
Electrical items provided to each house	2 no. of LED lights (5,3 Watt) and a mobile charger (with complete installation of switch board and house wiring)
Street Lights in Village	2 no. of 25 watt CFL lights on pole top.
Average temperature of Guna	Temp. as high as 45°C in May-July and Average temp of 30-35°C throughout the remaining year.
Availability of Grid	No Grid power supply
Source of water prior to installation of Solar plant	2 common hand pumps in the village.
Project Commissioning	<b>Commissioned on 15<sup>th</sup> Aug, 2015</b>
Number of days of execution	10 days



## Scope:-

- 1). Installation & Commissioning of Solar plant
- 2). Installation & Commissioning of pole top - Smart load limiters
- 3). Service connections
- 4). Education & Training for operations & Maintenance of plant

# Our Signature Projects out side India

## Myanmar

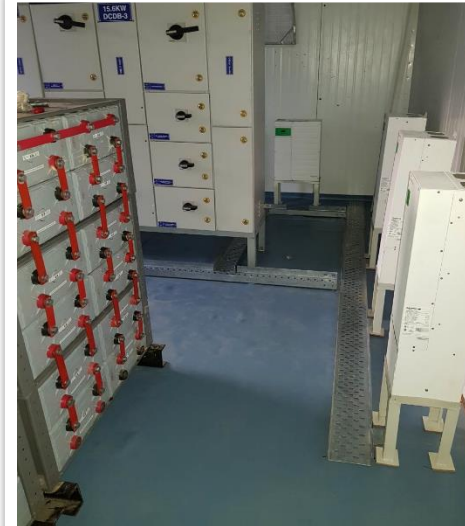
*Yoma Micropower, Yangon, Site SG21041 - 31.2kWp Solar plant in the Sagaing area*

Project Start/Finish  
Date: 16<sup>th</sup> Aug/25<sup>th</sup> Sep  
2017



With IFC  
(World  
Bank  
Team)

*Yoma Micropower, Yangon, Site SG0905 - 15.6kWp Solar plant in the Sagaing area.*



Project Start/Finish  
Date: 26<sup>th</sup>  
August/30<sup>th</sup> Sep  
2017





“Sunpower & Consultants Private Limited” has been awarded the job by M/s Yoma Micropower for the EPC of 50.05 KWp roof top Solar plant at Campus Building roof at Yangon(Myanmar).

It consists of 325Wp Trina Modules (polycrystalline) and 50 kW SMA inverter. Polar Bear Module Mounting Structure(MMS) has been installed there which were supplied by Ganges. A weather station has also been installed with Solar Plant to gather the meteo data of sites which gets upload on the server automatically and can be accessed remotely.

The project has been successfully completed in March- 2018.



**Yoma Micropower, Myanmar**  
**52.65 kWp Grid tied project at A5**  
**Starcity Building at**  
**Yangon(Myanmar)**

**“Sunpower & Consultants Private Limited”** has been awarded the job by **M/s Yoma Micropower** for the EPC of 52.65 KWp roof top Solar plant at A5 Star City Building roof at Yangon(Myanmar).

It consists of 325Wp Trina Modules (polycrystalline) and 50 kW SMA inverter. Elevated customize MMS has been used there which was designed and supplied by Sunpower from India. A weather station has also been installed with Solar Plant to gather the meteo data of sites which gets upload on the server automatically and can be accessed remotely.

- The project has been successfully completed in March- 2018



# Kyun Pila Island Project\_Executed

- **Myanmar** *Yoma, Kyun Pila Island (KPI)- 52.65 kWp Solar – DG Hybrid*

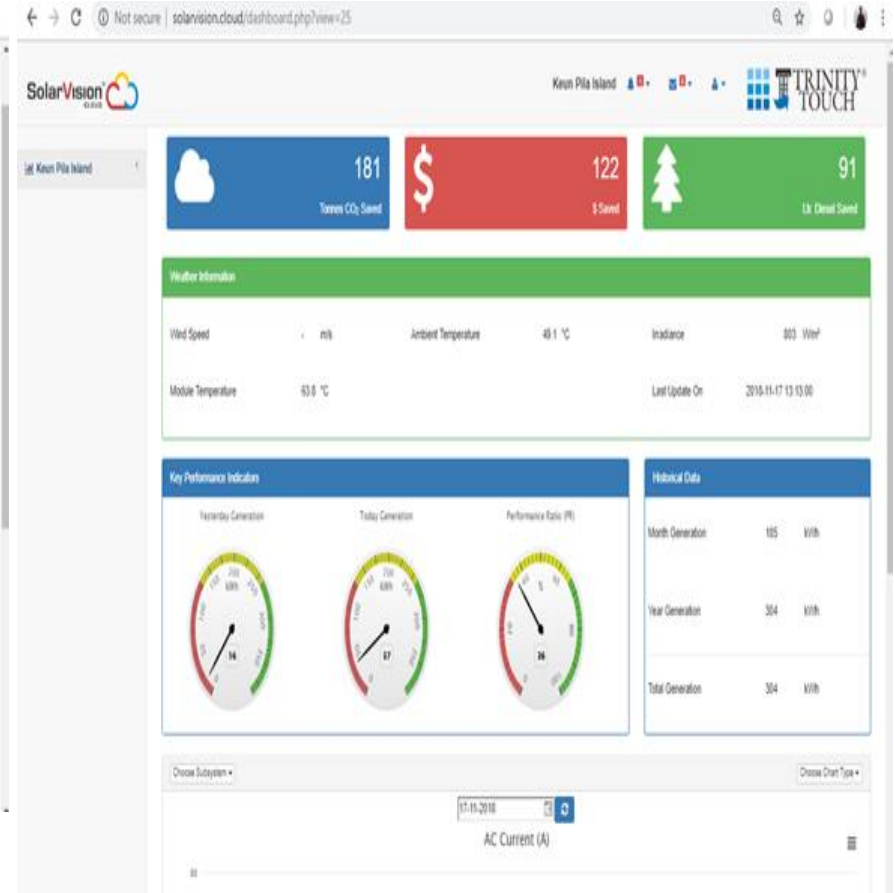
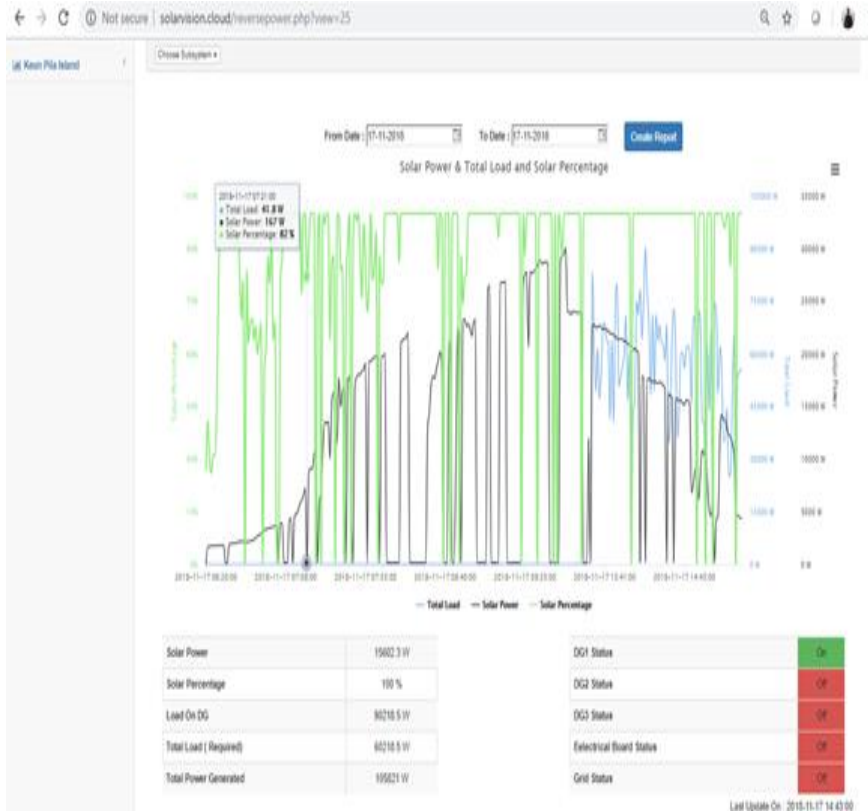
Design &  
Engineering  
completed

Materials  
dispatched to site

Project execution  
completed on  
20Oct2018



# Remote Monitoring Plant Data at KPI Myanmar Site:



# Our Signature Projects

- **Dubai** *Cleanmax, Indian Academy-Dubai- 192 kWp Solar plant.*

NOC Received  
from DEWA

Engineering Drawing  
approval from DEWA  
Received

Structural Design  
approval from Dubai  
Municipal (DM)  
Received

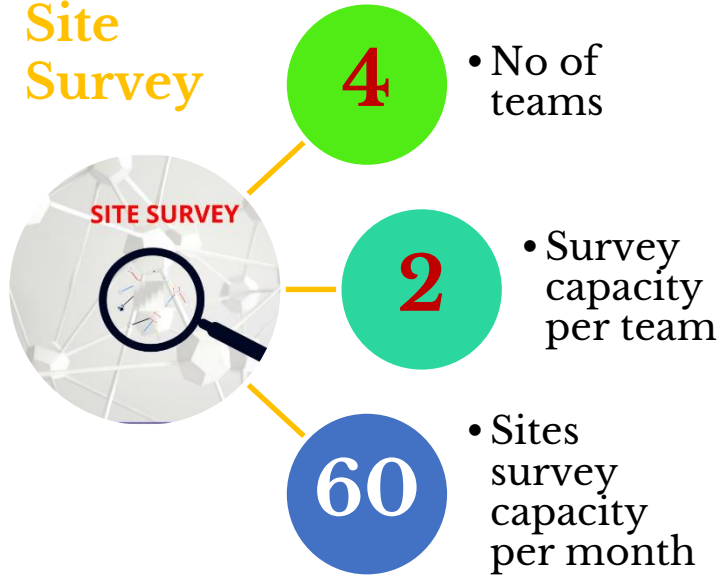
Commissioning  
has been  
achieved in June  
2019



# Our Associates & Team Strength Overseas

## Myanmar

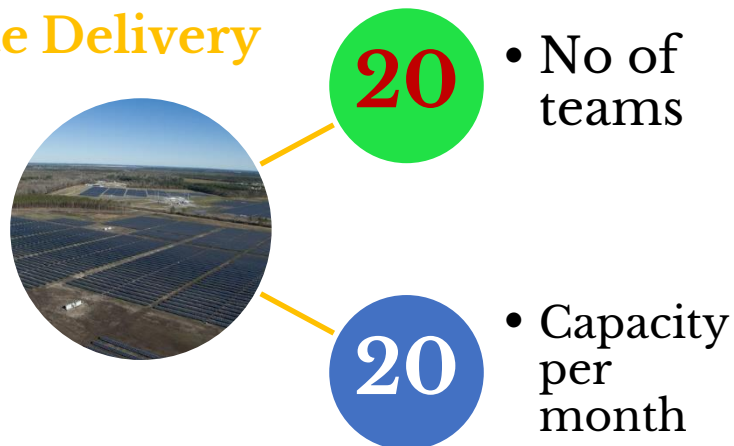
### Site Survey



### Site Acquisition



### Site Delivery



**Note:** One sites time line from the SAQ to Building permit will be minimum 45 days.

# **Projects Executed of Solar Water Pumps in India & Abroad**



**Water Pump Testing at MNRE  
20 Mtrs, 50 Mtrs & 75 Mtrs**

**“Sunpower & Consultants Private Limited”** has been awarded the PO by **M/s SEI Green Technology (P) Ltd, Chennai** for the installation job of solar pumping system at MNRE solar energy centre with consultancy services to get solar pumping system certification & testing done.



**Water Pump Testing at MNRE  
20 Mtrs, 50 Mtrs & 75 Mtrs**

**“Sunpower & Consultants Private Limited”** has been awarded the PO by **M/s ALPEX EXPORTS (P) LTD, NEW DELHI** for the installation job of solar pumping system at MNRE solar energy centre with consultancy services to get solar pumping system certification & testing done.



## Operations and Maintenance Services providing by us

- We also provide the O & M services for the Solar PV plants.
- Currently we have been /provided/providing O&M services to the below projects:
  - PGCIL- Manesar for Thermax Limited of 50Kw capacity during 2014-15 & 2015-16 starting from Feb-14
  - NBC – Manesar for Cleanmax of 50Kw capacity during 2015-16 starting from Sep 2015
  - PWD- New Delhi for Thermax Limited of 100Kw capacity since Aug-14 till date & still continuing.....

# Web Page of SECI (A GOI Company)


seci.gov.in/upload/uploadfile: x

seci.gov.in/upload/uploadfiles/files/Suryansh%202nd%20Edition.pdf

SUN FOR EVER

## Shri Piyush Goyal inaugurates Solar plant for School

Hon'ble Minister of State (I/C) for Power, Coal, and New & Renewable Energy, Shri Piyush Goyal inaugurates Solar Plant in a school of Village Golavali in Ratnagiri, Dist., Maharashtra. SECI has developed the plan and got the project executed through its approved vendor.



(August, 2015) | 2<sup>nd</sup> issue

Start

8:15 AM 9/26/2015

# Mithun Kheda – AC Mini Grid Project Inauguration



# Executed Project – Meervada, Guna, MP

- 1). 13.44 kWp Off-Grid Rural standalone SPV system at Meervada, Guna, MP has been commissioned **on 2<sup>nd</sup> August 2011** with;
  - a) Mini grid of 3Kms with service lines.
  - b) First time ever villagers used electricity.



Thank – You All

# Open Access Regulations in India



# ANDHRA PRADESH

## Our broad Understanding

- Consumer's aspiration to set-up solar projects in Madhya Pradesh of approx 78 MWp over the next 12 to 18 months
- Power Generated from this plant will be consumed by the facilities based in Gujarat, Odisha & Andhra Pradesh
- Land identified for 78 MWp at single location.
- Consumers in group companies who wants to sign Power Purchase Agreement in USD terms
- Projects will be under Captive Open Access (COA) framework to insulate from Cross Subsidy Surcharge and additional surcharge

## Captive structuring insulates from CSS and Grid Surcharge

- Sector regulated under Sec 9 EA 2003. Power project considered ‘captive’ if entity consumes at least 51% of power generated and owns at least 26% of equity, under the Electricity Rules 2005
- Electricity Rules are made by notification by the Central Government (s. 176). Does not require Act amendment through parliament.
  - ✓ Captive classification benefits:
    - ✓ Cross subsidy surcharge (CSS) not applicable on power generated
    - ✓ Transmission system use entitlement without any additional surcharge
- Project insulated from incidence of CSS or additional surcharges in future due to compensate for stranded transmission capacity of the utility
- MoP now requires 26% or more ownership of the “paid up equity share capital”
  - ✓ Equity structures with different face value of shares no longer tenable
  - ✓ However, structures where majority capital brought in as quasi-equity instruments like CCPS/CCDs continue to hold

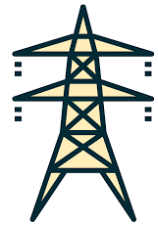
# Process flow – Settlement Mechanism



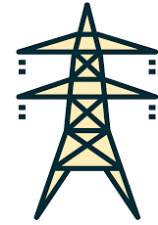
Network	IBNR/kWh	Total Charges in addition to Tariff
MP STU	1.83	
CTU	1.90	
Gujarat STU	1.73	5.46
AP STU	1.94	5.67
ODISHA STU	1.63	5.36



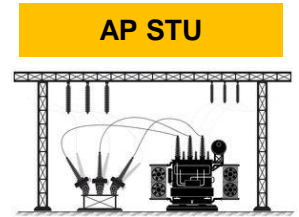
**Pooling SS**



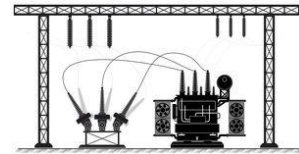
**MP STU**



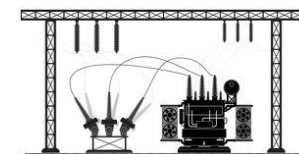
**CTU**



**AP STU**



**ODISHA STU**



## Key Issues to Understand & Way forward

#	Heading	Issue
1	Power Evacuation	<ul style="list-style-type: none"> <li>No of projects. Average size. Geographical spread in State. Delivery voltage</li> <li>Primary Connectivity will be taken at MP STU</li> <li>Further to MP STU connectivity approval will be needed at CTU 220 KV Level</li> <li>PGCIL provides connectivity for only 300 MW for a voltage level of 220 KV</li> <li>In case PGCIL agrees to provide connectivity for this 78 MWp project, we will be asked to construct a Pooling SS for 220 KV, which will not be cost economical</li> </ul>
2	Charges	<ul style="list-style-type: none"> <li>Since this will interstate open access, all 4 STU'w will be reluctant to provide Open access approval for the project.</li> <li>In additional to that, consumer will have to bear open access charges for three entities i.e. MP STU, CTU &amp; Home State STU</li> </ul>
3	Settlement Mechanism	<ul style="list-style-type: none"> <li>Post project commissioning, power settlement will also include three agencies which will make monthly settlement complicated. Till date no private consumer is successful in this.</li> </ul>
4	Way Forward	<ul style="list-style-type: none"> <li>Keeping in mind the execution of project, it is advisable to divide this project as per the consumption of respective state units and set up solar plant within the state itself.</li> <li>Consumer will be benefits of exemption related to OA charges, incase plant is being setup in same state of power consumption (Discount of ~50% of STU charges &amp; No CTU involved)</li> </ul>

## Highlights of the Financial Modelling of 20MWp Solar Plant

<b>Project Capacity (DC)</b>	<b>20</b>	<b>MW</b>	
<b>Project Capacity (AC)</b>	<b>16</b>	<b>MW</b>	
<b>Area Required (Acres)</b>	<b>60</b>	<b>Acres</b>	
<b>Requirement of Funds</b>	<b>INR Mn</b>	<b>Sources of Funds</b>	<b>INR Mn</b>
<b>Total EPC Cost Incl. Land</b>	<b>704</b>	<b>Equity Proceeds</b>	<b>189</b>
<b>Contingency</b>	<b>5</b>	<b>Debt</b>	<b>567</b>
<b>DSRA</b>	<b>24</b>		
<b>IDC</b>	<b>12</b>		
<b>Upfront Fees</b>	<b>9</b>		
<b>Working Capital Margin</b>	<b>2</b>		
<b>Total Project Cost</b>	<b>756</b>	<b>Total Sources</b>	<b>756</b>
<b>Annual Gen @plant (Mwh)</b>	<b>29.00</b>	<b>Million Units</b>	
<b>Estimated Billing (Million INR/1st Yr)</b>	<b>124.70</b>	<b>Million Rs</b>	
<b>Minimum DSCR</b>	<b>1.51</b>		
<b>Average DSCR</b>	<b>1.71</b>		
<b>DSRA (Million INR)</b>	<b>24.34</b>	<b>Million Rs</b>	
<b>Financial Closure/Construction Start Date</b>	<b>1-Aug-19</b>		
<b>Construction End Date</b>	<b>30-Apr-20</b>		
<b>COD</b>	<b>1-May-20</b>		
<b>Equity IRR</b>	<b>25.59%</b>		
<b>Project IRR</b>	<b>11.73%</b>		

## Open Access Regime

### OPEN ACCESS & OTHER CHARGES AS PER ANDHRA PRADESH OPEN ACCESS POLICY 2005 AND SOLAR POLICY 2015

Andhra Pradesh came out with its solar policy in February 2015 and will be applicable for plants commissioned till February 2020

<b>Capacity limit</b>	<ul style="list-style-type: none"> <li>Minimum 1 MW and maximum is dependent on the capacity of the evacuation network. No minimum capacity limit for RE</li> </ul>
<b>Network</b>	<ul style="list-style-type: none"> <li>At and below 33 kV the state has got the distribution grid and above is the transmission grid up to 220 KV</li> </ul>
<b>Open Access Connection</b>	<ul style="list-style-type: none"> <li>Long-term: Any consumer availing open access for a period of 2 years or till 25 years or till the entire tenure (no reply till 21 days from Nodal agency means deemed Open Access)</li> <li>Short-term: OA for a term of 1 year to 2 years</li> </ul>
<b>Nodal Agency</b>	<ul style="list-style-type: none"> <li>NREDCAP for land, evacuation and approvals from DISCOM as well</li> </ul>
<b>Other Provisions</b>	<ul style="list-style-type: none"> <li>Solar PV power projects will be exempted from obtaining any NOC/Consent for establishment under pollution control laws from AP Pollution Control Board</li> </ul>
<b>Banking</b>	<ul style="list-style-type: none"> <li>Banking of 100% of energy is allowed for entire 12 months calculated on Indian financial year basis</li> <li>2% of the net delivered energy at the point of drawl is considered as charges for banking. Energy from synchronization to COD is deemed banked</li> <li>No drawl allowed from 1<sup>st</sup> April-30<sup>th</sup> June and 1<sup>st</sup> February to 31<sup>st</sup> March</li> <li>No drawl during the peak time as applicable through the retail tariff order</li> <li>For unutilized banked energy the DISCOM will pay an equivalent of APPC, applicable for that financial year</li> <li>Energy banked till 31<sup>st</sup> Jan' shall be settled at APPC and banked energy for Feb and March shall be taken over to the next year</li> <li>No other generators other than solar, wind and mini-hydel will be allowed banking of power generated by them</li> <li><i>Generator shall inform the SLDC for the upcoming withdrawal of the banked energy at least 10 days before the billing cycle</i></li> </ul>
<b>Contract Demand Reduction</b>	<ul style="list-style-type: none"> <li>From the COD to 5 years the consumer can get a reduction in its Contracted demand</li> <li>Reduction = No of units consumed from solar in a month/ Hourly time blocks in a month720 (24 X 30) = kW reduction in the contract demand</li> <li>In case maximum demand exceeds contracted demand, consumer has to pay 5 times of applicable tariff in peak hours and 7 times in normal hours</li> </ul>

## Open Access Tables

Charges	Normal Open Access	Open access for solar	Remarks
Transmission Charges	Refer Open Access charges slide	Exempted for first 10 years	<ul style="list-style-type: none"> <li>No transmission charges applicable for solar projects for only captive use/third party sale within the State</li> </ul>
Transmission loss	Refer Open Access charges slide	Refer Open Access charges slide	<ul style="list-style-type: none"> <li>Not Exempted</li> </ul>
Wheeling Charges	Refer Open Access charges slide	Exempted for first 10 years	<ul style="list-style-type: none"> <li>No distribution charges applicable for solar projects for only captive use/third party sale within the State</li> </ul>
Wheeling Losses	Refer wheeling losses slide	Exempted for first 10 years	<ul style="list-style-type: none"> <li>Distribution losses shall be exempted only for delivery in DISCOMs</li> </ul>
Scheduling and System Operation Charges	Refer Open Access charges slide	Refer Open Access charges slide	<ul style="list-style-type: none"> <li>As actual.</li> <li>Deemed scheduled</li> </ul>
Cross subsidy Surcharge	Refer Open Access charges slide	Exempted for first 5 years	<ul style="list-style-type: none"> <li>Cross subsidy surcharge shall be exempted for third party sale for 5 years from commissioning</li> </ul>
Additional surcharge	10% of the transmission and wheeling charges	Exempted for first 5 years Thereafter 10% of the wheeling and transmission charges	<ul style="list-style-type: none"> <li>10% of the transmission and wheeling charges as per the MYT order or the rate for such “additional surcharge” shall be computed based on the fixed cost of the stranded capacity of the DISCOM for the total kVA covered by all the OA transactions of the DISCOM for the month, whichever is less</li> </ul>
Banking Charges	NA	@ 2% of the delivered energy	<ul style="list-style-type: none"> <li>Banking of 100% of energy shall be permitted. Banked energy during non-peak hours can be drawn in any time slot</li> </ul>
Electricity Duty/self generation tax	INR 0.25/ kWh for captive consumption	Exempted for first 10 years	<ul style="list-style-type: none"> <li>Shall be exempted for captive consumption, sale to DISCOM(s) &amp; 3<sup>rd</sup> party sale.</li> </ul>
Reactive Energy charges		NA	<ul style="list-style-type: none"> <li>Reactive Energy charges are not applicable to solar.</li> </ul>
Nodal Agency Fee		<ul style="list-style-type: none"> <li>INR 10,000 per MW as registration fee</li> <li>INR 25,000 per MW for the single window clearance</li> </ul>	



## Open Access Charges till FY 2018-19

### Transmission charges & loss

Financial Year	Transmission Charge (INR / kW/ month)	Transmission loss
2016-17	91.36	4.01%
2017-18	95.37	3.98%
2018-19	94.44	3.95%

### Wheeling Charges

At 33kV (in INR/ kVA/ month)

DISCOM	2016-17	2017-18	2018-19
EPDCL	11.38	11.80	12.22
SPDCL	15.39	15.11	15.17

### SLDC charges

Financial Year	Annual fee (INR / MW/ year)	Operating charge (INR / MW/ month)
2016-17	3533.18	2247.62
2017-18	3995.39	2300.31
2018-19	4214.27	2342.73

At 11kV (in Rs/ kVA/ month)

DISCOM	2016-17	2017-18	2018-19
EPDCL	247.55	262.96	279.50
SPDCL	227.14	232.26	240.68

### Cross Subsidy Charges (INR/kWh)

Consumer Category	SPDCL	EPDCL
HT-I(A): Industrial	2.39	2.07
HT-I(B): Ferro-alloys	0.29	0.12
HT-II: Others	4.60	4.22
HT-III: APTs, BSTs and Rly. Stns.	2.53	2.36
HT-IV(A):Lift Irrigation	1.29	1.88
HT-IV(B):Composite Water Schemes	0.11	0.91
HT-V: Railway Traction	1.21	1.22
HT-VI: Townships & Colonies	0.27	0.63
LT-I: Domestic	0.00	0.00
LT-II: Non-Domestic/Commercial	2.54	2.79
LT-III: Industrial	1.15	0.60
LT-IV: Cottage Industries	0.00	0.00
LT-V: Agriculture	0.00	0.00
LT-VI: Street Lighting and PWS	0.00	0.00
LT-VII: General	0.49	0.00
LT-VIII: Temporary Supply	3.10	2.42

## Wheeling Losses for all DISCOMS till FY 2018-19

### EPDCL

- Vishakhapatna
- Vijay Nagar
- Shri Kakulam
- East Godavri
- West Godavari

2016-17	Supply Point		2017-18	Supply Point		2018-19	Supply Point	
	Drawn at			Drawn at			Drawn at	
	33kV	11kV		33kV	11kV		33kV	11kV
33kV	3.39%	7.47%	33kV	3.39%	7.40%	33kV	3.39%	7.25%
11kV	7.47%	7.47%	11kV	7.40%	7.40%	11kV	7.25%	7.25%

### SPDCL

- Tirupati
- Ananthapur
- Kurnool
- Kadapa
- Chittoor
- Gunutr
- Krishna
- Nellur
- Prakasham

2016-17	Supply Point		2017-18	Supply Point		2018-19	Supply Point	
	Drawn at			Drawn at			Drawn at	
	33kV	11kV		33kV	11kV		33kV	11kV
33kV	3.96%	7.80%	33kV	3.88%	7.65%	33kV	3.80%	7.49%
11kV	7.80%	7.80%	11kV	7.65%	7.65%	11kV	7.49%	7.49%

Parameters	Units	PVSyst	Corrected for Floating Plant
Glob Hor.	kWh/m2	1991	1991
Global incident in coll. plane		3.20%	3.20%
IAM factor on global		-3.42%	-3.42%
Effective irradiation on collectors	kWh/m2	1984.4	1984.4
Area of Collector plane	m2	38826.0	38826.0
Efficiency at STC		16.75%	16.75%
Array nominal energy (at STC effic.)	MWh	12906	12906
PV loss due to irradiance level		-0.43%	-0.43%
<b>PV loss due to temperature</b>		<b>-11.58%</b>	<b>-6.58%</b>
Module quality loss		0.75%	0.75%
Mismatch loss, modules and strings		-1.10%	-1.10%
Ohmic wiring loss		-1.13%	-1.13%
Array virtual energy at MPP	MWh	11193	11826
Inverter Loss during operation (efficiency)		-1.41%	-1.41%
Inverter Loss over nominal inv. power		0%	0%
Inverter Loss due to max. input current		0%	0%
Inverter Loss over nominal inv. voltage		0%	0%
Inverter Loss due to power threshold		0%	0%
Inverter Loss due to voltage threshold		0%	0%
Night consumption		-0.01%	-0.01%
Available Energy at Inverter Output		<b>11034</b>	<b>11658</b>
Specific Production	kWh/kWp/year	<b>1697</b>	<b>1793</b>