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Chartered Engineer – M1610400
Panel Valuer of Banks
IBBI/RV/02/2019/11954

Ref: VVN / Delta/ 2023-24 /021

To

The Board of Directors
Orient Green Power Company Limited
Chennai

Sir/Mam,

Sub : Report on 19.80 Mw AC (29 Mw Dc) solar power project proposed to be developed by M/s Delta Renewable Energy Private Limited in Tamil Nadu

Introduction

Based upon the request from your company, I conducted a study on the project cost 19.80 MW AC (29 Mw DC) Solar Power Project proposed to be developed by M/S Delta Renewable Energy Private Limited Detailed in Tamil Nadu and provide my report herewith.

I've been informed by the Management that the company is planning to develop the project on a turnkey basis and identified a developer viz., Solon India Private Limited (Solon). I was furnished with a copy of the offer received from Solon dated January 09, 2024 which has been considered for my review and extracts of the same used in this report.

Scope of the Assignment

My scope is restricted to study the offer from Solon to the company and provide an independent opinion on the reasonableness of the cost of the project considering the proposed technology, location, make, etc...

Disclosure of Interest/Conflict

I'm not related to the Company or its promoters or its director or their relatives or Solon and I do not have any interest or confliction of interest with respect to the study conducted and opinion given hereunder.

Disclaimer:

1. I am not associated with the company directly or indirectly.

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2. Project assessment is unbiased without any prejudicious.
3. The Information provided is true and correct to the best of my knowledge and belief.
4. Legal aspect is not covered in this Report, valuation covered.

Opinion

Based upon the attached study conducted and enquiries made, I'm of the opinion that the estimated cost of Rs. 129.04 crore for the development of 19.8 MW AC solar project at Ranipet District/Vellore District of Tamil Nadu is **reasonable**. This excludes the statutory payments, deposits, project monitoring, other escalations in prices, if any.

Further, In my opinion, all the approvals required for commissioning the project are considered by Solon in their offer and the timelines for securing the same are reasonable, in the normal course.

V V Narayanan
IBBI Registered Valuer
Chartered Engineer
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Chennai, January 25, 2024

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Detailed Project report on the 19.80 Mw AC (29 Mw Dc) solar power project proposed to be developed by M/s Delta Renewable Energy Private Limited in Tamil Nadu

1 Importance of Renewable Energy

There is a pressing need to accelerate the development of advance clean energy in order to address global changes of energy security, climate change and sustainable development. The following points explain the importance of promoting Renewable Energy generation in India.

- There is growing global concern and awareness for the environment.
- The country's rising energy needs, proportional to Gross Domestic Product (GDP) growth.
- Economic unbalance by over dependence on coal for electricity generation and over dependence on oil imports.
- To mitigate the above development of solar energy will reduce dependence on coal based power plant.

2 Advantages of promoting solar power plants :

India is located in the equatorial sun belt of earth, there by receiving abundant radiant energy from the sun. The following features of solar power make it the most viable renewable source of energy for India.

- Solar energy is available in abundance.
- Available across the country – unlike other renewable sources, which have geographical limitations.
- Available throughout the year.
- Decentralized / off-grid applications – addressing rural electrification issues
- PV needs only one initial investment but no further fuel or recurring expenses
- PV does not harm the environment
- Modularity and scalability
- Among other renewable sources of electricity generation, wind has seen rapid growth in India in recent years. However, India being a medium wind profile country, its low plant load factors and situation of optimal locations of wind generation that are expected makes it less attractive than Photo Voltaic power generation in the longer term.

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- The Photo Voltaic (PV) approach is particularly suited for the geographical and socioeconomic features of this country having highly skewed energy distribution between urban and rural areas.

India needs to focus on developing its own sources of energy. There are potential for developing solar power in the states

3 Solar PV

The Solar PV power is the least polluting and environmental friendly among solar power technologies. On a comparison with solar and thermal, the following are its major merits:

- Totally green technology
- Single stage conversion of light to electricity. This means that there is no intermediate thermal cycle with incumbent boiler, turbo generation and condenser. Hence no heat rejection to atmosphere.
- Fully static equipment with no moving parts. Requires least operation and maintenance.
- Well established and mature technology.
- Rated for a useful life of 25 years
- Government support for the technology.
- No special skill set is required to run the solar PV power plant unlike other power generating plants.
- Solar PV power plant is very ideal for utilizing vast non-cultivated landmass at remote locations without the requirement of process or cooling water to better use.
- Man power required for maintenance is less

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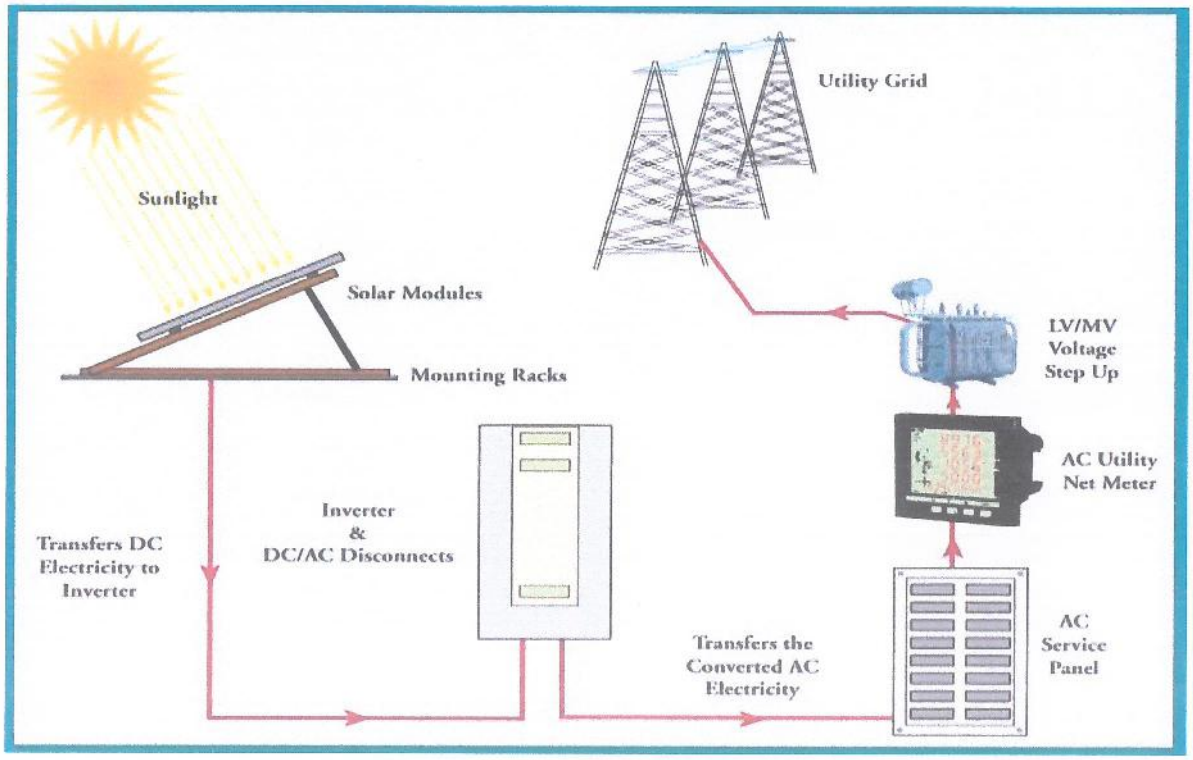
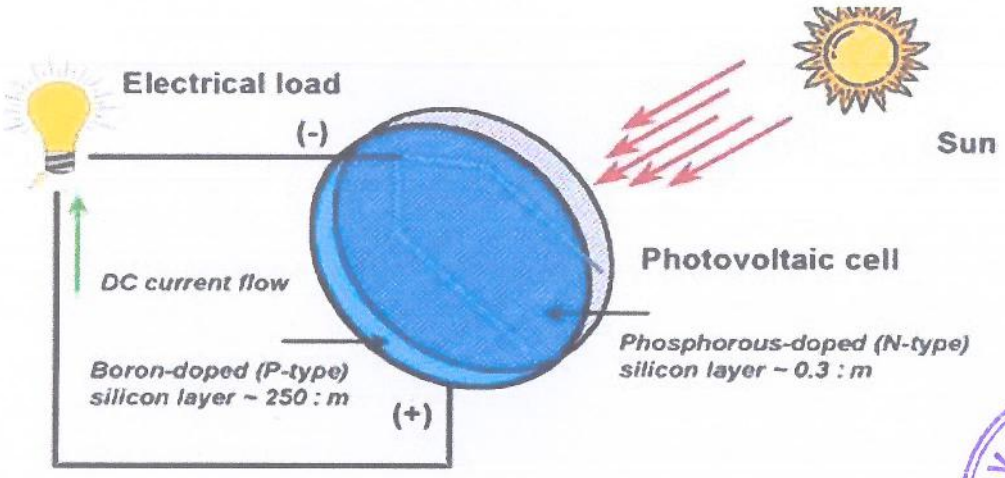
4 Process Flow Chart



5 POWER PLANT COMPONENTS - SOLAR CELL, MODULE & ARRAY

- When Sunlight strike on the surface of a PV cell, it provides momentum and direction to light-stimulated electrons, resulting in a flow of current when the solar cell is connected to an electrical load.



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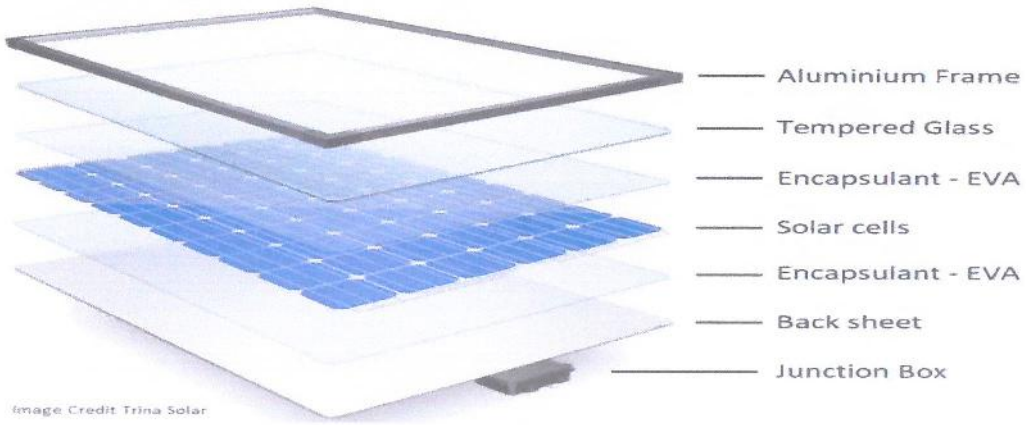
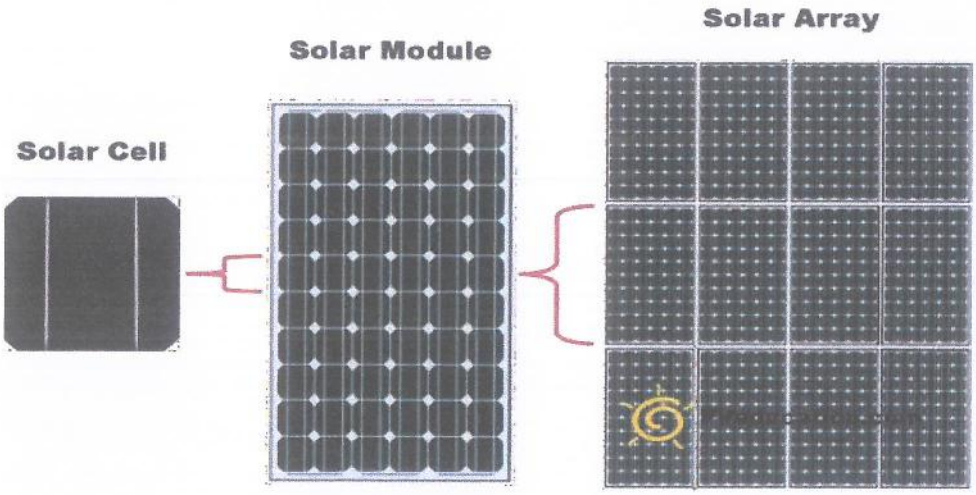
PV cell circuits sealed in an environmentally protective laminate and a solar Module is constructed and are the fundamental building blocks of PV systems. For utility scale, modules will have typically 72 cells.



- Photovoltaic / Solar cells are connected electrically in series and/or parallel circuits to produce higher voltages, currents & power levels.



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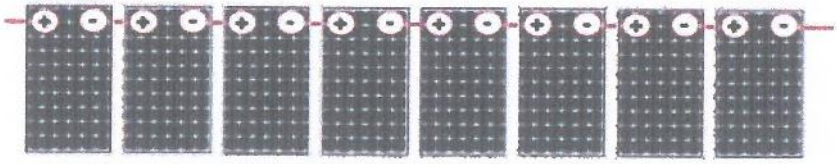
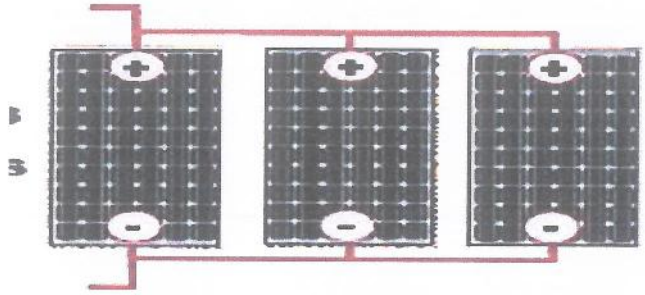
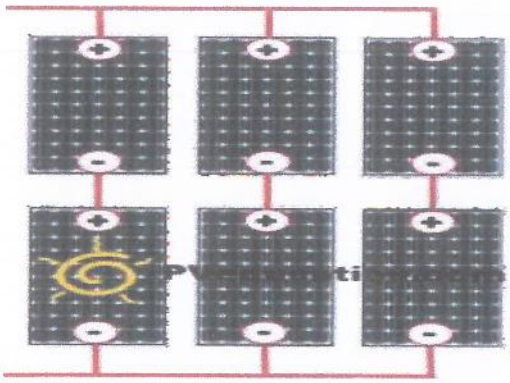
- Series wiring increases the voltage and is done by wiring the positive to the negative.



- Parallel wiring increases the current (amps) of output. Here all the positives of multiple modules are connected together and all the negatives for the same modules are connected together.



- **Series Parallel Combination:** what is found in most large solar systems, a series and parallel wiring combination.



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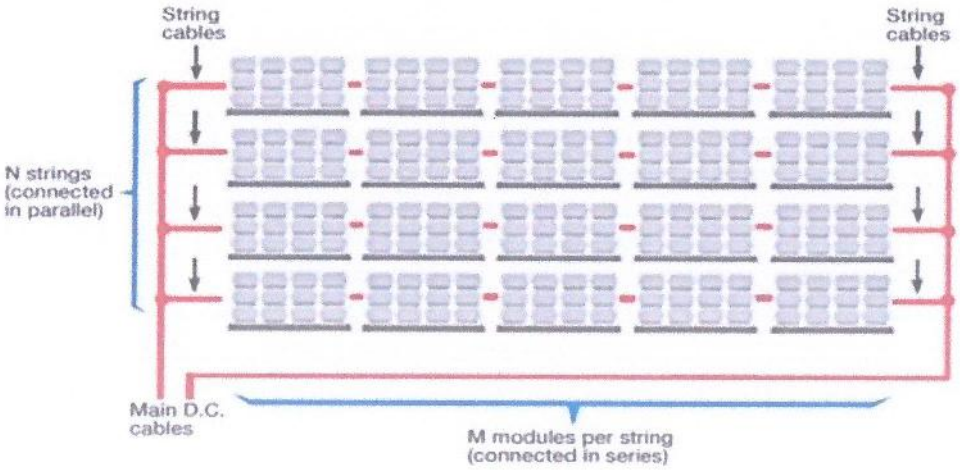
PV modules are generally connected together in series to produce **strings of modules** of a higher voltage.



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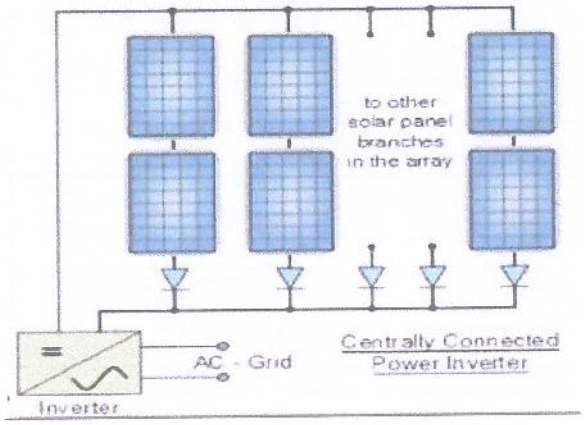
6 Inverter

- Are solid state electronic devices. DC power produced is converted by an inverter into AC at mains voltage and frequency.



7 POWER PLANT COMPONENTS – EVACUATION SYSTEM

- These are substation arrangements to step-up and synchronize the produced power into nearest available utility Grid

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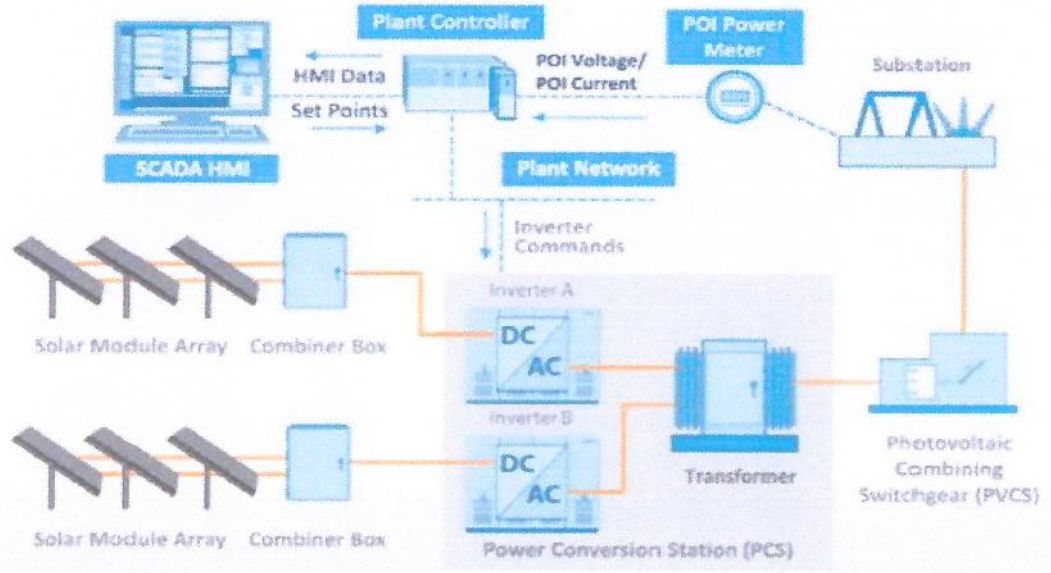
8 POWER PLANT COMPONENTS - SCADA control system

- SCADA (Supervisory Control and Data Acquisition) provided flexibility in monitoring and controlling the various plant component and operations, including trackers, inverters, substations and meters



9 The following are some Technical Requirements for the Solar PV array:

- The PV module used for power plant will be CE and IEC certified. All parallel and series connections will be done as per NEC and IEEE standards.
- The mounting / tracking structures on which PV modules are to be placed will be designed as per the IS/IEC standards and will be able to withstand a wind velocity of 180kmph. Optimum distance will be ensured in between adjacent PV strings to avoid shadow falling from one string on to the other.
- All the strings will be paralleled in the junction boxes. The junction box will have IP 65 rating ensuring protection against rain, corrosion and other solid objects.
- The junction box will contain fuses, surge arrestors and blocking diodes for each string.

The grounding of the PV array will provide a well-defined low resistance path from selected points of the PV array to the ground. Soil resistivity test will be done for designing earthing scheme

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10 Module Mounting Structure

The modules has been mounted on fixed structures with tilt angle of 25 degrees. The structure is designed to withstand wind speed up to 180km/h. these parameters would be valid for a 24 module string. Steel structure has provisions for zero degree tilting holes during peak season.

11 Module Placement

In order to maximize the electricity generation, the module placement is very important. As sun travels from east to west due south, modules will get maximum exposure to sun if facing south direction. In addition to this, the panels will be arranged with a uniform profile, so as to reduce shadowing effect. There would be no overlapping of panels in the power plant, and this would reduce any losses that could have occurred due to shadowing.

12 Solar Inverters

Twenty grid connected solar inverters of capacity 3300 Kw each are being used for converting DC power into AC. Each inverter is based on highly efficient IGBT technology with generation voltage of 800Vac. Three phases, 50 Hz. The inverter coupled to the PV array is suitable in all aspects for operating with the grid. The interconnection of the inverters with the AC panel and then from AC panel to the transformer is being done with the help of XLPE cables. The inverter is IEC/UL and CE certified.

13 Unit Control Panel

The unit control panel comprises of control and metering system, synchronizing system, protective relays, start/stop system, alarm / annunciation and temperature measurement system. The control panel has a provision for closing / synchronizing through the inverter breaker. All meter are hooked to the DCS system through RS-485 ports for data logging.

14 Power Conditioning Unit (PCU)

- Heart of the system
- The PCU converts DC power to AC power to facilitate feeding into the grid
- Continuous monitoring of the grid impedance, frequency and voltage
- MPPT
- Microprocessor controlled

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15 Transformers –/ Other Accessories

Step up Transformers

- Steps up output of LT panel to grid voltage
- Reduces amperage thereby reducing transmission losses.
- Can be air – cooled, oil – cooled, fan cooled or water cooled
- 33 KV, 800 Kva

Energy Meter - Provided as approved by the Utility company to measure the delivered quantum of energy to the grid for sale

- **Protection devices-** Protective Relays fault detection and actuating devices respond to over current, over voltage, reverse power flow, over and under frequency.
- **Breakers** - On load devices to protect circuits from overload or short-circuit can be reset after tripping.
- **Isolators-** Off load device used to company isolate equipment for maintenance or repair.

Computer Aided Data Acquisition System- Energy Resource Management (ERM) systems to remotely monitor, track and documents the performance of their PV systems relative to predicted output. These system include remote metering and monitoring hardware and software.

16 Infrastructure Requirements

Equipment Foundations - Foundations for Solar PV array mounting

The foundation design takes into consideration all the loads from solar PV modules with mounting structures and live loads as per the manufacture's loading data. The foundation for the steel structure has been provided with isolated from other foundations for vibration control Joints at floor / grade and suitably sealed.

Control Room Building

Control room building has been designed and constructed as per applicable IS codes. Loads shall be calculated based on IS: 875, and earthquake loads shall be as per IS: 1893. The control room, DCS room and Battery charger room is air conditioned.

Switch Yard

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Transformers, breakers etc. is supported on the reinforced concrete pedestals and foundations in line with the requirement for the Solar Plant and suit the climatic conditions of the region.

Road

Internal road with required width will be formed for free movement of men & material.

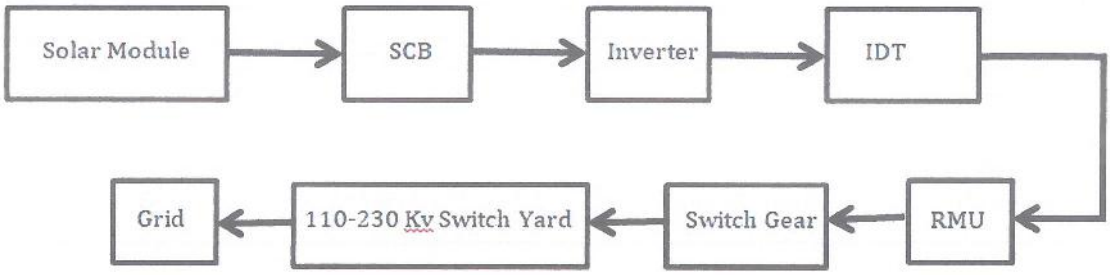
Site leveling

Site Leveling work to be done as per model arrangement .

Washing of panel

For washing of panels pump with necessary pipe is to be provided with ease in operation.

Solar Power Generation Flow Chart



17 Web Based monitoring

To enable both local and remote management of the project, PV power plant Monitoring system provided. As a comprehensive power plant monitoring solution it serves

18 Extract of offer

I Project Site
Proposed Solar Plant Location:

Land Option:- 1
Valaipanthal, Kalavai (Taluk), Ranipet (Dist.), TamilNadu.

Land Option:- 2
Pernampet, Pernampet (Taluk), Vellore (Dist), Tamil Nadu

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II Project Information :

Project Type	Project Details
Type of System	Ground Mount Fixed Tilt
Plant Capacity in MW (AC)	19.80 MWAC
Plant Capacity in MW (DC)	29.00 MWDC
AC: DC Ratio	1: 1.4646

III Scope of work under the offer

Detailed Scope of Work

Project shall be executed on turnkey basis by SOLON including but not limited to Identification of land suitable for solar installation, carrying our diligence of documents, obtaining all approvals from DISCOM and Transmission Network-, Supply of all components, civil works, supply and installation of structures, supply and erection of transmission lines, poles, augmentation of transformers etc unless specifically excluded from scope specifically. Scope of worktable illustrates the details of the activities to be performed by **Delta Renewable Energy Private Limited and SOLON India Private Limited**, which will have a significant bearing on SOLON's performance with respect to quality and time in order complete the project.

R: Responsible: Person who is completing the task

A: Accountable: Person who is making decisions and taking actions on the task(s)

S: Support: Person who provides support during the implementation of the activity / process / service

C: Consulted: Person who will be communicated with regard to the decision-making process and specifictasks

I: Informed: Person who will be updated on decisions and actions during the project.

SOLON India Private Limited shall be referred as **"SOLON".**
Delta Renewable Energy Private Limited shall be referred as **"DELTA".**

S.No	Description	Responsible (R)	Accountable (A)	Support (S)	Consulted (C)	Informed d(I)
1	**Land purchase - for solar pv power plant – land's as identified by Solon and approved by DELTA**	SOLON	SOLON	-	-	DELTA

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S.No	Description	Responsible (R)	Accountable (A)	Support (S)	Consulted (C)	Informed d(I)
2	**All permissions/ approvals/ consents/ clearance/as required for Solar power plant from statutory local bodies**					
I	Grid connectivity approvalfor solar pv plant	SOLON	SOLON	DELTA	DELTA	DELTA
II	Right of way for Transmission line	SOLON	SOLON	-	-	DELTA
III	Forest department approval(if required)	SOLON -	SOLON -	DELTA	DELTA	DELTA
IV	Approval from Local village administration/panchayat for construction of buildings inside Fencing	SOLON -	SOLON -	DELTA	DELTA	DELTA
V	Approval from Pollution,local fire, and safety authority for power plant	SOLON -	SOLON -	DELTA	-	DELTA
VI	Conversion of Agri to Non-Agri land for solar power plant construction (if applicable/required)	SOLON -	SOLON -	DELTA	-	DELTA
VII	Permissions for using ground water/ Borewell from panchayat	SOLON -	SOLON -	DELTA	-	DELTA
VIII	Initial activities requirements before start of construction activities at site (if required)	SOLON	SOLON	-	-	DELTA
IX	EHS Pre & Post land registration	DELTA	DELTA	-	-	SOLON
X	Solon shall require Electricity bills, application,and other necessarydocuments for solar power plant approvals	DELTA	DELTA	-	-	SOLON
3	**Preparation of Power Plant Design & Drawings for Electrical Department Approval**	SOLON	SOLON	-	DELTA	DELTA
4	**Vendor Negotiation, Finalisation and Factory Inspection of material for procurement**	SOLON	SOLON	-	DELTA	DELTA
5	**Technical specification and manufacturing drawings clearance for various equipment / materials**	SOLON	SOLON	-	DELTA	DELTA
6	**Procurement of Solar PV Modules**	SOLON	SOLON	-	DELTA	DELTA
7	**Procurement of BOS Materials**					
I	Central Inverters	SOLON	SOLON	-	-	DELTA

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S.No	Description	Responsible (R)	Accountable (A)	Support (S)	Consulted (C)	Informed d(I)
II	MMS Structure & SMB Mounting Structure	SOLON	SOLON	-	-	DELTA
III	AC Periphery Lighting	SOLON	SOLON	-	-	DELTA
IV	Solar DC Cables	SOLON	SOLON	-	-	DELTA
V	Transformers	SOLON	SOLON	-	-	DELTA
VI	LT and HT Panels	SOLON	SOLON	-	-	DELTA
VII	Weather Monitoring Station	SOLON	SOLON	-	-	DELTA
VIII	SCADA – Monitoring – Local Monitoring and Remote Monitoring	SOLON	SOLON	-	-	DELTA
IX	Power (Copper/Aluminum Cables) & Control Cables (RS 485/Copper)	SOLON	SOLON	-	-	DELTA
X	Cable Laying & Equipment Installation Accessories	SOLON	SOLON	-	-	DELTA
XI	ESE type Lightning Protection system	SOLON	SOLON	-	-	DELTA
XII	Earthing System	SOLON	SOLON	-	-	DELTA
XIII	Earthing Cables	SOLON	SOLON	-	-	DELTA
XIV	Cable Lugs, Termination kits & Cable Glands	SOLON	SOLON	-	-	DELTA
XV	40 feet Prefabricated Office Room Container - includes insulated walls & roof, electrical wiring & fittings, toilet, AC and furniture (Without AC & Furniture)	SOLON	SOLON	-	-	DELTA
XVI	10 feet x 15 feet Prefabricated Main Security Room along with Lights, Fans, Electrical Wiring, toilet & furniture (Without Furniture)	SOLON	SOLON	-	-	DELTA
XVII	Prefabricated Portable Security cabin (5' x 5' x 8' - LxWxH) includes electrical wiring & fittings	SOLON	SOLON	-	-	DELTA
XVIII	10 feet x 15 feet Prefabricated Container forinstallation of SCADA panel& UPS. The container shall include insulated walls & roof, electrical wiring & fittings, louvers, filters, exhaust fans	SOLON	SOLON	-	-	DELTA
XIX	10 feet x 10 feet Prefabricated Container forinstallation of SCADA panel& UPS. The container shall include insulated walls & roof, electrical wiring & fittings, louvers, filters, exhaust fans	SOLON	SOLON	-	-	DELTA
	40 feet Standard Container for					

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S.No	Description	Responsible (R)	Accountable (A)	Support (S)	Consulted (C)	Informed d(I)
	etc.,					
IV	Foundations for Invertersand HT Panels	SOLON	SOLON	-	-	DELTA
V	Foundations for Transformers Installation with Fencing	SOLON	SOLON	-	-	DELTA
VI	Foundations for Transformer Oil Pit	SOLON	SOLON	-	-	DELTA
VII	Foundations for Lightning Arrestor Pole	SOLON	SOLON	-	-	DELTA
VIII	Foundations for Street Light Poles	SOLON	SOLON	-	-	DELTA
IX	Water piping system formodule cleaning	SOLON	SOLON	-	-	DELTA
X	Foundations for Street Light Poles	SOLON	SOLON	-	-	DELTA
XI	Water piping system formodule cleaning	SOLON	SOLON	-	-	DELTA
XII	Foundations for weatherstation	SOLON	SOLON	-	-	DELTA
XIII	Foundations for SCADAPrefab Rooms	SOLON	SOLON	-	-	DELTA
XIV	Water Drains	SOLON	SOLON	-	-	DELTA
10	**Electrical Activities**					
I	LT & HT Cable trenches, Cable laying and termination	SOLON	SOLON	-	-	DELTA
II	Installation and laying of Earth flats, termination of Earth flats, Erection of Earth Pits	SOLON	SOLON	-	-	DELTA
III	Installation of all equipment's including SCADA System	SOLON	SOLON	-	-	DELTA
11	**Installation of Fixed Tilt MMS & PV Modules**					
I	Construction of MMS pile foundations	SOLON	SOLON	-	-	DELTA
II	Installation of Module Mounting Structure	SOLON	SOLON	-	-	DELTA
III	Installation of Modules	SOLON	SOLON	-	-	DELTA
12	**Transportation and Transit Insurance of all materials to Site (FOR incoterms 2010)**					
I	Transportation of materialsto site	SOLON	SOLON	-	-	DELTA
II	Unloading of materials atsite	SOLON	SOLON	-	-	DELTA
13	Security during construction	SOLON	SOLON	-	-	DELTA
14	Security during Operation & Maintenance	SOLON	SOLON	-	-	DELTA
15	EAR Insurance during Construction of solar plant	SOLON	SOLON	-	-	DELTA
16	Solar Plant Insurance uponsolar pv plant handover toDELTA	DELTA	DELTA	-	-	SOLON

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S.No	Description	Responsible (R)	Accountable (A)	Support (S)	Consulted (C)	Informed d(I)
17	CCTV erection and installation	SOLON	SOLON	-	-	DELTA
18	SCADA Remote Monitoring System Charges for 1st year	SOLON	SOLON	-	-	DELTA
19	SCADA Remote Monitoring System Charges from 2nd year onwards (Approx. Rs. 2,50,000 per Year)	DELTA	DELTA	-	-	SOLON
20	Pre-Construction Testing at site Pull-out Test, Lateral Test, Geo Technical Test, Hydrology, Topographical Survey, Concrete mix reportand we will design all civil foundations as per standards	SOLON	SOLON	-	-	DELTA
21	Borewell drilling, Motor,and water arrangement	SOLON	SOLON	-	DELTA	DELTA
22	Post-Commissioning Plant Acceptance Test	SOLON	SOLON	-	DELTA	DELTA
23	Submission of Plant Handover documents	SOLON	SOLON	-	DELTA	DELTA
24	Waste Disposal of allmaterials post commissioning	SOLON	SOLON	-	DELTA	DELTA
25	Refundable Security Depositto TNEB, as per actuals (Rs.10 lakhs per MW)	DELTA	DELTA	-	-	SOLON
26	Discom Official Fees forsolar plant	DELTA	DELTA	-	-	SOLON
27	Stamp Duty and Land registration charges (At actuals to be paid)	DELTA	DELTA	-	-	SOLON
28	Payment of agreed and finalised contract Price to SOLON	DELTA	DELTA	-	-	SOLON
29	Consumption of Solar Energy Generated from theproposed Solar PV Plant	DELTA	DELTA	-	-	SOLON

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V PRODUCT WARRANTIES

SOLON provides product warranty for all key components as given by the respective manufacturers. Generally, the warranty period for key components are as follows:

S.NO	PRODUCT	PRODUCT MAKE	WARRANTY
1	Solar PV 545 Wp Mono Modules	Goldi/RenewSys/Waaree/Equivalent*	10 Years
2	Central inverters	Sungrow / Si-Neng /Equivalent*	5 YEARS
3	Module Mounting Structure	SOLON Design	5 YEARS
4	DC cables	Polycab/Vindhya Telelink/Equivalent*	2 YEARS
5	AC cables	Ravin/Universal/Polycab/Equivalent*	2 YEARS
6	Scada & Monitoring System	Prescinto/Also energy/ Equivalent*	2 YEARS
7	Weather monitoring station	Davis Instruments/ Equivalent*	1 YEAR
8	Transformer	Telawne/Hammond/ Equivalent*	5 YEARS
9	HT Panels	SANJAY TECHNICALS/HT SWITCH GEARS/VIDYUT TECHNOLOGIES/ SHRIVAARI/ EQUIVALENT*	2 YEARS
10	Lightning Arrestor	Remendes/Sabo/Globetel/ Equivalent*	5 YEARS
11	UPS & Battery	Numeric/Consul Neowatt/ Equivalent*	2 YEARS

**As approved by DELTA.*

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VI GUARANTEE :

All final warranties for the components will be assigned / transferred to the project company upon completion of the EPC works. The warranty documents handed over to the Customer are given by the respective manufacturers and are the prime document for any warranty claims. The validity and applicability of all warranties is subordinate to the full payment of the supplied powerplant by DELTA.

VII COMMERCIAL OFFER:

This commercial offer pertains to the scope of work to be performed by SOLON as per the detailed table provided in scope of work. This Scope of work table also details the activities to be performed by the DELTA, which will have a significant bearing on SOLON's performance with respect to quality and time. Therefore, it is imperative that performance of SOLON and DELTA are closely coordinated and complemented to achieve the desired result. DELTA shall provide complete support to SOLON that may be required in performing the activities. SOLON herewith submits commercial offer to DELTA for the proposed Solar PV GMFT plant as given below:

Description	Total Sale Price	Price Lakhs/MWp
Turnkey Engineering Procurement and Construction of Ground Mount Fixed Tilt Solar PV Power Plant	₹ 1,13,39,05,198	₹ 391.00
Total Sale Price exclusive of Taxes	**₹ 1,13,39,05,198**	**₹ 391.00**
GST	₹ 15,64,78,917	₹ 53.96
Total Sale Price inclusive of Taxes	**₹ 1,29,03,84,115**	**₹ 444.96**

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Cost Break up

Sl.No	Description	Total Sale Price	Price Lakhs/MWp
1	Solar PV Modules – (P Type – Monoperc) (Indian Make – 545 Wp,)	₹ 55,10,00,000	190.00
2	Balance of the System	₹ 27,02,74,063	93.20
A	Inverter	₹ 4,05,99,109	14.0
B	Modules Mounting Structures	₹ 4,34,99,044	15.0
C	Cables & Others	₹ 18,61,75,910	64.2
3	Transmission Line, Pooling Station, and Bay Extension Establishment	₹ 8,86,59,425	30.57
4	Installation testing and commissioning of Solar PV Power Plant	₹ 9,64,35,050	33.25
5	Land Purchase, Registration & Development	₹ 7,42,76,660	25.61
A	Land Acquisition	₹ 1,11,57,438	4.5
B	Levelling / Filling and Fencing	₹ 1,19,54,398	15.61
C	Road Formation	₹ 5,11,64,824	5.5
6	Solar PV Power Plant approvals	₹ 5,32,60,000	18.37
	Total EPC Price exclusive of Taxes	**₹ 1,13,39,05,198**	**391.00**
	GST	₹ 15,64,78,917	53.96
	Total Sale Price inclusive of Taxes	**₹ 1,29,03,84,115**	**444.96**

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The additional activities/approvals listed below in Table require the customer to make payments directly to the respective departments. These payments should be processed directly from their bank accounts or through Demand Drafts or as necessary. Please note that these payments are separate from the quoted price provided in Table and will be based on actual costs on a case-by- case basis.

Description	Amount in INR
Revenue Approval Payments	₹ **69,69,860**
Discom Official Fees for solar plant	₹ **86,31,300**
Security Deposit for Solar Plant Establishment (Refundable)	₹ **2,00,00,000**

The above costs have been given based on the prevailing charges and any variation will be to theaccount of customer.

VIII Project Completion:

Stage-1: Defined the processing time required for various application and registration activities in working days.

Sl. No	Description	Reference from D
1.	Signing of EPC Contract	Zero Date (D)
2.	LFS Report	D+60
3.	NFR	D+90
4.	Land Registration	D+100

Stage-2: Defined the processing time required for various approvals, supply, and construction activitiesin working days.

Sl. No	Description	Reference from D
1.	Receipt of NFR	Zero Date (D)
2.	Site Development Work	D+50
3.	Approval of Major drawings	D+80
4.	Completion of Civil work	D+90
5.	Completion of supply of major equipment like SPV Modules (including structure for the above), Power Conditioning Units,transformers etc.	D+100

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6.	Installation of all major equipment	D+140
7.	Interconnection of all major equipment and completion of installation	D+160
8.	Completion, testing and commissioning of Solar PV power plant	D+180
9.	Operational Acceptance (PR test demonstration)	D+200

Details of Licenses and timeline for getting approvals.

Sl. No	Description	Authority from which approval has to be obtained	Reference from D
	TANGEDCO		
1.	Receipt of Noted For Record ("**NFR**")	-	Zero Date (D)
2.	Payment of Security Deposit (50%)	-	D+30
3.	Load Flow Study	-	D+75
4.	Evacuation Approval	TANGEDCO	D+90
5.	Payment of Security Deposit (50%)	-	D+100
6.	Approval from Chief Electrical Inspector to the Government ("**CEIG**")	Chief Electrical Inspector to the Government, Tamil Nadu	D+200
7.	Grid Connectivity Approval	TANGEDCO	D+230
8	Commissioning Approval	TANGEDCO	D+240
9.	Wheeling Agreement Execution	TANGEDCO	D+250
	Land & others		
1	Panchayat Approval for construction of Building (not mandatory)	Gram Panchayat	D+120
2	Panchayat Approval or Plant (not mandatory)	Gram Panchayat	D+120
3	Fire & Safety approval for power Plant (not mandatory)	District Fire Officer	D+120
4	Pollution control board (not mandatory)	Tamil Nadu Pollution Control Board	D+120

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19 Time Frame

Time frame to complete project is just reasonable - 250 days

20 Cost of the Project

Delta estimated pay back on tentative Sale cost of unit of electricity

Total cost of Project	19. 8 MW of solar Power	**Rs**	**129.04 Crs (Incl GST)**
Total cost of Project	MW of solar Power in	**Rs**	**4.45 Crs (Incl GST)**

Estimated cost of project is Rs 129.04 Crs for 19.8 MW / Rs 4.45 Cr for 1MW is reasonable Considering the market and the benchmark capital cost is given by Central Electricity Regulatory Commission

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CHARTERED ENGINEER M1610400
IBBI REGISTERED VALUER