TPS/IS/50KWp/15<sup>th</sup> June 2014/Rev0



# Techno- Commercial Proposal For 50 kWp system

TATA POWER SOLAR

Date: 15/06/2014



## TATA POWER SOLAR ENABLING SOLAR EVERYWHERE

Type of Business : Solar Rooftop

Customer Name : C/o Solar First Energy Pvt. Ltd.

(Hereinafter referred to as the "Customer")

Proposed Capacity : 50 kWp

Period of Performance : 5 years

Business Point of Contact : NA (Mr. Munish Kakkar)

Authorizing Official : Ravinder Singh

Head Sales & Solutions Engineering (N&W)

Tata Power Solar Systems Ltd.



# TATA POWER SOLAR ENABLING SOLAR EVERYWHERE

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### **Confidentiality & General Conditions Notice**

This commercial proposal for installation of solar rooftop power system (the "Proposal") is submitted with the intent of executing a definitive and legally binding agreement (the "Agreement") following an award of business to TATA POWER SOLAR SYSTEMS LIMITED ("TATA Power Solar"). The Proposal itself is a legally binding offer to contract and in the event of an award to TATA Power Solar, it shall execute an Agreement that will be the complete agreement between the parties, however, where the parties do not execute any such Agreement, then the terms and conditions mentioned in this Proposal shall govern any purchase order(s) issued by the Customer in reference to the installation of rooftop solar power system.

This Proposal constitutes confidential and proprietary information of TPS and requires that Customer treat the information contained in this Proposal as confidential. Customer may use the information contained in this Proposal solely for the purposes of evaluating this Proposal and executing the Agreement with TATA Power Solar. This Proposal and all supporting documentation and manuals provided to Customer in connection with this Proposal shall remain the property of TATA Power Solar and must be returned immediately upon request.

This Proposal is based upon the set of requirements provided by Customer to TATA Power Solar, and certain reasonable assumptions taken by TATA Power Solar and that may be set forth by Owner. If Customer alters the requirements or if any assumption stated herein are false or inaccurate, then this Proposal, including pricing, may change. Implementation of any services detailed in this Proposal is subject to applicable legal and regulatory norms and requirements in force as on the date when services are to be implemented and such implementation may vary to cater to the requirements of such applicable legal and regulatory norms and requirements.



#### A. Introduction:



Tata Power Solar, a wholly owned subsidiary of TATA Group, is a fully integrated solar solutions provider in India. Founded in 1989, TATA Power Solar was originally formed as a joint venture between TATA and British Petroleum (BP Solar). Headquartered in Bangalore, TATA Power Solar has a workforce of approximately 700 employees, and has around 25 years of domain expertise.

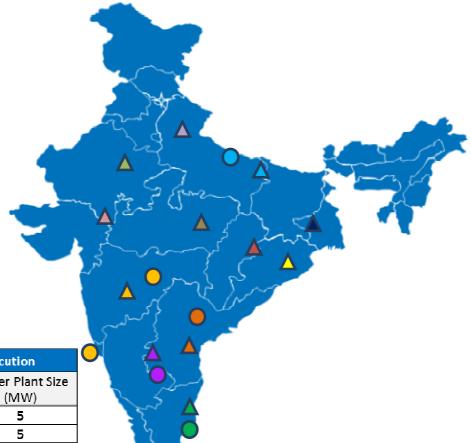
Tata Power Solar focusses on 3 main areas of the solar value chain: manufacturing, EPC and consumer products:

- TPS operates 180 MW of solar cell and 200 MW of solar module manufacturing in Bengaluru and is recognized as one of the most bankable tier-1 manufacturers worldwide.
- As one of the pioneers in the solar EPC field, TPS has installed and maintains over 180+ MW of large and small projects across India. In 2013-14, it is building over 90 MW of projects including 50 MW for NTPC and 29 MW for Tata Power, two of the largest utilities in India.

### A.1 Project Details

TATA Power Solar has constructed more than 70MW of projects all over India and has completed another 100MW in 2013-14. It has also been a pioneer in the growing solar industrial solutions space, as many companies move away from captive diesel plants to captive solar power plants to power their factories and businesses.





Projects Under Execution		
State	Power Plant Size (MW)	
Andhra Pradesh	5	
Maharashtra	5	
Tamilnadu	7	
Karnataka	12	
Uttar Pradesh	2	
Total	31	

Project Executed-Details			
State	Power Plant Size (MW)	Performance Ratio	Uptime
Gujarat	32	77.20%	99.87%
Maharashtra	33	78.50%	98.63%
Jharkhand	2	80.00%	99.50%
Tamilnadu	4	79.50%	99.90%
Orissa	4.5	75.79%	98.50%
Andhra Pradesh	1	78.35%	99.90%
Delhi	1	79.00%	99.78%
Karnataka	11.5	73.00%	99.80%
Uttar Pradesh	5.75	79.30%	99.70%
Rajasthan	1	80.60%	99.85%
MP	53.5	80.00%	99.50%
Total	149.25		



### A.2 Module Manufacturing

TATA Power Solar operates about 200 MW of cell and module manufacturing in Bangalore, INDIA, that provides high-quality solar components to power plants worldwide. TATA Power Solar is one of the few companies that have been manufacturing solar modules for almost over two decades and the company has shipped over 500MW of cells and modules to-date. TATA Power Solar's modules are known worldwide for their high quality, efficiency and reliability and are considered tier-1 bankable by financial institutions in all geographies across the globe.

Pictures of sample projects enclosed



### **B. Technical Details:**

### B.1 Key Facts of the Power Plant

Design, supply, installation, testing and commissioning of a solar power plant

**Location:** Punjab

Plant capacity: 50KWp

PV Technology/ Module: Si - Crystalline solar module (TPS)

**Roof type:** Flat shadow free RCC roof-top considered

Mounting Structure: Galvalume Fixed Tilt



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### B.3 Bill of Materials:

S.No.	Description	Qty	UoM
1	Solar Module: TPS superior quality ranging 240 Wp , 245 Wp, 250 wp based on site	1	set
2	Module mounting structure (fixed tilt-15 Degree)	1	set
3	Grid Interactive Solar Inverter (1 x30KW, 415V AC, 50Hz, MPPT) with DC to AC ratio 10%	1	no
4	Grid Interactive Solar Inverter (1 x15KW, 415V AC, 50Hz, MPPT) with DC to AC ratio 10%	1	no
5	Data logger with Temperature and irriadance sensor 30 Meter CAT-6 Cable	1	set
6	AC Distribution Board Multidata meter	1	no
7	1C X 4 Sq.mm. P.V.C Cu.cable (Array Interconnection & to Inverter)	630	m
8	5 Core, 10SQMM P.V.C Cu.cable (Inverter to ACDB)	90	m
9	3.5C X 50 Sq.mm. P.V.C Alcable (ACDB to LT Panel)	50	m
10	Multi Contact Male cable coupler	10	no
11	Multi Contact Female cable coupler	10	no
12	Earthing kit (Chemical)	1	set
13	GI Strip (25mm x 5 mm)	1	set
14	Vertical Air terminal	1	set
15	Installation kit	1	set

### Note:

1. The above bill of material & system design is subject to change with any change in project site, site layout, soil condition and evacuation scheme. Such changes will have commercial implications.

	Computer, internet connectivity and related hardware
	Construction water and power
	Rooftop acquisition and titles.
Exclusions	Any liaisoning with local authorities, state government or central government officials related to the solar power plant. CEIG approval is in scope of duty of TATA Power Solar; however, all other statutory clearances and approvals are to be sought by Customer and the same are in Customer's scope of duty.
	Scope of work of TATA Power Solar is electrical connection up to LT panel. LT panel and additional connection points with the LT panel are in Customer scope of duty.
	Control room is required as per our design



#### C. Commercial Offer:

### C.1 Price for design, supply, installation, testing and commissioning

Price offer for design, engineering, supply, transportation, installation, testing & commissioning of the 50 kWp solar PV plant as per bill of material enclosed above:

PRICE SUMMARY	Amount (INR)
Design, Manufacture, Supply, Packing, Forwarding and Transportation to site of PV Plant & Equipment	41,43,214.75
Erection, Testing and Commissioning	3,50,297.00
Basic Prices (Without Taxes)	44,93,511.75
Central Sales Tax @ 2% (Against Form "C")	82,864.30
Service Tax @ 12.36% on I&C	43,296.71
Total Price of system	46,19,672.76
MNRE Subsidy (30%)	13,85,901.83
Total Price Net of Subsidy	32,33,770.93

Contract Value: Indian Rupees Forty Six Lacs Nineteen Thousand Six Hundred and Seventy Two Only for 50kWp System

Net Payable after Subsidy: Thirty Two Lacs Thirty Three Thousand Seven Hundred and Seventy Only for 50kWp

### C.2 General Terms & Conditions

- 1) **SPLIT CONTRACTS:** Two separate orders shall have to be placed on TATA Power Solar: a) for design, supply, installation and commissioning of the solar power plant; and b) operation and maintenance; where for separate agreements may need to be executed between the parties.
- 2) **PRICE:** The price quoted in this Proposal is inclusive of design, manufacturing, sourcing, testing, supply, installation & commissioning, as per the bill of materials & ratings submitted by TATA Power Solar along with the final offer. Any change in scope of work or addition to the bill of materials and/or ratings or any variation, whatsoever, shall be charged extra to Customer. The price quoted is CIF site and is firm. The price is exclusive of any annual maintenance charges or comprehensive maintenance charges or operation & maintenance charges.



The foreign exchange rate is considered as 1 US\$ = INR 61 and any changes in foreign exchange rate shall be passed through and payable by the Customer. Foreign exchange rate shall be considered on the date of order placement and payment of advance.

- 3) **VALIDITY OF OFFER:** The price quoted by TATA Power Solar along with this Proposal is valid for thirty (30) days from such communication to Customer and thereafter the same shall be subject to reconfirmation by TATA Power Solar.
- 4) **PAYMENT TERMS:** The payment terms applicable are as follows:
  - a) 5% token advance along with confirmed work order in the form of Demand Draft/ NEFT/ Cheque
  - b) An advance amount of 15% of the total contract value by way of DD / NEFT against receipt of MNRE subsidy sanction letter
  - c) Balance 40% of the contract value will be paid by through DD/NEFT prior to dispatch against proforma invoice and submission of material readiness documents
  - d) 10% balance after 7 days from Installation and commissioning against an LC
  - e) Balance 30% shall be collected by TATA POWER SOLAR from MNRE
- 5) **TAXES, DUTIES AND RATES:** In this Proposal, Central Sales Tax @ 2% will be applicable on providing concessional form (Form C), else Central Tax @ 5.5% is applicable on supplies. Service Tax @ 12.36% is applicable on services like installation & commissioning, annual maintenance, comprehensive maintenance, operation & maintenance, as applicable. Excise duty on solar power generating system is nil at present and not considered. Any variation in taxes & duties by statutory notification by the Government shall be applicable at the time of execution. Any octroi or entry tax levied by local governments, shall be paid extra at actual by Customer.

In case of any change in applicable taxes, duties and/or rates, or incidence of new taxes, duties and/or rates, , including, but not limited to anti-dumping duties, and where such taxes, duties and/or rates implications is due to interpretation changes, if any, then the impact of such change shall be payable by Customer.

- 6) **INCLUSION OF EXCLUDED ITEMS:** Any items not mentioned in the bill of material and not required as per the TPS design provided by TATA Power Solar and which are, or can be, attributable to Customer, shall be charged extra by TATA Power Solar.
- 7) **ACCESS AND PERMITS**: The Customer shall ensure the accuracy of all information and/or data to be supplied by the Customer and shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, for preparation and maintenance of proper access roads to, and provide the right of way for, the site, and for providing possession of and access to all other areas reasonably required for the proper



execution of the construction work, including all requisite rights of way. Customer shall ensure handing over valid road permits (multiple numbers depending on number of truck loads) to TATA Power Solar at least five (5) working days prior to dispatch of any supplies.

- 8) **INTERRUPTIONS IN WORK:** The Customer must not interrupt the works, and/or shall abstain from any act or omission of which it can reasonably be expected that it may delay the works or make the works more difficult and or expensive for TATA Power Solar.
- 9) **DELIVERY & HANDOVER**: TATA Power Solar shall complete the project in ten (10) weeks from date of order placement, payment of advance and acceptance of order by TPS, or as mutually agreed between the parties in the Agreement. Project shall be deemed to have been handed over to Customer by TATA Power Solar, on commissioning of the solar power plant.

### 10) **DEEMED EXPORT OF POWER**

The Project shall be termed as commissioned when TATA Power Solar evacuates the power generated to Customer grid. However, in case where TATA Power Solar has completed its duties as per the scope of duties mentioned in the Purchase Order, and the Project cannot be commissioned due to any act/inaction on the part of Customer, or due to unavailability of Customer grid, then the Project shall be deemed to be commissioned and TATA Power Solar shall be deemed to have completed its part of obligations under the Purchase Order

- 11) **WARRANTY:** The solar power plant carries a five (5) years' warranty against any manufacturing defects, as per existing warranty policy of TATA Power Solar. Solar photovoltaic modules carry a performance warranty against excess of 80% degradation in twenty five (25) years as per existing warranty policy of TATA Power Solar. Any such warranties are subject to the terms and conditions explained in details in the respective warranty policies.
- 12) **SECURITY & SAFETY:** On delivery of supplies to Customer's site in good condition, Customer shall be responsible for safety & security of the materials till handing over of the same to TATA Power Solar designated personnel for installation. In case there are public disturbances at site which are not exclusively attributable to TATA Power Solar, Customer shall resolve the same at its own risk & cost, for smooth execution of the project by TATA Power Solar. In such case, Customer shall provide safety & security for the TATA Power Solar designated personnel working at site. Any delay in execution or damage of materials due to public disturbances at site shall be attributable to and compensated by Customer.
- 13) **CIVIL & STRUCTURAL WORK:** TATA Power Solar limits itself to providing civil foundation and structures for its module mounting as per the design submitted along with this Proposal. Any changes in design which are attributable to Customer shall be charged extra. Customer shall allow scrapping of the roof for bonding the civil foundation.



### TATA POWER SOLAR

14) **LIMITATION OF LIABILITY:** Notwithstanding anything contained in this Proposal, its appendices, any offer, or order to the contrary, with respect to any and all claims arising out of the performance or non-performance of obligations under this Proposal or resultant Agreement or purchase order(s), whether arising in contract, tort, warranty, strict liability or otherwise, total liability of TATA Power Solar shall not exceed beyond 5% of the total contract value received from Customer.

Notwithstanding anything contained anywhere else in this Proposal, or in the resultant Agreement, or anywhere else, in present or in future, in no event shall TATA Power Solar be liable, whether in contract, tort or otherwise, to the Customer for special, indirect or consequential loss or damage (such as, not exclusively, loss of production, loss of reputation, loss of income, loss of profit, etc.).

- 15) **INDEMNIFICATION:** Customer shall fully Indemnify and hold harmless TATA Power Solar and its affiliates, associates, directors and employees from and against, any and all losses, costs, damages, injuries, liabilities, claims and causes of action, including without limitation arising out of or resulting from claims by third parties, acts, omissions or breach of any of the Customer's affiliates, suppliers, employees, agents or contractors in the performance of Customer's obligations under this Proposal or any resultant Agreement or otherwise arising out of the solar power system or its usage.
- 16) **INSURANCE:** For the offered supplies and services, TATA Power Solar shall cover insurance for marine-cum-storage-cum-erection through appropriate erection all risk policy for all offered items till commissioning. On commissioning of the solar power plant, suitable asset insurance will have to be arranged by Customer at its own cost since the asset is in the name the customer
- 17) **FORCE MAJEURE:** Force majeure shall mean any cause, existing or future, which is beyond the reasonable control of TATA Power Solar including, but not limited to, acts of God, storm, fire, floods, explosion, epidemics, quarantine, earthquake, strike, riot, lock out, embargo, interference by civil or military authorities, acts, regulations or orders of any governmental authority in their sovereign capacity, acts of war (declared or undeclared) including any acts of terrorism, and all other such acts of similar or analogous nature (where all such acts to be collectively referred to as "**Force Majeure**"). TATA Power Solar shall not be liable for the failure to perform any obligation in terms of this Proposal if and to such extent such failure is caused by a Force Majeure, provided that none of such acts of Force Majeure will relieve the Customer from meeting its payment obligations.

The periods for performance as agreed upon shall be extended by the periods of delay caused by such Force Majeure, as long as the period of Force Majeure does not last longer than three (3) months. If a Force Majeure continues for more than three (3) months and the parties are not able to reach an agreement on the continuation of work within a further term of one (1) month, the fulfillment of obligations of TATA Power Solar shall automatically be deemed impossible and shall stand suspended.



### TATA POWER SOLAR

Upon such suspension, TATA Power Solar shall be entitled to be paid the following amounts: (a) all the amounts payable for the works completed until the date of suspension; (b) the cost of materials which have been delivered to Customer, or of which Contractor is liable to accept delivery; (c) any other cost or liability, including unamortized cost of materials, which in the circumstances was reasonably incurred by TATA Power Solar in the expectation of completion of the works; (d) demobilization costs of Contractor personnel and equipment; and (e) all other costs incurred by TATA Power Solar on account of suspension of order on such other suppliers.

- 18) **PUBLICITY RIGHTS:** The Customer agrees and gives its irrevocable and unconditional consent to TATA Power Solar to issue any press release or announcement relating to this Proposal, or any resultant Agreement, or use the data, photographs, designs, etc. of the solar power plant for its publicity and/or marketing activities or use the same for publication anywhere. TATA Power Solar understands and agrees that no such usage shall be in a manner defamatory to the Customer.
- 19) **ARBITRATION:** Any dispute, including claims seeking redress or asserting rights under applicable law, shall, be resolved and finally settled in accordance with the provisions of the Arbitration and Conciliation Act, 1996, as may be amended from time to time or its reenactment. The arbitral tribunal shall be composed of two arbitrators to be appointed by each of the parties and the third arbitrator shall be appointed by the arbitrators appointed by the parties and for such arbitration, the seat of arbitration shall be in New Delhi, India. All proceedings of arbitration shall be held in English.
- 20) **GOVERNING LAW AND JURISDICTION:** All questions concerning the construction, validity and interpretation of this Proposal or any resultant Agreement will be governed by the laws of India, and the courts at New Delhi, India shall have exclusive jurisdiction with respect to any dispute that occurs hereof.

No remedy described in this Proposal or any resultant Agreement shall in any way limit the parties' remedies available at law, in equity or otherwise in relation to any breach or threatened breach of the terms and condition of the Proposal by any defaulting party, and any party may seek a restrictive injunction from an appropriate court of law to safeguard its interests.

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