

2017

Request for Proposal (RFP)



VISAKHAPATNAM SMART CITY  
August 2017

# **GREATER VISAKHAPATNAM SMART CITY CORPORATION LIMITED**

## **REQUEST FOR PROPOSAL**

### **Implementation of 5 MW Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

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# Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>12</b>
<b>2</b>	<b>BID DETAILS &amp; SIZE OF THE PROJECT .....</b>	<b>12</b>
<b>3</b>	<b>INSTRUCTIONS TO THE BIDDERS.....</b>	<b>13</b>
3.1	INTRODUCTION.....	13
3.2	USE OF TECHNICAL AND/OR FINANCIAL STRENGTH OF PARENT COMPANY .....	13
3.3	ELIGIBILITY CRITERIA .....	13
3.4	INCORPORATION OF A PROJECT COMPANY .....	15
3.5	BID SUBMISSION BY THE BIDDER.....	15
3.6	BID SUBMITTED BY BIDDING COMPANY.....	16
3.7	CLARIFICATIONS AND PRE-BID MEETING .....	16
3.8	AMENDMENTS TO RFP .....	16
3.9	BIDDING PROCESS .....	16
3.10	VALIDITY OF BID .....	18
3.11	COST OF BIDDING .....	18
3.12	BID SECURITY .....	18
3.13	PERFORMANCE SECURITY / PERFORMANCE BANK GUARANTEE (PERFORMANCE SECURITY).....	19
3.14	OPENING OF BIDS.....	19
3.15	RIGHT TO WITHDRAW THE RFP AND TO REJECT ANY BID .....	19
3.16	ZERO DEVIATION .....	20
3.17	EXAMINATION OF BID DOCUMENT .....	20
3.18	EVALUATION OF PRICE BID .....	20
3.19	SCOPE OF WORK.....	21
3.20	TARIFF .....	22
3.21	DELETED.....	22
3.22	INSURANCE .....	22
3.23	WARRANTIES AND GUARANTEES .....	23
3.24	TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP.....	23
3.25	OPERATION & MAINTENANCE (O&M).....	23
3.26	METERING AND GRID CONNECTIVITY.....	23
3.27	PLANT PERFORMANCE EVALUATION .....	23
3.28	PROJECT INSPECTION .....	24
3.29	DELETED.....	24
3.30	APPLICABLE LAW .....	24
3.31	SETTLEMENT OF DISPUTE.....	24
3.32	FORCE MAJEURE.....	26
3.33	LANGUAGE .....	26
3.34	OTHER CONDITIONS.....	26
<b>4</b>	<b>BID EVALUATION AND SUBSIDY DISBURSEMENT .....</b>	<b>28</b>
4.1	BID EVALUATION .....	28
4.2	RESPONSIVENESS CHECK OF TECHNICAL BID .....	28
<b>5</b>	<b>PRELIMINARY EXAMINATION .....</b>	<b>28</b>
<b>6</b>	<b>EVALUATION OF BIDDER'S FULFILMENT OF ELIGIBILITY CRITERIA .....</b>	<b>29</b>
6.1	EVALUATION OF BIDDER'S ELIGIBILITY .....	29

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

6.2	EVALUATION OF PRICE BID .....	29
6.3	SELECTION OF SUCCESSFUL BIDDER .....	29
6.4	INCREASE / DECREASE OF BIDDER PROJECT CAPACITY .....	30
6.5	DELETED .....	30
6.6	NOTIFICATION TO SUCCESSFUL BIDDER .....	30
6.7	DELETED .....	30
6.8	PROJECT AWARD AND SANCTION .....	30
6.9	DELETED .....	31
<b>7</b>	<b>OTHER CONDITIONS .....</b>	<b>32</b>
7.1	NECESSARY APPROVALS .....	32
7.2	DELETED .....	32
7.3	TAX EXEMPTIONS: .....	32
7.4	DELETED .....	32
7.5	REQUIREMENT OF APPROVALS ON MAKES OF THE COMPONENTS: .....	32
7.6	OPERATION OF THE SYSTEM DURING WEEKENDS AND GENERAL HOLIDAYS AND CALCULATION OF CUF: 32	
7.7	TAXES AND DUTIES .....	32
<b>8</b>	<b>PENALTY FOR DELAY IN PROJECT IMPLEMENTATION .....</b>	<b>33</b>
<b>9</b>	<b>TIME OF COMPLETION OF PROJECT CAPACITY: .....</b>	<b>33</b>
<b>10</b>	<b>UPDATING THE PROJECT PROGRESS .....</b>	<b>33</b>
<b>11</b>	<b>INSPECTION AND AUDIT .....</b>	<b>34</b>
<b>12</b>	<b>COMMISSIONING /COMPLETION CERTIFICATE: .....</b>	<b>34</b>
12.1	APPLICATION FOR COMPLETION/COMMISSIONING CERTIFICATE: .....	34
12.2	DEDUCTIONS FROM THE CONTRACT PRICE: .....	34
12.3	CORRUPT OR FRAUDULENT PRACTICES .....	35
<b>13</b>	<b>DEBARRED FROM PARTICIPATING IN GVSCL'S TENDER .....</b>	<b>35</b>
<b>14</b>	<b>SCOPE OF WORK .....</b>	<b>36</b>
14.1	DEFINITION .....	36
14.2	METERING AND ASSOCIATED FACILITIES .....	36
<b>15</b>	<b>TECHNICAL SPECIFICATIONS .....</b>	<b>37</b>
15.1	SOLAR PV MODULE .....	37
15.2	MODULE MOUNTING STRUCTURE .....	38
15.3	JUNCTION BOXES (JBs) .....	38
15.4	DC DISTRIBUTION BOARD: .....	39
15.5	AC DISTRIBUTION PANEL BOARD: .....	39
15.6	INVERTERS (POWER CONDITIONING UNITS) .....	39
15.7	INTEGRATION OF PV POWER WITH GRID: .....	42
15.8	DATA ACQUISITION SYSTEM / PLANT MONITORING .....	42
15.9	TRANSFORMER & METERING: .....	44
15.10	PROTECTIONS .....	44
15.11	LIGHTNING PROTECTION .....	44
15.12	SURGE PROTECTION .....	44
15.13	EARTHING PROTECTION .....	45

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

15.14	GRID ISLANDING: .....	45
15.15	CABLES .....	45
15.16	METERING SYSTEM FOR SOLAR POWER GENERATION PLANT .....	46
15.17	REFERENCE STANDARDS .....	47
15.18	CONNECTIVITY .....	48
15.19	TOOLS & TACKLES AND SPARES.....	49
15.20	DANGER BOARDS AND SIGNAGES:.....	49
15.21	FIRE EXTINGUISHERS:.....	49
15.22	DRAWINGS & MANUALS:.....	49
15.23	SAFETY MEASURES:.....	49
15.24	DISPLAY BOARD.....	50
<b>16</b>	<b>WARRANTY AND MAINTENANCE .....</b>	<b>50</b>
	<b>PRICE BID.....</b>	<b>51</b>
	<b>FORMAT – 1: COVERING LETTER .....</b>	<b>52</b>
	<b>FORMAT – 2A: GENERAL PARTICULARS OF THE BIDDER.....</b>	<b>55</b>
	<b>FORMAT-2B: SHAREHOLDING CERTIFICATE .....</b>	<b>56</b>
	<b>FORMAT-3: FORMAT FOR BID SECURITY .....</b>	<b>57</b>
	<b>FORMAT- 4: FORMAT FOR PERFORMANCE BANK GUARANTEE (PERFORMANCE SECURITY) .....</b>	<b>60</b>
	<b>FORMAT- 5 CHECK LIST FOR BANK GUARANTEES.....</b>	<b>64</b>
	<b>FORMAT- 6A: POWER OF ATTORNEY FOR SIGNING OF BID.....</b>	<b>65</b>
	<b>FORMAT - 6B: POWER OF ATTORNEY FOR LEAD MEMBER OF CONSORTIUM.....</b>	<b>67</b>
	<b>FORMAT-7: FINANCIAL ELIGIBILITY CRITERIA REQUIREMENT .....</b>	<b>69</b>
	<b>FORMAT – 8: FORMAT FOR CERTIFICATE OF RELATIONSHIP OF PARENT COMPANY OR AFFILIATE WITH THE BIDDING COMPANY .....</b>	<b>71</b>
	<b>FORMAT – 9: UNDERTAKING FROM THE FINANCIALLY EVALUATED ENTITY OR ITS PARENT COMPANY OR ULTIMATE PARENT COMPANY .....</b>	<b>72</b>
	<b>FORMAT – 10: CONSORTIUM AGREEMENT .....</b>	<b>74</b>

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**Greater Visakhapatnam Smart City Corporation Limited**

RFP No: **GVSCCL/Projects/15(SCT)/2017-18**

Date: **19/08/2017**

Greater Visakhapatnam Smart City Corporation Limited (hereinafter called "GVSCCL" or alternatively the "Authority"), invites bids from the eligible bidders to participate in the Request for Proposal (RFP) of Bidders for Design, manufacture, supply, erection, testing and commissioning including warranty, operation & maintenance of Canal Top Solar PV power system on the Raiwada Canal in Visakhapatnam, India.

For the implementation of above mentioned work, Bidders should submit their bids online submission on [www.apecurement.gov.in](http://www.apecurement.gov.in) along with all supporting documents complete in all aspect on or before **29/09/2017** up to 5:00 PM and hardcopies (hard bound) of their bids in the office of The Managing Director, GVSCCL in prescribed format, on or before **30/09/2017** up to 5:00 PM.

Bidder shall submit the bid along with non-refundable processing fee, complete in all respect as per the Bid Information sheet. Technical bids will be opened on **30/09/2017 at 5:30 PM** in presence of authorised representatives of bidders who wish to be present. Bids received without or lesser than the prescribed processing fee and Bid Security will not be considered. In the event of any date indicated above is a declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.

Bid documents which include Eligibility criteria, "Technical Specifications", various conditions of contract, formats, etc. can also be downloaded from [www.gvmc.gov.in](http://www.gvmc.gov.in) or [www.apecurement.gov.in](http://www.apecurement.gov.in)

Any amendment(s)/corrigendum/clarifications with respect to this Bid shall be uploaded on [www.apecurement.gov.in](http://www.apecurement.gov.in) or [www.gvmc.gov.in](http://www.gvmc.gov.in) only. The Bidder should regularly follow up for any Amendment/Corrigendum/Clarification on the above website.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **DISCLAIMER**

1. Though adequate care has been taken while preparing the RFP document, the Bidders shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within twenty (20) days from the date of notification of RFP/Issue of the RFP documents, it shall be considered that the RFP document is complete in all respects and has been received by the Bidder.
2. GVSCCL reserves the right to modify, amend or supplement this RFP document including all formats and Annexures.
3. While this RFP has been prepared in good faith, neither GVSCCL nor their employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFP, even if any loss or damage is caused by any act or omission on their part.

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**BID INFORMATION SHEET**

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Document Description	This RFP document comprises for “Bidding process for 5(five) MW” bidding under RESCO model.
RFP No. & Date	RFP No: <b>GVSCCL/Projects/15 (SCT)/2017-18,</b> Date: <b>19/08/2017</b>
Broad Scope of Work for Bidding	Design, Procurement, Supply, erection, testing, commissioning and maintenance for 25 (Twenty-Five) years of 5 (five) MW grid connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam along with grid connecting equipment including associated electrical & civil works.
Pre-bid Conference/ Clarification Meeting	A pre-bid conference shall be held on <b>01/09/2017 at 11:00 A.M</b> at Office of Managing Director, Greater Visakhapatnam Smart City Corporation Limited, c/o Greater Visakhapatnam Municipal Corporation, Room No.306, Asilmetta Junction, Visakhapatnam – 530003, Andhra Pradesh, India
Last date & Time of Submission of Bid	(a) for online submission on <a href="http://www.apeprocurement.gov.in">www.apeprocurement.gov.in</a> <b>29/09/2017 up to 5:00 PM</b>
	(b) for submission of hardcopies (hard bound) <b>30/09/2017 up to 5:00 PM</b>
Bid Opening (Technical)	<b>30/09/2017 at 5:30 PM</b>
Last Date For submission of Queries	<b>31/08/2017 up to 5:30 PM</b>
Processing Fee (non- refundable)	<b>Rs.15,000/- (Rupees Fifteen Thousand Only), to be furnished through Demand Draft (DD) drawn in favour of Managing Director, GVSCCL, payable at Visakhapatnam.</b>
Bid Security	Rs.35,00,000/- (Rupees Thirty-Five Lakhs only) in the form of a bank guarantee issued by a nationalised bank, or a Scheduled Bank in India, in favour of the Authority in the format at Section – V and having a validity period of not less than 180 (one hundred eighty) days from the Last date of Submission of Bid.
Performance	Performance Security amount of Rs.3,50,00,000/-



## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

Security(Performance Security) (Rupees Three Crores and Fifty Lakhs only) in the form of a bank guarantee issued by a nationalised bank, or a Scheduled Bank in India, in favour of the Authority, **shall be furnished by the successful bidder after issue of Letter of Award by GVSCCL.**

Details for Submission of Response to RFP Office of Managing Director,  
Greater Visakhapatnam Smart City Corporation Limited,  
c/o Greater Visakhapatnam Municipal Corporation,  
Room No.306, Asilmetta Junction, Visakhapatnam – 530003  
Andhra Pradesh, India  
Email: visakhapatnamsmartcity@gmail.com

### ***Important Note:***

Prospective Bidders are requested to remain updated for any notices/amendments/clarifications etc. to the RFP document through the website [www.apecurement.gov.in](http://www.apecurement.gov.in) and [www.gvmc.gov.in](http://www.gvmc.gov.in).

No separate notifications will be issued for such notices/amendments/clarification etc. in the print media or individually.

All the information related to this RFP shall be updated on the website [www.apecurement.gov.in](http://www.apecurement.gov.in) or [www.gvmc.gov.in](http://www.gvmc.gov.in)

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **DEFINITIONS & ABBREVIATIONS**

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In this “RFP Document” the following words and expression will have the meaning as herein defined where the context so admits:

“Affiliate” shall mean a company that either directly or indirectly

- a. controls or
- b. is controlled by or
- c. is under common control

with a Bidding Company and “control” means ownership by one company of at least twenty six percent (26%) of the voting rights of the other company.

“B.I.S” shall mean specifications of Bureau of Indian Standards (BIS);

“Bid” shall mean the Technical and Price Bid submitted by the Bidder along with all documents/credentials/attachments annexure etc., in response to this RFP, in accordance with the terms and conditions hereof.

“Bidder/Bidding Company” shall mean Bidding Company submitting the Bid. Any reference to the Bidder includes Bidding Company / including its successors, executors and permitted assigns as the context may require;

“Bid Security” shall mean the unconditional and irrevocable bank guarantee to be submitted along with the Bid by the Bidder.

“Bid Deadline” shall mean the last date and time for online submission of Bid on [www.apecurement.gov.in](http://www.apecurement.gov.in), in response to this RFP as specified in Bid Information Sheet;

“Bid Capacity” shall means capacity offered by the bidder in his Bid under invitation.

“CEA” shall mean Central Electricity Authority.

“Chartered Accountant” shall mean a person practicing in India or a firm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949;

“Competent Authority” shall mean the Managing Director of GVSCCL, himself and/or a person or group of persons nominated by him for the mentioned purpose herein;

“Commissioning” means successful operation of the Project by the Project Developer, for the purpose of carrying out Performance Test(s) as defined in RFP.

“Company” shall mean a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto;

“Capacity Utilization Factor” (CUF) shall mean the ratio of actual energy generated by SPV project over the year to the equivalent energy output at its rated capacity over the yearly period.

CUF = actual annual energy generated from the plant in kWh / (installed plant capacity in kW \* 365 \* 24).

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

“Eligibility Criteria” shall mean the Eligibility Criteria as set forth in Clause 3.3 of this RFP;

“Financially Evaluated Entity” shall mean the company which has been evaluated for the satisfaction of the Financial Eligibility Criteria set forth in Clause 3.3.3 hereof;

“IEC” shall mean specifications of International Electro-technical Commission;

“kWp” shall mean Kilo-Watt Peak;

“kWh” shall mean Kilo-Watt-hour;

“MNRE” shall mean Ministry of New and Renewable Energy, Government of India;

“MWp” shall mean Mega-Watt Peak and 1MWp for the purpose of conversion in kWp shall be considered as 1000kWp.

“MW” shall mean Mega-Watt and 1MW for the purpose of conversion in kW shall be considered as 1000 kW.

“Bid Capacity” shall mean 5 MW for which the Bidder can submit its Bid. Bidder(s) quoting less the bid capacity shall be out-rightly rejected;

“O&M” shall mean Operation & Maintenance of canal top Solar PV system for 25 years;

“Owner of the project” shall mean GVSCCL and GVSCCL is the legal owner of all equipment of the project.

“Project Price” shall mean the price offered by the Bidder for the Scope of work as per RFP document.

“Project Capacity” means 5 MW. The project capacity specified is on “AC” output Side only.

“Performance Ratio” (PR) means “Performance Ratio” (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured.  $PR = (\text{Measured output in kW} / \text{Installed Plant capacity in kW}) * (1000 \text{ W/m}^2 / \text{Measured radiation intensity in W/m}^2)$ .

“Parent” shall mean a company, which holds more than 51% equity either directly or indirectly in the Bidding Company or Project Company or a Member in a Consortium developing the Project

“Project Company” shall mean Company incorporated by the bidder as per Indian Laws in accordance with Clause no 3.4.

“Project Site” shall mean the stretch of Raiwada Canal of approximate length 11.50 km between the coordinates 17°45'28.05"N latitude & 83°10'35.76"E longitude (Water Treatment Plant at Narava) and 17°47'33.02"N latitude & 83° 7'52.27"E longitude (Sabbavaram).

“Price Bid” shall mean the Bidder’s quoted Price as per the Section – IV of this RFP;

“Qualified Bidder” shall mean the Bidder(s) who, after evaluation of their Technical Bid as per Clause 3.1 stands qualified for opening and evaluation of their Price Bid;

“RFP” shall mean Request for Proposal (RFP)/Bid document/Tender document

“RESCO” shall mean Renewable Energy Service Companies;

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

“RESCO model” shall mean where the bidders intend to take a canal top owned by some other entity on mutually agreed terms and conditions from the canal top owner(s) and enters into the PPA with canal top owner / DISCOM / others for supply of solar power for 25 years from the date of Commissioning of project.

“Sanctioned Documents” shall include Project Report containing

- Context / background / Introduction
- Project objectives
- Project strategy / Approach of work & methodology
- Environmental Impact Assessment.
- Site details including photographs with date & time stamping
- Solar resource assessment
- Technology selection (Module, Inverter and BOS)
- Design, Simulation, BOM and layout of SPV plant
- Grid connectivity and metering scheme
- Means of financing and project budget
- Financial, Economic & Risk Analysis
- Time frame / schedule of implementation

“Statutory Auditor” shall mean the auditor of a Company appointed under the provisions of the Companies Act, 1956 or under the provisions of any other applicable governing law;

“Successful Bidder(s)/Project Developers(s)” shall mean the Bidder(s) selected by GVSCCL pursuant to this RFP for Implementation of Grid Connected Canal Top Solar PV System as per the terms of the RFP Documents, and to whom an Allocation Letter has been issued;

GVMC shall mean Greater Visakhapatnam Municipal Corporation.

“SNA” shall mean State Nodal Agency.

“Tendered Capacity” shall mean the 5 MW, proposed to be allocated by GVSCCL to the Successful Bidder through this bidding process as per terms and conditions specified therein;

“Ultimate Parent” shall mean a company, which owns at least more than fifty percent (51%) equity either directly or indirectly in the Parent and Affiliates.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **INTERPRETATIONS**

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1. Words comprising the singular shall include the plural & vice versa
2. An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.
3. A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
4. Different parts of this contract are to be taken as mutually explanatory and supplementary to each other and if there is any differentiation between or among the parts of this contract, they shall be interpreted in a harmonious manner so as to give effect to each part.
5. The table of contents and any headings or sub headings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement.

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**SECTION – I: INTRODUCTION, BID DETAILS AND INSTRUCTIONS  
TO THE BIDDERS**

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**1 INTRODUCTION**

1.1 The Greater Visakhapatnam Smart City Corporation Limited is a Special Purpose Vehicle (SPV) incorporated for the purpose of implementing the Smart City Mission projects in Visakhapatnam and as part of this endeavour, the GVSCCL has decided to undertake the “Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model” (the “**Project**”) and has, therefore, decided to carry out the bidding process for selection of an entity as the bidder to whom the Project may be awarded.

The broad Scope of Work for bidding includes Design, Procurement, Supply, erection, testing, commissioning and maintenance for 25 (Twenty-Five) years of 5 (five) MW grid connected Canal Top Solar PV system on Raiwada Canal in Visakhapatnam along with grid connecting equipment including associated electrical & civil works.

1.2 Bidder shall submit bids under RESCO Model only for the Canal Top Solar PV system.

1.3 The Project targets installation of grid-connected canal top solar PV project on the Raiwada Canal in Visakhapatnam. The generated solar power will be fed to the grid.

1.4 GVSCCL, which expression shall also include its successors and permitted assigns, hereby invites interested companies to participate in the bidding process for the selection of Successful Bidder(s) for implementation of grid-connected canal top solar photovoltaic system.

1.5 The Bidder is advised to read carefully all instructions and conditions appearing in this document and understand them fully. All information and documents required as per the bid document must be furnished. Failure to provide the information and / or documents as required may render the bid technically unacceptable.

1.6 The bidder shall be deemed to have examined the bid document, to have obtained his own information in all matters whatsoever that might affect the carrying out the works in line with the scope of work specified elsewhere in the document at the offered rates and to have satisfied himself to the sufficiency of his bid. The bidder shall be deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labour involved, wage structures and as to what all works he has to complete in accordance with the bid documents irrespective of any defects, omissions or errors that may be found in the bid documents.

**2 BID DETAILS & SIZE OF THE PROJECT**

Bids are invited under RESCO for the canal top solar PV system of 5 MW capacity.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **3 INSTRUCTIONS TO THE BIDDERS**

#### **3.1 INTRODUCTION**

Bidder must meet the eligibility criteria independently as Bidding Company or as a Bidding Consortium with one of the members acting as the Lead Member of the Bidding Consortium.

- a. Bidder will be declared as a Qualified Bidder based on meeting the eligibility criteria and as demonstrated based on documentary evidence submitted by the Bidder in the Bid.
- b. In case of a Bidding Consortium the Financial Eligibility criteria like Annual turnover or Net Worth as indicated in Clause 3.3.3, shall be fulfilled by the Lead Member or Parent Company of the Lead Member while the Technical Eligibility Criteria shall be fulfilled by the consortium.
- c. In case bidder submitting bid through consortium, a Consortium Agreement as per the **Format-10** shall be furnished along with the bid. The maximum number of members allowed in a Consortium is 3 (three).
- d. Financial Consortium is not allowed in this Bidding Process. Consortium is only permitted for Technical partnership as per **Format- 10**.
- e. Further in-case where the bidding company has used the financial eligibility criteria of its parent company then it needs to be ensured that any change in the controlling equity of the Bidding Company requires prior approval of GVSCCL.
- f. All members of the consortium should be registered as company only. However, Members of the Consortium together may form the Project Company as specified in Clause 3.4.
- g. Bidder including its member of the consortium can submit one bid only.

#### **3.2 USE OF TECHNICAL AND/OR FINANCIAL STRENGTH OF PARENT COMPANY**

- 3.2.1 Bidder can however use the technical and financial strength of its Parent Company or Affiliate to fulfil the Technical and/or Financial Eligibility criteria mentioned below. Members of Consortium can also use the credentials of the parent company or Affiliate to fulfil the eligibility requirement.
- 3.2.2 In above case, Bidders shall submit an Undertaking from the Parent Company as per **Format-9** and also furnish a certificate of relationship of Parent Company or Affiliate with the Bidding Company as per **Format-8**. Company Secretary Certificate towards shareholding pattern of the Parent Company and the Bidding Company along with a Board resolution from the Parent Company shall also be submitted.

#### **3.3 ELIGIBILITY CRITERIA**

##### **3.3.1 General**

- a) The Bidder shall be either a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto and engaged in the business of Solar Power.

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

A copy of certificate of incorporation shall be furnished along with the bid in support of above.

- b) The Bidder shall be a MNRE accredited Channel Partner/Programme Administrator OR shall have a Credit Rating (from MNRE Accredited Rating Agency) of “SP 2C” or above.

### 3.3.2 TECHNICAL ELIGIBILITY CRITERIA

The bidder shall have developed/executed solar power projects in India for an aggregate capacity of at least 5 MW at a single or multiple locations in last 3 years running successfully without any major problem as on the date of submission of the Bid. Each of such project shall be of a capacity of not less than 500 kWp. The Bidder shall furnish the list of projects commissioned in the last 3 financial years preceding the Bid Deadline, indicating whether the project is grid connected, and shall submit copies of the Commissioning certificate and Work order/Contract/Agreement from the Client/Owner in support of above.

Bidder shall have installed and commissioned within a financial year preceding the Bid Deadline, at least one grid connected Solar PV Power Project of capacity of not less than 500 kWp.

### 3.3.3 FINANCIAL ELIGIBILITY CRITERIA:

The Bidder should have an Annual Turnover and Net Worth as indicated below.

- i. The Annual turnover of Rs.35 Crore (Rupees Thirty-Five Crore) in any one of the last 3 (three) financial years preceding the Bid Deadline subject to the condition that the Bidder should at least have completed one financial year.

- ii. Net Worth equal to or greater than Rs.15 Crore (Rupees Fifteen Crore)

The Computation of Net Worth shall be based on unconsolidated audited annual accounts of the last financial year immediately preceding the Bid Deadline. Share premium can be included in the Net-worth calculation in case of listed companies in India only.

The formula of calculation of net-worth shall be as follows:

Net-worth = (Paid up share capital) + {(Free reserves - Share premium) + Share premium of listed companies} - (Revaluation of reserves) - (Intangible assets) - (Miscellaneous expenditure to the extent not written off and carry forward losses).

For the purposes of meeting financial requirements, only unconsolidated audited annual accounts shall be used. However, audited consolidated annual accounts of the Bidder may be used for the purpose of financial requirements provided the Bidder has at least twenty six percent (26%) equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of



## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.

Bidders shall furnish documentary evidence as per the **Format-7**, duly certified by Authorized Signatory and the Statutory Auditor/practising Chattered Accountant of the Bidding Company in support of their financial capability.

### **3.4 INCORPORATION OF A PROJECT COMPANY**

- 3.4.1 In case the Bidder wishes to incorporate a Project Company, in such a case, Bidder if selected as a Successful Bidder can incorporate a Project Company. Bidder shall be responsible to get all clearance required/obtained in the name of the Bidding Company transferred in the name of the Project Company.
- 3.4.2 The aggregate equity share holding of the Successful Bidder in the issued and paid up equity share capital of the Project Company shall not be less than fifty-one percent (51%) up to a period of two (2) years from the date of commissioning of the entire Sanctioned Capacity of the Project Developer.
- 3.4.3 In case of a Consortium, the members of the Consortium shall together hold not less than fifty one percent (51%) of the issued and paid up equity share capital of the Project Company for a period of two(2) years from the date of commissioning of the entire Sanctioned Capacity of the Project Developer and the Lead Member of the Consortium shall hold not less than twenty six percent (26%) of the issued and paid up equity share capital of the Project Company for a period of two (2) years from the date of commissioning of the entire Sanctioned Capacity of the Project Developer.

### **3.5 BID SUBMISSION BY THE BIDDER**

- 3.5.1 The information and/or documents shall be submitted by the Bidder as per the formats specified in **Section-IV & Section V** of this document.
- 3.5.2 Strict adherence to the formats wherever specified, is required. Wherever, information has been sought in specified formats, the Bidder shall refrain from referring to brochures/pamphlets. Non-adherence to formats and/or submission of incomplete information may be a ground for declaring the Bid as non-responsive. Each format has to be duly signed and stamped by the authorized signatory of the Bidder.
- 3.5.3 The Bidder shall furnish documentary evidence in support of meeting Eligibility Criteria as indicated in Clause no. 3.3.1, 3.3.2 and 3.3.3 to the satisfaction of GVSCCL and shall also furnish unconsolidated/consolidated audited annual accounts in support of meeting financial requirement, which shall consist of balance sheet, profit and loss account, profit appropriation account, auditors report, etc., as the case may be of Bidding Company or Financially Evaluated Entity for any of the last three (3) financial years immediately preceding the Bid Deadline, which are used by the bidder for the purpose of calculation of Annual Turnover or of last Financial Year in case of Net Worth.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

3.5.4 In case the annual accounts for the latest financial year are not audited and therefore the bidder cannot make it available, the applicant shall give certificate to this effect from their Directors.

### **3.6 BID SUBMITTED BY BIDDING COMPANY**

The Bidding Company should designate one person to represent the Bidding Company in its dealings with GVSCCL.

The person should be authorized to perform all tasks including, but not limited to providing information, responding to enquires, signing of Bid etc. The Bidding Company should submit, along with Bid, a Power of Attorney in original (as per Format-6), authorizing the signatory of the Bid.

### **3.7 CLARIFICATIONS AND PRE-BID MEETING**

3.7.1 The GVSCCL will not enter into any correspondence with the Bidders, except to furnish clarifications on RFP Documents, if necessary. The Bidders may seek clarifications or suggest amendments to RFP in writing, through a letter or by fax (and also soft copy by e-mail) to reach GVSCCL at the address, date and time mentioned in Bid information sheet.

3.7.2 The Bidder(s) or their authorized representative(s) is /are invited to attend pre-bid meeting(s), which will take place on date(s) as specified in Bid information sheet, or any such other date as notified by GVSCCL.

3.7.3 The purpose of the pre-bid meeting will be to clarify any issues regarding the RFP including in particular, issues raised in writing and submitted by the Bidders.

3.7.4 GVSCCL is not under any obligation to entertain/respond to suggestions made or to incorporate modifications sought for.

### **3.8 AMENDMENTS TO RFP**

3.8.1 At any time prior to the deadline for submission of Bids, the GVSCCL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP document by issuing clarification(s) and/or amendment(s).

3.8.2 The clarification(s) / amendment(s) (if any) may be notified on website [www.apecurement.gov.in](http://www.apecurement.gov.in) or [www.gvmc.gov.in](http://www.gvmc.gov.in).

3.8.3 GVSCCL will not bear any responsibility or liability arising out of non-receipt of the information regarding Amendments in time or otherwise. Bidders must check the website for any such amendment before submitting their Bid.

3.8.4 All the notices related to this Bid which are required to be publicized shall be uploaded on website [www.apecurement.gov.in](http://www.apecurement.gov.in) or [www.gvmc.gov.in](http://www.gvmc.gov.in).

### **3.9 BIDDING PROCESS**

#### **3.9.1 BID FORMATS**

3.9.1.1 The Bid in response to this RFP shall be submitted by the Bidders in the manner provided in Clause 3.3 & Clause 3.9.1.1. The Bid shall comprise of the following:

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **(A) ENVELOP - I**

1. Covering Letter as provided in Format-1.
2. Copy of PAN and TAN certificates of Bidder including that of all Consortium Members.
3. Bid processing fee
4. Bid Security, as per the prescribed Format-3.
5. Checklist for Bank Guarantee submission requirements as prescribed in Format-5
6. Original power of attorney issued by the Bidding Company in favour of the authorized person signing the Bid, in the form attached hereto as Format-6
  - a. General particulars of bidders as per Format-2
7. Shareholding certificate signed by the company secretary/charted accountant of the bidding company and shareholding certificate signed by the company secretary/charted accountant of the Parent company (if parent company credentials are used).
8. Document in support of meeting Eligibility Criteria as per Clause no. 3.3.1 & 3.3.2.
9. Certificates of incorporation of Bidding company and parent company (if parent company credentials are used)
10. Certificates of incorporation of all consortium members, in the bid submitted by bidder.
11. Details for meeting Financial Eligibility Criteria as per Clause no. 3.3.3 in the prescribed Format-7 along with documentary evidence for the same.
12. If credentials of Parent company are being used by the Bidding company/lead member of the bidding consortium than Format 8 shall be furnished.
13. Undertakings from the Financially Evaluated Entity or its Parent Company/ Ultimate Parent Company as per Format-9.
14. Board Resolution of the Parent Company/Ultimate Parent Company of the Bidding Company duly certified by the Company Secretary to provide the Performance Bank Guarantee (Performance Security) in the event of failure of the Bidding Company to do so.
15. Board resolution for Authorised signatory
16. Signed and stamped Copy of RFP Documents including amendments & clarifications by Authorised signatory on each page.

### **(B) PRICE BID(S) AS PER SECTION – IV**

The Bidder shall submit Price Bid(s) **online only**.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **3.10 VALIDITY OF BID**

3.10.1 The bid and the Price Schedule included shall remain valid for a period of **180 days (One Hundred and Eighty days)** from the date of Technical bid opening, with bidder having no right to withdraw, revoke or cancel his offer or unilaterally vary the offer submitted or any terms thereof. In case of the bidder revoking or cancelling his offer or varying any term & conditions in regard thereof or not accepting letter of award, GVSCCL shall forfeit the Bid security furnished by him. Confirmation regarding the Bid offer validity shall be clearly mentioned in the covering letter.

3.10.2 In exceptional circumstances when letter of award is not issued, GVSCCL may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The Bid security provided under Clause 3.12 shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid security. A Bidder granting the request will neither be required nor permitted to modify its Bid in any manner.

### **3.10.3 METHOD OF BID SUBMISSION**

3.10.3.1 Bids are required to be submitted in a single sealed cover envelope containing Envelope-I as detailed in Clause 3.9 above.

3.10.3.3 All the envelopes shall be kept in an outermost Envelope. All the envelopes should be super scribed as **“Bid for Implementation of 5 MW Grid connected Canal Top Solar PV System on Raiwada canal in Visakhapatnam”**.

### **3.11 COST OF BIDDING**

3.11.1 The bidder shall bear all the costs associated with the preparation and submission of his offer, and the company will in no case be responsible or liable for those costs, under any conditions. The Bidder shall not be entitled to claim any costs, charges and expenses of and incidental to or incurred by him through or in connection with his submission of bid even though GVSCCL may elect to modify / withdraw the invitation of Bid.

### **3.12 BID SECURITY**

The Bidder shall furnish the Interest free Bid security of **Rs.35.00 Lakhs (Rupees Thirty five Lakhs only)** in the form of Bank Guarantee (BG) in favour of “Managing Director, GVSCCL”, payable at Andhra Bank, Visakhapatnam. The initial validity of Bid security shall be for a period of 180 (one hundred and eighty days) from the Bid Deadline. The Bid security of unsuccessful bidders shall be returned within 30 days from the date of issue of Letter of award to successful bidder.

3.12.1 Bid security shall be submitted in its original form; copies will not be accepted.

3.12.2 The Successful Bidder shall sign and stamp the Letter of Acceptance and return the duplicate copy of the same to GVSCCL within 21 days from the date of its issue.

3.12.3 The Bid security shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to GVSCCL under following circumstances:

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

- a. Hundred percent (100%) of Bid security amount, if a Bidder withdraws/revokes or cancels or unilaterally varies his bid in any manner during the period of Bid Validity specified in the RFP document and in accordance with the Clause 3.10.
- b. Hundred percent (100%) of the Bid Security amount, if the Successful Bidder fails to unconditionally accept the Award letter within 21days from the date of its issue.
- c. Hundred percent (100%) of the Bid Security amount, if the Successful Bidder fails to furnish the "Performance Security" as per the Clause 3.13.

### **3.13 PERFORMANCE SECURITY / PERFORMANCE BANK GUARANTEE (PERFORMANCE SECURITY)**

- 3.13.1 Within **30 days** from the date of issue of Award letter, Successful Bidder shall furnish the Performance Security for the amount of **Rs. 3.5 Crores (Rs. Three Crore fifty lakhs)**.
- 3.13.2 The Performance Security shall be denominated in Indian Rupees and shall be in the form of a bank guarantee issued by a nationalised bank, or a Scheduled Bank in India, in favour of the Authority in the format at Section – V. be confirmed for payment by the branch of the bank giving the bank guarantee at Andhra Bank, Visakhapatnam.
- 3.13.3 The Performance Security shall be forfeited as follows without prejudice to the Bidder being liable for any further consequential loss or damage incurred to GVSCCL.
- 3.13.4 **The Performance Security shall be valid for a minimum period of 12 (twelve) months from the date of issue of Award letter. This security shall be returned to the Successful Bidder upon furnishing a security of Rs.1.75 crores (Rupees One Crore and Seventy-Five Lakhs). This arrangement shall be in force throughout the 25-year period and 180 days beyond.**

### **3.14 OPENING OF BIDS**

- 3.14.1 Envelope-I of the Bidders shall be opened at **5:30 PM on 30/09/2017**, in the presence of one representative from each of the Bidders who wish to be present.

### **3.15 RIGHT TO WITHDRAW THE RFP AND TO REJECT ANY BID**

- 3.15.1 This RFP may be withdrawn or cancelled by GVSCCL at any time without assigning any reasons thereof. GVSCCL further reserves the right, at its complete discretion, to reject any or all of the Bids without assigning any reasons whatsoever and without incurring any liability on any account.
  - 3.15.1.1 The GVSCCL reserve the right to interpret the Bid submitted by the Bidder in accordance with the provisions of the RFP and make its own judgment regarding the interpretation of the same. In this regard the GVSCCL shall have no liability towards any Bidder and no Bidder shall have any recourse to the GVSCCL with respect to the selection process. GVSCCL shall evaluate the Bids using the

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

evaluation process specified in Section -I, at its sole discretion. GVSCCL's decision in this regard shall be final and binding on the Bidders.

- 3.15.1.2 GVSCCL reserves its right to vary, modify, revise, amend or change any of the terms and conditions of the Bid before submission. The decision regarding acceptance or rejection of bid by GVSCCL will be final.

### **3.16 ZERO DEVIATION**

- 3.16.1 This is a ZERO Deviation Bidding Process. Bidder is to ensure compliance of all provisions of the Bid Document and submit their Bid accordingly. Tenders with any deviation to the bid conditions shall be liable for rejection.

### **3.17 EXAMINATION OF BID DOCUMENT**

- 3.17.1 The Bidder is required to carefully examine the Technical Specification, terms and Conditions of Contract, and other details relating to supplies as given in the Bid Document.
- 3.17.2 The Bidder shall be deemed to have examined the bid document including the agreement/contract, to have obtained information on all matters whatsoever that might affect to execute the project activity and to have satisfied himself as to the adequacy of his bid. The bidder shall be deemed to have known the scope, nature and magnitude of the supplies and the requirements of material and labour involved etc. and as to all supplies he has to complete in accordance with the Bid document.
- 3.17.3 Bidder is advised to submit the bid on the basis of conditions stipulated in the Bid Document. Bidder's standard terms and conditions if any will not be considered. The cancellation/alteration/amendment/modification in Bid Documents shall not be accepted by GVSCCL.
- 3.17.4 Bid not submitted as per the instructions to bidders is liable to be rejected. Bid shall confirm in all respects with requirements and conditions referred in this bid document.

### **3.18 EVALUATION OF PRICE BID**

In case of tie in the Price Bids of Qualified Bidders, the project shall be awarded to the Bidder having the highest Net Worth among them. Further in case of tie again, the Bidder having the highest average annual turnover shall be awarded the project.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **CONDITIONS OF CONTRACT**

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#### **3.19 SCOPE OF WORK**

3.19.1 The scope of work for the bidder shall include survey of the Project Site to ascertain on their own, the space available for solar installations, canal features, canal banks as well as existing plantation along the banks of the canal and space availability for installation of canal top Solar Power Project and its associated works; Obtaining No Objection Certificate (NOC) from Distribution Company (DISCOM) for grid connectivity; complete design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the grid connected Canal Top solar PV project including operation and maintenance (O&M) of the project for a period of 25 years after commissioning.

The Solar power project is to be installed on the canal top at the proposed Project Site. GVSCCL shall allow the Successful Bidder to develop the Project and operate & maintain it for 25 years on right to use basis. Ownership of the canal top shall remain with GVSCCL.

#### **Definition**

A Grid Tied Solar Canal Top Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables, transformer along with associated equipment and switches. PV Array is mounted on a suitable structure. Grid tied SPV system is without battery and should be designed with necessary features to supplement the grid power during day time. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, wherever such specifications are available and applicable.

#### **Metering and associated facilities**

The metering of electricity shall be carried out as per the regulations stipulated by Andhra Pradesh Electricity Regulatory Commission and/or Central Electricity Authority. The Successful Bidder/ Bidder(s) shall have to accordingly arrange for the specified meter and metering facilities. It shall also be responsible for the requisite testing and inspection of meters, if required at authorized testing facility. It shall also be responsible for required interactions with the distribution licensee and shall state progress to the concerned department.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **3.20 TARIFF**

- 3.20.1 The tariff shall include all the costs related to above Scope of Work. Bidder shall quote for the entire facilities on a “single responsibility” basis such that the total Bid Price covers all the obligations mentioned in the Bidding Documents in respect of Design, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance for a period of 25 years, goods and services including spares required if any during O&M period. The Bidder has to take all permits, approvals and licenses, Insurance etc., provide training and such other items and services required to complete the scope of work mentioned above.
- 3.20.2 The tariff quoted is on lump sum turnkey basis and the bidder is responsible for the total Scope of Work described at Clause 3.19.1 above.
- 3.20.3 The tariff shall remain firm and fixed and shall be binding on the Successful Bidder till completion of work for payment of subsidy amount irrespective of his actual cost of execution of the project. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.
- 3.20.4 The tariff shall be inclusive of all duties and taxes, insurance etc. The prices quoted by the firm shall be complete in all respect and no price variation/adjustment shall be payable.
- 3.20.5 The operation & maintenance of Solar Photovoltaic Power Plant would include wear, tear, overhauling, machine breakdown, insurance, and replacement of effective modules, invertors / Power Conditioning Unit (PCU), spares, consumables & other parts for a period of 25 years.
- 3.20.6 The tariff shall be specified in sanction letter based on Successful Bidder's quote. The project cost shall be in accordance with all terms, conditions, specifications and other conditions of the Contract as accepted by the GVSCCL and incorporated into the Letter of Award.
- 3.20.7 The Bidder shall complete the Price Bid as per the Format furnished in the Section IV of the RFP.

### **3.21 DELETED**

### **3.22 INSURANCE**

- 3.22.1 The Bidder shall be responsible and take an Insurance Policy for transit-cum-storage-cum-erection for all the materials to cover all risks and liabilities for supply of materials on site basis, storage of materials at site, erection, testing and commissioning. The bidder shall also take appropriate insurance during O&M period.
- 3.22.2 The Bidder shall also take insurance for Third Party Liability covering loss of human life, engineers and workmen and also covering the risks of damage to the third party/material/equipment/properties during execution of the Contract. Before commencement of the work, the Bidder will ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work or in carrying out the Contract. Liquidation, Death, Bankruptcy etc., shall be the responsibility of bidder.



## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **3.23 WARRANTIES AND GUARANTEES**

3.23.1 The Bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. The bidder shall provide system warranty covering the rectification of any and all defects in the design of equipment, materials and workmanship including spare parts for a period of 25 years from the date of commissioning. The responsibility of operation of Warranty and Guarantee clauses and Claims/ Settlement of issues arising out of said clauses shall be the responsibility of the Successful bidder, and GVSCCL will not be responsible in any way for any claims whatsoever on account of the above.

### **3.24 TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP**

3.24.1 The Design, engineering, manufacture, supply, installation, testing and performance of the equipment shall be in accordance with latest appropriate IEC/Indian Standards as detailed in the Section- III (Technical specifications) of the bid document. Where appropriate Indian Standards and Codes are not available, other suitable standards and codes as approved by the MNRE shall be used.

3.24.2 The specifications of the components should meet the technical specifications mentioned in Section III.

3.24.3 Any supplies which have not been specifically mentioned in this Contract but which are necessary for the design, engineering, manufacture, supply & performance or completeness of the project shall be provided by the Bidder without any extra cost and within the time schedule for efficient and smooth operation and maintenance of the SPV plant.

### **3.25 OPERATION & MAINTENANCE (O&M)**

3.25.1 The bidder shall be responsible for Operation and Maintenance of the Project for a period of 25 years, during which GVSCCL will monitor the project for effective performance in line with conditions specified elsewhere in the bid document. During this period, the bidder shall be responsible for supply of all spare parts as required from time to time for scheduled and preventive maintenance, major overhauling of the plant, replacement of defective modules, inverters, PCU's etc. and maintaining log sheets for operation detail, deployment of staff for continuous operations and qualified engineer for supervision of O&M work, complaint logging & its attending.

### **3.26 METERING AND GRID CONNECTIVITY**

Metering and grid connectivity of the canal top solar PV system would be the responsibility of the Bidder, entirely, in accordance with the prevailing guidelines of the concerned DISCOM.

### **3.27 PLANT PERFORMANCE EVALUATION**

The successful bidder shall be required to meet minimum guaranteed generation with Performance Ratio (PR) at the time of commissioning and related Capacity Utilization Factor (CUF) as per the GHI levels of the location during the O&M period. PR should be shown minimum of 75% at the time of inspection for initial commissioning acceptance. Minimum CUF of 18 % should be maintained during the first year. The maximum Deration in generation allowed over the first ten years of operation is 10% (annual deration to be carried out on a written down method basis) and over the life of the project is 20% for a

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

period of 25years. The bidder should send the periodic plant output details to GVSCCL for ensuring the CUF. The PR will be measured at Inverter output level during peak radiation conditions.

### **PROGRESS REPORT**

The bidder shall submit the progress report monthly to GVSCCL in the prescribed format. GVSCCL will have the right to depute his/their representatives to ascertain the progress of contract at the premises of works of the bidder.

### **3.28 PROJECT INSPECTION**

The project progress will be monitored by GVSCCL and the projects will be inspected for quality at any time during commissioning or after the completion of the project either by officer(s) from GVSCCL or any authorized agency/ experts. All the expenses for inspection in this regard shall be borne by the Bidder only.

3.28.1.1 GVSCCL reserves the right to do sample inspection checks for the Project commissioned by the Bidder.

3.28.2 GVSCCL may also depute a technical person(s) from its list of empanelled experts for inspection, third party verification, monitoring of system installed to oversee, the implementation as per required standards and also to visit the manufactures facilities to check the quality of products as well as to visit the system integrators to assess their technical capabilities as and when required.

### **3.29 DELETED**

### **3.30 APPLICABLE LAW**

The Contract shall be interpreted in accordance with the laws of the Union of India.

### **3.31 SETTLEMENT OF DISPUTE**

3.31.1 If any dispute of any kind whatsoever arises between GVSCCL and Successful bidder in connection with or arising out of the contract including without prejudice to the generality of the foregoing, any question regarding the existence, validity or termination, the parties shall seek to resolve any such dispute or difference by mutual consent.

3.31.2 If the parties fail to resolve, such a dispute or difference by mutual consent, within 45 days of its arising, then the dispute shall be referred by either party by giving notice to the other party in writing of its intention to refer to arbitration as hereafter provided regarding matter under dispute. No arbitration proceedings will commence unless such notice is given. Any dispute, in respect of which a notice of intention to commence arbitration has been given in accordance with Sub Clause 3.31.2, shall be finally settled by arbitration.

### **3.31.3 IN CASE THE CONTRACTOR IS A PUBLIC SECTOR ENTERPRISE OR A GOVERNMENT DEPARTMENT.**

3.31.3.1 In case the Successful Bidder is a Public Sector Enterprise or a Government Department, the dispute shall be referred for resolution in Permanent Machinery

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

for Arbitration (PMA) of the Department of Public Enterprise, Government of India. Such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary / Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusive. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

### **3.31.4 IN CASE THE CONTRACTOR IS NOT A PUBLIC SECTOR ENTERPRISE OR A GOVERNMENT DEPARTMENT.**

- 3.31.4.1 In all other cases, any dispute submitted by a party to arbitration shall be heard by an arbitration panel composed of three arbitrators, in accordance with the provisions set forth below.
- 3.31.4.2 The GVSCCL and the Project Developer shall each appoint one arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the two arbitrators do not succeed in appointing a third arbitrator within Thirty (30) days after the latter of the two arbitrators has been appointed, the third arbitrator shall, at the request of either party, be appointed by the Appointing Authority for third arbitrator which shall be the President, Institution of Engineers or his nominee.
- 3.31.4.3 If one party fails to appoint its arbitrator within thirty (30) days after the other party has named its arbitrator, the party which has named an arbitrator may request the Appointing Authority to appoint the second arbitrator.
- 3.31.4.4 If for any reason an arbitrator is unable to perform its function, the mandate of the Arbitrator shall terminate in accordance with the provisions of applicable laws as mentioned in Clause 3.30 (Applicable Law) and a substitute shall be appointed in the same manner as the original arbitrator.
- 3.31.4.5 Arbitration proceedings shall be conducted with The Arbitration and Conciliation Act, 1996. The venue or arbitration shall be Visakhapatnam.
- 3.31.4.6 The decision of a majority of the arbitrators (or of the third arbitrator chairing the arbitration panel, if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction as decree of the court. The parties thereby waive any objections to or claims of immunity from such enforcement.
- 3.31.4.7 The arbitrator(s) shall give reasoned award.
- 3.31.5 Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the agreement unless they otherwise agree.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

3.31.6 Cost of arbitration shall be equally shared between the Successful bidder and GVSCCL.

### **3.32 FORCE MAJEURE**

3.32.1 Notwithstanding the provisions of clauses contained in this RFP document; the Successful Bidder/Project Developer shall not be liable to forfeit

(a) Security deposit for delay and

(b) Termination of contract; if he is unable to fulfil his obligation under this contract due to force majeure conditions.

3.32.2 For purpose of this clause, "Force Majeure" means an event beyond the control of the contractor and not involving the contractor's fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not restricted to Acts of God, wars or revolutions, fires, floods, epidemics, quarantine restrictions and fright embargoes etc. Whether a "Force majeure" situation exists or not, shall be decided by GVSCCL and its decision shall be final and binding on the contractor and all other concerned.

3.32.3 In the event that the contractor is not able to perform his obligations under this contract on account of force majeure, he will be relieved of his obligations during the force majeure period. In the event that such force majeure extends beyond 6 (six) months, GVSCCL has the right to terminate the contract in which case, the security deposit shall be refunded to him.

3.32.4 If a force majeure situation arises, the Successful Bidder/Project Developer shall notify GVSCCL in writing promptly, not later than 14 days from the date such situation arises. The Successful Bidder/Project Developer shall notify GVSCCL not later than 3 days of cessation of force majeure conditions. After examining the cases, GVSCCL shall decide and grant suitable additional time for the completion of the work, if required.

### **3.33 LANGUAGE**

3.33.1 All documents, drawings, instructions, design data, calculations, operation, maintenance and safety manuals, reports, labels and any other data shall be in English Language. The contract agreement and all correspondence between the GVSCCL and the bidder shall be in English language.

### **3.34 OTHER CONDITIONS**

3.34.1 The Successful bidder shall not transfer, assign or sublet the work under this contract or any substantial part thereof to any other party without the prior consent of GVSCCL in writing.

3.34.2 The Successful bidder shall not display the photographs of the work and not take advantage through publicity of the work without written permission of GVSCCL.

3.34.3 The Successful bidder shall not make any other use of any of the documents or information of this contract, except for the purposes of performing the contract.

3.34.4 SUCCESSORS AND ASSIGNS:

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

In case the GVSCCL or Successful bidder may undergo any merger or amalgamation or a scheme of arrangement or similar re-organization & this contract is assigned to any entity (ies) partly or wholly, the contract shall be binding mutatis mutandis upon the successor entities & shall continue to remain valid with respect to obligation of the successor entities.

### **3.34.5 SEVERABILITY:**

It is stated that each paragraph, clause, sub-clause, schedule or annexure of this contract shall be deemed severable & in the event of the unenforceability of any paragraph, clause sub-clause, schedule or the remaining part of the paragraph, clause, sub-clause, schedule annexure & rest of the contract shall continue to be in full force & effect.

### **3.34.6 COUNTERPARTS:**

This contract may be executed in one or more counterparts, each of which shall be deemed an original & all of which collectively shall be deemed one of the same instrument.

### **3.34.7 RIGHTS & REMEDIES UNDER THE CONTRACT ONLY FOR THE PARTIES:**

This contract is not intended & shall not be construed to confer on any person other than the GVSCCL & Successful bidder hereto, any rights and / or remedies herein.

### **3.34.8 Deleted.**

### **3.34.9 CORRESPONDENCE**

Bidder requiring any clarification on bid documents may contact in writing or by Fax /Email.

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

### **SECTION-II: EVALUATION CRITERIA**

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#### **4 BID EVALUATION AND SUBSIDY DISBURSEMENT**

##### **4.1 BID EVALUATION**

The evaluation process comprises the following four steps:

Step I: Responsiveness check of Technical Bid

Step II: Evaluation of Bidder's fulfilment of Eligibility Criteria as per Clause 3.3 of Section-I

Step III: Evaluation of Price Bid

Step IV: Successful Bidders selection

##### **4.2 RESPONSIVENESS CHECK OF TECHNICAL BID**

The Technical Bid submitted by Bidders shall be scrutinized to establish responsiveness to the requirements laid down in the RFP subject to Clause 3.3.1, Clause 3.3.2, and Clause 3.3.3. Any of the following may cause the Bid to be considered "Non-responsive", at the sole discretion of GVSCCL.

- a. Bids that are incomplete, i.e. not accompanied by any of the applicable formats inter alia covering letter, power of attorney supported by a board resolution, applicable undertakings, format for disclosure, valid Bid Bond, etc.;
- b. Bid not signed by authorized signatory and /or stamped in the manner indicated in this RFP;
- c. Material inconsistencies in the information /documents submitted by the Bidder, affecting the Eligibility Criteria;
- d. Information not submitted in the formats specified in this RFP;
- e. Bid being conditional in nature;
- f. Bid not received by the Bid Deadline;
- g. Bid having Conflict of Interest;
- h. More than one Member of a Bidding Company using the credentials of the same Parent Company /Affiliate;
- i. Bidder delaying in submission of additional information or clarifications sought by GVSCCL as applicable;
- j. Bidder makes any misrepresentation.

Each Bid shall be checked for compliance with the submission requirements set forth in this RFP before the evaluation of Bidder's fulfilment of Eligibility Criteria is taken up. Clause 3.3 shall be used to check whether each Bidder meets the stipulated requirement.

#### **5 PRELIMINARY EXAMINATION**

- 5.1. The GVSCCL will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

been furnished, whether the documents have been properly signed and stamped and whether the Bids are otherwise in order.

### **6 EVALUATION OF BIDDER'S FULFILMENT OF ELIGIBILITY CRITERIA**

#### **6.1 EVALUATION OF BIDDER'S ELIGIBILITY**

Evaluation of Bidder's Eligibility will be carried out based on the information furnished by the Bidder as per the prescribed Formats and related documentary evidence in support of meeting the Eligibility Criteria as specified in Clause 3.3. Non-availability of information and related documentary evidence for the satisfaction of Eligibility Criteria may cause the Bid to be non-responsive.

#### **6.2 EVALUATION OF PRICE BID**

Price Bid of the Qualified Bidders shall be opened in presence of the representatives of such Qualified Bidders, who wish to be present, on a date as may be intimated by GVSCCL to the Bidders. The evaluation of Price Bid shall be carried out based on the information furnished online. The Price Bid submitted by the Bidders shall be scrutinized to ensure conformity with the RFP. Any Bid not meeting any of the requirements of this RFP may cause the Bid to be considered "Non-responsive" at the sole decision of the GVSCCL. The Price bids shall be evaluated as follows:

##### **6.2.1 RESCO**

The maximum allowable tariff for 25 years is **Rs. 5.00/kWh**, so bidder submitting bid above the maximum allowable project cost shall be rejected.

#### **6.3 SELECTION OF SUCCESSFUL BIDDER**

6.3.1. Bids qualifying in Clause 3.6 shall only be evaluated in this stage.

6.3.2. The tariff quoted in the Price Bid of Qualified Bidders shall be ranked from the lowest to the highest.

6.3.2.1. Based on the price bid quoted by the bidders, GVSCCL shall arrange the bids in the ascending order i.e. L1, L2, L3, (L1 being the lowest project cost).

6.3.2.2. DELETED

6.3.2.3. DELETED

6.3.2.4. DELETED

6.3.3. Letter of Acceptance (LOA): The Letter of Acceptance (LOA) shall be issued to the Successful Bidder selected as per the provisions of this Clause 6.3.2.

6.3.4. Successful Bidder shall acknowledge the LOA and return duplicate copy with signature & stamp of the authorized signatory of the Successful Bidder to the GVSCCL within Twenty-one (21) days of issue of LOA.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

- 6.3.5. If the Successful Bidder, to whom the Letter of Acceptance has been issued, does not fulfil any of the conditions specified in Bid document, the GVSCCL reserves the right to annul/cancel the award of the Letter of Acceptance of such Successful Bidder and forfeit the Performance Security/Bid Security.
- 6.3.6. The GVSCCL at its own discretion, has the right to reject any or all the Bids without assigning any reason whatsoever, at its sole discretion.
- 6.3.7. There shall be no negotiation on the price bid quoted between the GVSCCL and the Bidder, during the process of evaluation.

6.3.8. DELETED

### **6.4 INCREASE / DECREASE OF BIDDER PROJECT CAPACITY**

- 6.4.1. GVSCCL reserves the right to increase up to twenty-five percent (25%) of the Project Capacity on mutual agreement of the both the GVSCCL and Successful Bidder at the L1 price.
- 6.4.2. In case Successful Bidder has requested for reduction in Project Capacity, then up to 25% reduction of Project Capacity can be accepted by GVSCCL without forfeiture of Performance Security at GVSCCL sole discretion.
- 6.4.3. In case Project Capacity is modified by GVSCCL as per Clause 6.4.1 & 6.4.2 above, Successful bidder shall submit the equivalent amount of Performance Security/Amended Performance Security to GVSCCL within 21 days from the date of issue of letter of acceptance /sanction letter.

**6.5 DELETED**

### **6.6 NOTIFICATION TO SUCCESSFUL BIDDER**

- 6.6.1. The name of Successful Bidder shall be notified through letter of Acceptance.

**6.7 DELETED**

### **6.8 PROJECT AWARD AND SANCTION**

- 6.8.1. The identification of the stretches of canal for installations at time of bidding is not mandatory. The Bidders, however, in their own interest are advised to make a preliminary survey for which they intend to Bid, as well as issue of Grid connectivity, non-completion of other formalities after award of project will result in forfeiture of Bid Security/Performance Security amount submitted by them.
- 6.8.2. The Successful Bidder selected as described in Clause 6.3 above shall be issued Letter of Acceptance (LOA) indicating the Project Capacity
- 6.8.3. The Successful Bidder, shall be given 12 (twelve) months from the date of issue of Letter of Acceptance for commissioning of the Project in which identification is also in the bidder scope
- 6.8.3.1. Preference should be given to GVSCCL identified stretches of canal first. In the event of offer given by to the Bidder to execute the project in the GVSCCL identified stretch, the time for submission of project sanction documents by the bidder to GVSCCL will be 60 days from the date of issue of LOA which can be extended depending upon the merit of the case. Failure of non-compliance of same shall lead to forfeiture of Performance Security.



## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

- 6.8.3.2. Further, Successful Bidders can start submitting their Project sanction documents for the Project Capacity as soon as they receive LOA from GVSCCL. If after 3 (three) months, the successful bidder could not submit the sanction documents for the Project Capacity, in such case Performance Security for unidentified capacity may be forfeited and the unidentified capacity gets cancelled and bidder including its affiliates/group companies / Parent / Ultimate parent company may be debarred to participate in GVSCCL future tenders for a period as decided by the competent authority of GVSCCL.
- 6.8.4. For identification of canal stretches, GVSCCL may provide help. However, the entire responsibility of finding the canal stretches for Project Installation lies with the Bidder.
- 6.8.5. Onus of identifying the canal stretches and completing the other documentation like finalizing the Project report, drawings and necessary approvals/agreements lies with the Successful Bidder within the above mentioned time frame.
- 6.8.6. DELETED
- 6.8.7. If the Bidder fails to commission the project within specified time, penalty on per day basis calculated for the Performance Security on a 3 month's period would be levied. After 3 (three) months, the project will get cancelled and the total Performance Security would be forfeited. Please refer Clause 8 & Clause 9 below for details.

### **6.9 DELETED**

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**7 OTHER CONDITIONS**

**7.1 NECESSARY APPROVALS**

Bidder has to obtain all the necessary approvals/Consents/Clearances required forErection, Testing, Commissioning and O&M of the project including Grid connectivity and associated civil works. GVSCCL shall not have any responsibility in this regard.

**7.2 DELETED**

**7.3 TAX EXEMPTIONS:**

Price bids are invited inclusive of Taxes and duties. However, Tax exemptions including certificates of any sort, if available may be dealt with the concerned Dep't of Govt. of India by the bidder. GVSCCL in no case will be responsible for providing any tax exemptions to the bidder.

**7.4 DELETED**

**7.5 REQUIREMENT OF APPROVALS ON MAKES OF THE COMPONENTS:**

7.5.1. The modules should be manufactured in India only. Rest of the components can be procured from any source. However these items should meet the Technical specification and standards mentioned in RFP.

**7.6 OPERATION OF THE SYSTEM DURING WEEKENDS AND GENERAL HOLIDAYS AND CALCULATION OF CUF:**

7.6.1. During grid failure, the SPV system stops generating. Any instances of grid failure need to be mentioned in the monthly report and those instances need to be authorised by local DISCOM. Then the period will be excluded in calculation of CUF.

**7.7 TAXES AND DUTIES**

Taxes and duties shall be paid extra by the bidder as applicable.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **8 PENALTY FOR DELAY IN PROJECT IMPLEMENTATION**

- 8.1. GVSCCL will issue the LOA for the Project indicating the provisions of the RFP document. The Bidder shall complete the project identification, design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the Project within 12 (twelve) months from the date of issue of LOA.
- 8.2. If the bidder fails to commission the Project Capacity within 12 (twelve) months from date of issue of LOA, Penalty of 0.1 % of Performance Security per day shall be levied up to 3 (three) months period. After 3 (three) months delay the Performance Security shall be forfeited.

### **9 TIME OF COMPLETION OF PROJECT CAPACITY:**

- 9.1 Project completion shall be 12 (twelve) months from the date of issue of Letter of Acceptance. Failure of non-compliance of same shall lead to forfeiture of Performance Security.
- 9.2 For any additional agreed capacity, bidder shall complete/commission the capacity as mutually agreed between the bidder and GVSCCL. The bidder shall submit project sanction documents for the additional capacity to the satisfaction of GVSCCL.
- 9.3 The period of construction given in Time Schedule includes the time required for mobilisation as well as testing, rectifications if any, retesting and completion in all respects to the entire satisfaction of the Engineer-in-Charge.
- 9.4 A joint programme of execution of the Work will be prepared by the Engineer-in-Charge or its representative nominated for the purpose and Successful bidders based on priority requirement of this project. This programme will take into account the time of completion mentioned in clause 9.1 above and the time allowed for the priority Works by the Engineer-in-Charge.
- 9.5 Monthly/Weekly implementation programme will; be drawn up by the Engineer-in-Charge jointly with the Successful bidder, based on availability of Work fronts as per Clause 9.4 above. Successful bidder shall scrupulously adhere to these targets /programmes by deploying adequate personnel, tools and tackles and he shall also supply himself all materials of his scope of supply in good time to achieve the targets/ programmes. In all matters concerning the extent of targets set out in the weekly and monthly programmes and the degree of achievements, the decision of the Engineer-in-Charge will be final and binding.

### **10 UPDATING THE PROJECT PROGRESS**

Successful bidder authorised representative in whose name Power of Attorney has been executed and submitted along with the bid shall be provide the project progress on monthly basis as directed by Engineer -in -charge. Not updating of the progress shall be considered as no progress and shall attract punitive actions as per the relevant provision of the Contract. However, the decision of Engineer -in -charge shall be final in this regard.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **11 INSPECTION AND AUDIT**

- 11.1. The Successful bidder shall permit the GVSCCL/ Engineer in-charge/any other authority or person authorised by GVSCCL, to inspect the Successful bidder's site, accounts and records relating to the performance of the Successful Bidder and to have them audited by auditors appointed by the GVSCCL, if so required by the GVSCCL any time.

### **12 COMMISSIONING /COMPLETION CERTIFICATE:**

#### **12.1 APPLICATION FOR COMPLETION/COMMISSIONING CERTIFICATE:**

The Successful Bidder can apply for Completion Certificate **after 120 hours of successful commissioning of the Project Capacity** and completion of other obligation under the Contract. The Engineer-in-Charge shall normally issue to the Successful bidder the Completion Certificate within 15 days after receiving any application therefore from the Successful bidder after verifying from the completion documents and satisfying himself that the Work has been completed in accordance with and as set out in Contract documents.

##### **12.1.1 DOCUMENT SUBMISSION FOR ISSUE COMMISSIONING/COMPLETION CERTIFICATE**

For the purpose of Clause 12.1 above the following documents will be deemed to form the completion documents:

- a. Checklist for inspection of canal top SPV systems as per GVSCCL format.
- b. Project completion report from successful bidder as per GVSCCL format

##### **12.1.2 FINAL DECISION AND FINAL CERTIFICATE:**

- 12.1.2.1. Upon completion of 25 years of O&M and subject to the Engineer-in-Charge being satisfied, the Engineer-in-Charge shall (without prejudice to the rights of GVSCCL to retain the provisions of relevant Clause hereof) otherwise give a certificate herein referred to as the Final Certificate to that effect and the Successful bidder shall not be considered to have fulfilled the whole of his obligations under Contract until Final Certificate shall have been given by the Engineer-in-Charge notwithstanding any previous entry upon the Work and taking possession, working or using of the same or any part thereof by GVSCCL.

#### **12.2 DEDUCTIONS FROM THE CONTRACT PRICE:**

- 12.2.1. All costs, damages or expenses which GVSCCL may have paid or incurred, which under the provisions of the Contract, the Successful bidder is liable/will be liable, will be claimed by the GVSCCL. All such claims shall be billed by the GVSCCL to the Successful Bidder within 15 (fifteen) days of the receipt of the payment request and if not paid by the Successful bidder within the said period, the GVSCCL may, then, deduct the amount from any moneys due i.e., Performance Security or becoming due to the contractor or Successful

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

bidder under the contract or may be recovered by actions of law or otherwise, if the Successful bidder fails to satisfy the GVSCCL of such claims.

### **12.3 CORRUPT OR FRAUDULENT PRACTICES**

The GVSCCL requires that Successful Bidder/ contractor should follow the highest standard of ethics during the execution of contract. In pursuance of this policy, the GVSCCL:

- 12.3.1. Defines, for the purposes of this provision, the terms set forth as follows:
- 12.3.2. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the bid process or in contract execution;
- 12.3.3. "fraudulent practice" means a misrepresentation of facts in order to influence a bid process or the execution of a contract to the detriment of the GVSCCL/Government scheme, and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the GVSCCL of the benefits of free and open competition;
- 12.3.4. will declare a firm ineligible/debarred, either indefinitely or for a specific period of time, a GOVT contract if at any time it is found that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government/ GVSCCL schemes.

### **13 DEBARRED FROM PARTICIPATING IN GVSCCL'S TENDER**

- 13.1. GVSCCL reserves the right to carry out the performance review of Bidder from the time of submission of Bid onwards. In case it is observed that the bidder has not fulfilled its obligations in meeting the various timelines envisaged, in addition to the other provisions of the RFP, such Bidder may be debarred from participating in GVSCCL's any future tender for a period as decided by the competent authority of GVSCCL.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **SECTION-III: SCOPE OF WORK AND SPECIFICATIONS**

The proposed projects shall be commissioned as per the technical specifications given below. Any shortcomings will lead to cancellation of Project in full or part as decided by GVSCCL and Competent Authority's decision will be final and binding on the bidder.

#### **14 SCOPE OF WORK**

**The scope of work for the bidder shall include survey of the Project Site to ascertain on their own, the space available for solar installations, canal features, canal banks as well as existing plantation along the banks of the canal and space availability for installation of canal top Solar Power Project and its associated works; Obtaining No Objection Certificate (NOC) from Distribution Company (DISCOM) for grid connectivity; complete design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the grid connected Canal Top solar PV project including operation and maintenance (O&M) of the project for a period of 25 years after commissioning.**

The Solar power project is to be installed on the canal top at the proposed Project Site. GVSCCL shall allow the Successful Bidder to develop the Project and operate & maintain it for 25 years on right to use basis. Ownership of the canal top shall remain with GVSCCL.

##### **14.1 DEFINITION**

A Grid Tied Solar Canal Top Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables, transformer along with associated equipment and switches. PV Array is mounted on a suitable structure. Grid tied SPV system is without battery and should be designed with necessary features to supplement the grid power during day time. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, wherever such specifications are available and applicable.

##### **14.2 METERING AND ASSOCIATED FACILITIES**

The metering of electricity shall be carried out as per the regulations stipulated by Andhra Pradesh Electricity Regulatory Commission and/or Central Electricity Authority. The Successful Bidder/ Bidder(s) shall have to accordingly arrange for the specified meter and metering facilities. It shall also be responsible for the requisite testing and inspection of meters, if required at authorized testing facility. It shall also be responsible for required interactions with the distribution licensee and shall state progress to the concerned department.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **15 TECHNICAL SPECIFICATIONS**

The detailed technical specifications to be followed are follows,

#### **15.1 SOLAR PV MODULE**

- i. Only indigenous modules (IEC Tested) shall only be used in the project.
- ii. Crystalline high power/efficiency cells shall be used in the Solar Photovoltaic module.
- iii. The open circuit voltage of the PV modules under STC should be at least 21.0 Volts.
- iv. PV module must be warranted for output wattage, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.
- v. The terminal box on the module shall be designed for long life out door operation in harsh environment should have a provision for opening for replacing the cable, if required.
- vi. The offered module shall be in accordance with the requirements of MNRE.
- vii. Latest edition of IEC 61215 edition II / IS 14286 for Crystalline and shall be certified by MNRE authorized test centre. The bidder shall submit appropriate certificates.
- viii. PV modules must qualify to IEC 61730 Part 1- requirements for construction & Part 2 requirements for testing, for safety qualification.
- ix. Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided and if required, blocking diode(s) may also be provided.
- x. Identification and traceability: Each PV module must use a RF identification tag (RFID), which must contain the following information:
  - a) Name of the manufacturer of PV Module
  - b) Name of the Manufacturer of Solar cells
  - c) Month and year of the manufacture (separately for solar cells and module)
  - d) Country of origin (separately for solar cells and module)
  - e) I-V curve for the module
  - f) Peak Wattage,  $I_m$ ,  $V_m$  and FF for the module
  - g) Unique Serial No and Model No of the module
  - h) Date and year of obtaining IEC PV module qualification certificate
  - i) Name of the test lab issuing IEC certificate.
  - j) Other relevant information on traceability of solar cells and module as per ISO 9000 series.
  - k) The RFID should be placed inside the module laminate

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

Test reports/certificate from IEC/NABL accredited laboratory to be mandatorily enclosed for relevant IEC/equivalent BIS Standards.

### 15.2 MODULE MOUNTING STRUCTURE

Structure would be so designed that it will last for minimum of 25 years without much maintenance and replacement.

Table 1: Specifications of Module Mounting Structure

S. No	Specifications for proposed module mounting structure
1	The array structure shall be so designed that it will occupy minimum space without sacrificing the output from SPV panels.
2	The structure shall be designed to allow easy replacement of modules while at the same time be in line with Site requirements.
3	The array structure shall be made of hot dipped galvanized MS angles of suitable size and minimum 85-micron thickness of galvanization. Alternatively, aluminium structure specially designed and manufactured by an experienced company for solar module mounting can be used. The mounting structure steel should be as per latest IS 2062:1992 and galvanization of the mounting structure should be in compliance with latest IS 4759
4	The support structure design & foundation shall be designed to withstand wind speed up to 200 km/hr. The same must be tested and certified by a reputed third party inspection agency.
5	The module alignment & tilt angle shall be calculated to provide the maximum Annual energy output and this shall be decided based on the location of array installation.
6	All fasteners shall be of stainless steel of grade SS 304.
7	The array structure shall be grounded properly using maintenance free earthing kit suitable for mounting over the canal top.
8	The mounting of solar modules shall be done in such a way that the lower position of solar module shall be of min 1000 mm above the surface level of the canal.

### 15.3 JUNCTION BOXES (JBS)

- a) The junction boxes are to be provided in the PV array for termination of connecting cables. The J. Boxes (JBs) shall be made of GRP/FRP/Powder Coated Aluminium/cast aluminium alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands.
- b) Copper bus bars/terminal blocks housed in the junction box with suitable termination threads conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry. Single/double compression cable glands. Provision of earthing - It should be placed at 5 feet height or above for ease of accessibility.
- c) Each Junction Box shall have High quality Suitable Capacity Metal Oxide Varistors (MOVs)/SPDs, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.



## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

- d) Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification.

### **15.4 DC DISTRIBUTION BOARD:**

- a) DC Distribution panel to receive the DC output from the array field.
- b) DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection.

The bus bars should be made of copper and of desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.

### **15.5 AC DISTRIBUTION PANEL BOARD:**

- a) AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
- b) All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III
- c) The changeover switches, cabling work should be undertaken by the bidder as part of the project.
- d) All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz
- e) The panels shall be designed for minimum expected ambient temperature of 45 degrees Celsius, 80 percent humidity and dusty weather.
- f) All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
- g) Should conform to Indian Electricity Act and rules (till last amendment).
- h) All the 415 AC or 230 volts devices / equipment like bus support insulators, circuit breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

Variation in supply voltage +/- 10 %

### **15.6 INVERTERS (POWER CONDITIONING UNITS)**

PCU shall supply the DC energy produced by array to DC bus for inverting to AC voltage using its MPPT (Maximum Power Point Tracking) control to extract maximum energy from solar array and produce current within the range of 415V – 480V (+15% and -20%) AC, 3 phase, 50 ± 5% Hz (47.5 to 52.5 Hz) to synchronize with the local grid (captive power plant supply). For sizing of grid connect inverter, the general guideline will be that the ratio of SPV KWp rating to inverter's KVA rating shall be within 1.15. The array output should be well within the input voltage range of the inverter so that the inverter works in MPPT range for most of the solar insolation range. This

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

should be applicable for the whole life of the solar array and needs to be substantiated through design calculations.

- 15.6.1. MPPT controller, inverter and associated control and protection devices, etc. all shall be integrated into the PCU.
- 15.6.2. String inverter shall provide 3 phase, 415V – 480V (with grid tracking of +15%/-20%), 50 Hz (with grid tracking of  $\pm 5\%$  i.e. 47.5 to 52.5 Hz) supply on AC side with voltage THD of less than 3 % and current THD of less than 5%.
- 15.6.3. The efficiency of the PCU shall be equal to or **more than 95% at 75% load as per IEC 61683**. The bidder shall specify the conversion efficiency at different load say 25%, 50%, 75% and 100% in their offer.
- 15.6.4. Each PCU shall be compliant with IEEE Standard 929-200 or equivalent and should be at least IP54. For inverters to be installed outdoors, IP65 protection shall be required.
- 15.6.5. The inverter shall be efficient with IGBT based reliable design. The control system should be of highest reliability preferably based on Digital Signal Processors. The manufacturers are encouraged to provide the control system of redundant type.
- 15.6.6. The PCU shall be capable of complete automatic operation, including wake-up, synchronization and shut down.
- 15.6.7. PCU shall have the facility to display the basic parameters of the system LED/LCD display.
- 15.6.8. PCU shall be able to synchronize independently and automatically/phase-lock with available grid power line frequency to attain synchronization.
- 15.6.9. Built-in data logging to monitor plant performance through external PC shall be provided. The communication should be in such a way that the inverter can be monitored from any PC connected to the internal LAN of GVSCCL. All necessary components, cable and software with license is in vendor's scope and is to be provided by the vendor.
- 15.6.10. Inverter shall be tested for anti-islanding protection performance.
- 15.6.11. Only isolated inverters shall be grounded on DC side (usually not required in transformer less inverter).
- 15.6.12. Indications (through LEDs/ LCD display) Following is an indicative list of indications (the actual scheme will be finalized at design stage):
  - 15.6.12.1. Inverter ON
  - 15.6.12.2. Grid ON
  - 15.6.12.3. Inverter under voltage/over voltage
  - 15.6.12.4. Inverter over-load
  - 15.6.12.5. Inverter over-temperature
  - 15.6.12.6. Earth Fault

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

- 15.6.13. Protections: Following is an indicative list of protections (the actual scheme will be finalized at design stage):
- 15.6.13.1. Over-voltage both at input and output
  - 15.6.13.2. Over-current both at input and output
  - 15.6.13.3. Over/under grid frequency
  - 15.6.13.4. Over temperature
  - 15.6.13.5. Short circuit on AC side
  - 15.6.13.6. Reverse polarity protection
  - 15.6.13.7. Array ground fault protection
  - 15.6.13.8. Protection against lightning induced surges Class II, 10 kA as per IEC 61643-1. SPD box is acceptable.
  - 15.6.13.9. Protection against surge voltage induced at output due to external source
- 15.6.14. Night consumption of the PCU shall be less than 0.2% of the rated power of the inverter.
- 15.6.15. Noise level of the PCU should be less than 65 dBA (nominal) at 1m.
- 15.6.16. DC insulation resistance should be more than 50M $\Omega$ .
- 15.6.16.1. Emitted interference as per IEC: 61000-6-4.
  - 15.6.16.2. Interference emitted as per IEC: 61000-6-2.
- 15.6.17. An integrated earth fault detection device is to be provided to detect eventual earth fault on DC side and shall send message to the supervisory system.
- 15.6.18. Idling current at no load shall not exceed 2% of the full load current.
- 15.6.19. PCU shall withstand high voltage test of 2,000 Vrms between either the input or the output terminals and the cabinet (chassis).
- 15.6.20. PCU includes ground lugs for equipment and PV array groundings. The DC circuit ground shall be a solid single point ground connection.
- 15.6.21. Where PCU has not been provided with galvanic isolation, a type B residual current device (RCD) according to IEC 60755 amendments 2 shall be installed to provide fault protection by automatic disconnection of supply. Inbuilt RCD will also be accepted.
- 15.6.22. To allow maintenance of the PCU, means of isolating the PCU from the DC side and the AC side shall be provided.
- 15.6.23. PCU can be a centralized unit or a combination of multiple string inverters. In case of centralised inverters, the inverter shall have low voltage ride through feature
- 15.6.24. Makes: OPS/REFU sol/Delta/OEM/SMA/Schneider/ABB vendor to Mention if others. Vendor should be prepared to prove track record of the make, if not mentioned in the names here.
- 15.6.25. The PCU should withstand the environmental tests (as per IEC 60068/ IS 9000) listed below with the PCU working at full load for at least last half an hour.

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

Environmental test results in respect of any similar design PCU for at least 10 KWp SPV systems will be adequate.

15.6.25.1. Dry Heat Test: 50°C ± 2°C for 16 hours

15.6.25.2. Damp Heat Test (Steady state): 40° C, 93% RH for 4 days

15.6.25.3. Damp Heat Test (Cyclic): 40°C, 93% RH for 6 cycles (duration of one cycle shall be 24hrs)

15.6.25.4. Cold Test: 0° C for 16 hours

15.6.25.5. Change of temperature Test: -10°C /-5° C to 50°C for 3 cycles (rate of change in temperature shall be 3oC per minute)

**Note:** The PCU/ inverters should be tested from the MNRE approved test centres / NABL /BIS /IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

### 15.7 INTEGRATION OF PV POWER WITH GRID:

1. The bidder shall provide at least fifteen (15) days advanced preliminary written notice and at least Six (6) days advanced final written notice to GVSCCL/APEPDCL/CEIG of the date on which it intends to synchronize the Power Project to the Grid System.
2. The Power Project shall be synchronized by the bidder with the Grid System when it meets all the connection conditions prescribed in applicable Grid Code then in effect and otherwise meets all other Indian legal requirements for synchronization to the Grid System.
3. The plant civil works, evacuation line and termination at transmission network of APEPDCL Sub Stations are in the scope of Successful Bidder.
4. The bidder shall synchronize its system with the Grid System only after the approval of synchronization scheme is granted by the head of the concerned sub-station/Grid System and checking/verification is made by the concerned authorities of the Grid System.
5. The bidder shall immediately after each synchronization/, inform the substation of the Grid System to which the Power Project is electrically connected in accordance with applicable Grid Code.
6. The Developer shall commission the Project within 12 (twelve) months from the Date of Award.

### 15.8 DATA ACQUISITION SYSTEM / PLANT MONITORING

- i. Data Acquisition System shall be provided for the solar PV plant.
- ii. Data Logging Provision for plant control and monitoring.
- iii. Solar Irradiance: An integrating Pyranometer/Solar cell based irradiation sensor (along with calibration certificate) provided, with the sensor mounted in the plane of the array. Readout integrated with data logging system.

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

- iv. Temperature: Temperature probes for recording the Solar panel temperature and/or ambient temperature to be provided complete with readouts integrated with the data logging system.
- v. The following parameters are accessible via the operating interface display in real time separately for solar power plant:
  - a) AC Voltage.
  - b) AC Output current
  - c) Output Power
  - d) Power factor.
  - e) DC Input Voltage.
  - f) DC Input Current.
  - g) Time Active
  - h) Time disabled.
  - i) Time Idle.
  - j) Power produced
  - k) Protective function limits (Viz. AC Over voltage, AC Under voltage, over frequency, under frequency ground fault, PV starting voltage, PV stopping voltage.
- vi. All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to a month and the average values) should be made available for energy auditing through the internal microprocessor and should be read on the digital front panel.
- vii. PV array energy production: Digital Energy Meters to log the actual value of AC/ DC voltage, Current & Energy generated by the PV system provided. Energy meter along with CT/PT should be of 0.5 accuracy class.
- viii. Computerized DC String/Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/array combiner box or separately.
- ix. String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.
- x. Computerized AC energy monitoring shall be in addition to the digital AC energy meter.
- xi. The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.
- xii. All instantaneous data shall be shown on the computer screen.
- xiii. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.
- xiv. Provision for Internet monitoring and download of data shall be also incorporated. Remote Server and Software for centralized Internet monitoring

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

system shall be also provided for download and analysis of cumulative data of all the plants and the data of the solar radiation and temperature monitoring system.

- xv. Ambient / Solar PV module back surface temperature shall be also monitored on continuous basis.
- xvi. Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided.
- xvii. Remote Monitoring and data acquisition through Remote Monitoring System software at the owner/GVSCCL location with latest software/hardware configuration and service connectivity for online /real time data monitoring/control complete to be supplied and operation and maintenance/control to be ensured by the supplier

### **15.9 TRANSFORMER & METERING:**

- a) Dry type relevant Step up transformer along with all protections, switchgears, Vacuum circuit breakers, cables etc. along with required civil work
- b) The bidirectional electronic energy meter (0.5 S class) shall be installed for the measurement of import/Export of energy.
- c) The bidder must take approval/NOC from the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to GVSCCL before commissioning of SPV plant.
- d) Reverse power relay shall be provided by bidder (if necessary), as per the local DISCOM requirement.

### **15.10 PROTECTIONS**

The system should be provided with all necessary protections like earthing, lightning, and grid islanding as follows:

#### **15.11 LIGHTNING PROTECTION**

The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc. The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per IEC 62305 standard. The protection against induced high-voltages shall be provided by the use of metal oxide varistors (MOVs) and suitable earthing such that induced transients find an alternate route to earth.

#### **15.12 SURGE PROTECTION**

Internal surge protection shall consist of three MOV type surge-arrestors connected from +ve and -ve terminals to earth (via Y arrangement).

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **15.13 EARTHING PROTECTION**

- a) Each array structure of the PV yard should be grounded/ earthed properly as per IS:3043-1987. In addition, the lightning arrester/masts should also be earthed inside the array field. PCU, ACDB and DCDB should also be earthed properly.
- b) Earth resistance shall not be more than 5 ohms. It shall be ensured that all the earthing points are bonded together to make them at the same potential.

### **15.14 GRID ISLANDING:**

- a) In the event of a power failure on the electric grid, it is required that any independent power producing inverters attached to the grid turn off in a short period of time. This prevents the DC -to-AC inverters from continuing to feed power into small sections of the grid, known as “islands.” Powered islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. The Canal Top PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.
- b) A manual disconnect 4pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

### **15.15 CABLES**

The cables used in module/ array wiring shall be **TUV 2Pfg 1169/08.2007 or VDE EPV 01:2008-02 or UL4703 certified.**

- 15.15.1. Cables of appropriate size to be used in the rest of the system shall have the following characteristics
  - 15.15.1.1. Temp. Range 0 deg C to +90 deg C. Cable must be able to withstand this ambient temp range while carrying max current. Maximum and minimum withstand temperature of cable must be mentioned in engineering drawing for **approval of GVSCCL/APEPDCL/CEIG** with documentary proof.
  - 15.15.1.2. Voltage rating 600/1100V
  - 15.15.1.3. Excellent resistance to heat, cold, water, oil, abrasion, UV radiation, ozone and weathering
  - 15.15.1.4. Halogen-free, low smoke, low toxicity.
  - 15.15.1.5. Flame retardant
  - 15.15.1.6. Flexible. Armoured or un-armoured cable should have flexibility as per applicable standard respectively.
  - 15.15.1.7. Fulfils IEC 60332-1 requirements. Accredited lab test report/Manufacturer's test report shall be attached. (Details of test lab is as per clause 21).
  - 15.15.1.8. Conductor class IEC 60228 class 5. Accredited lab test report/Manufacturer's test report shall be attached. Only Copper conductor is to be used.

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

- 15.15.2. Cabling on DC side of the system shall be as short as possible to minimize the voltage drop in the wiring.
- 15.15.3. Components and hardware shall be vandal and theft resistant. All parts shall be corrosion-resistant.
- 15.15.4. **All cables required must be supplied by vendor.**
- 15.15.5. Voltage drop on the DC side from array to the inverter should not be more than 3%. Necessary calculations in this regard shall also be submitted during design approval.
- 15.15.6. Overload protection is to be provided. Design Overload capacity for 10 sec of 125% of continuous rating. The principle aim in this protection is to reduce the over voltage to a tolerable value before it reaches the PV or other subsystem components. The source of over voltage can be lightning or any other atmospheric disturbance.

### **HT Cables:**

The HT Cables shall be unearthed grade suitable for use in medium resistance earthed system, with stranded & compacted Copper conductors, extruded semi-conducting compound screen, extruded XLPE insulated, extruded semi-conducting compound with a layer of non-magnetic metallic tape for insulation screen, extruded PVC (Type ST-2) FRLS inner sheath, Aluminium/galvanized steel round wire armoured extruded PVC (Type ST-2) FRLS outer sheathed, single / multi Core conforming to IS 7098 (Part II) IEC-60502 for constructional details and tests. **Appropriate and equivalent aluminium cables can be used.**

3 Core XLPE Cable of 35 sq. mm. or suitable higher size Copper armoured cable conforming to IS 7098 of required length shall be provided for power evacuation from Power Transformer to Double/Four Pole Structure through HT Switchgear.

### **LT Power Cables:**

LT Power Cable shall be 1100V grade, single Core, 300 Sq.mm or suitable higher size of Multi-Stranded Copper conductor, XLPE insulated with PVC inner sheath and outer sheath made on FRLS PVC compound. The armouring shall be of Aluminium/ galvanized steel round wire. The cable used for DC system shall be of Two core, 16 Sq.mm or Higher Size Multi-Stranded Copper conductor type. The cable used for 24V Battery Charger shall be of Two core, 6 Sq.mm or Higher Size Multi-Stranded Copper conductor type. Minimum conductor cross section of power cables shall be 4 Sq.mm for lighting, Ventilation Blowers, Jet pump and other auxiliaries. **Appropriate and equivalent aluminium cables can be used.**

## **15.16 METERING SYSTEM FOR SOLAR POWER GENERATION PLANT**

- 15.16.1 The metering system shall comprise of main, check and standby meters.
- 15.16.2 For measurement of solar energy supplied by Solar generating station, Main meter shall be provided at the line isolator on the outgoing feeder on HV side of the generator transformer at the solar power Plant designated as main meter for billing purpose. Check meter shall be provided along with main meter on the outgoing feeder. Meter shall also be provided on the other end of the above



## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

feeder to serve as standby meter. The consumption recorded by main meter shall be compared with the consumption recorded by standby meter on to work out transmission losses as well as to monitor the correct functioning of both meters.

- 15.16.3 All meters (a) main (b) check (c) standby meters in Solar Power Plant Generating Substation shall be provided by the solar power producer at his own cost. The load survey of the meter should have provision of voltage monitoring in addition to other parameters. Power failure recording is required to be included in ToD provisions of the meter along with provision of memory requirement as per RERC Metering Regulations in force.
- 15.16.4 In the event of main meter or more than one meter becoming defective the order of precedence for billing shall be (a) main (b) check (c) standby.
- 15.16.5 The solar power plant requires auxiliary power during generation and non-generation time. Successful bidder should note that separate power connection for auxiliary power consumption shall not be provided by DISCOM. Project developer is required to make either provision of solar lighting system in their area/plant to meet out the requirement of illumination otherwise they can draw the power from the STU/DISCOM through their metering system. In this case net metering (export - import reading of meters) will be applicable. The power connection provided by DISCOM will be immediately disconnected after commissioning of the project. The developer will have to produce No-dues certificate from concerned DISCOM at the time of commissioning.
- 15.16.6 Other terms and conditions shall be as per CEA (Installation & Operation of Meters) Regulations, relevant APERC Regulations and APEPDCL Regulations as amended & revised from time to time.

### 15.17 REFERENCE STANDARDS

The table below provides reference standards for solar photovoltaic modules

IS: 12834:1989 (reaffirmed 2000)	Solar Photovoltaic Energy Systems – Terminology
IEC: 61215 Ed 2 or latest/eqv. IS Std.	Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval
IEC: 61730 Pt 1 & 2	Photovoltaic (PV) module safety qualification -Part 1: Requirements for construction, Part 2: Requirements for testing
IEC:60904-1(2006)	Photovoltaic Devices- Part-I: Measurement of Photovoltaic current-Voltage Characteristic
IS: 9000	Basic environmental testing procedure for Electronic and electrical items.
IEC:60068	Environmental testing

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

The table below provides technical standards for Balance of Systems (BoS).

Item / System	Applicable BIS /Equivalent IEC Standard Or MNRE Specifications	
	Standard Description	Standard Number
Solar PV Systems: Charge Controller/MPPT units Power Conditioners/ Inverters**including MPPT and Protections	Environmental Testing	IEC 60068-2 (1,2,14,30) / Equivalent BIS Std.
	Efficiency	IEC 61683 / IS 61683
	Measurements	IEC 60068-2 (1, 2, 14, 30) / Equivalent BIS Std.
Cables	General Test and Measuring Method PVC insulated cables for working voltage up to and including 1100 V and UV resistant for outdoor installation	IEC 60227 / IS 694 IEC 60502 / IS 1554 (Pt. I & II)
Switches/Circuit Breakers /Connectors	General Requirements Connectors–safety A.C./D.C.	IEC 60947 part I, II, III / IS 60947 Part I, II, III EN 50521
Junction Boxes / Enclosures for Inverters / Charge Controllers / Luminaries	General Requirements	IP 65/66(for outdoor) IP 54(for indoor)

**Note:** Latest version of the standards shall be referred to.

### 15.18 CONNECTIVITY

The developer shall lay HT line from the Solar Power Plant to DISCOM Grid Substation. Cost of HT line will be borne by developer and the responsibility of operation/maintenance will also be of the developer. Developer shall get the specification of the line approved from the DISCOM. The transformers and associated switchgear would require to be provided by the SPV bidders.

Approval of DISCOM for Connectivity with the Grid:

- i. The Solar PV plant should be designed for interconnection with the nearest substation of DISCOM at the required voltage level. The project developer shall be responsible for entering into transmission evacuation agreement with DISCOM after allotment of project and signing of PPA. Generator/developer will submit the schematic diagram of the DISCOM network showing the locations of the energy meters (Main meter, check meter & Standby meter) with metering equipment installed on the system to measure the energy injected by RE generator into the system as per prevailing metering code /policy/regulation. This diagram shall also indicate the metering arrangement and details of the

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

metering equipment's available on generator panel and pooling station/ receiving station. The SE (M&P) DISCOM of the area where RE generator is installed shall approve the metering plan as per prevailing metering code/regulation/policy before connectivity/commissioning of the plant.

- ii. Approval from DISCOM confirming technical feasibility of the connectivity of the plant to grid substation at the indicated location shall be required. In case selected bidder forms an SPV before signing of PPA then new technical feasibility of connectivity in New SPV name will be required to be taken from DISCOM after signing of PPA even if same is taken in name of Bidder.

### **15.19 TOOLS & TACKLES AND SPARES**

- a) After completion of installation & commissioning of the power plant, necessary tools & tackles are to be provided free of cost by the bidder for maintenance purpose.
- b) A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc. along with spare set of PV modules be indicated, which shall be supplied along with the equipment. A minimum set of spares shall be maintained in the plant itself for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished.

### **15.20 DANGER BOARDS AND SIGNAGES:**

Danger boards should be provided as and where necessary as per IE Act. /IE rules as amended up to date. Signage shall be provided at control room, solar array area, switch yard area etc.

### **15.21 FIRE EXTINGUISHERS:**

The firefighting system for the proposed power plant for fire protection shall be consisting of:

- a) Portable fire extinguishers in the control room for fire caused by electrical short circuits
- b) Sand buckets in the control room
- c) The installation of Fire Extinguishers should conform to TAC regulations and BIS standards. The fire extinguishers shall be provided in the control room housing PCUs as well as on the Roof or site where the PV arrays have been installed.

### **15.22 DRAWINGS & MANUALS:**

Two sets of Engineering, electrical drawings and Installation and O&M manuals are to be supplied.

### **15.23 SAFETY MEASURES:**

The bidder shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **15.24 DISPLAY BOARD**

The bidder has to display a board at the project site mentioning the following: Plant Name, Capacity, Location, Type of Renewable Energy plant (Like solar, wind etc.), Date of commissioning, details of tie-up with transmission and distribution companies, Power generation and Export FY wise.

### **16 WARRANTY AND MAINTENANCE**

- The PV modules will be warranted for a minimum period of 25 years from the date of supply. (Output wattage should not be less than 90% at the end of 10 years and 80% at the end of 25 years).
- The mechanical structures, electrical components including evacuation infrastructure and overall workmanship of the Solar PV Canal Top power plant system must be warranted for a minimum of 25 years from the date of commissioning of the system.
- During operation and maintenance period of the SPV Canal Top Power Plant systems, if there is any loss or damage of any component due to miss management/miss handling or due to any other reasons pertaining to the deputed personnel, what-so-ever, the supplier shall be responsible for immediate replacement/rectification. The damaged component may be repaired or replaced by new component

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**SECTION-IV: PRICE BID**

**PRICE BID**

<b>Tender Inviting Authority:</b> Greater Visakhapatnam Smart City Corporation Limited	
<b>Name of Work:</b> Implementation of 5 MW Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model	
<b>RFP No:</b> GVSCCL/Projects/15 (SCT) / 2017-18, dt: 19-08-2017	
<b>Bidder Name:</b>	
<b>Tariff Offered:</b>	Rs ----- /kWh Rs. ----- / kWh (in words)*

\*Amount specified in words prevails over that in figures

Date: ..... Signature: .....

Place: ..... Name: .....

Business Address: ..... Designation: .....

...

(Company Stamp).....

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**SECTION-V: FORMATS FOR SUBMITTING RFP**

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**FORMAT – 1: COVERING LETTER**

(The covering letter should be on the Letter Head of the Bidding Company)

RFP. \_\_\_\_\_ No.  
\_\_\_\_\_ Date: \_\_\_\_\_

From: \_\_\_\_\_ (Insert name and address of Bidding Company)  
\_\_\_\_\_

Tel.#: \_\_\_\_\_

Fax#: \_\_\_\_\_

E-mail address# \_\_\_\_\_

To

The Managing Director,

Greater Visakhapatnam Smart City Corporation Limited,

Room No: 306, Tenneti Bhavan, Asilmetta,

VISAKHAPATNAM – 530003

Sub: Bid for **“Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model”**

Dear Sir,

We, the undersigned....[insert name of the ‘Bidder’] having read, examined and understood in detail the RFP Document for Implementation of Grid connected Canal Top Solar PV System hereby submit our Bid comprising of Price Bid and Technical Bid. We confirm that neither we nor any of our Parent Company/ Affiliate/ Ultimate Parent Company has submitted Bid other than this Bid directly or indirectly in response to the aforesaid RFP.

1. We give our unconditional acceptance to the RFP, dated.....and RFP Documents attached thereto, issued by GVSCCL, as amended. This shall also be construed as a token of our acceptance to the RFP Documents including all its amendments and clarifications.

We shall ensure that we execute the RFP Document as per the provisions of the RFP and all provisions of the RFP Document shall be binding on us.

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

### **2. Bid Capacity**

We have bid for the Project and have accordingly submitted our Price Bids for the same.

### **3. Bid Security**

We have enclosed a Bid Security of Rs.....(Insert Amount ), in the form of bank guarantee no.....(Insert number of the bank guarantee) dated.....[Insert date of bank guarantee] as per **Format .....** from .....(Insert name of bank providing Bid Security) and valid up to .....in terms of Clause .....of this RFP.

### **4. Processing Fee**

We have enclosed DD of Rs..... {Insert Amount as per **Clause 7.2**, in the form of DD no..... (Insert number of the DD) dated..... [Insert date of DD] from ..... (Insert name of bank providing DD).

5. We have submitted our Price Bid strictly as per Section IV of this RFP, without any deviations, conditions and without mentioning any assumptions or notes for the Price Bid in the said format.

### **6. Acceptance**

We hereby unconditionally and irrevocably agree and accept that the decision made by GVSCCL in respect of any matter regarding or arising out of the RFP shall be binding on us. We hereby expressly waive any and all claims in respect of Bid process.

We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfil our obligations with regard to execution of projects of capacity offered by us.

### **7. Familiarity with Relevant Indian Laws & Regulations**

We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this Bid and execute the RFP Documents, in the event of our selection as Successful Bidder. We further undertake and agree that all such factors as mentioned in RFP have been fully examined and considered while submitting the Bid.

8. We are enclosing herewith the Envelope - I containing duly signed formats, each one duly sealed separately, in one original as desired by you in the RFP for your consideration.

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFP and subsequent communications from GVSCCL. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the RFP and is correct to the best of our knowledge and understanding.

We would be solely responsible for any errors or omissions in our Bid. We

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

confirm  
that all the terms and conditions of our Bid are valid for acceptance for a period of  
180 days from the Bid deadline. We confirm that we have not taken any deviation  
so as  
to be deemed non-responsive.

Dated \_\_\_\_\_ the \_\_\_\_\_ day  
of \_\_\_\_\_, 20.... Thanking you,

We remain,

Yours faithfully,

**Name, Designation and Signature of Authorized Person in whose name Power  
of Attorney/Board Resolution is issued.**



**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT – 2A: GENERAL PARTICULARS OF THE BIDDER**

1	Name of Bidder	
2	Postal Address	
3	Mobile no.	
4	Telephone, Telex, Fax No	
5	E-mail	
6	Web site	
7	Name, designation and Mobile Phone No. of the representative of the Bidder to whom all references shall be made	
8	Name and address of the Indian/foreign Collaboration if any	
9	Have anything/extra other than price (as mentioned in Price Bid) been written in the price bid.	
10	Have the Bidder to pay arrears of income tax? If yes up to what amount?	
11	Have the Bidder ever been debarred by any Govt. Dept./ Undertaking for undertaking any work? (Affidavit to be submitted)	
12	Details of offer (please mention number of pages in the hard copy)	
13	Reference of any information than specified in the RFP, attached by the Bidder (please Mention no. of pages & no. of drawings)	
14	Whether the Bidder wishes to form a Project Company for execution of work (yes or no)	
15	Bidding Company is listed in India (Yes or No)	
16	Whether the Bidder is a MNRE accredited channel partner/ program administrator/ has a credit rating of SP 2C or above.	

(Signature of Bidder)  
With Seal

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT-2B: SHAREHOLDING CERTIFICATE**

<b>Name of the Equity holder</b>	<b>Type and Number of shares owned</b>	<b>% of equity holding</b>	<b>Extent of Voting rights</b>

**(Signature of Authorized Signatory & Company Secretary)**

**With Seal**

**Stamp and Signature of the Company Secretary / Chartered Accountant**

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

### FORMAT-3: FORMAT FOR BID SECURITY

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to  
place of execution.)

**B.G. No.:**

**Dated:**

1. In consideration of you, The Greater Visakhapatnam Smart City Corporation Limited, having your office at Room No.306, Greater Visakhapatnam Municipal Corporation, Tenneti Bhavan, Asilmetta Junction, Visakhapatnam - 530003, Andhra Pradesh, India, (hereinafter referred to as the "Authority", which expression shall unless it be repugnant to the subject or context thereof include its, successors and assigns) having agreed to receive the Bid of ..... (a company registered under the Companies Act, 1956/ 2013) and having its registered office at ..... (and acting on behalf of its Consortium) (hereinafter referred to as the "Bidder" which expression shall unless it be repugnant to the subject or context thereof include its/their executors, administrators, successors and assigns), for the **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model** (hereinafter referred to as "the Project") pursuant to the RFP Document dated ..... issued in respect of the Project and other related documents including without limitation the draft Power Purchase agreement (hereinafter collectively referred to as "Bidding Documents"), we (Name of the Bank) having our registered office at ..... and one of its branches at ..... (hereinafter referred to as the "Bank"), at the request of the Bidder, do hereby in terms of Clause 3.12 of the RFP Document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents (including the RFP Document) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to the Authority an amount of **Rs.35.00 lakhs (Rupees Thirty Five Lakhs only)** (hereinafter referred to as the "Guarantee") as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfil or comply with all or any of the terms and conditions contained in the said Bidding Documents.
2. Any such written demand made by the Authority stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.
3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Authority is disputed by the Bidder or not, merely on the first demand from the Authority stating that the amount claimed is due to the Authority by reason of failure of the Bidder to fulfil and comply with the terms and

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

conditions contained in the Bidding Documents including failure of the said Bidder to keep its Bid open during the Bid validity period as set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding **Rs.35.00 lakhs (Rupees Thirty Five Lakhs only)**.

4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred and eighty) days from the Bid Due Date inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between the Authority and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
5. We, the Bank, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, *inter alia*, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Bidding Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.
6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
7. In order to give full effect to this Guarantee, the Authority shall be entitled to treat the Bank as the principal debtor. The Authority shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend time for submission of the Bids or the Bid validity period or the period for conveying acceptance of Letter of Award by the Bidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the Authority, and the Bank shall not be released from its liability under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Bidder or by any change in the constitution of the Authority or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.
8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

9. **We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorised to receive the said notice of claim.**
10. It shall not be necessary for the Authority to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Authority may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealised.
11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Authority in writing.
12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorised and has full power to execute this Guarantee for and on behalf of the Bank.
13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to **Rs.35.00 lakhs (Rupees Thirty Five Lakhs only)**. The Bank shall be liable to pay the said amount or any part thereof only if the Authority serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before ..... (indicate date falling 180 days after the Bid Due Date).

Signed and Delivered by ..... Bank

By the hand of Mr./Ms ....., its ..... and authorised official.

(Signature of the Authorised Signatory)

(Official Seal)

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT- 4: FORMAT FOR PERFORMANCE BANK GUARANTEE  
(PERFORMANCE SECURITY)**

Managing Director  
Greater Visakhapatnam Smart City Corporation Limited  
Tenneti Bhavan, Asilmetta Junction,  
Visakhapatnam, 530002, Andhra Pradesh, India

**WHEREAS:**

- (A) .....(the “Successful Bidder”) and the Managing Director, Greater Visakhapatnam Smart City Corporation Limited Visakhapatnam, Andhra Pradesh having its principal offices at, Tenneti Bhavan, Asilmetta Junction, Visakhapatnam, 530002, Andhra Pradesh, India (hereinafter referred to as the “Authority” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) acting for and on have entered into an Agreement dated .....(the “Agreement”) whereby the Authority has agreed to the Successful Bidder undertaking the **Design, Procurement, Supply, erection, testing, commissioning and maintenance for Twenty-Five years of 5 MW grid connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam District along with grid connecting equipment including associated Electrical & Civil Works under RESCO Model**, subject to and in accordance with the provisions of the Agreement.
- (B) The Agreement requires the Successful Bidder to furnish a Performance Security to the Authority in a sum of Rs. 3,50,00,000 (Rupees Three crores and Fifty lakhs) as security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the Construction Period (as defined in the Agreement).
- (C) We, through our Branch at ..... (The “Bank”) have agreed to furnish this Bank Guarantee by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Successful Bidder’s obligations during the Construction Period, under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Successful Bidder, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an Officer not below the rank of a Superintending Engineer or equivalent, that the Successful Bidder has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank.

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

The Bank further agrees that the Authority shall be the sole judge as to whether the Successful Bidder is in default in due and faithful performance of its obligations during the Construction Period under the Agreement and its decision that the Successful Bidder is in default shall be final, and binding on the Bank, notwithstanding any differences between the Authority and the Successful Bidder, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Successful Bidder for any reason whatsoever.

3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Successful Bidder and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Successful Bidder before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/or performance of all or any of the obligations of the Successful Bidder contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Successful Bidder, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Successful Bidder or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Successful Bidder under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee, before the date of its, all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Performance Security shall remain in force and effect until **the issue of Completion Certificate and submission of** an irrevocable bank guarantee for an amount equal to Rs 1,75,00,000.00 (Rupees One crore and Seventy-five lakhs) for the period of 25 years of operation and maintenance as defined in the Agreement, for

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

the purposes of this Guarantee, and provided the Successful Bidder is not in breach of the Agreement.

9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for a period of two years from the date hereof or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this ..... day of ....., 20..... at .....

SIGNED, SEALED AND DELIVERED

For and on behalf of  
the BANK by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.



**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

- (ii) The address, telephone number and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.

Power of Attorney No. \_\_\_\_\_

Email ID \_\_\_\_\_

For

\_\_\_\_\_ [Insert Name of the Bank] \_\_\_\_

Banker's Stamp and Full  
Address.

Dated this \_\_\_\_ day of \_\_\_\_\_,  
20\_\_

Witness:

1.

.....

....

Signature

Name and Address

2.

.....

.....

Signature

Name and Address

Note:

The Stamp Paper should be in the name of the Executing Bank and of appropriate value.

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT- 5 CHECK LIST FOR BANK GUARANTEES**

Sl.No	Details of checks	YES/NO.
A	Is the BG on non-judicial Stamp paper of appropriate value, as per applicable Stamp Act of the place of execution	
B	Whether date, purpose of purchase of stamp paper and name of the purchaser are indicated on the back of Stamp paper under the Signature of Stamp vendor? (The date of purchase of stamp paper should be not later than the date of execution of BG and the stamp paper should be purchased either in the name of the executing Bank or the party on whose behalf the BG has been issued. Also the Stamp Paper should not be older than 6 (six) months from the date of execution of BG).	
C	Has the executing Officer of BG indicated his name, designation and Power of Attorney No./Signing Power no. on the BG?	
D	Is each page of BG duly signed / initialled by executant and whether stamp of Bank is affixed thereon? Whether the last page is signed with full particulars including two witnesses under seal of Bank as required in the prescribed Format?	
E	Does the Bank Guarantees compare verbatim with the Format prescribed in the Bid Documents?	
F	Are the factual details such as Bid Document No. / Specification? No., / LOA No. (if applicable) / Amount of BG and Validity of BG correctly mentioned in the BG	
G	Whether overwriting/cutting if any on the BG have been properly authenticated under signature & seal of executant?	

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT- 6A: POWER OF ATTORNEY FOR SIGNING OF BID**

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution)

*To be submitted in original*

Know all men by these presents, We, ..... (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorise Mr./Ms. .... (Name), son/daughter/wife of ..... and presently residing at ....., who is presently employed with us/ the Lead Member of our Consortium and holding the position of ....., as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our bid for the **Implementation of 5 MW Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model** Project proposed or being developed by the Greater Visakhapatnam Smart City Corporation Limited (the "Authority") including but not limited to signing and submission of all bids and other documents and writings, participate in bidders' and other conferences and providing information/responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts including the PPA and undertakings consequent to acceptance of our bid, and generally dealing with the Authority in all matters in connection with or relating to or arising out of our bid for the said Project and/or upon award thereof to us and/or till the entering into of the PPA with the Authority.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE,  
....., THE ABOVE NAMED  
PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS  
..... DAY OF ....., 20. ....

For.....

(Signature, name, designation and address)

Witnesses:

- 1.
- 2.

Accepted

Notarised

(Signature, name, designation and address of the Attorney)

## Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model

### **Notes:**

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants (s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- ***the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholder's resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.***
- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed The Hague Legislation Convention 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Apostille certificate.*

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT - 6B: POWER OF ATTORNEY FOR LEAD MEMBER OF CONSORTIUM**

*To be submitted in original*

Whereas the Greater Visakhapatnam Smart City Corporation Limited (the “**Authority**”) has invited bids from interested entities/ consortia for the **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model** (the “**Project**”).

Whereas, ....., ..... and ..... (collectively the “Consortium”) being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium’s bid for the Project and its execution.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS

We, ..... having our registered office at ....., and M/s. .... having our registered office at ....., (hereinafter collectively referred to as the “Principals”) do hereby irrevocably designate, nominate, constitute, appoint and authorize M/s ..... having its registered office at ....., being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the “Attorney”) and hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the Concession/ Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, accept the Letter of Award, participate in bidders’ and other conferences, respond to queries, submit information/documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the Authority, and/ or any other government agency or any person, in all matters in connection with or relating to or arising out of the Consortium’s bid for the Project and/ or upon award thereof till the PPA is entered into with the Authority.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/Consortium.

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS  
POWER OF ATTORNEY ON THIS ..... DAY OF ....., 20....

For .....

(Signature, Name & Title)

For .....

(Signature, Name & Title)

(Executants)

(To be executed by all the Members of the Consortium)

Witnesses:

- 1.
- 2.

**Notes:**

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- ***The Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholder's resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.***
- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed The Hague Legislation Convention 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Apostille certificate.*

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT-7: FINANCIAL ELIGIBILITY CRITERIA REQUIREMENT**

(AS PER CLAUSE 3.3.3) (To be submitted on the letterhead of Bidding Company / Lead Member/)

To  
The Managing Director,  
Greater Visakhapatnam Smart City Corporation Limited,  
Room No: 306, Tenneti Bhavan, Asilmetta,  
VISAKHAPATNAM – 530003

Dear Sir,

Sub: Bid for Implementation of 5 MW Grid Connected Canal Top Solar PV System on Raiwada Canal Visakhapatnam under RESCO Model in response to the RFP No: \_\_\_\_\_ dated: \_\_\_\_\_

We certify that the Financially Evaluated Entity (ies) had an Annual Turnover as follows:

The maximum Annual turnover of Rupees ..... Crore per MW in any one of the last 3 financial years preceding the Bid Deadline subject to the condition that the Bidder should at least have completed one financial year.

OR

Net Worth of Rs.....Crore computed as per instructions provided in Clause 3.3.3.

***Strike Out Whichever Is Not Applicable)***

**Financial eligibility criteria**

Name of Financially Evaluated Entity*	Relationship with Bidding Company**	Financial year	Year of Incorporation of the Bidding company	***Total Maximum Annual Turnover (Rs. Crore)	Net worth as per Clause 3.3.3 (in Rs. Crore)

The Financially Evaluated Entity may be the Bidding Company itself.

\*\* The column for “Relationship with Bidding Company” is to be filled only in case financial capability of Parent Company and/or Affiliate has been used for meeting Qualification Requirements.

\*\*\* Bidder shall furnish maximum annual turnover in any of the last three financial years.

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

Yours faithfully

(Signature and stamp (on each page) of Authorized Signatory of Bidding Company.

Name: .....

Date: .....

Place: .....

(Signature and stamp (on each page) of Chartered Accountant/Statutory Auditors of Bidding Company.

Name: .....

Date: .....

Place: .....

**Notes:**

Audited consolidated annual accounts of the Bidder may also be used for the purpose of financial criteria provided the Bidder has at least 26% equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.



**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT – 8: FORMAT FOR CERTIFICATE OF RELATIONSHIP OF  
PARENT COMPANY OR AFFILIATE WITH THE BIDDING COMPANY**

To

The Managing Director,  
Greater Visakhapatnam Smart City Corporation Limited,  
Room No: 306, Tanneti Bhavan, Asilmetta,  
VISAKHAPATNAM – 530003

Dear Sir,

Sub: Bid for Implementation of 5 MW Grid Connected Canal Top Solar PV System on Raiwada Canal Visakhapatnam under RESCO Model in response to the RFP No: \_\_\_\_\_ dated: \_\_\_\_\_

We hereby certify that M/s.....,M/s.....,M/s.....are the Affiliate(s) /Parent Company of the Bidding Company as per the definition of Affiliate/Parent Company as provided in this RFP and based on details of equity holding as on seven (7) days prior to the Bid Deadline.

The details of equity holding of the Affiliate/Parent Company/Bidding Company or vice versa as on seven (7) days prior to the Bid Deadline are given as below:

<b>Name of Bidding Company</b>	<b>Name of the Affiliate of the Bidding Company/Name of the Parent Company of the Bidding Company</b>	<b>Name of the Company having common control on the Affiliate and the Bidding Company</b>	<b>Percentage of Equity Holding of Parent Company in the Bidding Company</b>

\*Strike out whichever is not applicable.

-----

**(Insert Name and Signature of Statutory Auditor or practising  
Company Secretary of the Bidder)**

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT – 9: UNDERTAKING FROM THE FINANCIALLY EVALUATED  
ENTITY OR ITS PARENT COMPANY OR ULTIMATE PARENT COMPANY**

(On the Letter Head of the Financially Evaluated Entity or its Parent Company/Ultimate Parent  
Company)

To  
The Managing Director,  
Greater Visakhapatnam Smart City Corporation Limited,  
Room No: 306, Tenneshi Bhavan, Asilmetta,  
VISAKHAPATNAM – 530003

Dear Sir,

Sub: Bid for Implementation of 5 MW Grid Connected Canal Top Solar PV System on  
Raiwada Canal Visakhapatnam under RESCO Model in response to the RFP No:  
\_\_\_\_\_ dated: \_\_\_\_\_

“We have carefully read and examined in detail the RFP, including in particular,  
Clause .... of the RFP, regarding submission of an undertaking, as per the prescribed  
Format \_\_\_\_ of the RFP.

We confirm that M/s.....(Insert name of Bidding Company/) has been  
authorized by us to use our Technical and or financial capability for meeting the  
Technical and or Financial Eligibility as specified in Clause....of the RFP referred to  
above.

We have also noted the amount of the Performance Guarantee required to be  
submitted as per Clause....of the RFP the ..... (Insert the name of  
the Bidding Company) in the event of it being selected as the Successful Bidder”.

In view of the above, we hereby undertake to you and confirm that in the event of  
failure of .....(Insert name of the Bidding Company) to submit the Performance  
Guarantee in full or in part at any stage, as specified in the RFP, we shall submit the  
Performance Guarantee not submitted by .....(Insert name of the  
Bidding Company)”.

We have attached hereto certified true copy of the Board Resolution Whereby the  
Board of Directors of our Company has approved issue of this Undertaking by the  
Company.

All the terms used herein but not defined, shall have the meaning as ascribed to the said  
terms under the RFP.

**Signature of Managing Director/Authorised signatory**

**Common seal of ..... has been affixed in my/our presence pursuant  
to Board of Director’s Resolution dated.....**

**WITNESS**

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

.....

.... **(Signature)**

**Name**.....

...

**Designation**.....

.....

**(Signature)**

**Name**.....

...

**Designation**.....

.....

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

**FORMAT – 10: CONSORTIUM AGREEMENT**

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution)

THIS Consortium Agreement (“Agreement”) executed on this \_\_\_\_\_ day of \_\_\_\_\_ 2017 between M/s [insert name \_\_\_\_\_ of \_\_\_\_\_ Lead Member] \_\_\_\_\_ a Company incorporated under the laws of \_\_\_\_\_ and having its Registered Office at \_\_\_\_\_ (hereinafter called the “Lead Member”, which expression shall include its successors, executors and permitted assigns) and M/s \_\_\_\_\_ a Company incorporated under the laws of \_\_\_\_\_ and having its Registered Office at \_\_\_\_\_ (hereinafter called the “Consortium Member”, which expression shall include its successors, executors and permitted assigns), which expression shall include its successors, executors and permitted assigns)

WHEREAS, each Member individually shall be referred to as the “Member” and both the Members shall be collectively referred to as the “Members” in this Agreement.

WHEREAS the Greater Visakhapatnam Smart City Corporation (hereinafter called GVSCCL) has invited response to RFP No. \_\_\_\_\_ dated \_\_\_\_\_ Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal Visakhapatnam under RESCO Model.

WHEREAS the RFP document stipulates that the Lead Member may enter into a Consortium Agreement with another Company/Corporate entity to fulfil the Technical Eligibility Criteria as stipulated in the RFP document. The Members of the Bidding Consortium will have to submit a legally enforceable Consortium Agreement in a format enclosed with the RFP document.

NOW THEREFORE, THIS AGREEMENT WITNESSTH AS UNDER:

In consideration of the above premises and agreements all the Members in this Consortium do hereby mutually agree as follows:

1. We, the Members of the Consortium and Members to the Agreement do hereby unequivocally agree that (M/s \_\_\_\_\_), shall act as the Lead Member as defined in the RFP for self and agent for and on behalf of Technical Member \_\_\_\_\_.
2. The Lead Member is hereby authorized by the Consortium Member to bind the Consortium and receive instructions for and on their behalf.
3. The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all of their respective obligations. Each Member further undertakes to be individually liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this Agreement.
4. Subject to the terms of this Agreement, the Members of the Consortium shall be

## **Implementation of Grid Connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam under RESCO Model**

responsible for “Design, Procurement, Supply, erection, testing, commissioning and maintenance for 25 (Twenty-Five) years of 5 (five) MW grid connected Canal Top Solar PV System on Raiwada Canal in Visakhapatnam along with grid connecting equipment including associated electrical & civil works”.

5. In case of any breach of any commitment by any of the Consortium Members, the Lead Member shall be liable for the consequences thereof.
6. This Agreement shall be construed and interpreted in accordance with the Laws of India and courts at Visakhapatnam alone shall have the exclusive jurisdiction in all matters relating thereto and arising there under.
7. It is hereby further agreed that in case of being shortlisted, the Members do hereby agree that they shall abide by the terms & conditions of the RFP document.
8. It is further expressly agreed that this Agreement shall be irrevocable and shall form an integral part of the RFP submitted to GVSCCL and shall remain valid till completion of the job assigned to the Project Developer.
9. The Lead Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Members respectively from time to time in the response to RFP.
10. It is hereby expressly understood between the Members that no Member at any given point of time, may assign or delegate its rights, duties or obligations under this agreement without the explicit permission of GVSCCL.
11. This Agreement
  - (a) Has been duly executed and delivered on behalf of each Member hereto and constitutes the legal, valid, binding and enforceable obligation of each such Member;
  - (b) Sets forth the entire understanding of the Members hereto with respect to the subject matter hereof; and
  - (c) May not be amended or modified except in writing signed by each of the Members and with prior written consent of GVSCCL.

IN WITNESS WHEREOF, the Members have, through their authorised representatives, executed these present on the Day, Month and Year first mentioned above.

For M/s----- [Lead Member]

-----  
(Signature, Name & Designation of the person authorized vide Board Resolution  
Dated [●])

Witnesses:

1) Signature-----

2) Signature -----

**Implementation of Grid Connected Canal Top Solar PV System  
on Raiwada Canal in Visakhapatnam under RESCO Model**

Name:

Name:

Address:

Address:

For M/s----- [Consortium Member]

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(Signature, Name & Designation of the person authorized vide Board Resolution  
Dated [●])