



لخدمات الطاقة  
Energy Services

**Request for Proposal**  
**For**  
**Preventive Maintenance Services**  
**For**  
**1762 Kwp Solar Rooftop at DEWA Head Office**  
**(RFP # 167)**

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RFP Issue Date : 26th January 2022

Response Due Date : 8th February 2022

Response Due Time : 2:00 PM (UAE Time)

Submission Mode : Online Submission

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## 1. Introduction

Al Etihad Energy Services Co. LLC is seeking proposals for 24 months operation and maintenance services for already operational solar car park system of total capacity 1,762 Kwp at DEWA Head Office

### System Information

The following table illustrate the system Introduction:

Location	Plant Capacity (Kwp)	Installation type
DEWA Head Office	1,762	Car park

### A- Site Visit

Site visit is scheduled for 9:30 AM, 31<sup>st</sup> Jan.

## 2. Proposal submission required documents

No	Required documents	Submission Status
1	State your compliance to terms and conditions of RFP and scope of work on company letter head and confirm that your proposal will remain valid for 90 days from submission deadline  Note : No assumptions and exclusions are acceptable in proposal.	
2	Submit the Valid Trade License	
3	Total years of Organization experience in Solar O&M	

4	Total capacity of solar system O&M experience in MWp.	
5	Provide O&M department Organization Chart and CVs of staff	
6	Provide the O&M process and approach	

### 3. Guaranteed Savings Bond

The selected ESCO shall submit a guaranteed savings bond to be issued once commissioning has completed. The Employer shall issue the construction completion certificate upon receipt of the guaranteed savings bond. The value of this bond will be equal to 30% of the annual guaranteed savings amount. The guaranteed savings bond will be renewed for the same amount for each year during the savings realization period. Construction completion certificate shall be issued only upon submission of Guaranteed saving bond or upon validity of submitted bond submitted for designated duration.

### 4. Insurances

The Contractor shall be responsible to provide the following insurances for the project (in the joint names of the Contractor, Employer and the Customer) Within 14 days from the receipt of PO:

- i. Erection All Risk Insurance (For a value of AED 1.25 times of Solar Plant asset value)
- ii. Public Liability Insurance For a value of AED 1.25 times of Solar Plant asset value)
- iii. Workmanship Insurance (As per UAE laws)
- iv. Plant and Equipment Insurance (for full replacement value)

The Contractor shall be required to fully comply with terms and conditions of insurances which shall be stipulated in the contract.

### 5. PROPOSAL EVALUATION

The Technical & Commercial evaluation shall be based on the numerical merit score. Total 100 points allocated to the below indicated areas

#### Technical Evaluation

The technical evaluation shall be based on numerical merit score. A total of 50 points have been allocated to following areas as detailed below:

Area	Points
Total years Organization experience in Solar O & M	10
Total capacity of solar system O & M experience in MWp.	10
Compliance to terms and conditions and scope of work of this RFP on company letter head and submission of trade license	10
Submission of O & M process and approach	10
Submission of proposal bond as per RFP requirement.	10
<b>Total Technical Score</b>	<b>50</b>

### Financial Evaluation

The Financial evaluation shall be based on numerical merit score. A total of 50 points have been allocated for financial evaluation.

Total 50 points shall be given to the proposal which has lowest price. For calculating points of other bids following formula shall be used:

Financial Proposal Points of Proposal 'X' shall be equal to lowest evaluated price multiply by 50 and divided by total price of Proposal 'X'.

Achieved Score of Proposal 'X' =  $\text{Lowest Evaluated Price} \times 50 / \text{Total Price of Proposal 'X'}$

### Global Evaluation

For the purpose of establishing the lowest evaluated Bid the technical points and commercial points scored shall be integrated as follows :

	Points Scored			
	Bidder	X	Y	Z
50% Technical Score				
50% Financial Score				
100% Total				

## 6. Contract pricing:

Fill the following tables for Commercial proposal :

Sr#	Descriptions	Amount (AED)
1	24 Months operation and maintenance services (1 dry & 1 wet cleaning per month )	
	Total (Excluding VAT)	

Sr#	Descriptions	Amount (AED/Hour)
1	Corrective maintenance labor unit cost	
	Total (Excluding VAT)	

Payment Will be done quarterly after acceptance of quarterly O&M report; however, contractor has to submit the monthly O&M report additionally and if contractor fail to perform scheduled preventive Maintenance , Employer has right to stop payments and terminate the contract.

- The price should be inclusive of mentioned scope of work , preventative maintenance and monthly reporting.
- Any clarifications related to this tender, should be addressed only to – [Etihad.tenders@etihadesco.com](mailto:Etihad.tenders@etihadesco.com).
- Bidders are requested to send all the queries regarding the RFP documents to [Etihad.tenders@etihadesco.com](mailto:Etihad.tenders@etihadesco.com). Any such enquiry must be received no later than seven (7) days before the proposal submission date.
- The bidder shall submit an electronic copy of their proposal to [esubmission@EtihadEsco.com](mailto:esubmission@EtihadEsco.com), proposal shall be addressed to:

Ref: Request for Quotation (RFQ 167) – Preventive Maintenance of Solar PV System at DEWA Head Office Solar Project

## **ANNEXURE A**

### **Scope of work**

The Scope of the works including ( 1 dry and 1 wet cleaning per month) for 1762 KWp Car Park solar system and following scope of work and preventive maintenance as per below table

- a) preventative maintenance work as per below table schedule.
- b) Process the warranty claim of solar panels and inverters if required.
- c) Providing monthly preventive maintenance report.
- d) Corrective maintenance for damaged parts after getting cost approval from EtiHAD and client based on corrective maintenance Labor unit cost (AED/Hour).
- e) Perform (1 dry & 1 wet cleaning per months) for 2 years of contract duration.
- f) Perform preventive maintenance schedule as provided in this proposal.
- g) Identifying the fault and inform to EtiHAD and preparing estimates for rectification and submission to EtiHAD/DEWA for technical & commercial approval.
- h) Rectification of the fault after acceptance of technical & commercial estimates from EtiHAD/DEWA.
- i) Additional Scope of works, repair, replacement of equipment's will be on actual cost basis with 10% handling cost.
- j) Providing monthly report of operation & maintenance activity including monthly generation of solar plant.
- k) Health and Safety of the O &M personnel shall be the responsibility of contractor as well as preparation and submission to DEWA all required documents not less than 5 working days for gate pass approval .

**Preventive Maintenance Schedule**

<b>Items</b>	<b>Activity / Check</b>	<b>Frequency</b>	<b>Methods</b>
Solar Panels	Module cleaning	Minimum (1 dry & 1 wet cleaning per months) and to adjusted depending on the weather condition. Note: Water for cleaning will be provided by DEWA.	Clean solar panels using soft, moist broom or water spray.
Solar panels	thermal inspection	Start of the O &M period and every end of the O &M year.	full thermal inspection
Wiring & Earthing System	Wiring inspection	Once every 3 months	Check wiring and insulation resistance Check Earth Connections and its continuity for cuts, and lose connections.
Cable & Connectors	Visual Examination and corrective actions	Once Every month	Check Termination point of module connectors and DC cables. Reinstate hanged DC PV module cable with proper termination.
Mounting structure	Mounting structure Inspection	Once every 3 months	Mounting structure inspection shall include: Torque marks on all assemblies, rust or corrosion, sagging/deformation/ damage, Racking connection to equipment grounding system, module attachment, Corrosion or deterioration of pilings/footings.

Inverters	Inverter Inspection	Two times per year	Inverter/Combiner Box inspection & preventive maintenance according to the manufacturer's operation and maintenance requirements.
Electrical Panel	Electrical panel inspections/Combiner boxes	Once every 3 months	Visual Inspection , Check Terminals, lights visibility and clean all occupied dust operation of control devices like relays and controllers,
weather stations	Weather Stations system	Once every 3 months	Visual Inspection of weather stations and sensors
Home run Connectors	thermal inspection	Start of the O &M period and every end of the O &M year.	full thermal inspection
Terminals	thermal inspection	Semi annual basis.	full thermal inspection

### **Documentation**

Creating the data management system to record, track and follow-up the annual/Monthly preventative maintenance and to maintain the records of any trouble shooting.

- 1) Monthly checklists of solar panels cleaning and preventive maintenance Schedule as per above table.
- 2) Provide the solar plant monthly generation from inverter screen or from the available online portal (if operational)
- 3) Records of any trouble shooting corrective actions. and warranty claims.
- 4) Submission of detail corrective report after rectification of issue.

### **Project timeline**

Project timeline is 24 Months starting from PO effective date



**Note:** Water for cleaning will be provided by customer.  
Any replacement of equipment's and repair, will be on actual cost basis

**Yearly Guaranteed Energy**

Contractor has to meet the following guaranteed energy on completion of one year.

<b>Year</b>	<b>Guaranteed energy</b>
Year 1	2,365,100 KWh
Year 2	2,349,325 KWh

Pv syst Simulation attached with this RFP.

**PERFORMANCE DAMAGES FOR GURANTEED ENERGY**

If ME drops below the guaranteed energy at the end of an O&M Period, the Contractor shall be liable for Damages according to the following:

$$\text{Damages} = (\text{GE} - \text{ME}) * \text{Electricity Tariff}$$

Where:

"ME"	Sum of the energy produced from solar plant (kWh) measured at all inverters Electricity Tariff: 0.43 AED/kWh
"GE"	Guaranteed energy