

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan



Tender No: 10 / 2018

Subject: *Tender for Supervision and Consultation for Tender No. 87/2017: “Tender for Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan”*

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

1. Scope of Work

PROJECT OVERVIEW

The UoJ has adopted Renewable Energy and Energy Efficiency (RE & EE) as one of its strategic objectives for the coming decade. The university has set forth an ambitious goal to achieve 100% energy independence, relying mainly on renewable solar energy using photovoltaic (PV) panels.

Hence, the overall objective of this tender is the Supervision Works for the design, engineering, supply, delivery, installation, testing, and commissioning of a grid-connected PV solar systems. All available and identified rooftops of buildings and the car parks at the UoJ will be used for the generation of the overall annual electricity requirements. It is estimated that around 80 rooftops and 25 car park areas will be used for this purpose. The tender 58/2017 documents for the contractors' scope is part of this bid documents..

The proposed design must have a nameplate of 16 MW AC generated using PV panel arrays without using any storage system. Two types of systems will be used mainly: rooftops with 12 MW AC capacity and car parks with 4 MW AC capacity. The metering scheme at the University metering points is "regular" tariff meters (JD 0.256/kWh). The total university consumption (sum of all its distributed meters) is about 29 GWh annually.

This project is divided into three separate zones:

1. Zone 1: Rooftops Zone 1 with 6 MW AC capacity (Net Metering)
2. Zone 2: Rooftops Zone 2 with 6 MW AC capacity (Net Metering)
3. Zone 3: Car parks Zone with 4 MW AC capacity (Net Metering)

This document is an invitation for suitably qualified A/E Firms Jordanian bidders for the comprehensive Supervision of the design, engineering, supply, delivery, installation, testing, commissioning, of a grid-connected PV solar systems (PV Stations).

The FIDIC Conditions of Contract for Design, Build and Operate (DBO) Projects is used with the Contractors.

All interested bidders will submit a complete and final bid for all of the three zones of the PV stations.

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

The successful bidder will supervise the construction in accordance with their accepted technical and financial offer, and hand over successfully to UoJ in (52) weeks from the date of awarding the contract.

The UoJ has two campuses as shown in the figure below



Figure 1A: Location of the University of Jordan in Northern Amman, Capital of Jordan



Figure 1B: Location of the UoJ's Sports City Campus, Amman, Capital of Jordan (Blue Boxes identifies suggested rooftop area to be utilized)

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

1.1 Abbreviations

AC	: Alternating Current
A/E	: Architectural and Engineering
DBO	: Design Build Operation
EE	: Energy Efficiency
FIDIC	: International Federation of Consulting Engineers (commonly known as FIDIC, acronym for its French name Fédération Internationale Des Ingénieurs-Conseils)
GAM	: Greater Amman Municipality
JEA	: Jordan Engineers Association
MW	: Mega Watt
PV	: Photovoltaic
RE	: Renewable Energy
UoJ	: University of Jordan

- 1.2 The overall objective of this tender is to appoint a A/E consultancy company to supervise the works of the Contractor/s who is/are awarded UoJ Tender No. 87/2017: “Tender for Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan. “The system should provide energy independence for the UoJ
- 1.3 The photovoltaic stations must have a minimum nameplate capacity of 16 MW AC generated using grid-connected PV panel arrays without using any storage systems.
- 1.4 The bidder will be provided with copies of Tender No. 87/2017 and its amendments in order to be fully informed about the Scope of Work in the tender.
- 1.5 The bidder must not be a partner with any of the companies that bid for Tender No 87/2017
- 1.6 The winning bidder is expected to fulfill their duties as consultant for UoJ in regards to the Scope of Work of Tender No. 87/2017 in accordance with the General and Special Conditions of this tender document. The duties that are expected from the winning bidder are, and not limited to, the following:
- Act as a consult to UoJ in regards to the Scope of Work of Tender 87/2017.

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

- b. Oversight of all aspects of the turnkey contractor's works and implements a Project Performance Monitoring System (PPMS) to evaluate the effectiveness of the project.
- c. Be responsible for preparing necessary project consultancy plans.
- d. Be responsible for progress reports, and generate bi-weekly and monthly reports of the activities of the Contractor.
- e. Be responsible for payment certificates.
- f. Be responsible to follow up on required permits.
- g. Be responsible for provisional and final take over certificates.
- h. Be responsible for claims evaluation reports.
- i. Be responsible for project final report and any other project management documents as required in accordance with good practice.
- j. Report to UoJ on deviations of work.
- k. Be responsible for endorsement or rejection of installed works and testing.
- l. Assist in the fulfillment of the Environmental Management Plan (EMP).
- m. Be responsible for developing and implementing institutional capacity development plans. Capacity development activities shall cover technical, financial and economic, policy and regulatory, project development and financing, social safeguards, environmental management, climate change mitigation, project management, and operation and maintenance, among other topics.

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

2. General Conditions

The bidding process will adhere to the following set of rules:

2.1 Rules and regulations stated by FIDIC DBO 2008

2.2 Arabic version of Unified Bidding Contract as published by the Jordan Ministry of Public Works and Housing (2010)

(دفتر عقد المقاوله الموحد الصادر عن وزارة الأشغال العامة والاسكان لعام 2010)

2.3 Consultancy Firm Contracts Appendices

(ملحق ع 2 - عقد خدمات هندسية للإشراف على تنفيذ مشروع)

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

3. Special Conditions

- 3.1 The financial and technical offers must be clearly marked and must be separate in three packages. Two copies of the offers (Original and Copy + CD) must be presented in a single envelope.



3.2 Bid Bond:

- a. The tender guarantee (Bid Bond) is set at **JD 50,000 (Fifty Thousand Jordanian Dinars)** and must be an original and valid guarantee. The guarantee must be issued by a local Arab Bank or a Financial Institution licensed by a recognized Financial Regulator in the Jordan, and who assumes responsibility for claims and payments to the amount as stated above. It must remain valid up to **One Twenty (120) days** after the tender offer closing date. The tender guarantee must be drawn up in the name of the University of Jordan as per Form in the attachment.
- b. The tender guarantee (bid bond) is intended as a pledge that the bidder will not retract his offer up to the expiry date of the guarantee and, if successful, that he will enter into a contract with the University of Jordan on the terms and conditions stated in the tender document.
- c. The guarantee shall be forfeited if the bidder withdraws their tender before the above-mentioned validity date or if the bidder fails to provide the Performance Guarantee.
- d. Tender guarantees provided by bidders who have not been selected shall be released within thirty (30) calendar days from the signing of the contract with the winning bidder. The tender guarantee of the successful bidder

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

- shall be released on the signing of the contract, and on submission of a valid performance guarantee.
- e. Offers will be automatically disqualified if they are not accompanied with the mandatory Tender Guarantee (Bid Bond) by the Closing Date and Time of the tender.
- 3.3 Copies of the tender documents are provided in person by the Office of Central Tendering at the University of Jordan on **Sunday, January 21, 2018**, after a receipt of purchase has been presented.
- 3.4 Last day to purchase a copy of the tender documents is **Thursday, February 1, 2018**.
- 3.5 Questions and Clarifications about the tender are allowed on fax number (+962 6 5355530) or via e-mail tender@ju.edu.jo on **Thursday, Feb 08, 2018**.
- 3.6 Deadline for Submission of Offers: Technical and Financial Offers are to be presented to the of Central Tenders Department at the University of Jordan by hand (both hardcopies and softcopies) no later than of **Thursday, Feb 22, 2018**.
- 3.7 Tenders offers and bid bonds must remain valid for a period of one hundred and twenty (120) days after the Deadline for Submission of Offers indicated in the contract notice.
- 3.8 Local companies in the field of consultation for PV design and installation can form a joint venture/consortium with other local Jordanian or international companies working in the field of PV in order to participate in this tender.
- 3.9 The firm or the consortium of firms must have a consultancy experience of a minimum of ten (10) completed project of the same nature with a total of not less than **6 MW in size** within the last five (5) years. Use the form provided in Appendix I, II, III for documenting firm consultancy experience. Bidder must provide Letters of Reference from Client/Contracting Authority for the projects listed in the form.
- 3.10 In the case of a joint venture/consortium, the local company in Jordan must be named Lead Partner of the joint venture/consortium.

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

3.11 Minimum Eligibility Conditions:

- a. The local bidder should be a Category One Firm in Electromechanical Systems in Jordan, Registered with the Jordan Ministry of Public Works and Housing (MoPWH) and registered as a consultancy firm with Jordan Engineers Association (JEA), with specialty in Electromechanical Systems, with a valid license for both registrations.
- b. The bidding company must not have submitted an offer for the University of Jordan Tender No. 87/2017: "Tender for Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan"
- c. The Consultant Company must have a minimum of 5 years of proven experience that includes a proven track record of supervising large scale solar projects. A renewable energy background and/or certification from an internationally reputable renewable energy association are considered as a plus.
- d. For the joint venture/consortium, the above-mentioned conditions are to be shown for the overall ability of the joint venture/consortium, not for each individual company.

3.12 The firm/consortium must show evidence of financial and economic standing for the last three years. Information includes:

1. Bank statement for the last fiscal year,
2. Internal budget report showing liquidated and un-liquidated assets, and earnings, and net profit after taxation.
3. On-going projects and percentages of completion.

3.13 The Consultancy firm must provide the following ON SITE staff:

On-Site Staff	No.	Experience
Project Director	1	Civil, architectural, electrical or mechanical engineer At least 20 years' experience Supervision of 10MW installations
Site Manager	1	Electrical or mechanical engineer At least 10 years' experience Supervision of 6MW installations
Electrical Engineer	1	15 years experience

Tender #10/2018

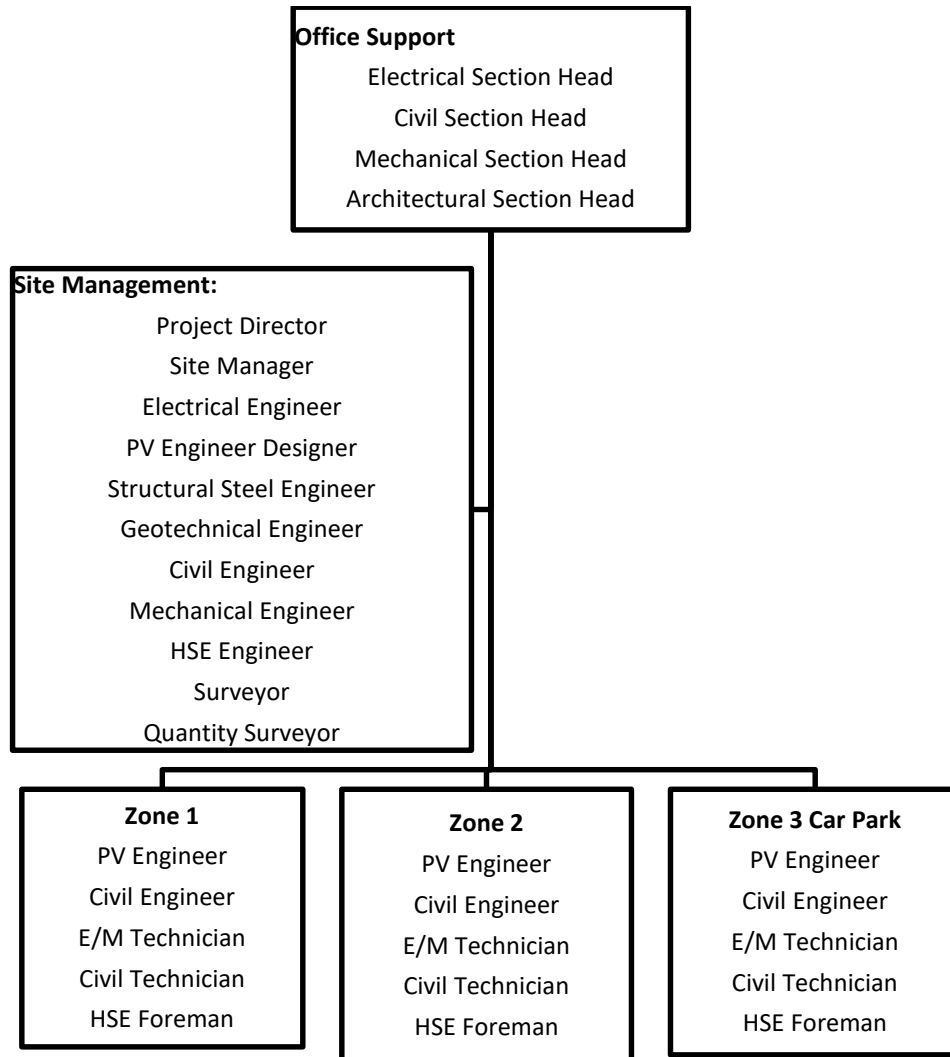
Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

PV Engineer Designer	1	5 years experience
Structural Steel Engineer	1	15 years experience
Geotechnical Engineer	1	Part time, as needed
Civil Engineer	1	15 years experience
Surveyor	1	5 years' experience
Quantity Surveyor	1	5 years' experience
Document Control	1	5 years' experience
HSE Engineer	1	5 years' experience
HSE Foreman	3	5 years' experience
Electrical Engineer	3	5 years' experience
Civil Engineer	3	5 years' experience
Electromechanical Technicians	3	5 years' experience
Civil Technician	3	5 years' experience

Please review the latest requirements by the JEA and confirm that the above requirements satisfy these requirements. The bidder is responsible for providing all staff requirements as required by JEA throughout the project duration.

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan



3.15 Suggested staff in 3.14 must show level of experience, knowledge and/or understanding of renewable systems and photovoltaic stations. This can be shown through (and not limited to) expertise in the field, CEM®, REP™, NABCEP certification, training and/or renewable energy workshops, etc. In addition, all key personnel in the Supervising Engineer Staff shall be certified PV Practitioners by JEA.

3.16 The Consultancy firm must provide the following Office Specialty Support Staff:

1. Electrical Section Head (High Voltage) (Optional)
2. Electrical Section Head (Low Current) (Optional)
3. Electrical Section Head (Low Voltage)
4. Civil Section Head
5. Mechanical Section Head

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

6. Architectural Section Head

3.17 Transportation to and from the project site for the whole duration of the project is the responsibility of the winning bidder.

3.18 The financial offer must be provided to match the scope of work for the project as outlined in the Tender 87/2017 documents, and its Amendments.

3.19 JEA Requirements

- a. JEA Fees will be paid by the UoJ
- b. All Design Requirements for the PV systems shall be prepared by the DBO Contractor for each zone
- c. Supervision office will prepare the necessary drawings as per JEA requirements, and follow up with JEA and all other Authorities until the drawings are approved to proceed with the PV system
- d. Safety of Facility Report and the load bearing strength of the surfaces shall be prepared by the Supervising Engineer
- e. Site Survey Report shall be prepared by the Supervising Engineer
- f. All staff shall be certified PV Practitioners by JEA

3.20 Planned Schedule of Works.

Description	Milestone
Acceptance of the Supervision Bid	Issue Letter of Award
Contractor JEPCO submittal	Start the Office Support
Contractor JEPCO approval	Mobilization of Site Staff
JEPCO Commissioning	14 day Notice to end Contract
JEPCO Net Meter Installation	End of Contract

3.21 The payment method for the project will be in monthly installments, and will be tied to the progress of the project. In case of early submission of the works of Tender No. 87/2017, the Consultant will be paid accordingly.

3.22 **Monthly Reporting** It shall be submitted at the end of each month. The Report will contain as a minimum

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

1. Organization Chart Update
2. Stakeholder List Update
3. Communication List Update
4. Shop Drawings Schedule Update
5. Material Submittals Schedule Update
6. Procurement Schedule Update
7. Program of Works (in Primavera or MS Project) with Updated progress percentage, the program of works must include the following division
 - Authorities Submittals
 - Material Submittals
 - Shop Drawings Submittals
 - Procurement
 - Construction
 - Commissioning and Testing
8. Handing Over Package
9. Quality Control (Testing) Results
10. Health and Safety Report
11. Financial Summary
12. Pending Issues List
13. Change orders list

3.23 Right of the University of Jordan to Accept or Reject Any Tender

- a. The Central Tendering Department reserves the right to accept or reject any tender and/or to cancel the whole tender procedure and reject all tenders, without further prejudice. The Central Tendering Department reserves the right to initiate a new invitation to tender.
- b. In the event of a tender procedure's cancellation, bidders will be notified by the Central Contracting Committee. If the tender procedure is cancelled before the outer envelope of any tender has been opened, the sealed envelopes will be returned, unopened, to the bidders.
- c. Cancellation may occur where:
 1. the tender procedure has been unsuccessful, namely where no qualitatively or financially worthwhile tender has been received or there has been no response at all;
 2. the economic or technical parameters of the project have been fundamentally altered;

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

3. exceptional circumstances or force majeure render normal performance of the project impossible;
4. all technically compliant tenders far exceed the feasibility study available;
5. there have been irregularities in the procedure, in particular where these have prevented fair competition.

In no circumstances will the Central Tendering Department at the University of Jordan, or the Government of Jordan, be liable for damages, whatever their nature (in particular damages for loss of profits) or relationship to the cancellation of a tender, even if the Central Tendering Department has been advised of the possibility of damages. The publication of a contract notice does not commit the Central Tendering Department to implement the program or project announced.

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

4. Technical and Financial Evaluation Criteria

4.1 The bidders will undergo a technical evaluation based on the following benchmark criteria:

Technical Evaluation Criteria			Score
Bidder Qualification & Expertise			40%
Firm Institutional Status			10 %
1. Bidder's firm duration since establishment (in years)			
2. Bidder's firm duration since classification as Electromechanical Field Category One firm (for the local company).			
3. Number of full-time employees			
4. Quality Management System			
Firm Financial Status			10 %
1. Bidder's bank statement for the last fiscal three years			
2. Bidder's current fiscal responsibilities and on-going projects			
3. Aggregate annual weighted average (for the last 3 years)			
Firm Expertise			20 %
1. Number of Projects in excess of JD 7.5 million that the firm supervised over the last five (5) years			
2. Projects with solar specialty, similar to UoJ project. Please provide two tables in the format shown in the appendix (Completed & Ongoing)			
a. Number of PV roof top projects			
b. Number of PV Car Park projects			
c. Size of projects			
d. Location of project			
Technical Team			35%
Position	No.	Years of Experience	
Please Note:			
• Equally divided among staff			
• Project Director (PMP Certified)			
• Project Manager (PMP Certified)			
• All Engineers (Certified PV Practitioners by JEA)			
Methodology			10 %
1. Stated methodology for consultancy for this project			4 %
2. Demonstrated methodology of consultancy of previous projects of same nature			4 %
3. Time table and report generation			2 %
References and Support Letters			5 %
Training			5 %
1- Training Plans for UoJ faculty, personnel, and students			3 %
2- Certification of instructors			2 %
General Impression			5 %
Total Points			100 %

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

*The bidder must achieve a passing score for each of the evaluation criteria line items in order to be qualified for the next stage of evaluation.

4.2 The firms that achieve a score of 75% or more in the Technical Evaluation will have its financial offer opened and will enter the Financial Evaluation process.

4.3 All firms that do not achieve a score of 75% in the Technical Evaluation will have their Financial Offer returned without opening.

4.4 The Technical Evaluation score is calculated as follows:

$$\text{Financial Score for Firm X} = \frac{\text{Technical Evaluation Score for Firm X}}{\text{Highest Technical Evaluation Score}} \times 100\%$$

4.5 The Financial Evaluation score is calculated as follows:

$$\text{Financial Score for Firm X} = \frac{\text{Least Financial Price Offered}}{\text{Financial Price of Firm X}} \times 100\%$$

4.6 The Final Score for each firm will be calculated as follows:

$$\text{Final Score for Firm} = (0.25 \times \text{Technical Score}) + (0.75 \times \text{Financial Score})$$

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

Appendix I

Fill following form for list of **completed*** consultancy projects in Solar PV. In filling the form, the bidder gives full consent for UoJ to contact the Client/Contracting Authority listed.

Description of Project	Size of Project (MW)	Date of Delivery	Client/Contracting Authority
			Name of Contact Person: Mobile:

**Please provide supporting document issued by JEA*

Appendix II

Fill following form for list of **ongoing*** consultancy projects in Solar PV. In filling the form, the bidder gives full consent for UoJ to contact the Client/Contracting Authority listed.

Description of Project	Size of Project (MW)	Date of Delivery	Client/Contracting Authority
			Name of Contact Person: Mobile:

**Please provide supporting document issued by JEA*

Tender #10/2018

Tender for Supervision of Design, Engineering, Supply, Delivery, Installation, Testing, Commissioning, Cleaning and Maintenance of Grid-Connected 16MW AC Photovoltaic Systems at the University of Jordan

Appendix III

Fill following form for list of **Certified PV Practitioners*** by JEA. In filling the form, the bidder gives full consent for UoJ to contact the JEA to confirm correctness of the information.

Name of Certified PV Practitioner	Position/ Title	Project Name	Size of Project (MW)	Date of Delivery

**Please provide supporting document issued by JEA*