



## INDIVIDUAL CONSULTANT PROCUREMENT NOTICE

Date: 17 February 2021

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**Country: Egypt**

**Description of the assignment:** International Individual Consultant to prepare guidelines and complete design of BIPV (Building Integrated Photovoltaic)/ BAPV (Building Applied Photovoltaic) in existing buildings in the new Administrative Capital City as a pilot project.

**Project name:** Grid-Connected Small-Scale Photovoltaic Systems “Egypt-PV”

**Period of assignment/services (if applicable): 4 months**

Proposal should be submitted by email to [Procurementnotice.egypt@undp.org](mailto:Procurementnotice.egypt@undp.org) no later than **7 March 2021**.

Any request for clarification must be sent in writing, or by standard electronic communication to the address or e-mail indicated above. The procurement unit will respond in writing or by standard electronic mail and will send written copies of the response, including an explanation of the query without identifying the source of inquiry, to all consultants.

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### 1. BACKGROUND

The objective of Egypt-PV is to remove the barriers to increased power generation by small, decentralized, grid-connected PV systems. The project strategy builds on the planned Government initiatives to develop a market for small, decentralized renewable energy power generation by ensuring adequate returns on targeted private sector investments.

The project will catalyze the development of decentralized, grid-connected small-scale renewable energy (RE) power generation market in Egypt and the solar PV in particular. The target is to facilitate the installation of new decentralized PV resulting in direct GHG reduction benefits of 66 kilo-tons of CO<sub>2</sub>eq during the lifetime of the project. Complementary indirect mitigation benefits are expected from the sustained market growth of the PV market after the project with estimated GHG reduction of about 0.6-0.7 million tons of CO<sub>2</sub>eq.

The project is funded by the Global Environment Facility (GEF) and United Nations Development Programme (UNDP) acts as the GEF Implementing Agency. The project is executed by Industrial

Modernization Centre (IMC) of the Ministry of Industry and Foreign Trade, which will assume the overall responsibility for the achievement of project results as UNDP's Implementing Partner (IP).

#### Energy Efficiency and Renewable Energy plan in the New Capital

New capital city is located 35 KM east of Cairo of a total area of 170,000 feddan which lies between the regional ring road, the Cairo-Suez road and Cairo-El Ain El Sokhna road. The new capital city will help to strengthen and diversify the country's economic potential by creating new places to live, work and visit. In order to draw people to this new capital city, a series of key catalyst developments will be established at its core. This will include a new government administrative district, a cultural district, and a wide variety of urban neighborhoods.

The new Administrative Capital for Urban Development is planning to implement an energy efficiency and renewable energy plan. One of the actions of this plan is to implement BIPV/BAPV systems for the buildings in the city.

## **2. SCOPE OF WORK, RESPONSIBILITIES AND DESCRIPTION OF THE PROPOSED ANALYTICAL WORK**

### **Scope of work**

1. Conduct a site visit for the new administrative capital in Egypt particularly potential new buildings for integrating BIPV systems.
2. Present best practices and lessons learnt from BIPV/BAPV system applications that could be appropriate for the New Capital City.
3. Propose all the latest appropriate solar BIPV/BAPV technologies and applications that could be used in the existing and under construction buildings including, but not limited to, PV skylight, PV curtain wall, PV canopies, PV façade and PV floor taking into consideration the climate nature in Egypt in terms of dust, sandy storms, isolated installations, difficulty in maintenance, relatively high temperatures and possible tough operation conditions, etc.
4. Prepare a cost estimate for all the proposed applications and systems based on similar systems in other countries.
5. Prepare full technical guideline and design criteria for the proposed applications including the complete 'design for implementation' of the BIPV/BAPV system and based on the data that will be presented for the targeted existing building.
6. Prepare financial guideline demonstrating all aspects to be considered in the financial and profitability analysis of BIPV/BAPV applications.
7. Develop and deliver tender documents and bidders evaluation criteria for turnkey design of a selected pilot which will be in coordination with the Administrative Capital for Urban Development.

**Deliverables:**

- A Technical guideline and design criteria for the proposed BIPV/BAPV applications in new existing buildings in the new administrative capital considering international best practices and lessons learnt from BIPV/BAPV system applications that could be appropriate for the new Administrative capital city.
- Prepare a financial study on both proposed and the available BIPV/BAPV technologies including cost estimates and demonstrating the calculation of financial parameters such as payback period, IRR and LCOE for each of the proposed BIPV/BAPV applications.
- A conceptual design for a selected pilot with at least two different applications and technologies that will be suitable for the selected buildings of the new capital city.
- Detailed system design: detailed drawings for the components of the photovoltaic systems (that can be potentially added to the tender documents) including Technical specifications for the selected applications and bidder's evaluation criteria for turnkey design of the selected pilot which will be in coordination with the Administrative Capital for Urban Development.
- Tender documents and evaluation criteria for turnkey design of the selected pilots.

**Estimated No. of Working Days:**

The estimated number of working days are up to 30 days including 25 days office work, in addition to one visit to Cairo for 5 working days.

Outputs	Percentage	Timing	Condition for Payment Release
<ul style="list-style-type: none"><li>- A Technical guideline and design criteria for the proposed BIPV/BAPV applications in new existing buildings in the new administrative capital considering international best practices and lessons learnt from BIPV/BAPV system applications that could be appropriate for the new Administrative capital city.</li><li>- Prepare a financial study</li></ul>	25% (Twenty five Percent) of contract value shall be payable to the Contractor	<b>4 weeks</b>	Upon the approval of ACUD and Egypt-PV

on both proposed and the available BIPV/BAPV technologies including cost estimates and demonstrating the calculation of financial parameters such as payback period, IRR and LCOE for each of the proposed BIPV/BAPV applications.			
- A conceptual design for a selected pilot with at least two different applications and technologies that will be suitable for the selected buildings of the new capital city.	25% (Twenty five Percent) of contract value shall be payable to the Contractor	<b>4 weeks</b>	
- Detailed system design: detailed drawings for the components of the photovoltaic systems (that can be potentially added to the tender documents) including Technical specifications for the selected applications and bidder's evaluation criteria for turnkey design of the selected pilot which will be in coordination with the Administrative Capital for Urban Development.	25% (Twenty Percent) of contract value shall be payable to the Contractor	<b>4 weeks</b>	
Tender documents and evaluation criteria for turnkey design of the selected pilots	25% (Twenty Percent) of contract value shall be payable to the Contractor	<b>4 weeks</b>	

### 3. REQUIREMENTS FOR EXPERIENCE AND QUALIFICATIONS

#### I. Academic Qualifications:

Advanced degree in Engineering or related field to renewable energy or any other related science-based background.

#### II. Years of experience:

At least 10 years of relevant experiences in the field of PV systems (small, medium, and large capacities)

#### **Experience**

- Involvement in the design and implementation of at least one project in BIPV grid-connected application.

Good communication and analytical skills.

Previous work experience in developing countries is a must.

Proven experience in design and implementation of similar types of projects.

Previous working experience with GEF or UNDP projects is a credit.

Fluent English and/or Arabic languages writing and speaking

#### III. Competencies:

##### **Job Knowledge & Expertise:**

Excellent organizational skills and ability to handle effectively multiple tasks without compromising quality, team spirit and positive working

Relationships with all colleagues.

Dependability, reliability, and initiative.

Previous working experience with GEF or UNDP projects is a credit.

Fluent English and/or Arabic languages writing and speaking

Is motivated & demonstrates a capacity to pursue personal development & learning.

##### **Results-Orientation:**

Plans and produces quality results to meet established goals.

##### **People Skills:**

Sets clear performance goals and standards; executes responsibilities accordingly.

Partnering & Networking:

Seeks and applies knowledge, information, and best practices from within and outside UN.

##### **Innovation & Judgment:**

Contributes creative, practical ideas and approaches to deal with challenging situations.

Pursues own personal and professional development.

##### **Language Requirements:**

Proficiency in English or Arabic Languages are essential.

#### 4. DOCUMENTS TO BE INCLUDED WHEN SUBMITTING THE PROPOSALS.

Interested individual consultants must submit the following documents/information to demonstrate their qualifications: subject of email: **"Egypt-PV\_ BIPV/BAPV applications New Capital Consultancy"**

1. Proposal:

- (I) Explaining why they are the most suitable for the work
- (ii) Provide a brief methodology on how they will approach and conduct the work (if applicable)

2. Financial proposal

3. Personal CV including past experience in similar projects and at least 3 references and **Personal History Form (P11 form)**.

[http://www.undp.org/content/dam/undp/library/corporate/Careers/P11\\_Personal\\_history\\_form.doc](http://www.undp.org/content/dam/undp/library/corporate/Careers/P11_Personal_history_form.doc)

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#### 5. FINANCIAL PROPOSAL

- **Contracts based on daily fee**

The financial proposal will specify the daily fee, travel expenses and per diems quoted in separate line items, and payments are made to the Individual Consultant based on the number of days worked.

**Travel.**

All envisaged travel costs must be included in the financial proposal. This includes all travel to join duty station/repatriation travel. In general, UNDP should not accept travel costs exceeding those of an economy class ticket. Should the IC wish to travel on a higher class he/she should do so using their own resources.

In the case of unforeseeable travel, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon, between the respective business unit and Individual Consultant, prior to travel and will be reimbursed

## 6. EVALUATION

Individual consultants will be evaluated based on the following methodologies:

### 1. Lowest price and technically compliant offer

*When using this method, the award of a contract should be made to the individual consultant whose offer has been evaluated and determined as both:*

*a) responsive/compliant/acceptable, and*

*b) offering the lowest price/cost*

*“responsive/compliant/acceptable” can be defined as fully meeting the TOR provided.*

### 2. Cumulative analysis

*When using this weighted scoring method, the award of the contract should be made to the individual consultant whose offer has been evaluated and determined as:*

*a) responsive/compliant/acceptable, and*

*b) Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.*

*\* Technical Criteria weight; [70%]*

*\* Financial Criteria weight; [30%]*

*Only candidates obtaining a minimum of 49 point would be considered for the Financial Evaluation*

<b>Criteria</b>	<b>Weight</b>
<u>Technical</u>	<b>70%</b>
• Expertise	20
• Methodology, Its Appropriateness to the Condition	10
• Timeliness of the Implementation Plan	10
• Relevant experience in BIPV/BAPV applications	30
<u>Financial</u>	<b>30%</b>

## ANNEX

### ANNEX 1- TERMS OF REFERENCES (TOR)



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### Terms of Reference

<b>Project Title:</b>	Connected Small-Scale Photovoltaic Systems “Egypt-PV”
<b>Contractual Modality:</b>	International Individual Contract
<b>Duty Station:</b>	New Capital, Cairo
<b>Duration:</b>	4 months
<b>Supervision:</b>	Project Manager & New Capital Authority
<b>Services Required:</b>	Preparing guidelines and complete design of BIPV (Building Integrated Photovoltaic)/ BAPV (Building Applied Photovoltaic) in existing buildings in the new Administrative Capital City as a pilot project.

### Background:

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The new Administrative Capital for Urban Development is planning to implement an energy efficiency and renewable energy plan. One of the actions of this plan is to implement BIPV system for the buildings in the city.

### **Objective of this consultancy:**

The objective of this consultancy is to deliver a package of consultancy services that aim to the promotion of grid-connected PV systems through BIPV applications and to carry on all necessary tasks towards a successful implementation of project phases (Design and Tender) for a pilot project of a grid-connected BIPV system at the New Capital City in Egypt through the following scope of work:

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## Deliverables:

- A guideline and design criteria for the proposed BIPV applications in a new existing building.
- Cost estimate for each of the proposed BIPV/BAPV applications
- A conceptual design for a selected pilot with different applications and technologies.
- Detailed system design: Detailed drawing for the components of the photovoltaic station.
- Revised tender documents and evaluation criteria for turnkey design of the selected pilots.

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