

**AGGREGATED LIST OF RECEIVED QUESTIONS AND ANSWERS**  
**BIH/ITB-020-21 - Supply, delivery and installation of photo-voltaic solar system powerplant**  
**„Vitina – Ljubuski“ (186,12 kWp)**

**QUESTION 1**

With reference to the BIH-ITB-020-21 tender for Photo-voltaic solar system powerplant “Vitina – Ljubuski”, we are interested in hearing if companies outside of Bosnia and Hercegovina can provide a bid as well as if the bid can be in EUR or USD the same for the payment?

**ANSWER 1**

Procurement process BIH-ITB-020-21 - Supply, delivery and installation of photo-voltaic solar system powerplant „Vitina – Ljubuski“ is open for all bidders which meet all the criteria set by the tender document. As stipulated in the ITB, indicated currency of Bid is BAM.

**QUESTION 2**

Regarding the process, BIH-ITB-020-21 - Supply, delivery and installation of photo-voltaic solar system powerplant „Vitina – Ljubuski“ is the BAM fixed currency or does it fluctuate as per the current currency market?

**ANSWER 2**

In accordance with the tender document, the currency of your bid should be “BAM”, and the validity period of the bid should be “90 days”.

The price of your bid can not be changed during the validity period of the bid, regardless of fluctuations of exchange rates during that period.

**QUESTION 3**

The tender documentation in Section 4 states that the bidder should submit the following certificates:

- IEC 60664-1: 2020 Insulation coordination for equipment within low-voltage supply systems - Part 1: Principles, requirements and tests (category II),

- EN50160 Voltage characteristics of electricity supplied by public distribution systems

Can you explain to us what is meant by the above?

Further, in the same section 4 it is also stated that the bidder should have 5 full-time electrical installers.

In the next line, it is stated that the bidder should have 10 full-time electrical installers.

Can you explain to us what is the exact number of electrical installers that the bidder should have full-time employees, 5, 10 or 15 ???

**ANSWER 3**

- IEC 60664-1: 2020 deals with the coordination of insulation for equipment of rated voltage up to 1 000 V or DC 1 500 V which is connected to low voltage power supply systems. The bidder should submit proof (certificate) that the inverter meets the requirements of the specified standard.

- This standard provides the main characteristics of the voltage at the supply points of network users in public low-voltage and medium-voltage electricity distribution systems under normal operating conditions. This standard provides limits or values within which voltage characteristics in a public distribution network can be expected. Since the power plants will be connected to the public distribution network, the bidders are required to submit proof (certificate) that the offered inverters meet the requirements of the EN 50160 standard, ie. that the output voltage from the inverter will meet the requirements of the EN50160 standard.

- This is a document error. The mistake has been corrected, the Bidder needs to have at least 10 employees in permanent employment, of which 5 should be electrical installation workers. You can download the corrected ITB document from the link below: [https://procurement-notice.undp.org/view\\_notice.cfm?notice\\_id=78486](https://procurement-notice.undp.org/view_notice.cfm?notice_id=78486)

**QUESTION 4**

Could you kindly provide a name of the recipient of the Bid Security?

**ANSWER 4**

As specified in the tender document, the recipient of the Bid security is:

UNDP

Zmaja od Bosne bb

71000 Sarajevo

Ref: ITB-020-21 Bank Guarantee

## QUESTION 5

Should official documents such as Court Register Excerpt, Balance Sheet, Professional Examination Certificate, ISO Certificate, etc., be in English? That is. translated into English by a court interpreter?

## ANSWER 5

Please be advised that you are not required to submitted translation of the documents listed in your e-mail.

## QUESTION 6

Please find below our questions for this project:

Site:

- Please inform how many sites are included in this project? From the drawings and pictures, it looks like there are two sites.
- Could some information about the site/site be shared?
- Could coordinates to the site/sites please be shared?
- Please provide more accurate address for location with Longitude and Latitude

Mounting system:

- What are the expectations for the mounting system design? From the pictures it looks like various mounting system types must be used.
- Could you please share some ground type information?
- Is it needed to do some leveling of the ground or other types of groundwork before installation of mounting system?

PV panels:

- Are we allowed to use PV panels with more output than 330W?

Inverter:

- Can we use bigger or smaller inverters than the ones listed?
- Are we allowed to use a different number of inverters?
- If there are two sites, please inform how much inverter capacity is needed on each site.

Main switch board:

- Are the site/sites equipped with a functioning main switchboard where the new PV system can be connected to?
- Are any wiring or installation needed in the building/buildings needed in order to connect the new PV system?

Monitoring

- Is it required to have online/remote monitoring of the PV system performance?
- Is there internet connectivity on the site/sites?

Other:

- Would a bid be accepted if there are only eight (8) full-time employees?

## ANSWER 6

Site: Two sites are envisaged for installation of photovoltaic modules. First site is the location of the reservoir, geographical coordinates: 43.239106 N; 17.486790 E. and 165.33 kW of photovoltaic modules are planned to be installed at this location. The second site is the location of the administrative building, geographical coordinates: 43.237399 N; 17.485993 E and 20.79 kW of photovoltaic modules are planned to be installed at this location. Both sites are combined into one photovoltaic power plant, whose total power is 186.12 kW (DC). Additional technical description is given along with the tender documentation which can be downloaded from the link provided in the ITB document.

Mounting system: Expected mounting system design is as it is specified in the BoQ and additional technical documentation.

At the location of the first site (the reservoir), the ground is rocky and solid, with a slight slope to the south. It is necessary to prepare the ground, level the terrain for the installation of the load-bearing structure for PV modules. All necessary construction works are specified in the tender documentation (BoQ).

At the location of the second site (administrative building), the installation of the PV module is performed on a standard metal construction with load-bearing metal pillars.

Additional technical description is given along with the tender documentation which can be downloaded from the link provided in the ITB document.

PV Panels: Yes, PV modules with output higher than 330W are allowed.

Inverters: Inverters of lower and / or higher power than specified may be used, provided that the basic design concept is preserved. A number of inverters other than those specified may be used, provided that the basic design concept is preserved. The location of the first site (reservoir) is one unit, it has 165.33 kW (peak) photovoltaic panels, and the location of the second site (administrative building) is another unit and has 20.79 kW (peak) photovoltaic panels. If inverters of different power than those specified are selected, then the inverter powers should be selected in such a way as to technically satisfy the demands of the above mentioned units. Additional technical description is given along with the tender documentation which can be downloaded from the link provided in the ITB document.

Main switchboard: The photovoltaic power plant is planned to be installed alongside the public electricity distribution network. All electrical cabinets, cables, protective devices and other equipment must be provided and installed, up to the point of connection to the electricity distribution network. The specification of equipment and works is given in the tender documentation. Additional technical description is given along with the tender documentation which can be downloaded from the link provided in the ITB document.

Monitoring: Yes, online monitoring of PV system performance is mandatory. The power plant User will provide internet access.

Other: In accordance with the ITB document, the requirements are as follows:

“One (1) Full-time employed graduated electrical engineer with minimum of five (5) years of experience in similar assignments and professional licensure.

One (1) graduated civil engineer with minimum of five (5) years of experience in similar assignments and professional licensure.

Ten (10) full-time employed workers, out of which five (5) must be electrical installation workers.”

## QUESTION 7

1. INVITATION TO BID, on page 23, states the following:

Installation Location:

- a) Vitina on cp no. 2636/2, 2647/2, c.o. Vitina Donja,
- b) On pumping station (FVE Vitina 1) on cp no. 335, k.o. "Vitina Donja"

According to the disposition from the Main Project, on cp no. 2636/2 and 2647/2, the installation of 3 inverters 50kVA + N3.1, + N3.2, + N3.3 and a total of 480 pieces of PV panels (drawing number 104/1) is planned, and according to the disposition from the Main Project on k. no. 335, the installation of an inverter + N3.4 20kVA and 63 pieces of PV panels (drawing number 114/1).

The question is as follows: According to BoQ, 564 panels (total power 186.12 kWp) were required, where are the remaining 21 panels installed?

2. In the document BoQ, Architectural and construction works PHOTOVOLTAIC POWER PLANT "VITINA-LJUBUŠKI", Item V STEEL STRUCTURE specifies the steel structure for the location Pumping station, Location Pool - construction "A", Location Pool - construction "B".

The question is as follows: Is the steel substructure of the structures of the basic girders and basic feet for the assembly of panels FNM 1.1.4 to FNM 2.8.22 included in the above specifications of a total 331 panels on the flat part of the plot cp no. 2636/2, 2647/2 (drawing Load-bearing substructure of PV module, number 110/1 of the Main Design)?

3. Approximate distance from the location of the FNE reservoir Vitina and the location of FNE Vitina 1 (cp 335)

4. Is it possible to obtain prior energy permit for the FNE?

## ANSWER 7

1. 501 PV modules is planned to be installed at the first site (the reservoir), and 63 PV modules is planned to be installed at the second site (administrative building). That's a total number of 564 PV modules. Additional technical description is given along with the tender documentation which can be downloaded from the link provided in the ITB document.

2. Annex 1\_BoQ\_Vitina\_ENG is amended. The description within the description of BoQ\_Vitina\_ENG\_Civil\_Architectural works Section V (Steel works), Item 14: "Location Pool, structure" A "has been changed as follows: „Location Pool, structure" B ”.

Additional technical description is given along with the tender documentation which can be downloaded from the link provided in the ITB document.

3. No, it's not possible. The photovoltaic power plant is planned to be installed alongside the public electricity distribution network.

## QUESTION 8

With regards to the tender for a Solar Power Plant in Vitina-Ljubuski, I would kindly like to ask for a possibility of a site visit to gather additional information on the scope of this project. Our local partner would be able to visit the site on Thursday 17th at 12:00. To go over the site and the requirements of UNDP we would suggest UNDP provides an employee for additional clarification on site.

Please find questions for additional clarification of this tender.

Electrical part

1. Additional information on the type of solar construction and drawings for the larger site?
2. Additional information on the type of solar construction and drawings for the smaller site?
3. What is the distance between the larger solar site and the main distribution cabinet?
4. Method of cable is preferred in the ground or by air over poles from the larger solar power plant, cable laying drawings if any?
5. Place of connection (interface) with the electricity distribution network?
6. Should the system be allowed to feedback to the grid?

Construction part

1. Describe the necessary construction works with a bill of quantities and drawings to build the larger solar site
2. Describe the necessary construction works with a bill of quantities and drawings to build the smaller solar site
3. Describe the type of canopy and the manner of construction of the roof structure with a bill of quantities and drawings to build the smaller solar site.

## ANSWER 8

In accordance with the tender document, the deadline of submission of any question/inquiries related to the tender documentation, may be submitted 7 day prior to the deadline for submission of Bids, which is June 21, 2021.

However, please find below our answers to submitted questions:

As per ITB document, Pre-Bid conference will not be conducted.

Electrical part:

1. The description of the structure as well as the technical drawings are given as the technical part of the tender documentation.
2. The description of the structure as well as the technical drawings are given as the technical part of the tender documentation.
3. The distance is approx. 280 meters.
4. The photovoltaic power plant with a power of 165.33 kWp is connected to the network via an already constructed line for the connection of the Vitina reservoir, type X000-A 2x (4x70 mm<sup>2</sup>).
5. The power plant will be parallelly connected with the distribution network, the produced electricity will be used for its own needs.
6. Excess energy cannot be delivered to the public electricity distribution network in accordance with the applicable Grid Code.

Construction part:

1. Civil works for both locations are defined in the first sheet of BoQ. The description of the structure as well as the drawings are given in the technical part of the tender documentation.
2. Civil works for both locations are defined in the first sheet of BoQ. The description of the structure as well as the drawings are given in the technical part of the tender documentation.
3. The description of the structure as well as the drawings are given in the technical part of the tender documentation.