



REQUEST FOR QUOTATION (RFQ)

RFQ Reference: #22102021 Solar Panels Bada (Gabu)	Date: 18 November 2021
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SECTION 1: REQUEST FOR QUOTATION (RFQ)

UNDP kindly requests your quotation for the provision of goods, works and/or services as detailed in Annex 1 of this RFQ.

This Request for Quotation comprises the following documents:

Section 1: This request letter

Section 2: RFQ Instructions and Data

Annex 1: Schedule of Requirements

Annex 2: Quotation Submission Form

Annex 3: Technical and Financial Offer

Annex 4: Terms of reference

When preparing your quotation, please be guided by the RFQ Instructions and Data. Please note that quotations must be submitted using Annex 2: Quotation Submission Form and Annex 3 Technical and Financial Offer, by the method and by the date and time indicated in Section 2. It is your responsibility to ensure that your quotation is submitted on or before the deadline. Quotations received after the submission deadline, for whatever reason, will not be considered for evaluation.

Thank you and we look forward to receiving your quotations.

Issued by:

Signature: 

Name: Negar Arefi

Title: Deputy Resident Representative - Operations

Date: 18 of November 2021

SECTION 2: RFQ INSTRUCTIONS AND DATA

Introduction	<p>Bidders shall adhere to all the requirements of this RFQ, including any amendments made in writing by UNDP. This RFQ is conducted in accordance with the UNDP Programme and Operations Policies and Procedures (POPP) on Contracts and Procurement</p> <p>Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this RFQ.</p> <p>UNDP reserves the right to cancel the procurement process at any stage without any liability of any kind for UNDP, upon notice to the bidders or publication of cancellation notice on UNDP website.</p>
Deadline for the Submission of Quotation	<p>10 of December 2021 23.59 GMT</p> <p>If any doubt exists as to the time zone in which the quotation should be submitted, refer to http://www.timeanddate.com/worldclock/.</p> <p>For eTendering submission - as indicated in eTendering system. Note that system time zone is in EST/EDT (New York) time zone.</p>
Method of Submission	<p>Quotations must be submitted as follows:</p> <p><input type="checkbox"/> E-tendering</p> <p><input checked="" type="checkbox"/> Dedicated Email Address</p> <p><input type="checkbox"/> Courier / Hand delivery</p> <p><input type="checkbox"/> Other Click or tap here to enter text.</p> <p>Bid submission address: Soumissions.gw@undp.org</p> <ul style="list-style-type: none"> ▪ File Format: PDF ▪ File names must be maximum 60 characters long and must not contain any letter or special character other than from Latin alphabet/keyboard. ▪ All files must be free of viruses and not corrupted. ▪ Max. File Size per transmission: 5mb ▪ Mandatory subject of email: RFQ 22102021 ▪ Multiple emails must be clearly identified by indicating in the subject line “email no. X of Y”, and the final “email no. Y of Y”. ▪ It is recommended that the entire Quotation be consolidated into as few attachments as possible. ▪ The bidder should receive an email acknowledging email receipt.
Cost of preparation of quotation	<p>UNDP shall not be responsible for any costs associated with a Supplier’s preparation and submission of a quotation, regardless of the outcome or the manner of conducting the selection process.</p>
Supplier Code of Conduct, Fraud, Corruption,	<p>All prospective suppliers must read the United Nations Supplier Code of Conduct and acknowledge that it provides the minimum standards expected of suppliers to the UN. The Code of Conduct, which includes principles on labour, human rights, environment and ethical conduct may be found at: https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct</p> <p>Moreover, UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of UNDP vendors and requires all bidders/vendors to observe the highest standard of ethics during the procurement process and contract implementation. UNDP’s Anti-Fraud Policy can be found at http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_an_dinvestigation.html#anti</p>
Gifts and Hospitality	<p>Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or</p>

	<p>invitations to extravagant lunches, dinners or similar. In pursuance of this policy, UNDP: (a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question; (b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a UNDP contract.</p>
Conflict of Interest	<p>UNDP requires every prospective Supplier to avoid and prevent conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, specifications, cost estimates, and other information used in this RFQ. Bidders shall strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. Bidders found to have a conflict of interest shall be disqualified.</p> <p>Bidders must disclose in their Bid their knowledge of the following: a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving goods and/or services under this RFQ.</p> <p>The eligibility of Bidders that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered, operated and managed as an independent business entity, the extent of Government ownership/share, receipt of subsidies, mandate and access to information in relation to this RFQ, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.</p>
General Conditions of Contract	<p>Any Purchase Order or contract that will be issued as a result of this RFQ shall be subject to the General Conditions of Contract</p> <p>Select the applicable GTC:</p> <p><input type="checkbox"/> X General Terms and Conditions / Special Conditions for Contract.</p> <p><input type="checkbox"/> General Terms and Conditions for de minimis contracts (services only, less than \$50,000)</p> <p><input type="checkbox"/> General Terms and Conditions for Works</p> <p>Applicable Terms and Conditions and other provisions are available at UNDP/How-we-buy</p>
Special Conditions of Contract	<p><input type="checkbox"/> X Cancellation of PO/Contract if the delivery/completion is delayed by [30 days]</p> <p><input type="checkbox"/> Others [pls. specify]</p>
Eligibility	<p>A vendor who will be engaged by UNDP may not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP whether they are subject to any sanction or temporary suspension imposed by these organizations. Failure to do so may result in termination of any contract or PO subsequently issued to the vendor by UNDP.</p> <p>It is the Bidder's responsibility to ensure that its employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP.</p> <p>Bidders must have the legal capacity to enter a binding contract with UNDP and to deliver in the country, or through an authorized representative.</p>
Currency of Quotation	<p>Quotations shall be quoted in XOF</p>
Joint Venture, Consortium or Association	<p>If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by a duly notarized Agreement among the legal entities, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture, Consortium or Association.</p> <p>Refer to Clauses 19 – 24 under Solicitation policy for details on the applicable provisions on Joint Ventures, Consortium or Association.</p>

Only one Bid	<p>The Bidder (including the Lead Entity on behalf of the individual members of any Joint Venture, Consortium or Association) shall submit only one Bid, either in its own name or, if a joint venture, Consortium or Association, as the lead entity of such Joint Venture, Consortium or Association.</p> <p>Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <ul style="list-style-type: none"> a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or b) they have the same legal representative for purposes of this RFQ; or c) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of, another Bidder regarding this RFQ process; d) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or e) some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this RFQ process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.
Duties and taxes	<p>Article II, Section 7, of the Convention on the Privileges and Immunities provides, inter alia, that the United Nations, including UNDP as a subsidiary organ of the General Assembly of the United Nations, is exempt from all direct taxes, except charges for public utility services, and is exempt from customs restrictions, duties, and charges of a similar nature in respect of articles imported or exported for its official use. All quotations shall be submitted net of any direct taxes and any other taxes and duties, unless otherwise specified below:</p> <p>All prices must:</p> <ul style="list-style-type: none"> <input type="checkbox"/> be inclusive of VAT and other applicable indirect taxes <input checked="" type="checkbox"/> be exclusive of VAT and other applicable indirect taxes
Language of quotation	<p>English or Portuguese</p> <p>Including documentation including catalogues, instructions and operating manuals.</p>
Documents to be submitted	<p>Bidders shall include the following documents in their quotation:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Annex 2: Quotation Submission Form duly completed and signed <input checked="" type="checkbox"/> Annex 3: Technical and Financial Offer duly completed and signed and in accordance with the Schedule of Requirements in Annex 1 <input checked="" type="checkbox"/> Company Profile. <input checked="" type="checkbox"/> Registration certificate; <input type="checkbox"/> List and value of projects performed for the last XXXX years plus client's contact details who may be contacted for further information on those contracts; <input type="checkbox"/> List and value of ongoing Projects with UNDP and other national/multi-national organization with contact details of clients and current completion ratio of each ongoing project; <input checked="" type="checkbox"/> Statement of satisfactory Performance (Certificates) from the top 3 clients in terms of Contract value in similar field; <input type="checkbox"/> Completed and signed CVs for the proposed key Personnel; <input type="checkbox"/> Other Click or tap here to enter text.
Quotation validity period	<p>Quotations shall remain valid for 60 days from the deadline for the Submission of Quotation.</p>
Price variation	<p>No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted at any time during the validity of the quotation after the quotation has been received.</p>
Partial Quotes	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Not permitted <input type="checkbox"/> Permitted Insert conditions for partial quotes and ensure that the requirements are properly listed in lots to allow partial quotes
Alternative Quotes	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Not permitted <input type="checkbox"/> Permitted <p>If permitted, an alternative quote may be submitted only if a conforming quote to the RFQ requirements is submitted. Where the conditions for its acceptance are met, or justifications are</p>

	clearly established, Click or tap here to enter text. reserves the right to award a contract based on an alternative quote. If multiple/alternative quotes are being submitted, they must be clearly marked as “Main Quote” and “Alternative Quote”
Payment Terms	<input checked="" type="checkbox"/> 100% within 30 days after receipt of goods, works and/or services and submission of payment documentation. <input type="checkbox"/> Other Click or tap here to enter text.
Conditions for Release of Payment	<input checked="" type="checkbox"/> Passing Inspection, validated by a Electrician, Complete Installation <input type="checkbox"/> Passing all Testing [specify standard, if possible] <input type="checkbox"/> Completion of Training on Operation and Maintenance [specify no. of trainees, and location of training, if possible] <input checked="" type="checkbox"/> Written Acceptance of Goods, Services and Works, based on full compliance with RFQ requirements <input type="checkbox"/> Others [pls. specify]
Contact Person for correspondence, notifications and clarifications	E-mail address: procurementgnb.gw@undp.org Attention: Quotations shall not be submitted to this address but to the address for quotation submission above. Otherwise, offer shall be disqualified. Any delay in UNDP’s response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.
Clarifications	Requests for clarification from bidders will not be accepted any later than 7 days before the submission deadline. Responses to request for clarification will be communicated via Email by 24 October 2021
Evaluation method	<input checked="" type="checkbox"/> The Contract or Purchase Order will be awarded to the lowest price substantially compliant offer <input type="checkbox"/> Other Click or tap here to enter text.
Evaluation criteria	<input checked="" type="checkbox"/> Full compliance with all requirements as specified in Annex 1 <input checked="" type="checkbox"/> Full acceptance of the General Conditions of Contract <input checked="" type="checkbox"/> Comprehensiveness of after-sales services <input checked="" type="checkbox"/> Earliest Delivery /shortest lead time <input type="checkbox"/> Others Click or tap here to enter text.
Right not to accept any quotation	UNDP is not bound to accept any quotation, nor award a contract or Purchase Order
Right to vary requirement at time of award	At the time of award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.
Type of Contract to be awarded	<input checked="" type="checkbox"/> Purchase Order <input type="checkbox"/> Contract Face Sheet (Goods and-or Services) (this template is also utilised for Long-Term Agreement) and if an LTA will be signed, specify the document that will trigger the call-off. E.g., PO, etc.) <input type="checkbox"/> Contract for Works <input type="checkbox"/> Other Type/s of Contract [pls. specify]
Expected date for contract award.	03 January 2022
Publication of Contract Award	UNDP will publish the contract awards valued at USD 100,000 and more on the websites of the CO and the corporate UNDP Web site.
Policies and procedures	This RFQ is conducted in accordance with UNDP Programme and Operations Policies and Procedures

UNGM registration	Any Contract resulting from this RFQ exercise will be subject to the supplier being registered at the appropriate level on the United Nations Global Marketplace (UNGM) website at www.ungm.org . The Bidder may still submit a quotation even if not registered with the UNGM, however, if the Bidder is selected for Contract award, the Bidder must register on the UNGM prior to contract signature.
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ANNEX 1: SCHEDULE OF REQUIREMENTS

Technical Specifications for Goods:

Item Type	Minimum technical requirements	Brand	Quantity
Battery	12 V 220 aH	Victron (equal or better brand)	12
Solar Panel	PW245F 9250 W)	Photowatt (equal or better brand)	36
Battery charge controller	50Amp 48Volt MPPT	Victron (equal or better brand)	3
DC Protection fusive case	GAK 6-1-1	Solar23 (equal or better brand)	6
Ground installation	Copper rod		1
Frame solar panels	Structural steel		3
Frame batteries	Structural steel		3
Inverter	48 Volt 3000VA	Victron (equal or better brand)	3
Construction of technical room			1
Various unforeseen cables and materials			1
Maintenance service			1

Delivery Requirements

Delivery Requirements	
Delivery date and time	Bidder shall deliver the goods 30 days after Contract signature.
Delivery Terms (INCOTERMS 2020)	DAP Gabu (Bada)
Customs clearance (must be linked to INCOTERM)	<input type="checkbox"/> Not applicable Shall be done by: <input type="checkbox"/> Name of organisation (where applicable) <input checked="" type="checkbox"/> Supplier/bidder <input type="checkbox"/> Freight Forwarder
Exact Address(es) of Delivery Location(s)	Tribunal Regional, Tribunal de Setor, Conservatório, Centro Biométrico, Centro Acesso ao Justiça (CAJ) e Registo Civil em Bada (Regiao de Gabu)
Distribution of shipping documents (if using freight forwarder)	N/A
Packing Requirements	N/A
Training on Operations and Maintenance	Company to submit proposal for maintenance
Warranty Period	2 years

After-sales service and local service support requirements	N/A
Preferred Mode of Transport	N/A

ANNEX 2: QUOTATION SUBMISSION FORM

Bidders are requested to complete this form, including the Company Profile and Bidder's Declaration, sign it and return it as part of their quotation along with Annex 3: Technical and Financial Offer. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Name of Bidder:	Click or tap here to enter text.	
RFQ reference:	Click or tap here to enter text.	Date: Click or tap to enter a date.

Company Profile

Item Description	Detail
Legal name of bidder or Lead entity for JVs	Click or tap here to enter text.
Legal Address, City, Country	Click or tap here to enter text.
Website	Click or tap here to enter text.
Year of Registration	Click or tap here to enter text.
Legal structure	Choose an item.
Are you a UNGM registered vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, insert UNGM Vendor Number
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? (If yes, provide a Copy of the valid Certificate):	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your organization demonstrate significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues (If yes, provide a Copy)	<input type="checkbox"/> Yes <input type="checkbox"/> No

Is your company a member of the UN Global Compact	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Bank Information	Bank Name: Click or tap here to enter text. Bank Address: Click or tap here to enter text. IBAN: Click or tap here to enter text. SWIFT/BIC: Click or tap here to enter text. Account Currency: Click or tap here to enter text. Bank Account Number: Click or tap here to enter text.			
Previous relevant experience: 3 contracts				
Name of previous contracts	Client & Reference Contact Details including e-mail	Contract Value	Period of activity	Types of activities undertaken

Bidder's Declaration

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Requirements and Terms and Conditions: I/We have read and fully understand the RFQ, including the RFQ Information and Data, Schedule of Requirements, the General Conditions of Contract, and any Special Conditions of Contract. I/we confirm that the Bidder agrees to be bound by them.
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm that the Bidder has the necessary capacity, capability, and necessary licenses to fully meet or exceed the Requirements and will be available to deliver throughout the relevant Contract period.
<input type="checkbox"/>	<input type="checkbox"/>	Ethics: In submitting this Quote I/we warrant that the bidder: has not entered into any improper, illegal, collusive or anti-competitive arrangements with any Competitor; has not directly or indirectly approached any representative of the Buyer (other than the Point of Contact) to lobby or solicit information in relation to the RFQ ;has not attempted to influence, or provide any form of personal inducement, reward or benefit to any representative of the Buyer.
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm to undertake not to engage in proscribed practices, , or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we have read the United Nations Supplier Code of Conduct : https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct and acknowledge that it provides the minimum standards expected of suppliers to the UN.
<input type="checkbox"/>	<input type="checkbox"/>	Conflict of interest: I/We warrant that the bidder has no actual, potential, or perceived Conflict of Interest in submitting this Quote or entering a Contract to deliver the Requirements. Where a Conflict of Interest arises during the RFQ process the bidder will report it immediately to the Procuring Organisation's Point of Contact.
<input type="checkbox"/>	<input type="checkbox"/>	Prohibitions, Sanctions: I/We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium members or subcontractors or suppliers for any part of the contract is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists and have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization.
<input type="checkbox"/>	<input type="checkbox"/>	Bankruptcy: I/We have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future.

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Offer Validity Period: I/We confirm that this Quote, including the price, remains open for acceptance for the Offer Validity.
<input type="checkbox"/>	<input type="checkbox"/>	I/We understand and recognize that you are not bound to accept any Quotation you receive, and we certify that the goods offered in our Quotation are new and unused.
<input type="checkbox"/>	<input type="checkbox"/>	By signing this declaration, the signatory below represents, warrants and agrees that he/she has been authorised by the Organization/s to make this declaration on its/their behalf.

Signature: _____

Name: Click or tap here to enter text.

Title: Click or tap here to enter text.

Date: Click or tap to enter a date.

ANNEX 3: TECHNICAL AND FINANCIAL OFFER - GOODS

Bidders are requested to complete this form, sign it and return it as part of their bid along with Annex 2: Quotation Submission Form. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Name of Bidder:	Click or tap here to enter text.	
RFQ reference:	Click or tap here to enter text.	Date: Click or tap to enter a date.

Currency of the Quotation: Click or tap here to enter text.					
INCOTERMS: Click or tap here to enter text.					
Item No	Description	UOM	Qty	Unit price	Total price
1.	Click or tap here to enter text.				
2.	Click or tap here to enter text.				
3.	Click or tap here to enter text.				
4.	Click or tap here to enter text.				
5.	Click or tap here to enter text.				
Total Price					
Transportation Price					
Insurance Price					
Installation Price					
Training Price					
Other Charges (specify)					
Total Final and All-inclusive Price					

Compliance with Requirements

	You Responses		
	Yes, we will comply	No, we cannot comply	If you cannot comply, pls. indicate counter - offer
Minimum Technical Specifications	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Delivery Term (INCOTERMS)	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Delivery Lead Time	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Warranty and After-Sales Requirements	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Validity of Quotation	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Payment terms	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Other requirements [pls. specify]	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.

Other Information:

Estimated weight/volume/dimension of the Consignment:	Click or tap here to enter text.
Country/ies of Origin: <i>(if export licence required this must be submitted if awarded the contract)</i>	Click or tap here to enter text.

I, the undersigned, certify that I am duly authorized to sign this quotation and bind the company below in event that the quotation is accepted.	
<i>Exact name and address of company</i> Company Name: Click or tap here to enter text. Address: Click or tap here to enter text. Click or tap here to enter text. Phone No.: Click or tap here to enter text. Email Address: Click or tap here to enter text.	Authorized Signature: Date: Click or tap here to enter text. Name: Click or tap here to enter text. Functional Title of Authorised Signatory: Click or tap here to enter text. Email Address: Click or tap here to enter text.

ANNEX 4: TERMS OF REFERENCE

Tribunal Regional, Tribunal de Setor, Conservatório, Centro Biométrico, Centro Acesso ao Justiça (CAJ) e Registro Civil em Bada/Gabu

Os trabalhos, objeto da presente empreitada, consistem na realização de todas as operações e fornecimentos de materiais necessários à:

“Construção de Sistema Fotovoltaico de Fornecimento da Energia Elétrica”

Resultados esperados:

Quando esta nova instalação estiver concluída, presume-se que, para o uso normal, todo o complexo utilizará energia solar para o fornecimento de eletricidade.

Espera-se que os usuários mostrem disciplina no uso dessa energia, portanto, o gerador só precisará ser utilizado em casos excepcionais.

Descrição dos Trabalhos:

GERADOR SOLAR:

O gerador solar é dividido em **três** sistemas iguais e separados.

Cada sistema consiste em:

- 12 módulos solares de 250Wp
- 2 adequados quadros elétricos com fusíveis de proteção do regulador de carga contra descargas atmosféricas (DC)
- 4 baterias de 12V e 220 Ah do tipo gel sem manutenção
- 1 controladores de carga MPPT 48Volt 50 Amp
- 1 inversor DC 48 volts/ AC 230 volts 3000VA sinewave

Os módulos solares são montados obliquamente ao sul em uma estrutura em cantoneira de aço, que por sua vez é fixada ao pátio cimentado do complexo.

Todos os três estruturas de aço são aterradas pelo um cabo de cobre nu 25 mm, uma vareta de terra 2mt x 5/8 com braçadeiras, para serem enterradas em um buraco com 0,80x0,40x2,00 com carvão vegetal e sal.

As baterias, os carregadores e os inversores são colocados em uma sala técnica especialmente construída, aproximadamente 3 x 4 mtr. com altura suficiente para aberturas de ventilação, possui porta de entrada com fechadura e cobertura em zinco e esta rebocado e pintado, o chão é cimentado.

Esta sala técnica está sendo construída na parte de trás do complexo.

Um pedaço de quintal com cerca de 5 x 5 metros necessita de ser pavimentado.

Na parte traseira, a sala técnica tem um teto de zinco suficientemente saliente, sob o qual o gerador deve ser movido é reinstalado. O tubo de escape do gerador deve ser estendido acima deste teto

Os carregadores e inversores estão pendurados na parede e as baterias são installadas numa estrutura metálica (cantoneira) especialmente fabricada para o efeito de modo ocupar um minimu do espaço (tipo prateleira)

As estruturas de aço dos módulos e das baterias receberão uma camada de pintura antiferrugem e duas demãos de tinta de esmalte.

Na parte de trás do complexo há uma "caixa quadrada de alvenaria com tampa de aço".

Aqui todos os cabos do complexo se juntam e estão interconectados, aqui algumas mudanças na instalação serão feitas. Esta caixa existente é o ponto de partida dos cabos de alimentação para as três caixas de distribuição instaladas no complexo.

A instalação elétrica do complexo está dividida em três caixas de distribuição com disjuntores, aos quais são conectados:- caixa 1 Centro Biométrico

Tribunal de Setor

- caixa 2 Centro de Acesso à Justiça (CAJ)

Conservatório e Registo Civil

- caixa 3 Tribunal Regional

A iluminação externa

Com a nova instalação solar em combinação com o gerador, cada caixa de distribuição torna-se monofásica. Três cabos monofásicos subterrâneos são colocadas daquela caixa quadrada à sala técnica.

Um interruptor de duas posições é colocado entre cada inversor DC/AC e cada cabo monofásico subterrâneo de modo que o complexo pode ser ligado à energia do gerador, se necessário.

O cabo do gerador trifásico é distribuído entre esses três interruptores, cada interruptor recebe uma fase e o neutro é comum.

entrada 1 – solar

entrada 2 - gerador (uma fase)

saída - a caixa de distribuição com os disjuntores

A fiação dos módulos solares até os carregadores / inversores é cabo PV-solar de 4 mm

As baterias são conectadas quatro peças em série 48 Volt, os cabos dos carregadores e dos inversores são de 35 mm.

Visita ao local:

É fortemente recomendável que você visite o site antes de fazer a sua oferta, para descobrir por si mesmo a realidade no terreno para esse fim.

Início da construção da instalação:

A obra está prevista para começar no final de novembro de 2021

Duração da obra desta instalação:

A obra pode ser entregue três semanas após o início