



REQUEST FOR QUOTATION NO. RfQ26/03310:

INSTALLATION OF PHOTOVOLTAIC SYSTEM IN HOLERCANI, DUBASARI

SECTION 1: REQUEST FOR QUOTATION (RFQ)

UNDP, through the **European Union Confidence Building Measures (EU CBM VI) Programme**, kindly requests your quotation for the **Request for Quotation no. RfQ26/03310: Installation of photovoltaic system in Holercani, Dubasari** as detailed in line items section of this RFQ.

This Request for Quotation comprises the following documents:

Section 1: This RFQ document generated by the online system

Section 2: General instructions

Section 3: Special instructions

Annex 1: Schedule of Requirements

Annex 2: Quotation Submission Form

Annex 3: Technical and Financial Offer

Annex 4: Technical Responsiveness Table

Annex 5: Bills of Quantities (in Romanian language)

Annex 6: Technical Drawings (in Romanian language)

Annex 7: Topographic Survey

When preparing your quotation, please be guided by the RFQ Instructions and Data. Please note that quotations must be submitted directly in the system responding to the questions and uploading required documents by the date and time indicated in the online portal. It is your responsibility to ensure that your quotation is submitted before the deadline. Quotations received after the submission deadline outside the online portal, for whatever reason, will not be considered for evaluation.

Quotations must be submitted directly in Quantum ERP supplier portal following the link: <http://supplier.quantum.partneragencies.org> using the profile you may have in the portal (please log in using your username and password).

Follow the instructions in the user guide to search for the tender using search filters, namely **Negotiation ID: UNDP-MDA-01038** and subscribe to the tender in order to get notifications in case of amendments of the tender document and requirements.

In case you have never registered before, follow this link to register a profile:

<https://estm.fa.em2.oraclecloud.com/fscmUI/redwood/supplier-registration/register-supplier/register-supplier-verification?id=TUW16eK6qsD94MNMxATNMoYCOHny7FmchTkUZsdOqrAW4sy6L5xSAB033Q%3D%3D>

Please note that the access link to the Supplier registered profile is sent from Oracle within up to 3 days. In case you have not received the access link after 3 days since registration, you should address for support to UNDP at the email address: sc.md@undp.org. In case you encounter errors with registration (e.g. system states Supplier already is registered), you should address for support to UNDP at the email address: sc.md@undp.org.

Computer firewall could block *oracle* or *undp.org* extension and Suppliers might not receive the Oracle notifications. Please turn down any firewalls on your computers to ensure receipt of email notification.

Do not create a new profile if you already have one. Use the forgotten password feature in case you do not remember the password or the username from previous registration.

Should you require further clarifications on the application through the Quantum online portal, kindly contact the Procurement Unit at sc.md@undp.org. Please pay attention that the bid shall be submitted online through the Quantum system and any bid sent to the above email shall be disqualified.

Should you require further clarifications on the Request for Quotation, Terms of Reference or other requirements, kindly communicate using the messaging functionality in the portal.

Deadline for Submission of Offers (Date and Time), which is visible in the online procurement system will be final. System will not accept submission of any bid after that date and time. It is the responsibility of the bidder to make sure that the bid is submitted prior to this deadline for submission.

Bidders are advised to upload bid documents and to submit their offer a day prior or well before the date and time indicated under the deadline for submission of Offers. Do not wait until last minute. If Bidder faces any issue during submitting offers at the last minutes prior to the deadline for submission, UNDP may not be able to assist on such short notice and will not be held liable in such instance. UNDP will not accept any offer that is not submitted directly through the System.

Thank you and we look forward to receiving your quotation.

UNDP Moldova

SECTION 2: GENERAL INSTRUCTIONS

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 cancellation of the tender in the online portal.</p>
Deadline for the Submission of Quotation	<p>Deadline is indicated in the online portal.</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>
Method of Submission	<p>Quotations must be submitted as follows:</p> <p>Quantum ERP supplier portal following this link: http://supplier.quantum.partneragencies.org/ using the profile you may have in the portal.</p> <p>Follow the instructions in the user guide to search for the tender using Negotiation ID. In case you have never registered before, follow this link to register a profile:</p> <p>https://estm.fa.em2.oraclecloud.com/fscmUI/redwood/supplier-registration/register-supplier/register-supplier-verification?id=TUW16eK6qsD94MNMxATNMoyCOHny7FmchTKUZsdOqrAW4sy6L5xSAB033Q%3D%3D</p> <p>Do not create a new profile if you already have one. Use the forgotten password feature in case you do not remember the password or the username from previous registration.</p> <ul style="list-style-type: none"> ▪ File Format: All attachments must be in PDF format unless otherwise instructed by UNDP. ▪ File names must be in Latin alphabet/keyboard and clearly indicate the content of the document to facilitate review. ▪ All files must be free of viruses and not corrupted.
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_and_investigation.html#anti</p>

Gifts and Hospitality	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 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.
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>
Currency of Quotation	Quotations shall be quoted in the currency indicated in the portal.
Joint Venture, Consortium or Association	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. Refer to Clauses 19 – 24 under Solicitation policy for details on the applicable provisions on Joint Ventures, Consortium or Association.
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. 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.
Price variation	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.

Alternative Quotes	If alternative quote is permitted, it 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 clearly established, UNDP 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” directly in the portal and in any supporting document as relevant.
Contact Person for correspondence, notifications and clarifications	Must be submitted directly in the portal using the messaging functionality. 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.
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.
Publication of Contract Award	UNDP will publish the contract awards 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.



SECTION 3: SPECIAL INSTRUCTIONS

General Conditions of Contract	Any Purchase Order or contract that will be issued as a result of this RFQ shall be subject to one of the General Conditions of Contract below as applicable in each case specified in the Requirements section Applicable GTC: <input checked="" type="checkbox"/> General Terms and Conditions for Works Applicable Terms and Conditions and other provisions are available at UNDP/How-we-buy
Special Conditions of Contract	<input checked="" type="checkbox"/> Cancellation of PO/Contract if the delivery/completion is delayed by 30 days <input checked="" type="checkbox"/> Liquidates damages shall be imposed as follows: In case the works are not completed within 90 calendar days, 2.5% of the total contract amount will be deducted out of the final invoice for each week of delay. Max. number of weeks of delay 4. Once the total amount of liquidated damages is equal to 10% of the total contract amount, UNDP may terminate the contract.
Duties and taxes	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 in the requirements section. All prices must: <input checked="" type="checkbox"/> be exclusive of VAT and other applicable indirect taxes
Eligibility	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. It is Bidder's responsibility to ensure that its ultimate beneficial owners, employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP. Bidders must have the legal capacity to enter a binding contract with UNDP and to deliver in the country, or through an authorized representative.
Language of quotation	Romanian or Russian or English Including documentation such as catalogues, instructions and operating manuals.
Quotation validity period	Quotations shall remain valid for 90 (ninety) days from the deadline for the Submission of Quotation.
Partial Quotes	<input checked="" type="checkbox"/> Not permitted
Alternative Quotes	<input checked="" type="checkbox"/> Not permitted
Payment Terms	<input checked="" type="checkbox"/> The Contractor shall submit monthly invoices (reflecting the monthly work performed and materials utilized every month as accepted by UNDP through the "Monthly Progress Reports") and a final invoice within 30 days from the issuance of the Certificate of Final Completion by the Engineer. The Certificate of Final Completion shall be issued after the expiration of the Defects Liability Period. As stated in the General Conditions of Contract for Civil Works, clause 47.1; "Defects Liability Period" is 12 months calculated from the date of completion of the Works stated in the Certificate of Substantial Completion issued by the UNDP Engineer.
Currency	Moldovan Leu (MDL) for local companies and US Dollars (USD) for international companies

Conditions for Release of Payment	<input checked="" type="checkbox"/> Written Acceptance of Works, based on full compliance with RFQ requirements
Clarifications	<p>Bidders must send their inquiries and requests for clarifications using the messaging functionality in the portal.</p> <p>PLEASE PAY ATTENTION: QUOTES SHALL NOT BE SUBMITTED TO ANY EMAIL ADDRESS BUT ONLY THROUGH THE PORTAL.</p> <p>Requests for clarification from bidders will not be accepted any later than 5 (five) days before the submission deadline. Responses to request for clarification will be communicated directly in the portal.</p>
Documents to be submitted	<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"/> Duly filled-in Bills of Quantities (F7), including Unit Price Catalogue (F5) and Resource Schedule (F3) <input checked="" type="checkbox"/> Company Profile (short info up to 5 pages), including detailed portfolio/previous corporate experience in similar fields related to the assignment <input checked="" type="checkbox"/> Copy of Company’s Registration Certificate or Extract from the state register <input checked="" type="checkbox"/> Proof of all necessary licenses and authorizations for electric works <input checked="" type="checkbox"/> Certification or authorization to act as Agent on behalf of the Manufacturer, or Power of Attorney (if Supplier is not the manufacturer) <input checked="" type="checkbox"/> Export/Import Licenses, if applicable <input checked="" type="checkbox"/> List and value of projects performed for the last 5 (five) years plus client’s contact details who may be contacted for further information on those contracts <input checked="" type="checkbox"/> Acceptance Notes of works executed (Final Commissioning Reports for local companies) submitted for 2 (two) sites (in terms of similar nature and complexity for provision of PVP services and corresponding installation services with a power not less than 80kW each, in over the past 5 (five) years presented as similar experience (as listed in Evaluation Criteria below), including the contract value (in case it is not mentioned in the Note/Report, please attach Contract or other document to prove the value of the project site). <u>Contracts without Acceptance Notes (Final Commissioning Reports for local companies) cannot serve as proof of similar experience.</u> <input checked="" type="checkbox"/> List of transportation and specialized equipment units to be confirmed with the rights of ownership or contract of lease and availability of the functioning permit in line with national legislation (Bidders shall indicate whether the equipment is their own or rented) <input checked="" type="checkbox"/> Detailed technical description of the proposed equipment and offered services (including details on the installation materials and the proposed smart metering system). The technical description shall be supported by: <ul style="list-style-type: none"> – Adequate technical documentation and corresponding manufacturer’s specifications and catalogues – Certificates of origin, conformity and/or quality, catalogue(s) and other printed material or information pertinent to the equipment proposed <input checked="" type="checkbox"/> Quality Certificates for the materials to be used during Works <input checked="" type="checkbox"/> Quality Certificates (ISO, etc.), if available <input checked="" type="checkbox"/> List of qualified key personnel, together with signed CVs and professional certificates (valid at the date of presentation) for the certified Technical supervisor with at least five (5) years of professional experience in electrical networks, engineering, or other related field, Category no. 2) “Installations and external networks: g) installations and electricity supply networks” and licensed electrician with minimum five (5) years of professional experience in electrical networks, including external electricity supply systems, Category no. 2: “Installations and external networks: g) installations and electricity supply networks” <input checked="" type="checkbox"/> Metrological certificate for the specialized measurement equipment <input checked="" type="checkbox"/> Chart for execution of works (Work Time Schedule) for example GANTT chart <input checked="" type="checkbox"/> Written declaration regarding warranty period: <ul style="list-style-type: none"> – Written and signed statement of minimum 5 years of general warranty for the entire PV

	<p>system. The warranty should include the due maintenance to ensure the reliable and efficient operation of the PV system and elimination of defects/malfunctions that occur during the warranty period.</p> <ul style="list-style-type: none"> – Written and signed statement of minimum 5 years warranty for inverter and electric meter. – Written and signed statement of panel yield warranty of minimum 10 years (minimum 80% performance). – Written and signed statement of availability of an authorized service center in Moldova for maintenance purposes. <p><input checked="" type="checkbox"/> Written declaration regarding any past and current litigation during the last five (5) years (in which the bidder is/was involved, indicating the parties concerned, the subject of the litigation, the amounts involved, and the final resolution if already concluded) or lack of such (if the case)</p> <p><input checked="" type="checkbox"/> Statement of satisfactory Performance (Certificates) from the top 2 (two) clients in terms of Contract value in similar field</p> <p><input checked="" type="checkbox"/> Financial Statements (Income Statements and Balance Sheets) for the past 3 (three) years (2023, 2024, 2025)</p>
Evaluation method	<p><input checked="" type="checkbox"/> The Contract will be awarded to the lowest price substantially compliant offer.</p>
Evaluation criteria	<p>The evaluation of quotations shall be conducted in accordance with Evaluation criteria listed below. Bidders must meet all these criteria to be deemed technically qualified and responsive. <u>In the case of consortiums, all criteria listed below shall apply towards the Lead Member.</u></p> <ul style="list-style-type: none"> <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 for Works <input checked="" type="checkbox"/> Be a legal registered institution/company <input checked="" type="checkbox"/> Minimum 5 (five) years of experience in the electric equipment market and/or provision of services related to electric installations and other services in this area of interest <input checked="" type="checkbox"/> Minimum 2 (two) successfully completed contracts of similar nature and complexity for provision of PVP services and corresponding installation services with a power not less than 80kW each, in over the past 5 (five) years <input checked="" type="checkbox"/> Maximum delivery period not to exceed 90 calendar days upon signature of contract and from the moment the Contractor was given access to the construction site <input checked="" type="checkbox"/> Sufficient human resources capability to qualitatively and timely execute the works. Minimum key-personnel with valid certificates*: <ul style="list-style-type: none"> • one (1) certified Technical supervisor with at least five (5) years of professional experience in electrical networks, engineering, or other related field, Category no. 2) “Installations and external networks: g) installations and electricity supply networks”; • one (1) licensed electrician with minimum five (5) years of professional experience in electrical networks, including external electricity supply systems, Category no. 2: “Installations and external networks: g) installations and electricity supply networks” <p><i>* For the legal entities (bidders) originating from the left bank of Nistru, the certification of specialists shall be confirmed by presenting the copies of graduation certificate and employment history book.</i></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Minimum warranty on works, equipment and materials as required by the local legislation and regulations but not less than specified in Annex 1: Schedule of Requirements. <p>Will serve grounds for disqualification:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Failure to submit one of the following documents: <ul style="list-style-type: none"> • Duly filled-in Submission Form (as per Annex 2) • Technical and Financial Offer (as per Annex 3) • Duly filled-in Bills of Quantities (F7), including Unit Price Catalogue (F5) and Resource Schedule (F3) (as per Annex 3) • Acceptance Notes of works executed (Final Commissioning Reports for local companies) submitted for 2 (two) sites (in terms of similar nature and complexity for provision of PVP services and corresponding installation services with a power not less than 80kW each, in over the past 5 (five) years presented as similar experience, including the contract value).

	<input checked="" type="checkbox"/> Serious deviations from the provisions of the documents below: <ul style="list-style-type: none"> • Changes in codes for works required*; • Changes in the volume of works required*; • Changes in the volumes of resources in the norms of materials, manpower and tools*; • Changes in coefficient for norms*; • Proposing the manpower remuneration below the medium required by the National Legislation in force (besides the situation when a respective proof from relevant authorities is obtained and presented), (according to Ordinance nr. 80 of 20.05.2026, with the reference to the Approval of the Amendment CP L.01.02:2012/A4:2026 "Construction economics. Instructions for determining estimate expenses when paying salaries in construction") <i>*When developing BoQs, please be guided by the National Regulatory Framework in Construction as per NCM L.01.01-2012 and Regulation on the procurement of public works (http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=347161 http://lex.justice.md/md/295702/).</i>
Type of Contract to be awarded	<input checked="" type="checkbox"/> Contract for Works
Expected date for contract award.	September 2026



ANNEX 1: SCHEDULE OF REQUIREMENTS

Title: Installation of photovoltaic system in Holercani, Dubasari

A. INTRODUCTION AND OBJECTIVES

In 2023 the UNDP Moldova launched the six phase of the European Union Confidence Building Measures Programme (EU-CBM VI), funded by the European Union and implemented by the UNDP Moldova. The overall goal of the Program is to increase confidence between both banks of the Nistru River by ensuring socio-economic development through involvement of local authorities, civil society organizations, private actors, and other community stakeholders.

The EU-CBM VI Programme is focused on 4 specific fields: promoting business development; support to community development and cross river platforms of cooperation; preserving cultural and historical heritage and assistance to media development and cooperation.

Through its “EU Support to community development” component, the EU-CBM VI Programme aims to support rehabilitation/renovation of the 6 social infrastructure projects situated on both banks of the Nistru River.

Based on decision of the EU-CBM VI Steering committee decision, the project "Installation of photovoltaic system in Holercani, Dubasari" was selected as one of the social infrastructure projects which is situated on the right bank of the Nistru river.

B. CONTENT OF WORKS

UNDP Moldova is seeking to contract a specialized and experienced company (hereinafter “the Company”) to provide Installation of photovoltaic system in Holercani, Dubasari. It is envisaged that the works will include the following activities:

- procurement and delivery to the site of the materials and services required to successfully execute the works;
- site preparation for storing materials;
- execution of installation works;
- final commissioning of the works carried out.

All these activities shall be carried out in accordance with the provisions of the Bills of Quantities (BoQ). The physical properties of the construction materials proposed by the contractors shall be in accordance with the requirements of the Bills of Quantities and with the technical guidelines, requirements and specifications as provided by national building norms.

The materials delivered to the site must be accompanied by national certificates of conformity and/or

European Certificates (EC) attesting the quality standards (if applicable). The contractor should also ensure that all materials to be used under the contract are coordinated, prior the installation, with the Technical supervisor, Beneficiary and UNDP Moldova (EU-CBM) engineering staff who oversee the day-to-day supervision of the site and regular monitoring of the on-site works.

The Company taking part in the tendering procedure shall provide everything necessary for the successful performance of the contract. The Company shall ensure the supervision of the works on site by certified Technical supervisor. The Company shall perform the works using the skilled labor, materials, mechanisms, machinery and equipment necessary to carry out the works specified in the BoQ Specifications. The Company shall comply with labour and site protection measures, carry out the necessary laboratory sampling and testing in compliance with the construction/installation rules and standards, to ensure the commissioning of installation works.

When developing BoQs, please be guided by the National Regulatory Framework in Construction as per NCM L.01.01-2012 and Regulation on the procurement of public works:

<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=347161>

<http://lex.justice.md/md/295702/>

Serious deviations from the provisions of these documents will serve grounds for disqualification.

Please, **ensure that no changes in the volume of works are allowed; no changes in codes for works are allowed; no changes in the volumes of resources in the norms of materials, cost of labor and tools are allowed; no changes in coefficient for norms are allowed.**

Please, **ensure that the human power remuneration is not less than medium required by the National Legislation in force (according to Ordinance nr. 80 of 20.05.2026, with the reference to the Approval of the Amendment CP L.01.02:2012/A4:2026 "Construction economics. Instructions for determining estimate expenses when paying salaries in construction").**

Note for bidders: Whenever the technical specifications require a specific product, specific brand/model, the bidders may come up with proposals for an alternative product equivalent or higher in all aspects with the specified product and meeting the requirements regarding physical, functional and performance parameters.

C. EXPECTED RESULTS

In accordance with the Bill of Quantities the following main works are to be made:

- 1) Installation of a renewable energy production system
- 2) Connecting the system to the electricity distribution network

The volume of work to be carried out are indicated in the Bill of Quantities (List of work volumes/BoQ).

Additionally, the following outcomes are expected to be provided by the Contractor:

Outcome 1: Completion of all installation works set out in the contract documents, within no more than 90

calendar days.

Once the installation works are completed, the PV system is tested and put into operation, and the execution and payment documents are submitted, the completed on-site works shall be commissioned at the end of the work, in compliance with the provisions of the Regulation on the acceptance of construction works and related installations, approved by the Republic of Moldova Government Decision No 285 of 23.05.1996.

Outcome 2: Final commissioning of the works, in compliance with Regulation on the acceptance of construction works and related installations, approved by the Republic of Moldova Government Decision No 285 of 23.05.1996, will be made after the expiry of the 1-year warranty period (the full warranty period minimum 5 years) from the date of commissioning at the end of the work.

D. REGULATORY FRAMEWORK

For the contract implementation, the selected company shall be guided by the normative acts in force in Republic of Moldova, including but not limited to:

- 1) Law No. 10/2016 – on the promotion of the use of energy from renewable sources
- 2) Law No. 124/2017 – on electricity
- 3) Law No. 721/1996 – on quality in construction
- 4) Government Decision No. 361/1996 – on ensuring construction quality
- 5) Government Decision No. 285/1996 – on the approval of the Regulation on the acceptance of construction works and related installations
- 6) HANRE No. 475/2021 – on the approval of the Regulation for commissioning of electrical installations
- 7) HANRE No. 394/2019 – technical-normative document NE1-02:2019 „Safety norms for the operation of electrical installations”
- 8) NCM A.08.02:2014 – Occupational safety and health in construction
- 9) NCM G.01.02:2015 – Design and installation of electrical systems in residential and social buildings
- 10) NCM G.01.03:2016 – Electrotechnical devices
- 11) NCM A.07.03:2002 – Regulation on monitoring construction projects by the design author
- 12) CP A.08.01-96 – Instructions for the verification and acceptance of hidden and/or critical works in construction and related installations
- 13) SM EN 50549-2:2019 – Requirements for generation units to be connected in parallel with distribution networks
- 14) SM EN IEC 62446-2:2020 – Photovoltaic systems. Requirements for testing, documentation and maintenance. Part 2: Grid-connected systems – Maintenance
- 15) Technical connection conditions issued by the Distribution System Operator (DSO)
- 16) Fire safety, civil protection and environmental regulations applicable to energy infrastructure

17) Manufacturer’s technical documentation and CE Declarations of Conformity for all equipment

E. INSTITUTIONAL ARRANGEMENT

The site is located in Holercani village, Dubasari. The construction waste will be transported about 5 km to a disposal site established by Holercani City Hall.

The reporting on the work progress shall take place on a monthly basis through the submission of Minutes of Acceptance of the works carried out during the preceding 30 calendar days. The minutes shall be signed by the Company Manager and the certified Technical supervisor with the application of the stamps and forwarded for verification to the Beneficiary's permanent representative on site. Subsequently, the Minutes of Acceptance of the works carried out will be submitted for verification and approval to the EU-CBM Project Officer.

F. OTHER RELATED REQUIREMENTS

Further to the Schedule of Requirements/Scope of Works above, Bidders are requested to take note of the following additional requirements, conditions, and related services pertaining to the fulfilment of the requirements:

Delivery Term [INCOTERMS 2010]	DDP
Exact Address of Delivery/Installation Location	Holercani village, Dubasari district.
Customs, if required, clearing shall be done by:	Supplier
Work Requirements	All the installation works must be carried out in accordance with national/local standards regarding civil works.
Installation Requirements	Done by Contractor. <ul style="list-style-type: none"> – Site inspection and verification of existing site conditions. – All installation services, including mechanical, electrical, internet connection, and system configuration.
Testing Requirements	Done by Contractor according to SM EN IEC 62446-2:2020 – Photovoltaic systems. Requirements for testing, documentation and maintenance.
Training in Operation and Maintenance	Done by Contractor. Training is required at the premises of the Beneficiary. Training will focus on the procedures for using the installed equipment, the security techniques and the appropriate maintenance and operation procedures. Training should last one day; the Beneficiary is responsible for organizing training premises. The Supplier should cover the training costs (if any): travel costs to and from Moldova (if Bidder is not local), accommodation

	costs (if any) during the training as well as the transportation costs from Chisinau to Beneficiary for trainer(s).
Commissioning of the works	<p>The commissioning of the works must be initiated by the Contractor according to following stages:</p> <ol style="list-style-type: none"> 1) Laboratory tests performing 2) Hand-over documentation and technical acceptance by the energy authority and network operator 3) Commissioning at the end of the works 4) Final commissioning after 1-year warranty period
Warranty Period	<p>The supplier shall provide warranty as follows:</p> <ul style="list-style-type: none"> • General warranty: ≥ 5 years for the entire PV system • Panel yield warranty: ≥ 10 years (min. 80% performance) • Inverter and electricity meter: ≥ 5 years <p>The contractor must provide:</p> <ul style="list-style-type: none"> • On-demand repair and fault rectification and maintenance during the warranty period <p>After completion of installation services, the Contractor shall provide a warranty certificate or similar issued to the beneficiary institution.</p>
Technical Support Requirements	<p>The contracted company shall provide the following online and offline methods of technical support:</p> <ul style="list-style-type: none"> • On-site support and/or online support including answering technical queries online (email and telephonic) when feasible and needed. <p>Turnaround time for answering queries will be less than 3 days. In case on-site support is needed it should be provided within 10 days from the moment of beneficiary's notification.</p>
After-sale services Requirements	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Availability of written and signed statement of full warranty for the entire PV system at least of five (5) years. The warranty should include the due maintenance to ensure the reliable and efficient operation of the PV system and elimination of defects/malfunctions that occur during the warranty period <input checked="" type="checkbox"/> Availability of written and signed statement of ten (10) years warranty for panel yield <input checked="" type="checkbox"/> Availability of written and signed statement of five (5) years warranty for inverter and electricity meter <input checked="" type="checkbox"/> Availability of an authorized service center in Republic of Moldova to provide technical support during warranty period
Local Service Support	<p>The Contractor must provide a list of at least one authorized representative located in Moldova.</p> <p>For the local/regional representative, the Contractor should</p>

	indicate the web page, telephone, email address and headquarters.
Insurance of Works*	Before commencing the execution of the Works, but without limiting his obligations and responsibility, the Contractor shall insure the Works for all risks stipulated by Clause 21 of UNDP General Conditions of Contract for Civil Works in amount of 110% of the total estimated price of the Contract.
Liability Insurance**	Before commencing the execution of the Works, but without limiting his obligations and responsibility, the Contractor shall provide a Liability Insurance in accordance with Clause 23 of UNDP General Conditions of Contract for Civil Works for a minimum amount of 15% of the total estimated price of the Contract.
Pricing	The contract is based on unit price, and the final price of the Contract will be determined on the basis of actual quantities of works utilized in the complete and satisfactory performance of the Works as certified by the Engineer and the unit prices contained in the Contractor's financial proposal. Such unit prices are fixed and are not subject to any variation whatsoever. Bidders shall quote reasonable bid prices with an acceptable margin of deviation in comparison to the local market prices at the time of bids preparation. In case of unbalances pricing (i.e. despite an acceptable total evaluated price, the price of one of more BoQ line items is significantly over- or underpriced), UNDP have the right to reject the unbalanced bid if it determines that the lack of balance does pose an unacceptable risk to UNDP).
Payment Terms	<input checked="" type="checkbox"/> The Contractor shall submit monthly invoices (reflecting the monthly work performed every month as accepted by UNDP through the "Monthly Progress Reports") and a final invoice not later than 30 days from the issuance of the Certificate of commissioning at the end of the works by the EU-CBM infrastructure and cultural heritage component project manager. UNDP shall effect payment of the invoices after receipt of the certificate of payment issued by the site Technical supervisor, approving the amount contained in the invoice. The Technical supervisor may make corrections to that amount, in which case UNDP may effect payment for the corrected amount. The EU-CBM manager may also withhold invoices if the work is not performed at any time in accordance with the terms of the Contract or if the necessary insurance policies or performance security are not valid and/or in order. The EU-CBM shall process the invoices submitted by the Contractor within 15 days of their receipt. Invoices will be paid within thirty (30) days of the date of

	<p>their receipt and acceptance by UNDP.</p> <p><input checked="" type="checkbox"/> So as to ensure the liquidated damages retention (in case applied) (as per point 9 of Section 3: Bid Data Sheet), the last invoice shall not be less than 10% of the total contract amount.</p>
Conditions for Release of Payment	<p><input checked="" type="checkbox"/> Inspection</p> <p><input checked="" type="checkbox"/> Installation</p> <p><input checked="" type="checkbox"/> Testing</p> <p><input checked="" type="checkbox"/> Training on Operation and Maintenance</p> <p><input checked="" type="checkbox"/> Written Acceptance of Goods based on full compliance with RFQ requirements</p>
All documentations, including catalogues, instructions and operating manuals, shall be in these languages	Romanian or Russian or English

**** Important note: for left bank companies, the Insurance of Works policy must be issued by the financial entities of the right bank.***

***** Important note: for left bank companies, the Liability Insurance policy must be issued by the financial entities of the right bank.***

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. Bidders 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:	RfQ26/03310: CBM/ Installation of photovoltaic system in Holercani, Dubasari	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	<input type="checkbox"/> Yes <input type="checkbox"/> No

<i>(If yes, provide a Copy)</i>				
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:				
2 (two) successfully completed contracts of similar nature and complexity for provision of PVP services and corresponding installation services with a power not less than 80kW each, in over the past 5 (five) years				
Name of previous contracts	Client & Reference Contact Details including e-mail	Contract Value <i>(insert currency)</i>	Period of activity <i>(month/year)</i>	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.

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Prohibitions and Sanctions: I/We hereby declare that our firm, ultimate beneficial owners, 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.
<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 – WORKS

Bidders are requested to complete this form, sign it and return it as part of their quotation 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:	RfQ26/03310: CBM/ Installation of photovoltaic system in Holercani, Dubasari	Date: Click or tap to enter a date.

Technical Offer

Provide the following:

- a brief description of company's qualifications and capacity that is relevant to the Scope of Works;
- a brief method statement and implementation plan;
- team composition and CVs of key personnel.

Financial Offer

Currency of the Quotation: Moldovan Leu (MDL) for local companies and US Dollars (USD) for international companies

BOQ Chapter	Description of Works	Total Price (VAT 0%) <i>(insert currency)</i>
2-1-1	Photovoltaic Module. Electrical Networks	
2-1-2	Separate connection. Electrical Networks	
2-1-3	Photovoltaic Installation. Construction Works	
	<i>Cost of insurances: Insurance of works, Liability insurance</i>	
	<i>Other costs if any (pls. specify)</i>	
	TOTAL and All-inclusive PRICE (VAT 0%) <i>[Please insert currency]</i>	

Compliance with Requirements

Requirements	You Responses		
	Yes, we will comply	No, we cannot comply	If you cannot comply, pls. indicate counter - offer
Delivery Lead Time – 90 days	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Validity of Quotation – 90 days	<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.
<i>Installation Requirements</i> All the works must be carried out in accordance with national/local standards regarding civil works	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
<i>Testing Requirements</i> Done by Contractor according to SM EN IEC 62446-2:2020 – Photovoltaic systems. Requirements for testing, documentation and	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.

maintenance			
<i>Training in Operation and Maintenance</i> Done by Contractor at the premises of the beneficiary.	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
<i>Commissioning</i> Commissioning of the works must be initiated by the Supplier: <ul style="list-style-type: none"> • Laboratory tests performing. • Hand-over documentation and technical acceptance by the energy authority and network operator. • Commissioning at the end of the works. • Final commissioning after 1-year warranty period 	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
<i>Minimum warranty provided:</i> <ul style="list-style-type: none"> • General warranty: ≥ 5 years for the entire PV system • Panel yield warranty: ≥ 10 years (min. 80% performance) • Inverter and electricity meter warranty: ≥ 5 years 	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
List of transportation and specialized equipment units to be confirmed with the rights of ownership or contract of lease and availability of the functioning permit in line with national legislation	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
<i>Technical Support Requirements</i> The contracted company will provide on-site support within 10 days from the moment of beneficiary's notification. The turnaround time for answering queries will be less than 3 days.	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
<i>After-sale services Requirements</i> Provided by Contractor according to ANNEX 1: SCHEDULE OF REQUIREMENTS	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
<i>Local Service Support</i> The Contractor must provide a list of at least one authorized representative located in Moldova.	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
All Provisions of the UNDP General Terms and Conditions accepted	<input type="checkbox"/>	<input type="checkbox"/>	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.	Authorized Signature: _____ _____ Date: 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.

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: TECHNICAL RESPONSIVENESS TABLE

Bidders are requested to complete this form, sign it and return it as part of their quotation 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:	RfQ26/03310: Installation of photovoltaic system in Holercani, Dubasari	Date: Click or tap to enter a date.

Bidders shall provide all the applicable technical data of the materials proposed to demonstrate compliance with technical specifications included in Section 5: Schedule of Requirements; failing to do so may result in the bid being rejected. Corresponding documentation shall form part of the bidder's offer. You may also provide brochures for the offered equipment; in case it is available.

No.	Technical parameters/characteristics for proposed materials	Requested characteristics	Quantity, pcs	Bidder's response		
				Compliance with technical specifications		Technical Compliance <i>(indicate details of proposed materials)</i>
				Yes, we comply	No, we cannot comply <i>(indicate discrepancies)</i>	
Three Phase Hybrid Inverter				Quantity – 1 pc		
1	Battery Input Data					
	Battery Type	Lithium-ion				
	Battery Voltage Range (V)	160-1000				
	Max. Charging Current (A)	80+80				
	Max. Discharging Current (A)	80+80				
	Charging Strategy for Li-ion Battery	Self-adaption to BMS				
	Number of Battery Input	2				
2	PV String Input Data					
	Max. PV Access Power (W)	160000				
	Max. PV Input Power (W)	128000				
	Max. PV Input Voltage (V)	1000				
	Start-up Voltage (V)	180				
	MPPT Voltage Range (V)	150-850				
	Rated PV Input Voltage (V)	650				
	Max. Operating PV Input Current (A)	36+36+36+36+36+36				
	Max. Input Short-Circuit Current (A)	54+54+54+54+54+54				
	No. of MPP Trackers/ No. of Strings MPP Tracker	6/2+2+2+2+2				
3	AC Input/Output Data					

	Rated AC Input/Output Active Power (W)	80000				
	Max. AC Input/Output Apparent Power (VA)	88000				
	Rated AC Input/Output Current (A)	121.3/115.9				
	Max. AC Input/Output Current (A)	133.4/127.6				
	Max. Continuous AC Passthrough (grid to load) (A)	200				
	Peak Power (off-grid) (W)	1.5 times of rated power, 10s				
	Power Factor Adjustment Range	0.8 leading to 0.8 lagging				
	Rated Input/Output Voltage/Range (V)	220/380V, 230/400V 0.85Un-1.1Un				
	Rated Input/Output Grid Frequency/Range(Hz)	50/45-55, 60/55-65				
	Grid Connection Form	3L+N+PE				
	Total Current Harmonic Distortion THDi	<3% (of nominal power)				
	DC Injection Current	<0.5% In				
4	Efficiency					
	Max. Efficiency	97.60%				
	Euro Efficiency	97.0%				
	MPPT Efficiency	>99%				
5	Equipment Protection					
	Protection	manufacturer-provided				
	Surge Protection Level	TYPE II(DC), TYPE II(AC)				
6	Interface					
	Communication Interface	RS485/RS232/CAN				
	Monitor Mode	GPRS/WIFI/Bluetooth/ 4G/LAN(optional)				
7	General Data					
	Operating Temperature Range (°C)	-40 to +60°C, >45°C Derating				
	Permissible Ambient Humidity	0-100%				
	Permissible Altitude	3000 m				
	Noise (dB)	≤65				
	Ingress Protection(IP) Rating	IP 65				
	Inverter Topology	Non-Isolated				
	Over Voltage Category	OVC II(DC), OVC III(AC)				
	Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105				
	Safety / EMC Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN				

		62109-2				
	Warranty	Minimum 5 Years				
N-type TOPCon Bifacial Dual-Glass Module			Quantity – 120 pcs			
1	General Ratings					
	Power Output	Minimum 700W				
	Efficiency	Minimum 23%				
	Operational Temperature	-40°C - +85°C				
	Maximum System Voltage	1500V DC				
2	Mechanical Data					
	Cell Type	N-type TOPCon Monocrystalline				
	Cell Count	132				
	Front Glass	1.6 – 2.0 mm				
	Back Glass	1.6 – 2.0 mm				
	Frame	Anodized Aluminum Alloy				
	Junction Box	IP 68 rated				
	Connector	MC4 Compatible				
	Cable	Minimum 4 mm ² , minimum 1000V, direct current				
	Certifications	IEC61215 / IEC61730 / UL61730 / ISO9001 / ISO14001 / ISO45001 / IEC62941				
	Snow Load	Minimum 350 kg/m ²				
	Warranty	Minimum 10 Years				
Electricity meter (System operator-approved)			Quantity – 1 pc			
1	Electrical Parameters					
	Connection Type	Indirect connection via Current Transformers (CT)				
	Nominal Voltage (U_n)	3 × 220/380 V up to 3 × 230/400 V				
	Voltage Tolerance	-20% to +15% U_n				
	Nominal Current (I_n / I_{ref})	5 A				
2	Accuracy & Measurement Classes					
	Active/Reactive Energy (Bidirectional - Import/Export)	Class 0.5 – 1.0 (IEC 62053-22, IEC 62053-21)				
	Measured Parameters	Active power, reactive power, apparent power, voltage (U), current (I), frequency (f), power factor ($\cos \phi$), total harmonic distortion (THD)				
3	Communication & Modem Modules					
	Integrated Modem Type	4G LTE / 3G / GSM/GPRS or NB-IoT / LTE-M (with				

		fallback to 2G) for remote automated meter reading (AMR)				
	Local Interface Built-in	RS-485 serial port and an Optical IR port (IEC 62056-21) for local readouts				
	Supported Protocols	DLMS/COSEM, Modbus RTU, or IEC 870-5-102				
	Data Transmission Features	Automatic Scheduled Meter Reading (AMR/AMI), remote configuration, event/alarm push notifications (tampering, power outages)				
	Antenna Connection	External SMA connector for high-gain signal antenna				
4	Mechanical & Environmental Specifications					
	Enclosure / Mounting	DIN-rail (standard 35mm) or 3-point wall mounting pattern conforming to DIN 43859				
	Ingress Protection Rating	IP54 minimum (front-facing dust and splash protection)				
	Operating Temperature	-40°C to +70°C				
	Relative Humidity Limit	≤ 95% non-condensing				
	Meter cabinet	In accordance with the connection permit and execution project				
	Warranty	Minimum 5 Years				