



**REQUEST FOR PROPOSAL FOR SETTING UP A SOLAR SYSTEM AT DAYSTAR
UNIVERSITY ATHI RIVER CAMPUS**

AS PER THE TERMS OF REFERENCE

SUBMISSION DEADLINE: 17TH AUGUST 2020 AT 2.00PM

JULY 2020

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REQUEST FOR PROPOSAL FOR SOLAR INSTALLATION SYSTEM AT DAYSTAR UNIVERSITY, ATHI RIVER CAMPUS.

1. Background information

Daystar University is a private institution of higher learning established under the Universities Act and University Charter and offering teaching services at Nairobi Campus, along valley road and Athi River campus on Lukenya Hills, East of Nairobi in the republic of Kenya.

Daystar University invites Request for Proposals (RFP) from interested consultants for Solar installation system at Daystar University, Athi River Campus. The institution seeks a highly qualified and competitive vendor for the survey, design, installation, commissioning, and service of a “turnkey” solar energy system providing photovoltaic energy. In addition, rehabilitation of one or more roof (s) may be required prior to solar array installation. The overarching objective of the project is to provide the greatest level of expected return on the capital investment through savings from Electricity consumption.

Eligible candidates can download the tender document via our website www.daystar.ac.ke at a fee of **Kshs :3,000** which can directly be deposited to Cooperative Bank - Daystar University Account **No:01120065209800** of Athi River Branch. Bidders are advised to attach original deposit slip to the bid document as payment evidence and submit it as one document to the tender box clearly indicating bidders name and contact address at the back of the deposit slip.

Completed proposal documents are to be enclosed in plain sealed envelopes, clearly marked with the bid number and name and deposited in the Tender box provided at Daystar University, Nairobi Campus, off Valley Road, Mwangaza Wing, ground Floor or sent via the postal address below;

DEPUTY VICE CHANCELLOR, FINANCE, ADMINISTRATION & PLANNING

ATTN: PROCUREMENT SERVICES

P.O BOX 44400-00100,

NAIROBI, KENYA

Bidders are required to submit their proposal by Monday, 17th. August 2020 by 2.00pm

Bid documents will be opened immediately thereafter in the presence of bidders or their representatives who choose to attend at Daystar University, Nairobi Campus, Mwangaza wing, Ground Floor by **2.30pm**

2. About Daystar University

Daystar University is embarking on becoming an environmentally sustainable organization and as one initiative is adopting renewable energy. The main source of energy to the institution is electricity and currently depends entirely on the grid. The University is located in both Athi River Campus and Nairobi Campus.

3 Proposed Location for Installation

The proposed location for installation of the solar panels is the rooftop and ground mounted panels shall be within the ideal location at Athi River campus. Daystar university is willing to provide enough land for the purpose of this project.

4. Minimum Qualifications

The following criteria shall be applied by Daystar University to determine whether Proposers meet minimum qualifications. Failure to meet any one of the below criteria may render a Proposal non-responsive:

4.1 Evaluation Criteria

4.2. Mandatory Requirements

- a) Copy of Certificate of Incorporation/Registration
- b) Valid Tax Compliance Certificate from Kenya Revenue Authority
- c) Copies of contracts/LPOs for consultancy contracts undertaken in the last 10 years that are relevant to required proposal & consultancy services.
- d) Copies of registration certificates/evidence of certification as well as current year's renewal certificates from relevant professional/regulatory bodies e.g. **(ERC)**
- e) **Supervisory Personnel** - Evidence of key technical personnel and relevant qualification attained in the Organization.
- f) **Past Experience – Provide at least (3)** names and address of firms whom you have done business with, nature and value of contract.
- g) Physical location/offices for the Consultant.
- h) Registration of relevant professional body. Additionally, to enable us to understand your company and project that you have supervised for the last 10 years, we request that you provide a brief profile of your company. Indicate the project undertaken plus its value as required above.

4.2.1 Bidders Cover page

The cover page should include “[Organization] Minimum Qualification”, business name, primary address, contact person, contact information, and table of contents using the section numbers shown

4.2.2 Section 1: Reference Solar Projects

Comprehensive details of at least (2) solar projects of 500 KW or larger capacity constructed during the last five years should be provided

4.2.3 Section 2: Registration

Details of registration with Electricity Regulatory Commission or equivalent body should be provided with supporting documents.

4.2.4 Section 3: Electricity Regulatory Commission (ERC) or Energy and Petroleum Regulatory Authority (EPRA) Standards

Provide details of training programs attended by the proposing team on ERC and EPRA standards with proof of successful completion of such training programs

4.2.5 Business Registration

Provide details supporting that the proposer has been in business with the present company over five years.

5 Design Guidelines schedule for Solar installation System

a) Design Guidelines for Rooftop PV. Contractor shall develop a design for a new photovoltaic system at Athi river campus. The drawings should indicate available areas for installation and existing roof structure plans. These drawings are meant for informational purposes only and must be field verified by the contractor upon site visit.

- Mounting system shall limit roof penetrations and shall be either building integrated roof PV or fully ballasted. Mounting system design needs to meet applicable local building code requirements with respect to, wind, earthquake and related factors.
- Conduit penetrations shall be minimized.
- If system is not building integrated or membrane sealed, system shall be fixed tilt (minimum 5 degrees tilt for flat roof or flush mounted for sloped roof) with an orientation that maximizes annual energy production.
- All roof access points shall be securely locked at the end of each day.
- System layout shall meet local fire department, code and ordinance requirements for roof access.

b.) Design Guidelines for Ground-Mounted PV. The contractor shall develop a design for a new photovoltaic system at Athi River Campus. Not all locations need to be utilized. It is the responsibility of the contractor to assess site topography and geotechnical attributes to estimate costs related to project installation.

- Mounting system shall be either directly anchored into the ground (driven piers, concrete footers, etc.) or ballasted on the surface without ground

penetration. Mounting system design needs to meet applicable local building code requirements.

- Panels' orientation shall be within 20-30 degrees of due south.
- Panels' tilt shall be based on site latitude and wind conditions.
- Ground cover and vegetation management shall be included in the proposal.
- Stormwater management and erosion control management plan shall be included in the proposal.
- Gate should be included in the proposal.
- All lines interconnecting PV arrays to point of interconnection shall be underground.

5.1 DESIGN SERVICES

Solar PV system shall be designed and engineered to maximize the solar energy resources, taking into consideration the customer's electrical demand and load patterns, proposed installation site, available solar resources, existing site conditions, proposed future site improvements, and other relevant factors.

Design Services for this project shall require a schematic design submission, a design development submission, a check set submission, and a construction document submission. A final set of as-built drawings shall also be provided to Daystar University. The design package shall include the following details.

5.1.2 Timeline/Project Schedule. Contractor is required to provide an estimate on project timeline and schedule.

5.1.3 Post Award Conference. Within 21 calendar days after receipt of the contract award. The meeting will be attended by Daystar University team members and the contractor's personnel. At a minimum, the prime contractor's project manager and foreman, the primary designer, and a representative of any subcontractor performing the work must attend. The meeting will be held at the project location. The purpose of the meeting will be to discuss the contractor's plan for completing the design and construction, including a construction schedule. A walk-through of the site will occur at the end of the meeting.

5.1.4 Specifications. A full set of specifications shall not be required for this project. However, specifications that express all information and demonstrate sufficient detail so as to direct the construction work outlined in this Statement of Work shall be required. The specifications shall include all equipment information, proposed installation and interconnection information, and performance characteristics of the system.

5.1.5 All drawings, estimates, calculations, and specifications shall be in English units.

5.1.6 The contract shall take into account a construction plan producing a minimum disruption of day-to-day activities, utilities, services, etc.

5.1.7 A mandatory pre-proposal and site visit/energy audit is a must to guide the bidder's proposal

5.1.8 all questions pertaining to this RFP must be submitted via email to All procurement@daystar.ac.ke with the subject line, **"Daystar University Solar System RFP Questions"**. All questions must be received by the date and time before proposal submission date. Questions sent directly to other staff or after the deadline will not be answered. The proposer is expected to carry out all measurements of the Institution roof or allocated field secured to install solar panels.

6 Solar PV system proposed requirements.

NB: Requirements can be varied subject to consultant guidelines and latest solar technology

	Description	Requirements
1	System type	Grid tied system
2	Mounting	Roof mounted / ground-mounted
3	Grid connection	Net metered and should comply with ERC standards
4	Solar panel	should comply with ERC or equivalent standards
5	Inverter type	String and/or micro inverters and should comply with ERC Standards or equivalent
6	Mounting structures Aluminum or GI	Aluminum or GI
7	Lighting protection	According to ERC standards
8	Over current protection	According to ERC standards
9	Grounding	According to ERC standard
10	Disconnects	According to ERC standards
11	Energy monitoring system	Online
12	Performance warranty of solar panel system	25 years Linear warranty
13	Product warranty for solar panel	> 20 year
14	Product warranty for inverter	> 10 years
15	System workmanship warranty	at least 10 years

7 Format of Proposal

7.1 Section 1: Company Background and Qualifications

Respondent should provide a summary of not more than ten (10) pages of background information about its company in this section. RFP responses shall include:

- a) Description of proposer's capabilities in providing its products and/or services.
- b) Organizational background and experience in providing solar projects.
- c) Brief bios of the key team members who would work on individual projects and/or broader development agreements executed under this RFP. Identify the Respondent's project manager.
- d) Three (3) examples of similar projects (similar capacity to that proposed for the Daystar University) with references and contact information.
- e) Previous experience in solar installations
 - Reference solar installations < 5 years

7.2 Section 2: System Proposal and Performance

- Details of site survey/energy audit and proposed location for installation
- Specifications of the solar panel, inverters, and all other accessories. The specifications should include make, model, country of manufacture and warranty period and also be backed with supporting documents. Preference will be given to Tier 1 suppliers.
- Mounting type and orientation of the solar panels
- Protection of system from animals
- Design considerations for impact from balls and other objects
- Other design considerations
- Single line diagram of the PV system.

7.3 section 3: Cost proposal

- Net present value analysis of the project over the performance warranty period of the solar panel and the analysis should include
 - Maintenance costs
 - Cost of expected replacements
 - Other operational costs
 - Energy output at the inverter (Energy at the inverter output should account for panel efficiency corrected for local conditions, reduction in panel efficiency with time, inverter efficiency, wiring losses and other losses. Local conditions to be accounted for include expected operating cell temperature, irradiance levels, etc)
 - Financial savings through reduction in electricity bill.
- Specific cost
 - Capital cost per kW
 - Total cost/kWh over the entire warranty period of the solar panel. (Total cost should include capital cost, maintenance costs, replacement cost and all other operational costs)

7.4 Section 4: **Roles and Responsibilities**

7.5 Contractor's Terms of reference:

- Design concepts
- Construction documents and engineering calculations that are signed and sealed by a licensed architect or engineer
- Submittals for materials and products
- Construction materials, equipment, and labor
- Design and construction supervision / contract management
- Quality control plan (QCP)
- Safety plan
- Inspections and tests (per QCP)
- Develop an implementation plan
- Manuals (design calculations, operation/maintenance, shop drawing, etc.)
- Commissioning of project
- Mentoring and training tribal building operating staff for operation and maintenance
- Operation and Maintenance for first year and optional service plan after the first year
- Web-based monitoring system for 20 years
- Financial Proposal

7.5.1 Daystar University responsibilities.

- Provide location to install solar panels as per the contract.
- Review for approval design submittals
- Witness inspections and test witnesses to verify attainment of performance requirements
- Make progress payments for any service agreed
- Allow consultants access to University for site visit/energy audit exercise.
- Approve any contracts agreed with the consultant.

7.6 Section 5: Post Installation Services

7.6.1 **Inspections and testing**

- **General.** The contractor shall perform inspections and tests throughout the construction process including existing conditions/needs assessments, construction installation placement/qualification measurements and final inspections/tests performance certification. Periodic “quality” inspections shall also be conducted to support progress payments to the constructor.
- Daystar University **Witness.** All inspections and tests, to verify documented contract assumptions, to establish work accomplishment, or

to certify performance attainment shall be witnessed by Client and/or construction management

- **Final Inspections and Tests.** In order to ensure compliance with provisions of the ERC, an inspection by a licensed electrical inspector is mandatory after construction is complete. Unless otherwise identified, manufacturer recommendations shall be followed for all inspection and test procedures. The ERC inspection shall be conducted by an independent third-party electrical inspector familiar with PV systems. Provide qualifications of the proposed third-party inspector for review and approval prior to conducting the ERC inspections.

Tests shall include a commissioning of the array. Commissioning shall be performed for the entire installation system. This data shall be used to confirm proper performance of the PV system.

- **Documentation.** The Contractor shall provide two (2) copies of documents containing all test reports/findings. Test results shall typically include item/system tested, location, date of test, test parameters/measured data, state of construction completion, operating mode, contractor inspector/[Clients Name] witness, test equipment description and measurement technique.

7.6.2 Project Closeout

- **Preparation for Final Inspection and Tests.** The following steps shall be taken to assure the project is in a condition to receive inspections and tests.
- **Record Drawings.** The contractor shall maintain on site the working record drawings of all changes/deviations from the original design. Notations on record drawings shall be made in erasable red pencil or other color to correspond to different changes or categories of work. Marked-up drawings shall always be maintained at the contractor's on site. Record drawings shall note related change order designations on impacted work. When shop drawings indicate significant variations over design drawings, shop drawings may be incorporated as part of record drawings. Review of record drawings may be required before monthly payments can be processed.
- **As-Built Drawings and Specifications.** The Consultant shall provide "as-built drawings" and documents based upon actual site installation. Should [Tribe name] determine that variations exist between finished construction and the as-built drawings, the contractor shall correct drawings to the satisfaction of the client.
- **Warranties and Guarantees.** Submit specific warranties and guarantees, final certifications and similar documents to the client upon substantial completion and prior to final payment. Include copies with operations and maintenance manual. All warranties shall be signed by a principal of the contractor's firm and sealed if a corporation.

- **Maintenance Manual.** Provide a detailed operation and maintenance manual including diagram of system components, description of normal operation; description of operational indicators and normal status of each, table of modes of operation, safety considerations, preventative maintenance requirements, troubleshooting and corrective actions; sources of spare parts and cut-sheets for all components.
- **Spare Parts.** The contractor shall provide a recommend list of spare parts. At the minimum, a set of combiner box fuses for each array shall be provided along with the required spare panels noted in Section 8.

7.6.3 Demonstration and Training. Provide client with approved training for designated personnel in the operation of the entire photovoltaic energy system, including operation and maintenance of inverter(s), transfer switches, panel board, disconnects and other features as requested by the client. Instruct the designated personnel in removal and installation of panels, including wiring and all connections. Provide C with written instructions and procedures for shutdown and start-up activities for all components of the system.

7.6.4 Operations and Maintenance Service.

- Provide operation and maintenance of the solar array systems for one year. Work shall include all manufacturer recommended maintenance as well as a 12-month performance commissioning as outlined. Daystar University shall be invited to witness all performance commissioning.

8 Evaluation of Proposals

Daystar University will first evaluate the minimum qualification section of each proposal. Daystar University will then, at its sole discretion, evaluate some or all of the qualified proposals that meet the minimum qualification requirements. This RFP includes minimum qualification criteria. Proposers should ensure they meet the minimum mandatory requirements outlined before preparing a proposal. All qualified Proposals chosen by Daystar University for evaluation shall be evaluated by an Evaluation Committee designated by the University. The Evaluation Committee, upon completion of evaluating the bidders, may elect to hold interviews or presentations with the firms with the top ranked proposals or may solely rely on proposals to make its selection. The Evaluation Committee will determine the highest ranked proposer and may recommend that a Contract be negotiated with a selected firm.

Daystar University will provide Contract Administration and support immediately after the highest ranked Proposer is determined. Daystar University reserves the right to investigate the qualifications of all Proposers under consideration and to confirm any part of the information furnished by a Proposer, or to require other evidence of

managerial, financial or technical capabilities which are considered necessary for the successful performance of the work.

During the course of the Proposal evaluation, Daystar University may request clarification of, or information about, any item in the Proposal. The Firm shall respond within the time requested. If the clarification or information is not forthcoming, Daystar University may, at its sole discretion, disqualify a Proposal if it determines that evaluation of the Proposal cannot proceed in the absence of clarification. However, Daystar University, in its sole discretion, may review and evaluate Proposals and award a Contract based solely on the materials contained in the Firm's Proposal.

Daystar University reserves the right to waive minor irregularities and omissions in the information contained in the Proposal submitted and to make all final determinations. There is no appeal from Daystar University decision not to review a Proposal due to an incomplete or late Proposal submission. The Proposal, its completion and submission by the Proposer, and its use by Daystar University, shall not give rise to any liability on the part of Daystar University to the Proposer or any third party or person.

Proposal evaluation scoring matrix Criteria	Percent of Score
Quality and extent of information provided by the proposal	5
Number of installations equal to or above 1 MW	10
Experience of the team/consultants	10
Training and knowledge transfer	5
Proposed work plan and approach	15
Conceptual design, footprint, and quality of components	10
Production estimates	15
Post installation services	10
Project workplan and timelines	10
Due diligence/presentations	10
	100%

Training and knowledge transfer

SECTION III: - TECHNICAL PROPOSAL

Notes on the preparation of the Technical Proposals

- 3.1 In preparing the technical proposals the consultant is expected to examine all terms and information included in the RFP. Failure to provide all requested information shall be at the consultant's own risk and may result in rejection of the consultant's proposal.

3.2 The technical proposal shall provide all required information and any necessary additional information and shall be prepared using the standard forms provided in this Section.

3.3 The Technical proposal shall not include any financial information unless it is allowed in the Appendix to information to the consultants or the Special Conditions of contract.

TECHNICAL PROPOSAL FORM

1. Technical proposal submission form

Date]

To: _____ [Name and address of Client)
Ladies/Gentlemen:

We, the undersigned, offer to provide the consulting services for _____
_____ [Title of consulting services] in accordance with your

Request for Proposal dated _____ [Date] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, [and a Financial Proposal sealed under a separate envelope-where applicable].

We understand you are not bound to accept any Proposal that you receive.

We remain,

Yours sincerely,

_____ [Authorized Signature]:

_____ [Name and Title of Signatory]:

_____ [Name of Firm]:

_____ [Address:]

2. FIRM'S REFERENCES

Relevant Services Carried Out That Best Illustrate Qualifications

Using the format below, provide information on each assignment for which your firm either individually, as a corporate entity or in association, was legally contracted.

Assignment Name:	Country
------------------	---------

Location within Country:		Professional Staff provided by Your Firm/Entity(profiles):
Name of Client:		Clients contact person for the assignment.
Address:		No of Staff-Months; Duration of Assignment:
Start Date (Month/Year):	Completion Date (Month/Year):	Approx. Value of Services (Kshs)
Name of Associated Consultants. If any:		No of Months of Professional Staff provided by Associated Consultants:
Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed:		
Narrative Description of project:		
Description of Actual Services Provided by Your Staff:		

Firm's Name: _____

Name and title of signatory; _____

(May be amended as necessary and several copies attached)

3. COMMENTS AND SUGGESTIONS OF CONSULTANTS ON THE TERMS OF REFERENCE AND ON DATA, SERVICES AND FACILITIES TO BE PROVIDED BY THE CLIENT.

On the Terms of Reference:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

On the data, services and facilities to be provided by the Client:

- 1.
- 2.
- 3.
- 4.
- 5.

4. DESCRIPTION OF THE METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT

5. TEAM COMPOSITION AND TASK ASSIGNMENTS

1. Technical/Managerial Staff

Name	Position	Task

2. Support Staff

Name	Position	Task

6. FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

Proposed Position: _____

Name of Firm: _____

Name of Staff: _____

Profession: _____

Date of Birth: _____

Years with Firm: _____ Nationality: _____

Membership in Professional Societies: _____

Detailed Tasks Assigned: _____

Key Qualifications:

[Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations].

Education:

[Summarize college/university and other specialized education of staff member, giving names of schools, dates attended and degree[s] obtained.]

Employment Record:

[Starting with present position, list in reverse order every employment held. List all positions held by staff member since graduation, giving dates, names of employing organizations, titles of positions held, and locations of assignments.]

Certification:

I, the undersigned, certify that these data correctly describe me, my qualifications, and my experience.

_____ Date: _____
[Signature of staff member]

_____ Date;

[Signature of authorised representative of the firm]

Full name of staff member: _____

Full name of authorized representative: _____

7. TIME SCHEDULE FOR PROFESSIONAL PERSONNEL

Months (in the Form of a Bar Chart)													
Name	Position	Reports										10	Number of months

		Due/ Activities	1	2	3	4	5	6	7	8	9		11	12	

Reports Due: _____

Activities Duration: _____

Signature: _____
(Authorized representative)

Full Name: _____

Title: _____

Address: _____

8. ACTIVITY (WORK) SCHEDULE

(a). Field Investigation and Study Items

[1st, 2nd, etc, are months from the start of assignment)

	1st													
Activity (Work)														

(b). Completion and Submission of Reports

18 Page

Reports	Date
1. Inception Report	
4. Interim Progress Report	
(a) First Status Report	
(b) Second status Report	
3. Draft Report	
4. Final Report	

SECTION IV: - FINANCIAL PROPOSAL

Notes on preparation of Financial Proposal

- 4.1 The Financial proposal prepared by the consultant should list the costs associated with the assignment. These costs normally cover remuneration for staff, subsistence, transportation, services and equipment, printing of documents, surveys etc as may be applicable. The costs should be broken down to be clearly understood by the procuring entity.
- 4.2 The financial proposal shall be in Kenya Shillings or any other currency allowed in the request for proposal and shall take into account the tax liability and cost of insurances specified in the request for proposal.
- 4.3 The financial proposal should be prepared using the Standard forms provided in this part.
- 4.4 The financial proposal should break down the cost for each of the consultancy years sought on this consultancy.

SECTION IV - FINANCIAL PROPOSAL STANDARD FORMS

1. FINANCIAL PROPOSAL SUBMISSION FORM

_____ [Date]

To: _____

[Name and address of Client]

Ladies/Gentlemen:

We, the undersigned, offer to provide the consulting services for
_____ in accordance with your Request for Proposal dated
(_____) *[Date]* and our Proposal. Our attached Financial Proposal is for
the sum of (_____) *[Amount in words and figures]* inclusive of the taxes.

We remain,

Yours sincerely,

_____ *[Authorized Signature]*
:
_____ *[Name and Title of Signatory]:*
_____ *[Name of Firm]*
_____ *[Address]*