

REQUEST FOR QUOTE FOR PROFESSIONAL SERVICES – STANDARD FORMAT v.2024

RFQ	Solar02
ISSUE DATE	13 February 2024
CLOSING DATE	23 February 2024
CLOSING TIME	18h00

REQUEST FOR A QUOTE FOR THE SUPPLY AND INSTALLATION OF AN AC GRID TIED COUPLED ROOFTOP SOLAR SYSTEM AT THE FIRST RAADSAAL AND WAGON MUSEUM

1. Background to the National Museum

The National Museum - a natural history, cultural history and art museum was established in 1877 and is a declared cultural institution, which resorts under the Department of Arts and Culture and is governed by a council. The mission of the National Museum is to provide heritage resources and an enjoyable experience to all people through quality research, conservation, education and exhibitions. More information about the organisation can be found at www.nasmus.co.za

2. Purpose and Background

The National Museum intends to appoint a suitable service provider for a once-off supply and installation of a rooftop solar system at The First Raadsaal and Wagon Museum which is situated at 95 ST Georges Street, Bloemfontein.

The Occupational Health and Safety Act 1993 (Act No 85 of 1993), the South African electrician's work must comply with SANS 10142-1 (Edition 2), which is the most recent legislation applicable to the electrical trade shall apply

This, along with the OHS Act's regulations such as the Electrical Installation Regulations, Electrical Machinery Regulations, and General Safety Regulations

3. Scope/Specifications with deliverables of Service(s) required

The supply and installation of a rooftop hybrid solar system.

2. Including rooftop **monocrystalline solar panels**, a smart **5KW inverter & lithium battery** to reduce the museum's grid dependency and provide power during loadshedding.
3. The system must be connected to the existing electrical installation of the museum and remain connected to the grid as backup for when the solar panels and battery cannot cover consumption. For example on cloudy & rainy days.
4. Automatic changeover between solar, batteries and grid is required.
5. Provide Earth and Lightning protection.
6. Provide Electric compliance certificate (COC)
7. Health & Safety File
8. A needs analysis to determine the size of the system required.

PV Modules

PV Modules shall be tier 1 and shall provide the maximum power production per meter squared (m²).

The Contractor shall supply and install the PV modules to achieve the specified levels of performance for the required design life of 25 years under the prevailing site environmental conditions, which shall be determined by the Contractor.

Modules to be used shall be reliable modules with a proven track record in performance, operation and obtaining long-term debt (project finance). The Contractor shall ensure that PV modules are sourced from a **Tier 1 manufacturer**.

All modules supplied shall be of the same type and from a single manufacturer.

The quality of equipment supplied shall be generally controlled to meet the guidelines for the design included in the standards and codes listed.

All transportation, storage, handling and installation of the modules shall be in accordance with the specifications from the manufacturer to ensure that the module manufacturer's warranty is honored.

The module rated peak power shall be used to determine the peak power of the PV Plant. The peak power shall be the sum of the manufacturer's name plate data sheets for each individual module.

The Contractor shall be responsible to decide the module arrangements to minimize the losses due to mismatching.

Where the manufacturer's module flasher data show an IMPP deviation of more than 3%, PV modules shall be sorted into three groups to meet a set tolerance.

Only modules from the same set shall be used in in the same string. All records of the testing and grouping of Modules must be kept and presented to the Clients.

Surge and lightning protection

The Contractor shall carry out a risk assessment for lightning and install adequate lightning protection systems.

The Contractor shall design the lightning protection system in accordance with the latest edition of the SANS/IEC standards.

The lightning protection system shall protect the plant, inverters, control and monitoring systems and any other electrical and mechanical equipment against damage caused by lightning strikes.

The proposals to the Client must provide for adequate design against lightning induced overvoltage risk.

Overvoltage protection shall be installed at DC side as well as AC side of the inverter and within the PV arrays.

In general, the design of the DC system must ensure that cables are kept in parallel and as short as possible, while cable loops are also avoided or restricted.

Protection against direct strikes (direct strike lightning protection) shall be installed and coupling because of strikes elsewhere in the grid (indirect strike lightning protection) shall be taken into consideration and designed out of the system.

Other

PV module supplied must be Tier 1

Inverter supplied must be of a known type similar/equivalent – or approved. The following minimum certifications need to apply: (IEC61727, IEC62109-1/2, NRS 097-2-1 2017, IEE1547, IEE1547.1, IEE1547.2)

PV modules need to be fixed by means of antitheft fixings

Electrician must be registered with department of labour as a three-phase electrician (IE/MIE Number)

4 Compulsory requirements

The bidder must attach the following documents to the quotation as follows;

- 4.1.1 at least three years' experience in supply and installation of solar of which number of years claimed must be supported by contactable written reference letter(s). A bidder will score more points on technical assessment with more than the required number of years of experience as indicated above.

- 4.1.2 a valid copy or copies of relevant professional registration for installing Solar PV must be attached.
- 4.1.3 Registration proof to be supplied (i.e. Three (3) Phase Wireman's Licence). Expired licences won't be accepted.
- 4.1.4 Contractor needs a CIDB rating of 1EP or higher, proof of CIDB grading must be attached.
- 4.1.5 Proof of ECSA Registered Professional Engineer or Technologist must be attached
- 4.1.6 completed, signed and witnessed SBD forms 4 must be attached.
- 4.1.7 a copy of a detailed CV(s) and qualification(s) of the technician or expert to be used on this project must also accompany the quote.
- 4.1.8 the bidder must be tax compliant and a tax pin issued by SARS must be attached.
- 4.1.9 the bidder must be registered on CSD and CSD supplier report must be attached.
- 4.1.10 The bidder must be compliant with COIDA, and proof of compliance with COIDA must be attached.

5 Minimum requirements

- 5.1.2 A valid copy of BBBEE certificate or completed and signed BBBEE declaration/Affidavit should be attached to score points on preferential procurement evaluation.
- 5.1.3 The bidder must be an active company registered in the Republic of South Africa, and a copy of CIPC should be attached.

Matters for noting.

1. Non-compliance to the above compulsory requirements will lead to a disqualification of the service provider, except where non-tax compliant with tax matters which is subject to grace period of at least 7 days that will be provided to a preferred service provider should that service provider be non-compliant following bid evaluation.
2. Failure by this preferred service provider to rectify its tax matters to a compliant status within the seven (7) days grace period provided will lead to an automatic disqualification.
3. Validity period for bids or formal written quotations submitted shall be valid for a minimum period of thirty (30) days. The formal written price quotations received from the

service provider/supplier will be regarded as valid for 30 days despite expiry date less than 30 days indicated on a quote.

5 Bid evaluation.

All bidders will be subject to a three-stage technical evaluation process as follows;

5.1.1 Pre-screening, i.e. determination of compliance to compulsory requirements. The bidder will be required to pass pre-screening to be eligible for further evaluation.

5.1.2 Technical assessment. Means the measurement according to predetermined norms, as set out in the bid or quotation documents, of a service or commodity that is designed to be practical and used, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder. The bidder will be required to obtain a minimum of 70 points in order to be eligible for preferential procurement evaluation.

5.1.3 Preferential procurement calculation 80/20, whereby 80 is for price, and 20 points for specific goals as explained below.

6 Preferential procurement evaluation.

	Preference Points Criteria	Points Allocation
1	Price	80
2	Specific goals	20
	Total Points	100

In accordance with the Preferential Procurement Regulations of 2022, NM has determined the following specific goals for which preference points will be awarded:

Goal 1: Broad-Based Black Economic Empowerment

Section 10 of the B-BBEE Act enjoins every public entity to take into account and apply the B-BBEE Codes of Good Practice in determining and implementing a preferential procurement policy. NM will thus award preference points to suppliers based on their B-BBEE specific preferential goals.

Goal 2: Empowerment of Local Businesses

NM is in the Free State, a rural province on the margins of economic activity. To develop and empower local businesses based in the Free State, NM will award preference point to suppliers based in the Free State.

Goal 3: Youth Empowerment

Youth participation in the economy is crucial for the growth and development of the South African economy, but their participation has been limited by several factors. One of the main challenges for youth has been the high levels of unemployment. The unemployment rate for young people in South Africa is much higher than the national average, which makes it difficult for them to enter the labour market and participate in the economy.

In an effort to empower youth and encourage their participation in the economy, NM will award preference points to businesses which are at least 51% owned by youth.

Goal 4: Women Empowerment

Women participation in the economy is crucial for the growth and development of the South African economy, but their participation has been limited by several factors. For women, the challenge has been unequal access to economic opportunities, including education, training, and employment. Women in South Africa often face discrimination and gender-based violence, which can limit their ability to participate in the economy. Additionally, women tend to be concentrated in low-paying, informal sector jobs, which offer little security and limited opportunities for advancement.

To empower women and encourage their participation in the economy, NM will award preference points to businesses which are at least 51% owned by women.

Goal 5: Empowerment of People with Disabilities

People with disabilities face significant barriers to participating in the South African economy. According to the World Bank, about seven million South Africans have some

form of disability, and they are more likely to experience poverty and unemployment compared to those without disabilities.

People with disabilities often face discrimination in the labour market and have limited access to education, training, and employment opportunities. They may also face physical and attitudinal barriers, making it difficult for them to fully participate in the economy.

In an effort to empower people with disabilities and encourage their participation in the economy, NM will award preference points to businesses which are at least 51% owned by people with disabilities.

Points awarded for each goal

Preferential points will be awarded as per below scoring:

CRITERION	(30)%	(10)%
B-BBEE Status	4	2
Businesses Based in the Free State	4	2
Ownership by Youth	4	2
Ownership by Women	4	2
Ownership by People with Disabilities	4	2
	20	10

B-BBEE Status Points will be awarded as per below:

BBBEE STATUS	(30)%	(10)%
Level 1	4	2
Level 2	3	1.5
Level 3	2	1
Level 4 and below	1	0.5
Non-compliant	0	0

Ownership Points for Youth, Women, and People with Disabilities will be awarded as per below:

OWNERSHIP	(30)%	(10)%
Above 50%	4	2

Above 40%	3	1.5
Above 25%	2	1
Above 10%	1	0.5

Proof of claim

Service providers must submit valid proof of claim for any of the above criteria as stipulated in the bid documents. Failure to submit proof of claim will not disqualify a bid but will result in points not being awarded for any criterion for which proof of claim has not been submitted or is invalid.

7 Technical Assessment

FUNCTIONALITY CRITERIA	POINTS ALLOCATION
Score points; 1 = 1 year 2 = 2 years 3 =3 years 4 =4 years 5 =5 years plus Experience of firm – for similar scale projects or services required.	40
Score points; 1 = 1 year 2 = 2 years 3 =3 years 4 =4 years 5 =5 years plus Experience and Qualifications of one (1) Lead Technical – for similar scale Projects or services required. Certificate, trade test, Diploma or higher = 5 No qualification = 1	40

Reference letters	20
Score points;	
1 = 1 reference letter	
2 = 2 reference letters	
3 = 3 reference letters	
4 = 4 reference letters	
5 – 5 plus reference letters	
Total points	100 points

8 Price

The bidder must provider a cost inclusive quotation including VAT if applicable. The financial offer must be provided in the table below;

8.1.1 A quote and all other compulsory documents must be forwarded to scm@nasmus.co.za. Hand delivered bids will not be considered.

NO	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	BILL No.1				
	ELECTRICAL WORKS				
1	5Kw Hybrid inverter	No	1		
2	Canadian Solar HiKu 545W Super High Power Mono PERC Solar Panel or Similar approved including roof mounting at 45° & accessories	No	12		
3	Sunsynk Rack Mount 5.32kWh 51.2V Lithium Battery or similar approved	No	2		
4	Single Phase AC Switch Disconnector 40A	No	1		
5	Battery Disconnector with 125A Fuses	No	1		
6	600V Protection Box 2 Inputs 2 Outputs 16A Isolator Type II SPD	No	1		
7	MC4 Pre terminated cable 2m (Pack of 2)	No	1		
8	Multi Contact Cable Coupler Pack - MC4	No	2		
9	Sustainable 6mm ² Black Panel flex	m	5		
10	Sustainable 6mm ² Black Double Insulated	m	26		

	Halogen Free Solar Cable				
11	Sustainable 6mm ² Red Double Insulated Halogen Free Solar Cable	m	26		
12	Sustainable 1500mm Red Battery Connector	No	1		
13	Battery Hazard Label Pack	No	2		
14	PV on Roof and Hazard Labels Pack	No	1		
15	Earthling & Lightning protection	Item			
16	Health & Safety File	Item			
17	Supply & Install 3 core cable from the solar DB to the Main DB near the First Raadsaal Museum, including excavation not exceeding 2m deep including an electric cable warning tape 150mm x 500m	m	20.6		
20	Electrical Compliance Certificate (COC)	Item			
	FINAL SUMMARY	Ref			
1	Electrical Work	Bill No.1			
	SUB TOTAL			R	
	VAT @ 15%			R	
	TOTAL COST INCL. VAT			R	



an agency of the
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Incorporating the satellites: | Insulend die satelliete:
Oliewenhuis Art Museum | Oliewenhuis-kunsmuseum
Freshford House Museum | Freshford-huismuseum
First Raadsaal | Eerste Raadsaal
Wagon Museum | Wagenhuismuseum
Florisbad Research Station | Florisbad-navorsingsstasie

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BIDDER'S DISCLOSURE

1. Purpose of the form

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in the table below.

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the **National Museum, Bloemfontein?** **YES/NO**

22.1 If so, furnish particulars:

.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

2.3.1 If so, furnish particulars:

.....

3 Declaration of shareholding

3.1 Are any of the bidder's directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise, designated as youth, women, and/or people with disabilities? **YES/NO**

3.1.1 If so, furnish particulars of the names, individual identity numbers, sex, shareholding and, if applicable, disability of sole proprietor/ directors /

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trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in the table below.

4 DECLARATION

I, the undersigned, (name)
in submitting the accompanying bid, do hereby make the following
statements that I certify to be true and complete in every respect:

- 4.1 I have read and I understand the contents of this disclosure;
- 4.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 4.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement, or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 4.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

2 Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

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4.5 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

4.6 There have been no consultations, communications, agreements, or arrangements made by the bidder with any official of the **National Museum, Bloemfontein** in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

4.7 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2, 3 and 4 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

Signature

Date

Position

Name of Bidder