



***The supply and installation of solar meteorological station at 5x sites to the CSIR***

***Request for Quotation (RFQ) No: 5902/05/09/2022***

Date of issue	Monday, 22/08/2022
Closing Date and Time	Monday, 05/09/2022 at 16:30
RFQ Number	5902/05/09/2022
Contact details	For submission of quotations or any other enquiries: <a href="mailto:tender@csir.co.za">tender@csir.co.za</a>

**1 INVITATION FOR QUOTATION**

Quotations are hereby invited for the supply and installation of solar meteorological station at each of the five sites located in Mpumalanga, Western cape and Northern cape. The bidder shall utilize CSIR provided equipment and remaining equipment / components sourced as part of this tender to install and commission a fully functional meteorology station.

**2 QUOTATION REQUIREMENTS**

The scope of this works under this quotation entails the completion of the supply and installation of the components for solar meteorological stations at the 5x sites listed in Table 1.

*Table 1: Details of all 5x sites situated across 3 provinces*

	<b>Solar Met Station</b>	<b>Province</b>	<b>Location</b>	<b>GPS Coordinates</b>	<b>Electricity supply</b>
1	Ground Zero	Northern Cape	Upington	Will be provided (15km from Upington Airport)	Not Available
2	Grootdraai	Mpumalanga	Grootdraai dam resort	Lat -26.891836 Long 29.307844	Available
3	Kendal	Mpumalanga	Station near Kendal PS	Lat -26.107914 Long 28.974439	Available
4	Majuba	Mpumalanga	Station near Majuba PS	Lat -27.112774 Long 29.800292	Available
5	SERE	Western Cape	SERE Wind farm	Lat -31.485120 Long 18.121970	Not available

At 4x sites, the meteorological station shall measure global horizontal irradiation (GHI), wind speed, wind direction, temperature and humidity, barometric pressure, and rainfall. The meteorological station at 1x site (Upington) shall measure additional parameters i.e., Direct Normal Irradiance (DNI) and Diffuse Horizontal Irradiance (DHI) using CSIR provided Solys 2 tracker.

CSIR will hand over the following equipment to the selected bidder:

- a) 6x CMP 21 Pyranometers (5x for GHI measurement and 1x for DHI measurement)
- b) 1x CHP 1 Pyrhelimeter for DNI measurement
- c) 1x Solys 2 tracker with power cable and 24V DC connector
- d) 5x CR 1000 Dataloggers
- e) 1x Desktop Computer

Figures 1, 2 and 3 provide the details of equipment provided by CSIR and the equipment that needs to be supplied and installed by Bidder. The Kendal, Majuba, Grootdraai dam and SERE wind farm sites shall be supplied with equipment and installed as per Figure 1. The Upington site shall be supplied with equipment as per Figure 2. Please refer Table 2 for the specifications of equipment that needs to be delivered as part of this tender. Bidders shall prioritise the compatibility of the sourced new equipment with existing equipment provided by CSIR. All the stations shall be powered by solar PV panel and batteries configured appropriately to run smoothly without any intermittent shut downs.

All remaining equipment including the accessories required for mounting Pyranometers and Pyrheliometer i.e., cables, supporting assemblies, fasteners and other required spare parts shall be supplied and installed by bidder.

Access to a desktop computer at the Eskom RT&D office, Rosherville, Johannesburg for the selected bidder will be provided to establish remote connection with each of the meteorology station. **The selected bidder shall install Loggernet software on the provided desktop computer and demonstrate the data access and equipment functionality from Rosherville site as a final deliverable of this tender.**

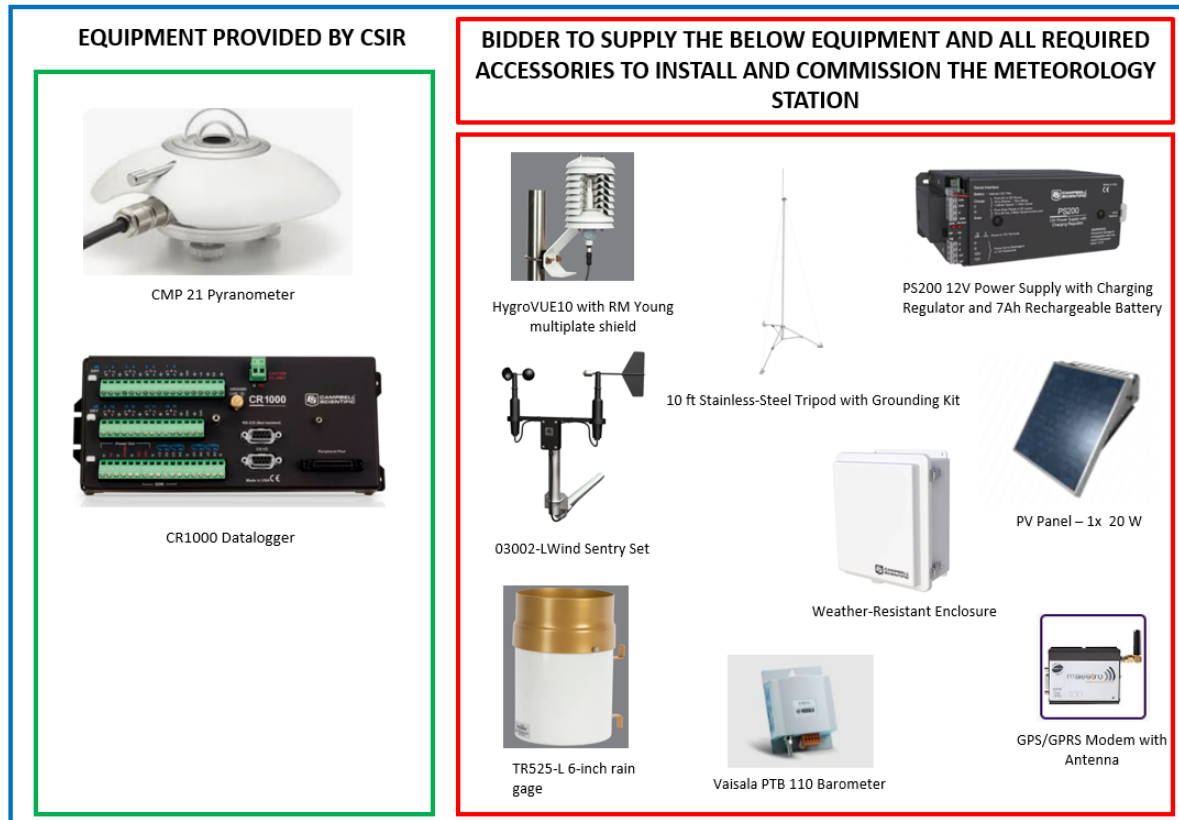


Figure 1: Meteorology station to be installed with the following components at Kendal, Majuba, Grootdraai Dam and SERE wind farm sites



Figure 2 : Meteorology station to be installed with the shown components at Upington site

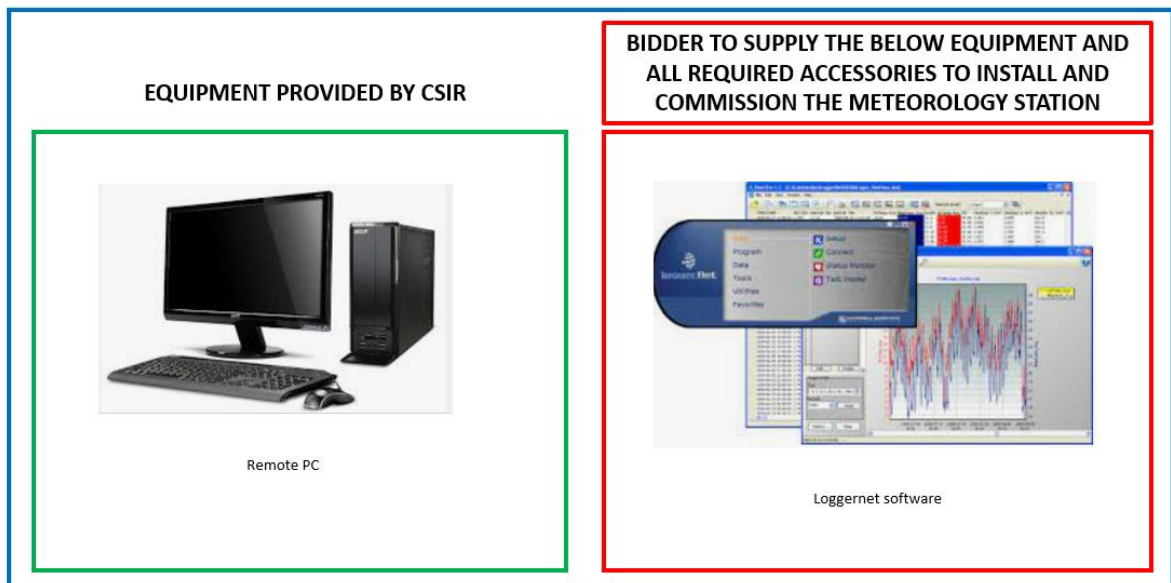


Figure 3 : Remote access and Data monitoring system to be established at CSIR designated location in Johannesburg

Table 2 presents the specifications for the key items to be supplied by bidder. A compatible similar items can be proposed by the bidder in a case of non-availability of mentioned equipment in below table.

*Table 2 : List of key components / items to be supplied by Bidder*

<b>Equipment</b>	<b>Specifications</b>
Temperature and Humidity sensor	HygroVUE10 CSL Digital / RH sensor with RM Young Gill Multiplate radiation shield
Anemometer	RM Young 03002-L Wind Sentry Set
Rain Gage	Texas Electronics TR525-L 6" Rain Gage 0.2 mm
Pressure sensor	Vaisala PTB110 Wall Mount Barometer with 0-2.5V, 500-1100hPa
Mounting structure for Kendal, Majuba, Grootdraai Dam and SERE wind farm sites	Campbell Scientific 10 ft Stainless-Steel Tripod with grounding and fittings required for all the equipment that gets mounted on to this structure
Mounting structure for Upington site	1) Campbell Scientific 10 ft Stainless-Steel Tripod with grounding and fittings required for all the equipment that gets mounted on to this structure 2) Generic mounting structure for Solys 2 Tracker (28 kg). This structure shall also house batteries in a lockable lower deck. 3) All mounting assemblies shall be firmly cemented /grouted to bear the adverse weather conditions
Power Supply for Equipment and Datalogger ((Bidder to recommend most optimum component and solution)	Campbell Scientific PS200 12V Power Supply with Charging Regulator and 7Ah Rechargeable Battery
	Generic 20 Wp solar PV panel with mounting structure
Water resistant enclosure	Campbell Scientific EN 14/16 Weather Resistant Enclosure
GPS / GPRS Modem with SIM (Contracted for 2 years)	Maestro or any equivalent Data bundle contract for minimum 2 years. Data service provider shall be based on signal strength available at respective sites
Power Supply for Solys 2 Tracker (Bidder to recommend most optimum component and solution)	Generic 12V 100 AH battery (4x batteries connected 2 in series, 2 in parallel required for a 24V configuration, 200 AH configuration) Batteries shall be housed in an enclosure inside Solys 2 mounting structure
	Victron MPPT 75/15 SmartSolar Charge Controllers with load output
	Generic minimum 300 Wp solar PV panel with mounting structure

Datalogger Support Software	Loggernet
Accessories	All required mounting accessories for the installation of equipment including CSIR provided ones, cables, clamps, fasteners etc.

The bidders shall provide the quote for the requested services in the below format as a minimum to establish per site capital and installation costs.

Site	Equipment / Component cost (excluding CSIR provided equipment) (ZAR)	Installation cost including travel, subsistence (ZAR)
Ground Zero		
Grootdraai		
Kendal		
Majuba		
SERE		
<b>Total Cost</b>	<b>ZAR</b>	

### 3 EVALUATION CRITERIA

- 3.1 Selection of suppliers will be based on the 80/20 preference point system.
- 3.2 Indicate CSD number (National Treasury Central Supplier Database) on quotation. If not registered yet on CSD, use [www.csd.gov.za](http://www.csd.gov.za) to register.
- 3.3 No order will be issued or no contract will be signed without a valid CSD number.
- 3.4 No B-BBEE scores will be allocated to service providers if they do not provide the following;
  - Valid original or certified copy of the B-BBEE Certificate issued by an accredited verification agency and bearing a SANAS logo; **or**
  - Valid sworn affidavits made on dti designed templates; **or**
  - dti issued sworn affidavit; **or**
  - CIPC issued B-BBEE certificate.

#### **4 ELIMINATION**

- 4.1 Bidders that submit late bids will not be considered.
- 4.2 Bidders that submit to the incorrect location or email address will be eliminated.
- 4.3 Bidders that are listed on the NT database of restricted suppliers will not be considered.
- 4.4 Bidders that are registered on the NT Register of Tender Defaulters will not be considered.
- 4.5 Bidders that do not submit a fully completed and signed SBD 1 and SBD 4 Form will not be considered.
- 4.6 Bidders that do not meet local production and content requirements (bidder must submit a fully completed and signed SBD 6.2 and its Annexure C), will not be considered. (When LPC is applicable)

#### **5 PRICING QUOTATION**

- 5.1 Price needs to be provided in South African Rand (excl. VAT) or (Inc VAT) where applicable, with details on price elements that are subject to escalation and exchange rate fluctuations clearly indicated.
- 5.2 Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable, etc.
- 5.3 Payment will be according to the CSIR Payment Terms and Conditions.

#### **6 LOCAL CONTENT AND PRODUCTION**

- 6.1 Only locally manufactured goods and/or services from local raw material or input will be considered.
- 6.2 If the raw material or input to be used for a specific item is not available locally, bidders should obtain written authorisation from the DTIC should there be a need to import such raw material or input.
- 6.3 A copy of the authorisation letter must be submitted together with the bid document at the closing date and time of the RFQ. For further information, bidders may contact the Electrical and Steel sector unit within the DTIC at telephone 012 394 3717/1390 during office hours.
- 6.4 The guidelines and declarations that should be used by tenderers when preparing a tender are available on the DTIC website. Guidance on the calculation of local

content and manufacturing can be assessed on the DTIC's official website –

[http://www.theDTI.gov.za/industrial\\_development/ip.jsp](http://www.theDTI.gov.za/industrial_development/ip.jsp)

- 6.5 Tenderers must complete Declarations D and E, and consolidate the information on Declaration C. Annexures C, D and E must be submitted with the tender by the closing date and time as determined by the CSIR. If the tender is successful, the tenderer must continuously update Declarations C, D and E with actual values for the duration of the contract.
- 6.6 The Declaration Certificate for Local Production and Content (SBD 6.2) in addition to the above declarations must also be completed, duly signed and submitted by the bidder at the closing date and time of the tender; and
- 6.7 The rates of exchange quoted by the bidder in paragraph 6.8 below of the declaration certificate will be verified for accuracy.
- 6.8 The exchange rate to be used for the calculation of local production and content must be the exchange rate published by the South African Reserve Bank (SARB) AT 12:00 on the date of advertisement of bid.
- 6.9 Only the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 must be used to calculate local content.
- 6.10 Bidders must clearly indicate in their bids, the quantities of products to be supplied, and the level of local content for each product.
- 6.11 Applicable local production and content minimum thresholds for this tender are as per the table below:

<b>Sector</b>	<b>Minimum Local Content Threshold Applicable</b>
PV Solar Panel	15%
Industrial Lead Acid Batteries	50%
Steel (Mounting Structure)	100%
Cement (Concret slab/installion of Structure)	100%
Steel Bracket	100%
Electrical Cable	100%
PVC pipes	100%



Bidders to be disqualified, if the bidder fails to meet the Local Production and Content requirements (Bidder must submit full completed and signed local content Annexure C and SBD 6.2 declaration certificate for Local Production and Content).

See attached **Annexure B**: Guidance Document for the Calculation of Local Content

#### **6.12 How to apply for exemption:**

The exemption request must be on your signed company's letter-head and cover the following:

- The procuring entity/government department/state owned company,
- Tender/bid number,
- Closing date,
- Item(s) for which the exemption is being requested for,
- Description of the goods, services or works for which the requested exemption item will be used for and the local content that can be met,
- Reason(s) for the request,
- Attach specification issued by the procuring entity, and
- Supporting letters from local manufacturers/sub-suppliers (if applicable).

**Attention to:**

Dr. Tebogo Makube  
Chief Director: Industrial Procurement Unit  
The Department of Trade and Industry  
Private Bag X84,  
Pretoria,  
Gauteng, 0001

### **7 OTHER TERMS AND CONDITIONS**

- 7.1 The supplier shall under no circumstances offer, promise or make any gift, payment, loan, reward, inducement, benefit or other advantage, which may be construed as being made to solicit any favour, to any CSIR employee or its representatives. Such an act shall constitute a material breach of the Agreement and the CSIR shall be entitled to terminate the Agreement forthwith, without prejudice to any of its rights.
- 7.2 A validity period of 90 days will apply to all quotations except where indicated differently on the quote.

- 8 No goods and/or services should be delivered to the CSIR without an official CSIR Purchase order. CSIR purchase order number must be quoted on the invoice. Invoices without CSIR purchase order numbers will be returned to supplier.**

**9 DECLARATION BY TENDERER**

**Only tenderers who completed the declaration below will be considered for evaluation.**

**RFQ No: 5902/05/09/2022.**

I hereby undertake to render services described in the attached tendering documents to CSIR in accordance with the requirements and task directives / quotation specifications stipulated in **RFQ No. 5902/05/09/2022** at the price/s quoted. My offer/s remains binding upon me and open for acceptance by the CSIR during the validity period indicated and calculated from the closing date of the quotation.

I confirm that I am satisfied with regards to the correctness and validity of my quotation; that the price(s) and rate(s) quoted cover all the services specified in the quotation documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this RFQ as the principal liable for the due fulfilment of this RFQ process.

I declare that I have no participation in any collusive practices with any tenderer or any other person regarding this or any other RFQ proposal.

I accept that the CSIR may take appropriate actions, deemed necessary, should there be a conflict of interest or if this declaration proves to be false.

I confirm that I am duly authorised to sign this proposal.

NAME (PRINT) .....  
CAPACITY .....  
SIGNATURE .....  
NAME OF FIRM .....  
DATE .....

WITNESSES	
1	.....
2	.....
DATE: .....	

## Annexure “A”

**RFQ No. 5902/05/09/2022**

### 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 interest<sup>1</sup> 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 table below.

Full Name	Identity Number	Name of State institution

<sup>1</sup> 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 procuring institution?

**YES/NO**

2.2.1 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**

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:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 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 consortium<sup>2</sup> will not be construed as collusive bidding.
- 3.4 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.
- 3.4 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.

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<sup>2</sup> 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.

- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution 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.
  
- 3.6 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 and 3 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