



National Research Foundation

INVITATION TO BID (SBD 1)

YOU ARE HEREBY INVITED TO BID FOR THE FOLLOWING SPECIFIED SUPPLY REQUIREMENTS

BID NUMBER:	NRF/SAEON/MET/2016	CLOSING DATE:	07 March 2016	CLOSING TIME	11:00
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BID DESCRIPTION

Supply and Delivery of Two Eddy Covariance Measurement Systems for long-term monitoring of carbon dioxide, water and energy exchanges between the atmosphere and earth surface

Preferential Procurement System Applicable (points for price: points for procurement preference): 90 :10

BID DOCUMENTS ARE TO BE DEPOSITED IN THE BID BOX SITUATED AT:

EITHER PHYSICALLY OR BY COURIER		
SAEON office, Reception Desk		
Persequor Technopark,		
41 De Havilland Crescent		
The Woods, Block C, Ground Floor		
Brummeria, Pretoria		
RSA		

Bidders should deliver bids to the correct address before the closing date and time. Late bids will not be considered

The bid box is open from 08h00 to 16h00 South African time, 5 days a week (Monday to Friday).

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS IN THIS INVITATION (NOT TO BE RE-TYPED) WITH ADDITIONAL INFORMATION ON ATTACHED SUPPORTING SCHEDULES

THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS - 2011, THE GENERAL CONDITIONS OF CONTRACT (NRF WEBSITE www.nrf.ac.za) AND SPECIAL CONDITIONS OF CONTRACT AS STIPULATED IN THIS INVITATION..

THE FOLLOWING PARTICULARS MUST BE FURNISHED AS LEAD PAGE OF THE BID RESPONSE

BID NUMBER: NRF/SAEON/MET/2016	CLOSING DATE:	07 March 2016	CLOSING TIME	11:00
NAME OF BIDDER				
REPRESENTED BY				
POSTAL ADDRESS				
PHYSICAL ADDRESS				
TELEPHONE NUMBER	CODE	NUMBER		
CELL PHONE NUMBER	CODE		NUMBER	
FACSIMILE NUMBER	CODE		NUMBER	
E-MAIL ADDRESS				
VAT REGISTRATION NUMBER				
HAS AN ORIGINAL AND VALID TAX CLEARANCE CERTIFICATE BEEN SUBMITTED?				YES or NO
HAS A PREFERENCE CLAIM FORM BEEN SUBMITTED FOR YOUR PREFERENCE POINTS? (SBD 6.1)				YES or NO
(A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE MUST SUPPORT PREFERENCE POINTS CLAIMED)				
<u>IF YES, WHO WAS THE B-BBEE CERTIFICATE ISSUED BY</u>				
AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)				<input type="checkbox"/>
A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS); OR				<input type="checkbox"/>
A REGISTERED AUDITOR				<input type="checkbox"/>
[Tick Applicable Box]				
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS/SERVICES/WORKS OFFERED?				YES or NO
IF YES ENCLOSE PROOF				

SIGNATURE OF BIDDER _____

NAME of BIDDER _____

DATE _____

CAPACITY UNDER WHICH THIS BID IS SIGNED

ANY ENQUIRIES REGARDING THE BIDDING PROCEDURE DIRECTED TO:

**Contact Person
(Processes):**

Cindy Hlanze

Tel: 012 349 7720

Email: Cindy@saeon.ac.za

**Contact Person
(Technical):**

Dr Colin Everson

Tel: 083 320 9570

Email: colin@saeon.ac.za

No of originals	1	Number of bid pack copies	4
Pack split into "Technical" and "Awarding" Sections	Yes/No	Two envelope system required	Yes/No
Proposal – Bidder's B-BBEE Transformation Program			Yes/ No

SUPPLIER ACCREDITATION

(Provide evidence of being an Accredited Supplier registered in the NRF Supplier Database or Provide documentation to be registered in the NRF Supplier Database)

Completed Supplier Accreditation Pack (available at WWW.NRF.AC.ZA/Procurement/supplier database & registration forms)	Yes/ No
Certified copies of certificate of incorporation (as per entity type)	Yes/ No

1. Background to the National Research Foundation and its business units

The National Research Foundation (“NRF”) is a juristic person established in terms of section 2 of the National Research Foundation Act, Act 23 of 1998. The NRF is the government’s national agency responsible for promoting and supporting research and human capital development through funding, the provision of National Research Facilities and science outreach platforms and programs to the broader community in all fields of science and technology, including natural science, engineering, social science and humanities.

The South African Environmental Observation Network (“SAEON”), a business unit within the NRF, is mandated with Long Term Environmental Observation to detect and understand the impacts of Global Change in South Africa. Six SAEON nodes are strategically situated across geographic regions representing the country’s major biomes. SAEON coordinates an array of multi-disciplinary observation platforms and research programs that are designed to monitor and understand Earth system dynamics and human induced changes to these over multiple scales. These initiatives are currently being advanced through the development of a coordinated sophisticated instrument network that must contribute quality, long-term environmental data for research that will ultimately guide evidence-based policy and decision-making. SAEON is committed to scientific excellence

2. Scope of Work

SAEON requires **two extended eddy covariance systems** for long-term monitoring of carbon dioxide, water and energy exchanges between the atmosphere and earth surface. These systems must each consist of a station that:

1. Can measure and record atmospheric fluxes of CO₂, H₂O and energy multiples time per second, as well as associated meteorological variables (air temperature, relative humidity, atmospheric pressure, wind speed and direction and rainfall) and soil variables (temperature, moisture) at least once per minute.
2. Uses an open-path gas analyser (for compatibility with data from established research sites of a similar nature).
3. Operates autonomously, using solar power.
4. Includes secure mountings for all components.
5. Includes software for downloading and processing of data collected by the station by the user, on an external computer

3. Specification of Goods/ Works/ Services being Procured

Each eddy covariance station supplied must contain the follow components, with the following specifications. All components must interface with each other to produce an autonomous system capable of measuring the required variables automatically.

3.1 Specification for the goods/services required

Component	Quantity required per station	Specifications
<p>CO2/H2O Open-Path Gas Analyzer & 3D Sonic Anemometer (may consist of a separate Gas Analyzer and Anemometer, or one integrated unit)</p>	<p>1</p>	<ul style="list-style-type: none"> • Operational temperature range: -30 to +50 degrees Celsius, or wider • Calibrated pressure range: 70 to 106 kPa or wider • Must measure atmospheric concentrations of CO₂ and H₂O, and wind speed in three orthogonal directions (ux, uy, uz) • Measurement rate of at least 60Hz • CO₂ Performance: <ul style="list-style-type: none"> - Accuracy: 1% - Precision RMS (maximum): 0.2 mg/m³ (0.15 μmol/mol) - Calibrated Range: 0 to 1,000 μmol/mol - Zero Drift with Temperature (maximum): ±0.55 mg/m³/°C (±0.3 μmol/mol/°C) - Gain Drift with Temperature (maximum): ±0.1% of reading/°C - Cross Sensitivity (maximum): ±1.1 x 10⁻⁴ mol CO₂ /mol H₂O • H₂O Performance: <ul style="list-style-type: none"> - Accuracy: 2% - Precision RMS (maximum): 0.004 g/m³ (0.006 mmol/mol) - Calibrated Range: 0 to 72 mmol/mol (38°C dewpoint) - Zero Drift with Temperature (maximum): ±0.037 g/m³/°C (±0.05 mmol/mol/°C) - Gain Drift with Temperature (maximum): ±0.3% of reading/°C - Cross Sensitivity (maximum): ±0.1 mol H₂O/mol CO₂ • Anemometer Performance: <ul style="list-style-type: none"> - Offset Error: ux, uy: < ±8.0 cm s⁻¹; uz: < ±4.0 cm s⁻¹; Wind Direction: ±0.7° while horizontal wind at 1 m s⁻¹ - Gain Error: Wind vector within ±5° of horizontal: < ±2% of reading; Wind vector within ±10° of horizontal: < ±3% of reading; Wind vector within ±20° of horizontal: < ±6% of reading - Measurement Precision RMS: ux, uy: 1 mm s⁻¹; uz: 0.5 mm s⁻¹; Sonic Temperature: 0.025°C; Wind Direction: 0.6°C - Speed of sound must be determined from 3 acoustic paths and corrected for crosswind effects • Includes a barometer, with a measurement rate of 10Hz, and accuracy of ±3.7 kPa at -30°C, falling linearly to ±1.5 kPa at 0°C (-30° to 0°C), ±1.5 kPa (0° to 50°C) • Includes a temperature sensor with accuracy of ±0.15°C (-30° to +50°C) • Supplied with fine wiring, of a thickness of 0.76um (0.0003") or greater. • Supplied with a mounting bracket that allows for secure long-term installation • Supplied with sufficient length of wiring to allow for installation at a height of 6m above the associated logger • Supplied with a kit that allows for the zero and span to be conducted on site (by the user), without removing the sensors from their mounting brackets • Supplied with relevant calibration certificate, or a publication in a ISI journal, that indicates the performance of the sensors

<p>Temperature and Relative Humidity Probe (may consist of two components or one integrated unit)</p>	<p>1</p>	<ul style="list-style-type: none"> • Measurement range: -20 to +60 degrees Celsius, or wider • Temperature Performance: <ul style="list-style-type: none"> - Accuracy: 0.1 degree Celsius or better, over the +4 to +40 degree Celsius range - Resolution: 0.01 degree Celsius or less - Response time to ambient changes: 30 seconds or less - Stability: 0.1 degree Celsius or better, per year • Relative Humidity Performance: <ul style="list-style-type: none"> - Measurement range: 0 - 100% relative humidity - Accuracy: 1% relative humidity or better, across the 0-100% range at a standard temperature - Resolution: 0.003% or less - Response time to ambient changes: 30 seconds or less - Stability: 1% relative humidity or better, per year • Mounted within a radiation shield, and a mounting bracket supplied for secure long-term installation of the shield. • Supplied with sufficient length of wiring to allow for installation at a height of 3m above the associated logger • Supplied with a mounting bracket that allows for secure long-term installation • A relevant calibration certificate, or a publication in a ISI journal that indicates the performance of the sensors, included
<p>Rain Gauge</p>	<p>1</p>	<ul style="list-style-type: none"> • Operational temperature range: 0 to +50 degrees Celsius or wider • Funnel diameter of 15.5 cm or larger • Accuracy: 1% or less for rainfall intensity of <25 mm per hour; 5% or less for rainfall intensity of > 25 mm per hour • Resolution (i.e. rainfall size of a tip of the tipping bucket): 0.25 mm or less • Supplied with a mounting bracket that allows for secure long-term installation • A relevant calibration certificate, or a publication in a ISI journal that indicates the performance of the sensor, included
<p>Wind Vane and Anemometer</p>	<p>1</p>	<ul style="list-style-type: none"> • Operational temperature range: -20 to +50 degrees Celsius , or wider • Operating wind speed range: 0 - 50 m/s or greater, and able to withstand gusts of 60 m/s or greater • Wind speed accuracy: 0.5 m/s • Wind direction accuracy: ± 5 degrees or better • Supplied with a mounting bracket that allows for secure long-term installation • A relevant calibration certificate, or a publication in a ISI journal that indicates the performance of the sensor, included
<p>Net Radiometer</p>	<p>1</p>	<ul style="list-style-type: none"> • Operational temperature range: -20 to +50 degrees Celsius, or wider • Must measure the energy balance between incoming short- and long-wave infrared radiation relative to outgoing short- and long-wave infrared radiation • Spectral Response: 0 to 100 μm • Measurement range: $\pm 2000 \text{ W m}^{-2}$ or wider • Sensitivity: 10 $\mu\text{V W/m}^2$ or better • Response time to ambient changes: 30 seconds or less • Must include a bubble level, or similar mechanism, to allow accurate, horizontal installation • Supplied with a mounting bracket that allows for secure long-term

		<p>installation, well away from any shadow cast by any other components of the relevant item</p> <ul style="list-style-type: none"> • Supplied with sufficient length of wiring to allow for installation at a height of 6m above the associated logger • Supplied with a relevant calibration certificate, or a publication in a ISI journal that indicates the performance of the sensor
Soil Heat Flux Plate	4	<ul style="list-style-type: none"> • Operating temperature range: -40 to +55 degrees Celsius • Measurement range: +- 2000 W m-2 • Accuracy: within -15% to +5% (for a typical soil type) • Supplied with at least 30m wiring per plate • A relevant calibration certificate, or a publication in a ISI journal that indicates the performance of the sensor, included
Soil Temperature Sensor (thermocouple probe or equivalent)	1	<ul style="list-style-type: none"> • Operational temperature range: -10° to +60 degrees Celsius, or wider • Accuracy: 0.5 degrees Celsius or better • Supplied with at least 30m wiring per sensor • Supplied with a relevant calibration certificate, or a publication in a ISI journal that indicates the performance of the sensor
Soil Water Content Sensor	3	<ul style="list-style-type: none"> • Operational temperature range: -20 to +50 degrees Celsius, or wider • Must sample soil moisture over a length of at least 25cm (i.e. rod length of 25cm or more) • Accuracy: ±5% volumetric water content, or better, in soils with an electrical conductivity ≤ 10 dS/m • Measurement range: 5 - 50% volumetric water content, or wider • Repeatability: 0.1% volumetric water content, or better • Supplied with at least 30m wiring per sensor • Supplied with a factory calibration equation for a wide range of soil conditions (to allow for calculation of volumetric water content from sensor output for a wide variety of soils)
Data Logger(s)	1	<ul style="list-style-type: none"> • Operational temperature range: -20 to +50 degrees Celsius, or wider • Must have enough input ports / channels to accommodate all sensors for the relevant item. Accessories to achieve this (such as multiplexors) may be included if necessary. • Each data input port / channel must have an independent scanning frequency • Must have sufficient memory to store all data, from all sensors that form part of the relevant item, for at least 30 days. External storage (such as an SD card writer) may be added if required to achieve this requirement. • Bi-directional communication with a laptop via USB or serial port connection • Must contain an internal backup battery to prevent loss of data, internal programs and date and time setting, when disconnected from battery • Surge protection (such as gas discharge tubes, voltage suppression diodes or similar) must be incorporated in the input channels • Must have a ground lug or similar facility for sufficient grounding • Must be able to transmit data via GSM/GPRS modem, and must be supplied with a suitable modem, antenna, and any software and/or license required for users to access data on the internet (via transmission over a cellphone network) must be included. • The logger receiving data from the Gas Analyser and Sonic Anemometer must be capable of being programmed to report fully-corrected fluxes of CO₂, latent heat (H₂O), sensible heat, and momentum.

Power Supply	1	<ul style="list-style-type: none"> • A solar power system, inclusive of photovoltaic solar panels, batteries and associated wiring must be included, and must have adequate capacity to the power the station continuously • Supplied with mountings for the solar panel(s)
Mountings	1	<ul style="list-style-type: none"> • Rustproof and weatherproof mounting poles must be supplied to hold the various components at least 3m above the ground • Weatherproof enclosures must be supplied to house the Data Logger(s), batteries and any other components that need protection from the elements.
Software	Only 1 copy required for all three stations	<ul style="list-style-type: none"> • Must be compatible with Windows operating system (Windows 7 or later) • Must enable configuration of the Data Logger(s) to record a combination of channel number, date, time and value measured by the sensor attached, for each of the input ports / channels • Must enable downloading of all data onto a PC or laptop, and exporting of that data in a text file • Must allow for free updates or upgrades, online.

3.2 Evaluation Matrix

Bids will be evaluated according to evidence provided that indicates that they can supply according to specifications as indicated above in 3.1 for each of the following components:

GO / NO GO criteria		
1	CO2/H2O Open-Path Gas Analyzer & 3D Sonic Anemometer	Go/ No Go
2	Temperature and Relative Humidity Probe	Go/ No Go
3	Rain Gauge	Go/ No Go
4	Wind Vane and Anemometer	Go/ No Go
5	Net Radiometer	Go/ No Go
6	Soil Heat Flux Plate	Go/ No Go
7	Soil Temperature Sensor	Go/ No Go
8	Soil Water Content Sensor	Go/ No Go
9	Data Logger(s)	Go/ No Go
10	Power Supply	Go/ No Go
11	Mountings	Go/ No Go
12	Software	Go/ No Go

Bidders who are rated NO/GO on any one of the elements stated on 3.2 will be disqualified for further evaluation on Price and BEE scoring in terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations. The applicable Preference Point System is 90:10 of which 90 points are for Price and 10 points for B-BBEE status level of contribution.

3.3 Bidders Capability

No.	Specification	Score	Weight
1	Written reference from previous and current clients for goods/services specified 1 = 1 Client; 3 = 2 Clients; 5 = more than 2 clients		30
2	Performance of instrumentation supplied: 0 = all references report problems, with breakdowns of instrumentation and or performance below specifications supplied; 1 = all references report that instrumentation performed adequately; 3 = all references report that instrumentation performed adequately, and at least 1 reference reports no breakdowns after 2 years of operation; 5 = all references report that instrumentation performed adequately, and at least 2 references report no breakdowns after 2 years of operation;		30
3	Maintenance: 0 = no warranty provided; 1 = a one year or longer warranty provided by at least one component; 2 = a one year warranty provided for all components; 3 = a 1 year warranty for at least one of the components, and longer warranties for at least one of the other components; 4 = warranty of between 2 and 5 years for all components; 5 = a 5 year warranty provided for all components		40
	Total		100
	Minimum Qualification Threshold	60%	

4. Performance and Service Levels

The following levels are set for each component required:

- Suppliers must ensure continuity in the supply of chosen components for replacement and not recommend items that are about to become obsolete.

5. Delivery/ Logistics

Delivery must be within four weeks of receipt of Purchase Order by the supplier at the address:

41 De Havilland Crescent, The Woods, Block C, Persequor Technopark, Brummeria, Pretoria, 0184

6. Maintenance and After Sales Support

The following requirements apply:

- Warrantees for each component should be provided (refer to Table 3.3. above) and these must be indicated in documentation that accompanies the quotation. These warrantees must guarantee that faulty parts will be replaced or repaired free of charge during the warrantee period.
- Suppliers must accept components for repair or replacement for 5 years of longer following purchase.
- Access to software upgrades, and any costs associated with upgrades, should be indicated

7. Evidence of Supplier Capability (Technical Merit)

Bidders are required to provide references and other evidence demonstrating their experience in delivering the goods required and the quality of such previous work, as per Table 3.3 above.

8. Performance Level Management

The service provider performance is measured against the levels specified in the Specification section of this document.

9. General Conditions of Contract

General Conditions of Contract, as issued by the National Treasury, are part of this contractual agreement and are made available on the NRF Website (www.nrf.ac.za – procurement)

10. Product /Service Delivery Validation

Invoices submitted to NRF/SAEON will be validated against goods / services delivered to ensure that the required goods/services delivered are of the required quality and quantity. No invoices for outstanding deliverables or for any unproductive or duplicated time spent by the service provider are validated for payment.

11. Payment Intervals

The NRF/SAEON undertakes to pay validated invoices in full within thirty (30) days from the monthly statement date. The NRF/SAEON does not accept predated invoices.

12. Selection and Awarding of Bid

Stage 1 – Selection of Qualified Bidders

- Bidders bid response / submission is evaluated against the technical specifications ([See Section 3.1](#)) as well as the bidder's capacity ([See Section 3.2](#)).
- Bidders should provide proof of capacity and capability supported by written references from previous and current clients indicating the type of work done and service excellence in line with the bid requirements.
- Evaluation is made in accordance to published evaluation criteria and the scoring set for each criterion.
- Bidders who qualify on the functional requirements will be considered for further evaluation on Price and BEE preference system.

Stage 2 – Awarding of the Bid

- Bidders are compared on a fair and equal basis taking into account all aspects of the proposals
- The award criteria are:
 - **Price** – As set out in the Preference Regulations of 2011, pricing must detail the charges for work to be done and as specified..
 - **Preference** – preference points as claimed in the preference claim form are added to the price ranking scores and the highest combined score is nominated for the bid award
 - **Administration** - Bids are awarded where bidders have supplied the relevant administrative documentation, including a valid Original Tax Certificate and certified copy of BEE certificate or sworn affidavit for QME.

13. Special Conditions applying to this contract

a. COMPLIANCE WITH FULL SCOPE OF BID INVITATION

Only bidders who can comply with the full scope of work and specification as set out in this document will be considered.

b. VALIDATION OF SUBMITTED DOCUMENTATION

The NRF has the right to have documentation submitted by the bidder inspected by another technical body or organisation.

c. LIABILITY FOR BID RESPONSE PREPARATION

The liability for bid response preparation lies solely with the bidder. The NRF is not to be held liable for any costs incurred by a service provider in the process of responding to this bid, including on-site presentations and the proposal a service provider may make and/or submit.

NB: Receipt of bid response is not an automatic guarantee of a contract.

d. CANCELLATION PRIOR TO AWARDING

The NRF reserves the right to withdraw and cancel the bid

e. LATE BIDS

Bids submitted after closing date and time will not be considered for evaluation and award.

f. COLLUSION, FRAUD AND CORRUPTION

Any effort by the bidder to influence bid evaluation, bid comparisons or bid award decisions in manner, may result in rejection of the bid concerned

g. LETTER OF AWARD

Once the delegated bid approver(s) has reached the decision, the successful bidder will be informed through a written letter of acceptance.

h. VALIDITY PERIOD

The bid has a validity period of 90 days from date of closure of the call for bids.

i. INTELLECTUAL PROPERTY PROVIDED IN THE BID INVITATION

All the information contained in this document is intended solely for the purposes of assisting bidders to prepare their bid responses. Any use of the information contained herein for other purpose than those stated in this document is prohibited.

The ownership and intellectual property rights of all designs, specifications, programming code and all other documentation provided by the NRF to the bidder, both successful and unsuccessful, remains the property of the NRF.

j. INTELLECTUAL PROPERTY CONTAINED IN THE DELIVERABLES

The ownership and intellectual property rights of all designs, specifications, programming code and all other documentation required as part of the delivery to the NRF resides with the NRF.

14. Explanatory Notes to the Declarations in the Standard Bidding Documents (SBD)

The explanatory notes for the SBD (SBD 6.1- Preference Points Claim Form, SBD 4 – Declaration of Interest, SBD 8 – Past Supply Chain Practices and SBD 9 – Certificate of Independent Bid Determination, SBD 3.1 – Pricing Schedule (Purchases). All declarations in this invitation should be completed in full.

15. SUPPLIER DUE DILIGENCE

15.1 DECLARATION OF INTEREST (STANDARD BIDDING DOCUMENT 4)

15.1.1 Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

the bidder is employed by the state; and/or

the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

15.1.2. **In order to give effect to the above, the following questionnaire must be completed and submitted with this bid.**

15.1.2.1 Full Name of bidder or his or her representative:

15.1.2.2 Identity Number:

15.1.2.3 Position occupied in the Company (director, trustee, shareholder², member):

15.1.2.4 Registration number of company, enterprise, close corporation, partnership agreement or trust:

15.1.2.5 Tax Reference Number:

15.1.2.6 VAT Registration Number:

15.1.2.6.1 The names of all directors/trustees/shareholders/members, their individual identity numbers, tax reference numbers and, if applicable, employee/PERSAL numbers must be indicated in paragraph 3 below.

15.1.2.7 Are you or any person connected with the bidder presently employed by the state? **YES/NO**

15.1.2.7.1 If so, furnish the following particulars in an attached schedule:

Name of person/director/trustee/shareholder/member:

Name of state institution at which you or the person connected to the bidder is employed

Position occupied in the state institution:

Any other particulars:

15.1.2.7.2	If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?	YES/NO
15.1.2.7.2.1	If yes, did you attach proof of such authority to the bid document? (Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.)	YES/NO
15.1.2.7.2.2	If no, furnish reasons for non-submission of such proof as an attached schedule	
15.1.2.8	Did you or your spouse, or any of the company's directors/ Trustees /shareholders /members or their spouses conduct business with the state in the previous twelve months?	YES/NO
15.1.2.8.1	If so, furnish particulars as an attached schedule:	
15.1.2.9	Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?	YES/NO
15.1.2.9.1	If so, furnish particulars as an attached schedule.	
15.1.2.10	Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?	YES/NO
15.1.2.10.1	If so, furnish particulars as an attached schedule:	
15.1.2.11	Do you or any of the directors/trustees/shareholders/members of the company have any interest in any other related companies whether or not they are bidding for this contract?	YES/NO
15.1.2.11.1	If so, furnish particulars as an attached schedule:	
15.1.3.	Full details of directors/trustees/members/shareholders.	

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number/ Payroll (Persal) Number
Schedule attached with the above details for all directors/members/shareholders			YES NO

15.2 DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (STANDARD BIDDING DOCUMENT 8)

Item	Question	Yes	No
15.2.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?	Yes	No
	The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.		
	If so, furnish particulars as an attached schedule:		
15.2.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?	Yes	No
	The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.		
	If so, furnish particulars as an attached schedule:		
15.2.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes	No
	If so, furnish particulars as an attached schedule:		
15.2.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes	No
	If so, furnish particulars as an attached schedule:		

15.3 CERTIFICATE OF INDEPENDENT BID DETERMINATION (STANDARD BIDDING DOCUMENT 9)

I, the undersigned, in submitting this bid in response to the invitation for the bid made by **NATIONAL RESEARCH FOUNDATION** do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ (Name of Bidder) that:

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. 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 consortium³ will not be construed as collusive bidding.

³ 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.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or

(f) bidding with the intention not to win the bid.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. 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.
10. 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

15.4 PREFERENCE POINTS CLAIM FORM (STANDARD BIDDING DOCUMENT 6.1)

15.4.1 POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	8	16
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

BID DECLARATION

Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete below:

15.4.2 B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF THE ABOVE TABLE

B-BBEE Status Level of Contribution: =(maximum of 10 or 20 points)

(Points claimed must be in accordance with the table reflected above and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or an Accounting Officer as contemplated in the CCA).

15.4.3 SUB-CONTRACTING

Will any portion of the contract be sub-contracted? YES/NO

If yes, indicate:

- (i) what percentage of the contract will be subcontracted?%
- (ii) the name of the sub-contractor?
- (iii) the B-BBEE status level of the sub-contractor?
- (iv) whether the sub-contractor is an EME? YES/NO

DECLARATION WITH REGARD TO COMPANY/FIRM

Name of company/firm

VAT registration number:

Company registration number

TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture/Consortium
- One person business/sole propriety
- Close corporation
- Company
- (Pty) Limited

[Tick applicable box]

DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

COMPANY CLASSIFICATION

- Manufacturer
- Supplier
- Professional service provider
- Other service providers, e.g. transporter, etc.

[Tick applicable box]

Total number of years the company/firm has been in business?

I/we, the undersigned, who is/are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I/we acknowledge that:

- (i) The information furnished is true and correct;
- (ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
- (iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 7, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- (iv) If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the

conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –

- (a) disqualify the person from the bidding process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) restrict the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution

16. List of Returnable Documents

1. The following documents shall be deemed to form and be read and construed as part of this Invitation:

(i) Bidding documents, viz

Invitation to bid (SBD1);	Technical Specification(s);
Bidder's responses to technical specifications, capability requirements and capacity	
Pricing schedule(s) (SBD3.1);	Original Valid Tax clearance certificate
Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011 (SBD6.1);	
Declaration of interest (SBD4);	Declaration of bidder's past SCM practices (SBD8);
Certificate of Independent Bid Determination (SBD9)	Special Conditions of Contract; and
General Conditions of Contract	
Original BEE Certificate (or certified copy/sworn affidavit)	

2. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the goods and/or works specified in the bidding 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.

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

4. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

5. I certify that the information furnished in these declarations (SBD4, SBD6.1, SBD 6.2 where applicable, SBD8, SBD9) is correct and i accept that the state including the NRF may reject the bid or act against me should these declarations prove to be false.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

<p>WITNESSES</p> <p>1</p>
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17. Explanation of Terms

“**all applicable taxes**” includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;

“**B-BBEE**” means broad-based black economic empowerment as defined in section 1 of the Broad -Based Black Economic Empowerment Act;

“**B-BBEE status level of contributor**” means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

“**bid**” means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, written price quotations, advertised competitive bidding processes or proposals;

“**bid price**” price offered by the bidder, including value added tax (VAT);

“**Broad-Based Black Economic Empowerment Act**” means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

“**Closing time**” means the date and hour specified in the bidding documents for the receipt of bids.

“**Collusion**” means Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).

Collusive bidding is a per se prohibition meaning that it cannot be justified under any grounds. Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and/or services for purchasers who wish to acquire goods and/or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

“**comparative price**” means the price after the factors of a non-firm price and all unconditional discounts that can be utilised have been taken into consideration;

“**consortium or joint venture**” 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;

“**Contract**” means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

“**Contract price**” means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.

“**Corrupt practice**” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

"Countervailing duties" are imposed in cases where an enterprise abroad is subsidised by its government and encouraged to market its products internationally.

"Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognised new product results that is substantially different in basic characteristics or in purpose or utility from its components.

"Day" means calendar day.

"Delivery" means delivery in compliance of the conditions of the contract or order.

"Delivery ex stock" means immediate delivery directly from stock actually on hand.

"Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.

"designated sector" means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;

"duly sign" means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member/person with management responsibility (close corporation, partnership or individual).

"Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.

"EME" means any enterprise with an annual total revenue of R5 million or less.

"Firm price" means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;

"Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

"Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.

"functionality" means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, 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;

"GCC" means the General Conditions of Contract.

"Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

“Imported content” means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.

“Local content” means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.

“Manufacture” means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.

“non-firm prices” means all prices other than “firm” prices;

“Order” means an official written order issued for the supply of goods or works or the rendering of a service.

“person” includes a juristic person;

“Project site,” where applicable, means the place indicated in bidding documents.

“Purchaser” means the organization purchasing the goods.

“rand value” means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;

“Republic” means the Republic of South Africa.

“SCC” means the Special Conditions of Contract.

“Services” means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.

“Shareholder” means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

“State” means –

- (i) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (ii) any municipality or municipal entity;
- (iii) Provincial Legislature;
- (iv) National Assembly or the National Council of Provinces; or
- (v) Parliament.

“stipulated minimum threshold” means that portion of local production and content as determined by the Department of Trade and Industry;

“sub-contract” means the primary contractor’s assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract;

“total revenue” bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic

Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the Government Gazette on 9 February 2007;

“trust” means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person;

“trustee” means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

“Written” or “in writing” means handwritten in ink or any form of electronic or mechanical writing.

PRICING SCHEDULE – FIRM PRICES

(PURCHASES)

ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

NAME OF BIDDER:		BID REF:	Error! Reference source not found.
CLOSING DATE:	07 March 2016	CLOSING TIME:	11:00 AM

OFFER IS VALID FOR 90 DAYS AFTER CLOSING DATE OF BID

1. The following written information must accompany the quotation, in order for the bid to be correctly evaluated:
 - a. Documentation that indicates the above criteria, regarding specifications, are met (refer to Table 3.1)
 - b. Warrantees for each component, where provided (refer to Table 3.3)
 - c. References (refer to Table 3.3)

2. Pricing

Item Number	QUANTITY (unit of measure)	Description	Price VAT Inclusive (ZAR)
1	2	Extended Eddy Covariance Systems, as described above.	
2		Delivery to: SAEON National Office The Woods, Block C Ground Floor, 41 De Havilland Crescent, Persequor TechnoPark (off Meiring Naude Ave) Pretoria	
VAT			
TOTAL			

- Brand and model
- Country of origin
- Does offer comply with specification? *YES/NO
- If not to specification, indicate deviation(s)
- Period required for delivery
- Delivery: *Firm/not firm

NOTES:

Price quoted must be fully inclusive of all costs involved including delivery.

Price quoted must be valid for 90 days.