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Invitation to Bid

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS LISTED IN THIS DOCUMENT

Bid Number: NRF/SAEON SRGC/66/2020-21

BID DESCRIPTION

Supply and Delivery of five (5) sets of Eddy Covariance Instrumentation with service support, spares, consumables and replacement parts as well as spares, consumables and replacement parts for nine (9) existing Eddy Covariance systems when required over five (5) years to SAEON Node offices.

National Research Foundation

TABLE OF CONTENTS

SECTION A.	INVITATION TO BID (SBD 1A)	3
SECTION B.	TERMS AND CONDITIONS FOR BIDDING (SBD 1B)	6
SECTION C.	SCOPE OF WORK	12
SECTION D.	BID SUBMISSION PACK	21

SECTION A. INVITATION TO BID (SBD 1)

Bid number	**NRF/SAEON SRGC/66/2020-21**
Closing date and time	**13 August 2021, 11:00**

HIGH LEVEL SUMMARY OF BID REQUIREMENTS

SAEON requires a five-year contract for the supply and delivery of five sets of Eddy Covariance (EC) equipment to supplement an existing array of EC instrumentation, including full systems, spare parts, technological upgrades when appropriate and consumables as well access to testing services and repairs as needed and determined by the usage requirements. The equipment needs to compatible with this existing array of EC instrumentation which is IRGASON instrumentation and Campbell Scientific CR6 and CR3000 series data loggers (existing infrastructure). In addition, as part of the contract, SAEON also requires support services for five years, which includes telephonic and/or email assistance with troubleshooting, with response time of 72 hours for non-emergency support issues and within 24 hours for emergency issues, and/or software upgrades within one week of SAEON's request. This support must be provided in English. The systems will be installed, routinely downloaded and maintained by the SAEON and EFTEON technical team. The equipment purchased must be robust and comparable with the existing infrastructure.

Furthermore, SAEON requires spares, consumables and replacement parts for nine (9) existing Eddy Covariance systems as and when required over five (5) years dependant on usage and need.

NB: The estimated quantities provided are for quotation purposes and will only be used to set the contract value for the five (5) year contract period. One full system is required within the first quarter of the first year of the contract, but subsequent purchases will be subject to budget availability, and made on an ad hoc basis as and when required, with no obligation to reach full contract value.

Delivery will be to SAEON National Office and/or other Node offices dependent on need.

ELECTRONIC SUBMISSIONS:

Tender Submissions to be electronic by **EMAIL in pdf format or link to** tenders@saeon.ac.za

- 2 X electronic documents (1X secured pdf for technical review and 1X **secured password protected pdf** for pricing review).
- The NRF **email size limit is 20 MB**, it is the responsibility of the bidder to ensure that their submission is not larger than this limit:
- The Bidder's files may be zipped to ensure that their submission is in line with the email size limit.

A Guideline procedure for electronic bid submissions is provided as Annexure 1 on page 66 of this document.

Due to COVID-19 only electronic (email) bid submissions will be accepted.

Bidding procedure enquiries may be directed in writing to:		**Technical information may be directed in writing to:**	
Section	Supply Chain Management	Section	SAEON Grasslands Node
Contact person	Dr Theo Jongwana	Contact person	Susan Janse van Rensburg
E-mail address	theo@saeon.ac.za	E-mail address	sue@saeon.ac.za

SUPPLIER INFORMATION

Name Of Bidder
Postal Address
Street Address

Telephone Number			
Code		Number	
Cell Phone Number			
Code		Number	
Facsimile Number			
Code		Number	
E-Mail Address			
VAT Registration Number			

Tax Compliance Status	Tax Compliance System PIN		**OR**	Central Supplier Database No.	MAAA

B-BBEE Status Level Verification Certificate	Tick Applicable Box. ❑ Yes ❑ No	**B-BBEE Status Level Sworn Affidavit**	Tick Applicable Box. ❑ Yes ❑ No

[A B-BBEE status level verification certificate/ sworn affidavit (for EMEs & QSEs) must be submitted in order to qualify for preference points for B-BBEE]

Are you the accredited representative in South Africa for the goods /services/works offered?	❑ Yes ❑ No [If yes enclose proof]	**Are you a foreign-based supplier for the goods/services/ works offered?**	❑ Yes ❑ No [If yes, answer the following questionnaire]

QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

Is the entity a resident of the Republic of South Africa (RSA)?	❑ Yes ❑ No
Does the entity have a branch in the RSA?	❑ Yes ❑ No
Does the entity have a permanent establishment in the RSA?	❑ Yes ❑ No
Does the entity have any source of income in the RSA?	❑ Yes ❑ No
Is the entity liable in the RSA for any form of taxation?	❑ Yes ❑ No

If the answer is "No" to all of the above, then it is not a requirement to register for a tax compliance status system pin code from the South African Revenue Service (SARS) and if not register as per 2.3 below.

Where goods and services are procured from foreign suppliers with tax obligations in South Africa, proof of their tax compliance status must be obtained from the supplier.

SECTION B. TERMS AND CONDITIONS FOR BIDDING (SBD 1)

1. **BID SUBMISSION:**

1.1	Bids must be delivered by the stipulated time to the correct address. Late bids will not be accepted for consideration.
1.2	All bids must be submitted on the official forms provided–(not to be re-typed) or in the manner prescribed in the bid document.
1.3	This bid is subject to the Preferential Procurement Policy Framework Act, 2000 and the Preferential Procurement Regulations, 2017, the General Conditions Of Contract (GCC) with its special conditions of contract, and, if applicable, any other legislative requirements.
1.4	The successful bidder will be required to fill in and sign a written contract form (SBD7).

2. **TAX COMPLIANCE REQUIREMENTS**

2.1	Bidders must ensure compliance with their tax obligations.
2.2	Bidders are required to submit their unique personal identification number (PIN) issued by SARS to enable the organ of state to verify the taxpayer's profile and tax status.
2.3	Application for tax compliance status (TCS) pin may be made via e-Filing through the SARS website www.sars.gov.za.
2.4	Bidders may also submit a printed TCS certificate together with the bid.
2.5	In bids where consortia / joint ventures / sub-contractors are involved, each party must submit a separate TCS certificate / PIN / CSD number.
2.6	Where no TCS is available but the bidder is registered on the Central Supplier Database (CSD), a CSD number must be provided.
2.7	No bids will be considered from persons in the service of the state, companies with directors who are persons in the service of the state, or close corporations with members persons in the service of the state.

3.	**TWO ENVELOPE SYSTEM**	**Submission by email only (procedure described on page 3).**
4.	**VALIDITY PERIOD FROM DATE OF CLOSURE**	150 days

5. **BRIEFING SESSION OR SITE VISIT DETAILS**

There will be a voluntary virtual briefing session held on 20 July 2021 at 09:00 for any questions of clarity. Use the following link https://zoom.us/j/99995235054?pwd=K2FCUTFoUmV6RjNCb1JUMVl3UEoxUT09 to join the briefing. Please send an email to sue@saeon.ac.za to register to join the briefing session.

6. **ACKNOWLEDGEMENT OF READING EACH PAGE**

The bidder warrants by signature in this document that the bidder has read and accepts each page.

7. **CENTRAL SUPPLIER DATABASE REGISTRATION**

Bidders are requested to register on the Central Supplier Database and to include in their bid their Master Registration Number (Supplier Number) in order to enable the NRF to verify the supplier's tax status on the Central Supplier Database.

8. **CLARIFICATION**

If the respondent wishes to clarify aspects of this request or the acquisition process, they contact the officials listed under the enquiries section above. The National Research Foundation distributes the response to a clarification request to all respondents that have communicated their intention to bid (i.e. briefing session attendance register)

within 2 working days of receipt of the query. The National Research Foundation does not provide the origin of the request to any party.

9. RESPONSE PREPARATION COSTS

The NRF is not liable for any costs incurred by a bidder in the process of responding to this Bid Invitation, including on-site presentations.

10. TWO ENVELOPE SYSTEM

The NRF, in the interests of transparent procurement, utilises the two-envelope system to minimise any form of price bias in the technical selection phase (the first envelope) as the evaluators receive the price details (the second envelope with the SBD 3 (price summary schedule and detailed supporting pricing documentation) for price evaluation after completion of the technical selection stages. An outer envelope addressed as stated in this document encloses both envelopes. **Due to COVID19, submissions will follow the same principle but must be done electronically. See Annexure 1 for guidance.**

11. COLLUSION, FRAUD AND CORRUPTION

Any effort by Bidder/s to influence evaluation, comparisons, or award decisions in any manner will result in the rejection and disqualification of the bidder concerned.

12. FRONTING

The NRF, in ensuring that bidders conduct themselves in an honest manner will, as part of the bid evaluation processes where applicable, conduct or initiate the necessary enquiries/investigations to determine the accuracy of the representation made in the bid documents. The onus is on the bidder to prove that fronting does not exist, should the National Research Foundation establish and notify the bidder of potential breaches of any of the fronting indicators as contained in the Department of Trade and Industry's "Guidelines on Complex Structures and Transactions and Fronting". Failure to do so within a period of 7 days from date of notification will invalidate the bid/contract and may also result in the restriction of the bidder to conduct business with the public sector for a period not exceeding 10 years, in addition to any other remedies the NRF may have against the bidder concerned.

13. DISCLAIMERS

The NRF has produced this document in good faith. The NRF, its agents, and its employees and associates do not

warrant its accuracy or completeness. The NRF makes no representation, warranty, assurance, guarantee or endorsements to any provider/bidder concerning the document, whether with regard to its accuracy, completeness or otherwise and the NRF shall have no liability towards the responding service providers or any other party in connection therewith.

14. **OTHER**

None for this bid.

THE BIDDING SELECTION PROCESS

Stage 1 – Compliance to submission requirements

Bidders warrant that their proposal document has, as a minimum; the specified documents required for evaluating their proposals as set out in the Returnable Document List and conform to all the terms, conditions, and specifications as set out in this document.

Where the NRF discovers deviations within the Returnable Documents List, the NRF assess these as minor and major deviations:

The NRF assess discovered deviations within the Returnable Documents List and class them as minor and major deviations:

1. The NRF clarifies minor deviations in the information already presented within the document as set out in Stage 2B, noting the following:
a. Deviations from the documents requested may be classed as minor where this information is presented and clarified elsewhere in the submission.
b. The NRF may allow clarification requests of certifications and documents stemming from legislative bodies for purposes of demonstrating legal compliance not used for the purposes of technical evaluation scoring and price ranking. The NRF may request from the bidder these documents during the period of evaluations, but must already be submitted and assessed by the time of making the final recommendation for contract award to the Bid Adjudication Committee.
c. In some cases, minor deviations can still lead to disqualification of the bid therefore the bidder should ensure that their bid is complete and without any mistakes.
2. Major deviations will lead to disqualification of the bid. This includes:
a. The deviation detrimentally affects the scope, quality, or performance of the procurement set out in this document;
b. The deviation will prevent the Evaluation Committee from evaluating the received bid against the evaluation criteria set out in this document;
c. The deviation changes the required specifications and/or the risks and responsibilities as set out in this document; and/or
d. The deviation affects the fair competition with other bidders if the bidder is allowed to rectify the material submitted.

Stage 2 – Evaluation of Bids against Technical Specifications

Bidders achieving the minimum threshold in the specification to enter the Price/Preference scoring stage:

Stage 2A – Evaluation of Bids against Specifications including Quality

The NRF evaluates each bidder's written response to the specifications issued in accordance to **published evaluation**

criteria set as in Section D.

Stage 2B – Due Diligence Interviews or Proof of Delivery/Concept against Specifications

Where circumstances justifies it, the NRF conducts interviews with shortlisted bidders for them to present further information or provide further proof to the evaluation committee. In these cases, the National Research Foundation provides the areas of concern to the short listed bidders to address in their presentations with this document and, where necessary, may provide further areas of concern to the short listed bidders at this stage.

Stage 2C – Due Diligence Research

The National Research Foundation may confirm the recommended bidder(s)'s reference letters with referees to confirm the recommendation(s).

Stage 3 – Price/Preference Evaluation

Basis of fair competition:

The NRF compares each bidder's pricing proposal on an equal and fair comparison basis equitable to all bidders, taking into account all aspects of the bid's pricing requirements including the application of fair pricing tests as set out below in the section "Insufficiency of Funds".

Ranking of the bidders pricing:

The NRF ranks the qualifying bids on price with lowest priced Bid receiving the maximum points (either 80 or 90) and the remainder ranked in relation to the lowest priced bid. The NRF adds the bidders' claimed preference points as verified to the submitted preference claim form (SBD 6.1) to provide the final ranking for the award decision.

Stage 4 – Checking Tax Compliance

Stage 4A – South African Resident Taxpayers

The NRF notifies the recommended bidder in writing where their tax compliance check reflects that they are non-compliant and provides the recommended bidder seven (7) working days to submit written proof from SARS of their tax compliance status or proof that they have made an arrangement with SARS to meet their outstanding tax obligations. Failure to deliver such written evidence of compliance results in the rejection of that recommended bid.

Where goods and services are procured from foreign suppliers with tax obligations in South Africa, proof of their tax compliance status must be obtained from the supplier.

Stage 4B – Non-Resident Foreign Bidders

Where foreign bidders are submitting a bid, they complete all sections of the SBD1 especially the tax questionnaire. The NRF submit the Foreign Bidder's completed SBD1 to the South African Revenue Service to obtain from the South African Revenue Service the Confirmation of Tax Obligations letter. Where South Africa Revenue Services does not issue the letter, Stage 4A applies in clearing the reason for not receiving the letter.

Stage 5 – Award and Contract Signing

The NRF nominates the bidder with the highest combined score for the contract award subject to the bidder having supplied the relevant administrative documentation.

CANCELLATION OF THE BID PRIOR TO AWARD

Procurement not required

The NRF cancels the Bid Invitation prior to making an award if due to changed circumstances there is no need for the specified procurement in the document.

No Acceptable Bids

The NRF cancels the Bid Invitation prior to making an award if it receives no acceptable bids i.e. that do not meet the minimum requirements set out in this document.

Invalid Bid Procedure

The NRF cancels the Bid Invitation prior to making an award if a material irregularity occurred in the bid process.

Insufficiency of Funds or Bids not within a fair price range

The NRF cancels the Bid Invitation prior to making an award if the funds are no longer available to cover the total envisaged expenditure or if the price offered by the bidder scoring the highest points is not market related.

The NRF conducts fair pricing tests to arrive at an opinion of reasonableness of the bid price offered. Where these tests reflect pricing outside of the established fair price range, the evaluators may recommend price negotiation. The NRF only negotiates price, and no other component, with the winning bidder or, where that bidder refuses negotiation, with the next ranked bidder in the price/preference ranking until a market related price is achieved.

SBD 1 SIGNATURE

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED

(Proof of authority must be submitted e.g. company resolution**)**

DATE:

SECTION C. SCOPE OF WORK

INTRODUCTION TO THE NRF

The National Research Foundation Act, Act 23 of 1998 establishes the National Research Foundation ("NRF") as the juristic person that makes this bid invitation and the legal entity that will contract with the awarded bidder. The Public Finance Management Act classifies the organisation as a Schedule 3A Public Entity.

INTRODUCTION TO THE NRF BUSINESS UNIT MANAGING THIS BID

The South African Environmental Observation Network ("SAEON"), a business unit within the NRF, is mandated to conduct Long Term Environmental Research to detect and understand the impacts of Global Change in South Africa. Seven 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 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.

CONTEXT OF THIS PROCUREMENT

SAEON and EFTEON (hosted by SAEON) operate at multiple locations that 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, including the EFTEON landscapes.

These initiatives are currently being advanced through the development of a coordinated 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 and data emanating from these arrays needs to be of high quality and reliable enough to support long term monitoring of ecosystem climatological changes, scientific publications, and academic use.

SAEON nodes and EFTEON landscapes make use of Eddy Covariance (EC) Instrumentation to measure fluxes including water vapour and carbon fluxes to advance studies on ecosystem productivity, hydrological vegetation processes, and carbon dynamics. EC observations conducted by SAEON are long term. Currently SAEON are operating nine (9) EC systems installed in long-term monitoring sites across the country. To continue to advance understanding of fluxes in the variable South African landscape, expansion is required and to ensure continuous monitoring of long term observations, as per SAEON mandate, old EC systems that have exceeded their lifespan need to be replaced. Thus, SAEON is looking to procure up to five (5) sets of EC instrumentation over the next five years, or components thereof. To ensure standardisation the EC system needs to be comparable and compatible with

existing SAEON and EFTEON systems for the next five years. The EC systems will be placed in remote settings and thus need to have proven reliability. The systems will be installed, routinely downloaded and maintained by the SAEON and EFTEON technical team. In addition, to ensure a successful operational life of at least five years, SAEON requires support services from the instrument provider for five years. This includes technical support and repair services by qualified personnel, telephonic and/or email assistance with troubleshooting and/or software/firmware updates as they become available as well as testing and repair services should they be required, with response time of 72 hours for non-emergency support issues and within 24 hours for emergency issues, and/or software upgrades within one week of SAEON's request. This support must be provided in English. Additionally, to further ensure the optimum operation of all the EC systems in both the SAEON and EFTEON network, SAEON requires spares, consumables and replacement parts for these systems as and when required for five years. The level of service and support SAEON requires necessitates a qualified and experienced service provider that is OEM accredited.

The contract value will be determined by

- Five (5) EC systems,
- associated spares and consumables for the maintenance of the five (5) EC systems,
- in addition, spares, consumable and replacement parts for the existing nine (9) SAEON and EFTEON EC stations which are not covered by any existing contracts.

NB: The estimated quantities provided are for quotations purposes only to set the contract value. One full system will be required within the first quarter of the first year of the contract, but subsequent purchases and final quantities will be contingent on available budget, and made on an ad hoc basis as and when required, with no obligation to purchase to the full contract value.

Delivery of the one full EC system in the first year of the contract will be to

SAEON Grasslands Node, 1 Peter Brown Drive, Queen Elisabeth Park, Montrose, KZN, RSA (29°34'26.76"S, 30°19'38.55"E)

As the purchases of consumables will be based on needs for the existing nine (9) EC systems, there is uncertainty on the delivery address for these consumables. Further, as the purchase of the further four (4) systems will be determined by budget and the location due to need the delivery addresses are also uncertain. The possible delivery addresses that may be used during the five (5) year contract are:

1. SAEON National office 56 Florence Rd Colbyn, Pretoria 0084, RSA (25°44'28.94"S, 28°14'52.05"E)

2. SAEON Grasslands Node, 1 Peter Brown Drive, Queen Elisabeth Park, Montrose, KZN, RSA (29°34'26.76"S, 30°19'38.55"E)

3. SAEON Arid Node, 97 Memorial Road, South Ridge, Kimberley, RSA (28°46'18.99"S, 24°45'3.92"E)

4. SAEON Ndlovu Node, Kruger National Park Gate, Hendrick van Eck Street, Phalaborwa, 1390, RSA (23°56'41.78"S, 31° 9'55.21"E)

5. SAEON Fynbos node, Room 2, G Floor, CBC Building, Kirstenbosch Botanical Gardens, Rhodes Drive, Newlands, 7735, Cape Town, RSA (33°59'13.79"S, 18°26'6.10"E)

The support period of the contract will start on the day of initial handover/delivery of the first EC system. The warranties required are those stipulated in the Detailed Specifications (pg 14).

CONTRACT PERIOD

The contract period for this bid is five years. The five years includes:

- the supply of the EC instruments/ parts thereof,
- the honouring of the Original Equipment Manufacturers (OEM) warranties of the components of EC system and,
- service/support/supplies as indicated above and detailed below. The support period of the contract will start on the day of initial handover/delivery.

INTERDEPENDENCIES TO OTHER SYSTEMS/PROCESSES IMPACTING THIS SPECIFICATION

The EC instruments supplied need to be compatible with the existing nine (9) SAEON Eddy Covariance systems installed at long-term sites across South Africa. These existing systems, operated by the SAEON and EFTEON technical team are utilising IRGASON instrumentation and Campbell Scientific CR6 and CR3000 series data loggers (existing infrastructure). Thus, the supplied EC instrumentation needs to be compatible with this existing infrastructure to ensure comparability of long-term measurements.

DETAILED SPECIFICATION

SAEON requires Eddy Covariance (EC) systems which meet the specifications detailed in Section A, system replacement components and spares which meet the specifications detailed in Section B and after Sales Service that meets the specifications detailed in Section C. These specifications have been written to ensure the compatibility to existing infrastructure.

Section A: Eddy Covariance (EC) System

Our intended use requires that the system meet the following general specifications and technical specifications for the components of the system.

General specifications of the system we require:

1. Must be able to monitor carbon dioxide, water and energy exchanges between the atmosphere and earth surface utilising an Open Path gas analyser to record atmospheric fluxes of CO2, H2O and energy at a frequency of up to 20Hz.
2. Must be able to measure turbulent fluctuations of horizontal and vertical wind using a three-dimensional (3D) sonic anemometer (either integrated with the Open Path gas analyser or compatible with the model offered) capable of sampling at a frequency of up to 20Hz.
3. Must have operating software from the OEM including regular firmware and software upgrades.
4. Must be robust enough to be able to operate in remote field-based settings.
5. Must be compatible with Campbell Scientific CR6 and CR3000 series data loggers (existing infrastructure).
6. Must be supplied with required mountings and cabling for all components of the system.

7. Must have been used in peer-reviewed ecosystem productivity, ecohydrology, and/or carbon dynamics literature (bidders to submit three examples of publications where the EC System was used in an ecosystem productivity, ecohydrology or carbon dynamics study in a remote area).

Qty	**Technical specifications of EC System components** (the quantities specified here are those required for one full EC system; the estimated quantities for quotation purposes per year are given in the Table on page 27**)**
1	**Item A1:** CO_2/H_2O Open-Path Gas Analyzer & 3D Sonic Anemometer ● Measurement of: ○ Absolute CO_2 concentration ○ Water vapour density ○ Must measure atmospheric concentrations of CO_2 and H_2O, and wind speed in three orthogonal directions (ux, uy, uz) ○ Sonic air temperature ○ Barometric pressure ● Operational Ranges ○ Operational temperature range: -30° to +50°C, or wider ○ Calibrated pressure range: 800 to 1060 hPa (or wider) ○ Sample output frequency minimum 20 Hz, with options for output at 10 Hz ○ Power Consumption: better than (i.e. lower than) 15 W nominal and <20 W during operation (up to 30 W during start-up) ○ Power Requirements: Voltage Supply 9.5 to 32 Vdc compatible with a 12V DC power source ○ Bit Period: 10 µs to 1 ms ○ Cable Length: 5-7.6 m (@ 10 µs bit period) ○ Current at 10 Hz Measurement Rate: <120 mA (@ 12 Vdc) ● CO_2 Performance: ○ Accuracy: within 1% of reading ○ Precision RMS noise (typical @ 370 ppm CO_2 and 0.16 ˛µmol/mol): @20 Hz or better ○ Calibrated Range: 0 to 1000 µmol/mol (ppm) ○ Zero Drift with Temperature: (±0.3 µmol/mol/°C max) ○ Gain Drift with Temperature (% of reading per °C @ 370 ppm): ±0.1% max of reading/°C ○ Direct Sensitivity to H_2O (µmol CO_2/mol H2O): ±1.1 x10^{-04} (maximum) ● H_2O Performance: ○ Accuracy: within 2% of reading or better ○ Precision RMS noise (0.007 mmol/mol or better @ 370 ppm CO_2 and 20Hz ○ Calibrated Range: 0 to 37°C Dewpoint or better ○ Zero Drift (per °C): ±0.05 mmol/mol/°C maximum. ○ Gain Drift (% of reading per °C @ 20 mmol mol-1): ±0.3% of reading/°C (maximum) ○ Direct Sensitivity to CO_2: ±0.1 mol H_2O/mol CO_2 (maximum) ● 3D Sonic Anemometer ○ Integrated inclinometer with accuracy of ≥ ±1°

	○ Full scale wind ≥ 65 m/s ○ Sonic temperature reporting range: -25° to +50 °C or wider ○ Speed of sound must be determined from 3 acoustic paths and corrected for crosswind effects ○ Performance: – Outputs: ux, uy, uz, c (c is speed of sound) – Wind direction range 0°-359° – Filter bandwidth: 5, 10, 20 or 25 Hz ● Wind accuracy: ○ Maximum Offset Error:< ±8.0 cm/s (ux, uy), < ±4.0 cm/s (uz) ○ Maximum Gain Error: –<±2% of reading (wind vector within ±5° of horizontal) –<±3% of reading (wind vector within ±10° of horizontal) –<±6% of reading (wind vector within ±20° of horizontal) ○ Measurement precision ○ ux, uy: 1 mm/s ms ○ uz: 0.5 mm/s ms ○ c: ±0.002°C RMS (at 25°C) ○ Measurement Rates ○ Datalogger Triggered 1 to 100 Hz ○ Internal Self-Trigger Rate: 100 Hz ● Includes a barometer, with a ○ measurement rate of 10Hz, and ○ accuracy of ±1.5 kPa (0° to 50°C) ● Includes a temperature sensor with ○ accuracy of ±0.15°C ○ range -30° to +50 °C ● Supplied with four Type E, research grade fine wire thermocouples (in carry case), of a maximum thickness of 0.76 µm (0.003"). ● Supplied with length of wiring to allow for installation at a height of up to 15 m above the associated logger. User to specify length for individual sites at time of order. ● Supplied with a kit that allows for the zero and span of the IRGA to be conducted on site (by the user), without removing the sensors from their mounting brackets ● Must have a minimum OEM warranty period of three years.
1	**Item A2:** Integrated Air Temperature Sensor + Relative Humidity Sensor ● Humidity ○ Range 0-100% ○ Resolution 0.1% RH ○ Accuracy 2% at (10-90% range) ● Temperature ○ Range -40-60°C ○ Resolution 0.01°C ○ Accuracy > 0.4°C (5-40C range)

	• Supplied with 1 x spare replacement filter and sensor element. • Supplied with radiation shield. • Must have a minimum OEM warranty period of one year.
1	**Item A3**: Anemometer and Wind Direction Sensor • Range 0-75m/s • Accuracy ±0.5m/s • Threshold ≤ 0.5m/s • Wind direction Range 0-360° • Must have a minimum OEM warranty period of one year.
1	**Item A4:** Four-Component Net Radiometer • Spectral Range Short wave (Lower limit= 0.29-0.35µm - Higher limit= 2.5-3.5µm) • Spectral range long wave (Lower Limit 4-5µm - Higher Limit 34-45 µm) • Certified Operating temperature range (-40°C – 60°C) • Stability/ drift less than 1.6% per year • Must have a minimum OEM warranty period of five years.
1	**Item A5:** Photosynthetically Active Radiation sensor (PAR) (410-690 µm or wider) • Sensitivity better than 10 µA per 1,000 µmol/s/m2 • Linearity: Max. deviation of 1% up to 10,000 µmol/s/m2 • Temperature Dependence: ± 0.15% per °C maximum • Azimuth: <±1% error over 360° at a 45° elevation • Tilt: No error induced from orientation • Operating temperature range: -40° to 65°C • Relative Humidity Range: 0% to 95% RH, Non-Condensing • Detector: High stability silicon photovoltaic detector (blue enhanced)
4	**Item A6:** Soil Heat Flux Plate • Operating temperature range -20°C to 70°C • Accuracy 3% of reading or better • sensitivity 50 µv /W/m^2 or better • Must have a minimum OEM warranty period of one year.
4	**Item A7:** Soil Temperature Sensors • Suitable for average soil layer temperature measurements • Suitable for long term deployment • Range -20°C to 50°C • Accuracy ±0.1C • Compatible with Soil heat flux measurements • Must have a minimum OEM warranty period of one year.
4	**Item A8:** Soil Water Content Sensor • Operational temperature range 0°C – 70°C • Precision equal or better than 0.1% VWC • Water content accuracy better than 3% of VWC • Must be supplied with a tool to assist with insertion into the soil profile. • Must have a minimum OEM warranty period of one year.

1	**Item A9:** Data logger ● Must have 12 universal terminals (can be configured for analogue or digital functions) and at least 4 control terminals, in addition 32 single-ended / 16 differential analogue inputs or extended to specified number of channels through the addition of an analogue input module. ● Must have an analogue accuracy of ± 0.06 of the measurement excluding offset. ● Must operate in extreme, dusty humid environments, with an operating range of -20 to +50 degrees Celsius or better. ● Must have a minimum of 4MB battery backed up SRAM, with at least 70MB of extended storage. ● Must have the option to extend the storage with a microSD or equivalent flash memory up to at least 16MB. ● Must be able to operate on 12 V DC power supply. ● Must be compatible with radio communications in South Africa. ● Must have a minimum of a five-year OEM warranty period.
1	**Item A10:** Pyranometer with a thermopile sensor construction ● Must meet WMO standard (WMO standard for Good Quality network (fine for network) calls for in the 300-3000 nm range) ● Response time (95% response) <30 S ● Resolution better than 5W/m^2 ● Stability (change per year) 1.5% of full scale or better ● Spectral range 300-2800 nm ● Measurement range 0 - 2000W/m^2 as a minimum ● Operating temperature (-40°C to 80°C) ● Temperature dependence 5% ● Sensitivity 5-120 µV/W/m^2 ● Must have a minimum OEM warranty period of one year.
2	**Item A11:** Leaf wetness sensor ● Operating Temperature range 40° to +60°C ● Must not require painting ● At least a 2 year operating life span.
1	**Item A12: Net radiometer** ● Spectral Range 0.2 to 100 µm ● Certified Operating temperature range (-30°C – 70°C) ● Measurement range ±2000 W m^{-2} ● Sensitivity 10 µV $W^{-1}m^2$ ● Must have a minimum OEM warranty period of one year. *(Only required for some localities as an alternative to Four-Component Net Radiometer, included for estimate purposes)
1	GPRS/GSM Modem with antenna and configured for communication.
1	Automated download system for OEM or accredited supplier to check system and server used for remote downloading

1	Required Solar panel(s), fittings and connections for providing power to run the entire station continuously *(Only required for some localities included for estimate purposes)
1	Waterproof enclosure to house data logger, batteries, and any other components that require protection from the elements. *(Only required for some localities included for estimate purposes)

Section B. EC System Replacement Components spares and maintenance parts:

All replacement components, spares and maintenance parts must be OEM approved for the models mentioned below (existing infrastructure). Technical specifications are listed below and estimated quantities for quotation purposes are given in a Table on page 27. A detailed catalogue with part numbers of the EC System Replacement Components spares and maintenance parts must be provided.

- Item B1: Enclosure desiccant packs must meet the following specifications:
  - Contain silica gel desiccant
  - Size – approximately 12 cm wide x 15 cm long
  - Weight – 140-170 grams each (per packet)

- Item B2: Kipp & Zonen CNR4 Net radiometer or equivalent drying cartridge
  - OEM standard drying cartridge for CNR4

- Item B3: Kipp & Zonen CUV-5 broad band UV radiometer or equivalent desiccant cartridge
  - OEM standard drying cartridge for CUV-5 radiometer

- Item B4: Filters for Rotronic HC2S3 temperature & humidity sensor or equivalent must meet the following specifications:
  - Must be made of polyethylene (ideally) or Teflon
  - Must include filter carrier

- Item B5: Filters for EE181 Air temperature & humidity sensor or equivalent
  - Must be made of steel mesh (ideally) or Teflon
  - Must include cap

- Item B6: Wicks set for IRGASON sonic anemometer or equivalent must meet the following specifications:
  - Must include three upper transducer wicks
  - Must include three lower transducer wicks
  - Must include an installation tool
  - Must include suitable adhesive

- Item B7: Wicks set for IRGASON gas analyser or equivalent
  - Must include top rain wick designed for IRGASON
  - Must include bottom rain wick designed for IRGASON

- Item B8: Molecular sieve/scrubber bottles for IRGASON (part number 32897) or equivalent
  - Must be from the OEM
  - Must be non-hazardous
  - Must be zeolite based
  - Must fit inside an IRGASON (22 gram container)

- Item B9: Type E, Fine wire thermocouples
  - maximum thickness of 0.76 µm (0.003")

- supplied as 4 fine wire thermocouples in a carry case

Section C: AFTER SALES SERVICE DUE DILIGENCE SPECIFICATIONS:

- Bidders must be the accredited service supplier for the original equipment manufacturers (OEM). Bidders must submit proof that they are the accredited OEM supplier in South Africa.
- Bidders must be able to supply all component spares and other consumables required for the running and operation of the instruments for the duration of the contract.
- Software/firmware updates should be available for the duration of the contract and costs involved listed as a line item in the price list. Bidders should mention if these are free of charge.
- The bidders must be able to facilitate the honouring of the OEM standard warranties on all components.

REFERENCES:

- Bidders must submit three (3) written references from customers to whom the bidder has sold this instrument or a different model with similar capabilities within the last 5 years. The references must either use the template provided on page 47 and must all meet the minimum threshold of "Meets requirements" or ensure that the reference letters include the following
  - A brief description of the Eddy Covariance instruments used (including type/model number), the service/work the bidder provided to the reference and the approximate value of the contract.
  - The reference should indicate whether the robustness and reliability of the EC equipment, delivery time of the EC equipment, responsiveness to requests for service and technical assistance, completion/delivery times of parts and services was below, met or exceeded their expectations.
  - The reference should indicate whether the technical support provided was below, met or exceeded their expectations.
  - The reference should indicate whether the availability of spare parts, consumables and services for maintenance of instrument, as well as software and related assistance/services was below, met or exceeded their expectations.
  - The reference should provide an overall impression and comment on whether they would use the provider again.
- Contact details of references must be included.

SECTION D. BID SUBMISSION PACK

TABLE OF CONTENTS

SETS OF BID DOCUMENTS REQUIRED:	22
RETURNABLE DOCUMENTS CHECKLIST	22
PRE-QUALIFICATION ELIGIBILITY CRITERIA	24
SBD 3.2: PRICING DETAIL	28
SPECIAL CONDITIONS OF CONTRACT	38
MANAGEMENT OF PERFORMANCE LEVELS	40
SBD 4 - DECLARATION OF INTEREST WITH GOVERNMENT	41
PREFERENCE POINTS CLAIMED (SBD 6.1)	43
SBD 8 - DECLARATION OF BIDDER'S PAST SCM PRACTICES	47
SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION	48
REFERENCE LETTER FORMAT	49
GENERAL CONDITIONS OF CONTRACT	51
BID SUBMISSION CERTIFICATE FORM - (SBD 1)	66

SETS OF BID DOCUMENTS REQUIRED:

Number of ORIGINAL bid documents for contract signing	2 electronic documents (1 x secured pdf for technical review and 1 x password-protected pdf for pricing file). A Guideline procedure for electronic bid submissions is provided as Annexure 1 on page 66 of this document.

Bidders must submit the above number of electronic documents (1 x secured pdf for technical review and 1 x password-protected pdf for pricing file) to the NRF. These serve as the original sets for the legal bid document and, upon award and signature, the legal contract document between the bidder and the NRF. (Where only one set is requested, this remains with the NRF). The NRF with the awarded bidder sign these documents in black ink. The signed legal contract constitutes the closure of the competitive bid/tender/request for quotation process and sets out each party's obligations for executing the contract. The bidders attach the originals or certified copies of any certificates stipulated in this document to these original sets of bid documents. In the case of a discrepancy between the evaluation copies and the master record, the master record prevails. In the case of a discrepancy between the original sets deposited with the NRF and that kept by the bidder, the original set deposited with the NRF is the master contract for both parties.

Number of EVALUATION copies (physical documents) or secured pdf:	2 electronic documents (1 x secured pdf for technical review and 1 x password-protected pdf for pricing file).

Bidders mark documents as "**Copy for evaluation**" and number all pages sequentially.

RETURNABLE DOCUMENTS CHECKLIST

The bidder is to complete this table and to supply the necessary page references to the supporting documentation.
A bidder failing to adequately provide any of the mandatory documents is automatically disqualified.

Legislative/Technical Documents	**Compliance**			
(M – Mandatory); (O – Optional)	**Submitted**		**Bid Section Reference**	**Reference to Bidder's document**
Procurement Invitation (SBD 1), signed and completed.	**M**	❑ Yes ❑ No	Page 11 & 65	
Declaration of Interest with Government (SBD 4), signed and completed.	**M**	❑ Yes ❑ No	Page 40	
Preference Points Claimed (SBD 6.1), signed and completed.	**M**	❑ Yes ❑ No	Page 42	

Declaration of Past SCM Practices (SBD 8), signed and completed.	**M**	❑ Yes ❑ No	Page 46	
Certificate of Independent Bid Determination (SBD 9), signed and completed.	**M**	❑ Yes ❑ No	Page 47	
CO_2/H_2O Open-Path Gas Analyzer & 3D Sonic Anemometer with system operating software and firmware data sheet/s that prove that the general and technical specifications are met.	**M**	❑ Yes ❑ No	Page 15	
Integrated Air Temperature Sensor + Relative Humidity Sensor data sheet that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 16	
Anemometer and Wind Direction Sensor data sheet that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 17	
Four-Component Net Radiometer data sheets that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 17	
Photosynthetically Active Radiation sensor (PAR) data sheet that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 17	
Soil Heat Flux Plate data sheet that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 17	
Soil Temperature sensors data sheets that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 17	
Soil water content sensor data sheets that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 17	
Data logger data sheet that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 18	
Pyranometer data sheet that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 18	
Leaf wetness sensor data sheet that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 18	
Net radiometer data sheet that prove that the technical specifications are met.	**M**	❑ Yes ❑ No	Page 18	
A detailed catalogue with part numbers of the EC System Replacement Components spares and maintenance parts,	**M**	❑ Yes ❑ No	Page 19	

Proof of **after sales service due diligence eligibility** including: • Proof that your company is the accredited OEM service supplier in South Africa. • A statement on software/firmware updates for the duration of the contract including costs (if any) of the above in the pricing list. • Proof of ability to supply the OEM approved replacement components spares and maintenance parts. This may include distribution agreements (or similar) between your company and the OEM that covers the range of components/parts.	**M**	❑ Yes ❑ No	Page 20	
Three (3) written **references** with contact details from customers to whom the bidder has sold this instrument or a different model with similar capabilities within the last 5 years that meets the minimum threshold of "Meets requirements."	**M**	❑ Yes ❑ No	Page 20	
Reference 1: From:	**M**	❑ Yes ❑ No		
Reference 2: From:				
Reference 3: From:				
Three peer-reviewed publications as evidence that the EC Equipment has been used in ecosystem productivity, ecohydrology or carbon dynamics studies in a remote area.	**M**	❑ Yes ❑ No	Page 15	
Pricing Documents	**Compliance**			
Summary pricing (SBD 3) in this document, to be completed.	**M**	❑ Yes ❑ No	Page 28	
Detailed catalogue, part numbers and line item pricing relating to items in SBD3	**M**	❑ Yes ❑ No	Page 30	
Detailed catalogue of all compatible sensors spares and maintenance parts related to this instrument not included in SBD3)	**M**	❑ Yes ❑ No	Page 30	

PRE-QUALIFICATION ELIGIBILITY CRITERIA

Legislative local content	Not Applicable

NRF specific local content	Not Applicable	
Pre-Qualifying Criteria	A minimum B-BBEE status level	Level 4

A bidder failing to meet any of the stipulated qualifying criteria is automatically disqualified.

ELIGIBILITY CRITERIA (GO/NO-GO)

Selection Element		Meet Specification Minimum	Bid Section Reference	Reference to Bidder's document
1	Fully completed Procurement Invitation (SBD 1) including all documents in the Bidder Eligibility section, and signed Bid Submission Certificate form.	❑ YES ❑ NO	Returnable Documents' Bidder Eligibility section on page 22	
2	**General specifications of EC Equipment**			
	EC Equipment has been used in peer-reviewed literature	❑ YES ❑ NO	Page 15	
	EC Equipment is compatible with the data loggers that SAEON are currently using (namely Campbell Scientific CR6 and CR3000 series data loggers.	❑ YES ❑ NO	Page 15	
	EC Equipment is suitable for remote field based settings	❑ YES ❑ NO	Page 15	
3	**Technical specifications of EC Equipment**			
	CO_2/H_2O Open-Path Gas Analyzer & 3D Sonic Anemometer with system operating software and firmware data sheet/s that meet specifications	❑ YES ❑ NO	Page 15	
	Integrated Air Temperature Sensor + Relative Humidity Sensor data sheet that meet specifications	❑ YES ❑ NO	Page 16	
	Anemometer and Wind Direction Sensor data sheet that meet specifications	❑ YES ❑ NO	Page 17	

	Four-Component Net Radiometer data sheets that meet specifications	❑ YES ❑ NO	Page 17	
	Photosynthetically Active Radiation sensor (PAR) data sheet that meet specifications	❑ YES ❑ NO	Page 17	
	Soil Heat Flux Plate data sheet that meet specifications	❑ YES ❑ NO	Page 17	
	Soil Temperature sensors data sheets that meet specifications	❑ YES ❑ NO	Page 17	
	Soil water content sensor data sheets that meet specifications	❑ YES ❑ NO	Page 17	
	Data logger data sheet that meets specifications	❑ YES ❑ NO	Page 18	
	Pyranometer data sheet that meet specifications	❑ YES ❑ NO	Page 18	
	Leaf wetness sensor data sheet that meet specifications	❑ YES ❑ NO	Page 18	
	Net radiometer data sheet that meets specifications	❑ YES ❑ NO	Page 18	
3	**Technical specifications of EC System Replacement Components spares and maintenance parts**			
	Desiccant packs meet specifications	❑ YES ❑ NO	Page 19	
	Filters for Rotronic HC2S3 temperature & humidity sensor or equivalent that meet specifications	❑ YES ❑ NO	Page 19	
	Kipp & Zonen CNR4 Net radiometer or	❑ YES	Page 19	

	equivalent drying cartridge that meets specifications	❑ NO		
	Kipp & Zonen CUV-5 broad band UV radiometer or equivalent desiccant cartridge that meets specifications	❑ YES ❑ NO	Page 19	
	Filters for EE181 Air temperature & humidity sensor or equivalent that meets specifications	❑ YES ❑ NO	Page 19	
	Wicks set for IRGASON sonic anemometer or equivalent that meet specifications	❑ YES ❑ NO	Page 19	
	Wicks for IRGASON gas analyser or equivalent that meets specifications	❑ YES ❑ NO	Page 19	
	Molecular sieve/scrubber bottles for IRGASON or equivalent that meet specifications	❑ YES ❑ NO	Page 19	
	Fine wire thermocouples meet specifications	❑ YES ❑ NO	Page 19	
3	**After sales due diligence service eligibility**			
	Bidder's company can provide qualified, experienced and/or OEM approved technicians for technical support, testing, troubleshooting and minor repair services.	❑ YES ❑ NO	Page 20	
	Bidder has supported the particular instrument offered for at least three years.	❑ YES ❑ NO	Page 20	
	Bidder has an established work history with OEM and is able to facilitate major repairs when necessary including dealing with international instrument shipping logistics.	❑ YES ❑ NO	Page 20	
	Bidder is able to supply all component spares and other consumables required for the	❑ YES	Page 20	

	running and operation of the instrument for the duration of the contract. That these component spares and consumables are OEM approved.	❑ NO		
	Software/firmware updates are available for the duration of the contract.	❑ YES ❑ NO	Page 20	
4	**References**			
	Evaluation of references demonstrates that the **reference letters** meet the minimum threshold of "Meets requirements" against the risk areas listed in the reference letter template	❑ YES ❑ NO	Page 20	

SBD 3.2: PRICING DETAIL

Pricing Special Conditions

1	**Pricing Schedule**: Price adjustments will be allowed at the periods and times specified in the bidding documents. In case where different delivery points influence the pricing, a separate pricing schedule must be submitted for each delivery point
1A	**Non-Firm Prices subject to Escalation:** In cases of period contracts, non-firm prices will be adjusted (loaded) with the assessed contract price adjustments implicit in non-firm prices when calculating the comparative prices.
1B	**Estimated quantities over the Contract Period:** In this category price escalations will only be considered in terms of the following formula: $$Pa = (1-V)Pt\left(D1\frac{R1t}{R1o} + D2\frac{R2t}{R2o} + D3\frac{R3t}{R3o} + D4\frac{R4t}{R4o} \right) + VPt$$
1C	**Prices subject to Rate of Exchange Variations**: Please furnish full particulars of your financial institution, state the currencies used in the conversion of the prices of the items to South African currency, which portion of the price is subject to rate of exchange variations and the amounts remitted abroad. Adjustments for rate of exchange variations during the contract period will be calculated by using the average monthly exchange rates as issued by your commercial bank for the periods indicated: (proof from bank required)
1D	**Quantities ordered as and when required:** The NRF, as and when needed during the contract period, orders necessary quantities under the contract. The NRF does not provide guarantees or commitments that it will order

	this entire amount during the contract's life. The NRF, through the signed contract, guarantees its procurement of the specified goods and/or services will only be from the contracted party.
1E	**Placement of written purchase orders:** The NRF manages the execution of the contract through the issue of written purchase orders – stipulating quantity, description, delivery date, and the fixed unit price - for the contracted supplies. The NRF, when issuing the written purchase order, guarantees that the funding is available.
1F	**Contract Ceiling Price:** With these estimates in the bid contract, the contract ceiling price includes both the firm quantities and the potential future quantities within the contract ceiling price. As the NRF orders quantities as and when required, the NRF pays only for the verified delivered quantity per each purchase order at the prices set out in this contract. The cumulative value of each of these invoices at the expiry of the contract is the actual total contract price.
1G	**Price Adjustments:** In terms of General Conditions of Contract clause 17.1, the following price adjustments with the rules for application are set out below as special conditions of Contract Clause 17.1. **Price adjustments and their corresponding rules are for the management of price risks on the basis of the NRF and the contracted bidder sharing the risk equally amongst the parties.**
2	Price quoted is South African Rands in terms of General Conditions of contract clause 16.4
3	Price Quotation Basis Price quoted is fully inclusive of all costs including delivery to the specified NRF price delivery point and includes value- added tax, income tax, unemployment insurance fund contributions, and skills development levies in terms of General Conditions of contract clauses 12, 32.1 and 32.2. Price Delivery Point: In cases where different delivery points influence the pricing, the bidder submits a separate pricing schedule for each delivery point.
	Delivery points are: 1. SAEON National office 56 Florence Rd Colbyn, Pretoria 0084, RSA (25°44'28.94"S, 28°14'52.05"E) 2. SAEON Grasslands Node, 1 Peter Brown Drive, Queen Elisabeth Park, Montrose, KZN, RSA (29°34'26.76"S, 30°19'38.55"E) 3. SAEON Arid Node, 97 Memorial Road, South Ridge, Kimberley, RSA (28°46'18.99"S, 24°45'3.92"E) 4. SAEON Ndlovu Node, Kruger National Park Gate, Hendrick van Eck Street, Phalaborwa, 1390, RSA (23°56'41.78"S, 31° 9'55.21"E) 5. SAEON Fynbos node, Room 2, G Floor, CBC Building, Kirstenbosch Botanical Gardens, Rhodes Drive, Newlands, 7735, Cape Town, RSA (33°59'13.79"S, 18°26'6.10"E)
4	Detail Pricing Support: Detailed information i.e. costed bill of quantities is optional and can be provided as an annexure to the details provided with reference to such included in this SBD 3
5	Application of Preference Points: Pricing is subject to the addition of Preference Points as stipulated below - Standard Bidding Document 6.1 Preference claim form.

PRICING SCHEDULE

NB, the quantities and estimated schedule below is for quotation purposes only to set the full contract value of the 5 year contract

We do require one full system within year one and all the stated spares in year one. Subsequent to that purchases will be as and when required and contingent on budget availability, up to the value of the full contract. We will request quotes as per approved contract and then issue Purchase order based on costs agreed in the contract.

	QTY	DESCRIPTION	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
Year 1					
	1	Item A1: CO2/H2O Open-Path Gas Analyzer & 3D Sonic Anemometer inclusive of all items listed in items A1 section, including all required mounting and cabling	Each		
	1	Item A2: Integrated Air Temperature Sensor + Relative Humidity Sensor with 1x spare replacement filter and sensor element recalibration with radiation shield, including all required mounting and cabling	Each		
	1	Item A3: Anemometer and Wind Direction Sensor, including all required mounting and cabling	Each		
	1	Item A4: Four-Component Net Radiometer, including all required mounting and cabling	Each		
	1	Item A5: Photosynthetically Active Radiation sensor (PAR), including all required mounting and cabling	Each		
	4	Item A6: Soil Heat Flux Plate, including all required mounting and cabling	Each		
	4	Item A7: Soil Temperature Sensors, including all required mounting and cabling	Each		
	4	Item A8: Soil Water Content Sensor, including all required mounting and cabling	Each		
	1	Item A9: Data logger, including all required mounting	Each		
	1	Item A10: Pyranometer, including all required mounting and cabling	Each		

	2	Item A11: Leaf wetness sensor, including all required mounting and cabling	Each		
	1	Item A12: Net radiometer, including all required mounting and cabling	Each		
	1	GPRS/GSM Modem and automated download system	Each		
	1	Solar panel with fittings and mountings	Each		
	1	Waterproof enclosure with mountings and conduits for cabling	Each		
	45	Item B1: Enclosure desiccant packs	Each		
	16	Item B2 IRGASON Sonic or equivalent wicks	Each		
	16	Item B3 IRGASON IRGA wicks or equivalent	Each		
	16	Item B4 IRGASON or equivalent molecular sieve	Each		
	6	Item B5 HC2S3 or equivalent filters	Each		
	15	Item B6 EE181 or equivalent filter	Each		
	14	Item B7 CNR4 Net radiometer or equivalent drying cartridges	Each		
	14	Item B8 CUV5 UV radiometer or equivalent desiccant cartridge	Each		
	3	Item B9 Case of Fine wire thermocouples	Each		
	1	Support service from date of delivery	Each		
	1	Software/firmware updates	Each		
	1	Incidental repair expenses	Each	R30 000.00	R30 000.00
	1	Delivery cost of EC system to SAEON Grasslands Node	Per delivery		
	1	Provisional delivery cost sum for the delivery of consumables to each of the delivery points noted	Per delivery		
Year 2					

	1	Item A1: CO2/H2O Open-Path Gas Analyzer & 3D Sonic Anemometer inclusive of all items listed in items A1 section, including all required mounting and cabling	Each		
	1	Item A2: Integrated Air Temperature Sensor + Relative Humidity Sensor with 1x spare replacement filter and sensor element recalibration with radiation shield, including all required mounting and cabling	Each		
	1	Item A3: Anemometer and Wind Direction Sensor, including all required mounting and cabling	Each		
	1	Item A4: Four-Component Net Radiometer, including all required mounting and cabling	Each		
	1	Item A5: Photosynthetically Active Radiation sensor (PAR), including all required mounting and cabling	Each		
	4	Item A6: Soil Heat Flux Plate, including all required mounting and cabling	Each		
	4	Item A7: Soil Temperature Sensors, including all required mounting and cabling	Each		
	4	Item A8: Soil Water Content Sensor, including all required mounting and cabling	Each		
	1	Item A9: Data logger, including all required mounting	Each		
	1	Item A10: Pyranometer, including all required mounting and cabling	Each		
	2	Item A11: Leaf wetness sensor, including all required mounting and cabling	Each		
	1	Item A12: Net radiometer, including all required mounting and cabling	Each		
	1	GPRS/GSM Modem and automated download system	Each		
	1	Solar panel with fittings and mountings	Each		
	1	Waterproof enclosure with mountings and conduits for cabling	Each		
	6	Item B1: Enclosure desiccant packs	Each		

	4	Item B2 IRGASON Sonic or equivalent wicks	Each		
	4	Item B3 IRGASON IRGA or equivalent wicks	Each		
	4	Item B4 IRGASON or equivalent molecular sieve	Each		
	2	Item B5 HC2S3 or equivalent filters	Each		
	4	Item B6 EE181 or equivalent filter	Each		
	2	Item B7 CNR4 Net radiometer or equivalent drying cartridges	Each		
	2	Item B8 CUV5 UV radiometer or equivalent desiccant cartridge	Each		
	3	Item B9 Case of Fine wire thermocouples	Each		
	1	Support service from date of delivery	Each		
	1	Software/firmware updates	Each		
	1	Incidental repair expenses	Each	R31 800.00	R31 800.00
	1	Provisional delivery cost of EC system	Per delivery		
	1	Provisional delivery cost sum for the delivery of consumables to each of the delivery points noted	Per delivery		
Year 3					
	1	Item A1: CO2/H2O Open-Path Gas Analyzer & 3D Sonic Anemometer inclusive of all items listed in items A1 section, including all required mounting and cabling	Each		
	1	Item A2: Integrated Air Temperature Sensor + Relative Humidity Sensor with 1x spare replacement filter and sensor element recalibration with radiation shield, including all required mounting and cabling	Each		
	1	Item A3: Anemometer and Wind Direction Sensor, including all required mounting and cabling	Each		
	1	Item A4: Four-Component Net Radiometer, including all required mounting and cabling	Each		

	1	Item A5: Photosynthetically Active Radiation sensor (PAR), including all required mounting and cabling	Each		
	4	Item A6: Soil Heat Flux Plate, including all required mounting and cabling	Each		
	4	Item A7: Soil Temperature Sensors, including all required mounting and cabling	Each		
	4	Item A8: Soil Water Content Sensor, including all required mounting and cabling	Each		
	1	Item A9: Data logger, including all required mounting	Each		
	1	Item A10: Pyranometer, including all required mounting and cabling	Each		
	2	Item A11: Leaf wetness sensor, including all required mounting and cabling	Each		
	1	Item A12: Net radiometer, including all required mounting and cabling	Each		
	1	GPRS/GSM Modem and automated download system	Each		
	1	Solar panel with fittings and mountings	Each		
	1	Waterproof enclosure with mountings and conduits for cabling	Each		
	45	Item B1: Enclosure desiccant packs	Each		
	16	Item B2 IRGASON Sonic or equivalent wicks	Each		
	16	Item B3 IRGASON IRGA or equivalent wicks	Each		
	16	Item B4 IRGASON or equivalent molecular sieve	Each		
	6	Item B5 HC2S3 or equivalent filters	Each		
	15	Item B6 EE181 or equivalent filter	Each		
	14	Item B7 CNR4 Net radiometer or equivalent drying cartridges	Each		
	14	Item B8 CUV5 UV radiometer or equivalent	Each		

		desiccant cartridge			
	3	Item B9 Case of Fine wire thermocouples	Each		
	1	Support service from date of delivery	Each		
	1	Software/firmware updates	Each		
	1	Incidental repair expenses	Each	R33 700.00	R33 700.00
	1	Provisional delivery cost of EC system	Per delivery		
	1	Provisional delivery cost sum for the delivery of consumables to each of the delivery points noted	Per delivery		
Year 4					
	1	Item A1: CO2/H2O Open-Path Gas Analyzer & 3D Sonic Anemometer inclusive of all items listed in items A1 section, including all required mounting and cabling	Each		
	1	Item A2: Integrated Air Temperature Sensor + Relative Humidity Sensor with 1x spare replacement filter and sensor element recalibration with radiation shield, including all required mounting and cabling	Each		
	1	Item A3: Anemometer and Wind Direction Sensor, including all required mounting and cabling	Each		
	1	Item A4: Four-Component Net Radiometer, including all required mounting and cabling	Each		
	1	Item A5: Photosynthetically Active Radiation sensor (PAR), including all required mounting and cabling	Each		
	4	Item A6: Soil Heat Flux Plate, including all required mounting and cabling	Each		
	4	Item A7: Soil Temperature Sensors, including all required mounting and cabling	Each		
	4	Item A8: Soil Water Content Sensor, including all required mounting and cabling	Each		
	1	Item A9: Data logger, including all required mounting	Each		

	1	Item A10: Pyranometer, including all required mounting and cabling	Each		
	2	Item A11: Leaf wetness sensor, including all required mounting and cabling	Each		
	1	Item A12: Net radiometer, including all required mounting and cabling	Each		
	1	GPRS/GSM Modem and automated download system	Each		
	1	Solar panel with fittings and mountings	Each		
	1	Waterproof enclosure with mountings and conduits for cabling	Each		
	6	Item B1: Enclosure desiccant packs	Each		
	4	Item B2 IRGASON Sonic or equivalent wicks	Each		
	4	Item B3 IRGASON IRGA or equivalent wicks	Each		
	4	Item B4 IRGASON or equivalent molecular sieve	Each		
	4	Item B5 HC2S3 or equivalent filters	Each		
	2	Item B6 EE181 or equivalent filter	Each		
	3	Item B9 Case of Fine wire thermocouples	Each		
	1	Support service from date of delivery	Each		
	1	Software/firmware updates	Each		
	1	Incidental repair expenses	Each	R35 700.00	R35 700.00
	1	Provisional delivery cost of EC system	Per delivery		
	1	Provisional delivery cost sum for the delivery of consumables to each of the delivery points noted	Per delivery		
Year 5					
	1	Item A1: CO2/H2O Open-Path Gas Analyzer & 3D Sonic Anemometer inclusive of all items listed in	Each		

		items A1 section, including all required mounting and cabling			
	1	Item A2: Integrated Air Temperature Sensor + Relative Humidity Sensor with 1x spare replacement filter and sensor element recalibration with radiation shield, including all required mounting and cabling	Each		
	1	Item A3: Anemometer and Wind Direction Sensor, including all required mounting and cabling	Each		
	1	Item A4: Four-Component Net Radiometer, including all required mounting and cabling	Each		
	1	Item A5: Photosynthetically Active Radiation sensor (PAR), including all required mounting and cabling	Each		
	4	Item A6: Soil Heat Flux Plate, including all required mounting and cabling	Each		
	4	Item A7: Soil Temperature Sensors, including all required mounting and cabling	Each		
	4	Item A8: Soil Water Content Sensor, including all required mounting and cabling	Each		
	1	Item A9: Data logger, including all required mounting	Each		
	1	Item A10: Pyranometer, including all required mounting and cabling	Each		
	2	Item A11: Leaf wetness sensor, including all required mounting and cabling	Each		
	1	Item A12: Net radiometer, including all required mounting and cabling	Each		
	1	GPRS/GSM Modem and automated download system	Each		
	1	Solar panel with fittings and mountings	Each		
	1	Waterproof enclosure with mountings and conduits for cabling	Each		
	46	Item B1: Enclosure desiccant packs	Each		
	17	Item B2 IRGASON Sonic or equivalent wicks	Each		

	17	Item B3 IRGASON IRGA or equivalent wicks	Each		
	17	Item B4 IRGASON or equivalent molecular sieve	Each		
	12	Item B5 HC2S3 or equivalent filters	Each		
	16	Item B6 EE181 or equivalent filter	Each		
	14	Item B7 CNR4 Net radiometer or equivalent drying cartridges	Each		
	14	Item B8 CUV5 UV radiometer or equivalent desiccant cartridge	Each		
	3	Item B9 Case of Fine wire thermocouples	Each		
	1	Support service from date of delivery	Each		
	1	Software/firmware updates	Each		
	1	Incidental repair expenses	Each	R37 800.00	R37 800.00
	1	Provisional delivery cost of EC system	Per delivery		
	1	Provisional delivery cost sum for the delivery of consumables to each of the delivery points noted	Per delivery		
Total Cost is determined by multiplying quantity by unit price for all line items					
TOTAL CONTRACT VALUE OF ABOVE (CEILING PRICE) INCLUDING VAT				R	

SPECIAL CONDITIONS OF CONTRACT

(AMENDMENTS TO SPECIFIC CLAUSES OF THE GENERAL CONDITIONS OF CONTRACT LISTED BELOW EACH CLAUSE IN THAT SECTION).

1 **Implementation Planning and Project Management**

The contracted provider will arrange an initial meeting to determine delivery execution with the assigned NRF project team. Both parties will review the proposed project execution plan submitted with the bid and agree on the finalised timetable stating clearing commence date and completion date of each stage of the implementation.

2	**Performance verification** In terms of GCC Clause 16 read with the SCC Clause 16.2A, the NRF appointed contract manager or agent verifies that the performance of this contract in terms of services, delivery service, goods, labour and any other element specified in this contract is at the contracted performance level and/or the goods meet the contracted specifications with the represented of the contracted provider. Both parties verify this through signing the verification documentation. Both parties, at this time, agree on quantity, unit cost and total value on the same signed document. Further verification steps are set out below: **NRF representatives will receive delivery at the stated addresses and verify that all components are present and working correctly.**
4	**Contracted Party Due Diligence:** The NRF has the right to conduct supply chain due diligence including site visits and inspections at any time during the contract period.
5	**Communication:** The contracted parties communicate in writing through mail, delivery, or email. The contracted party states the contract number and purchase order number, if the latter is applicable, on communication documentation. The contract party does not act upon any communication without the contract number or must verify such communication with the assigned NRF contract manager prior to acting upon it.
6	**Occupational Health and Safety when working on NRF sites:** All personnel performing work on NRF site/s as part of this contract are responsible to obtain safety induction. Over and above the obligations provided by the Act, the contracted party meets with all relevant health and safety instructions as given to them by site safety personnel, where relevant. Personal protection equipment including closed safety shoes, hard hats, height safety equipment, and high visibility vests are worn at all times while on the work site. All personnel are to obey the relevant instructions, including signage, related to restricted access and speed limits on all sites. The contracted party, once signing the contract (SBD 7), is responsible for itself, its employees, and those people affected by its operations in terms of the Occupational Health and Safety Act the regulations promulgated in terms thereof (OHS Act No 85 of 1993 and its Regulations, known as 'The Act'). The contracted party performs all work and uses equipment on site complying with the provisions of the Occupational Health and Safety Act. To this end, the contracted party shall make available to the NRF on the valid Letter of Good Standing in terms of the COID Act and ensures its validity does not expire while executing this bid, where applicable. The contracted party furnishes its registration number with the office of the Compensation Commissioner. The contracted party enters into a Section 37.2 agreement in terms of Occupational Health and Safety Act (OHS Act No 85 of 1993 and its Regulations) that the NRF drafts. The contracted party maintains a health and safety plan complying with the requirements of The Act at the work site during the period that contracted work takes place on the site. The NRF manages the contracted party in his capacity for the execution of this contract to meet the provisions of the said Act and the regulations promulgated in terms thereof. The contracted party accepts liability for any contraventions to the Act. Each member of the contracted party's team (including sub-contracted personnel), submit a signed indemnity form prior to entering the work site and kept in the contracted party's health and safety file.
8	**Response times for call-outs or support (where applicable):** The NRF specifies the following response services as set out below and, for each, specifies in the section "Management of Performance Levels: the performance levels.

- *Support for getting software/firmware updates installed and operational : Assistance with updates/upgrades are available within a week of a SAEON request and updates/upgrades executed successfully.*
- *Instrument Service support response: Initial call response time no longer than 48 hours; Non-emergency support issues resolved within 72 working hours; emergency (e.g. field) issues resolved within 24 hours.*
- *Replacement and maintenance component delivery: Initial call response time – 48 hours; Availability and delivery within 5 weeks of order.*

MANAGEMENT OF PERFORMANCE LEVELS

1. The Performance Levels are in the table below.

2. The NRF measures the contracted bidder's performance against these in the execution of the contract.

3. The contracted bidder recognises that its failure to meet the performance levels has material adverse impact on the operations of NRF and that the damage from the contracted bidder's failure to meet any performance level is not susceptible to precise determination.

4. The NRF excuses the contracted bidder from failing to comply with the performance levels to the extent that non-performance or delayed performance is solely and directly attributable to an act or omission of the NRF or its staff or circumstances of force majeure as referred to in this Agreement.

5. If the contracted bidder fails to meet any performance level:
   1. the contracted bidder shall investigate and report on the root causes of the performance level failure;
   2. promptly correct the failure and begin meeting the set performance levels;
   3. advise the NRF as and to the extent requested by the NRF of the status of remedial efforts being undertaken with respect to such performance level failure; and
   4. take appropriate preventive measures to prevent the recurrence of the performance level failure.

6. Both parties are responsible for monitoring and measuring the performance of the contracted bidder against the performance levels set in this document. The NRF deems failure by the contracted bidder to measure performance with respect the contract specifications for any measurement period as a failure to meet the stipulated performance levels.

PERFORMANCE LEVELS STATEMENT

Service/Goods being Measured	**Measurement Methodology**	**Penalty/Bonus and level applicable from**
Supply of EC system	*Initial call response time – 48 hours; Availability and delivery within 8*	*Delays in delivery, 1 %* of the *EC system value per week over 8 week limit.*

	weeks of order.	
Bidder must be able to facilitate technical support from the OEM and submit proof of this ability.	*The bidder should have the facilities and skills to receive the instrument for testing and troubleshooting with the assistance of the OEM to overcome technical and/or software related problems. Progress should be reported to SAEON within a week of receiving the instrument.*	*Penalty – the bidder pays for the service and transport if the instrument needs to be sent to a third party who has the required skills and facilities to respond timeously.*
Bidder must be able to facilitate repair services by the OEM with the need for these identified by the bidder through testing and troubleshooting and submit proof of this ability.	*Bidder can receive instrument and send instrument to OEM including taking care of international shipping and other logistics. The above should be done in a reasonable time frame stated in advance.*	*Penalty – the bidder pays 50% of the total cost of the service if SAEON is required to get involved in international shipping logistics and 5% of the cost for each week the service is delayed beyond the time agreed between the bidder and SAEON once the extent of repair is established.*
Supply of spares and consumables	*Initial call response time – 48 hours; Availability and delivery within 5 weeks of order*	*Delays in delivery, 1 %* of the *consumable or spare part value per week over 5 week limit.*

SBD 4 - DECLARATION OF INTEREST WITH GOVERNMENT

Any legal person, including persons employed by the State (meaning 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); any municipality or municipal entity; provincial legislature; national Assembly or the national Council of provinces; or Parliament), 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/s person who is/are 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.

In order to give effect to the above, the following questionnaire must be completed and submitted with this Bid:

Full Name of Bidder or his/her representative:	
Identity Number:	
Position occupied in the Company (director, trustee, shareholder, member):	
Registration number of company, enterprise, close corporation, partnership agreement:	
Tax Reference Number:	
VAT Registration Number:	

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 a separate schedule including the following questions:

Schedule attached with the above details for all directors/members/shareholders

Are you or any person connected with the Bidder presently employed by the State? If so, furnish the following particulars in an attached schedule	❑ Yes ❑ No

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:

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
If Yes, did you attach proof of such authority to the Bid document?	
If No, furnish reasons for non-submission of such proof as an attached schedule	
(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the Bid.)	
Did you or your spouse or any of the company's directors/ trustees /shareholders /members or their spouses conduct business with the State including any business units of the National Research Foundation in the previous twelve months?	❑ Yes ❑ No
If so, furnish particulars as an attached schedule	
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
If so, furnish particulars as an attached schedule.	
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
If so, furnish particulars as an attached schedule:	

PREFERENCE POINTS CLAIMED (SBD 6.1)

Preference points claim form for broad-based black economic empowerment (B-BBEE) status level of contribution in terms of the preferential procurement regulations 2017

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS, AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

1.1. The following preference point systems are applicable to all bids:

1.1.1. the 80/20 system for requirements with a Rand value of up to R 50 000 000 (all applicable taxes included); and
1.1.2. The 90/10 system for requirements with a Rand value above R 50 000 000 (all applicable taxes included)

1.2. Points for this bid shall be awarded for:
1.2.1. Price; and
1.2.2. B-BBEE Status Level of Contributor

The maximum points for this bid are allocated as follows:	**POINTS**
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTION	20
Total points for Price and B-BBEE must not exceed	100

1.3. Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
1.4. The purchaser reserves the right to require either of a bidder, before a bid is adjudicated or at any time subsequently, to substantiate any claim concerning preferences, in any manner required by the purchaser.

2. DEFINITIONS

"**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 of an entity in terms of a code 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 goods or services, through price quotations, advertised competitive bidding processes or proposals;
"**Broad-Based Black Economic Empowerment Act**" means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
"**EME**" means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
"**Functionality**" means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
"**prices**" includes all applicable taxes less all unconditional discounts;
"**proof of B-BBEE status level of contributor**" means:
1. B-BBEE Status level certificate issued by an authorized body or person;
2. A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
3. Any other requirement prescribed in terms of the B-BBEE Act;
"QSE" means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
"**rand value**" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 or 90/10

$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right) \quad \text{or} \quad Ps = 90\left(1 - \frac{Pt - P\min}{P\min}\right)$$

Where

Ps = Points scored for price of bid under consideration

Pt = Price of bid under consideration

Pmin = Price of lowest acceptable bid

4. **POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR**

In terms of Regulation 6 (2) and 7 (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	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

5. **BID DECLARATION**

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

B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

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

(Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

6. SUB-CONTRACTING

Will any portion of the contract be sub-contracted?

(Tick applicable box)

YES		NO	

If yes, indicate:

1. What percentage of the contract will be subcontracted.....……%

2. The name of the sub-contractor……..

3. The B-BBEE status level of the sub-contractor.....……..

4. Whether the sub-contractor is an EME or QSE

(Tick applicable box)

YES		NO	

Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

Designated Group: An EME or QSE which is at last 51% owned by:	**EME** √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

7. **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-BBEE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

1. The information furnished is true and correct;

2. The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

3. In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;

4. If the B-BBEE status level of contributor 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) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury 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.

SBD 8 - DECLARATION OF BIDDER'S PAST SCM PRACTICES

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? If Yes, furnish particulars as an attached schedule:	❑ Yes ❑ No
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)? If Yes, furnish particulars as	❑ Yes ❑ No

an attached schedule:	
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? If Yes, furnish particulars as an attached schedule:	❑ Yes ❑ No
Was any contract between the Bidder and any NRF terminated during the past five years because of failure to perform on or comply with the contract? If Yes, furnish particulars as an attached schedule:	❑ Yes ❑ No
The Database of Restricted Suppliers and Register for Tender Defaulters 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.	

SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the signatory to this document, in submitting this Bid in response to the invitation for the Bid made by the National Research Foundation, do hereby make the following statements that I certify to be true and complete in every respect:

I have read and I understand the contents of this Certificate;

I understand that the Bid will be disqualified if this Certificate is found not to be true and complete in every respect;

I am authorised by the Bidder to sign this Certificate, and to submit the Bid, on behalf of the Bidder;

Each person whose signature appears on the Bid has been authorised by the Bidder to determine the terms of, and to sign, the Bid on behalf of the Bidder;

For the purposes of this Certificate and the accompanying Bid, I understand that the word "competitor" shall include any individual or organisation, other than the Bidder, whether or not affiliated with the Bidder, who:

1. Has been requested to submit a Bid in response to this Bid invitation;
2. Could potentially submit a Bid in response to this Bid invitation, based on their qualifications, abilities or experience; and
3. Provides the same goods and services as the Bidder and/or is in the same line of business as the Bidder

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 (meaning an association of persons for combining their expertise, property, capital, efforts, skill, and knowledge in an activity for the execution of the bid) will not be construed as collusive bidding.

In particular, without limiting the generality of paragraphs above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

1. Prices;
2. Geographical area where product or service will be rendered (market allocation);

3. Methods, factors or formulas used to calculate prices; 4. The intention or decision to submit or not to submit, a Bid; 5. The submission of a Bid which does not meet the specifications and conditions of the Bid; or 6. Bidding with the intention not to win the Bid.
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.
The terms of this 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 the bid or to the signing of the contract.
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

REFERENCE LETTER FORMAT

Referee Letterhead

Referee Legal Name:	
REFERENCE ON COMPANY:	
Bid Number:	**NRF/SAEON SRGC/66/2020-21**
Bid Description Supply and delivery of Eddy Covariance (EC) equipment to supplement an existing array of EC instrumentation. In addition, support services for five years which includes telephonic and/or email assistance with troubleshooting and/or software, spare parts, consumables and repairs as needed and determined by the usage requirements are required.	
Briefly describe the Eddy Covariance instruments you use and the service/work the above bidder provided to	

you. Include the type/model of instrument.			
Criteria / risks	**Below requirements**	**Meets requirements**	**Exceeds requirements**
Robustness and reliability of the EC equipment			
Delivery time of the EC equipment			
Responsiveness to requests for service and technical assistance			
Completion/delivery times of parts and services			
Satisfaction with technical support provided			
Spare parts, consumables and services available for maintenance of instrument			
Software and related assistance/services			
Overall Impression	Other comments		
Approximate value of contract			
Would you use the provider again?			❑ YES ❑ NO

Completed by:	
Signature:	
Company Name:	
Contact Telephone Number:	
Date/Period of the contract with	

bidder:	

GENERAL CONDITIONS OF CONTRACT

In this document words in the singular also mean in the plural and vice versa, words in the masculine mean in the feminine and neuter, words "department" means organs of state inclusive of public entities and vice versa, and the words "will/should" mean "must".

The National Research Foundation cannot amend the National Treasury's General Conditions of Contract (GCC). The National Research Foundation therefore appends Special Conditions of Contract (SCC) providing specific information relevant to a GCC clause that requires the addition of Special Conditions, Special Conditions specific to this bid contract not part of the General Conditions of Contract, and which General Conditions of Contract (GCC) are not applicable to this contract. Whenever there is an unintended conflict, the provisions of the Special Conditions of Contract shall prevail over the General Conditions of Contract.

GCC1	**Definitions - The following terms shall be interpreted as indicated:**
1.1	"**Closing time**" means the date and hour specified in the bidding documents for the receipt of bids.
1.2	"**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..
1.3	"**Contract price**" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
1.4	**"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.
1.5	"**Countervailing duties**" imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
1.6	"**Country of origin**" means the place where the goods were mined, grown, or produced, or from which the services are supplied. Goods produced when, through manufacturing, processing or substantial and

	major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components..
1.7	"**Day**" means calendar day.
1.8	"**Delivery**" means delivery in compliance of the conditions of the contract or order.
1.9	"**Delivery ex stock**" means immediate delivery directly from stock actually on hand..
1.10	"**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.
1.11	"**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.
1.12	"**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.
1.13	"**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.
1.14	"**GCC**" mean the General Conditions of Contract.
1.15	"**Goods**" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
1.16	"**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.
1.17	"**Local content**" means that portion of the bidding price, which is not included in the imported content if local manufacture does take place.
1.18	"**Manufacture**" means the production of products in a factory using labour, materials, components, and machinery and includes other related value-adding activities.
1.19	"**Order**" means an official written order issued for the supply of goods or works or the rendering of a service.

1.20	"**Project site**", where applicable, means the place indicated in bidding documents.
1.21	"**Purchaser**" means the organization purchasing the goods.
1.22	"**Republic**" means the Republic of South Africa.
1.23	"**SCC**" means the Special Conditions of Contract.
1.24	"**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.
1.25	"**Written**" or "**in writing**" means handwritten in ink or any form of electronic or mechanical writing.
GCC2	**Application**
2.1	These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
2.2	Where applicable, special conditions of contract laid down to, cover specific supplies, services or works.
2.3	Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply**.**
GCC3	**General**
3.1	Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
3.2	With certain exceptions (National Treasury's eTender website), invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za
GCC4	**Standards**
4.1	The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.
SCC4	No additional standards required.
GCC5	**Use of contract documents and information**
5.1	The supplier shall not disclose, without the purchaser's prior written consent, the contract, or any provision

	thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure made to any such employed person is in confidence and shall extend only as far as may be necessary for purposes of such performance.
5.2	The supplier shall not make, without the purchaser's prior written consent, use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
5.3	Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
5.4	The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.
SCC5A	**Copyright and Intellectual Property** All background intellectual property (existing prior to this contract) invests in and remains the sole property of the contributing party to this contract and/or the contracted discloses the same to the National Research Foundation at the commencement of this contract. The contracted supplier grants the National Research Foundation a fully paid up, irrevocable, non-exclusive, and transferable licence to use its background intellectual property including the right to sub-licence to third parties in perpetuity and to the extent that the National Research Foundation requires for the exploitation of the contract intellectual property and to enable the National Research Foundation to obtain the full benefit of the contract intellectual property, for this contract. The parties agree that all right, title, and interest in the contract intellectual property rightly invests in the National Research Foundation and to give effect to the foregoing: 1. The contracted supplier hereby assigns all rights, titles, and interests in and to the contract intellectual property that it may own to the National Research Foundation and the National Research Foundation hereby accepts such assignment, and 2. The contracted supplier undertakes to assign in writing to the National Research Foundation all contract intellectual property and which may invest in the contracted supplier. The contracted supplier shall keep the contract intellectual property confidential and shall fulfil its confidentiality obligations as set out in this document. The contracted supplier shall assist the National Research Foundation in obtaining statutory protection for the contract intellectual property at the expense of the National Research Foundation wherever the National Research Foundation may choose to obtain such protection. The contracted party shall procure where necessary the signatures of its personnel for the assignment of the contract intellectual property to the National Research Foundation, or as the National Research Foundation may direct, and to support the National Research Foundation, or its nominee, in the prosecution and enforcement thereof in any country in the world. The contracted supplier hereby irrevocably appoints the National Research Foundation to be its true and lawful agent in its own name, to do such acts, deeds, and things and to execute deeds, documents, and forms that the National Research Foundation, in its absolute discretion, requires in order to give effect to the terms of this clause. The rights and obligations set out in this clause shall survive termination of this contract indefinitely.

SCC5B	**Confidentiality** The recipient of confidential information shall be careful and diligent as not to cause any unauthorised disclosure or use of the confidential information, in particular, during its involvement with the National Research Foundation and after termination of its involvement with the National Research Foundation, the recipient shall not: 1. Disclose the confidential information, directly or indirectly, to any person or entity, without the National Research Foundation's prior written consent. 2. Use, exploit or in any other manner whatsoever apply the confidential information for any other purpose whatsoever, other than for the execution of the contract and the delivery of the deliverables or 3. Copy, reproduce, or otherwise publish confidentiality information except as strictly required for the execution of the contract. The recipient shall ensure that any employees, agents, directors, contractors, service providers, and associates which may gain access to the confidential information are bound by agreement with the recipient both during the term of their associations with the recipient and after termination of their respective associations with the recipient, not to 1. Disclose the confidential information to any third party, or 2. Use the confidential information otherwise than as may be strictly necessary for the execution of the contract, The recipient shall take all such steps as may be reasonably necessary to prevent the confidential information from falling into the hands of any unauthorised third party. The undertakings set out in this clause shall not apply to confidential information, which the recipient is able to prove: 1. Was independently developed by the recipient prior to its involvement with the National Research Foundation or in the possession of the recipient prior to its involvement with the National Research Foundation; 2. Is now or hereafter comes into the public domain other than by breach of this contract by the recipient; 3. Was lawfully received by the recipient from a third party acting in good faith having a right of further disclosure and who do not derive the same directly or indirectly from the National Research Foundation, or 4. Required by law to be disclosed by the recipient, but only to the extent of such order and the recipient shall inform the National Research Foundation of such requirement prior to any disclosure. The recipient shall within one (1) month of receipt of a written request from the NRF to do so, return to the National Research Foundation all material embodiments, whether in documentary or electronic form, of the confidential information including but not limited to: 1. All written disclosures received from the NRF; 2. All written transcripts of confidential information disclosed verbally by the National Research Foundation; and 3. All material embodiments of the contract intellectual property. The recipient acknowledges that the confidential information made available solely for the execution of the contract and for no other purpose whatsoever and that the confidential information would not have been made available to the recipient, but for the obligations of confidentiality agreed to herein. Except as expressly herein provided, this contract shall not be construed as granting or confirming, either expressly or impliedly any rights, licences or relationships by furnishing of confidential information by either party pursuant to this contract. The recipient acknowledges that the unauthorised disclosure of confidential information may cause harm

	to the NRF. The recipient agrees that, in the event of a breach or threatened breach of confidentiality, the NRF is entitled to seek injunctive relief or specific performance, in order to obtain immediate remedies. Any such remedy shall be in addition to and not in lieu of any other remedies available at law, including monetary damages.
SCC5C	**Protection of Private Information** The supplier hereby gives the NRF permission, in terms of the Protection of Private Information Act 4 of 2013, to process, collect, receive, record, organise, collate, store, update, modify, retrieve, alter, consult, use, disseminate, distribute, merge, link, erase or destroy personal information received. By submitting a bid the supplier gives its voluntary explicit consent to the terms of this special condition.
GCC6	**Patent rights**
6.1	The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.
GCC7	**Performance security**
7.1	Within thirty days (30) of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
7.2	The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
7.3	The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms: 7.3.1 bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or 7.3.2 a cashier's or certified cheque.
7.4	The performance security will be discharged by the purchaser and returned to the supplier within thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.
SCC7A	No performance security is required unless an upfront deposit is paid by NRF over an amount of R1m.
GCC8	**Inspections, tests and analyses**
8.1	All pre-bidding testing will be for the account of the bidder.
8.2	If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the purchaser or an organization acting on behalf of the purchaser.

8.3	If there are no inspection requirements indicated in the bidding documents and contract makes no mention, but during the contract period, it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
8.4	If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
8.5	Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the supplier shall defray the cost in connection with these inspections, tests, or analyses.
8.6	Supplies and services referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
8.7	Any contract supplies may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies are held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies, which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.
8.8	The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract because of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.
SCC8	No additional requirements for this bid
GCC9	**Packing**
9.1	The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt, and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
9.2	The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.
SCC9	No additional requirements for this bid
GCC10	**Delivery and Documentation**
10.1	The supplier in accordance with the terms specified in the contract shall make delivery of the

	goods/services. The SCC specifies the details of shipping and/or other documents furnished by the supplier.
10.2	Documents submitted by the supplier specified in SCC.
SCC10	No additional requirements for this bid.
GCC11	**Insurance**
11.1	The goods supplied under the contract are fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.
SCC11A	The contractor carries insurance of R 3 million for both: ● public liability (including product liability) plus ● professional indemnity
SCC11B	NRF assets in custody of the contractor are insured for the value of the replacement value of the asset.
GCC12	**Transportation**
12.1	Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.
SCC12	No additional requirements for this bid unless separately specified in scope of work/pricing schedule.
GCC13	**Incidental services**
13.1	The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC: 13.1.1 Performance or supervision of on-site assembly and/or commissioning of the supplied goods; 13.1.2 Furnishing of tools required for assembly and/or maintenance of the supplied goods; 13.1.3 Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods; 13.1.3 Performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and 13.1.4 Training of the purchaser's personnel, at the supplier's plant and/or on-site, conducted in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.
13.2	Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.
SCC13B	In the event that this section is invoked it is only valid if confirmed through the issue of a written purchase

	order that specifies quantity, description, unit price, and delivery date as a minimum.
SCC13C	The NRF does not include the cost of incidental goods or services in the ceiling contract price which are contingent on future events that are not determinable at the date of the issue of this bid contract. The NRF reserves the right to include a contingency amount in the ceiling contract price to address the potential use of Clause 13 as set out in Clause 13.2 read with SCC13B.
GCC14	**Spare parts**
14.1	As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier: 14.1.1 Such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and 14.1.2 In the event of termination of production of the spare parts: 14.1.2.1 Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and 14.1.2.1 Following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.
SCC14.1B	The supplier provides at commencement of the contract a list of spares, whether in stock or ordered in from the OEM, their lead times for delivery to NRF and their unit prices and at each time the list is amended, updated or re-priced
SCC14.1C	The supplier holds or has available adequate supplies of spare parts to enable delivery upon receipt of the spares purchase order issued under this GCC and its SCC within the time frame stipulated in the Management of Performance Levels section.
SCC14.1D	Prices for spare parts charged by supplier not included in this contract's initial price schedule (SBD 3.1) shall be agreed in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for these spares. The NRF, upon agreement, confirms through the issue of a written purchase order that specifies quantity, delivery date, description, unit price, and delivery date as a minimum.
SCC14.1.2 A	Alternatively to GCC14.1.2.1 is for the supplier to have available a supply of spare parts for the duration of the contract, held either in escrow or by the supplier. If the equipment is still used by NRF after this period, then GCC14.1.2.1 is reinstated.
GCC15	**Warranty**
15.1	The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2	This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.
15.3	The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
15.4	Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.
15.5	If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights, which the purchaser may have against the supplier under the contract.
SCC15A	The warranty period in Clause 15.2 for delivery or performance that has been accepted by the NRF at the final destination indicated in the contract shall not read twelve (12) months, or eighteen (18) months after the date of shipment from the port or place of loading in the source country, rather shall read as the stipulated OEM warranty for the relevant equipment from the date of delivery.
GCC16	**Payment**
16.1	The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
16.2	The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.
16.3	Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
16.4	Payment will be made in Rand unless otherwise stipulated in SCC.
SCC16.1A	Payment terms are as follows:
SCC16.2A	Clause 16.2 is met only where the invoice is accompanied by NRF agreed signed proof of performance/delivery stating acceptance of quantity, acceptance to specification, and unit pricing in agreement with the contract and any purchase orders issued in terms of the contract.
SCC16.3A	The period in 16.3 applies from the date of receipt of an invoice, meeting the requirements of Clause 16.2 read with Clause SCC16A, as recorded in the NRF systems.
GCC17	**Prices**
17.1	Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments

	authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.
SCC17	Exceptions to the above clause are incidental services, changes in Value Added Tax as gazetted, and spare parts.
GCC18	**Contract amendment**
18.1	No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.
GCC19	**Assignment**
19.1	The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.
GCC20	**Subcontract**
20.1	The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract
SCC20	Any sub-contract to another party complies with the requirements of the Preferential Procurement Policy Framework Act and its regulations.
GCC21	**Delays in supplier's performance**
21.1	Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
21.2	If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration, and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
21.3	No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
21.4	The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.
21.5	Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.

21.6	Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.
GCC22	**Penalties**
22.1	Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.
GCC23	**Termination for default**
23.1	The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part: 23.1.1 If the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2; 23.1.2 If the Supplier fails to perform any other obligation(s) under the contract; or 23.1.3 If the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
23.2	In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
SCC23.2A	In the event of the non-performance as per the agreed contract, the purchaser (NRF) will appoint an alternative service provider/supplier at the cost of the contracted service provider/supplier. The defaulting service provider/supplier is obliged to settle the damages/additional costs that the purchaser has incurred as result of the non-performance of the contracted service provider/supplier.
23.3	Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
23.4	If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.

23.5	Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.
23.6	If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information: 23.6.1 The name and address of the supplier and / or person restricted by the purchaser; 23.6.2 The date of commencement of the restriction 23.6.3 The period of restriction; and 23.6.4 The reasons for the restriction. These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.
23.7	If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.
GCC24	**Anti-dumping and countervailing duties and rights**
24.1	When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him
GCC25	**Force Majeure**
25.1	Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
25.2	If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event

GCC26	**Termination for insolvency**
26.1	The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.
GCC27	**Settlement of disputes**
27.1	If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
27.2	If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
27.3	Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
27.4	Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
27.5	Notwithstanding any reference to mediation and/or court proceedings herein, 27.5.1 The parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and 27.5.2 The purchaser shall pay the supplier any monies due the supplier.
GCC28	**Limitation of liability**
28.1	Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6; 28.1.1 The supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and 28.1.2 The aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.
GCC29	**Governing language**
29.1	The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.
GCC30	**Applicable law**

30.1	The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.
GCC31	**Notices**
31.1	Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.
31.2	The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice
SCC31	Electronic communication, to the extent it meets the requirements of legal notices, is also permitted.
GCC32	**Taxes and duties**
32.1	A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
32.2	A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
32.3	No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid, the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services
SCC32A	The "tax certificate" in clause 32.3's second sentence refers to the documents specified in National Treasury Instruction Note 9 of 2017/18 applicable to public entities and departments.
GCC33	**National Industrial Participation Programme**
33.1	The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.
GCC34	**Prohibition of restrictive practices**
34.1	In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding (or bid rigging).
34.2	If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has/have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.

34.3	If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

BID SUBMISSION CERTIFICATE FORM - (SBD 1)

I hereby undertake to supply all or any of the goods, works, and services described in this procurement invitation to the NRF in accordance with the requirements and specifications stipulated in this Bid Invitation document at the price/s quoted.

My offer remains binding upon me and open for acceptance by the NRF during the validity period indicated and calculated from the closing time of Bid Invitation.

The following documents are deemed to form and be read and construed as part of this offer / bid even where integrated in this document:

Invitation to Bid (SBD 1)	Specification(s) set out in this Bid Invitation inclusive of any annexures thereto
Bidder's responses to this invitation as attached to this document	Pricing Schedule(s) (SBD3) including detailed schedules attached
Local Content and Local Manufacturing Certification (SBD 6.2) in accordance with the SABS standard	CSD / Tax clearance letter where applicable
Declaration of Interest (SBD4)	Independent Price Determination (SBD 9)
Preference (SBD 6.1) claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2017, supported by a valid certified BBBEE certificate.	
Declaration of Bidder's past SCM practice (SBD 8)	General Conditions of Contract and special/additional conditions of contract as set out in this document

I confirm that I have satisfied myself as to the correctness and validity of my offer / bid in response to this Bid Invitation; that the price(s) and rate(s) quoted cover all the goods, works and services specified in the Bid Invitation and 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 in terms of this Bid Invitation as the principal liable for the due fulfilment of the subsequent contract if awarded to me.

I declare that I have had no participation in any collusive practices with any Bidder or any other person regarding this or any other Bid.	
I certify that the information furnished in these declarations (SBD 3, SBD 4, SBD 6.1, SBD 6.2 (if applicable), SBD 8, SBD 9) is correct and I accept that the NRF may reject the Bid or act against me should these declarations prove to be false.	
I confirm that I am duly authorised to sign this offer/ bid response.	
NAME (PRINT)	
CAPACITY	
SIGNATURE	
WITNESS 1	
NAME	
SIGNATURE	
WITNESS 2	
NAME	
SIGNATURE	
DATE	

Annexure 1: Guideline for electronic bid submissions

ANNEXURE I - ELECTRONIC BID SUBMISSION – GUIDELINE FOR BIDDERS

This document serves the purpose of providing the bidder with prescripts and guidelines on how to submit their bids to the NRF via e-mail.

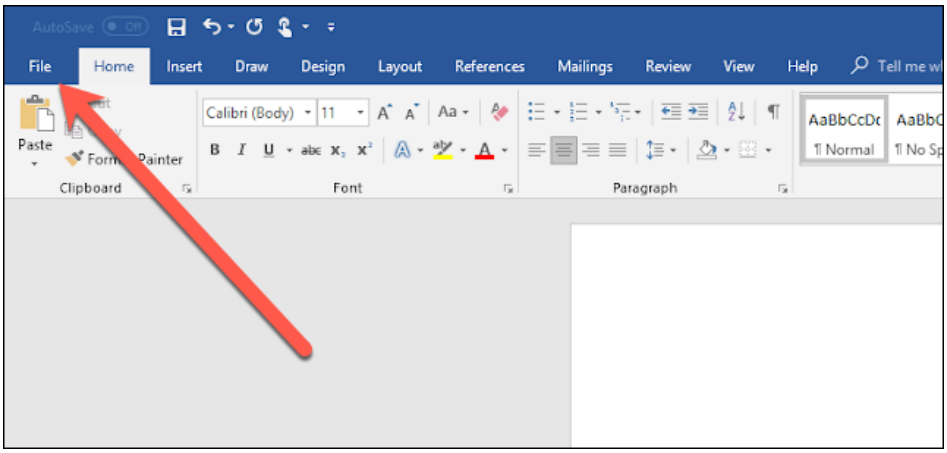
1. PRESCRIPTS

- All files must be submitted in ISO PDF format and PDF/XPS (general PDF format) unless otherwise stated. Other variants are not acceptable, these variants include PDF/A, PDF/E (unless stated), PDF/X, PDF/UA, PDF/X, PDF/UT, PAdES, and PDF Health.
- Pricing submission (including any SBDs were bidder's price is quoted) must be password protected and submitted as a separate file.
- All bidders document must be submitted to the email address specified on the NRF bid document and the password for the password protected pricing file must be submitted to a separate email specified in the bid document.
- The NRF email size limit is 4MB, it is the responsibility of the bidder to ensure that their submission is not larger than this limit:
  - Bidder's files may be zipped to ensure that their submission is in line with the email size limit.
- Timeline for submitting password to NRF:
  - The password for pricing folder/file must **not** be submitted before the bid closes.
  - The password may be submitted 1 minute after bid closure and no later than 2 days post bid closure. Failure to submit within 2 days may lead to bid being unable to be evaluated thus rendering them unresponsive.
- The subject of the bidder's email must quote verbatim the bid name as provided provided in the NRF bid document.

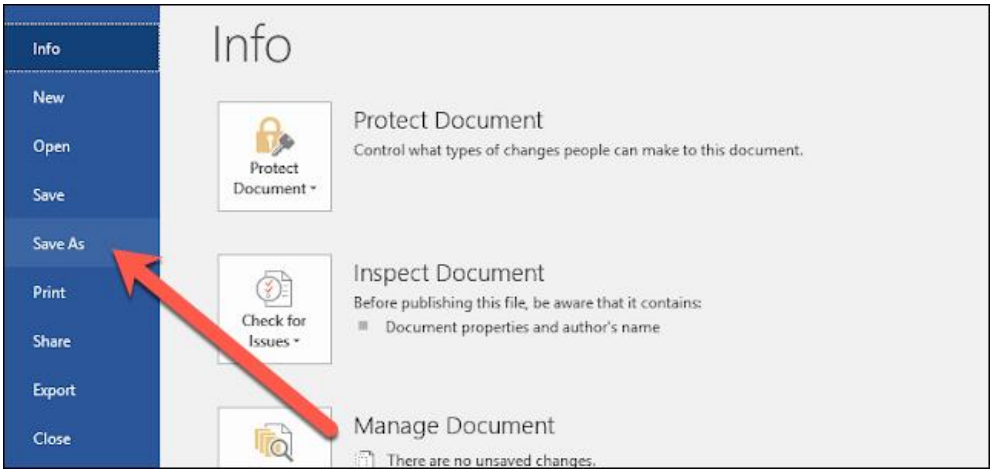
2. GUIDELINES

Converting to pdf

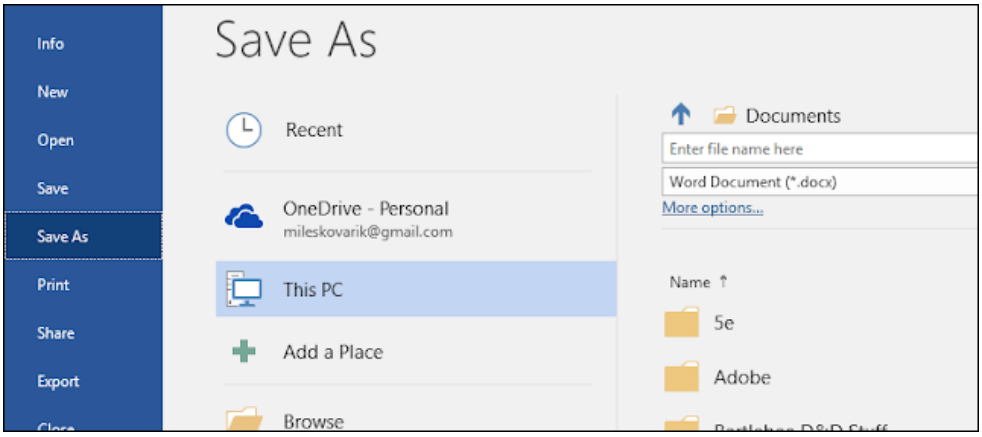
- If you have the desktop version of Microsoft Word, the easiest way to convert your document to PDF is right in Word itself.
- Open the document you want to convert, and then click the "File" tab.



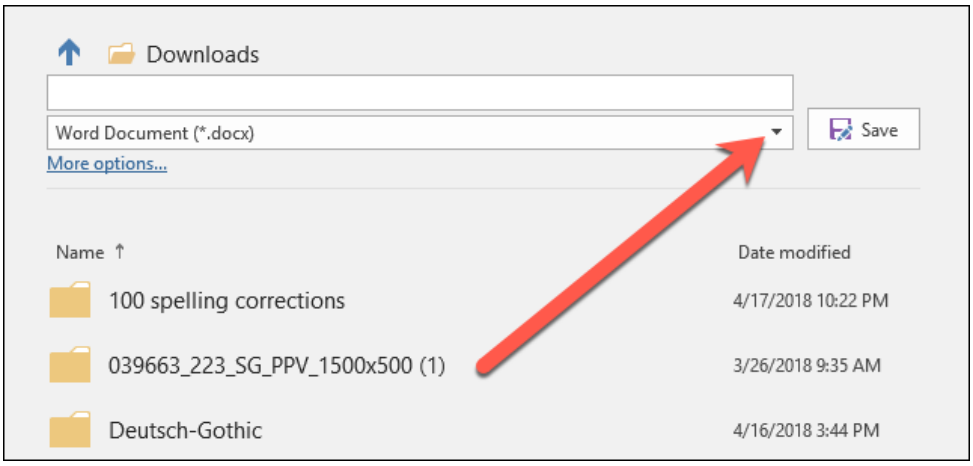
○ On the backstage screen, select “Save As” from the list on the left.



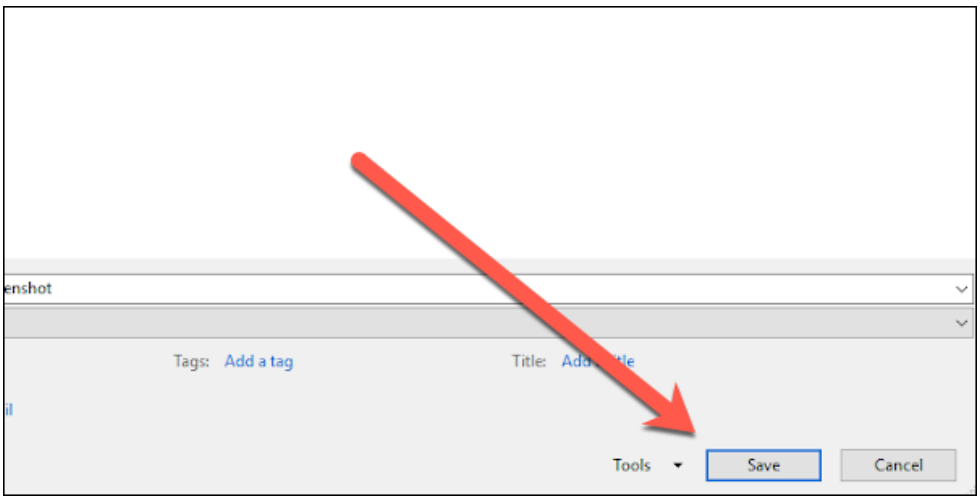
○ On the Save As screen, select where you would like the PDF to be saved (OneDrive, This PC, a particular folder, or wherever).



○ Next, click the dropdown arrow on the right side of the “Save as type” box, and select “PDF (*.pdf)” from the dropdown menu.



- If you want to, you can change the filename at this time. When you're ready, click the "Save" button.

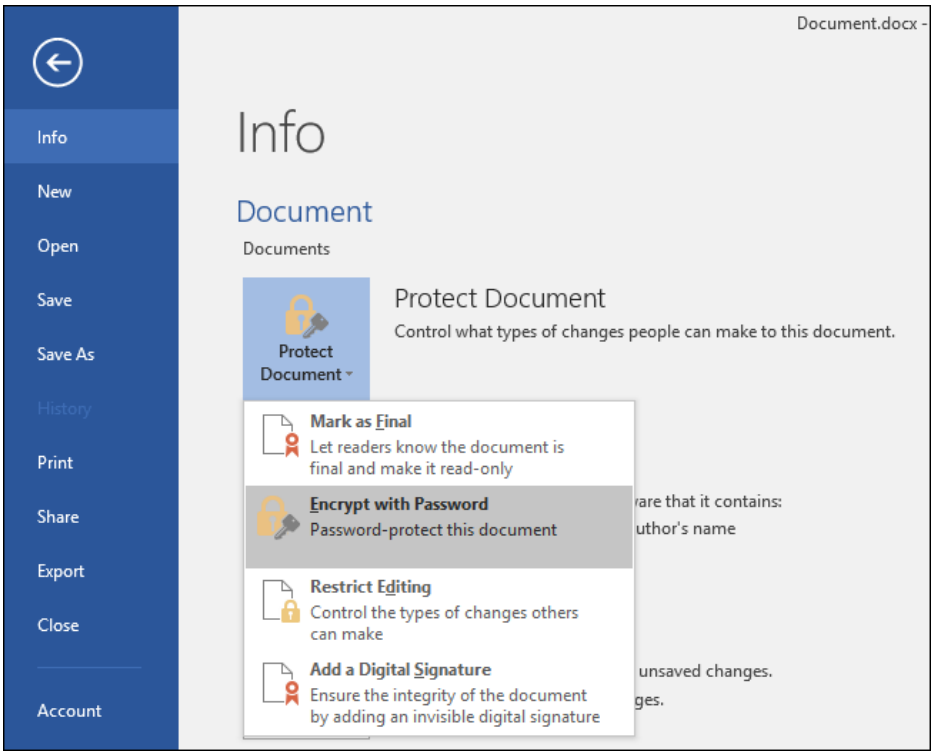


- After saving the PDF, you'll be returned to your Word document, and the new PDF will open automatically in your default PDF viewer.

Password protecting files

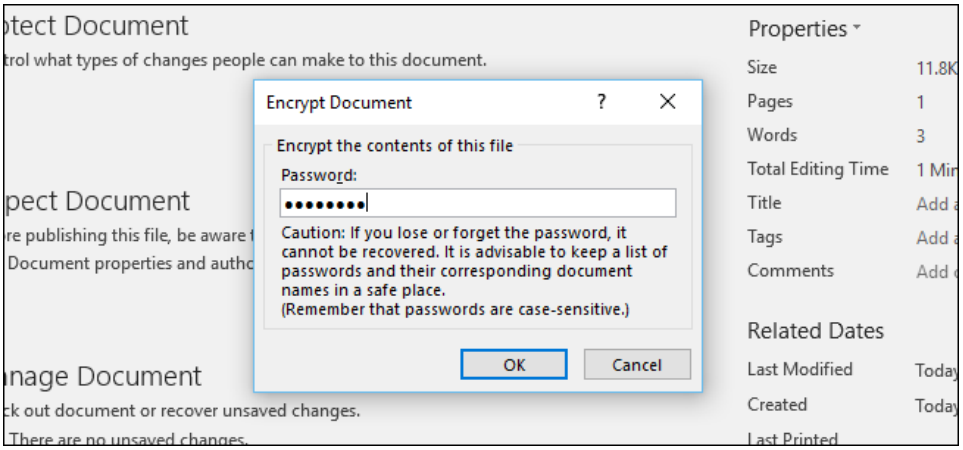
- To password protect an Office document, first open it in Word, Excel, PowerPoint, or Access. Click the "File" menu at the top-left corner of the screen. On the Info pane, click the "Protect Document" button and select "Encrypt with Password."

- The button is only named "Protect Document" in Microsoft Word, but it's named something similar in other apps. Look for "Protect Workbook" in Microsoft Excel and "Protect Presentation" in Microsoft PowerPoint. In Microsoft Access, you'll just see an "Encrypt with Password" button on the Info tab. The steps will otherwise work the same.



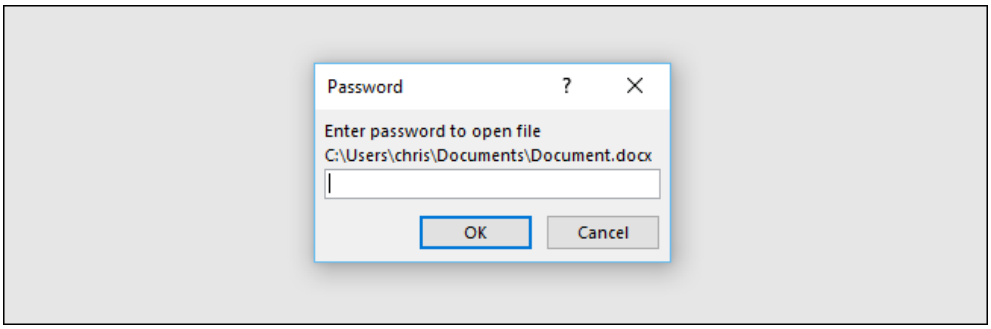
○ Enter the password you want to encrypt the document with. You'll want to choose a good password here. Weak passwords can be easily guessed by cracking software if someone gains access to the document.

○ **Warning**: You'll lose access to the document if you ever forget your password, so keep it safe! Microsoft advises you write down the name of the document and its password and keep it in a safe place.



○ When a document is encrypted, you'll see the "A password is required to open this document" message on the Info screen.

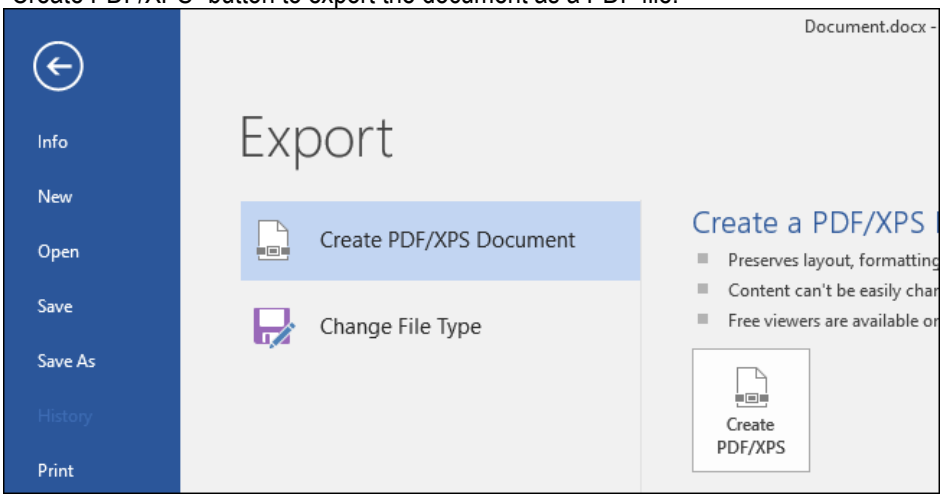
○ The next time you open the document, you'll see an "Enter password to open file" box. If you don't enter the correct password, you won't be able to view the document at all.



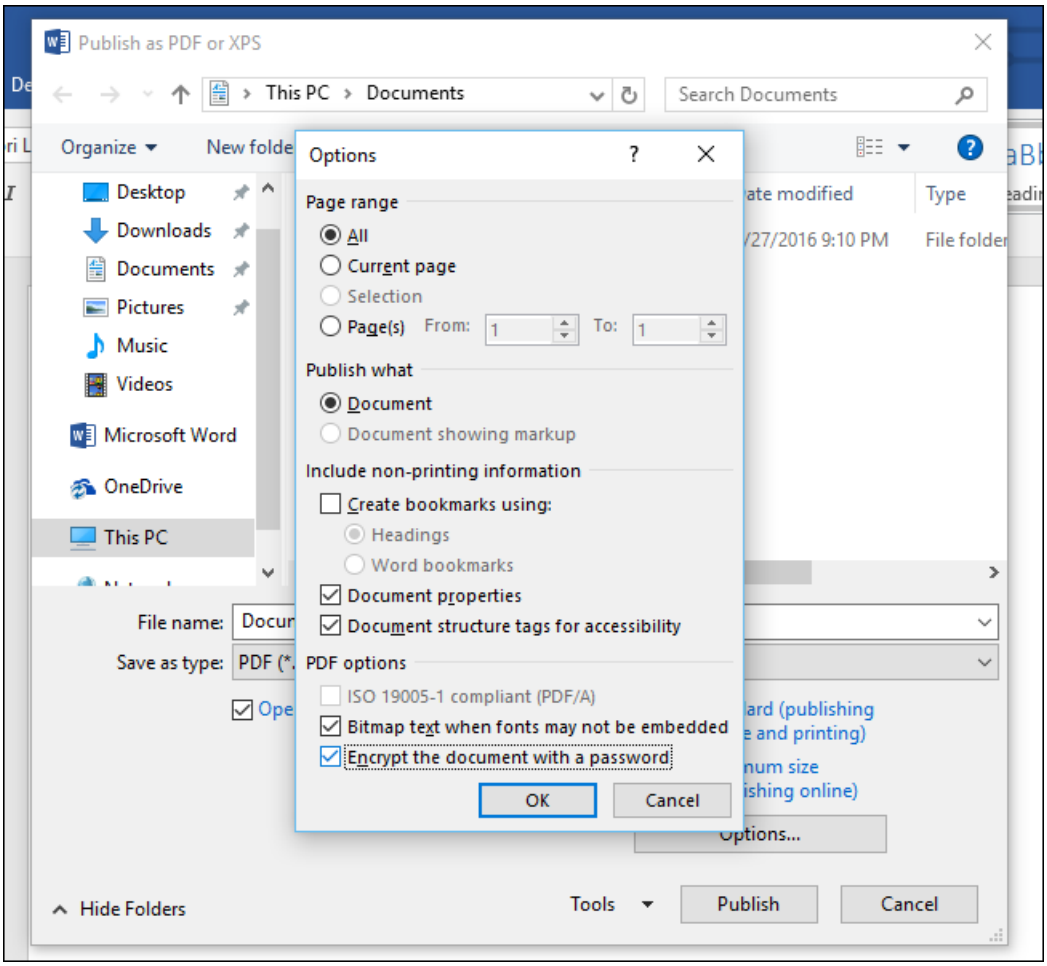
How to Create a Password Protected PDF File

○ You can also export an Office document to a PDF file and password protect that PDF file. The PDF document will be encrypted with the password you provide. This works in Microsoft Word but not Excel, for some reason.

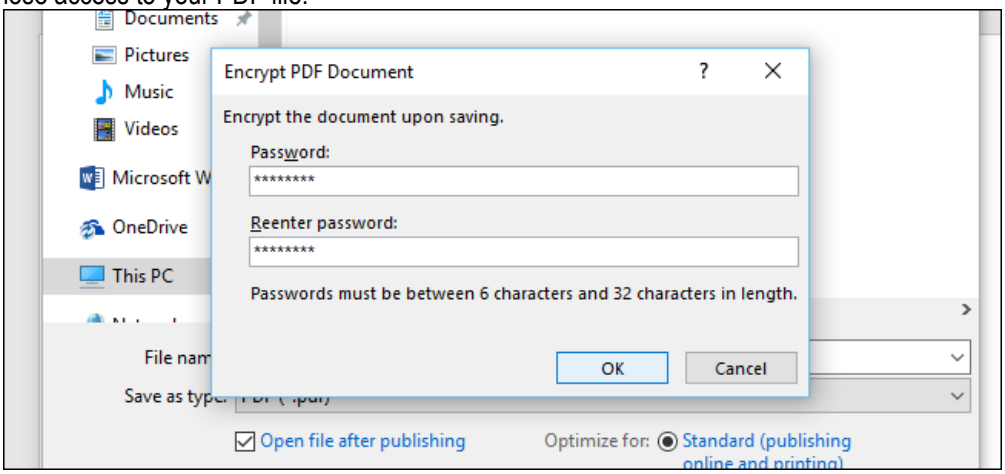
○ To do this, open the document in Microsoft Word, click the “File” menu button, and select “Export.” Click the “Create PDF/XPS” button to export the document as a PDF file.



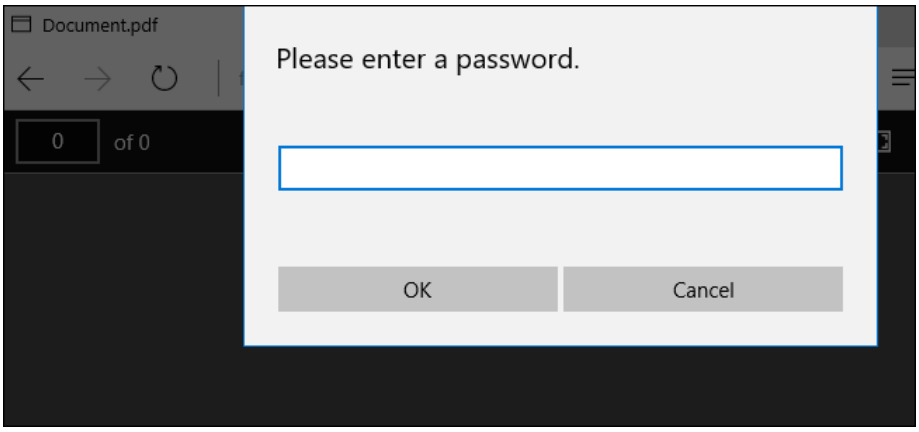
○ Click the “Options” button at the bottom of the save dialog window that appears. At the bottom of the options window, enable the “Encrypt the document with a password” option and click “OK.”



- Enter the password you want to encrypt the PDF file with and then click "OK."
- When you're done, enter a name for the PDF file and click the "Publish" button. Office will export the document to a password-protected PDF file.
- **Warning:** You won't be able to view the PDF file if you forget the password. Be sure to keep track of it or you'll lose access to your PDF file.



- You'll have to enter the PDF file's password when you open it. For example, if you open the PDF file in Microsoft Edge–Windows 10's default PDF viewer–you'll be asked to enter the password before you can view it. This also works in other PDF readers.

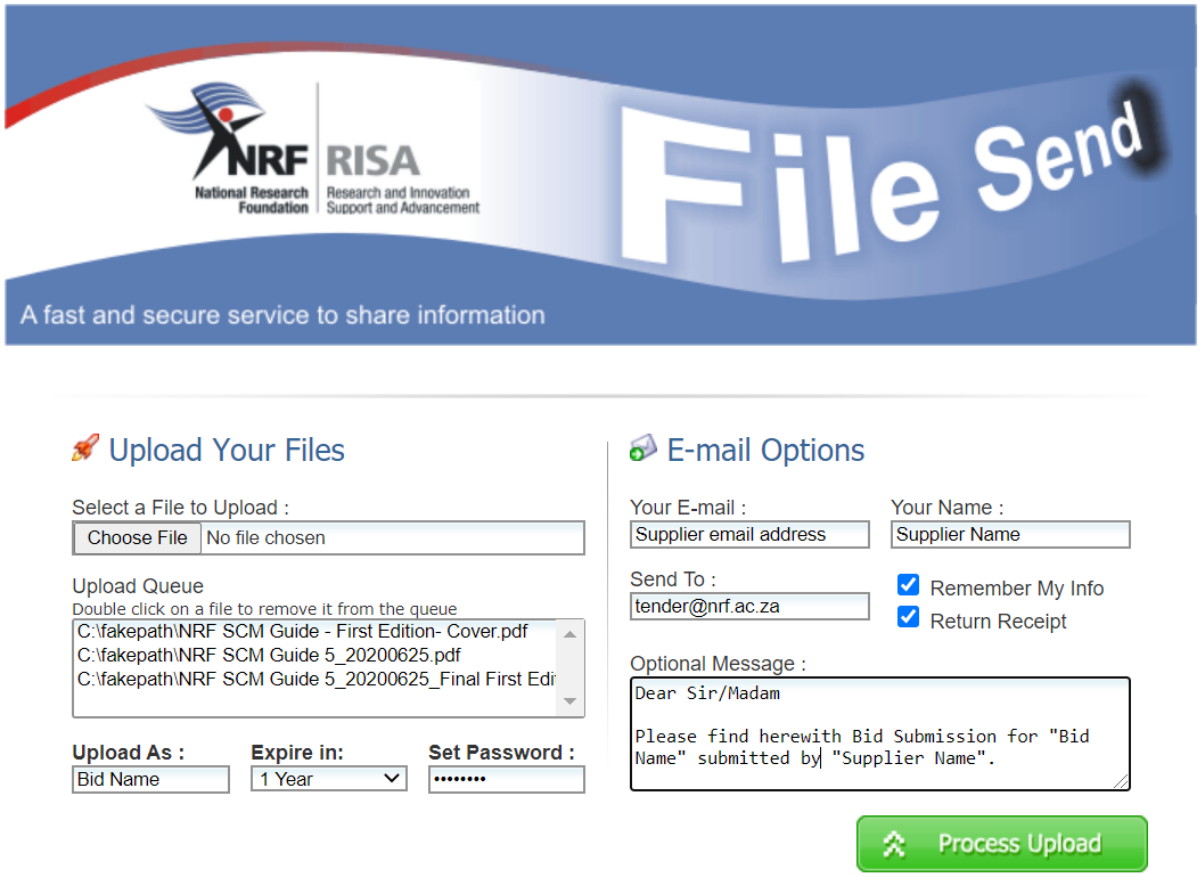


Zipping your files.

- Put all the files into a new folder
- Right-click on the folder to be sent
- Select "Send To" and then click "Compressed (Zipped) folder"
- The files will start compressing
- After the compression process is complete, attach the compressed file with the extension .zip to your email.

Keeping passwords safe.

We recommend that you store the password either as a note on a hardcopy document which is then filed or stored safely or a softcopy that is saved in the bid response folder once the bid has been submitted or in line with your document management policy.



2 passwords sent to SCM practitioner email: 1 File send password, 2 pricing pdf password.