



sanedi

South African National Energy
Development Institute.

**REQUEST FOR QUOTATIONS FOR BUSINESS CASE ROADMAP
TOWARDS CLEANER FOSSIL FUELS IN SOUTH AFRICA**

NAME OF BIDDER.....

POSTAL ADDRESS

STREET ADDRESS

CONTACT PERSON

TELEPHONE NUMBER Code Number

CELL PHONE NUMBER Code Number

FACSIMILE NUMBER CodeNumber

E-MAIL ADDRESS

Signature f Bidder **Date**

RFQ Number	232
Date of RFQ	19 November 2021
Sanedi Contact	All enquiries must be directed to: Name: Ms Vulani Ngoveni e-mail address: enquiries.procurement@sanedi.org.za Website address: www.sanedi.org.za
Compulsory Briefing Session	03 December 2021 at 12:00pm Bidders must RSVP by the 02 December at 12:00pm and further details of the bid clarification meeting will be sent to them. All RSVP's should be sent to enquiries.procurement@sanedi.org.za . No late RSVP'S will be considered.
Closing date	10 December 2021 at 11:00am
Submission methods	The submissions should be made to the following email: quotes.procurement@sanedi.org.za NB: failure to submit in the correct email will render your submission non-responsive.
Work specification (and Technical specifications)	1. Project Background The South African government has realised that a low carbon economy can bring benefits and particularly support climate change mitigation measures. The South African Government has already committed to reducing carbon emissions in line with specified targets for South Africa. As at 22 September 2021, the country's Nationally Determined Contribution (NDC) target range for 2025, has been updated from its original value of 398-614 Mt CO ₂ -eq, to a range of 398-510 Mt for 2025. Of greater significance is our 2030 mitigation target range which has been updated from 398-614 Mt CO ₂ -eq to a range of 350-420 Mt CO ₂ -eq. In order to meet these emissions reduction targets, several strategies will need to be used towards meeting this goal. A strategy that should be considered is the potential for a good business cleaner fossil fuel technologies implementing. Reporting to the Department of Mineral Resources and Energy, the mandate of the South African National Energy Development Institute (SANEDI) is to serve as a catalyst for sustainable energy innovation, transformation and technology diffusion in support of South Africa's sustainable development. The Cleaner Fossil Fuels Programme at SANEDI housed the South African Centre of

Carbon Capture and Storage (SACCCS), a national flagship programme of the National Climate Change Response Strategy White Paper. This Centre has since moved to the Council for Geoscience but remaining SANEDI tasks include this techno-economic business case study to address the Cleaner Fossil Fuels roadmap for South Africa and will be managed under the Renewables Programme.

South Africa's energy and climate change challenges are exacerbated by a reliance on Fossil Fuels for most of its primary energy supply. Approximately 90% of primary energy is derived from Fossil Fuels of which ~72% is coal. Moreover, coal provides ~85% of electricity generation capacity and ~92% of electricity production. Coal and gas are also used for the production of liquid fuels amounting to approximately 30% of the liquid fuels used in South Africa. This reliance on Fossil Fuels has led to ~440Mt CO₂ emissions per year.

South Africa's coal industry contributes significantly to employment opportunities, income generation as well as accounting for 6% of the country's total merchandised exports. South Africa also has a significant requirement for additional energy supply of electricity generation capacity as well as liquid fuel production. Furthermore, there are a multitude of other industries that contribute to national CO₂ emissions.

Notwithstanding South Africa's continually increasing implementation of clean energies and energy efficiency measures, Fossil Fuels are forecast to remain the major source of primary energy over the medium term.

SANEDI is well placed both nationally and internationally to pave the way towards a Cleaner Fossil Fuel future and has the support of global bodies in doing so. For example, SANEDI is already a partner in a number of the International Energy Agency's (IEA) specialised implementing agreements that inter alia share information and learning at a global level.

The outputs of this project would be an appraisal of the current fossil fuel energy scenario in South Africa, addressing inter alia technical feasibility, economic feasibility, advantages and disadvantages mapping a move towards Cleaner Fossil Fuels. The study shall comprise engagements with interested and affected parties and make motivated recommendations for what Cleaner Fossil Fuel systems and/or demonstrations could be undertaken in South Africa through preliminary front-end designs and preliminary business plan roadmaps.

2. Project Objectives

The aim of this project is to:

- a) Review current South African Fossil Fuel sector status, encompassing future plans, and produce a concise readable document that showcases a feasible techno-economic business case for Cleaner Fossil Fuel technologies in the country
- b) To produce a motivated recommendation and roadmap of technological and financial interventions that would be most suited to implementation of such technologies in South Africa (this should include an easily interpretable infographic)

3. Scope of works

The scope of work for this project will seek to generate a concise, reader friendly document that assesses and appraises fossil fuel technologies in South Africa and their suitability for migration

towards Cleaner Fossil Fuels. The scope includes the electricity and liquid fuel sectors and should include, but not be limited to, the following topics:

3.1 Evaluate existing FF chains in SA and where cleaner fossil fuel technologies can replace a component/portion of this value chain.

- Replacement
- Augmentation/Amendment
- Boost

This evaluation should consider, but not be limited to, clean coal, renewable energy hybridisation, emissions abatement technologies, cleaner generation technologies, energy efficiency implementation in Fossil Fuel electricity and liquid fuel generation.

3.2 Focal technologies listed above should be assessed for integration into existing Fossil Fuel value chains and what would be required in order to achieve this from a techno-economic perspective.

Any other technologies/interventions that are considered important for inclusion by the consultant should include, but not be limited to, a description of the technology and economic feasibility as well as their suitability for introduction to South Africa. This should not simply be a scan of available literature; the consultant should provide an assessment of how these technologies would be implemented within the South African energy system.

3.3 The techno-economic review may include:

- User case studies
- Quantification of economic and technically feasible displacement of Fossil Fuels through these interventions
- What level of technology penetration would be needed to make a significant difference by the implementation of Cleaner Fossil Fuels in South Africa

3.4 After review current South African fossil fuel energy status and outlining possible future plans/roadmap, the consultant should:

- Showcase success factors, hurdles/challenges, economics
- Draw parallels with global projects that have been tested and/or terminated and why?
- Essentially a “lessons learned” section should evaluate the success expectations in the South African scenario

3.5 Administration, the Contractor shall:

- Record written minutes of each Project Steering Committee (PSC) (minimum of 3)
- Circulate all minutes within 5 working days of the meeting
- Produce Progress Reports to be addressed at progress meetings

Payments will be made by SANEDI after acceptance by SANEDI of a Progress/Final Report and receipt of an itemised invoice and statement

4. Expected Outputs from contractor and project

- a) Paint/Infra-red products supplied per quantity required and delivered in proportion at SANDF installations/bases site
- b) Above buildings (ca. 900 000m²), as specified, cool surfaced with compliant product under guarantee

	<p>c) A maximum of 10 SANDF members per installation site that understand and are able to implement/execute the cool surfacing technology and are able to apply said surface during this project (at another site), including participation the maintenance and repair programme.</p> <p>5. Project Management</p> <p>GOVERNANCE</p> <p>Overall project governance will be managed by the SANEDI. The project shall be guided and reviewed by a Project Steering Committee, composed of members including:</p> <ul style="list-style-type: none"> • A representative from the Renewable programme of SANEDI and/or alternate • Up to 3 representatives from the SANEDI identified stakeholder pool • Other persons may be invited by SANEDI as and when deemed appropriate • SANEDI shall chair the progress meetings • The consultant will be expected to produce minutes and action items from all meetings within 1 calendar week of the meeting • At least 3 meetings are deemed necessary, but more may be included, an inception meeting, a progress meeting and a final closure meeting after completed report submission, attended by the Project Steering Committee and any other person deemed relevant by SANEDI. <p>DELIVERABLES</p> <ul style="list-style-type: none"> • Interactions with sector stakeholders • Minutes of meetings with the PSC • Draft report and infographic, for inputs from the PSC and other stakeholders deemed relevant/necessary • Final report containing the completed study and including: <ul style="list-style-type: none"> ○ Summary of findings ○ Details (all raw data and information received/gleaned) ○ Engagement report, including recommendations ○ Motivated recommendations for best suited user cases in South Africa • 2 electronic copies (editable Word version and PDF print layout) <p>The acceptance of the Final Report shall be in accordance with the following procedures:</p> <ul style="list-style-type: none"> • Review by SANEDI • External review if deemed appropriate by SANEDI • Amendments being effected as recommended during the evaluation • Consideration and recommendation by the PSC <p>6. Project Schedule</p> <p>SANEDI requires a completed roadmap document by 31 March 2022. This will be governed under the above administration and should include a payment schedule on deliverables of no less than 2 payments. Any deviations from this will need to be motivated in writing and approved by SANEDI. The project plan shall include a table outlining timeframes, enabling deliverables and costs as well as a schedule of each person’s time and task allocation. Final payment will take place after approval of the final report.</p>
Evaluation Criteria	The bids received will be evaluated in two stages. The first stage will be the technical evaluation, the second the financial/BEE evaluation. The following are the evaluation criteria that all bids will be assessed against.

No	Criteria	Score Guidelines (1-5)	Weight
1	<p>Qualification capability and experience of key staff Evidence: Curriculum vitae of staff working on the project:</p> <ul style="list-style-type: none"> • Experience/understanding of key staff in energy economy and technology • Academic qualifications (minimum at bachelors level) of team in science, engineering and economics • Tangible experience in the field in the form of reports and publications 	<p>1 = little to no relevant qualifications or experience in the fossil fuel and clean energy sector of any staff</p> <p>5 = some relevant qualifications and experience in the fossil fuel and clean energy sector across the proposed team</p> <p>10 = extensive relevant qualifications and experience in the fossil fuel and clean energy sector across the proposed team</p>	30%
2	<p>Capacity, capability and experience of organisation(s) Evidence: Description of company profile, company history including years in the relevant business (minimum 5 years), description of project team including roles, list of previous work including studies, published papers, etc.</p>	<p>1 = little to no relevant capacity, capabilities and experience within the organisation with little to no evidence of previous relevant work in the fossil fuel and clean energy sector</p> <p>5 = some relevant capacity, capabilities and experience with some evidence of previous relevant work in the fossil fuel and clean energy sector</p> <p>10 = extensive relevant capacity, capabilities and experience within the organisation with extensive evidence of previous relevant in the fossil fuel and clean energy sector</p>	30%

	<table border="1"> <tr> <td>3</td> <td> Methodology of the Study Evidence: Detailed methodology of the work to be undertaken – not merely a repetition of the “Scope of Work” as detailed in above </td> <td> 1 = repetition of the “Scope of Work” 5 = outline of methodology 10 = detailed methodology that includes other factors, not directly addressed above, but deemed necessary for the study </td> <td>40%</td> </tr> <tr> <td colspan="3">Threshold</td> <td>80%</td> </tr> <tr> <td colspan="3">Total</td> <td>100%</td> </tr> </table>	3	Methodology of the Study Evidence: Detailed methodology of the work to be undertaken – not merely a repetition of the “Scope of Work” as detailed in above	1 = repetition of the “Scope of Work” 5 = outline of methodology 10 = detailed methodology that includes other factors, not directly addressed above, but deemed necessary for the study	40%	Threshold			80%	Total			100%
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Threshold			80%										
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Preferential Point system	<p>The Bid will be evaluated on 80/20 Preferential Point System according to the Preferential Procurement Policy Framework Act,2000</p> <p>The points scored out of 80 should be calculated according to the following formula:</p> <p>(i) The 80/20 preference point system</p> $Ps = 80 \left(1 - \frac{Hs - Rs}{Rs} \right)$ <p>where Ps = points scored for functionality and price of the bid/proposal under consideration Hs = highest percentage scored by any acceptable bidder for functionality and price Rs = percentage scored for functionality and price by bid/proposal under consideration</p>												
The maximum score	<p>The maximum score for this bid shall be awarded as follows:</p> <table border="1"> <thead> <tr> <th>POINTS</th> <th>PRICE</th> </tr> </thead> <tbody> <tr> <td>BBBEE Status level of Contribution</td> <td>20</td> </tr> <tr> <td>Points for price</td> <td>80</td> </tr> <tr> <td>Total points for price and BBBEE do not exceed</td> <td>100</td> </tr> </tbody> </table>			POINTS	PRICE	BBBEE Status level of Contribution	20	Points for price	80	Total points for price and BBBEE do not exceed	100		
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Terms and Conditions	<p>The RFQ shall be subjected to the SANEDI procurement terms and conditions which can be found on www.sanedi.org.za.</p>												
Quoted Price excluding Disbursements VAT inclusive	<p>(Attach a formal quotation on company official letterhead to this RFQ)</p> <p>R</p>												
Discounted amounts	<p>R</p>												

Disbursements VAT inclusive	R
Total Amount VAT inclusive	R
Other Requirements	<p>The supplier must submit the following returnable schedules:</p> <ol style="list-style-type: none"> 1. Pricing schedule 2. Attach SBD9, SBD 4 and BBBEE Bid Declaration 3. Attach valid tax clearance 4. Certified BBBEE certificate 5. CSD Report <p>Forms are available on www.sanedi.org.za</p>

SBD 4: Bidder's Declaration of Interest

	<p>Any legal person, including persons employed by the state, 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 favoritism, 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</p> <ul style="list-style-type: none"> - the bidder is employed by the state; and/or - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.
	<p>In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.</p>

COMPANY & REPRESENTATIVE DETAILS	
Full Name of bidder or his or her representative	
Identity Number	

	Position occupied in the Company (director, trustee, shareholder, member):	
	Registration number of company, enterprise, close corporation, partnership agreement or trust	
	Tax Reference Number	
	VAT Registration Number	

	DECLARATIONS	YES	NO
	Are you or any person connected with the bidder presently employed by the state?		
	If so, furnish the following particulars: 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?		
	If yes, did you attach proof of such authority to the bid document? <u>(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.</u>		

	If no, furnish reasons for non-submission of such proof:		
	Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?		
	If so, furnish particulars:		
	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?		
	If so, furnish particulars:		
	Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies Wither or not they are bidding for this contract?		
	If so, furnish particulars:		

Full details of directors / trustees / members / shareholders.
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 the table below.

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number / Persal Number

“State” means –

- (a) 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);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

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

DECLARATION OF INTEREST

I, the undersigned (name).....

Certify that the information furnished in this declaration is correct and I accept that SANEDI may reject the bid or act against me should this declaration prove to be false.

Name of Enterprise Bidding:

Name of Authorised Representative

Signature of Authorised Bidder

Date

SBD 9: Certificate of Independent Bid Determination

I, the undersigned, in submitting the accompanying bid for

in response to the invitation for the bid made by SANEDI do hereby make the following statements that I certify to be true and complete in every respect:

I therefore certify, on behalf of that I have read and I understand the contents of this Certificate;

1. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
2. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
3. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
4. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

(a) has been requested to submit a bid in response to this bid invitation;

(b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and

(c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

5. 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 will not be construed as collusive bidding.

6. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
7. 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.
8. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
9. 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.

Name of Enterprise Bidding:

Name of Authorised Representative

Signature of Authorised Bidder

Date

B-BBEE Bid Declaration

BEE Terms and Conditions

If it is detected that false information regarding the B-BBEE status level of contribution, local production content, or any other matter which will affect or has affected the evaluation of the tender, or where the

tender has failed to declare any subcontracting arrangements, 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 favorable arrangements due to such cancellation;
- (d) restrict the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution

Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:		
B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED (Points claimed for BBEE must be substantiated by means of a certified B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or an Accounting Officer as contemplated in the CCA).	Points Claimed 	
SUB-CONTRACTING	YES	NO
Will any portion of the contract be sub-contracted?		
If yes, indicate: what percentage of the contract will be subcontracted?	%	
the name of the sub-contractor?		
the B-BBEE status level of the sub-contractor?		
is the sub-contractor an EME?		

I, the undersigned (full name).....

Certify that the B-BBEE information furnished on this declaration form is true and correct and attach a current broad-based black economic empowerment certificate as verified by an accredited agency.

i accept that, in addition to cancellation of a contract, action may be taken against me should this declaration prove to be false.

Name of Enterprise Bidding:

Name of Authorised Representative

Signature of Authorised Bidder

Date