



**sanedi**

South African National Energy  
Development Institute.

**REQUEST FOR QUOTATIONS FOR THE SUPPLY, CONSTRUCTION,  
INSTALLATION AND COMMISSIONING OF A FIXED DOME BIOGAS  
DIGESTER OR PRE-FABRICATED OR A SIMILAR BIOGAS DIGESTER  
SYSTEM FOLLOWED BY TRAINING IN OPERATIONS AND  
MAINTENANCE OF THE DIGESTER AT SIBONILE PRIMARY SCHOOL  
FOR THE VISUALLY IMPAIRED.**

NAME OF BIDDER.....

POSTAL ADDRESS .....

STREET ADDRESS .....

CONTACT PERSON .....

TELEPHONE NUMBER Code ..... Number .....

CELL PHONE NUMBER Code ..... Number .....

FACSIMILE NUMBER Code .....Number .....

E-MAIL ADDRESS .....

**Signature f Bidder .....** **Date.....**

<b>RFQ Number</b>	4620
<b>Date of RFQ</b>	05 February 2021
<b>Sanedi Contact</b>	<p>All enquiries must be directed to:</p> <p>Name: Ms Vulani Ngoveni  Tel: 011 038 4418  e-mail address: <a href="mailto:enquiries.procurement@sanedi.org.za">enquiries.procurement@sanedi.org.za</a>  Website address: <a href="http://www.sanedi.org.za">www.sanedi.org.za</a></p>
<b>Closing date</b>	23 <sup>rd</sup> February 2021 at <b>11:00am</b>
<b>Submission methods</b>	<p>The submissions should be made to the following email:</p> <p><a href="mailto:quotes.procurement@sanedi.org.za">quotes.procurement@sanedi.org.za</a></p> <p>NB: failure to submit in the correct email will render your submission non-responsive.</p>
<b>Work specification (and Technical specifications)</b>	<p><b>1. Project Background</b></p> <p>The Working for Energy Programme is a sub-programme of the Applied Energy Research Programme at SANEDI and it focuses on applied research on clean energy interventions that can benefit low-income communities in South Africa. The notion of clean energy interventions that can benefit low-income communities should not be confused with cheap, but rather simplified labour intensive (with special emphasis on sustainability and empowering youth, women and people with disabilities), interventions that can be easily adapted, operated and maintained in areas that are most needy.</p> <p>To implement its mandate of promoting the development and deployment of clean energy access, SANEDI is working in partnership with relevant bodies to enhance clean energy access to selected beneficiaries, the Gauteng Department of Infrastructure Development (GDID). SANEDI has partnered with the Green Technology Unit component of the GDID. This partnership has been in existence since 2014 and has been involved in the Greening of the Sharpeville Schools. SANEDI seeks to replicate the successes of this Greening Project under different types of facilities to complement the work with the GDID and bring about improvements on the results derived from the earlier intervention. Sibonile Primary School is a boarding with higher energy demands than day schools.</p> <p>After consideration of several options in Gauteng, the Sibonile Primary School for the Visually Impaired has been selected for Greening within the Gauteng Province and the focus is on the installation of a fixed dome biogas digester system, prefabricated or a similar biogas digester system. The objective of this project is to demonstrate the benefits in Greening of brownfield facilities. The details of the facilities selected for Greening are stipulated in Section 3.</p>

## 2. Scope of works

### 2.1 Project Objectives

The key objectives of this project are as follows:

- Decrease the LPG Gas demand for cooking by augmenting with the use of Biogas.
- Treatment of food waste
- Improve energy security and energy access.
- Produce fertilizer for the food gardening.
- Illustrate the concept of food water and energy concepts
- Reduce carbon dioxide and methane emissions.

### 3. SELECTED PROJECT SITE DETAILS

Biogas Digesters shall be supplied and installed at each of the facilities listed below:

No	Name of the Facility	Physical Address	Dimensions of the Biogas Digesters
	Sibonile Primary School for the Visually Impaired,	Plot 33, Garthview Road, Kliprivier, Meyerton, Midvaal, South Africa	A 36m <sup>3</sup> biogas digester system shall be installed at this facility. It can be a fixed dome digester, or a pre-fabricated or similar biogas digester system.  1.8m mesh wire fencing around the digesters assembly with lockable mesh gate.

#### 3.1 Areas to be implemented at Sibonile Primary School for the Visually Impaired

Area of the facility	Challenge	Technology
Main Kitchen	The school is using a non-environmentally friendly, expensive LPG gas for cooking.	Three plate commercial gas stove with three ring aluminium alloy burner heads, connected to the biogas digester system through an inlet pipe.  The system must be fitted with a gas scrubber, flame trap and condensate drainage systems.

## 4. Specifications for the Biogas Digester System

### 4.1 Introduction

4.1.1 Biogas plant is an airtight, preferable an underground tank in which organic materials mixed with water are digested/ fermented through anaerobic bacteria action with the purpose of generating biogas fuel. The treated waste is a nutrient-rich, nitrogen-rich

fertilizer while the biogas is flammable gas composed of Methane (component which burns), Carbon dioxide and trace gasses like hydrogen sulphide and nitrogen sulphide.

- 4.1.2 Biogas plants are used as a way of treating bio-wastes such as food, agricultural, animal waste and other organic waste compounds to produce biogas and bio digestate through anaerobic digestion. In this way it reduces methane and other trace gases, that would otherwise be escaping to the atmosphere and impact the climate negatively. Anaerobic digestion also helps to manage smells of aerobically decomposing biomaterials.

#### **4.2 Design Specification**

- 4.2.1 Any relevant combination of fixed dome or prefabricated bio digester systems or similar biogas system, that has a combined minimum total volume of 36 m<sup>3</sup> and can handle daily feedstock and water and has a retention period of at least three weeks.
- 4.2.2 It is preferred that each biogas system be underground with approximately 400mm protrusion of the system above ground
- 4.2.3 The biogas digester shall be operated under mesophilic reactions i.e. between the temperature range of 10 to 40 degrees Celsius.
- 4.2.4 The produced gas must be connected to the school's main kitchen, with minimum biogas output of between 5-7m<sup>3</sup> per day
- 4.2.5 The Biogas produced contains a lot of sulphur and sulphur trace elements. This is dangerous when inhaled. There is therefore a need to install a desulphuriser in the main kitchen prior to connecting the biogas to the stove.
- 4.2.6 The system must be connected to a three plate commercial gas stove with three ring aluminium alloy burner heads, with jets modified for biogas combustion.
- 4.2.7 The capacity of the composting pits must match the volume of the digesters.
- 4.2.8 A 1.8.m high mesh fence with lockable gate must be to enclose the digester assembly for safety.
- 4.2.9 The design and Bill of Material for the biogas system is attached

#### **4.3 Installation of the biogas Digester**

The winning bidder shall:

- Clear and level the site on completion of installation.
- Plaster, waterproof and gasproof the digesters.
- Plaster, waterproof inlet, outlet and composting pit chambers.
- Supply and install pressure relief system, fire traps devices, condensate taps, condensate drainage systems, reusable gas scrubber and gas flow meter (measuring gas output) for each digester.
- Supply and install biogas piping connecting the digester to the school kitchen to safely use the bio gas that is being produced.
- Fence around all bio digesters (4mX4m) with wire mesh and galvanised steel poles with lockable gate access.
- Ensure that all chambers (Inlet, outlet and gas) are lockable and provide the locks.
- Comply with the Ministerial Determination 4: Expanded Public Works Programmes (4<sup>th</sup> May 2012) requirements, for the "Potential number of work days for local labour employed on the project" component of the evaluation criteria of the bid.

- Train a maximum of 5 (five) individuals nominated by each school on how to operate and maintain the bio digester.
- Provide written instructions in the local language to the trained individuals on how to operate and maintain the digester at each school.
- Train the nominated individuals on using the correct biodegradable feedstock for the bio digesters as well as the potential hazards for using incorrect feedstock.
- The expected feedstock to be used for the bio digesters are food waste and animal (horse or cow manure) vegetable waste only.
- It is expected that the bio digestate and enriched compost as a result of the digesting process is to be used in the schools food garden.

#### **4.4 Warrantees and Guarantees.**

The winning bidder shall provide a minimum 3-year product warranty on the bio digester and a 2 year product warranty on all accessories installed. Accessories include and is not limited to related piping, equipment (gas meters, etc.) and the biogas stove.

#### **4.5 Minimum information required.**

- 4.5.1 Detailed component guarantee period.
- 4.5.2 Expected life span of the equipment.
- 4.5.3 Delivery period.
- 4.5.4 Information relating to the Bid Company's Biogas Digester Systems. This should be brief and will be verified during the procurement evaluation process.

### **5. OCCUPATIONAL HEALTH AND SAFETY**

5.1 Supplies must comply with the relevant national occupational health and safety requirements. The bidders is required to submit a plan to indicate how they plan to comply with the Occupational Health and Safety requirements.

### **6. PROJECT MANAGEMENT**

A suitable Service Provider is sought to undertake the Project Management of this task and supply the following deliverables:

#### **Deliverables required of the Project Manager:**

- Prepare a detailed methodology and project execution plan
- Provide a detailed project timeline, (Gant chart preferred)
- Produce a detailed labour plan, outlining the time and number of labour required and aligned to the Expanded Public Works Programme (EPWP) requirements
- Provide a risk management and indemnity plan for security of materials , equipment and labourers
- Ensure the health and safety of all labour, including contracted local community labour, employed in accordance with applicable legislation and consultation with community leaders (where applicable).

- Procure necessary Personal Protection Equipment (PPE) for all involved in the execution of the project
- Provide SANEDI with weekly progress updates that include a write and photographic evidence in an electronic format and sent via e-mail:
  - Update to include relevant challenges and progress and solutions applied, to resolve any such challenges;
  - Record with certified copies of Identity Documents, everyone involved in the execution of the project;
  - Records of labourers' attendance, conduct, disciplinary processes, etc.;
  - Detailed reports on project process, delays, contingencies.
  - Any challenges with community members to be communicated with SANEDI and local Ward Councilor/ project representatives, for resolution.
- All project meetings held must be supported by written minutes sent to SANEDI and GDID via email
- Facilitate a project close-out meeting between the contractors, SANEDI, the School Headmasters and local School Governing Body.
- Provide a detailed final Technical Report including assumptions, metrics, repairs and any other relevant technical information.

## **6.2 Site inspection**

A Compulsory site inspection will be arranged for interested bidders. Interested bidders must send their RSVPs to [enquiries.procurement@sanedi.org.za](mailto:enquiries.procurement@sanedi.org.za) by **11<sup>th</sup> February 2021 at 11:00am.**

## **6.3 PROJECT MANAGEMENT FROM SANEDI**

- The project shall be managed through SANEDI by a Working for Energy Project Manager and shall include a Project Oversight Committee as follows:
  - Chaired by Working for Energy General Manager.
  - Working for Energy Project Manager.
  - Representatives from GDID/ Sibonile Primary School for the blind/Local Community.
  - A representative or more from the successful contractor.
  - A representative from the community (optional and subject to availability, without remuneration for attendance at any meeting/s).
  - A representative from the school.
  - A quorum shall be deemed when one member from each entity is present
- Any project related decisions raised by any party associated with the project compliance and physical installation of the system must be addressed through the SANEDI project manager directly, as the contracting party.
- The Project Oversight Committee shall meet as follows:
  - On-site inception meeting, to initiate the Project
  - Thereafter, progress meetings as deemed necessary
  - A final closure meeting after project completion
  - Project closeout meeting.

**6. PROJECT SCHEDULE**

The project shall be completed within a month from the last date of signature to the contract. Any deviations from this will need a written motivation to SANEDI.

**Evaluation Criteria**

The bids received will be evaluated in two stages. The first stage will be the pre-condition compliance and technical evaluation, the second the financial/BEE evaluation. The following are the evaluation criteria that all bids will be assessed against:

Criteria	Scoring Criteria (1-10)	Weighting
<p><b>Company experience</b> in Biogas Digester System installation and related plumbing</p>	<p>&gt;5 years in any Biogas Digester System installation and related piping = 10                      &gt;=3 years but less than 5 years' experience in any Biogas Digester System installations and related piping = 5                      Up to 2 years in any Biogas Digester System installation and related piping = 2</p>	10%
<p><b>Project team</b>                      Profile of project team, qualifications, experience in Biogas Digester System Installation management.</p> <p><i>NB: CVs of the project team must be attached and failure to do so will forfeit points</i></p>	<p>&gt;5 years' experience in any Biogas Digester System Installation Project Management = 10                      &gt;=3 years but less than or equal 5 years' experience in any Biogas Digester System Installation Project Management = 5                      Up to 2 years' experience in any Biogas Digester System Installation Project Management = 2</p>	20%
<p><b>Track Record of Biogas Digester System installations which must be demonstrated by reference letters. Reference letters must include the following:</b></p> <ul style="list-style-type: none"> <li>• Must be in client's letterhead.</li> <li>• Name of the project</li> <li>• Duration of the project, contact person and duly signed</li> </ul>	<p>5 reference letters in any Biogas Digester System Installations work = 10                      3 reference letters in any Biogas Digester System Installation work = 5                      Up to two reference letters in any Biogas Digester System Installation work = 2</p>	30%
<p><b>Methodology</b></p>	<p>A comprehensive methodology with logistical</p>	30%

	<p>A Detail methodology of proposed installation, logistical arrangements, Activities linked with timelines, suppliers, and project management, control, and oversight.</p>	<p>arrangements, activities linked to timelines, suppliers, project management, control and oversight = 10  An average methodology with some of the identified key areas =5   A poor and unclear methodology =1</p>										
	<b>Local Content</b>	There must be a verifiable minimum of 50% local content of labour and or hardware	10%									
	<b>Threshold</b>		<b>70</b>									
	<b>Total Weighted Score</b>		<b>100%</b>									
<b>Preferential Point system</b>	<p>The Bid will be evaluated on 80/20 Preferential Point System according to the Preferential Procurement Policy Framework Act,2000  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>											
<b>The maximum score</b>	<p>The maximum score for this bid shall be awarded as follows:</p> <table border="1" data-bbox="415 1503 1513 1640"> <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><b>Total points for price and BBBEE do not exceed</b></td> <td><b>100</b></td> </tr> </tbody> </table>				POINTS	PRICE	BBBEE Status level of Contribution	20	Points for price	80	<b>Total points for price and BBBEE do not exceed</b>	<b>100</b>
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BBBEE Status level of Contribution	20											
Points for price	80											
<b>Total points for price and BBBEE do not exceed</b>	<b>100</b>											
<b>Terms and Conditions</b>	<p>The RFQ shall be subjected to the SANEDI procurement terms and conditions which can be found on <a href="http://www.sanedi.org.za">www.sanedi.org.za</a> .</p>											
<b>Quoted Price excluding</b>	<p><b>(Attach a formal quotation on company official letterhead to this RFQ)</b></p> <p>R</p>											



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

**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"> <li>- the bidder is employed by the state; and/or</li> <li>- 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.</li> </ul>
	<p><b>In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.</b></p>

<b>COMPANY &amp; REPRESENTATIVE DETAILS</b>	
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	

	<b>DECLARATIONS</b>	<b>YES</b>	<b>NO</b>
	Are you or any person connected with the bidder presently employed by the state?		

	<p>If so, furnish the following particulars:</p> <p>Name of person / director / trustee / shareholder/ member</p>		
	<p>Name of state institution at which you or the person connected to the bidder is employed :</p>		
	<p>Position occupied in the state institution</p>		
	<p>Any other particulars:</p>		
	<p>If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?</p>		
	<p>If yes, did you attach proof of such authority to the bid document?</p> <p><u>(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.</u></p>		
	<p>If no, furnish reasons for non-submission of such proof:</p>		
	<p>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?</p>		
	<p>If so, furnish particulars:</p>		

	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:		

<b>Full details of directors / trustees / members / shareholders.</b>			
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>B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED</b>  (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).	<b>Points Claimed</b>  .....	
	<b>SUB-CONTRACTING</b>	<b>YES</b>	<b>NO</b>
	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 .....