



**TENDER NUMBER:
BFS/SAFDA/008/23**

**TERMS OF REFERENCE FOR THE APPOINTMENT OF PROFESSIONAL SERVICES TO
UNDERTAKE BANKABLE BUSINESS PLAN AND FEASIBILITY STUDY FOR A NEW
SUGARCANE MILLING FACILITY/BIOREFINERY IN THE SOUTH COAST, KWAZULU-
NATAL – POWER AND ETHANOL, AND/OR SPECIALITY VALUE ADDED PRODUCTS**

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1. PURPOSE

To appoint a professional service provider (PSP) to produce a bankable business plan and conduct a feasibility study for a New Sugarcane Milling Facility/ Biorefinery in South Coast of KwaZulu-Natal. The New Facility will produce multiple products, primary products such as renewable electricity, ethanol, and possibly specialty and value added products example scFOS, animal feed, biofertilizer, CO2 beneficiation for the bottling sector, recycling, reuse and purification of water for own facility reuse and purification to potable level for bottling. The new facility will also cater for increased ethanol production as a building block as several market opportunities increase locally and offshore.

This new sugarcane milling facility will be built for the benefit of black sugarcane farmers in the sugarcane sector and to catch unprocessed / carry over cane from the Illovo cane supply catchment, following the closure of the uMzimkhulu sugar mill. The bankable business plan and feasibility study is an important and required part of project development for large capital infrastructure projects and will be used to in the engagement with potential funders, investors, off-takers, government to support and finance the project and move ahead with construction of the plant. Hence the intent is to products required to reach financial close.

Key elements of the bankable business plan and feasibility study will include:

- Feedstock availability (to undertaken with the Client)
- Market Study
- Basic Engineering and Technical Package
- Financial Modelling
- Regulatory and Risks
- Bankable Business Plan and Feasibility Study
- Produce a project execution plan

2. BRIEF BACKGROUND

Illovo sugar company owns and dominates sugar milling and diversification value chain in the South Coast of KwaZulu-Natal. Two mills are located on the South Coast, being the Sezela and Umzimkulu Sugar mills. Illovo owns the furfural plant which is one of the most profitable plants in the world being produced from sugarcane bagasse, and the Merebank Distillery which produces ethanol from molasse, which is also a product of the sugar milling factory.

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Illovo has closed the Umzimkulu Sugar mill for a few seasons now, diverting sugarcane to the Sezela mill. The company has indicated that it has no intent in developing cane in the area, due to the overcapacity, and to the detriment of black sugarcane farmers in the region. Black farmers have also not been afforded the opportunity to participate in the sugarcane value chain and do not benefit from the additional revenue generated from the value-added industries like ethanol distillery, furfural plant or electricity generation at the Illovo mills from the sugarcane bagasse.

Black sugarcane farmers are important to the sugarcane industry and are foundational to the future of the sugarcane industry value chain. However, if nothing is done in the South Coast, these growers will go out of production and will exit the industry.

SAFDA believes that a Sugarcane Milling Hub located in the South Coast, KwaZulu-Natal which beneficiates the full value of the sugarcane stalk into multiple products will resuscitate agricultural production, maximize the socio-economic and agricultural value of the land, support transformation and participation in the agri-agroprocessing sector and open access to new markets. Ultimately supporting a thriving rural economy.

In India, smaller, decentralized mills and distilleries are operating and are viable, minimizing the distance and transport costs for the small-scale farmers. Technology exists and efficiencies can be harnessed in new mills and sugarcane biorefineries to ensure profitable sustainable rural development businesses. Sugarcane biorefineries is the future for the sugarcane industry producing not only sugar, but also electricity, ethanol, biogas, biochemicals, fertilizer, waste streams in power etc. This is already being done in India, with circular bioeconomy model of zero waste and zero discharge.

A new sugarcane facility, with the latest innovation and technology that can produce new value added products for which the selling price is attractive and shows promising market growth trends and offtakes (globally and locally), will support diversification of the industry in a transformed and development approach. This project will support Government and Industry objectives to diversify in a transformed manner while supporting the long term sustainability of sugarcane members.

The South African sugarcane value chain masterplan facilitated through the DTIC and DALRRD is underpinned by keen areas of small-scale farmers being foundational to sugarcane industry, improving transformation and development in the sector and progressing diversification from sugarcane. It is also known that the sugar industry milling capacity is ailing,

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being old mills resulting in performance and efficiency problems. It's time that black growers participate in the industry value chain and have access to new more efficient technologies and increase the value add of their cane.

3. THE PROJECT OBJECTIVE AND OUTCOME

3.1 Project Objective

The objective of this Terms of Reference is to outline the conditions of procurement for a PSP who will undertake the bankable business plan and feasibility study for new sugarcane milling facility / biorefinery facility in South Coast.

The New Facility will produce multiple products, primary products such as renewable electricity, ethanol, and possibly specialty and value added products example scFOS, animal feed, biofertilizer, CO2 beneficiation for the bottling sector, recycling, reuse and purification of water for own facility reuse and purification to potable level for bottling. The new facility will also cater for increased ethanol production as a building block as several market opportunities increase locally and offshore.

3.2 Project Outcome

The outcome will be a bankable business plan and feasibility study that is at FEL Stage 4 required to reach to financial close for the project.

4. SCOPE OF WORK

The scope of work of this project is outlined in more detail in the subsequent sections, and is summarized in the following table:

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ALL WORK PACKAGES IN THE SCOPE OF WORK MUST COMPLETE FEL STAGE 4 / REQUIREMENTS TO REACH FINANCIAL CLOSE.

MAIN STEPS: PROJECT LIFE CYCLE		HIGH LEVEL SUMMARY OF THE SCOPE OF THE PROJECT
1	Feedstock availability	The sugarcane feedstock availability assessment will be done with the Client (SAFDA).
2	Market Study	Market will cover both local and export markets
3	Basic Engineering and Technical Package	Engineering and technical work package will cover site selection, all required feasibility surveys, design philosophy, design parameters, engineering designs, most efficient technologies etc.
4	Financial Modelling	Detailed financials for bankable business plan, including financial structure and project agreements required for financial close
5	Regulatory and Risks	All regulatory requirements, including that of environmental applications etc.
6	Bankable Business Plan and Feasibility Study	<p>Complete all key components of the bankable business plan and feasibility study in addition to key work packages listed.</p> <p>Produce bankable business plan and feasibility study</p> <p>Formulate Investment pack (reports, summaries, MOI, presentation decks etc.) for use when engaging funders, strategic partners and investors (local, and international) and government</p>
7	Produce a project execution plan	The project execution plan follows from the feasibility assessments and bankable business plan with clear actions, timeframes for implementation, responsibilities, and high-level cost summaries

The project will commence upon the appointment of the PSP. The PSP team should include (but not limited to) suitably qualified, competent and experienced specialists in:

- Sugarcane agricultural economics
- Civil and/or Agricultural Engineering
- Agricultural Finance and Economics, and Large Infrastructure Investments
- Procurement and Marketing in Agri-business
- Risk and Regulations in Agri-business

4.1 FEEDSTOCK AVAILABILITY

Black sugarcane farmers are important to the sugarcane industry and are foundational to the future of the sugarcane industry value chain. However, with the closure of the Umzimkulu Sugar mill, they have to transport their sugarcane further distances to Sezela sugar mill. If nothing is done in the South Coast, these growers will go out of production and will exit the industry. Illovo Sugar Company have also indicated they have no intent of reopening the mill in Umzimkulu, or in adding to the milling capacity in the Illovo cane supply catchment

There is a substantial quantity of increasing carryover cane, of which black farmers and small-scale growers have also been subjected to, meaning that the mills could not crush their cane, therefore they lost out on their main source of revenue and the industry transformation interventions. The situation is worsening. At least 1 929 985,00 tons of carry over cane existed in the Illovo cane supply catchment areas for 2022/2023 season, equating to a revenue loss of approximately R2 375 654 324.

The sugarcane feedstock availability assessment will be done in conjunction with the Client (SAFDA). The key milestones for the sugarcane agricultural feedstock / throughput feasibility study should include but is not limited to:

- sugarcane agriculture assessment of existing cane production areas including any spatial maps
- assessment of interested growers, locations, tonnages, yields, cane quality etc.
- existing harvesting methods and recommendations for improved harvesting methods to reduce cost of production
- agronomic and agricultural extension support requirements to maintain consistent throughput supply to the mill

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- risk analysis of cane supply
- supply plan

4.2 MARKET STUDY

The key milestones for the market study should include but is not limited to:

- all parameters required for technical and financial models
- procurement and marketing of all raw materials and products and by products inclusive of offtake and supply agreements, procurement of raw materials, other materials supply
- detailed marketing plan should consider identification of target market for all products and by products including market segmentation, quantification of take-up potentials per market segment, price strategies, assessment of any sustainability standards or certification requirements
- market risk analysis
- stakeholder engagements with offtakers / customers, supply contracts signed with markets
- packaging designs, branding and logos for corporate and packaging
- cost of marketing and budget provision - customer relationship strategies and aftercare services
- produce a marketing strategy / plan for all products and by products

4.3 BASIC ENGINEERING AND TECHNICAL PACKAGE

- This is a critical component of the study, which must complete FEL stage 4 / requirements to reach financial close. Must also include but not limited to:
- Site selection - all necessary site suitability surveys – geotechnical, water, etc., should be conducted, development rights, environmental requirements, land ownership, logistics etc.

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- All design parameters, design philosophy and plant descriptions for the milling facility/biorefinery and its components, technology - selection, purchase requirements and costing / licensing arrangements
- Facility engineering and technical designs -technology innovations, efficiencies, layout, schedules and costings
- Risks and mitigation analysis
- Final designs and reports
- Production plan

4.4 FINANCIAL MODELLING

- Detailed financial models for bankability (include opportunities for carbon credit revenue)
- Financial structure
- Project agreements required for financial close

4.5 REGULATORY AND RISKS

- Overall risk assessment and mitigation plan
- Regulatory requirements and applications and specialist studies if required example on environmental, including that of carbon credit opportunities locally and globally
- Other regulatory requirements, including that of sugarcane industry, products etc.

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4.6 BANKABLE BUSINESS PLAN AND FEASIBILITY STUDY

Produce bankable business plan and feasibility study for the selected site

- Consolidate all work packages into the bankable business plan and feasibility study
- In addition complete all key components of the bankable business plan e.g. business and management structure - partner(s) and commercial agreements, socio economic impact study etc., business administrative details such as the opening of bank accounts, registering with SARS and the conclusion of contracts and agreements such as with suppliers and the municipality.
- Formulate Investment pack (reports, summaries, MOI, presentation decks etc.) for use when engaging funders, strategic partners and investors (local, and international) and government

4.7 PROJECT EXECUTION PLAN

Detailed project execution/implementation plan with timeframes - should cover construction, commissioning and start-up, ramp-up and full production, management, production, market access, business model, operations and maintenance, training etc.

4.8 PROJECT CLOSURE

The PSP project and involvement is concluded after the completion of the Work packages as indicated in Table above.

4.9 DELIVERABLES

Based on the above scope and requirements, the main deliverables for this project would at least be:

- Minutes of Monthly Progress Meetings and Reports
- Bankable business plan and feasibility study
- Project execution plan

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5 MANDATORY REQUIREMENTS

The following are the mandatory requirements for the acceptance of this bid, failure to adhere to any one of the following may result in the tender as being non-responsive

- The Tendering Entity in a consortium must as part of their main business be involved in the bankable feasibility studies, planning, design and construction of sugar mills / sugarcane industrial processing / downstream value add industries etc.
- The service provider must provide an original valid tax clearance certificate/tax compliance pin (Attach proof)
- Filled and Signed SBD 1-Invitation to bid.
- Filled and signed SBD 4-Declaration of Interest
- Filled and signed SBD 6.1-Preference Points claimed.
- Filled and signed Certificate of independence Bid determination.
- Attach a resolution letter from the bidding entity authorizing a particular person to sign the bid documents.
- Attendance of compulsory briefing session (virtual or in person)

6 PSP KEY FUNCTIONALITY REQUIREMENTS

The PSP team should possess expertise and show evidence of experience and track records in:

- Sugar Milling and Sugarcane Industrial-Agroprocessing and Agri-Businesses In South Africa, Or Africa And/or International Sugar Industry Exposure
- Engineering and Technical Feasibility In Sugarcane Industry and Value Chain Products
- Financial Modelling and Business Evaluation
- Markets - Local and International
- Sound Project Management

7 PRICING SCHEDULE

7.1 Detail costs

The actual price quoted including VAT will be used for issuing of an order to the successful bidder.

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		Total
1	Market Study	
2	Basic Engineering and Technical Package	
3	Financial Modelling	
4	Regulatory and Risks	
5	Bankable Business Plan and Feasibility Study	
6	Project Execution Plan	
7	Contingencies 10%	
	Sub Total	
	ADD VAT	
	TOTAL	

8 CONTRACT DATA

8.1 CONTRACT DATA ASSOCIATED WITH THE PERFORMANCE OF THE TASK			
1	Time		
	The key dates and the conditions to be met are		
		Condition to be met	key date

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	1	Market Study	To be completed within 3 weeks from date of appointment
	2	Basic Engineering and Technical Package	To be completed within 3 months from the date of appointment
	3	Financial Modelling	To be completed within 4 months from date of appointment
	4	Regulatory and Risks	To be completed within 5 months from the date of appointment
	5	Bankable Business Plan and Feasibility Study	To be completed within 6 months from the date of appointment
	6	Project Execution Plan	To be completed within 6.5 months from the date of appointment
	7	Project closure report	To be completed within 7 months from the date of appointment with the Client (SAFDA)
		The total contract period is envisaged to be no longer 7months (concluding before the end of March 2024)	
5	Term contract		
	The starting date for the Task is upon receipt of an order number / acceptance letter.		
	The Task Completion Date is 7 months from the order receipt date		
6	The Employer's Agent		



	<p>For Technical Enquiries</p> <p>Name: Dr Marilyn Govender</p> <p>Address: 41 Richefond Circle, Strauss Daly Building, Umhlanga Ridge</p> <p>Tel No: 031-9417245</p> <p>Cell No: 0634985682</p> <p>email: mgovender@sa-fda.org.za</p> <p>For Bid related enquiries:</p> <p>Name: Mr Mduduzi</p> <p>Address: 170 Flanders Drive, SAFDA Head Office, KwaShukela, Mount Edgecombe, 4300</p> <p>Tel No.: 031-5087293</p> <p>Cel. No.: 0731796920</p> <p>email: mdube@sa-fda.org.za</p>

Part Two: Data to be provided by the *Service Provider/Consultant*

	Consultant's representative is (Name):
	Address
	Tel No.:
	Fax No.: Cell No.:

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	Email.
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9 BUDGETS AND PAYMENT SCHEDULE

Invoices are to be submitted in accordance with the agreed payment schedule and would have attached written proof of all work undertaken, including minutes of meetings; reports; photographs etc.

Payments shall be made by SAFDA against invoices submitted by the PSP on condition that the PSP has submitted, timeously and accurately, such milestones and other reports as would be required in terms of the agreement.

10 EVALUATION CRITERIA

The bids will be evaluated by SAFDA Procurement and Supply Chain Management

Bids will be evaluated 60% on Price and 40% on functionality scores, totally 100%.

Functionality Scores

NO	DESCRIPTION	WEIGHTING
1.	Understanding of the Project, Methodology, Project Plan	30
2.	Expertise and Experience- Detailed CV(s) is to be provided for the following specialist civil engineer and/or agricultural engineer with more than 4 years' experience in the sugarcane industry and downstream industry / agroprocessing industry,	20
3.	Tendering Entity Experience with similar projects (nature; value; size etc.) in the last 10 years in the sugarcane and downstream industry. Contactable references to be provided. SAFDA reserves the right to verify the information provided and to contact references provided.	50

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		100

Bid Submissions should be structured in the following manner and should not exceed 15 pages in length (excluding any Appendices):

- Introduction to the company including profile of sub-contracting of expertise, if applicable.
- An understanding of the study requirements. Service providers are to demonstrate their understanding of the project/study. This should not be just a repetition of the information contained in this document.
- Proposed methodologies
- Proposed project plan/schedule showing the timing of specific deliverables.
- Capacity and expertise of the team and lead individual(s)
- A list of and brief description of relevant projects undertaken by your company and /or consortium in the last 10 years in the sugarcane and downstream industry (maximum 2 pages).
- All quotations and claims must include VAT,

Note that all items must be reflected in the quote. Pricing schedule has to be read in conjunction with the scope of work

11 Tender opening on 8 August 2023

12 Closing date for this bid: 11h00 on 23 August 2023

13 Compulsory clarification meeting for this project will be held at SAFDA offices at 170 Flanders Drive, Mount Edgecombe, Kwa-Shukela, at **9h00 on 11 August 2023**. Virtual video conference attendance and participation through MS Teams/Zoom link to be provided will be acceptable.

Join Zoom Meeting

<https://us06web.zoom.us/j/81191292387?pwd=SVRZbU5adkpwZlZWEtveHFQbIRCQT09>

Meeting ID: 811 9129 2387

Passcode: 924211

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