



**SABIA
MARKET POSITION PAPER**



WHO WE ARE

The South Africa biogas sector is represented by SABIA, a Non-Profit Organization, that leads the industry discussions with relevant governmental departments and institutions, international organisations, NGO’s and other industry associations to promote the sector, lobby for relevant legislative change, policy development and assisting members in gaining exposure. SABIA currently represents more than 50 members and actively keeps our members up to date on the industry through webinars and monthly newsletters, which is also shared with more than 1,500 stakeholders.



SABIA MISSION

“A single voice to drive the development of a sustainable commercial biogas sector by promoting the multiple benefits of biogas within our region.”

SABIA has adopted a global strategy for the development of a local biogas industry and is working with the South African Government to:



1. Include the production of biogas as a climate change mitigator in all levels of government including national, provincial, municipal and individual cities’ energy plans



2. Include targets for the recycling of biodegradable wastes and feedstocks to produce biogas in Nationally Determined Contributions to the UNFCCC by 2020



3. Build a Circular Economy in which organic wastes, residues and feedstocks are recycled into renewable biogas and valuable organic nutrients for use in the agricultural sector



4. Adapt the flow of financial support to the biogas sector, which is not only an enabler of a low- carbon based economy, but is also the quickest and most cost-efficient CO₂ reduction pathway.



5. Use the fuel produced by biogas production facilities for power generation, publicly owned transport and waste collection trucks. Carbon neutral fuel for electricity generation and for transport, contribute to improved air quality in cities worldwide using biogas as a clean fuel.



SABIA VISION

In the SABIA strategic vision, we have developed a set of guidelines/roadmap for Government and policy makers that focuses on:

1. Diversion of organics/food waste from entering a landfill site through the introduction of separate organic waste collection for treatment in biogas facilities across South Africa.
2. Setting of targets and implementation strategies for the recycling of biodegradable wastes and feedstocks
3. Development, support and creation of the SABIA Biogas PES tariff (Payment for Ecosystem Services or Payment for Environmental Services) to stimulate the recovery of organic residues
4. Production of biogas through the installation of biogas technologies at
 - a. agri-industry processing facilities,
 - b. urban wastewater treatment plants
 - c. livestock farms
5. Adoption and implementation of the Organic Waste Norms and Standards developed by SABIA and partners in 2016
6. Drive the creation of an enabling market environment for the capture and utilisation of landfill gas at both private and public landfills
7. Ensure all municipalities and Eskom to buy-back surplus electricity generated from biogas plants at published Mega-flex rates from IPPs (Independent Power Producers)
8. Incentivise the energy generation and use from livestock manure via targeted policies such as specific rural schemes for micro-scale digestion that result in energy security and independence, reduced use of solid fuels for domestic cooking and heating, and reduced deforestation whilst improving agricultural security through the recycling of nutrient and water
9. Development of standards and certifications for safe trading and application of digestate

SABIA in the last 5 years has worked very closely with public institutions and achieved very important results like the implementing a standard for the re-use of the organic waste, that need to be adopted, the development of Norms and Standards for biogas projects, the exclusion of biogas plants from air emissions license requirements. SABIA's next goal is to unlock the full potential of the South Africa biogas market through the approval and adoption by the Department of Environment, Forestry and Fisheries ("DEFF") of the SABIA Biogas PES tariff (Payment for Ecosystem Services or Payment for Environmental Services) to stimulate the recovery and beneficial utilisation of organic residues.



BIOGAS BY NUMBERS

Industry/sector generation potential	Theoretical	Feasible within 5 years
Biogas potential for power generation [MW]	10 297	1 254
Average project installed size [MW]	0.5	0.5
Agricultural sector	1 179	103
Dairy sector	597	299
Piggery sector	107	53
Chicken sector	4 777	478
WWTW - Wastewater Treatment Works	210	93
MSW - Municipal Solid Waste	2 028	101
Sugarcane	1 024	53
Food processing, abattoir	175	18
Landfill	200	57
Total capacity of plants built to date 30 MW	0.3%	2.4%

Job creation	Theoretical	Feasible within 5 years
Direct permanent job creation	247 122	30 177
Development/Construction jobs in the sector	1 153 234	141 455

Carbon reduction to be separated	Theoretical	Feasible within 5 years
CO ₂ e avoided [t/y]	81 189 768	9 889 650
% on total country emission in 2019	15%	2%

Comparison to other renewable technologies	Theoretical	Feasible within 5 years
Energy delivered to or displaced from the national grid [MWh/y]	85 462 913	10 410 158
Equivalent Wind installed capacity [MW]	35 610	4 338
Equivalent PV installed capacity [MW]	58 536	7 130
Installed peaking capacity in SA 2019 [MW]	3 570	

52BN ZAR < BIOGAS < 250BN ZAR

SA Biogas Industry Direct Local & Foreign Investment Value