

National Biogas Conference 2015

**Standards And Regulations
5 March 2015**



Content

- ▶ Introducing to SABIA Mandate
- ▶ Biogas Standards and Regulation
- ▶ Sectors for Standards and Regulation



SABIA's mandate includes:

- ▶ Active engagement at all levels of government for the origination and enforcement of appropriate standards and regulations;
- ▶ Advising decision-makers on the most adequate policies to develop a sustainable biogas market;
- ▶ Marketing of the multiple benefits of biogas as a renewable energy resource;
- ▶ Encouraging and supporting research into the field of anaerobic digestion;
- ▶ Representing the biogas industry sector as a single voice in all forums within South Africa and assisting in an advisory role;
- ▶ Promoting the biogas technology in the public and private sectors;
- ▶ Coordinating with other renewable energy industry groups on lobbying government stakeholders around common issues;
- ▶ Promote quality use of biogas and biogas equipment in interest of safety of users/consumers and public.

TOWARDS A SA BIOGAS STANDARD

Currently no effective standard for the installation of pipes and appliances for use with biogas in South Africa (“SA”).

WHY IS THIS IMPORTANT?

- ▶ SA biogas industry needs standard that can **demonstrate that biogas technologies are safe and secure.**
- ▶ Standard required to **train biogas practitioners** towards building a **qualified and trusted community of biogas professionals.**
- ▶ Registered qualified biogas professionals are needed so that **clients can be assured that they offer services and products of the highest quality.**

All of these constitute critical steps for the biogas industry to actively participate in relevant policy and legislative fora that pertain to biogas and biogas-related issues.

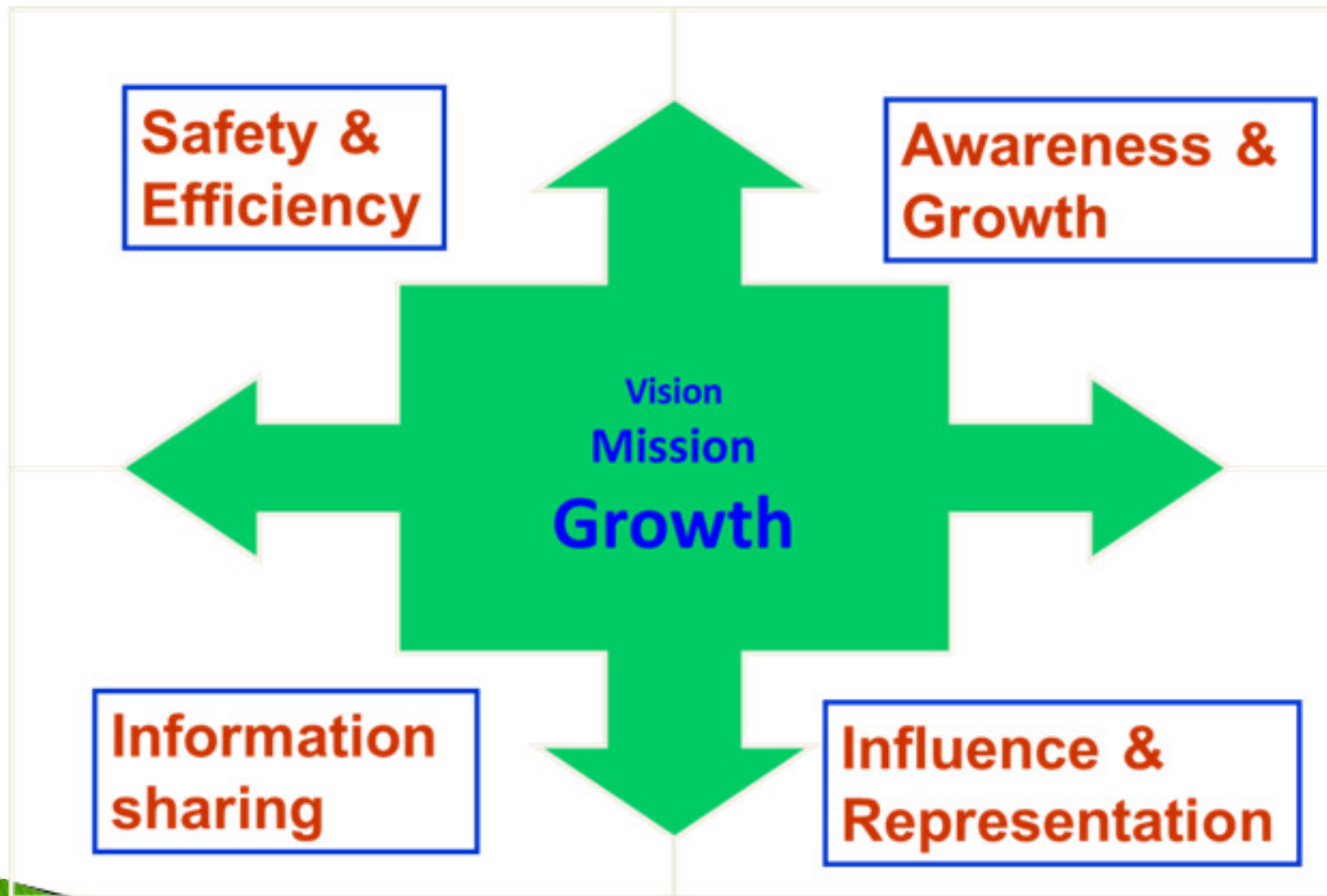
BIOGAS STANDARD FOCUS:

To promote the safe and efficient use and supply of bio-methane based gas within the biogas Industry of Southern Africa

The following need to considered:

- Safety Environment
- Industry Focus
- Win - Win Relationship
- Integrity
- Continuous Improvement
- Develop industry Standards

BIOGAS STANDARD FOCUS:



FUNCTIONAL INTERRELATIONSHIP:

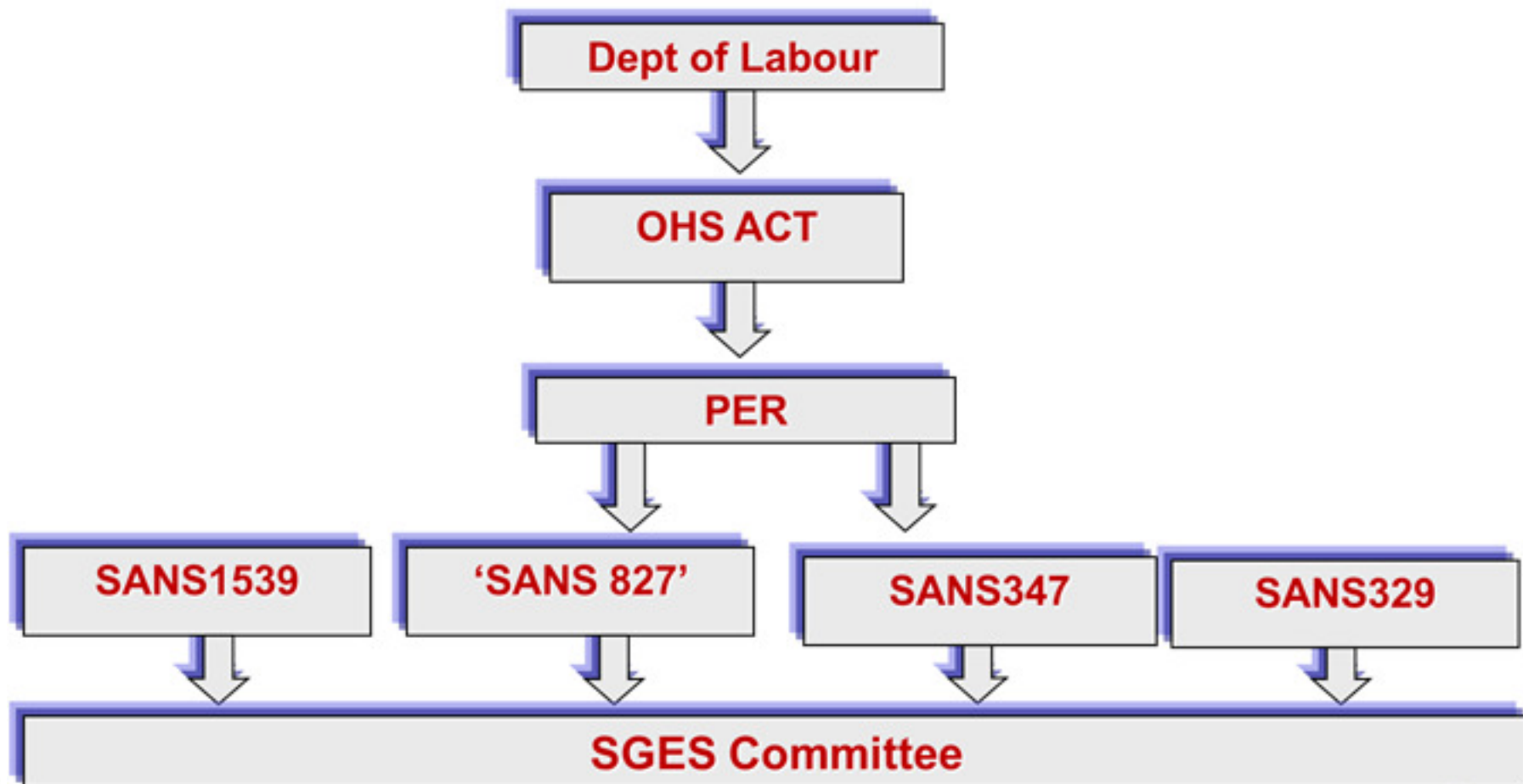


BIOGAS REGULATORY FRAMEWORK

- OHS Act
- PER Regulation R734
- PER Guidelines 27 February 2015
- Sectors Domestic (<0.5GJ/h)
- Commercial and Industrial (>0.5GJ/h)
- Operating Pressure of Systems < 50 kPa (PER)
- Gas Act: (NERSA) Biogas
 - Storage License
 - Construction Licence
 - Production Activity Registration
 - Trading License
- NEMA regulations:
 - Air Quality
 - Water Usage Licenses
 - Waste Management Act
 - Production Requirements and Thresholds
 - Reduce Time and process of approvals

SAFE GAS EQUIPMENT SCHEME

Mandate / Authority of the SGES



SAFE GAS EQUIPMENT SCHEME

- All Commercial & Industrial biogas equipment > 0.5 GJ/h
- Domestic and commercial equipment using methane gas < 0.5 GJ/h
- On Biogas/Natural gas will apply to:
 - Gas ovens
 - Burners / Furnace / Boilers
 - Bio-digesters
 - Hot water Geysers
 - Heaters
 - Gas Generators / Engines

EQUIPMENT INCLUDED IN SAFE GAS EQUIPMENT SCHEME (SGES)



SECTORS WHERE STANDARDS IN BIOGAS SHOULD BE DEVELOPED OR INFLUENCE

- ▶ Equipment certification
- ▶ Installations Practice
- ▶ Sector classification
- ▶ Training and Education
- ▶ International Standards
- ▶ Government Policy
- ▶ Industry Strategy
- ▶ SABS and SANS Standards
- ▶ Started with Biogas standards
- ▶ Equipment standards outstanding

SECTORS WHERE STANDARDS IN BIOGAS SHOULD BE DEVELOPED OR INFLUENCE

- Domestic Regulation.
 - Basic requirements
 - Ensure safe use and operation
 - Keep cost low for market penetration
 - Equipment safety and quality control
 - Installers to be trained and certified to issue CoC`s
- Commercial and Industrial Regulation
 - Comply with industrial safe gas practice
 - CoC`s to be issued for all installations
 - Only approved equipment to be used

SECTORS FOR BIOGAS STANDARDS

Rural Biogas Projects

Agriculture:

- Dairies
- Fruit/Vegetable packaging plants

Food Processing:

- Meat/Cheese/Juice/Baking

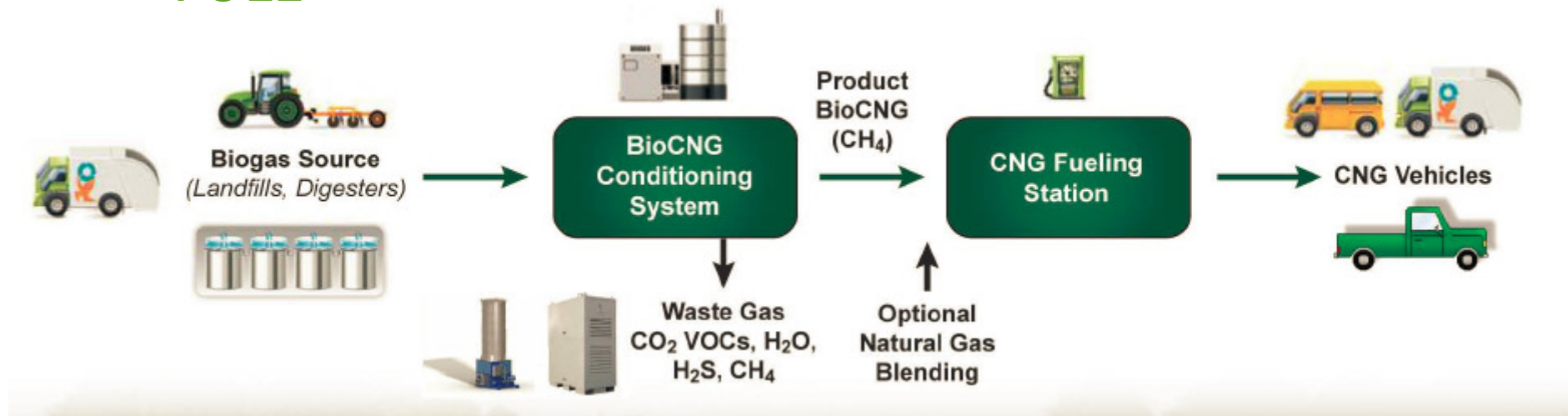
Abattoirs

Waste Water Treatment

Landfill Biogas

Co-operative Plants

STANDARDS NEEDED FOR BIOGAS TO VEHICLE FUEL



- Manufacturing of Biogas Equipment (Civil Engineering)
- Cleaning and Upgrading of Biogas (Chemical Engineering)
- Piping and Compression (Mechanical Engineering)
- **Generate electricity (Electrical Engineering)**
- Vehicle Application (Automotive and Road Traffic Act)

CURRENT BIOGAS POTENTIAL FOR VEHICLES

- Metrobus Dual Fuel Busses
- Tswane Metro 40 Gas Busses
- Harmony Biogas Project in Welkom
- Durban BRT Project
- Megabus Gas Bus Project

FUTURE OF BIOGAS

What are the challenges facing the biogas industry in South Africa?

- ▶ Lack of awareness and understanding of the energy, environmental and social benefits of biogas technologies by all stakeholders;
- ▶ Complex administrative processes for project development and authorisation, especially at the municipality level ;
- ▶ No supportive legal framework and no specific policy support;
- ▶ Lack of dedicated financing mechanisms;
- ▶ No biogas standards for safe and quality use of biogas;
- ▶ Lack of skilled and registered labour force.

THANK YOU

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