



# Department of Energy

**Is there a need for a biogas strategy**

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**Renewable Energy Initiatives  
5 March 2015**



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## OUTLINE

1. About the Department of Energy
2. Renewable Energy Policy Commitments
3. Renewable Energy Key Drivers and Benefits
4. Biogas Markets and Applications
5. Key Elements for Developing a Biogas Market
6. Conclusion



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## RENEWABLE ENERGY POLICY COMMITMENTS

- As stated in the 2003 White Paper on Renewable Energy renewable energy resources are harnessed from naturally occurring non- depletable sources of energy such as solar, wind, biomass, hydropower, etc. to produce electricity, gaseous and liquid fuels, heat or a combination of these.
- Biomass includes fuelwood, plants, agriculture and forestry residues plus organic components found in municipal and industrial wastes.
- Through this White Paper government committed to strategically develop renewable energy resources in future in a systematic way.
- The 2010-2030 Integrated Resource Plan, promulgated in May 2011 increased the modest 10 year target of about 1 600MW by 2013 to 17,800MW by 2030.
- The IRP 2010-2030 is being implemented in two ways – small scale RE IPP procurement (1- 5MW) and large scale RE IPP.
- None for vehicular transport at this stage



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## RENEWABLE ENERGY KEY DRIVERS AND BENEFITS

### Key drivers to renewable energy deployment are:

1. Energy Security
2. Economic Growth
3. Climate Change

### Concomitant Benefits therefore include:

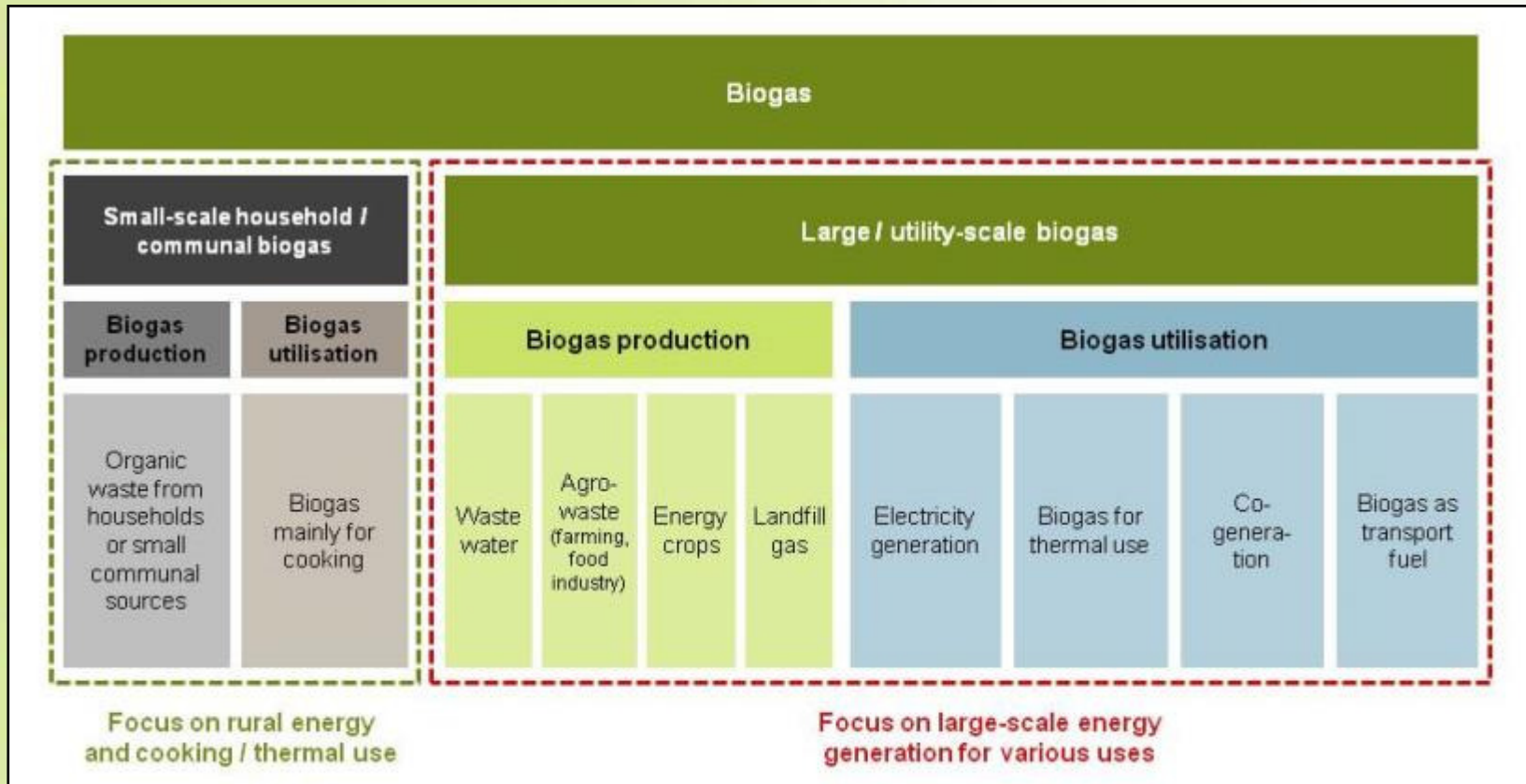
- Expanding energy access especially to the poor and marginalized communities;
- Economic opportunities;
- Job opportunities which vary from unskilled construction work to skilled professionals (policy, R&D, marketing, design, O&M);
- Improved air quality;
- Reduction in GHG Emissions which moderates climate change
- Enhanced energy security, diversified energy mix and sustainable development.



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# BIOGAS MARKETS AND APPLICATION



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## ADDITIONAL BIOGAS BENEFITS

- Encouraging responsible waste disposal
- Nutrient rich by-product used as organic fertilizer instead of chemicals.
- In rural applications, switching from fuelwood and paraffin can have major health and safety benefits due to reduced indoor air pollution, risk of fires etc.

### Typical feedstock

- **Sewerage:** domestic, municipal, schools, hotels, etc.
- **Food waste:** domestic & industrial/commercial, incl. fats and oils
- **Manure:** pig (high content due to protein diet), cattle - dairy or feedlot, chicken, etc.
- **Agricultural:** vegetables, fruit, maize, sugar cane, sugar beet etc.
- **Commercial:** abattoirs, cheese factories, breweries, wine estates, processing plants, fruit & veg packaging plants, etc



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**Biogas is a renewable energy source, its benefits are clear, so why is there a need for a strategy?**



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## ENHANCING FRAMEWORK CONDITIONS FOR BIOGAS

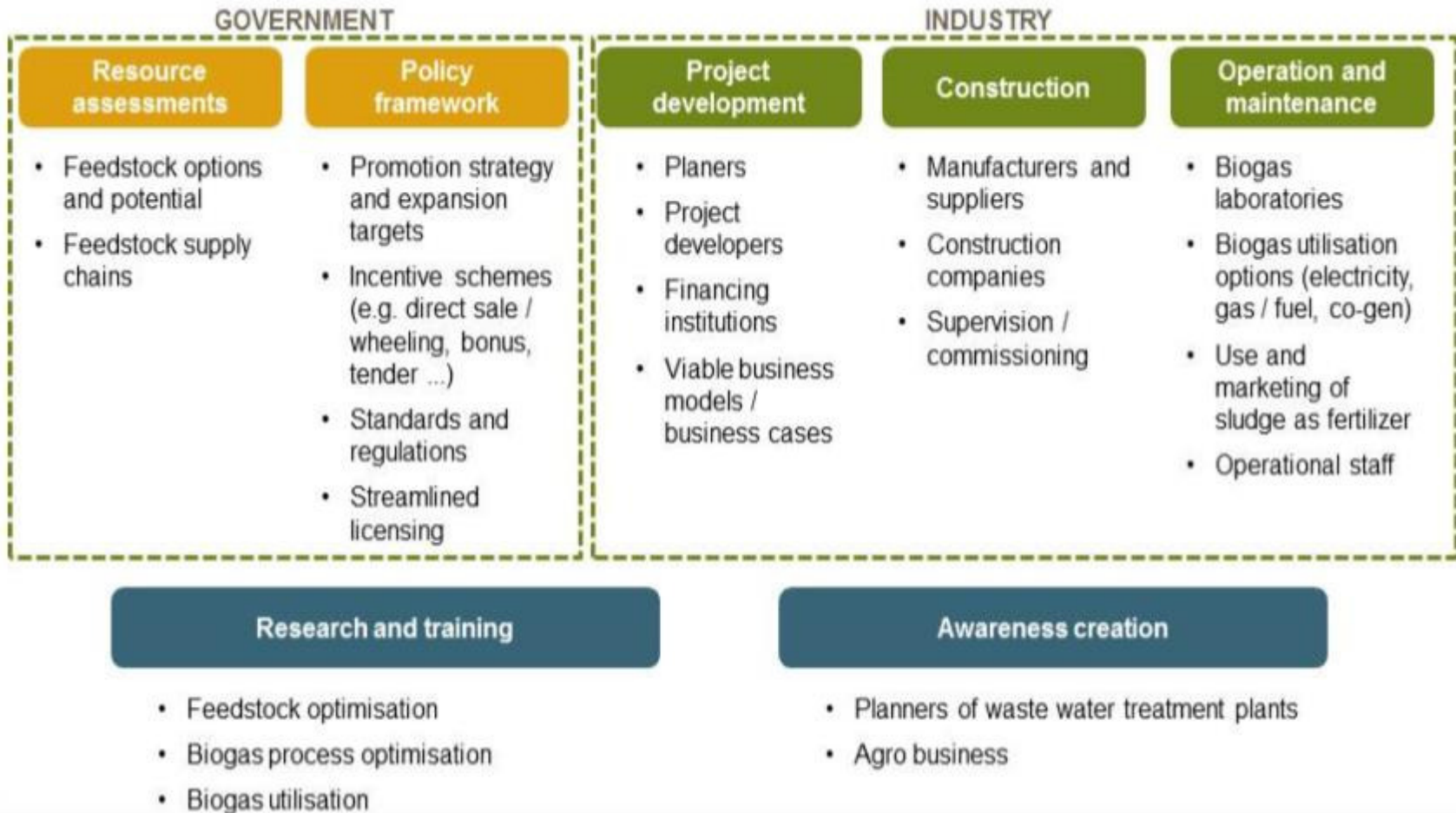
- Targeted interventions are required in order to develop a sustainable market for biogas projects for South Africa.
- For this technology, size matters – 100kW and above instead of 1MW entry point may be desirable for utility scale plants.
- A strategy can provide a framework for systematically developing the market
- The National Biogas Platform has already started working on some of the critical elements that would need to be addressed in the strategy – i.e. information, finance and permitting processes.
- Targets and timelines will be identified by the strategy document



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# What are the key elements for developing a sustainable biogas market in South Africa?



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## CONCLUSION

- A biogas strategy will enhance efforts to promote biogas therefore contributing to a balanced mix of renewable energy supply
- Both direct and indirect benefits of biogas should be highlighted and taken into account so as to guide supporting mechanisms that are desirable for this sector relative to its contribution.
  - The ability of biogas plants to deliver power to the grid at peak times
  - The potential for job creation, particularly in rural areas
  - The possible contribution of biogas to the promotion of local manufacturing
  - The role that biogas can play in agricultural waste management



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“A better functioning energy sector is vital to ensuring that the citizens of sub-Saharan Africa can fulfil their aspirations”

Maria van der Hoeven, IEA Executive Director .

**THANK YOU**

**Nomawethu Qase**

**Directorate: Renewable Energy Initiatives**



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