

# **FUTURE PROSPECTS OF BIO-ENERGY UTILISATION IN THE SOUTH AFRICAN SUGAR INDUSTRY**

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## GOVERNMENT WHITE PAPER ON RENEWABLES

- White paper on renewables approved November 2003
- Target set at achieving 10,000Gwh contribution to final energy by 2013
- Government's long term plan to establish a renewable energy industry providing modern energy carriers as a complement to fossil fuels
- Vision: An energy economy in which modern renewable energy increases its share of energy consumed and provides affordable access to energy throughout South Africa, thus contributing to sustainable development and environmental conservation.
- 3 Pillars . SOCIAL . ECONOMIC . ENVIRONMENTAL

# GOVERNMENT EMPHASIS AND TARGETS RENEWABLE ENERGY

## INITIAL PHASE 2004 – 2007

Least Cost Solution to 10,000Gwh

### ELECTRICITY

Sugar Bagasse	59%
Solar Water Heating	23%
Small Hydro	10%
Landfill Gas	6%
Bio-mass Paper / Pulp	1%
Wind	1%

### FUEL

Bio-diesel tax incentives in place.

Voluntary uptake (5%) of bio-ethanol in discussion.

Determination of financing arrangements for bio-ethanol.

## SECOND PHASE 2007 +

Implementation of blending targets.

## GOVERNMENT ACTION PLANS RENEWABLE ENERGY

- DME Survey of potential for co-generation in the sugar and pulp / paper industry. - Finalise November 2004
- Restructuring of Electricity Industry - Ongoing
- Implementation of Regional Electricity Distributors
  - - commence 2005
- Wind Farm –Darling pilot project - complete 2004
- Solar Power – 5 Rural concessions awarded - complete 2004
- Paraffin Substitution –review sustainable options commence 2004

# SOUTH AFRICA SUGAR INDUSTRY PLANS

- BUSINESS AS USUAL PLANS
  - Utilise excess bagasse at “ Raw Sugar Mills ” to generate electricity to the Grid ( Eskom or REDs )
  - Develop, and be part of, the voluntary trade in renewable energy certificates ( TRECs ) in Southern Africa

# SOUTH AFRICAN SUGAR INDUSTRY PLANS

- COMMERCIAL INVESTMENT OPPORTUNITIES

- Increased generating capacity options. Investment and returns to be determined. DME / SMRI review. Complete November 2004
- Investigate bio-ethanol opportunities for domestic cooking / heating market – Paraffin substitution.
- Dialogue with Government as to bio-ethanol requirements stemming from renewable commitment, including volumes and pricing. Ongoing
- Undertake Pelletisation trials with Bagasse for co-generation of electricity and chemical extraction properties subsequent to pelletisation complete 2004