## REPUBLIC OF SOUTH AFRICA
## STRATEGY
## THREE PRONGED MOVEMENT

**INDEPENDENT INDUSTRY ACTION**

Increased Generation for own account by extending utilisation of Bagasse/trash :- pelletisation to store or transport Bagasse

**CO-OPERATION WITH NER/ESKOM**

Improved Efficiencies with surplus to Grid at a commercially accepted rate:- Boiler/Power generation upgrades

Transmission arrangement"wheeling" between production sugar centres

**GREEN ENERGY INDEPENDENT POWER PRODUCER**

Maximise energy through "GOVT" support for renewables.

New technology

- Power Generation
- Ethanol
- Biogas
- Bio-diesel

## REPUBLIC OF SOUTH AFRICA

## GREEN ENERGY STATUS

- **World Summit for Sustainable Development - Johannesburg 2002**
  - Green Energy Supply through Citi Power from Independent and the National Power Producers
- **Government Commitment to Kyoto**
  - Increase % energy from renewables from 9% to 14% by 2012
- **Potential sources for future Green Energy objectives**
  - Bio Mass
  - Solar Power
  - Wind power
  - Small Hydro
  - Waste to Energy
- **White paper on the promotion of renewable energy and clean energy development - August 2002 - Part I**
  **? 2003 - Part II - Clean Energy Development**

## REPUBLIC OF SOUTH AFRICA
## SUGAR INDUSTRY REVIEW - RENEWABLE ENERGY

- **Total Installed Capacity RSA** **246,7 MW**
  - Illovo Sugar - RSA 98,8 MW
  - Rest of Africa 48,8 MW
- **Total Bagasse RSA** **3,0 MT**
  - "Excess" Potential 0,6
  - Additional Cane Tops 0,3
- **Energy Potential with Improved Technology**
  - **High Pressure Boilers** **x 4**
  - **Big - CC Technology** **x 1,6**
- **Ethanol Potential**
  - **Molasses Production** **800,000 Tons**
    Equivalent Ethanol 200,000 kilolitres
  - **Biogas - Methane**

## COMBINED HEAT & POWER AND DECENTRALISED ENERGY SYMPOSIUM

**New Delhi - India October 2002**

- **Target Needs:- Additional 100,000 MW by 2012**
- **Current Installed Capacity** **101,884 MW**
  - 70% thermal
  - 24% Hydro
  - 3,5% Renewables
  - 2,5% Nuclear
- **Potential Renewables**
  - Biomass 19,500 MW
  - Solar ?
  - Wind power 45,000 MW
  - Small hydro 15,000 MW
  - Waste to energy 1,700 MW

## COMBINED HEAT & POWER AND DECENTRALISED ENERGY SYMPOSIUM

- **Installed as at 31.3.2002**
  - BioMass 381 MW
  - Solar 1 2 MW
  - Wind Power 1,628 MW
  - Small Hydro 1,438 MW
  - Waste to Energy 22 MW
- **India Statistics**
  - 400 Sugar Mills
  - 200 M Tons Cane
  - 19 M Tons Sugar
  - 8 M Tons Molasses