Welcome to the Workshop on

Opportunities for Biomass in South Africa

Eskom Megawatt Park Conference Centre

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Powering your world

IEA Bioenergy Task 32

- Within the IEA Bioenergy agreement, Task 32: Biomass Combustion and Co-firing works on further expansion of the use of biomass combustion for heat and power generation, with special emphasis on small and medium scale CHP plants and co-firing biomass with coal in traditional coal-fired boilers. This is done by generating and disseminating information on technical and on non-technical barriers and anticipated solutions.
- The participation of industries is a key success factor in Task 32. Task 32 is closely related to other IEA Bioenergy activities, especially to activities in the field of Biomass Gasification and Techno-economic Analysis. There is also interaction with other IEA Implementing Agreements and industry organizations, such as the IEA CCC, VGB biomass power group, IEA Fluidised Bed Conversion.
- Enhancement of industrial participation is realized by formulating joint projects between participating members and industry. The emphasis of the activities in the Task is on:
  - market introduction for expanding the use of Biomass Combustion at a short term;
  - optimisation of biomass combustion technology to remain competitive at a longer term.
- The Operating Agent for the Task is NL Agency, represented by Kees Kwant.
- The Task Leader is Jaap Koppejan of Procede Biomass.
- The country participation: Austria, Canada, Denmark, Germany, Ireland, Japan, Netherlands, Norway, South Africa, Sweden, Switzerland, and United Kingdom

Context

- In the current carbon constrained environment, countries need to explore available means to reduce the carbon footprint. Several mitigation options are available, including the increased utilization of biomass combustion and co-firing technologies
- One of the unique features of biomass co-firing and combustion, compared to other conventional renewable power generation options, is its ability to provide dispatchable electricity supplies. These technologies allow for a renewable resource to be utilized to mitigate the effects of intermittent power supplies from other renewables
- The use of biomass for combustion and co-firing is considered carbon neutral if it is based on sustainable practices and if coupled with carbon capture and sequestration can result in carbon negative emissions
- The socio-economic potential is quite promising and supports national and international objectives of job creation, alleviation of poverty and access to electricity for all

- There are concerns relating to the availability and the sustainable use of biomass
- Access to and cost of biomass
- The technology options available consist of a combination of proven and developmental technologies
- The cost of electricity from biomass is currently more expensive than from fossil fuels
- The regulatory framework for biomass to electricity may require further definition

Workshop on Opportunities for Biomass in South Africa

- Session 1: South African Context for Biomass Utilization
- Session 2: Biomass Co-firing and Combustion Technologies
- Session 3: Discussion on Opportunities and Barriers for Utilization of Biomass for Electricity Production in South Africa

IEA Bioenergy

Task 32: Biomass Combustion and Co-firing

Thank you