

PAMSA

Presentation to NERSA – Public Hearing in Durban at the ICC

26 November 2010

PAMSA's Role



- To promote the interests of the pulp and paper industry in various forums.
- To provide a forum for the development and presentation of a common industry view on issues.
- To coordinate activities common to the industry.

Traditionally

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- PAMSA's activities are primarily in the following areas:
 - Government
 - Industry promotion
 - Education
 - Technical
 - Environment

Representation

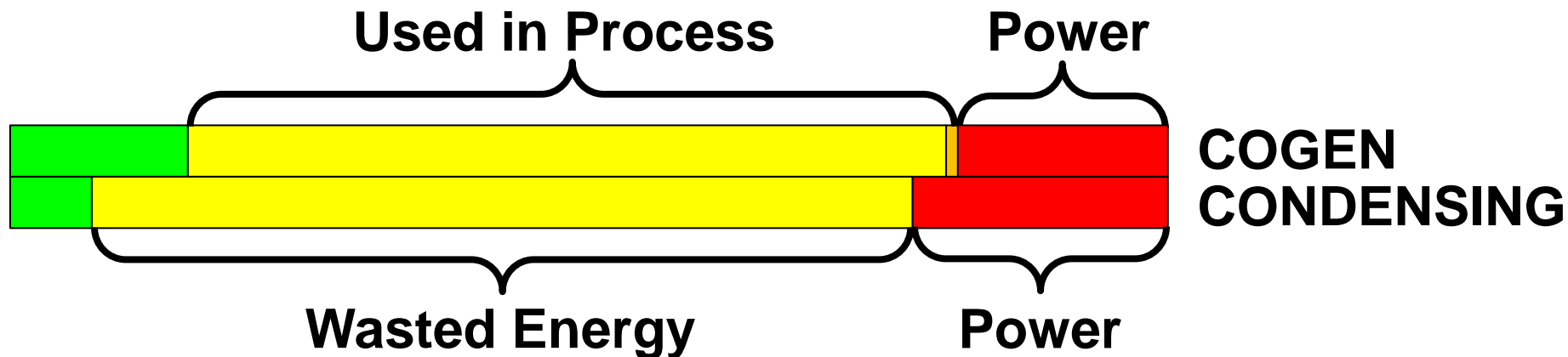
- Combined Turnover in 2009 – R 20,8 billion out of RSA Turnover of R 21,4 billion – 97%
- Combined Production in 2009 – 5,0 mtpa out of RSA Production 5,1 mtpa – 98%
- Combined Forex in 2009 – R 14,4 billion out of RSA R 14,8 billion – 99%
- Sector Contribution to GDP – 1%
- Sector Combined Employment – 170 025,
129 244 Direct

Electricity Use Profile

- Total Eskom Consumption (2009): 2,887 GWh
- ~42% of the power used in the paper industry is generated in-house:
 - ~40% of this power is from renewable fuels.
 - ~80% of the power is derived from cogeneration.

Carbon Impact - Cogen

- Eskom Power: 1.03 t CO₂-e/MWh
1.34 t water/MWh
- Cogen (from coal): 0.43 t CO₂-e/MWh
- Cogen (CCGT): 0.25 t CO₂-e/MWh
- Negligible water consumption in Cogen



REFIT II Impact - Biomass

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- Biomass (solid) definition for REFIT II exposes forest wood to being used as a fuel source.
 - Solid biomass tariff (REFIT II) – R1.18 per kWh – economic value of wood set at R400 per ton.
 - **Concern:** Increased competition for wood-based resources will increase the paper industry's raw material cost significantly in time.

IRP2010 – Biomass Target

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- If biomass target achieved by IRP2010, paper industry viability will be negatively impacted.
 - Present biomass target therefore considered ambitious – it is unlikely that there will be sufficient wood to meet the needs of both the pulp and paper industry as well as the energy target.

IRP2010 – Biomass Target

- *Using wood as a resource for paper products first and only using it as a source of energy at the end of the product life cycle adds four times more value to the economy and retains six times as many jobs than simply burning wood for energy.*

Source: Independent study published by CEPI

- Recommend definition change to:
 - **Forest wood for pulp and paper; wood by-products for energy**, with adjustments in the biomass target.

REFIT – Wood By-Products

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- Include: Black liquor, bark, recovered fibre sludge.
 - Black liquor is produced in the chemical pulping process of the pulp and paper industry. It is a mixture of dissolved wood solids (lignin) and spent cooking chemicals.
 - Wood by-products are renewable fuels and considered carbon neutral.
 - Black liquor and bark presently used to generate steam and produce renewable electricity.

REFIT – Wood By-Products

- There is potential for further beneficiation of wood by-products for electricity production, but equipment CAPEX is high.
- **View:** Definition of REFIT should be expanded to include all wood by-products.
- REFIT rates for wood by-products would need to be higher than solid biomass to make investment attractive.

Further IRP2010 Concerns

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- Demand projection does not adequately take into account:
 - Impact of higher energy costs
 - Impact of carbon taxation
 - Impact of illegal connections and how tariff increases would impact these
 - DSM targets appear optimistic.
 - Reliable capacity reserve margin considered overstated; actual figure expected to be insufficient.

Further IRP2010 Concerns

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- Costs of nuclear appear to be understated.
 - Timeline for all new infrastructure appears optimistic.

Given these uncertainties, there is concern that demand will continue to exceed capacity in the long term and that supply constraints will persist.

Electricity Generation Potential



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- There exists potential in the pulp and paper industry for:
 - Additional renewable electricity via the beneficiation of wood by-products (presently underutilised sources)
 - Electricity generation opportunities include high pressure boilers with steam turbines and CCGT
 - Present estimate is 110 MW additional electricity.
 - Appropriate regulatory clarity on how incentives will be accessed is needed to get these projects to the next stage.

- **Thank You**