Conclusions
EXCO 55 Workshop:
Cofiring Biomass

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Status, Task 32: Koppejan

- 2003: Worldwide: commercial 40 systems, replace 3.5 Mton of coal,
- Potential 30 times higher
- Pro's of cofiring compared to stand alone:
  - cheap, high efficiency, high volume possible
  - establish fuel supply chain
- Many different technologies:
  - Mostly direct cofiring (5 indirect)
- R&D issues
  - multifuel, striated flow, SCR, fouling, corrosion, ashes

Technical Review: Livingstone

- Step by Step approach
- Co-milling as start up to 5%.
- Then Decission:
- Specific milling, burners considered
  - major modifications required
- Feeding in coal pipework
  - easier, but process control required
- Logistics, fuel charasteristics limiting
- For difficult fuels gasification

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Gasification, Anntikoski

- **Multifuel: REF, RDF, Bark, Wood, etc.**
- **Lahti: 15% energy input, special burners**
- **Ruien: 11 % energy input, dry wood dust**
- **Experience:**
  - **Lahti: Multifuel, no increase emissions**
  - **Ruien: No milling problems (thermal mill)**
- **But for waste WID applies, stricter emission regulations**

Avedore 2, Ottossen

- 100% woodpellets is possible,
- also Electrabel: Awirs 80 MWe
- Use of existing modified mills
- do not mix coal and wood dust in mill, because of fire problems
- reactivate SCR 4 times/year by washing catalysts

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Discussion

- **Does Cofiring maintain the coal industry?**
  - **Given the existance of coal fired power plants an opportunity to reduce emissions**
- **Cofiring with natural gas?**
  - **Opportunity for biogas**
- **Trade off: small scale local biomass plants**

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Statements

- **Cofiring**
  - **Creates market**
    - **most cost efficient**
    - **builts on existing infrastructure**
    - **robust buyer of feedstock - develops supply infrastructure**
  - **BUT should be applied in efficient powerplants**
    - **future oriented**
    - **low emissions**
  - **because Coal remains for power**
    - **cheaper than bioenergy depending on policies**

EXCO statement

- **Cofiring in a modern plant is one of the most efficient and cost effective bioenergy technologies, capable of creating a supply side infrastructure in the short term - with potential benefits for development of other technolgies**
- **Important that policy instruments are not designed to support environmental harmful coal technologies**