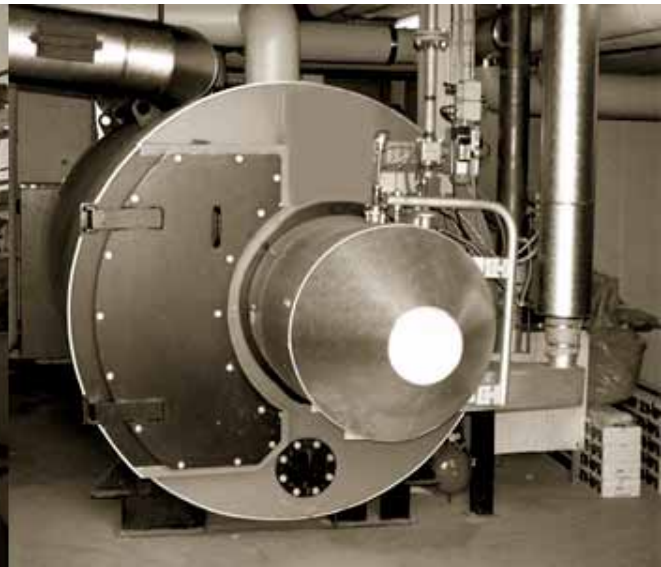


Bio-energy trade from a Company perspective, special focus on ethanol

Bengt Lindner
TallOil AB



Why Bioenergy

...towards a sustainable environment



We drive the global use of
renewable energy

How ?



TallOil's Business areas

- Bio-Oils (fuel oil replacement)
- Transportation fuels
- Solid fuels
- Combustion engineering
(gasification)

Bio-oils (fuel oil replacement)

Talloil products

Fossil power and domestic heating plants



Transport Fuels

Ethanol in - EU – large potential market now

Biodiesel in - EU – large market now

Second generation bio-propellants next



Solid Bio fuels

Commercialise practical experience

Secure access to large scale sustainable supply

Develop optimised logistic systems

Grow with the emerging markets



Combustion Engineering (gasification)

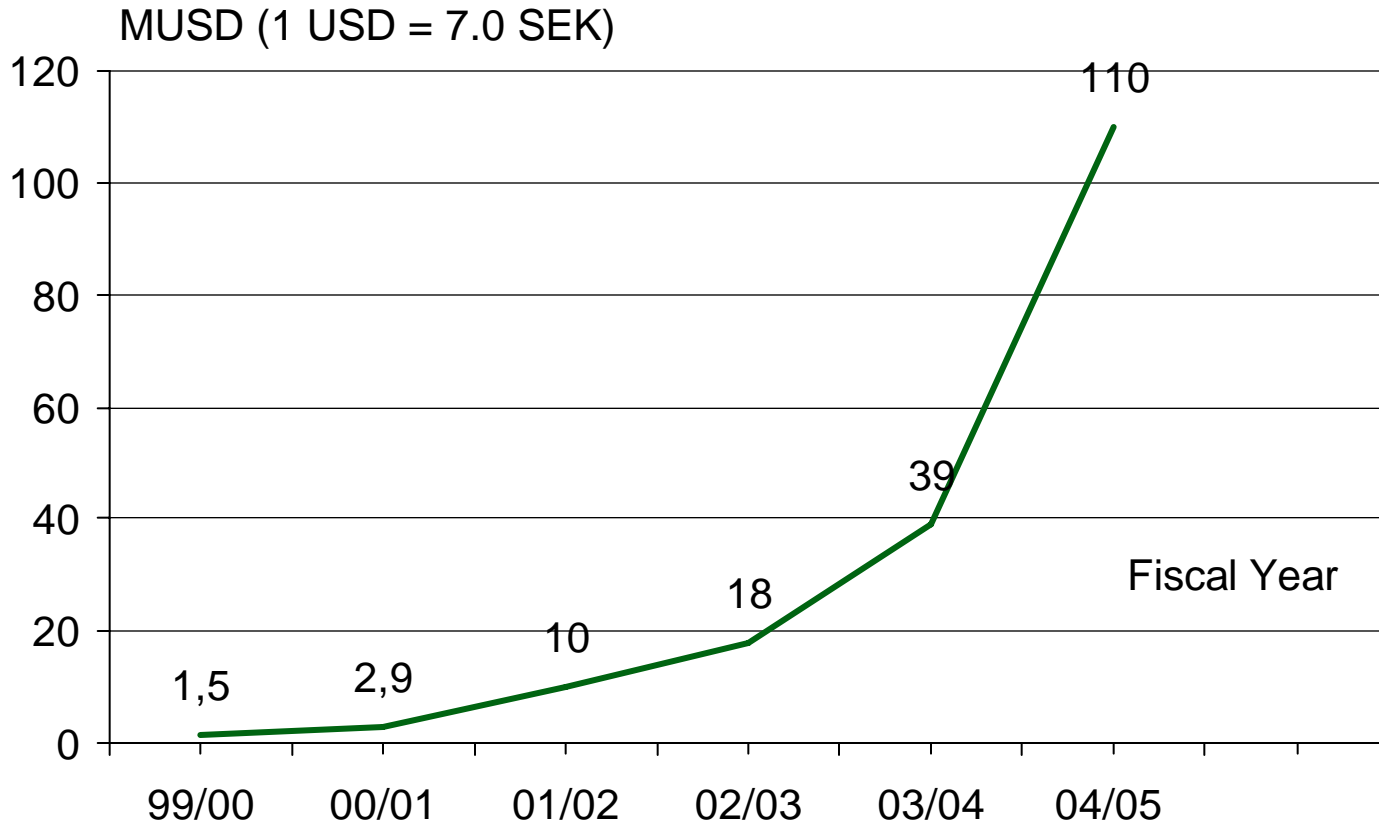
Prefabricated plants for heat and
cogeneration

Fluidized beds for wastes and bio-fuels

BioSwirl burners – stepfire grates – FB etc.
– customer adapted technology

Sales development

TallOil AB



TallOil's view on the possible solution to the energy problem

There are energy system which are more cost, energy- and CO2 effective than the current !

BTLs



Alternative products

- Fischer-Tropsch
- Metanol
- Ethanol
- DME

TallOil's view on the possible solution to the energy problem

The world has to leave the traditional agri concept, its cost structure and political influence before we can get competitive prices

TallOil's strategy

Corporate mission --- proactive

Don't let the best be the enemy of
the good



TallOil's strategy

We pick products and energy systems which are good enough for our standards

TallOil's strategy

For Transport fuels

We can and shall use agri-fuels while
developing the 2nd generation fuels
- will take > 10 years

Cane based ethanol, low cost and renewable
Selective biodiesels



TallOil's strategy

- Vertical integration
- Create value all through the supply chain
- Build strategic cooperation with customers and suppliers
- Invest in production
- Work with the best!



Ethanol trade

- Bio-fuels promoters/stakeholders have different agendas
- Oil dependence
- Job creation
- Compliance with the Kyoto protocol
- Technical know-how



Ethanol trade

- The EU Commission is “in between” as MS decide on tax incentives
- Although in good faith it looks like Brussels will have problems implementing the volume directive
- Europe will be behind the expectations

Ethanol trade

- Member states governments liaise with local producers to defend local production
- Trade barriers can include specifications, restrictions on giving the excise duty exemption, duty issues etc.
- The beverage alcohol laws are making life difficult due to latent alcohol tax and different means of denaturing

Ethanol trade

- Three major islands, Brazil-US-EU
- A few smaller islands, India-Australia-SE Asia-China
- One major net consumer, Japan
- "Opportunity" trade

Possible solution

- Remove barriers
- Cut tax breaks
- Spend all or parts of the saving on R&D on the 2nd generation fuels

Ethanol trade

- TallOil is developing business coming by the resistance
- We follow the outlined strategy

Changes on the market

- Will the "ETBE" policy in Germany, France and Spain be maintained ?
- Will MS governments continue to spend tax money ?
- Will WTO break down the trade barriers?

TallOil will continue to

Drive the global use of
renewable energy

Thank you for your
attention !

Bengt Lindner

Tall Oil

An Integrated Bioenergy Group

