



renewable IDEAS



PROLiGNIS ENERGIE CONSULTING GMBH & CO. KG

2009

17. November



Deutsch-Baltische Handelskammer in Estland, Lettland, Litauen
Saksa-Balti Kaubanduskoostöö Eestis, Lätis, Leedus
Vācijas-Baltijas Tirdzniecības kamera Igaunijā, Latvijā, Lietuvā
Vokietijos ir Baltijos šalių prekybos rūmai Estijoje, Latvijoje, Lietuvoje



renewable IDEAS

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02	TECHNOLOGY AND CONCEPT
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BESTENERGY 1	
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01

**PROLiGNIS – Consulting Company,
focused on**

Project planning and development
System design
Supply management
Operational- and Project management

**of wood-fired power plants based on
regrowing material**
Found 2006 by specialist in

Energy sector
Forestry
Finance services

01

Our Services:

- We plan and organize construction of wood-fired power plants with cogeneration technology
- We guarantee long-term security of raw material supplies
- We guarantee all-year-long supplies of heat and stable supplies of electricity
- Together with our investors, we take care of necessary funding (money)

Our Customers get:

- Process steam and thermal heat 24 hours a day all year long
- Stable electricity supplies

01



Figures, Data, Facts

Company found: 2006

Number of employees: 14

Project turnover: ca. 150 Million Euro

Turnover 2008: ca. 6,3 Million Euro p.a.

Domicile: Ingolstadt

Scientific cooperation

Universität Augsburg: Prof. Dr. Dr. Bernd Wagner

Fachhochschule Ingolstadt: Prof. Dr. Wilfried Zörner

01



Goals and objectives

Project development and long term management of climate and environmental friendly wood-fired power plants

Production of clean electricity and ecological heat from renewable energy sources

Efficiency increase through cogeneration of heat and power

Using of domestic regrowing raw material

Sustainable energy production by modern CO₂-neutral power plants

Support of long term scientific projects „Regenerative energy“



Technology and concept

Wood-fired power plants with heat and power cogeneration technology based on regrowing raw materials

Reference plants: 6 plants of type Biopower 5 produced by Wärtsilä Finland

Installed power
20,5 MW

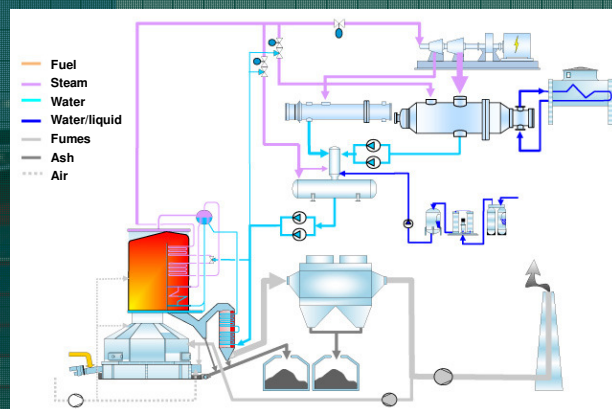
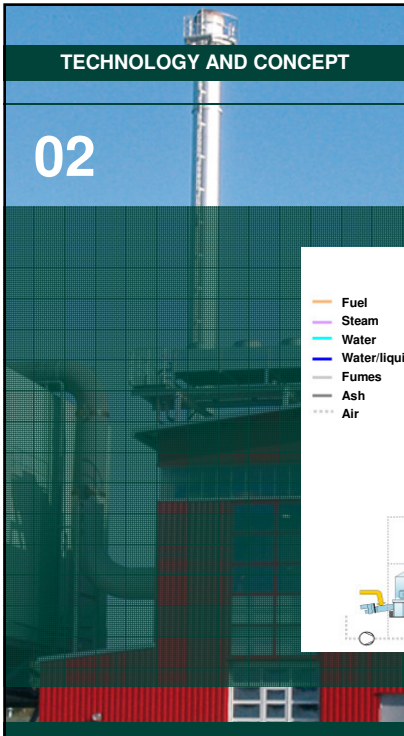
Fresh steam production
21,7 t/h

Fresh steam parameter
485°C, 63 bar

Electricity output
5,57 MW

Thermo output
10 MW

Raw material need
ca. 65.000 t/year



03

**Supply of biomass material
(regrowing raw materials)**



Tree-cut from maintenance measures (e.g. along roads, power lines, canals)



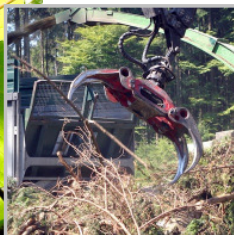
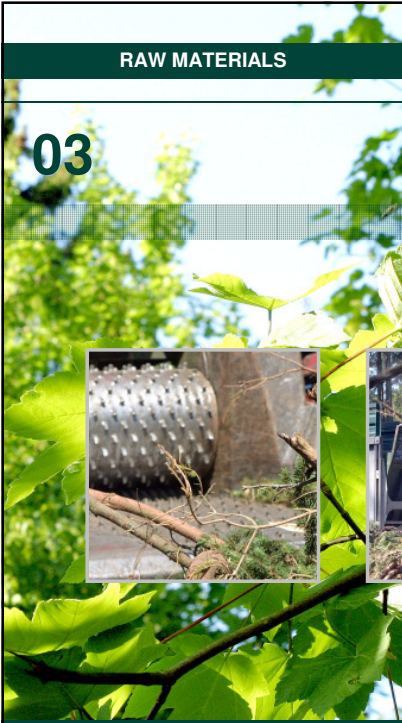
Woodchips from scrap wood in forests



Busch-cut and loppings from landscape maintenance

03

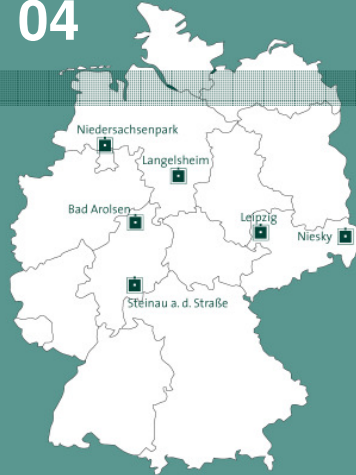
Wood processing in forest



REFERENCE



04



Reference – Projects
Bayernfonds BestEnergy 1 (BBE 1)

PORTFOLIO OF 6 WOOD-FIRED POWER
PLANTS IN GERMANY

Investment volume BBE 1
145 Mio. EUR

Max. electricity production p.a.
up to 270.000 MWh

Max. heat production p.a.
up to 480.000 MWh

Max. raw material need p.a.
ca. 380.000 t

REFERENCE



04



Bad Arolsen, Completion 9/2009



Picture from 11.09.2009

Niedersachsenpark, Completion 4/2010



Picture from 10.09.2009

Langelsheim, Completion 11/2009



Picture from 28.08.2009

Niesky, Completion 8/2010



Picture from 02.06.2009

Leipzig, Completion 10/2009

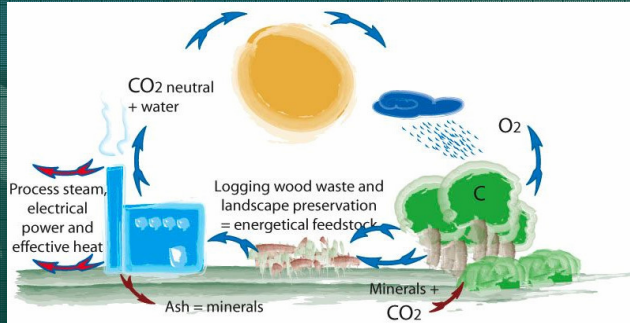


Picture from 30.07.2009

Steinau, Completion 6/2010



Picture from 09.09.2009



Climate and environmental friendly energy supply from heat and power cogeneration

CO₂ neutral energy production from regrowing materials

Essential contribution to environment and climate protection (energy production of one power plant correspondent to an equivalent of ca. 10 mil. Litre heating oil and saves ca. 25.000 t CO₂ p.a.)



Wood-fired power plants - Baltic states

Why Baltic states? - 3 main reasons:

Raw materials

On the average is 39% of all Baltic states covered by forest

EU membership

The membership of Baltic states in the EU guarantees stabile economic and legal environment for our investors

Human resources

The labour market in Baltic states provide an amount of high qualified employees that are necessary for building and operating projects in the energy sector

Wood-fired power plants - Baltic states

Advantages for Baltic states

Capital inflow in the times of global crisis

Transfer of technologies and unique know how

Both direct and indirect (local suppliers) creation of new jobs

Contribution to the EU-commitment, that promised to increase the share of renewable-energy sources in the energy mix

Independency on foreign energy supplies and fossil fuel prices

Wood-fired power plants - Baltic states

Next steps

Establishing cooperation with suitable partners

Defining concrete locations for project placing with connection to the grid and future heat customers

Taking advantage of EU-funds and subsidies

Starting up the first projects

CONTACT



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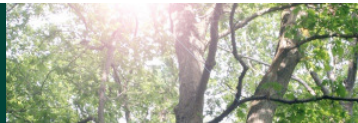
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Thank you for your attention!

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