

BIOENERGY 2010

warming to wood energy



JOINTLY PRESENTED BY:



Funded by the Forest Service of the Department of Agriculture, Fisheries and Food under the National Development Plan 2007 – 2013.



The Sustainable Energy Authority of Ireland is financed by Ireland's EU Structural Funds Programme co-funded by the Irish Government and the European Union.

BioEnergy 2010 Conference

Technical Energy Solutions
Jim Dudley

June 17th 2010

BioEnergy Conference 2010

- Biomass boilers
make economic
cents

BioEnergy Conference

- Commercial Applications
for Wood Energy

Introduction

- Technical Energy Solutions are specialists in the provision of wood heating projects in the commercial and industrial sectors.
- We have been directly involved in the installation of over 80 biomass boilers.
- We have over 8mw of installed capacity

Existing Clients

- Healthcare Industry
- Leisure Industry
- Educational Facilities
- Commercial Premises
- District Heating
- Industrial Premises

Facts

- Stone age didn't end because we ran out of stones. We found something better.
- We need to decouple from imported insecure fossil fuels and still have sustainable economic growth.
- Oil price has increased by 35% in last 12 months.
- You are Not a pioneer! Many successful projects in Ireland!

KWB TDS POWERFIRE

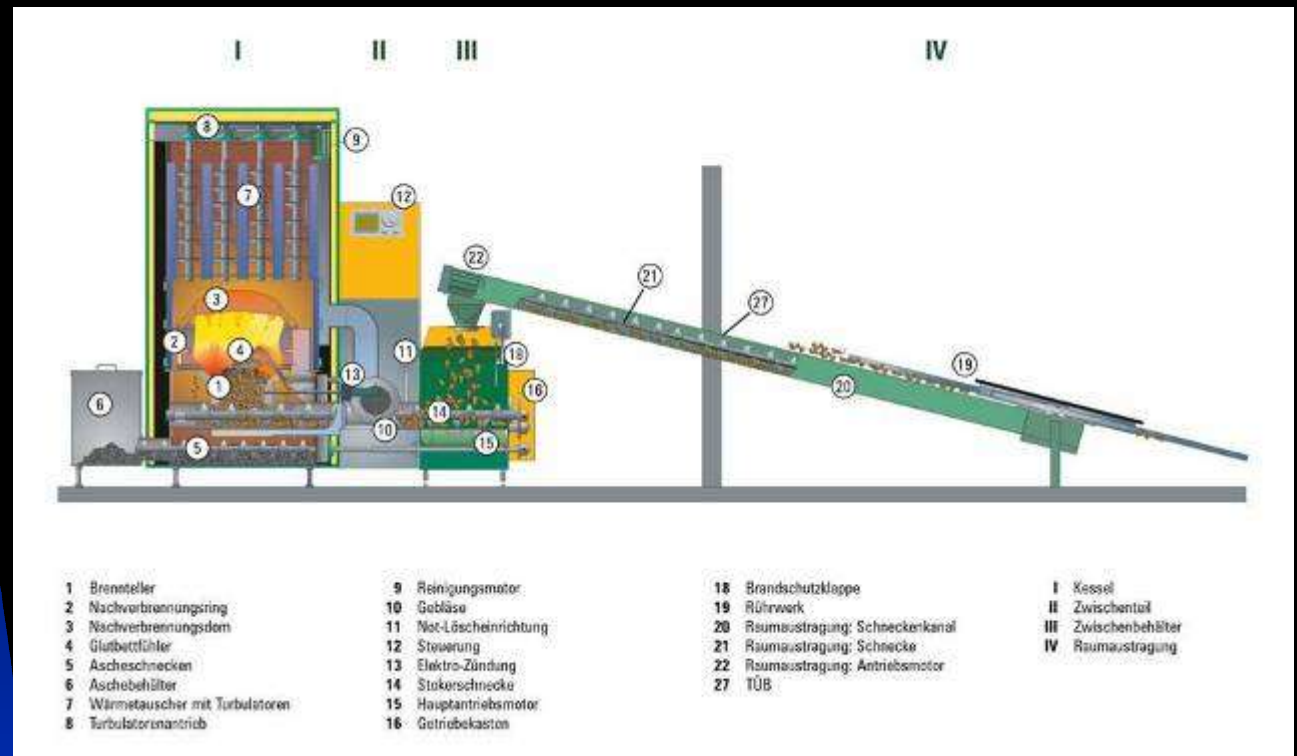
TDS 300KW





21/06/10

Biomass Feed System



Why Wood?

Non Financial Benefits

- Key Energy Goals security and diversity of supply, indigenous energy sources
- Key Environmental goals reducing greenhouse gas emissions
- Key Agricultural Goals opportunity for farmers in locality
- Key Social Goals employment regeneration in locality

Financial Benefits

- Grant available circa 30%
- No carbon tax
- Cost of Wood Chips 3.25 c/kwh
- Cost of Wood Pellets 3.84 c/kwh
- Cost of Oil is 6.22 c/kwh
- Payback period 2/5 years
- Operating cash flow enhanced

Typical Example

- Client Oil Spend €70,000
- Equivalent Biomass cost €40,000
- Savings €30,000
- Payback Period 4 years
- Available Capital €120,000
- SEAI Reheat grant available
- Can a proper project be provided?

Technical Issues

- More Space required
- Quality Boiler Specifications
- Avoid the race to the bottom
- Fuel Store and Delivery.
- Remote Monitoring Controls
- Trained Maintenance Personnel
- Sizing the boiler correctly
- Moisture content wood chip

Want to Proceed but do not want to invest?

- We will provide ESCO
 - Design
 - Equipment
 - Installation
 - Fuel
 - Maintenance
 - Finance on a Contract basis

Metered Energy

- Client purchases equipment
- TES supply energy per a heat meter
- Heat meter means no checking of fuel deliveries for weight or moisture content
- Full service and maintenance can be included
- Client is dealing with one company
- Cost can be linked to base timber Price / CPI over a 3/5/7 year period.

Viabile Project

- High Hot Water end user
- Available space on site
- Secure client
- Security of fuel supply
- Professional approach
- Client Goodwill
- Forward thinking Consultant

Fuel Supply

- You will need to arrange and guarantee supply and delivery of local Wood Chip
- Local Wood Chip supplier at the moment is North Kerry Wood Chip and Future Fuels
- Many national wood pellet suppliers
- Biomass Resource eg Miscanthus

What's the Future

- Energy Crops
- Short Rotation Coppice e.g. Willow production on poor quality land
- Tough times never last...tough people do!

Conclusion

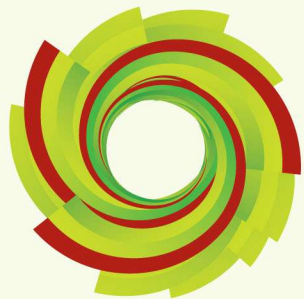
- Specialise in your core business
- Let Energy Companies supply energy!
- Client Has space - wood chip.

Thank You



TES

TECHNICAL ENERGY SOLUTIONS



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