



Providing Affordable Renewable Heat & Power

3000KW (HEAT) 340KW (ELECTRIC)

cogetherm[®]

CHP PROPOSAL

For Your Business

Dear Sir/Madam,

Thank you for considering a WES CHP solution.

Your in good hands, WES have manufactured and installed over 100MW worldwide. Whilst considering if the WES CHP system is right for your business it's important to understand that our system works on an **Organic Rankin Cycle** and is available in models that deliver 1.5KWe to 1MWe and require you to only empty the ash trays from the boiler at regular intervals.

Following is our proposed FREE to Fit solution, should you have any questions please don't hesitate to contact me.

Regards

Dominic Simonnet

A handwritten signature in black ink, appearing to read 'Dominic Simonnet', is placed over a light blue rectangular background.

Commercial Operations Manager - **Wood Energy Solutions**

Tel. 07411 437 706 Email. dominic@woodenergysolutions.com

'I am happy to report that after 12 months of operation my 125kW EcoCabin has realised savings of over 60%. I spent €56,000 on oil in 2012 and in 2013 I spent only €18,500 on wood pellets. This has made an enormous difference to my business. Many thanks for your support and your excellent technical support team.' **David & Eileen Fryday Clunedarby Mushroom Farm**

About WES

Wood Energy Solutions (WES) are passionate about renewable heating. As the **most experienced and largest** dedicated biomass boiler manufacturer in Britain & Ireland we take great pride in the craftsmanship of our boilers. WES manufacture an outstanding range of biomass boilers under the E-COMPACT brand in USA, Canada, UK, Ireland and under the **WOODCO** brand in Europe. WES manufacture the WES CHP Cogetherm range (**Organic Rankin Cycle type**).

Manufacture Sales Support

WES offers a complete, managed sale service. This includes providing fixed cost quotations, technical servicing and the option to choose an installer from our preferred installer network.

Technical Support

We pride ourselves on instant technical support, UK nationwide service and highly trained biomass boiler/CHP engineers.

Facts

- **Over 100MW of biomass boiler power manufactured and supplied from WES**
- **Over 3,000 boilers worldwide**
- **Over 70 Combined Heat and Power (CHP) units in Europe**
- **CO2 savings equivalent to taking 6,400 cars off the road**



WES Manufacturing Plant



Going Green Made Easy!

Your company are to receive: -

A **WES 3000MW** high pressure pellet steam boiler @16bar (204 Degrees) which will power 1 x **340 kWe CHP Cogetherm** whilst delivering min **7/8 bar** to your existing plant room for your normal operations.

A new plant room located in the car park

A 76-ton wood pellet silo (3 x 26 Ton)

All connected into the existing system

This has a cash installed value of £2,188,194.00

The funding partner will purchase this equipment and place it on your site for FREE!

The funding partner will earn money from the income from what the plant generates in renewable incentives whilst you receive a Free system for 20 years, fully installed, operational with zero maintenance costs and just a 1 pence per kw/h for the heat charged.

Our engineers have found from your existing billing and boiler information that the new system could be running up to 7800hrs per year.

If Your company can guarantee a minimum running time of the boiler of 5,100 hours per year, then not only will the system be free but there will only be a £0.01p (1 pence) charge per KW hour of fuel input. 5100 hours equals your current running times matching your gas usage to kW/hours.

Running at 5100 hours the savings are **£246,763.77** per year on heating fuel costs based on your current rate of 2.47pence per kWh of heat.

In addition, you will receive **FREE electricity** whilst the boiler is operational, thus saving approximately 1,728,900 kWh per annum which equals **£112,378.50** at your current rate of 6.5 pence per kWh

A Total combined annual saving of **£359,142.27** and over 20 years @2.5%RPI = **£7,182,845.40**

Obviously if the boiler runs for more than 5100 hours then your savings will be greater

A Fully Managed Service for just a penny per kWh!

subject to a capped pellet price

WES Peace of Mind Policy...

We understand your mission critical requirements for your steam boiler operation so to provide peace of mind we offer/suggest the following: -

1. One of your existing boilers can be de-commissioned whilst keeping one operational as back up.
2. The installer we have selected to work on your site **XXXXXXX** a premium WES installation partner, they have an excellent track record
3. The installer will provide a service level agreement to be onsite within 4 hours, in addition your onsite engineers will be trained in the boilers operation.
4. A parts care package containing parts that require replacing on regular basis will also be provided on site to minimise any down time.
5. Bespoke Insurance policy, we have arranged for an insurance policy that will cover the equipment owner for the equipment running risks, whilst covering Your company for any loss of production due to boiler failure, fire, delayed repairs. Full details to be discussed with our insurance agent and a dedicated policy to be issued.
6. WES oversees all Steam Boiler clients insuring you receive the very best in customer satisfaction from our installation partners.

Principle Terms of Contract with our Funding Partner

Heat supply agreement for a 20 year term.

Your company have option to buy the CHP plant for £1 at the end of the 20 year term or at a discounted cashflow value during the term of the contract.

Your company to guarantee a minimum usage of 5,100 hours per year.

Plant to be connected to the grid with the ability to export electrical power.

All excess power to be exported to the grid.

A minimum export to be allowed at fixed intervals to the grid to coincide with low power loads of Your company (to provide a 'second customer' to the CHP).

Daily non-technical maintenance and cleaning to be provided by Your company (full training provided).

Funder to provide all technical maintenance throughout the term of the agreement.

Cost of heat to be fixed at 1p increasing with CPI unless the market rate (determination to be agreed) of biomass wood pellets increases beyond £185 per tonne then the cost of heat will rise pro rata with the cost of the pellets.

Note: "Our Current Rate for Pellets for a project this size is £152.50 and with increased import pellet countries pellets have been steadily coming down in price."

Our funding partner to provide pellet supply and all administrative support for revenues generated by the RHI and ROCS and any other income for and on behalf of the Funding Partner.

Final agreement to proceed with this offer will be issued from the Funding Partner in the form of a heads of terms document and on agreement, a final heat supply agreement.



WES Proposed Equipment

340 kWe CHP Cogethorm Electrical Generation Unit

WES Cogethorm CHP Systems deliver

- Low Operational Temperature allowing the use of “weak” thermal sources.
- High Condensing Temperature
- No Turbine Blade Erosion which gives higher reliability and lower maintenance costs.
- Low Operational Pressure (max 20 bar) meaning higher safety levels, less legal implications, and lower plant costs;
- No Atmospheric Exhaust as the Rankine cycle is a closed cycle.
- No Water or Steam Consumption leading to lower management costs, less bureaucracy, lower plant complexity.
- Low Noise Levels allowing operators to work without hearing protection and leading to less controversies in residential installations.

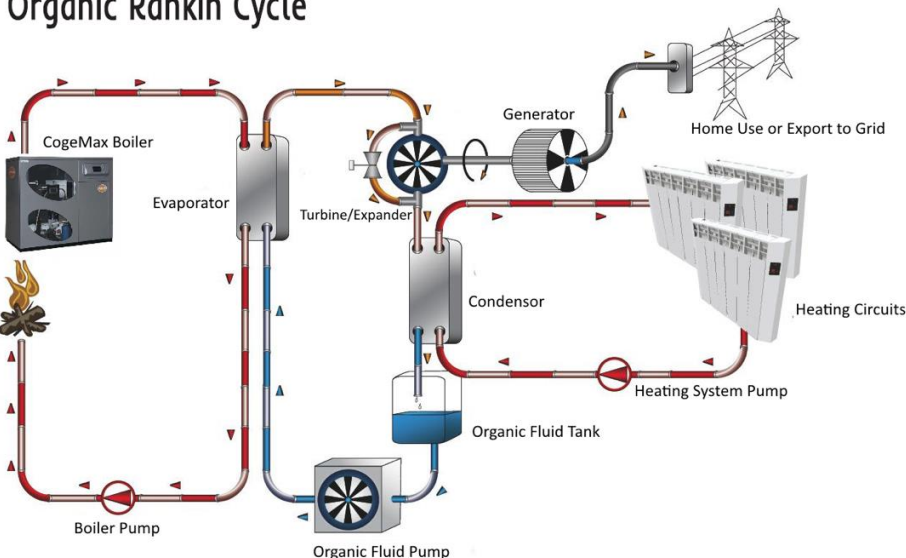
Several performance- boosting engineering solutions such as:

- Low Operational Temperature allowing the use of “weak” thermal sources.
- High Condensing Temperature
- No Turbine Blade Erosion which gives
- Direct Turbine-to-Generator Coupling which eliminates the performance losses inherent in gearboxes.
- Custom-Designed Inverters for each model of module, to obtain optimal output performance.

Available sizes from 20 KWe to 1MW



Organic Rankin Cycle



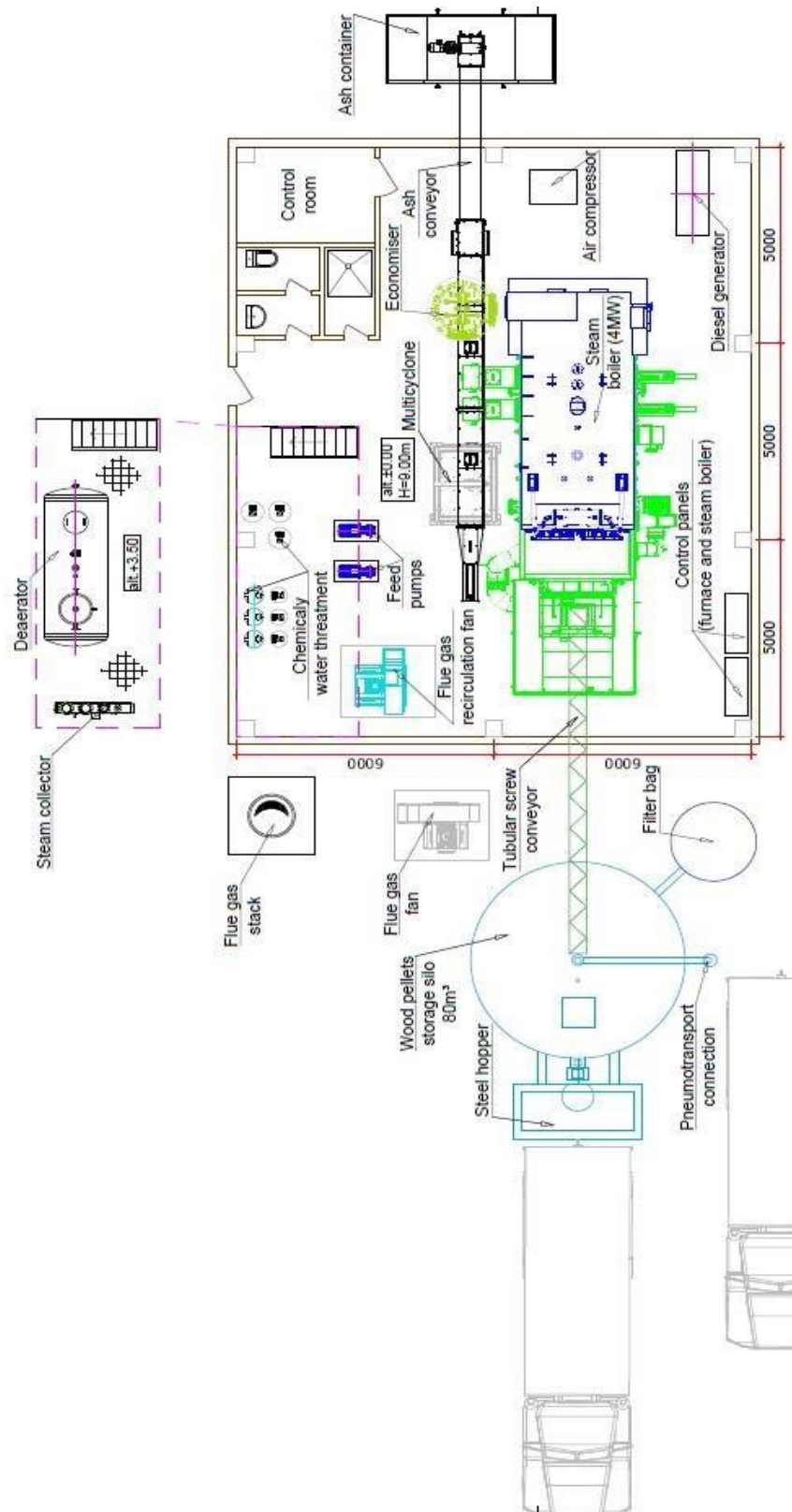
**FREE
ELECTRICITY
whilst your
boiler is
running!
NOW THAT'S
VALUE FOR
MONEY!**

1 x 3000MW WES High Pressure Steam Boiler + All components for a fully operational system.

GENERAL BOILER SPECIFICATION	
Standard No.	EN 12953
Type of boiler	Steam boiler
The maximum capacity of the boiler	3.000 kW
Operational steam pressure	16 bar
Operational steam temperature	204 °C
Efficiency	at least 90 %
Fuel	Wood pellets W8-W12
Manufacturer	WOODCO/WES Switzerland/Ireland
Water quality for boiler	EN 12953-6:2011 (Shell Boilers - Part 6 :) Feed water temperature (inlet in boiler) min 104 °C
	 <p>3 MW Economiser</p> <p>Note a full view of plant can be seen in the Plant Room Layout (next page)</p>

PRELIMINARY PLANT ROOM LAY-OUT

Note the below is a 4MW plant, a detailed drawing will be supplied once we have commitment to proceed



3 x WES 26 Ton - 78 Ton Pellet Store

Our square silos provide a robust, reliable and cost effective means of storing wood pellet fuel while still maintaining a visually pleasing aesthetic look when sited on a commercial premises, farm building or other property. We provide a customisation service allowing us to modify dimension and features of the silo to customer requirements and all of our silos are designed to prevent condensation and moisture ingress whilst maintaining pellet quality over the life of its use

Standard Features

- Galvanized Steel Finish
- 60 Degree Sloping Hopper Base (NO Pellet Bridging)
- Fuel Level Viewing Windows
- Feed Outlet with Auger or Vacuum Extraction
- 2 x Storz Couplings with Delivery Pipework To Ground Level
- Silo Sheeted to The Ground with Lockable Access Door
- Access Panels for Cleaning And Maintenance



WES 26 Ton Pellet Store

Useful Contacts

CHPQA Helpline

♣ Tel: 0123 575 3004 ♣ E-mail: chpqainfo@chpqa.com ♣ Website: <https://www.gov.uk/combined-heat-power-quality-assuranceprogramme>

DECC (for Secretary of State Certificates)

♣ Contact: Chris Parkin ♣ Tel: 0300 068 5180 ♣ E-mail: chris.parkin@decc.gsi.gov.uk ♣ Website: <https://www.gov.uk/government/organisations/department-ofenergy-climate-change>

HMRC National Advice Service

♣ Tel: 0845 010 9000 ♣ Website: <http://www.hmrc.gov.uk/>

Ofgem - Renewable Generation (ROCs)

♣ Contact: Fueling and Sustainability Team, Renewable Electricity ♣ E-mail: fuellingandsustainability@ofgem.gov.uk ♣ Website: <http://www.ofgem.gov.uk>

Thank you for considering a WES solution



Information furnished by WES is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions.
This information supersedes all previously supplied information.

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