



# Working Up a Live Project

**BRE - Belfast**

**8<sup>th</sup> December 2009**



Heating, hot water & power generated locally...

...from an innovative combination of low carbon technologies, inc. CHP and Biomass

# How Much of the Ideal do I have?



Community Heating Illustration

Heating, hot water & power generated locally...

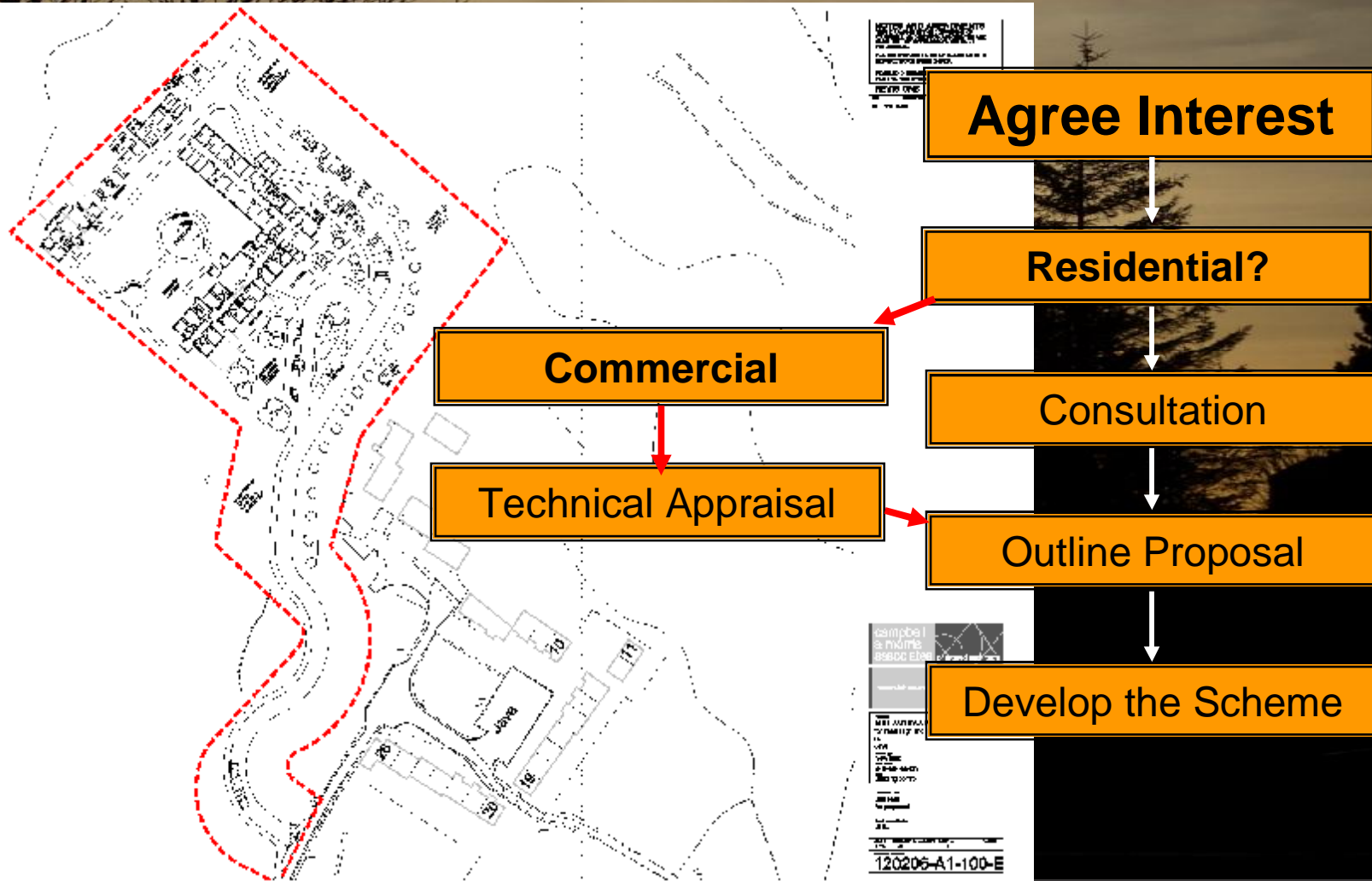
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- Virgin Woodchip.
- Conventional Fuel Back up



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Design Sizing Issues

Designed to fit M&E and planning specification

Construction Phasing Issues

Has to fit with oil plant room build

Operation and Maintenance

Fuel supplier to do day to day



## Viability?

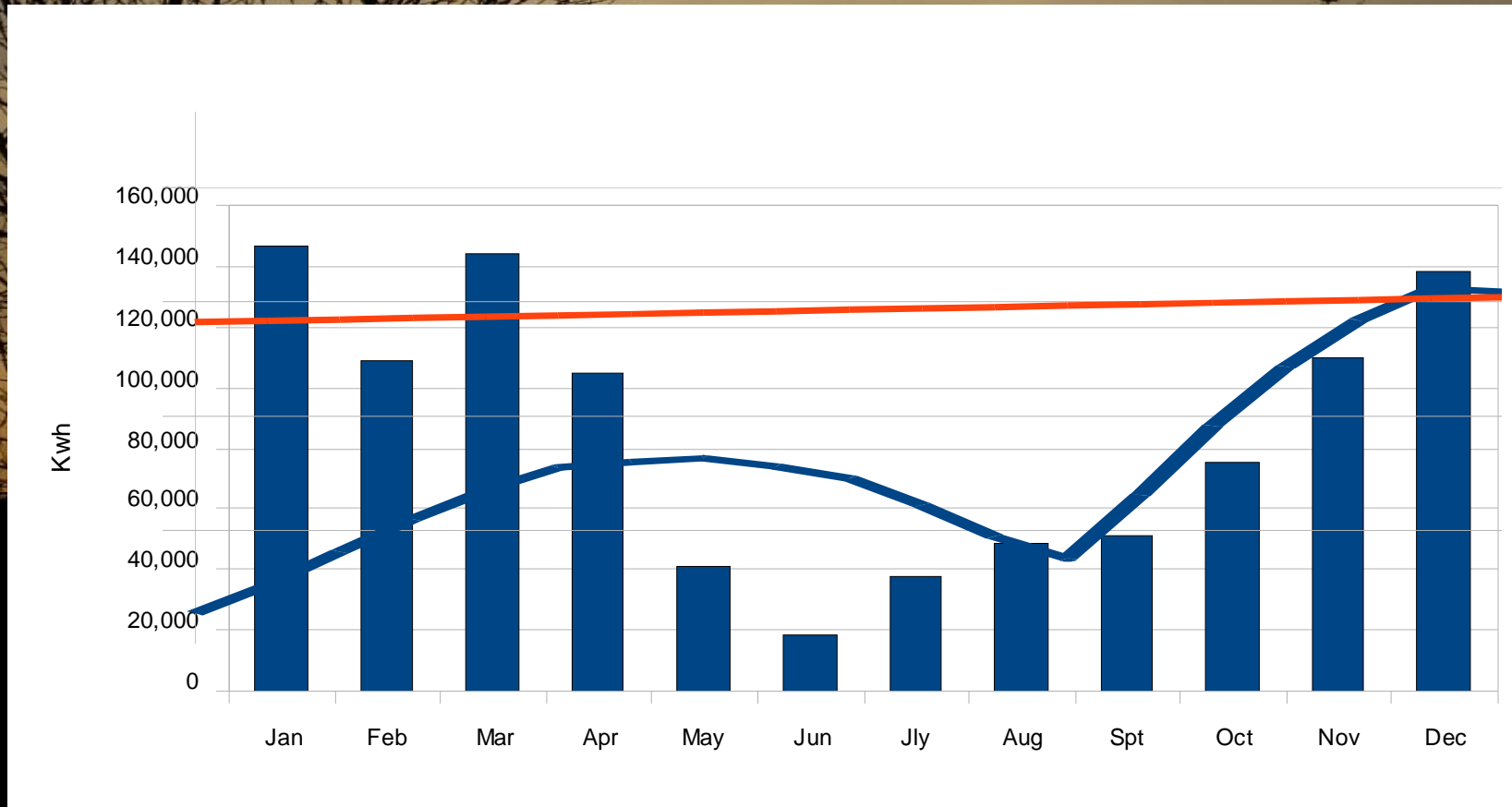
Heating and hot water for the hospital and accommodation is provided by dedicated biomass boiler set.

315kW wood fuelled boiler fed with part dried wood chips, from which the hot water is distributed around the site through elevated pre-insulated heating pipe work to each dwelling. Double oil back up

Estimated Cost per unit installed £16,000

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Open to public sector and not-for-profit organisations only.

Grants are available for installations of up to a maximum of 50kW electricity and 300kW heat.

Qualifying organisations can apply for 50% of the project cost of installing microgeneration technologies.

- Cost of relevant heater/stove/boiler equipment, plus direct costs of connecting the unit to an automated fuel delivery mechanism and connecting to the property's heat distribution system, but excluding (a) all VAT on those items;
- (b) the cost of any extended warranty;
- (c) the cost of any other materials, works or other items whatsoever (such as, but not limited to, upgrading of radiators or other elements of central heating system at the property).

Organisations can apply for a maximum of up to £200,000 in grant funds per site.

**A site may include more than one building and multiple applications from one organisation for different sites will be considered.**

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## Energy Centre Option 2



**Design in “Extendability”  
To Pool and Hotel.  
But to include now  
would break the LCB2E limit.**

**Factory prepared and delivered ready to  
'plug and play'. Woodchip is  
automatically fed into the built in fuel  
store. A large water store is installed  
..... Not Pretty But it works**

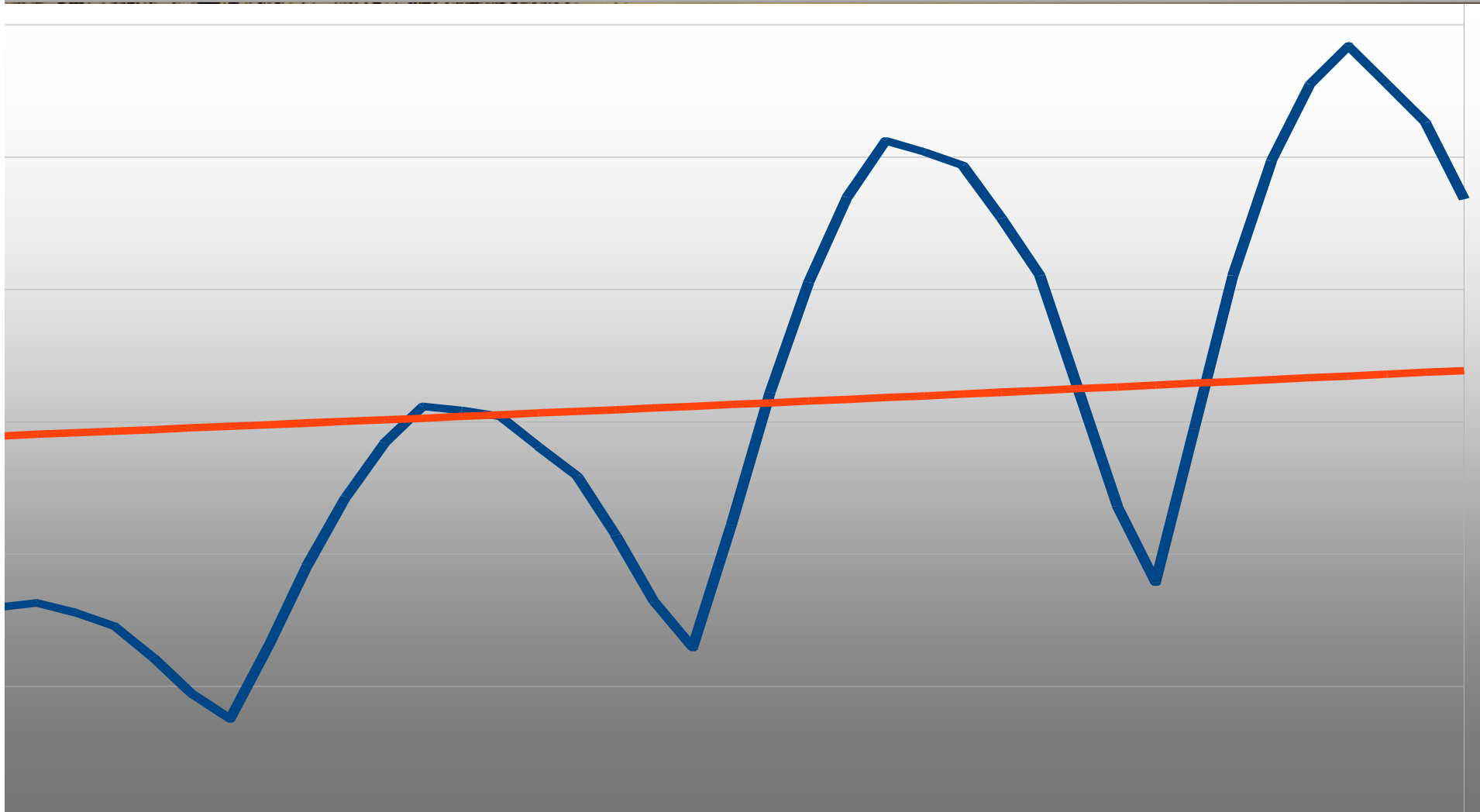
Heating and hot water for the hospital and accommodation is provided by dedicated biomass boiler set.

300kW wood fuelled boiler fed with part dried wood chips, with 3,000 litre thermal store, from which the hot water is distributed around the site through elevated pre-insulated heating pipe work to each dwelling. Double oil back up

Estimated Cost per unit installed £8,500


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Heat meter installed in each property  
Heat bills sent out monthly to PCC  
Pre-payment metering system in residential units.

**Option to move to Renewable Heat Incentive?**

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- Out source to Commerce
- Joint Venture
- Esco with shares
- **By NHS and Housing Association direct.**

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# Any Questions?



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