

Mr Wayne Cullen
 BS Holdings Ltd
 175 Ravenhill Avenue,
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10th January 2013

Desertcreat Training College, Cookstown – Biomass Strategy

Dear Mr Cullen

We refer to Mr B Hood's letter dated 27 November 2012, to Mr D Ford of the Department of Justice, (and your email of 21 December 2012) regarding the Biomass Heating Strategy for the above project.

We note the contents and herewith provide you with a response to the issues raised.

It appears to us that the questions in your letter have been raised with reference only to the Invitation to Tender (ITT) specifications and drawings and as such you have not had the benefit of the wider project context, or an understanding of the project brief as developed to balance cost, resilience, security, access and maintenance issues.

The responses below are made against questions/statements raised within the correspondence.

1. Quality Assurance (QA) of Fuel

You state in your letter that wood chips are not **Quality Assured**, when in fact, to the best of our knowledge, neither are pellets.

There are a number of standards from Austria, Sweden and Germany that pellets **can** be manufactured to, but the existence of a standard does not in itself guarantee their quality.

Supply contracts for Wood Chip, or Wood Pellet, will need to specify the physical properties of the fuel required and all deliveries will still need to be inspected to ensure that the quality confirms to the specification.

A quality standard helps to make it easier to specify fuel only, as it allows the standard to be quoted rather than a (boiler manufacturers recommended) full specification of wood chips / wood pellets. The fuel deliveries will still need to be inspected or otherwise checked for quality on, or before, delivery.

2. Renewable Heat Incentive (RHI) Support

It is correct that the Renewable Heat Incentive (RHI) does not provide support to installations above 1,000 kW in capacity.

The Renewable Heat Incentive Scheme Regulations (Northern Ireland) 2012 came into effect on the 1st November 2012, and this was post issue of the ITT documentation to the main Contractors bidding for the project.

Previously RHI's were recoverable on installations of 1 mW and above, as documented by the Department of Energy and Climate Change, which was followed prior to the above document being released.

Our design consultants have advised us that the critical issue here is 'installation'; as it is unclear from their reading of the RHI Scheme Regulations (Northern Ireland) 2012 as to whether multiple boilers on one site would actually still be classed as a 'single installation' for the purposes of claiming the RHI, and hence the project would still not be entitled to financial recovery.

It is certainly more likely that multiple boilers feeding into a single heat distribution network (as with the current design) would be classed as a single installation and so (theoretically) a multiple plantroom option (with no heat distribution network) may be more likely, but by no means certain, to qualify for RHIs. It would however require us to make multiple applications for the same address.

It may be possible to split the circulation to meet the maximum size permitted within the current design but the boilers would need to be re-sized to a maximum capacity of 999kW.

However, whether it is appropriate for a Government funded facility to attempt to exploit possible loopholes in the RHI and recover the benefit is an interesting question.

The principle of deliberately splitting the load over a number of small boilers not linked together, albeit on one site, could be interpreted as a deliberate attempt to circumvent the intent of the RHI, which is to give priority to smaller installations.

We are not certain that this something the NI Government would wish to pursue.

3. Resilience, Access, Security, Maintenance & Design Issues

Before looking at the Running Cost issues that are at the core of your letter, it is important to cover the design issues (and operational implications) that the provision of 12 Biomass and Oil Fired boiler rooms around the site would give rise to.

3.1 Resilience

We believe that the solution you are proposing is less resilient than the current design. The current design is for two biomass boilers with an oil fired boiler backup. This means that if one biomass boiler fails, or is taken out for unplanned maintenance, then the system will still be in operation and it would require both boilers to fail for system capacity to be reduced, but it would still remain operational at partial load.

To provide the same level of resilience from the proposed installation it would require a second oil fired boiler (at 100% of duty) with associated oil tanks and ancillary filling system to be installed alongside each biomass boiler. Assuming a cost of **£10,000** for each

oil boiler and **£5,000** for the bulk fuel tanks, including the 'bundling' required by regulations, this equates to an additional **£180,000** for the number of installations you propose.

We cannot see where this figure is located within your proposal and therefore this would need to be removed from the proposed savings being offered.

3.2 Access

Apart from the additional space for the boilers themselves and the associated biomass and oil storage, there is the space needed for the delivery vehicles to turn and park up without blocking estate roads.

3.3 Security

The structures enclosing the biomass boilers have been priced using standard construction material which is lightweight and not resistant to mortar or ballistic attack, which is part of the design brief.

To construct the plant rooms to be resistant to mortar or ballistic attack (as would be required) would significantly increase the cost of housing biomass & associated oil boiler back-up units. This additional cost would also need to be offset against any savings offered.

Also, the logistics of servicing and maintaining multiple boilers within the confines of the site, with the need for multiple deliveries to an increased number of locations, could give rise to increased security issues currently avoided.

3.4 Maintenance

The current design requires only two Biomass Boilers and one Oil Boiler to be maintained in one location.

In the dispersed solution as you propose, there will be 12 Biomass Boilers and 12 Oil Boilers to be maintained in 12 separate locations.

3.5 Design Issues

Every boiler combination would need separate flue stacks for the biomass and oil boilers and there would also be significant duplication in capital costs for pumps, pressurization equipment and controls in your dispersed proposal.

On these issues alone we would suggest that the practicality of the proposal is questionable. We must also factor in the security issues related to the delivery and storage of highly flammable materials at several locations across the site, and in close proximity to occupied buildings.

It is also unclear from the letter if your proposals have been developed, and costed, to fully meet the duty of the individual buildings.

4. Running Costs (Operation & Maintenance)

There appears to be inconsistency within your calculations. It is noted in the third paragraph of your letter that *“The running costs in respect of wood chip used for approximately 3000 hrs per annum would be around £ 199,337.00 +VAT”*.

However in paragraph six (first paragraph on the second page) you state *“...based again on 3000 running hours we see a fuel cost increase over wood chip of £14,409 bringing our total fuel bill to £130,494.00 for the year”*.

These calculations must be in error, when later in paragraph six, it notes that the *“present system ... will cost £116,085.00”* per year to run. This raises our concerns over the validity of your calculation methodology.

The costs you have quoted above ignore maintenance. If we currently have two Biomass Boilers at **£5,000** / year maintenance and one Oil Boiler at **£2,000** / year maintenance this results in a total maintenance bill of **£12,000** per year.

A dispersed heating solution (as you propose) would result in 12 Biomass Boilers at **£3,000** / year to maintain plus 12 Oil Boilers at **£1,000** / year to maintain resulting in an annual maintenance charge of **£48,000** per year, (a four-fold increase in maintenance cost) and this still ignores the significant long-term capital replacement costs.

5. Conclusion

In conclusion, a dispersed heating arrangement may still be regarded as a ‘single installation’ under the RHI regulations, thus negating the benefits noted within your letter.

We believe that the issues of resilience, access, security, maintenance & operation costs that arise as a direct consequence of your proposal make it inappropriate and unsuitable for this site.

However we (and our design consultants) would still be happy to meet with you, and Mr B Hood) to discuss details of the scheme.

Finally, it is worth remembering that the current scheme of heat provision to the site is one which, through the due process of consultation and discussion, has been evaluated and approved by the client bodies as being both appropriate and meeting the brief for the installation.

Yours sincerely

Personal information redacted by the RHI Inquiry

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