

From: Baird, Jonathan
Sent: 27 August 2014 10:12
To: Ellis, Cathal; Simpson, Peter (DARD Loughry Campus)
Cc: McCarney, Teresa
Subject: FW: BR1209 Concerns regarding FIC Biomass boiler tender.
Attachments: Example C3.pdf

Hi Peter & Cathal,

Please see below comments from Mascott / Bennett Robinson in response to your concerns over the specification

We are meeting Gary Bennett at 2pm this afternoon to discuss this matter further

Any comments or queries please give me a ring

Thanks

Jonny

From: Gary Bennett [<mailto:gary.bennett@brdesign.co.uk>]
Sent: 26 August 2014 19:18
To: Stephen Weatherup; Mark Hanna
Cc: eddie; Elizabeth Bennett; Baird, Jonathan
Subject: RE: BR1209 Concerns regarding FIC Biomass boiler tender.

Stephen / Mark

In an attempt to bring some clarity to this I would advise as follows:

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Peter Simpson	CAFRE
Cathal Ellis	CAFRE
Jonny Baird	CPD
Paul Briggs	CPD
Gary Bennett	BRD

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be done using basic control settings and time delays using conventional controls the presence of a BEMS will help with this. The alternative fossil fuel does not 'take over' as some have stated. Again, this was discussed during the Biomass meetings and is included in the Report.

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The FIC proposal IS compliant – the Example C3 from the RHI Metering Guide (attached) refers.

I have also commented (in red text) on some comments raised in Cathal's email below.

Best Regards

Gary Bennett

From: Stephen Weatherup [mailto:Personal information redacted by the RHI Inquiry]
Sent: 26 August 2014 15:25
To: Gary Bennett
Cc: Stewart Robertson; Mark Hanna; eddie
Subject: FW: Concerns regarding FIC Biomass boiler tender.
Importance: High

Gary,

Please find correspondence below from Jonny and more importantly the E-Mail he has received from Cathal Ellis of which we need to answer as a matter of urgency.

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Stephen

From: Baird, Jonathan [mailto:Jonathan.Baird@dfpni.gov.uk]
Sent: 26 August 2014 15:18
To: Stephen Weatherup
Cc: Mark Hanna; Chisholm, David; Briggs, Paul
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Importance: High

Stephen & Mark,

As discussed in our conversation earlier this afternoon can you please provide us with answers to the following concerns raised by the client with regards to the biomass specification recently issued as Compensation Event CE017

Could you also provide an explanation as to why the lowest tender withdrew from the tender process, as well as the implications of this tender process on the overall project programme of the Food Innovation Centre, highlighting any critical dates for decisions.

With our project board meeting later this week a prompt response to these queries is critical.

If you have any queries do not hesitate in contacting me directly

Thanks

Jonny

From: Ellis, Cathal
Sent: 26 August 2014 12:08
To: Alexander, Joy
Cc: Moore, Nigel; Simpson, Peter (DARD Loughry Campus)
Subject: Concerns regarding FIC Biomass boiler tender.
Importance: High

Joy,

Following the release of the Loughry Campus FIC 1042 Quotation, a number of Biomass companies contacted me with some concerns relating to the install.

1. From a basic perspective:

Four boiler makes/models were specified, Froling, KWB, Hertz and Heizomet. This immediately suggests quote/tender has been sent to four known local companies. The industry is aware of which companies supply which boilers and of likely costs involved. Quotations can be based on likelihood of competitors known costs. Agreed, this is an issue in the packaged biomass boiler plant sector. It restricts offers from other companies supplying other boiler makes. No it doesn't, anyone can submit their equipment for consideration/approval. Of more concern is the potential for non specialist oil/gas installers to tender, without detailed knowledge of the requirements for a biomass system (the importance of this is related to the following technical concerns regarding the specifications). It is a requirement of the specification that the supplier must be MCS approved for biomass systems.

2. Technical concerns:

i The gas boiler exceeds the total requirement of the building – Why? Heat load calculations suggests a requirement of 1291m² @ 100W/m² = 129kW - so why is 240 kW specified. Please refer to the Biomass Strategy Report and as explained above.

ii Connection of the gas boiler directly to the buffer tank. Experience with biomass linked with oil boilers suggests that once the oil or gas takes the lead it is difficult to switch back to biomass as the oil/gas will always provide heat quicker than biomass. This would be especially so if the gas is connected to the buffer tank. Not if the correct control strategy is adopted – see above. Control strategy was also discussed at the biomass review meeting(s).

iii The metering arrangement outlined will not comply with OFGEM rules in regard to receiving RHI payments. Even at the lower 1.5 pence rate this would be a significant reduction in income. This is incorrect – see above and as attached.

iv The gas boiler installation is included as part of the quote/tender. It is essential that the back-up boiler plant is in the packaged biomass boilerhouse as the boiler room within the FIC has been omitted. The

majority of biomass installers do not have experience of installing gas boilers. They would most likely sub contract this component. Agreed, they would have to sub-contract the gas installation to a Gas Safe registered fitter as it would be illegal to do otherwise. Again this raises the concern that those oil/gas installers now entering the biomass arena will be at an advantage - it is common knowledge that some of these installs have been a problem (ref: Balcas brites). I have found that these firms tend to use cheaper, inferior quality boilers to enter the market on a lowest price basis. Hence the focus on the manufacturer of the plant. Balcas were consulted in the selection of the manufacturers – again, all biomass suppliers must be MCS registered.

The bottom line is that whilst we within CAFRE are not technical experts in this area we have a lot of experience with the operation and management of biomass boilers across CAFRE and the associated issues. Furthermore we have developed extensive relationships with the majority of dedicated biomass boiler installers across Northern Ireland resulting in them voicing their concerns through ourselves.

To date three companies have not tendered or withdrawn from the tender, a forth has said they will only accept the tender if they can change the design. Can these companies be named?

Joy have tried to keep away from technical language as much as possible. If you need any clarification please let me know.

Kind regards

Cathal

Cathal Ellis
Renewable Energy Technologist
CAFRE
Greenmount Campus
Antrim
BT41 4PU
028 94426793
63793 (network)
Personal information
redacted by the RHI Inquiry (mobile)

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This message has been scanned for viruses and dangerous content by **MailScanner**, and is believed to be clean.

From: Baird, Jonathan
Sent: 27 August 2014 16:35
To: Ellis, Cathal
Cc: Simpson, Peter (DARD Loughry Campus); McCarney, Teresa; Alexander, Joy; Briggs, Paul; Chisholm, David
Subject: 440989DC Food Innovation Centre - Concerns regarding FIC Biomass boiler tender.
Attachments: BR1209 FIC Biomass Spec.pdf; M101 Biomass Heating Schematic FIC.PDF; M102 Biomass Heating Layout.pdf

Hi Cathal,

We have now had a meeting with Mascott and Gary Bennett this afternoon to try and resolve this issue,

We raised your concerns and believe we have reached a way forward without having to re-tender, as the specification seems to need minor amendments rather than fully re-written.

1. Tendering – the current 3 lowest Tenderers are the specialist biomass installers which were provided by CAFRE. Therefore provided this tender list stands, the problems you have highlighted should not occur.
2. Control of the Gas Boilers – The system that has been specified is currently installed and in-use at Mount Stewart, (this system is explained on page 22 of the attached specification) which has been operational for a year. You are welcome to visit this site to see it in operation and discuss this with the National Trust operators for re-assurance. Alternatively, if there is another control method which you know of / or want incorporated we can do this also.
3. Metering – We reviewed the RHI guidelines together, available at www.ofgem.gov.uk, and it seems that not all boilers need to be metered to achieve the RHI, provided the meter is connected to the biomass side of the system. However after discussing the issue further we now feel an additional gas meter should be added to the proposed gas boilers to ensure no more gas is being used if at any point, for example, the biomass boilers were off line for servicing. The tenderers can be asked to provide a cost for this separately.
4. MCS registration – Gary agreed that this was only in related to boilers up to 45kW and therefore only a domestic rating. However there are no commercial equivalents and this was more to ensure the installers had the correct training. Considering the current 3 lowest Tenderers are the specialist biomass installers and provided this tender list stands, this registration should be provided anyway to guarantee the quality of the system.
5. Hopper Size – Gary has stated that the 8cubic metre hopper included within the specification is sized to hold 5tons of pellets, which would equate to a 3week capacity (12hr working day at - 5degrees). If a 3month capacity is required and/or 50cubic metre hopper is desired, then this can be included within the amended specification.
6. Flow Rate – This seems to have caused some confusion. The specification states a “fixed speed pump” however what was meant was that this would be a pump, the speed of which can be fixed, at a certain point along a range of speeds, which would depend on the boiler set-up. This can be clarified in the specification.

An additional item suggested to include in the specification was a weigh bridge, to allow CAFRE to know accurately the amount of pellets in the hopper.

If you can review the specification (attached) in light of the above comment and provide any further comments/suggestions/amendments as soon as possible. Mascott can re-issue this specification to the existing list of tenderers asking them if they are willing to stand-over their original submission, or giving them a chance to re-submit if they had previously withdrawn. Mascott will also ask them to price the gas meter, larger hopper and weight bridge separately.

Mascott have assured us this will not affect the overall project programme therefore we hope that the process outlined above will satisfy your concerns and resolve any issues surrounding the specification and tender of the FIC Biomass Boiler

We trust this is satisfactory and if you have any further queries/concerns do not hesitate in contacting this office

Many thanks

Jonny

From: Ellis, Cathal
Sent: 27 August 2014 11:24
To: Baird, Jonathan
Cc: Simpson, Peter (DARD Loughry Campus); McCarney, Teresa; Alexander, Joy
Subject: RE: BR1209 Concerns regarding FIC Biomass boiler tender.
Importance: High

Jonny, In response:

Tendering – The issue here is that a number of companies ruled themselves out because of the way the tender was worded. I agreed that we would be happy with any of the 4 boiler makes listed not that it should be exclusively those makes. A major concern is that whilst boilers can be obtained by companies not in partnership with the manufacturer, this can lead to problems, (there are known examples of some companies installing biomass badly simply because they do not fully understand the technologies). Also some manufacturers e.g. KWB do not allow access to the boiler engineering controls other than by a KWB trained operative. (We currently have a boiler shut down because of this issue).

CAFRE management expressed concerns over the sizing of biomass boilers – the same applies to oil or gas. If a company suggests that a boiler is oversized we are duty bound to check.

We have had issues at 2 CAFRE sites with the oil boilers taking a lead under certain circumstances, having to be manually switched off before control could be regained by the biomass. I am not fully convinced that with the proposed set up this can be achieved.

Metering – I believe the issue regarding metering is to do with the metering of the gas boiler(s). I am awaiting confirmation from OFGEM (this can take several weeks)

MCS registration is only required for boilers up to 45kW. Boilers above 45kW are not generally MCS registered.

As CAFRE have had issues with all biomass boilers installed since 2007 we are endeavouring to ensure that the boilers installed in the FIC/FTC buildings no not leave us in a similar situation. As mentioned previously when companies raise concerns over a project we are duty bound to follow up.

Regards

Cathal

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