

From: John Batch
Sent: 30 March 2015 13:48
To: Sustainable Development Tenders
Subject: FW: [REDACTED] INC26
Attachments: [REDACTED] INC26 final corrected.pdf

This is the final report Paul

John

From: Bastian Abicht [mailto:Bastian.Abicht@actionrenewables.co.uk]
Sent: 30 March 2015 13:30
To: John Batch
Cc: Jonathan Buick
Subject: RE: [REDACTED] INC26

Hi John,

Please disregard the version sent in the previous email. The file attached is the amended version of the feasibility study.

Bastian

From: John Batch [mailto:john.batch@investni.com]
Sent: 30 March 2015 10:50
To: Bastian Abicht; Jonathan Buick
Cc: Sustainable Development Tenders; George Healy
Subject: RE: [REDACTED] INC26

Dear Bastian

I cannot let this report go for payment as there are still errors in the report – will you please address these ASAP and return to enable immediate payment.

The report was first submitted on the 2nd March – that's 28 days ago. As you are aware such a delay this is not good at all and was totally avoidable if sufficient proof reading and checking was being performed. Who authorises these reports?

Will you please consider my comments and highlighted reverence below.

See the following and please amend the figure so they agree. I understood that the proposed system was 139kW – are the figures you are quoting correct?

8.1.1 Capital cost

139kW (99kW + 40kW) total installed capacity (Pellet fired biomass boilers using existing gas boiler used as backup)

The following tables illustrates the estimated installation costs for a biomass heating system. The below table includes the total cost for a fully installed & commissioned biomass heating system. The suggested system will have a total installed capacity of 139 kW but will consist of two hydraulically separate boilers, one 99kW and one 40kW.

This system design was developed with an installer based on a standard approach. The below table includes the total cost for a fully installed & commissioned biomass heating system.

180 kW Biomass system supporting existing oil fired boiler

- 1x 60kW biomass boiler
- 1x 99kW biomass boiler
- 2x thermal storage (Buffer tank)

Installation cost of biomass system design	Cost 180kW Biomass system (self-financed)
Biomass heating system	£65,000
Contingencies	£5000
Financing cost	-
Total	£70,000

Can you please confirm that these calculation are correct – are they based on a 180kW system of a £139kw system

	Details
8.2.1 Simple Payback analysis	
180kW pellet heating	
Installed cost [£]	£65,000
Contingencies [£]	£ 5000
Annual heat demand [kWh]	504,000 kWh
Annual fuel required (Backup heating) [kWh]	0 kWh (to produce 0% of total heat demand @80% seasonal efficiency)
Annual fuel required (Biomass heating) [kWh]	592941 kWh(100% produced by a biomass heating system @85% seasonal efficiency)
Annual fuel cost [£]	£27,275
Annual fuel cost savings [£]	£10,525
Annual RHI income [£]	£31,752
Additional maintenance cost	£200
Total annual value [£]	£42,077
Simple payback	1.7 years
Annual ROI	60%
20 year return	£771,540

Please check the calculation – Annual Value should £14,802 – (RHI + Savings – Fuel Costs – Maintenance)
The Payback is incorrect it should be 4.7 years not 1.7 years. Please correct the calculation and the associated text affected throughout the report. This also applies to Section 16.3 table.

	Details
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Please remove reference to Heat Pumps

Section 12.1 PV/Biomass finance option

1. Independently obtaining a loan to proceed with the project for all or part of the required capital. There are a number of options for this:

- Carbon Trust provide an interest free loan, based on potential carbon savings for PV/heat pumps up to £400,000; (Section 8.2 for details)

12.2 Carbon Trust Loan – correct below and confirm Carbon Calculation

Table – Carbon trust loan available – Please find the details for the loans calculated in the Appendix.	12 kW solar PV System	Biomass system 180kW
Project		
Annual Site Energy Savings (kWh)	7119.9	37,499
Annual Savings (£)	£1,266	9,951
Annual Carbon Savings (tonnes)	3.4	150
Maximum Carbon Trust Loan Available	£2,532	£100,000

16.3 Biomass System – page 48 – will you please confirm what Biomass system you are recommending 139kw see section or 179kW – compare with Section 8.2.1

Action Renewables carried out a site visit and desk based technical and economic feasibility of INC26. A biomass heating system in an energy cabin and two biomass boilers (1x99kW/1x80kW) are feasible options. The system is designed to maximise the financial return from RHI.

Regards

John

From: Bastian Abicht [<mailto:Bastian.Abicht@actionrenewables.co.uk>]
 Sent: 26 March 2015 14:30
 To: Sustainable Development Tenders
 Subject: FW: INC26

From: Bastian Abicht
Sent: 26 March 2015 14:27
To: 'John Batch'
Cc: 'susdevetenders@investni.com'
Subject: RE: [REDACTED] INC26

Dear John,

Please find my comments below. The report is attached.

Kind Regards,

Bastian

From: John Batch [mailto:john.batch@investni.com]
Sent: 03 March 2015 13:32
To: Bastian Abicht; Sustainable Development Tenders
Cc: Jonathan Buick
Subject: RE: [REDACTED] INC26

Dear Bastian

I have reviewed IMP 724 and would ask that you consider the below and resubmit for consideration.

1. Page 5 - Correction - Action Renewables carried out a site visit and desk based analysis of the potential for a solar PV and Biomass Heating system installation at [REDACTED] INC27 .

Amended

2. Page 6 - Incorrect statement minimum loan is £3,000 - If it is decided to invest in a 12kW solar PV system, the Carbon Trust may provide an interest free loan of £2,532 based on carbon savings of 4.2 tonnes per year. – You are correct that a loan may be available if the PV forms part of a larger application.

Amended

3. Page 7 - Correction required value of CT loan = £100k also correction need in other parts of text for same. If it is decided to invest in biomass the Carbon Trust may provide an interest free loan of £49,752 based on carbon savings of 150 tonnes CO₂/ annum.

Amended in all parts. I deleted the carbon trust calculator. We will not use the Carbon Trust Calculator anymore in the future as RHI incentives must be included as annual savings in addition to fuel cost savings.

If RHI incentives are included as savings, the Carbon Trust loan is not limited to a rule which applies if the “annual loan payback period for the maximum Carbon Trust Loan based on annual savings” > 4. In this case the Carbon Trust loan is reduced to 5*annual savings. However as annual savings are very low, the Maximum Carbon Trust Loan cannot be reached.

4. Page 21 - table figures need totally amended – don't make any sense.

I added a section on cost for biomass heating systems using pellets based on a study that we did. Apologies for these errors in the calculations.

5. Page 36 - Carbon Loans need to be corrected.

Amended

6. Page 47 – CT Loan value needs changed

Amended

7. Page 52 - CT Loan Calculator – needs amended

Amended(deleted)

Regards

John

From : Bastian Abicht [<mailto:Bastian.Abicht@actionrenewables.co.uk>]

Sent: 02 March 2015 13:34

To: Sustainable Development Tenders

Cc: Jonathan Buick

Subject: [REDACTED] INC26 [REDACTED] 4

Dear InvestNI team,

Please find attached the feasibility study for [REDACTED] INC26 .

Apologies for the delay,

Kind Regards,

Bastian

Bastian Abicht
Assistant Project Manager

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Belfast
BT12 6QH

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