



SUSTAINABLE DEVELOPMENT ADVISORY PANEL – 26TH SEPTEMBER 2012

SUBJECT: BIOMASS

REPORT BY: DEPUTY CHIEF EXECUTIVE

1. PURPOSE OF REPORT

- 1.1 At the last meeting of the Sustainable Development Advisory Panel (SDAP) a Member asked for information on the performance of wood chips as an alternative source of fuel. Particular reference was made to Pontllanfraith Comprehensive School, which uses this fuel source for heating.

2. LINKS TO STRATEGY

- 2.1 This report links directly to the council's Sustainable Development Strategy 2008 "Living Better, Using Less".

3. THE REPORT

- 3.1 At its meeting on the 25th July 2012 a presentation was made to SDAP titled "Sustainable Development and the Forestry Commission" by Mr Mike Pitcher. The presentation included a discussion on the use of bio mass and wood chips as a source of fuel.
- 3.2 Cllr Adams informed panel members that Pontllanfraith Comprehensive School was using this fuel source for heating and called for information on the success of its use to be considered at a future SDAP meeting.
- 3.3 The use of biomass boilers across the council's property portfolio is extremely limited and there is no doubt that should it be extended then it would have a very positive impact on the council's carbon reduction strategy. However there are draw backs:
- On a like for like scheme wood fuel costs are significantly higher than gas, particularly when you factor in haulage costs and the increased carbon use of delivery lorries.
 - Application is best suited to new builds where access and increased fuel storage needs can be designed in, although this inevitably adds to increased (one off) construction costs.
 - Biomass boilers are more expensive than traditional gas boilers.
 - Maintenance is higher on biomass because of the additional mechanical parts. This was an initial problem at Pontllanfraith Comprehensive school.
 - Biomass material quality needs to be consistent to prevent fouling of boiler components.
 - Security of fuel supply can be an issue.

- 3.4 Pontllanfraith comprehensive has both gas and wood pellets. A calculation has been carried out to assess what the school's annual gas bill would have been had there not been biomass and this has shown that the school would have saved £3,421 in 2011/12, demonstrating that biomass, in this example, created a financial uplift on fuel costs as well as an increase in maintenance costs.
- 3.5 On new installations the RHI (Renewable Heat Incentive) would provide a significant annual contribution (currently over a fixed period of 20 years), which could be in the region of £40k/yr plus, based on the data tabulated below:

School	Area m2	Gas kWh	Biomass kWh	Total kWh	£/pa	CO ₂ tons	DEC	RHI
St Martins	8,682	1,369,675		1,369,675	43,058	251	F, F	
Pontllanfraith	8,295	751,286	606,720	1,358,006	48,045	154	D	£40k + est
St Cenydd	8,258	1,042,033		1,042,033	33,466	194	D, D	

Three comprehensive schools of similar size have been used for comparison purposes.

Note: Experience of Feed in Tariffs (FITS) on photovoltaic (pv) schemes has shown that tariffs can be reviewed and reduced by Government, and this did occur on FITS due to a significant take up of PV installations as a result of private investors seeking to make profit from the scheme.

Reduced tariffs would apply to new projects. On existing projects the tariff level would be locked in for the 20-year period. The authority needs to consider prompt take up where practical, before Government reviews the RHI tariff rates.

4. EQUALITIES IMPLICATIONS

- 4.1 There are equality implications associated with this report.

5. FINANCIAL IMPLICATIONS

- 5.1 Paragraph 3.5 demonstrates the impact the RHI has on the financial viability of biomass. Such financial benefits should not be seen alone and equally important (and perhaps more so for SDAP) is the significant reduction in CO₂ being produced at Pontllanfraith and the environmental and reputational benefits that are aligned to these reductions.

6. PERSONNEL IMPLICATIONS

- 6.1 There are no personnel implications associated with this report

7. CONSULTATIONS

- 7.1 The results of consultation have been incorporated into this report

8. RECOMMENDATIONS

- 8.1 This is a report for information and to engender further discussion and debate. On the face of the limited data above the case for expanding the use of biomass as an alternative fuel, particularly in new build, is a convincing one. The RHI "tips the balance" financially but even without this contribution it is suggested that the additional cost of biomass is minimal compared to the reduction in CO₂ emissions.

No recommendations are made at this time.

9. REASONS FOR THE RECOMMENDATIONS

9.1 For information and further discussion.

10. STATUTORY POWER

10.1 Local Government Act 1972.

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