

Overview and Scrutiny Committee

Notice of a Meeting, to be held in the Council Chamber, Civic Centre, Tannery Lane, Ashford, Kent TN23 1PL on Tuesday 26th February 2013 at 7.00pm*.

The Members of this Committee are:-

Cllr. Chilton (Vice-Chairman) Cllrs Apps, Bartlett, Mrs Bell, Bennett, Davison, Feacey, Galpin, Mrs Heyes, Hodgkinson, Mrs Hutchinson, Link, Mrs Martin, Mortimer, Robey, Shorter, Smith, Yeo.

Agenda

Cllr. Adby (Chairman)

Page Nos.

1. **Apologies/Substitutes** – To receive Notification of Substitutes in accordance with Procedure Rule 1.2(iii)

2. Declarations of Interest (see "Advice to Members" overleaf)

(a) <u>Disclosable Pecuniary Interests (DPI)</u> under the Localism Act 2011 relating to items on this agenda. The <u>nature</u> as well as the existence of any such interest must be declared, and the agenda item(s) to which it relates must be stated.

A Member who declares a DPI in relation to any item will need to leave the Council Chamber for the whole of that item, and will <u>not</u> be able to speak or take part (unless a relevant Dispensation has been granted).

(b) <u>Other Significant Interests (OSI)</u> under the Kent Code of Conduct as adopted by the Council on 19 July 2012, relating to items on this agenda. The <u>nature</u> as well as the existence of any such interest must be declared, and the agenda item(s) to which it relates must be stated.

A Member who declares an OSI in relation to any item will need to leave the Council Chamber before the debate and vote on that item (unless a relevant Dispensation has been granted). However, prior to leaving, the Member may address the Committee in the same way that a member of the public may do so.

OSC

- (c) <u>Voluntary Announcements of Other Interests</u> not required to be declared under (a) or (b), i.e. announcements made for transparency reasons alone, such as:
 - membership of outside bodies that have made representations on agenda items, or
 - where a Member knows a person involved, but does <u>not</u> have a close association with that person, or
 - where an item would affect the well-being of a Member, relative, close associate, employer, etc, but <u>not</u> his/her financial position

[Note: an effect on the financial position of a Member, relative, close associate, employer, etc; OR an application made by a Member, relative, close associate, employer, etc, would both probably constitute an OSI].

Advice to Members on Declarations of Interest:

- (a) Government Guidance on DPI is available in DCLG's Guide for Councillors, at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/5962/2193362.pdf
- (b) The Kent Code of Conduct was adopted by the Full Council on 19 July 2012, and a copy can be found with the papers for that Meeting.
- (c) If any Councillor has any doubt about the existence or nature of any DPI or OSI which he/she may have in any item on this agenda, he/she should seek advice from the Head of Legal and Democratic Services and Monitoring Officer or from other Solicitors in Legal and Democratic Services as early as possible, and in advance of the Meeting
- Minutes To approve the Minutes of the Meeting of this Committee held on the 22nd January 2013

Part I – Matters Referred to the Committee for a Decision in Relation to Call-in of a Decision Made by the Cabinet

None for this Meeting

Part II – Responses of the Cabinet to Reports of the Overview and Scrutiny Committee

None for this Meeting

Part III – Ordinary Decision Items

4. Stour and Civic Centres: Review of either Biomass Boilers or Combined Heat and Power (CHP) for heat provision to the buildings

Part IV – Information/Monitoring Items

- 5. Presentation by Ashford Clinical Commissioning Group: 'Health Care provision in the Borough, now and going forward'.
- 6. Future Reviews and Report Tracker

HC/JV - 18 February 2013

Overview and Scrutiny Committee

Minutes of a Meeting of the Overview and Scrutiny Committee held in the Council Chamber, Civic Centre, Tannery Lane, Ashford on the **22nd January 2013**

Present:

Cllr. Adby (Chairman);

Cllr. Chilton (Vice-Chairman);

Cllrs. Apps, Bennett, Feacey, Galpin, Mrs Hutchinson, Link, Mrs Martin, Mortimer, Shorter, Smith

Apologies:

Cllrs. Bartlett, Hodgkinson, Robey, Yeo

Also Present:

Cllrs. Mrs Dyer, Michael

Finance Manager, Senior Scrutiny Officer, Member Services and Scrutiny Manager

The Chairman thanked Councillor Claughton, Portfolio Holder for Community and Wellbeing and the Deputy Chief Executive for the presentation on Welfare Reform they had given to Members prior to the meeting.

301 Declarations of Interest

Councillor	Interest	Minute No.
Bennett	Declared an "Other Interest" as he was the Council's representative on the Tenterden Leisure Centre Trust	303
Feacey	Declared an "Other Interest" as he was the Council's representative on Volunteering Ashford	303
Mrs Hutchinson	Declared an "Other Interest" as she was a Trustee on the Tenterden Leisure Centre Trust and also the Tenterden Day Centre	303
Mortimer	Declared an "Other Interest" as he was an Honorary Member of the Nepalese Sagarmatha Association	303

302 Minutes

Resolved:

That the Minutes of the meeting of this Committee held on the 23rd October 2012 be approved and confirmed as a correct record.

303 Report of the Budget Scrutiny Task Group

The Chairman invited the Chairman of the Overview and Scrutiny Budget Scrutiny Task Group to introduce the report.

The Task Group Chairman explained that he was pleased to present the report of the Budget Scrutiny Task Group for the 2013/14 year and said that he would like to thank his colleague Members, Councillors Apps, Chilton and Mrs Martin and also the support from Councillor Davidson and Councillor Smith. He also thanked the Senior Scrutiny Officer and her team for their support together with Officers from Financial Services and the Service Heads who had presented their draft Budgets at the various Budget Scrutiny Group meetings.

He advised that the Budget Scrutiny had been undertaken in a period of uncertainty as no Formula Grant information had been available at the start of the process. In the absence of this information two "bottom lines" were offered by Officers; one based on no increase in Council Tax and the second showing the balance with an increase of 2%. He explained that the draft Budget did not include the latest round of New Homes Bonus which was in line with the Cabinet recommendations that it could not be taken into account until it had been received. He said this left a small gap in the overall Budget and considered that it was now for the Cabinet and the Council to look at how this could be bridged.

The Chairman of the Task Group then said that he was pleased that some Portfolio Holders had been able to attend the Task Group, however, receiving full endorsement from all Portfolio Holders to the draft Budget would have given the Task Group more comfort in terms of their endeavours. He further advised that during the scrutiny process it was apparent that Officers were working extremely hard and he drew attention to the report recently published by consultants Grant Thornton which had identified that there was a significant risk nationally of a "tipping point" being reached. The Task Group had acknowledged that Officers were still keen to provide a "Rolls Royce" service on a "Mini" budget and accordingly the Task Group recommended to the Committee that the "Best Service Resources Allow" activity be reviewed and that it be added to their programme of works.

In conclusion he advised that the biggest risks to the Budget related to the introduction of the forthcoming Universal Benefit and changes to Council Tax support and that the Task Group recommended that the risks set out within the report be reviewed by the Cabinet. However, in overall terms the Task Group regarded the Budget as achievable.

The Chairman of the Committee also thanked the members of the Task Group and Officers and then opened up the report for debate.

During the debate the following issues were discussed:-

- The Finance Manager explained that the second paragraph on page 3 of the report explained the two budget scenarios which had been presented to the Task Group during their deliberations. He said that there was a need to develop a strategy to bridge the Budget gap and advised that the NNDR 1 form and the figures set out within that form would assist in bridging that gap. Furthermore information received from the DCLG before Christmas had indicated that the lowest quartile of Local Authorities were making a loss against inflation and were encouraged to increase their Tax by £5 per annum on Band D properties. Other options included consideration of the use of the New Homes Bonus or reserves. Management Team would be working with the Cabinet to bring forward a solution to the overall Budget gap.
- A Member advised that he had been involved in the draft Budget proposals as part of the Medium Term Financial Plan Task Group and asked that his gratitude be recorded to Officers from Financial Services who had dealt with continuing changes to the figures presented until such time as the Government had provided the information in late December.
- In response to a question, the Finance Manager explained that the figures for New Homes Bonus within the report were correct and were based on the actual houses constructed between October 2011 and the end of September 2012. He also explained that the longevity of the New Homes Bonus was not certain as questions were being raised nationally as it was being treated as base line funding.
- The Chairman of the Budget Scrutiny Task Group explained that Service Managers all had work plans designed to meet customer demand which they endeavoured to achieve.
- The scrutiny process identified that staffing issues were becoming critical in certain areas and it would be difficult to further reduce those in some areas. The recommendation that the existing Task Group be dissolved and a new Group be created for the next Budget round was questioned as the existing membership was very experienced and well aware of issues affecting the Council across the board.
- A Member advised that he had suggested to the Head of Customers, Homes and Property that Housing Services work with the Ashford Volunteer Group in terms of providing support for the elderly.

Recommended:

That the Cabinet:-

- (i) be advised that the Overview and Scrutiny Committee regards the Council's draft 2013/14 Budget as achievable.
- (ii) endorses the Risk Matrices and the risks identified within them, particularly noting those that fell in the shaded part of the matrix.
- (iii) note any future risk items in the main issues tables.
- (iv) all Portfolio Holders be encouraged to attend the Budget Scrutiny Meetings dealing with their relevant service areas.
- (v) in terms of the retention of NNDR the Council take a robust approach to countering claims which should, if necessary, include supporting lobbying to overturn case law and supporting any other Council that challenges it in the higher courts.

Resolved:

That the Overview and Scrutiny Committee agreed:-

- (i) the "Best Services Resources Allow" activity be reviewed by the Committee to ensure that the Council was not prejudicing its ability to deliver core services at an acceptable level.
- (ii) the existing Budget Scrutiny Task Group be dissolved and a new Group be appointed for the next Budget round.

304 Future Reviews and Report Tracker

Members considered the report and Forward Plan.

The Chairman advised that at the February meeting there would be a presentation by the Ashford Clinical Commissioning Group regarding healthcare provision in Ashford and the Borough. He also explained that the Cabinet had asked that the Overview and Scrutiny Committee look at the Biomass/CHP issues regarding the Stour Centre before a final decision was made and he said with the Committee's agreement this would also be dealt with at the February meeting.

The Senior Scrutiny Officer advised that the Project Office Manager would be submitting a report on the Biomass/CHP issue to the Committee but in advance of that he hoped to arrange a visit to sites where biomass boilers were in use. She asked Members for a straw poll in terms of interest in attending the site visit. Seven Members indicated their interest in attending such a visit. The Senior Scrutiny Officer also advised that given the complex nature of the issues, the Project Office Manager had asked that detailed questions be submitted in advance of the meeting to enable full and informed answers to be given. The Member Services and Scrutiny Manager advised that the original issue which had made consideration of this item urgent was likely to be resolved by an alternative location for the boilers which would enable the existing boilers to remain in place until such time as the new ones were able to be commissioned.

In terms of the presentation by the Ashford Clinical Commissioning Group, a Member considered it was important that it was focussed on their plans and how it would affect the population of the Borough.

A Member who was also the Chairman of the Licensing and Health and Safety Committee advised that he had spoken to the Licensing Manager about the possibility of the Council signing a Voluntary Agreement regarding the Code of Conduct for Charity Street Collections in the Borough. He said if possible he would like the Licensing Manager to submit a report to the Overview and Scrutiny Committee if the Committee were agreeable to it. The Committee agreed that this was an issue that they would be happy to consider.

Resolved:

That the Future Reviews and Report Tracker be noted.

(KRF/AEH)

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Queries concerning these Minutes? Please contact Keith Fearon: Telephone: 01233 330564 Email: keith.fearon@ashford.gov.uk Agendas, Reports and Minutes are available on: www.ashford.gov.uk/committees

Agenda Item No:	4										
Report To:	Over	view and Scrutiny Committee	ASHFORD								
Date:	26 th F	ebruary 2013	BOROUGH COUNCIL								
Report Title:	Boile	r and Civic Centres: Review of either Bio rs or Combined Heat and Power (CHP) fo sion to the buildings									
Report Author:	Proje	ct Office Manager									
Summary:	bioma	reappraisal of the two heating methods (either two 350 kW iomass boilers or a 400 kWh gas fuelled CHP plant) has een undertaken with the following key outcomes:									
	I.	Over a twenty year period, based on annu- inflationary cost increases of 4% and after capital costs, a net present value analysis the use of biomass boilers could cost the estimated additional £140,000 against the utilities bill. The use of gas fuelled CHP co £1.384m.	deduction of shows that Council an existing								
	II.	A sensitivity analysis of these figures show supply cost increases faster than electricit CHP 20 year saving would be significantly whilst the biomass cost could change to a	y then the reduced								
	III.	If electricity supply cost increases faster the CHP savings benefit would significantle and the biomass cost would remain uncha	y increase								
	IV.	If gas and electricity costs rise in line with a faster rate, then CHP generates greater savings. The Councils energy supplier ha that this is the most likely scenario over th years.	increased is indicated								
	V.	Estimated annual CO2 emission savings a existing heating and power supply regime buildings are 460 Te for biomass boilers a for the CHP plant.	in the								
	VI.	Additional areas of Kent woodland could be and maintained as a result of coppicing for supply to a biomass plant, with the associa to biodiversity of the local environment. T dependent upon a local company winning fuel supply contract which would need to be in the European Journal possibly resulting supply from outside the UK.	r wood fuel ated benefit his benefit is the wood be advertised								

	VII. VIII.	The use of biomass boilers could generate additional turnover for a local wood fuel supplier of around £75,000 per annum including two new local jobs. This benefit is dependent upon a local company winning the wood fuel supply contract. A CHP plant would create no local jobs and spending
	v 111.	on gas fuel would not be local.
	IX.	Experience has shown that wood chip fuel quality and good design of fuel storage and transfer into the biomass boilers is critical to minimise biomass operational maintenance costs and service interruption.
Financial Implications:	cost to would be ava Stour gives that th the bu find fu	tiomass heating option would generate an additional of the Council estimated at £140,000. The CHP option generate an estimated saving of £1.384m that would ailable to the Council to invest in the old part of the centre. The opinion of the S151 officer is that CHP by far the best value for money for local tax payers and his an overwhelming reason to select CHP for heating uildings. If Biomass is chosen the Council will have to unding from other sources to invest in the refurbishment old part of the Stour Centre.
Possible Recommendations:	Centra Project power signifit year p or; to rec Stour Project heat s princip creation	firm the Cabinet decision to proceed with the Stour e Essential Repairs and Proposed Invest to Save ct (including the choice of a CHP plant for heating and r supply to the buildings) based principally on the cant saving of £1.384m that CHP has over a twenty
Exemption Clauses:	N/A	
Background Papers:	N/A	
Contacts:	jerry.f	ox@ashford.gov.uk – Tel: (01233) 330502

Agenda Item No.4

Report Title: Stour and Civic Centres: Review of either Biomass Boilers or Combined Heat and Power (CHP) for heat/power provision

Background and review information

 On the 10th January 2013 the Cabinet approved the recommendations for implementation of the Stour Centre Essential Repairs and Proposed Invest to Save Project (including the choice of a CHP plant for heating and power supply to the buildings)

'subject to more sensitivity work being undertaken, and a reappraisal of the financial aspects of this scheme and subject to any recommendations following a review by the Overview and Scrutiny Committee...'

- 2. A comprehensive reappraisal has been carried out by officers, in consultation with some Members, to assist O & S Members in conducting their review including:
 - I. A reappraisal of the financial savings and environmental benefits arising from the two options.
 - II. A sensitivity analysis identifying the impact on financial savings of changes in gas and electricity prices.
- III. A refreshed comparison of the pros and cons of biomass and CHP for providing heating/power to the Stour and Civic centres
- The review of the biomass option has been undertaken in consultation with Matthew Morris – Woodfuel Pathfinder Development Manager, Nick Sandford – Godinton Estate Manager and South East Wood Fuels a local wood chip fuel supplier.
- 4. The review has included a visit with Members to see three biomass boilers at leisure centres in the south east. Unfortunately only one of these was working at the time of the visit however the importance of good design, choice of boiler and quality of wood fuel to the efficiency of biomass operation was very apparent and is critical to service continuity.
- 5. An independent assessment of the estimated carbon savings related to the two heating options has been carried out by an experienced specialist in sustainable development (AECOM). See Appendix 1
- 6. The AECOM recommendations 1 to 4 in section 5.2 of the report have all been taken into account in this review. In particular the sustainability of the biomass fuel source from local woodland has been confirmed
- 7. A thorough check of all of the inputs to the financial models for the two heating options has been carried out including a reassessment/check on:

- maintenance, operating and capital costs,
- heating plant efficiency,
- fuel costs,
- renewable heat incentive tariff (received for biomass).

Commercial Appraisal

- 8. The commercial appraisal (see Appendix 2) comparing the two options has been checked, refined and updated with amendments made as follows:
 - I. The size of the CHP plant has been reduced to 400 kWh to better reflect the actual daily power demand profile of the two buildings.
 - II. The period of the appraisal has been increased from 15 to 20 years to take full account of the 20 year life of biomass boilers. A CHP plant has a life of 15 years so its capital cost has been increased by one third in the appraisal to make a fair comparison with biomass.
 - III. The existing total electricity demand for the two buildings has been updated taking into account the effect of the PV panels installed on the Civic centre last year, which have reduced the power demand from the national grid.
 - IV. Gas and electricity costs have been revised based on recently received figures from the Council's supplier for the next six month period.
 - V. Wood fuel supply cost has been increased based on indicative pricing obtained from South East Wood Fuels.
 - VI. Operation and maintenance costs for both options have been adjusted based on supplier's whole life maintenance cost estimates and an estimate of biomass operational costs made following the visits to three biomass boilers providing heat to leisure centres.
 - VII. Renewable Heat Incentive (RHI) payments for the biomass boilers now include the governments two tier payment regime. This has reduced the benefit of RHI which was overstated in the original appraisal.
 - VIII. The CHP capital cost has reduced as a result of the reduction in plant size and due to confirmation that the existing gas pipework is adequate to supply the increased volume of gas required to operate a CHP plant (a contingency sum had been allowed for this in the original appraisal).
- 9. The results of the revised commercial appraisal are summarised in Table 1. The model assumes a 4% annual cost increase in wood, gas, electricity and maintenance costs as a base case.

 Table 1
 Commercial Appraisal Summary for Biomass and CHP

Base case: 4% annual inflation on all costs (figures shown at net present value)

Heat/Power supply Option	Estimated cost saving against existing regime over 20 years (£)	Estimated Capital cost of plant (£)	Balance of 20 year saving available to the Council (£)
Existing regime: Gas boilers for heat and national grid for electricity	-	-	N/A
Biomass boilers for base heat load plus existing boilers for balance of heat and national grid for all electricity	527,560	668,000	(140,440)
CHP producing heat & electricity plus existing gas boilers and national grid for balance of heating and electricity respectively	2,083,940	700,000	1,383,940

10. The refreshed appraisal shows that the use of CHP will save the Council £1.384m, whereas the use of biomass will cost the Council £140,000 more, than its current utilities cost.

Commercial appraisal sensitivity

11. An analysis has been carried out to show the sensitivity of the 20 year commercial appraisal to relative changes in annual inflation of the cost of electricity and gas. The potential supplier of wood fuel has indicated that future price increases would be linked to the Retail Price Index (RPI). Therefore there is a lower risk of disproportionate increases in the cost of wood fuel and so the inflation of wood fuel cost has been fixed at 4% for all of the sensitivity scenarios. The results are shown in Table 2.

Table 2	Sensitivity of net present value saving to annual inflation of gas
and elec	tricity costs (wood fuel cost fixed at 4%)

Scenario	Annual inflation of gas %	Annual inflation of electricity %	Balance of 20 year saving available to the Council Biomass	Balance of 20 year saving available to the Council CHP		
Base case (see table 1)	4	4	(£0.140)	£1.384m		
1	6	4	£0.104m	£1.045m		

Scenario	Annual inflation of gas %	Annual inflation of electricity %	Balance of 20 year saving available to the Council Biomass	Balance of 20 year saving available to the Council CHP		
2	4	6	(£0.140)	£2.327m		
3	6	6	£0.104m	£1.988m		

The results show that if the cost of gas rises faster than electricity then the saving with a CHP plant reduces significantly. If electricity cost rises faster than gas then the saving from using a CHP plant increases. If electricity and gas costs increase in line with each other at a higher inflationary rate of 6% then both options offer an increased saving compared to the Council's existing utility costs. The Councils energy supplier has indicated that this is the most likely scenario over the next four years.

Environmental Appraisal

- 12. The use of biomass boilers would generate carbon savings of 460 tonnes/annum representing a 17% improvement on the existing emissions. These savings arise from the use of locally sourced wood chip as fuel provided from the lower quality timber (branch wood) in coppiced woodland, which replaces the use of gas fossil fuel by gas boilers.
- 13. A CHP plant would generate higher carbon savings of 546 tonnes/annum giving a 20% reduction on existing emissions. This saving arises primarily from the generation of local electricity by the CHP plant which replaces electricity taken from the national grid. National grid electricity is generated by a mix of methods including coal and gas fired power stations and transmitted over relatively long distances to reach the Stour and Civic centres.
- 14. The Department of Energy and Climate Change (DECC) published a Bioenergy Strategy in April 2012. Whilst the DECC concludes that the use of biomass for fuel will be a requirement of the strategy to meet the UK's carbon reduction target, there are uncertainties that arise from the use of biomass. Therefore the DECC intends to review its position every five years. Furthermore the DECC intends to introduce sustainability criteria for biomass heat into the Renewable Heat Incentive scheme in 2013. This could impact qualification for RHI if biomass is adopted for the Stour and Civic centres however disqualification is considered to be unlikely.
- 15. Biomass could offer additional environmental and economic benefits. There is ample coppiced woodland in Kent to provide a long term sustainable wood fuel supply to the Stour and Civic centres. If the long term wood fuel supply contract is secured by a local Kent based company, then the Council would spend in the order of £75,000 a year on a local supply contract resulting in the generation of two jobs. This benefit is dependent upon a local company

winning the fuel supply contract which would need to be advertised in the European Journal.

16. Additional areas of Kent woodland would be protected and maintained as a result of coppicing for wood fuel supply, with the associated benefit to biodiversity of the local environment.

Summary of Biomass and CHP appraisal

17. Appendix 3 summarises the key points in the appraisal of the two heating options.

Conclusion

- 18. Following the Cabinet request for O & S Committee to review the choice of CHP rather than biomass for heating the Stour and Civic centres a thorough environmental and financial reappraisal of the two options has taken place. This has included visits with Members to biomass plants, consultation with sustainability and wood fuel supply specialists, downsizing of the CHP plant to model the actual heat demand profile and a thorough check on the inputs to the financial comparison of the two heating methods.
- 19. The findings are that the use of biomass heating could generate local environmental and employment benefits if the wood fuel supply contract is won by a local company. However the refreshed appraisal confirms that the option of CHP gives a very significant financial advantage over biomass.
- 20. A sensitivity analysis of the savings from CHP and biomass has been carried out and the most probable scenario of higher like for like increases in gas and electricity supply costs would increase the commercial advantage that CHP has over biomass.
- 21. If CHP is chosen over biomass then a saving of £1.384m would be generated for reinvestment into the refurbishment of the old part of the Stour centre.

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APPENDIX 1 Environmental Review of Stour & Civic Centres Heating Upgrade



Stour Centre Heating Upgrade Proposals – An Environmental Review



Prepared by:

Matthew Turner Principal Consultant Checked by:

Miles Attenborough Technical Director

Rev No	Comments	Checked by	Approved bv	Date
1	Draft Report for Client Comment	MA	MA	04/02/13
2	Final report including revisions following CHP resizing in line with the recommendations in the previous version	MA	МА	14/02/13

The Johnson Building, 77 Hatton Garden, London, EC1N 8JS Telephone: 020 7645 2000 Website: http://www.aecom.com

Job No: n/a

Reference: Ashford Biomass Study

Date Created: 14th February 2013

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4	Review of the report recommendations	.7
5	Conclusions and recommendations	9

1 Introduction

1.1 Introduction to this technical note

AECOM have been commissioned by Ashford Borough Council to review the environmental case for the proposals to upgrade the heating system of the Stour Centre.

This work is informed by a technical study previously undertaken by Slender Winter Partnership Ltd (SWP)¹ which reviews the potential to upgrade the existing mechanical and electrical services.

The report reviews the available options for improving the insulation of the buildings and integrating low and zero carbon energy technologies. It then goes on to investigate in detail the potential to use either biomass boilers or gas-CHP to replace the existing gas boilers that serve the buildings and which are now coming to the end of their useful lives. The report concludes that gas-CHP would offer the best financial returns although the relative benefits with regard to reducing the CO₂ emissions from the site and not explicitly compared.

This study aims to provide some additional detail to inform the decision making around which system to adopt. In particular, Ashford Borough Council has asked for a more comparative assessment of the relative environmental benefits of the two options and a review of the current guidance and evidence around the sustainable use of biomass as a fuel.

1.2 Content of this technical note

This technical note contains the following information and analysis:

- A review of the current issues and guidance on the use of biomass as fuel;
- An appraisal of the carbon savings of the biomass and combined heat and power solutions proposed for the Stour centre;
- An appraisal of other conclusions and recommendations from the SWP report; and
- Conclusions and recommendations arising from our review.

¹ Report on the upgrading of the mechanical and electrical services to the old part of the building, SWP (2012)

2 The sustainability of using biomass as fuel

2.1 Introduction

Biomass is generally considered to be a low carbon fuel since, at a simplistic level, the CO_2 emissions released when burnt can be considered to be offset by those which are absorbed during growth.

In practice there are a range of further factors that need to be considered in providing a comprehensive assessment of the sustainability of using biomass as a fuel and which are affected by the source of the biomass and its end use, these include:

- The CO₂ emissions associated with processing and transportation of different biomass fuels from source to end user;
- The CO₂ emissions associated with land use changes or changes to the way the land is managed;
- The implication of the use of that land if it could otherwise have an alternative use that may have more social or environmental benefits;
- The implications of the alternative use of that biomass, specifically if it could be used as a material (in which case the carbon would be sequestered rather than released); and
- The end use of the biomass fuel and the relative environmental and financial costs and benefits compared to an alternative fossil fuel energy source.

To reflect this more complex argument and to define a position on both the appropriate sources of biomass for energy and the most appropriate use of biomass fuel, the Government and key national agencies like the Forestry Commission have recently published a number of key guidance documents and reports.

This section sets out the relevant guidance and requirements from the key reports and studies that make up the current national position on the use of biomass for heat, against which the appropriateness of using biomass for the Stour Centre should be assessed.

2.2 EU Guidance

In 2010 the EU published a report into the sustainability of biomass². It confirmed that 'Member States are free to put in place their own national schemes for solid and gaseous biomass used in electricity, heating and cooling' but provided sustainability criteria and recommendations for Member States to minimize the risk of the development of varied and possibly incompatible criteria that might impact upon trade and the growth of the bioenergy sector.

The recommended criteria relate to:

(a) a general prohibition on the use of biomass from land converted from forest, other high carbon stock areas and highly biodiverse areas;

(b) a common greenhouse gas calculation methodology which could be used to ensure that minimum greenhouse gas savings from biomass are at least 35% (rising to 50% in 2017 and 60% in 2018 for new installations) compared to the EU's fossil energy mix;

² Report from the Commission to the Council and the European Parliament on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling SEC(2010) 65 final SEC(2010) 66 final <u>http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0011:EN:HTML:N OT</u>

(c) the differentiation of national support schemes in favour of installations that achieve high energy conversion efficiencies; and

(d) monitoring of the origin of biomass.

A national scheme was subsequently put in place in the UK, although more recent research has subsequently been undertaken leading to updates in the Government's position.

2.3 DECC Bioenergy Strategy

The DECC Bioenergy Strategy³, published in April 2012, is the key Government guidance on the use of wood and energy crops for bioenergy.

It concludes that the use of biomass for fuel will be a requirement of the strategy to meet the UK's carbon reduction target, and that wood and energy crops are a good option for delivering carbon reductions compared to alternative uses of the resource, although this is qualified by a reference to 'certain circumstances but not all'.

The report raises the issue of risks, including biodiversity, whole life-cycle carbon emissions and land for food, but also the potential of biomass to deliver significant reductions in greenhouse gas emissions.

To reflect the inherent uncertainties that surround the different issues that arise from the use of biomass, the report defines the following low-risk energy deployment pathways that are to be supported:

• Use of biomass as wood in construction;

- Use of end-of-life waste biomass materials for energy;
- Use of biomass to provide low carbon heat for buildings and industry;
- Use of some biofuels for transportation; and
- Use of sustainable biomass as a transitional fuel in electricity generation.

The high level of uncertainty means that DECC intend to review their position over time and a five yearly review process is suggested in the report. It is therefore possible that the guidance on the potential sources of biomass and the use of biomass fuel could change in the future.

It should also be noted that the report states:

"We intend to introduce sustainability criteria for biomass heat into the Renewable Heat Incentive in 2013".

It is likely that if such guidance was published as planned this would impact upon the Stour Centre scheme should a biomass system be proposed.

Further guidance on the Government's approach to the use of biomass can also be found in the Analytical Appendix to the Bioenergy Strategy⁴.

2.4 Committee on Climate Change Bioenergy Report

The Committee on Climate Change produced a report on the use of Bioenergy in December 2011. The main conclusions arising from this report were as follows:

³ https://www.gov.uk/government/publications/uk-bioenergy-strategy

⁴ <u>https://www.gov.uk/government/publications/uk-bioenergy-strategy</u>

 Bioenergy has an important role in helping the UK to meet its climate change targets although it should be limited to meeting 10% of primary energy requirements (unless carbon capture and storage (CCS) cannot be delivered to the levels anticipated for abating fossil fuel use).

- Lifecycle emissions associated with the use of bioenergy should be accounted for, including land-use changes.
- Bioenergy should be directed to the most appropriate uses with a hierarchy that places use for construction materials and industrial heat as the most desirable followed by power and heat production (if CCS is available) and/or aviation fuels if CCS is not available and lastly as liquid biofuels or power generation without CCS).
- The availability of biomass needs to be considered and as such CCS should be developed as a matter of priority and alternatives for the use of biomass in lower priority areas should be promoted.

2.5 Forest Research and North Energy Study

Forest Research, a research arm of the Forestry Commission, and North Energy undertook a study⁵ in 2012 to review the carbon impacts of biomass in bioenergy and other sectors.

The study looks at the potential greenhouse gas emissions that arise from different uses of biomass to determine the relative carbon savings that can be delivered relative to the counterfactual case of no change to the forestry management and alternative materials being used in construction or for products or for fuels.

The study found that using biomass for construction materials and products had a greater impact on the carbon saving potential than its use as fuel alone, although the most efficient uses comprised a combination of uses for different components of harvested biomass, for example sawlogs for timber, roundwood for timber products such as pellets, fences, MDF and particleboard and branchwood as fuel.

The key conclusions arising from the report are as follows:

- Management of UK forests for wood production can contribute to UK carbon objectives.
- Using wood as a construction material, as a product and as fuel can reduce carbon emissions.
- Greenhouse gas emissions are influenced by the end-of-life destination of wood products.
- Greenhouse gas emissions savings will only be achieved if the harvesting of wood does not involve the permanent and long-term depletion of carbon stocks in forests, or if reductions in carbon stocks are managed carefully over time.
- If areas of neglected forest are restored to management, this could lead to reductions of carbon stocks in some forest areas.

⁵https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48 346/5133-carbon-impacts-of-using-biomanss-and-other-sectors.pdf

2.6 UK Forestry Standard

The UK Forestry Standard⁶, produced by the Forestry Commission in 2011, sets out various requirements for forestry management in the UK, which includes the following in relation to climate change:

"Forest management should contribute to climate change mitigation over the long term through the net capture and storage of carbon in the forest ecosystem and in wood products".

In regards to the practical guidance for compliance with this requirement the report includes the following:

"Consider the potential for woodfuel and energy crops within the sustainable limits of the site"

The implication of this is that the management of forests to provide biomass fuel is encouraged as long as this is done in a way that did not compromise the other requirements set out in the document.

2.7 Conclusion

Based on the current recommendations and guidance from the Government and key national agencies, it would seem reasonable to assume that the use of biomass boilers to provide heat for the Stour Centre would be considered an appropriate use of biomass fuel.

Also, assuming that the proposed biomass fuel source is to be from coppicing of branchwood from existing managed forests then this too could be deemed sustainable under the current guidance set out in the documents referred to above. If biomass boilers are selected as the plant to provide heat to the Stour Centre then a more detailed review of the fuel source(s) could be prepared to provide the evidence to confirm the sustainability of the supply with regard to the key sustainability criteria highlighted in the documents presented in this chapter.

⁶ http://www.forestry.gov.uk/ukfs

Review of the carbon savings of the proposed options

3.1 Methodology and assumptions

Based on the outputs from the SWP study we have undertaken a comparative estimation of the relative CO_2 savings from the proposed biomass and CHP plant options.

The following assumptions have been used in our analysis

General:

 The following emissions factors, as used in the approved calculation methodologies for the current version of the Building Regulations, have been used:

	KgCO ₂ /kwh
Gas	0.198
Electricity	0.517
Biomass (wood chips)	0.009

• The efficiency of the gas boilers has been assumed to be 90%

Biomass boiler:

- The annual heat delivered by the biomass boiler is based on the figures from the SWP report, which estimates a total of 2,200,800kWh/annum
- The efficiency of the biomass boiler has been assumed as 85%

CHP:

 The annual heat delivered by the CHP is based on the figures from the SWP report, which estimates a total of 2,938,464kWh/annum

- The electricity delivered by the CHP is based on the figures from the SWP report, which estimates 2,291,200kWh/annum
- The overall efficiency of the CHP has been assumed as 80%, the relative outputs of heat and electricity are based on the outputs from the SWP report.

3.2 CO₂ savings from Biomass

As set out in the previous section, biomass is generally considered to be a carbon neutral fuel although there are some emissions associated with the processing and transportation of the fuel.

In regards to calculating the CO_2 savings from the use of biomass in place of gas, the standard approach is to use the emissions factors from the calculation methodology used for standard assessments for compliance with Building Regulations and to take account of the relative system efficiencies.

Based on the estimated energy output from the system proposed in the SWP report and the methodology and assumptions set out above, the annual CO_2 savings has been estimated to be 461 tonnes/annum, which represents a 17% saving compared to the baseline emissions.

3.3 CO₂ savings from CHP

The CO₂ savings associated with the use of gas CHP are derived primarily from the generation of local electricity.

Based on the estimated energy output from the CHP system proposed in the SWP report and the

assumptions noted above, the estimated annual CO_2 savings would be 546 tonnes/annum, which represents a saving compared to the baseline emissions of around 20%.

We would note that a more detailed calculation based on detailed CHP modelling and taking account of other factors such as distribution losses, would be required to obtain a more accurate estimation of CO₂ savings.

3.4 CO₂ savings over time

It should be noted that the CO₂ savings of the two options will change over time depending on the relative emissions factors associated with electricity, gas and biomass.

The emissions factors associated with gas and biomass are unlikely to change significantly over time, although the emissions factors for gas will increase slightly due to an increase in the use of liquefied natural gas and the emissions factors for biomass could increase if land use change and other indirect factors are taken into account. However, it is the emissions associated with electricity will see the most significant impacts in the near future. These are set to decrease as a result of the Government's decarbonisation agenda. The effect of this is that the carbon savings associated with the use of CHP, which are currently high due to the much lower carbon emission factor for the use of gas relative to electricity from the national grid, will decrease over time.

There are a number of different projections for the likely decarbonisation of the national grid, which reflect the level of uncertainty surrounding changes to the future power generation mix.

As a guide the carbon savings over time for the scheme have been presented below based on the DECC Baseline Scenario.

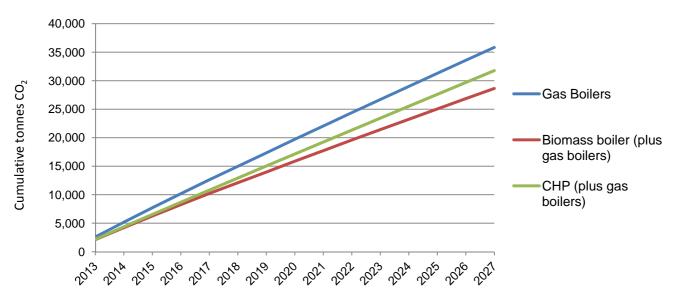


Figure 1: Indicative cumulative carbon emissions associated with the three different plant options proposed for the Stour Centre, based on the outputs from the SWP report, assumptions taken by AECOM and the CO₂ emissions factors for electricity from the national grid based on the DECC Central Scenario.

4 Review of the report recommendations

4.1 Plant sizing and outputs

We note that the biomass plant proposed in the SWP report has been sized to deliver 42% of the overall annual heat demand of the buildings. We understand that in part this has been done to maximise the returns under the Renewable Heat Incentive (RHI).

This proportion of heat demand delivered by biomass is potentially lower than could be achieved if CO_2 savings were the main priority. In many cases biomass can provide up to 80% of the load of a building, although this does depend on the nature of the building heat demand profile amongst other things. As a guide, if it were possible to deliver 80% of the heat load of the Stour Centre from biomass the CO_2 savings would increase from 461 tonnes/annum to 924 tonnes/annum.

We note that the CHP has been sized to provide 56% of the heat demand and 66% of the electricity demand. This would seem reasonable based on our experience, although more detailed modelling, ideally using halfhourly data, would ideally be required to understand this more accurately, including the appropriate provision of thermal storage. Changes to the outputs from the system, particularly the generation of electricity, could have a significant impact on the environmental and financial benefits associated with this option.

4.2 Financial assessment

The financial assessment in the SWP report, based on the plant sizes and operation that has been proposed and the assumptions taken, indicates that gas-CHP offers the best financial returns. Based on similar exercises that we have undertaken this conclusion seems reasonable. However it should be recognised that this conclusion is realised for two key reasons and therefore the assumptions that have been taken for these should be reviewed to consider their appropriateness.

Firstly, one of the most significant factors affecting the financial viability of the biomass boiler is the cost of the biomass fuel. The assumption that has been taken in the analysis (3.3p/kWh) is a reasonable assumption for the purposes of the assessment but the conclusions realised would be significantly affected if this was to change.

Secondly, one of the most significant factors affecting the financial viability of the gas-CHP engine is the price that is placed on the electricity generated. The analysis in the Commercial Comparison is based on an assumption that all the electricity generated is used on site, at a saving of 8.8p/kW (which we assume to be the price that the Council purchases its electricity at). However, as the total electricity generation from the CHP is equivalent to 66% of the electricity requirements from the buildings connected it is not clear whether this assumption is supported by the profiles of electricity generation and demand.

It is likely that there could be times when the supply is greater than the demand, particularly outside the core operating hours of the building but while the CHP is operational, and electricity generated at these times may need to be exported. The implications of this will not affect the CO₂ savings since these can be counted for all generation but it would affect the financial assessment.

For all electricity exported an assumed price of around 4 to 4.5p/kWh would be more appropriate to use in the financial assessment and as such the current financial assessment, which assumes 8.8p/kWh for all electricity generated could be overestimating the returns.

9

5 Conclusions and recommendations

5.1 Conclusions and comments

- The use of biomass fuel derived from coppicing of branchwood from existing managed local forestry sources to provide heat for the Stour Centre would be considered as sustainable under the current guidance set out by the Government and key national agencies. We have not assessed the ability to service the estimated fuel requirements from these sources but understand that the Council is currently looking into this.
- The proportion of heat provided in the biomass solution proposed in the SWP is rather low and as such the CO₂ savings are lower than could be expected if CO₂ savings were prioritised. We understand this was in part due to the desire to maximise the returns under the RHI but this could potentially be increased if a higher weight was to be placed on maximising the CO₂ savings.
- The financial returns calculated for the CHP could be overestimated if a significant proportion of electricity needs to be exported.
- It is our understanding that the analysis has been undertaken based on the heat demands from the current building and therefore does not account for the reduction in heat demand that would result from the improvements to the building fabric that have been proposed, including the reduction in the annual and peak demands that would affect the system sizing and annual performance. Accounting for this would impact on the outputs of the technical and financial assessment of the biomass and CHP systems.

5.2 Recommendations

- We would suggest a review of the proposed biomass sizing and operational regime based on a more detailed understanding of the heat demand profile in order to assess whether a biomass boiler solution could support a greater proportion of the heat load and therefore deliver higher CO₂ savings.
- We would suggest a comparison of the electricity generation from the CHP with the building electricity consumption profile to better understand the amount of electricity that might be exported.
- Based on the results of Recommendations 1 and 2 the relative financial and environmental benefits of Biomass and CHP could be reviewed in more detail.
- If a biomass solution was taken forward, the Council may wish to collect the following evidence to confirm the sustainability of the biomass sources:
- Confirmation of the existing use of the land from which the biomass would be derived
- Confirmation of the nature of the forestry practices used to harvest the biomass
- Confirmation of the management regime of the woodland used
- A calculation of the whole lifecycle carbon emissions from the biomass source(s)
- Confirmation of the ability to source the required amount of fuel from sustainable sources

Appendix 2 Commercial Comparison of Biomass and CHP Heating Options over a 20 Year Period

An A2 hard copy of this appendix can be made available to Members if required. Please contact Julia Vink if you require a copy. General notes

Base Case - Annual inflation of all costs assumed at 4% per annum

Based on building with current insulation and no improvements Maintenance costs of retained gas boilers not included as common to all three options Based on costs to ABC for gas of 2.378p/kWh incl standing charge for equipment Based on costs to ABC for electricity of 8.8p/kWh

Based on costs to ABC for woodchips of 3.3p/kWh. (Quote from SE Wood Fuels allows for 80% boiler efficiency)

Option 1 Two 350kWh Biomass boilers supplemented by boilers in Stour Centre plus Civic Centre boilers to provide top up heating (Old boilers in old part of building removed) plus power from the national grid

Revisions to Cabinet version: Appraisal period increased to 20 years to reflect life of biomass boilers Maintenance costs for Biomass and CHP revised. CHP size reduced to 400 kWh to reflect daily power demand profile Existing power demand reduced to account for new PV panels on Civic centre RHI calculation corrected to allow for 2 tier payment arrangement Gas cost updated to new cost for next six months.

			YEARS																			
	Inflatio n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Estimated Totals
Gas consumption kWh		4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	4,764,000	95,280,000
Electricity consumption		3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	3,225,987	64,519,730
Bas cost	4%	£113,288	£117,819	£122,532	£127,434	£132,531	£137,832	£143,345	£149,079	£155,042	£161,244	£167,694	£174,402	£181,378	£188,633	£196,178	£204,025	£212,186	£220,674	£229,501	£238,681	£3,373,497
lectricity cost	4%	£283,887	£295,242	£307,052	£319,334	£332,107	£345,392	£359,207	£373,576	£388,519	£404,059	£420,222	£437,031	£454,512	£472,692	£491,600	£511,264	£531,715	£552,983	£575,103	£598,107	£8,453,604
otal cost pa		£397,175	£413,062	£429,584	£446,768	£464,638	£483,224	£502,553	£522,655	£543,561	£565,303	£587,916	£611,432	£635,890	£661,325	£687,778	£715,289	£743,901	£773,657	£804,603	£836,787	£11,827,100
NPV pa		£397,175	£401,031	£404,924	£408,856	£412,825	£416,833	£420,880	£424,966	£429,092	£433,258	£437,464	£441,712	£446,000	£450,330	£454,702	£459,117	£463,574	£468,075	£472,620	£477,208	£8,720,643

									YEARS													
	Inflatio n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Estimated Totals
All inclusive servicing	4%	£10,000	£10,400	£10,816	£11,249	£11,699	£12,167	£12,653	£13,159	£13,686	£14,233	£14,802	£15,395	£16,010	£16,651	£17,317	£18,009	£18,730	£19,479	£20,258	£21,068	£297,781
Maintenance	4%	£10,950	£11,388	£11,844	£12,317	£12,810	£13,322	£13,855	£14,409	£14,986	£15,585	£16,209	£16,857	£17,531	£18,233	£18,962	£19,720	£20,509	£21,330	£22,183	£23,070	£326,070
Electrical energy produced kWh pa		NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL										
Heat produced kWh pa		2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	2,200,800	1
Cost of woodfuel £0.033/kW	4%	£72,626	£75,531	£78,553	£81,695	£84,963	£88,361	£91,896	£95,571	£99,394	£103,370	£107,505	£111,805	£116,277	£120,928	£125,765	£130,796	£136,028	£141,469	£147,128	£153,013	£2,162,675
Balance of Gas required for existing boilers kWh pa	ł	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	2,563,200	
Cost of balance of Gas required for existing boilers	4%	£60,953	£63,391	£65,927	£68,564	£71,306	£74,159	£77,125	£80,210	£83,418	£86,755	£90,225	£93,834	£97,588	£101,491	£105,551	£109,773	£114,164	£118,730	£123,479	£128,419	£1,815,060
Electricity cost	4%	£283,887	£295,242	£307,052	£319,334	£332,107	£345,392	£359,207	£373,576	£388,519	£404,059	£420,222	£437,031	£454,512	£472,692	£491,600	£511,264	£531,715	£552,983	£575,103	£598,107	£8,453,604
TOTAL COST / pa		£438,416	£455,953	£474,191	£493,158	£512,885	£533,400	£554,736	£576,926	£600,003	£624,003	£648,963	£674,921	£701,918	£729,995	£759,195	£789,563	£821,145	£853,991	£888,151	£923,677	£13,055,189
RHI tariff benefit	4%	£73,811	£76,763	£79,834	£83,027	£86,348	£89,802	£93,394		£101,015	£105,056	£109,258	£113,629	£118,174	£122,901	£127,817	£132,929	£138,247	£143,776	£149,528	£155,509	£2,197,950
Capital cost interest	+	£19,800	£19,100	£18,400	£17,600	£16,800	£15,900	£15,000	£14,100	£13,200	£12,200	£11,300	£10,300	£9,200	£8,100	£7,100	£5,900	£4,700	£3,500	£2,300	£1,100	£225,600
NET TOTAL COST pa		£384,405	£398,289	£412,757	£427,731	£443,336	£459,498	£476,342	£493,895	£512,187	£531,147	£551,005	£571,593	£592,945	£615,194	£638,478	£662,533	£687,599	£713,714	£740,923	£769,268	£11,082,840
NPV pa		£384,405	£386,689	£389,063	£391,435	£393,899	£396,367	£398,929	£401,582	£404,325	£407,080	£409,999	£412,931	£415,879	£418,917	£422,109	£425,255	£428,489	£431,809	£435,214	£438,703	
Saving against existing regime									£527,565													
											Capital cost	£668,000										
									-											Nett sa	ving to ABC	-£140,435

Maintenance 4% £27,316 £27,330 £22,347 £22,012 £27,347 £28,376 £40,536 £47,460 £40,340 £40,346 £51,286 £51,286 £53,341 £57,286 Electrical energy produced WM pa 2,291,200	Option 2 New 400 k	Wh C	HP plant s	upplement	ed by boilers	in Stour Ce	ntre plus Civi	ic Centre boi	lers to provid	le top up he	ating (Old bo	oilers in old p	oart of build	ing removed) plus some	power from the	ne national g	rid					
p 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 Estimated T Maintenance 4% 525.318 C26.336 C27.394 C28.479 C29.100 2.291.00 2													YEAR	S									
Electricital energy conducted Wm pa 2.291.200		Inflatio n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Estimated Totals
produced twm fract 2.2491.00	Maintenance	4%	£25,318	£26,330	£27,384	£28,479	£29,618	£30,803	£32,035	£33,316	£34,649	£36,035	£37,476	£38,976	£40,535	£42,156	£43,842	£45,596	£47,420	£49,316	£51,289	£53,341	£753,914
Cost of gas huel pa 4% £142,341 £148,035 £163,956 £160,115 £166,519 £173,180 £180,107 £187,312 £194,804 £220,586 £217,000 £224,889 £226,639 £226,649 £266,603 £277,267 £288,388 £299,992 £4.23 Balance of Gas required for existing boilers KWh palers 1,825,536	produced kWh pa																					, ,	
Cost of parts loop is l	Heat produced kWh pa		2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	2,938,464	1
Into existing boliers kWh 1.825,536 <th< td=""><td>Cost of gas fuel pa</td><td>4%</td><td>£142,341</td><td>£148,035</td><td>£153,956</td><td>£160,115</td><td>£166,519</td><td>£173,180</td><td>£180,107</td><td>£187,312</td><td>£194,804</td><td>£202,596</td><td>£210,700</td><td>£219,128</td><td>£227,893</td><td>£237,009</td><td>£246,489</td><td>£256,349</td><td>£266,603</td><td>£277,267</td><td>£288,358</td><td>£299,892</td><td>£4,238,653</td></th<>	Cost of gas fuel pa	4%	£142,341	£148,035	£153,956	£160,115	£166,519	£173,180	£180,107	£187,312	£194,804	£202,596	£210,700	£219,128	£227,893	£237,009	£246,489	£256,349	£266,603	£277,267	£288,358	£299,892	£4,238,653
required for existing boles 4% £43,411 £46,544 £46,654 £48,832 £50,785 £52,816 £54,929 £57,126 £64,559 £66,830 £64,503 £72,283 £77,174 £78,181 £81,308 £84,561 £87,943 £91,461 £12,93 bolers bolers 934,787 934,78			1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	1,825,536	
Luse kWh pa 394,767 <td>required for existing</td> <td>4%</td> <td>£43,411</td> <td>£45,148</td> <td>£46,954</td> <td>£48,832</td> <td>£50,785</td> <td>£52,816</td> <td>£54,929</td> <td>£57,126</td> <td>£59,411</td> <td>£61,788</td> <td>£64,259</td> <td>£66,830</td> <td>£69,503</td> <td>£72,283</td> <td>£75,174</td> <td>£78,181</td> <td>£81,308</td> <td>£84,561</td> <td>£87,943</td> <td>£91,461</td> <td>£1,292,703</td>	required for existing	4%	£43,411	£45,148	£46,954	£48,832	£50,785	£52,816	£54,929	£57,126	£59,411	£61,788	£64,259	£66,830	£69,503	£72,283	£75,174	£78,181	£81,308	£84,561	£87,943	£91,461	£1,292,703
Cost of heat produced £0 </td <td></td> <td></td> <td>934,787</td> <td></td>			934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	934,787	
Cost of hear produced Cost of hear prod	Electricity cost	4%	£82,261	£85,552	£88,974	£92,533	£96,234	£100,083	£104,087	£108,250	£112,580	£117,083	£121,767	£126,637	£131,703	£136,971	£142,450	£148,148	£154,074	£160,237	£166,646	£173,312	£2,449,581
RHI tariff benefit £0 £10.00 <	Cost of heat produced		£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	ļ
Capital cost interest £20,800 £20,000 £19,200 £18,400 £17,600 £16,600 £15,700 £14,800 £13,800 £11,800 £10,700 £9,700 £8,500 £7,300 £6,100 £4,900 £3,700 £2,400 £1,000 £4,60,02 £4,60,02 £4,62,271 £4,60,02	TOTAL COST/ANNUM		£293,332	£305,065	£317,267	£329,958	£343,156	£356,883	£371,158	£386,004	£401,445	£417,502	£434,202	£451,571	£469,633	£488,419	£507,955	£528,274	£549,405	£571,381	£594,236	£618,005	£8,734,851
NET TOTAL COST pa £314,132 £325,065 £336,467 £348,358 £360,756 £373,483 £386,858 £400,804 £415,245 £430,302 £446,002 £462,271 £479,333 £496,919 £515,255 £534,374 £554,305 £575,081 £596,636 £619,005 £8,97 NPV pa £314,132 £315,597 £317,153 £318,797 £320,527 £323,988 £325,891 £327,798 £329,791 £331,868 £333,954 £336,195 £336,195 £340,645 £342,994 £345,424 £347,933 £350,461 £353,010 £6,636 Saving against existing regime CHP Capital cost £320,527 £322,169 £323,988 £327,798 £329,791 £331,868 £333,954 £336,195 £336,195 £340,645 £342,994 £345,424 £347,933 £350,461 £353,010 £6,636 6 £314,132 £315,597 £317,153 £318,797 £320,527 £323,988 £327,798 £329,791 £331,868 £333,954 £336,195 £340,645 £342,994 £345,424 £347,933 £30,665 £2,08 £2,08 £2,08 £2,08	RHI tariff benefit		£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
NET 10 FAC 000 Fpa £314,132 £315,597 £317,153 £318,797 £322,169 £323,988 £325,891 £327,798 £329,791 £331,868 £333,954 £336,195 £340,645 £342,994 £345,424 £347,933 £350,461 £353,010 £6,633 Saving against existing regime CHP Capital cost	Capital cost interest		£20,800	£20,000	£19,200	£18,400	£17,600	£16,600	£15,700	£14,800	£13,800	£12,800	£11,800	£10,700	£9,700	£8,500	£7,300	£6,100	£4,900	£3,700	£2,400	£1,000	£235,800
Saving against existing regime £2,08 CHP Capital cost £70	NET TOTAL COST pa		,	-	-	-		-	-		-			-	-	-	,	,	,		-		
CHP Capital cost £70	NPV pa		£314,132	£315,597	£317,153	£318,797	£320,527	£322,169	£323,988	£325,891	£327,798	£329,791	£331,868	£333,954	£336,195	£338,377	£340,645	£342,994	£345,424	,			
		Saving against existing regime																					

APPENDIX 3

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HEATING OPTION	400 kWh gas powered CHP	plant supplemented by existing gas	2 No 350 kWH BIOMASS Boilers powered by	wood chip fuel & supp
Estimated annual energy consumption (cf current regime: Gas 4.76m kWh Electricity 3.23m kWh\)	Gas 7.81 million kWh	Electricity 0.93 million kWh	Gas 2.56 million kWh Electricity 3.	.23 million kWh Wo
Estimated net present value energy cost saving against current regime over 20 years (annual energy cost inflation assumed at 4% for gas & electricity)		£1.384m saving	Costs ad	ditional £140,000
System Specific Capital Cost	£	700,000		2668,000
-	PROS	CONS	PROS	
Carbon Savings in comparison to existing regime	Uses gas, a fossil fuel. Provides annual CO2 emission saving of approximately 546 Te per year. The CO2 saving arises from local generation of electricity by the CHP plant rather than electricity supply from the national grid which is part supplied from 'dirty' fuels such as coal and which has significant transmission loses.		Uses renewable wood fuel not a fossil fuel. Biomass heating is considered to be carbon 'lean' and there will be a CO2 emission saving of approximately 460 Te per year	
Local employment & business impact		Generates no local jobs and gives no benefit to local businesses.	Use of wood chip fuel could create two new jobs in Kent as part of a local wood fuel supply contract with a value of around £70,000 per annum for a south east based supplier. This would add momentum to the wood fuel supply market in kent. These benefits are dependant upon a local company winning a competitively tendered wood fuel supply contract advertised in the European Journal.	
Other Environmental benefits			Additional areas of Kent woodland could be protected and maintained as a result of coppicing for wood fuel supply, with the associated benefit to biodiversity of the local environment.	
Whole life routine plant maintenance and equipment repairs	Full CHP servicing and equipment failure replacement can be carried out by the plant provider using remote performance monitoring and control of the plant alongside regular site maintenance visits. The cost of this has been included in the commercial appraisal	CHP whole life plant maintenance is considerably more expensive than Biomass.	Biomass boiler suppliers have been reluctant to give a whole life maintenance and repair cost for all the equipment required for this heating solution. One supplier has given an annual cost of £10,000. Therefore biomass boiler maintenance and the cost of equipment repairs is substantially cheaper than for CHP.	

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pplemented by existing gas boilers Vood Chip 2.20 million kWh CONS

	PROS	CONS	PROS	
Operational maintenance	There are no operational costs associated with CHP.			Biomass boiler operation expensive if fuel quality controlled/designed. The to order fuel, supervise However these problem by good fuel quality co- maintenance has been that this will be the cas
Operational flexibility	CHP has a turn down capacity of 60% making it more flexible particularly in mild mid-season periods. CHP can operate 365 days per year. The plant includes recuperation of heat from exhaust gases as well as generation of electricity. In summer excess heat could be used to provide chilling for air conditioning The ability of the CHP plant to generate electricity negates the need to maintain (and replace at end of life) the existing emergency diesel generator in the Civic centre. This would generate a future capital cost saving in the order of £40,000 and an annual maintenance cost saving of £1,000			Biomass boilers do not demand and so they ha their size. The biomas year cost saving) if abs design. The business stage.
Equipment replacement		CHP plant life expectancy is 15 years, 5 years less than Biomass boilers. This has been taken into account in the commercial appraisal of the two options	Biomass boiler life is 20 years. The fuel transfer system may need replacement before the boilers. This has been taken into account in the commercial appraisal	
Fuel supply	Secure gas supply with automatic delivery		Use of wood fuel spreads fuel supply cost risk across three fuels; wood, gas and electricity. The Kent woodland provides a sustainable source of fuel for Biomass	
Fuel storage	No storage required for gas			Fuel storage must be v clinker in boilers
Fuel transfer	No transfer mechanism - piped supply			The fuel transfer mech be susceptible to block carefully controlled.
Fuel quality	No expected quality issues with gas			Size of wood chips and moisture content can le efficiency. Fuel quality and careful audit.
Fuel source and cost	ABC is less exposed to electricity price increases as CHP generates electricity from gas	There is a risk of cost escalation of gas supply (could be higher than woodchip) as gas is dependant on world supplies	Kent has sufficient coppiced woodland to provide a sustainable wood fuel source. Fuel cost increases can be linked to RPI or a similar index by entering into a long term supply contract. This would avoid risk of disproportionate cost escalation.	The chosen biomass s exposed to cost escala There are biomass pla providing heat but thes size of less than 2 meg
Renewable Heat Incentive (RHI)		No benefit from RHI	Biomass qualifies for RHI payments from the government for a period of 20 years	The Governments RHI RHI payments could be application.
Gas supply availability		Relies on additional sustained gas supply being available into the building. Gas supplier has confirmed that this can be made available	An increased gas supply is not required	

ational maintenance can be quite involved and lity, storage and handling methods are not well This could result in the need for a part time operative ise unloading, clear fuel blockages and clear ash. lems and the associated labour cost can be minimised control and plant design. The cost of operational en reduced to £10,950 per annum on the assumption ase.

not cope well with large and rapid changes in heat have to operate on a static heat baseload which limits ass boiler size could be increased (increasing the 20 absorption chilling is incorporated into the overall as case for this would be checked at detail design

watertight (through good design) to avoid excessive

chanism is a complex mechanical system which can ckages if design is inadequate or if fuel quality is not

nd moisture content are very important. High h lead to 'smoke' generation and a drop in boiler hity can be controlled by fuel supply contract conditions

a solution does not generate electricity so ABC is alation on electricity supplied from the national grid. Alants available that can generate electricity as well as ese types of plant are not recommended for a plant egawatts.

HI application process is complicated and so the first be delayed. This risk may be minimised by pre-

Presentation by Ashford Clinical Commissioning Group

'Health Care provision in the Borough, now and going forward'

The Government's plans for the NHS are giving new opportunities for GPs in primary care to work with partners to 'join up' health and social care for residents. These partners include: Ashford's patients, hospital staff (secondary care), Kent County Council (KCC) Social Services (for those needing more support with everyday living), Ashford Borough Council and the voluntary sector. Ashford Clinical Commissioning Group's aim is to ensure that decisions made for residents meet everyone's needs.

Ashford Clinical Commissioning Group (ACCG) is grasping this opportunity, and is already working more closely with all these organisations.

The clinical commissioning group is new, but the GPs of Ashford have been talking together about the health needs of our community for some years. The difference now is that the Government is actively promoting this work, and ACCG plans to be a fully approved commissioning group by April 2013.

The presentation tonight will explain how these changes will affect, and be relevant to, the residents of Ashford Borough.

Overview and Scrutiny Committee

26 February 2013

Future reviews and Report Tracker

March

Update report on Communications ABC Business Plan quarterly performance report Q3

April

Presentation from Stour Valley Arts: "Stour Valley Arts – investing in Ashford" Community Safety Partnership – update Code of conduct for charity street collections

Year Plan 2012/13

Month	items	Task Group
May	O&S annual report.	
	 Membership of Budget Scrutiny Task Group 	
June	Sickness & Absenteeism annual report.	
July	 ABC Business Plan quarterly performance report. 	
	Shared space 3 year post implementation report.	
August	Cancelled	
September	 Post Mayoralty review – update on effect of changes. Apprentices 	BSTG meeting
October	ABC Business Plan quarterly performance report	
	Transportation costs	
	Listed Buildings	
November	Cancelled	
December		Scrutiny of Council's draft 2013/14 budget – Budget Scrutiny TG meetings
January	Report of Budget Scrutiny Task Group	Budget Scrutiny TG meetings
	Briefing on Welfare Reform	
February	 Presentation from Ashford Clinical Commissioning Group re Health Care Provision in Ashford Borough Stour Centre – Biomass/CHP review 	
March	Update report on Communications	
	ABC Business Plan quarterly performance report	
April	 Presentation from Stour Valley Arts 	
	 Community Safety Partnership – update 	
	Code of conduct for charity street collections	

O&S Committee – Report Tracker – Current position

Minute No.	Report Title	Officer	Date due	Current position	Recommended action
299/10/06	Stour Centre	Head of Cultural & Project Services	TBC – after completion of claim work	Work ongoing	Await completion of claim work.
62/06/11	Housing Strategy Action Plan Monitoring Report	Head of Housing /Housing Strategy Officer		Housing Strategy under review. New Strategy/Action Plan not yet in place. Monitoring will recommence One year after adoption of new Strategy.	Timetable for one year after adoption of new Strategy.
432/03/11	Annual Review of Homelessness Strategy	Head of Housing		The Homelessness Strategy to be included in the Housing Strategy in future.	
61/06/12	Sickness and Absenteeism – annual report	Head of Personnel & development	June 2013		Timetable for June each year.
14/05/12	Overview and Scrutiny Annual Report	Senior Scrutiny Officer	May/June 2013		Timetable for May/June each year
197/10/11	Community Safety Partnership – update	Licensing and Community Safety Manager	October 2012	Deferred to March 2013.	On April 2013 agenda
142/09/12	3 year review of Mayoralty		Sept 2015		
312/01/12	Street Markets	Licensing and Community Safety Manager		O&S may wish to review once report has been to Cabinet	Await report to Cabinet

389/03/12	Update report on Communications	Communications & Marketing Manager; Head of Business Change & Technology	February 2013		
429/04/12	Presentation by Stour Valley Arts	Stour Valley Arts, Arts & Cultural Industries Manager	April 2013	Deferred to spring 2013	On April 2013 agenda
429/04/12	Update on Stour Valley Arts agreement	Stour Valley Arts, Arts & Cultural Industries Manager	ТВА		
431/04/12	ABC Business Plan performance report – quarter 3 2012/13	Policy & Performance Manager	Feb/May/ Aug/Nov	Deferred to March 2013.	
62/06/12	Sports & Leisure		ТВА		
304/01/13	Code of conduct for charity street collections	Licensing and Community Safety Manager	April 2013		
304/01/13	Stour centre Biomass/CHP review	Project Office Manager	February 2013		
303/01/13	Review of 'Best Services resources allow' activity	ТВА	ТВА		

Low Priority & oth	er proposed reports
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	Report Title	Officer	Date due	Current position	Recommended action
57/06/08 199/10/11	Recycling and the Blue box scheme	Head of Environmental Services	TBC	To be considered when procurement process completed and new contract in operation.	
135/08/08	Cultural strategy.	Head of Cultural & Project Services			
291/12/08	The effectiveness of a single O&S committee		ТВА		