

CABINET (HOUSING) COMMITTEE

20 June 2012

WINNALL FLATS - NEW HEATING AND HOT WATER SERVICES

REPORT OF THE HEAD OF LANDLORD SERVICES

Contact Officer: Andrew Kingston

Tel No: 01962 848240 akingston@winchester.gov.uk

RECENT REFERENCES:

None

EXECUTIVE SUMMARY:

This report sets out proposals, and seeks approval for, the commissioning and renewal of heating and hot water services to the four medium rise blocks of flats in Winnall Manor Road, Winnall (Dennett, Earle, Craddock and Braxton Houses).

The report sets out and reviews a number of possible different options, and proposes a preferred solution of taking advantage of the Government's Renewable Heat Incentive scheme and installing a "biomass" solution to all blocks to replace the existing night storage heating solution. The report also considers procurement options and likely timescales in terms of project implementation.

If members are in agreement with the proposed way forward, a formal tenant consultation process will be undertaken in the summer and a detailed feasibility study completed to ensure all technical and financial matters are considered, prior to a final report on the proposal and final procurement issues is brought back to this Committee later in the year.

RECOMMENDATIONS:

1. That the approach, proposals and preferred solution (communal biomass boilers) outlined in this report be approved.
2. That, subject to 1 above, a detailed report on the technical and financial implications of the proposal and the final procurement method be brought back to this Committee in September.

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DETAIL:

1 Background

- 1.1 The medium rise flats on Winnall Manor Road comprise of 156no.1 and 2 bedroom flats arranged within four separate detached blocks. For all intents and purposes, these four blocks (Braxton, Earle, Craddock and Dennett) are all identical in nature.
- 1.2 Of the 156 tenants, 134 are council tenants and 22 are leaseholders who have purchased under right to buy. There is a mix of tenants and leaseholders in each of the four blocks.
- 1.3 The flats were originally built in 1963, and were extensively refurbished (external walls re-built; new heating systems installed; etc.) in 1985. Since that time, various other refurbishment works have been undertaken - primarily on improvements to the external envelope elements (windows; roofs; door entry etc.).
- 1.4 A feasibility study for combined heating and power (CHP) generation was carried out in the 1990s, and re-visited again about eight years ago. On both occasions, CHP was deemed unaffordable (without significant external grant aid) so the proposals were dropped.
- 1.5 The flats are currently heated by electric storage heaters, with hot water provided by electric emersion heaters.

2 Generally

- 2.1 For sometime now it has been accepted that the heating arrangements in these flats have been far from satisfactory for a number of reasons. Storage heaters are not only relatively expensive to run, but the heat output is not easily controlled and quite often not when the tenant most needs it. An added problem for those flats at the higher levels is their exposure to the elements - as an example, wind chill factors can convert a ground level temperature of 0 to -20 at roof level. The high cost of running storage heaters has also undoubtedly contributed to condensation problems (which are fairly prevalent in these flats), because tenants either have to limit their heating, and/or keep their windows closed, to conserve what heat they can afford.

2.2 Although ad-hoc replacements will have taken place over time, many of the storage heaters are now nearly 30years old and due for replacement. The Council is keen to find a replacement heating solution, and therefore the purpose of this report is to confirm, and seek approval for, officer recommendations in respect of new heating and hot water services to the Winnall medium rise flats.

3 Options considered

3.1 The options that been considered are summarised in Appendix A.

3.2 In simple maintenance management terms, storage heaters (and/or electric radiators) are the best proposal because installation and maintenance costs are by far the lowest. The use of storage heaters also doesn't introduce any additional hazards into the individual dwellings - namely natural gas and its combustion by-products (e.g. CO). That said, storage heaters are almost universally not well-liked by tenants, and are expensive to run.

3.3 Most tenants, given the choice, will opt for gas boilers with wet radiator systems. Gas is still perceived by tenants as the cheapest way to heat their property, and wet system radiators afford other additional benefits (e.g. being able to dry clothes safely without the need for additional radiator covers etc.)

3.4 The key drivers for tenants are therefore low, or lower, running costs, and a wet radiator system. Tenants are less interested in how these radiators are actually heated (i.e. by domestic local boiler, or from communal sources). The key drivers for the Council remain best value in installation and ongoing maintenance costs and, where practically and economically viable, a move towards renewable energy sources.

3.5 Of the options summarised in Appendix A, only one satisfies the majority of these very different drivers - communal biomass boilers.

4 What are Biomass boilers?

4.1 Biomass heating systems are effectively wood-fuelled heating systems which burn pellets (compressed sawdust), chips or logs to provide warmth.

4.2 Although relatively new to the UK, biomass boiler technology is very well established and has been used very successfully for many years throughout the world - with particularly strong investment in Germany, Austria and Switzerland where it is proven to be a very low maintenance and long-lasting technology.

5 What are the environmental benefits of biomass heating?

- 5.1 Although the cost of wood fuel can vary considerably, it is often cheaper than other heating options and is therefore a relatively affordable heating fuel.
- 5.2 The carbon dioxide emitted when wood is burned is the same amount that was absorbed over the months and years that the plant was growing. The process is sustainable/renewable as long as new plants continue to grow in place of those used for fuel. There are some carbon emissions caused by the cultivation, manufacture and transportation of the fuel, but as long as the fuel is sourced locally, these are generally regarded as much lower than the emissions from fossil fuels.

6 Funding and the financial benefits of communal biomass heating?

- 6.1 There is financial help for communal biomass options in the form of the renewable heat incentive. The Renewable Heat Incentive (RHI) is a UK Government scheme set up to encourage uptake of renewable heat technologies amongst householders, communities and businesses through the provision of financial incentives. The UK Government expects the RHI to make a significant contribution towards their 2020 ambition of having 12 per cent of heating coming from renewable sources. The Renewable Heat Incentive is the first of its kind in the world.
- 6.2 The RHI introduced by the government in November 2011 provides a generous cash income (for 20years) for heat produced from renewable sources. Early indications suggest that this project would be acceptable to receive the RHI income.
- 6.3 The RHI income is payable to the boiler “owners”. The question therefore arises as to whether or not the Council wishes to self-fund the heating element of the installation (normally the boilers, boiler housings and boiler maintenance) and receive the RHI income themselves, or if they would prefer an external supplier to fund the capital outlay and receive the RHI income. Either way, the flats would benefit from a state of the art renewable heating system.
- 6.4 If the external supplier funds the capital outlay, the RHI should be sufficient to meet all boiler costs. It is likely that the Council would have to meet the installation costs of the pipework and radiators (and potentially usage meters) to each flat, estimated to be in the region of £100,000 per block. If the Council were to fund the purchase and installation of the boilers, total project costs are likely to be in the region of £750k to £1m. However, it could benefit from significant annual RHI payments over 20 years, with a potential payback within 10 years. It must be noted that similar claims were made in relation to solar PV proposals but were overtaken by tariff changes. A detailed “discounted cash flow” forecast will be included in the final report to support the final decision on the best way forward.

6.5 The Council would still have to fund the installation of the wet system pipework and radiators to the individual flats, and the connecting pipework from the blocks to the boilers. In addition, a separate operation contract would need to be set up to cover regular ash removal and the feedstock (wood chip or pellet) delivery. This operation contract would fall under the Council's responsibilities, but any costs would be fully recovered from tenants and leaseholders either as part of a "service charge", or directly through individual heat meters. The legal position on including leaseholders' properties within the schemes and the impact on service charges will be included in the detailed assessment in the future report to the committee.

6.6 It is anticipated that the project will generate significant savings for residents – some estimates put this saving as high as 40-50% (overall average) on tenant heating and hot water bills. Clearly, individual savings per household could vary significantly from this average depending on existing heating habits, but on the whole such a scheme is expected to significantly improve the quality of life for those in (or close to) fuel poverty.

7 Building - practical implications

7.1 This report has been produced in advance of a detailed survey and fuller feasibility study, but it is likely that for each block there would be separate standalone plant houses (typically similar in size to 20ft sea container) to avoid extensive trenching between blocks.

7.2 Although these boiler houses would be appropriately externally clad to blend into the area, and for technical reasons located as close as possible to each block of flats, we anticipate planning permission will still need to be obtained.

7.3 Internally, the boiler house is likely to contain two separate boilers to provide a level of contingency in case one fails, and these would then be plumbed into a new wet system for the blocks. In addition, each flat would be fitted with a separate immersion heater to provide additional contingency.

8 Programme/timescales

8.1 The proposed project timetable is contained within Appendix B.

8.2 This scheme is currently being explored as a result of the generous funding available from the RHI; however, as the recent Government decision to cut the "feed-in" tariffs available for Solar PV installations has shown, it is recommended that a decision regarding moving forward on the project be reached sooner rather than later.

8.3 We estimate that the construction time would be in the region of 6-8 weeks per block and would depend very much on favourable tenant/leaseholder access.

9 Procurement Proposals

- 9.1 This contract would be deemed to be a “Service Contract”, and above the threshold for the application of the European Union tendering procedures. Therefore the Council is bound by law to follow EU procurement procedures in both the procurement, assessment and awarding of this contract.
- 9.2 Subject to satisfactory feasibility, the intention is to follow the OJEU Restricted tendering procedure. This is a two stage process where prospective tenderers register their interest in the works by returning a completed pre-qualification questionnaire (PQQ). The PQQ will allow officers to ensure that all those shortlisted, following the PQQ stage, are capable of fulfilling the service requirements.
- 9.3 It is intended that any contract will be awarded to the shortlisted tenderer who submits the lowest sustainable price.

10 Communal Service re-charges

- 10.1 Tenants and leaseholders currently pay for the fuel cost of the heat and hot water they use direct to their energy supplier. These costs are fully inclusive i.e. they include the direct and indirect costs of the fuel and its supply to the door. It is therefore not unreasonable for tenants and leaseholders to pay (via recharge) all costs associated with the fuel and its management (i.e. fuel supply costs + operation contract costs + council administration costs etc.) as part of any new communal solution.
- 10.2 The Council currently has no liabilities in respect of tenant/leaseholder utility bills, so this is a fundamental shift for the Council and tenants/leaseholders alike. The Council will be exposing itself to more risks (due to bad debt/poor payers) and some tenant/leaseholders will undoubtedly resist the loss of independence/self-determination in this and other respects. As part of the general consultation exercise, there will have to be a general acceptance from all stakeholders that for the scheme to move forward and for it to be a success, there will have to be compromise on all sides. The final details on the approach to be adopted in relation to service charge calculations will be covered in the detailed report on this proposal in September.

OTHER CONSIDERATIONS:

11 SUSTAINABLE COMMUNITY STRATEGY AND CHANGE PLANS (RELEVANCE TO):

- 11.1 Replacing existing fossil fuel systems which are inefficient and expensive for tenants to run, and replacing them with more affordable and sustainable heating options supports the Council key priority of improving the quality of

the life for it's residents. The added possibility of a positive long term income stream (after payback) also supports efficient and effective use of resources.

12 RESOURCE IMPLICATIONS:

- 12.1 Provision (£200k) had originally been ear-marked within this years programme to make a start at Winnall Flats. These works are now unlikely to start on site before next April, so other heating schemes will be brought forward and worked up to backfill this years programme.
- 12.2 Before a final decision is taken to proceed with the proposals in this report it will be necessary to conduct a full financial appraisal which will be reported back to Cabinet in due course. This will address the capital and revenue implications of the new heating arrangements for the HRA and also ensure that tenants can expect to have lower energy bills than at present. Clearly, the proportion of that final cost which falls eventually to the Council depends very much on which funding option is chosen, but whichever option is adopted the intention is to complete the whole scheme to all four blocks next summer. Therefore, a very significant proportion of next years heating budget is likely to be pre-allocated to this scheme.
- 12.3 The work associated with the feasibility, financial appraisal and tenant consultation will be undertaken by existing staff and can therefore be met from approved HRA revenue budgets.

13 RISK MANAGEMENT ISSUES

- 13.1 Although biomass technology is very well established, and has been used very successfully for many years throughout the world, it remains relatively new not only to the Council, but to the UK generally. A full feasibility will be completed and measures put in place, wherever practically possible, to appropriately and proportionately mitigate the risks associated with such a scheme.
- 13.2 The Council currently has no liabilities in respect of tenant utility bills. Communal heating schemes inherently expose the Council to more risk in this respect , because not only does the Council have to fund the fuel cost up front, but it also risks not recovering the full cost from tenants and leaseholder due to poor or non-payers.

14 TACT COMMENT

- 14.1 TACT welcomes this proposal. This portion of Housing Stock has been 'missing out' on this sort of up-grade over recent years so any chance it can be dealt with now is well received.

BACKGROUND DOCUMENTS:

None

APPENDICES:

Appendix A - Heating and hot water options matrix.

Appendix B - Project Programme/timetable.

Winnal Flats - new heating and hot water services - 2012/13

	2012												2013					
	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	
	1 Cabinet approval of heating proposals	■																
2 Project feasibility		■	■															
3 Impact assessment & tenant consultation			■	■	■													
4 Preparation of PQQS and issue OJEU notice		■	■															
5 Expressions of interest/PQQ period			■	■	■													
6 Approval of shortlist					■	■												
7 Preparation of survey brief/ITT			■	■	■	■												
8 Planning approval for boiler houses/fuel stores			■	■	■	■	■	■	■	■								
9 Tender period						■	■	■										
10 Contractor selection and award								■	■									
11 Contract mobilisation									■	■	■							
12 Works on site												■	■	■	■	■	■	■