

# **Holly Lodge Estate Residents Association review of the options appraisal for heating and hot water**

23<sup>rd</sup> January 2018

## **Introduction**

The Holly Lodge Residents Association (HLRA) met with Derek Wells (Camden Council) and Alex Maguire (TGA Consulting Engineers) on 6<sup>th</sup> December 2017, where Camden's preferred option for communal heating and hot water provision was presented. Councillor Gimson was also present. At that meeting the HLRA requested a copy of the full options appraisal to review, which was provided by email on the 18<sup>th</sup> December.

The HLRA have reviewed the full options appraisal (marked as Issue 2 and dated 11<sup>th</sup> September 2017) and have also taken on board comments from two professionals working in relevant fields.

**The HLRA has a number of concerns about the current iteration of the options appraisal and believe it to be an inadequate basis on which Officers, Councillors or residents can make a decision. In particular it needs to be further developed before full consultation with residents can reasonably commence.**

Our concerns fall into the following categories and are detailed in the corresponding sections that follow:

1. Assumptions which need to be tested and refined
2. Consideration of residents' needs
3. Inaccuracies and omissions
4. Risks and sensitivity analysis
5. Surveys required

### **1. Assumptions which need to be tested and refined**

- 1.1. As a general point, it is disappointing and worrying to see how little the knowledge of the estate has advanced since the initial meeting in 2015. Adequate knowledge of the estate is a necessity for properly informed assumptions, and essential as the basis for a major decision which will affect the homes and finances of hundreds of households.
- 1.2. 1-16 Makepeace Mansions appears to be used a template for routing pipes (section 4.4.1). This is not a sound assumption; the layout of blocks and flats varies considerably across the Estate.
- 1.3. The assumption of load in section 5.1 is based on an average of a 2-bedroom, 3-person flat. This is unlikely to be accurate in the case of the blocks concerned, as many flats are 1-bedroom and there is a lot of single occupancy. More precise information should be available from Camden sources.
- 1.4. The options appraisal assumes that blocks currently receiving communal hot water only are heating their flats with electricity. This is not accurate – many of these flats

have individual gas boilers to provide heating. The inaccuracy of this assumption affects the assumptions about carbon use, and the assumptions about existing gas pipework. Many flats also have gas connections for cooking.

- 1.5. It appears that no other sites within the Holly Lodge Estate were considered for the location of a plant room. There are other spaces on the estate which may be suitable. This implies that there may need to be a further option (with perhaps sub-options) included in the options appraisal based on an alternative plant room site on the Holly Lodge Estate.
- 1.6. A material component of the preferred option (linkage to the Highgate Newtown plant) is the estimated value of £1million arising from the sale of the land on which the current plant sits (Section 4.3). This urgently requires an independent valuation. We believe achieving this value is unlikely give the small size of the plot; the close proximity of other buildings; the location within a conservation area; and the relatively short remaining lease. No details are given of where pumping equipment (if necessary) would be located if the site were sold, and hence whether selling is even a viable option.
- 1.7. Section 4.4.6 states that the option of local boilers “departs significantly from the existing sitewide strategy”. There is no evidence of any sitewide strategy: Camden continue to choose to install individual boilers in tenants’ flats and we have been reassured by Councillors that there is no policy automatically favouring communal systems, so departing from a “strategy” should not be a consideration.
- 1.8. Table 4.1 describes, in generic terms, the differences between local, decentralised and communal approaches in relation to various aspects of a heating and hot water system. This needs to be addressed specifically to the situation of the Holly Lodge Estate rather than be based on general assumptions, since that is the point of the options appraisal. In particular, this should include the following changes:
  - Metering – the table incorrectly implies that for local installations meters would have to be located within flats – many are not today. The table also incorrectly implies that decentralised and communal approaches preclude individual heat and water metering.
  - Flues – what are the environmental implications of the flues required by each approach?
  - Plant – the table implies that only a local approach requires plant to be installed within flats. Given that all of the decentralised and communal options involve installing an HIU in every flat, this is misleading.
  - Maintenance – as per the previous point, the entries for the decentralised and communal options ignore the need for maintenance of HIUs in each flat.
  - Cost – this row contradicts the costs given in the appendix, which state that local installations would have the highest capital cost.

- Efficiency – the wording of these descriptions makes it impossible to deduce which option is considered most efficient. This is compounded later in the document where the heat network option is presented as the most efficient, despite using the most fuel.

- 1.9. Sections 4.4.4 and 4.4.3 describe Option 2a and Option 2b respectively. These options rely on a mix of communal, decentralised and, for Option 2b, local systems. The diagrams show “notional” ways in which each block could be allocated to a communal, decentralised or local system. There is no obvious reason why “notional” allocations are shown rather than a logical proposal. Currently the diagrams suggest the possibility of removing some blocks from the communal system, *whilst simultaneously adding blocks which today have entirely independent heating and hot water systems*. This is important because the ‘notional’ allocations are carried forward into the cost assessment in terms of the numbers of flats which require each type of dwelling installation, so the costs are based on completely illogical allocations.
- 1.10. The point is made (Section 4.4) that where blocks fall entirely in the ‘local’ category “it may not be practical or cost effective to convert these blocks”. It would seem to be material to this options appraisal to further explore this situation before making any decisions.

## **2. Consideration of residents’ needs**

- 2.1. 40% of flats do not currently receive communal heating. 13% do not receive communal hot water. According to the meeting on the 6<sup>th</sup> December, Councillors made a decision on the preferred option without being aware that it involved imposing a new service on almost half of residents. Whilst communal heating could possibly be an attractive option for residents, the current options appraisal is insufficient to enable that decision to be made. In addition, it is unclear that leases enable this imposition without agreement.
- 2.2. The options appraisal neither acknowledges, nor gives any weight to, residents’ concerns about disruption as a result of works; significant costs to make good flats; and lost earnings as a result of needing to take time away from work to deal with contractors.
- 2.3. One of the key causes of disruption from all of the proposed options is the apparent requirement to cease the separate supply of hot water and cold to kitchens and bathrooms. This was raised at the meeting in October 2015 and residents were told that the legislative requirement for water and heat metering precluded maintaining the dual supply, as it made metering impossible; and that installation of HIUs was only possible with a single supply of water.

However, at the meeting on the 6<sup>th</sup> December 2017, no guarantee was given that water or heat metering would be implemented as part of any of the options considered. If metering is now considered dispensable, a proper explanation needs to be provided as to why the plant between blocks cannot be upgraded, in preference to installing

individual HIUs, which would allow the preservation of existing pipework within flats, massively reducing the disruption and resultant costs to residents.

- 2.4. The reluctance to commit to heat and water metering in the 6<sup>th</sup> December meeting suggests that residents will be locked into fixed charges. This will prevent individuals from exercising any control over their own costs and removes any incentive to moderate use, increasing overall fuel use.
- 2.5. Under the communal systems, the choice of radiator size for installation within the flats seems to be prioritise the requirements of the communal system rather than the needs and preferences of the resident.

### 3. Inaccuracies and omissions

- 3.1. Section 1.3. states that there have been discussions with residents, “a non-intrusive survey”. To our knowledge there have been no discussions with residents. We would like to know exactly what discussions were had and how these results affected the appraisal.
- 3.2. At the 6<sup>th</sup> December 2017 meeting, we were told that even operating at full load for both estates, the Highgate Newtown boilers would have plenty of spare capacity. The options appraisal contradicts this. If their total capacity is 4MW (1MW per boiler) and the demand estimate for the 400 flats on Holly Lodge is 2.3 MW, plus the 300 flats on Highgate Newtown Estate, then there appears to very little spare capacity and in fact the failure of just one boiler would leave the remaining plant unable to meet demand. We note that no costs are allocated to increasing the capacity at Highgate Newtown.
- 3.3. Section 7.2 does not adequately explain why individual boilers are considered so inefficient, given they suffer no buffering or distribution losses, and given that the following paragraph states that the heat network approach would consume more fuel.
- 3.4. The options appraisal is primarily concerned with the costs to Camden. It does not set out clearly the costs **to residents** of the various options. Most residents are not accountants and it is Camden’s responsibility to ensure this information is provided in a comprehensible format which facilitates comparison of options. This should include, for **all** options:
  - 3.4.1. For both tenants and leaseholders: the ongoing costs for heating and hot water (including fuel, standing charges, maintenance, electrical costs for running HIUs/boilers, and any other associated costs).
  - 3.4.2. For leaseholders, costs per flat for capital works. Immediate capital costs need to be shown separately from those forecast in ten, twenty, and thirty years’ time, as many leaseholders will not expect to remain in their flats over the entire life cycle considered by the options appraisal.

For all options it needs to be clear how costs vary depending on the current heating and hot water arrangements and which new system is allocated to the flat.

As an example, Appendix D suggests that if Option 5 were implemented, a leaseholder in a regen flat would pay nothing for dwelling installation costs because their existing equipment is assumed to be adequate, whereas a leaseholder in a non-regen flat would be charged about £7,000 for installation costs. It is entirely unclear how the rest of the capital costs (related to work outside of the dwelling installation costs) would be allocated between leaseholders, in this or any other option.

- 3.5. In Appendix D, despite being specified per flat, the dwelling installation costs are subsequently split between leaseholders and the Council on the same basis as all other capital costs (48.5% allocated to leaseholders). This is incorrect: 100% of the dwelling installation cost would be borne by the leaseholder, for their flat. This is particularly significant as the dwelling installation costs are such a large proportion of the total capital costs.
- 3.6. In Section 6.1, the Financial Summary, the leaseholder contribution to operational costs is incorrect. Comparing table 6.4 to table 6.5, one finds that the implied leaseholder contribution to operational costs varies from 53% to 82%, and in all options is significantly higher than the (correct) 48.5% split attributed to maintenance and capital costs.
- 3.7. The numbers of flats in blocks 3 and 4 on Makepeace Avenue is stated incorrectly. Both blocks contain 8 flats each, not the 12 and 15 stated in the report. The correct numbering of the blocks is 57 to 64, and 85 to 92. Camden should also be able to provide the correct split between tenants and leaseholders in those blocks, since it has already marketed the units intended for leasehold.  
  
The number of flats in block 5 on Holly Lodge Mansions is also incorrect – there are 14 flats, not 27, all the flats in the block having even door numbers.  
  
These errors may seem minor, but they already add up to 6% less flats on the estate than the options appraisal assumes, which has a material impact on the dwelling installation costs and on the cost allocation for leaseholders.
- 3.8. The costs in Option 4 appear to assume a completely new gas grid is required. Publicly available drawings show an existing gas grid of sufficient size to cater for individual combi boilers. Individual connections may need upgrading, but this is already accounted for under dwelling installation costs.
- 3.9. It is not made clear if costs include labour or just materials. If it is the latter, then labour costs need to be added.
- 3.10. The significant management costs levied by Camden on leaseholders need to be added, as do the consultancy costs and VAT.
- 3.11. The cost of £4,500 for radiators and controls seems high for standard wall-mounted radiators in a maximum of five rooms (in a two bedroom flat – often likely to be four

rooms as there is no wall space for a radiator in many self-contained kitchens on the estate. In a one bedroom flat there may only be three radiators).

The cost of £3500 for a boiler seems very high and comparable to the maximum that an individual consumer with no negotiating power would pay British Gas, including installation and a five year warranty. The cost of supplying the flat with gas is already costed as an additional £2,500.

The annual maintenance cost of £250 for local systems also looks high. An annual boiler service from British gas is £79 and a monthly plan covering the entire central heating system comes to £174 a year. Their most expensive plan, which still doesn't quite cost £250 a year, also covers all plumbing and electrics.

3.12. Section 6.9 on carbon costs takes the mean carbon price, which doesn't make sense given that carbon pricing increases exponentially rather than arithmetically. Also, no carbon savings are assumed.

3.13. The costs for the communal options over 30 years include the cost of replacing primary pipework after 15 years, but no costs are allocated to replacing other elements of sitewide distribution, even in year 30. It is not clear why.

3.14. Some sort of financial benefit appears to be factored in for the CHP, but as with the other cost information it needs to be stated more clearly.

#### **4. Risks and sensitivity analysis**

4.1. The options appraisal presents no risk assessment of options. This is reckless. One of the primary concerns of residents is resilience and by its own admission the options appraisal favours the option with the lowest resilience. A problem with the plant room or at any point along the buried pipe will leave 400 households without hot water of heating, or 700 if we include Highgate Newtown. We are alarmed by the language of the executive summary and have no interest in suffering, or indeed funding, someone else's idea of a "bold and exciting challenge".

4.2. We are wary of adopting new technology in the form of 'novel' HIUs, which in the options appraisal are described as a prototype. Some residents may prefer the new format for the increased flexibility of siting two smaller units, but others will prefer an off-the-shelf HIU which is cheaper and better supported by manufacturers.

4.3. For a complex programme, the 10% contingency is very low. Our experience of Camden managed programmes is that even very simple ones, such as redecorating communal areas, experience much higher cost overruns.

4.4. There has been no sensitivity analysis on costs. The heat network approach involves a relatively high number of unknowns, but this is not reflected in potential variations in cost projections. Conversely, the local boilers option is presented as being high cost, but with no recognition that costs should be more predictable, due to the relative simplicity of installation and the much higher flexibility of phasing.

## 5. Surveys required

- 5.1. No survey work has been completed to assess the feasibility of laying the pipe along the chosen route, which suffers flooding and subsidence every year. In the 6<sup>th</sup> December meeting we were assured that a pipe of that length was tried and tested on large Camden estates and the Alexandra & Ainsworth Estate was given as an example. Within a month we had read in the local press that Camden plan to split the Alexandra & Ainsworth pipe into sections, because maintaining it at its current length is problematic. The article (<http://camdennewjournal.com/article/housing-and-the-folly-of-maintenance-assumptions>) states: "Following recent meetings of council officials and tenants it has been agreed to break up the long pipe with "sub-stations" so that in future repairs can be carried out more efficiently." This was possible within the grounds of an estate. It is difficult to imagine how it would be possible for a pipe buried along the course of a public road and bordering a Grade I Listed historic site.
- 5.2. A comprehensive survey of residents and flats is required to fill in many of the gaps in knowledge in the current iteration of the options appraisal, which have persisted since the very first presentation in 2015.
- 5.3. The executive summary states that for the heat network, the use of electrical energy and network connection still need to be assessed.
- 5.4. Section 4.4.1 makes it clear that further detailed assessments are required to establish the adequacy of the existing communal network.