

London Borough of Hammersmith & Fulham

Report to: Cabinet

Date: 19/04/2021

Subject: Decarbonisation of Social Housing - Innovation Partnership Prototype Phase – EnergieSprong Whole House Retrofit

Report of: Councillor Lisa Homan, Cabinet Member for Housing

Report author: Rob Kyle – Project Manager Climate and Ecological Emergency

Responsible Director: Tony Clements – Strategic Director for the Economy

Summary

This report describes the intention to upgrade 27 properties in the West Kensington Estate to make them highly energy efficient and drastically reduce the carbon emitted by each house. The project is a direct result of the Council's commitment to combat climate change by cutting CO2 emissions from its activities to net zero by 2030. This project is a pilot which will provide a model which can be applied to support the Council's wider target of reducing carbon emissions to net zero by 2030. It will also provide invaluable learning towards the goal of decarbonising housing around the UK as well as being an important step towards tackling climate change.

LBHF's housing accounts for 35% of the total emissions emitted by the Council. It is a priority area that we can directly influence by making our houses more energy efficient. In November 2020, alongside 6 other councils, LBHF were successful in a joint bid, partnered by the Greater London Authority (GLA) to undertake a whole house retrofit project to make homes zero carbon using the innovative EnergieSprong (ES) approach with 27 homes in the West Kensington Estate identified to take part in this project.

This paper provides a detailed overview of the ES approach, the partnership with the GLA and the progress made. The ES approach provides a solution to address the challenge of completely decarbonising the Council's housing stock and provide grant to reduce the cost to the Council. It can also support LBHF residents living in fuel poverty and make our properties more comfortable for tenants, especially during the cold winter months. LBHF will be one of only a few Council's in the UK taking part in a project and the knowledge and partnerships gained will be invaluable in our effort to achieve net zero emissions by 2030. Cabinet members are asked to approve the progression of the project to the next stages.

Recommendations

Cabinet are asked to:

- (1) Approve progression to the 'Design' and 'Prototype' phases as described in the report.
- (2) Approve delegated authority to the 'Strategic Director of Economy' to provide approval for the design and delivery stage gateway.

Wards Affected: North End

H&F Values

Our Values	Summary of how this report aligns to the LBHF Values
Building shared prosperity	The Council's number one priority is the safety and welfare of all its residents. This programme will ensure the Council delivers against this duty of care towards its residents, improving energy efficiency. Estimates predict residents could save 50% on their fuel costs.
Creating a compassionate council	By eliminating fuel poverty for households, they can better utilise their existing income. The refurbishments will bring homes to a comfortable home standard, eliminate damp and mould, as well as draughts, reducing negative impacts on health, hospital admissions, and length of stay. There is a direct correlation between fuel poverty and health, and we will be monitoring these co-benefits throughout the project.
Doing things with local residents, not to them	We will actively engage with residents of the properties identified to ensure they are aware of the project and its benefits. The TRA will be informed and given opportunity to comment on the proposed works. We will keep the resident-led Climate and Ecological Emergency Commission updated to ensure they are aware of the positive steps being taken to address carbon emissions.
Being ruthlessly financially efficient	BEIS will contribute £0.9 million. Future replication of the works will likely reduce in cost per property as the supply chain mature. The Comfort Plan that is part of the agreement, are expected to recover Council investment costs over a 30 year period.
Taking pride in H&F	This project is designed to make these properties lead in terms of decarbonisation by utilising existing housing stock and adding improvements such as external wall insulation, solar panels, new heating system and new windows and doors to improve the thermal efficiency, eliminate building defects and help with fuel poverty.
Rising to the challenge of the climate and ecological emergency	The Council aims to be carbon neutral by 2030. This project is working in conjunction with this target. Housing accounts for up to 35% of LBHFs carbon emissions. The works will result in the chosen homes being positive carbon, creating more renewable energy than they use.

Financial Impact

It is expected that the total project costs for the design and prototype stage involving the retrofit of 27 Council properties in the West Kensington Estate to a zero carbon emissions standard will be £2,600,000. This will be funded from a £900,000 grant from BEIS for Social Housing Decarbonisation and a £1.7m Housing Revenue Account (HRA) capital budget within the Asset Management and Compliance Programme.

Total cost of project	£2,600,000
HRA capital budget	£1,700,000
Grant contribution	£900,000

This is reflected in the council's capital programme.

As a prototype, the demonstrator project will allow an evaluation of the potential for future schemes to become self-financing (whether the capital costs can be met by future cost savings or revenue streams). The report sets out the detail of potential savings from the project as follows:

- £10,000 per property from the renewable heat incentive scheme = £270,000 for the 27 properties
- £1,000 per property per year repairs and maintenance savings = £27,000 for the 27 properties (£810,000 over 30 years).
- a Comfort Plan charge to the resident expected to be c£500 per annum = £13,500 per annum for 27 properties (£405,000 over 30 years).

Should the above returns be achieved a significant proportion of the HRA's initial £1.7m capital contribution would be could be reimbursed over a 30 year period. This will be evaluated as part of the project.

An inherent risk of all capital schemes is that if projects are not completed, costs incurred may be abortive and would need to be written off. The gateway process set out in this report will provide an important role in seeking to control and manage risks of write off if the prototype project is not completed.

Legal Implications

This report is recommending strategic support for a programme to retrofit energy saving measures in a selected number of homes occupied by Council tenants. The report documents the steps that have already been taken towards this project, including the successful grant application as part of a consortium of authorities ("the partnership") and the signing of a collaboration agreement. It also describes the proposed procurement vehicle for providers to carry out the installation works and ongoing maintenance.

The partnership has the London Borough of Barking & Dagenham as accountable body for the grant funding and the Greater London Authority (GLA) as lead authority overall. The procurement of the installation providers through a GLA collaborative

procurement to establish an Innovation Partnership is subject to a separate approval and governance exercise under the authority of the Cabinet Member for Housing.

The other contract to be put in place is one with Turner & Townsend (who subcontract some services to Energiesprong) as project manager for the partnership. They were already appointed via the GLA at the time of submitting the grant application, however once the Council starts running its own project with the provider appointed via the Innovation Partnership, then it will need its own contract with Turner & Townsend, and again this is being progressed in accordance with Contract Standing Orders.

Legal advice should be taken in relation to implementing the Comfort Plan charge in a way that will enable clawback of Council funding. This may involve a variation to the resident's tenancy agreement and/or the implementation of an additional service charge. There are also implications in the event that a tenant subsequently exercises the Right to Buy, as outlined in the report. For example, assuming that all the properties would be sold under RTB on a leasehold basis, it may be possible to include some form of reimbursement within the lease, however this will need further investigation.

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Background Papers Used in Preparing This Report - None

DETAILED ANALYSIS

Proposals and Analysis of Options

1. LBHF has pledged to combat climate change by cutting CO2 emissions from the council's activities to net zero by 2030. The Council's housing accounts for 35%

of its total emissions and is a priority area that we can directly influence through retrofit programmes. It is our aim to reduce this dramatically with the use of greener solutions. Retrofitting means the addition of new technology or features to older systems or builds.

2. On 8 July 2020, the Chancellor's Summer Economic Update announced the UK-wide Social Housing Decarbonisation Fund Demonstrator (SHDFD) to start the decarbonisation of social housing over 2020/21, and to support green jobs as part of the COVID-19 Economic Recovery Plan. The fund is set up by BEIS with a value of £50m and will fund and require feedback on a range of pilot projects.
3. In November 2020, alongside 6 other councils LBHF were successful in a joint bid led by London Borough of Barking and Dagenham (LBBD) to take part in the ES whole house retrofit project in partnership with the GLA and others via an innovation partnership. The LBHF part of the proposal will be for a £2.6 million total investment to run a demonstrator decarbonisation project on 27 street properties currently identified at the West Kensington Estate. The project aims to be completed by 31 December 2021, which is a condition of the grant funding to cover £0.9m of the cost.
4. Due to time pressures, which are driven by the climate emergency and the commitment to 'grow back greener,' the project team have already initiated parts of this project. Initial approval from the Cabinet Member for Housing in November means we have now signed a collaboration agreement with the other councils in connection with the BEIS grant funding, and with the GLA concerning the collaborative procurement for the innovation partnership. Housing have started engagement with residents to identify homes to take part in the scheme. We are not required to enter into a contract with a retrofit provider until May 2021 and all communication with residents explains this. The project team now seek final approval from Cabinet to progress this project to completion.
5. The ES solution provides a potential approach to address the challenge of completely decarbonising our housing stock and for the Council to recover some of financial investment needed. LBHF will be one of six councils in the UK taking part in a project that is addressing the high carbon emissions that our homes emit. The knowledge and partnerships that will be developed by taking part will be invaluable in our effort to get to net zero emissions by 2030.
6. The ES project is an initial investment to learn lessons and catalyse innovation in retrofitting social housing around the country. As well as developing the knowledge and skills of solution providers and housing partners, the learning and approach will also be shared with academics, leading sector bodies and other interested parties to evaluate and build on. Ultimately, this pilot will be an invaluable project in the journey to decarbonise housing and an important step towards tackling climate change.

The EnergieSprong Approach

7. EnergieSprong UK (ESUK) is a not-for-profit market development organisation aimed at creating a mass market for desirable, affordable Net Zero Energy (NZE) whole-house retrofit and new build.
8. An ES NZE retrofit moves the market to a focus on delivering a retrofit product that transforms homes making them modern, comfortable and desirable, where:
 - The home produces enough energy for its heating, hot water and appliances
 - Money that would be paid on energy bills and maintenance funds the work
 - The cost of living doesn't go up because real-life performance for energy use and indoor comfort is guaranteed for up to 40 years
 - A complete home makeover should take less than 10 days (this is initially forecast to be up to 30 days during the prototype phase)
9. The project is highly successful in the Netherlands. The UK supply market does not currently have the capacity, capability or the funding to effectively meet the emerging demand for the ES solution and is the reason for the Innovation Partnership approach, which is detailed in the procurement implications.
10. The social housing sector is the launching market with a business case providing an investment envelope made up of income and savings:
 - Aggregating planned routine and maintenance and major repairs over a 30 year period
 - Introducing a 'Comfort Plan' for tenants under which they pay the housing provider (the Council) for their energy
 - Other revenue streams as they become available and applicable, for example Renewable Heat Incentive (extended to March 2022) and potentially ECO and time of use tariffs.

Comfort Plan

11. At the heart of the ES method is the household 'Comfort Plan'. The Comfort Plan is an agreement between the landlord and tenant. The plan establishes a fixed price for guaranteed 'comfort' outcomes – a certain temperature and certain levels of electricity consumption.
12. The Comfort Plan charge delivers warm rooms every day, enough daily hot water for household use, and enough plug power for normal use of appliances, such as lighting. Residents can choose to use more than their allowance, by paying their utility company for the additional units of electricity used as they will still have connection to residual supply.

13. The Comfort Plan will be less than the tenant's current energy bills. The Council may be able to develop this approach to apply elsewhere in the borough to support the financing of net zero by 2030.

14. Should the Comfort Plan payments not be made the tenant can revert to the residual supply and LBHF will be able to divert the renewable energy to the electricity grid and receive a payment from the energy supplier for this.

15. The Comfort Plan charge can be applied by the following methods:

- Rent increase (for intermediate and market rent, or if there is 'headroom' in existing social or affordable rents)
- Service charge
- Separate agreement.

If the Council were to apply this model elsewhere in the borough it would have to consider how to apply the charge.

16. The charge will be an ongoing monthly cost over a 30-year period, and it is at the discretion of LBHF how much will be charged. For the prototype phase it has been suggested to be £10 per week, generating £15,000 over its lifetime. £10 per week is the rate recommended by the ES project to be used by the social landlords.

17. It is recommended that the charge should be added as a service element to the rent account. It is recognised that there are several challenges and risks that will need to be dealt with before the mechanism can put in place.

The EnergieSprong investment rationale

18. ES is seeking to bring the price of whole house retrofit down to £55,000 per property as social landlords could achieve income and savings that would 'pay back' this investment over 30 years.

- £10,000 per property receipt from the Renewable Heat Incentive (RHI) schemes. There are currently other government schemes including the Energy Company Obligation (ECO), and Social Decarbonisation Fund (SDF) that depending on designs may also provide further grant funding.
- £1,000 per property per year repairs and maintenance savings = £27,000
- In lieu of the resident having to pay high utility energy bills, there will be the introduction of a Comfort Plan. This is expected to be £500 per annum, significantly less than the equivalent in utility energy bills. Over a period of 30 years this will generate on average £15,000 per year for the landlord.

LBHF Participation and Commitment to date

19. In November 2020, the Cabinet Member for Housing supported the project subject to funding and the Strategic Director for the Economy approved entering the bid on the basis that Cabinet agree before contract award.

20. In January 2021, on successful award of the BEIS grant application, the Cabinet Member for Housing and the Strategic Director for The Economy approved Legal Services signing the Collaboration Agreement on the basis capital funding be approved at the 1 February Cabinet, and on the basis that the Council could withdraw from the scheme if match funding was not identified. At February Cabinet, it was approved that an additional budget of £0.9m be added to next year's capital programme, on the basis of accepting the grant award from BEIS and agreeing that this will be supported by £1.7m of funding from the existing HRA Asset Management and Compliance Programme for 2021/22.
21. The GLA procurement of retrofit providers has commenced in March and will conclude in May. At this point LBHF will be invited to sign a contract with the provider that the procurement has matched us with. The contract is a mix of standard specifications written by the ES consultancy and common to all landlords involved in the pilot, and bespoke specifications to be drafted by LBHF.
22. All participating landlords must pay £10,000 to LBBB to cover the costs of the procurement. Since signing the collaboration agreement in January, LBHF is liable for this figure regardless of whether we ultimately opt to sign the contract with the procured provider in May.

Progressing to the Design and Prototype phases

23. The Innovation Partnership allows suppliers to develop new products by providing an increasing pipeline through phased contracts, with progression to the next phase contingent on the supplier meeting specified performance targets. Cost is one of the key performance targets, and so cost reduction steps are built into the procurement and delivery of the scheme.
24. The aim is to drive down the cost of whole home retrofit with each phase – from c£85,000 in phase 2 to c£55,000 in phase 4. At the end of phase 4 the objective is that the project can create a framework involving all the providers who have passed the four phases with a proven product. This framework will then be available to all social landlords and can create a mass market for the large scale roll out of retrofit.
25. LBHF have funding in place to participate in phase 1 (design) and phase 2 (prototype) which would lead to the retrofit of 27 homes. The prototype phase is key in developing the approach, aiming to support solution providers to significantly develop their knowledge of ES and its specification. We expect to see reduced costs and new innovations developed at stage 2 and applied in stage 3 and 4.
26. As noted in the Procurement section, LBHF gets to set a maximum price cap for all phases of the project. LBHF needs to set realistic price caps, else no works providers will elect to work with LBHF, or the highest scoring providers will pass over LBHF and elect to work with other social landlords. LBHF will therefore not deviate very far from the recommended price caps.

Stage gate approvals for prototype phase

27. There will be 2 gateway approval points within phases 1 and 2. The first will be approval of Contract Award in May. The next will be approval to progress from the design to the delivery stage, this being dependant on whether the provider has met required expectations. It is recommended that the approval for the design to the delivery stage is delegated to the Strategic Director of Economy to avoid delays in the delivery of the 27 retrofits.
28. If the works provider does not meet the contract requirements at the end of each phase, LBHF has the option to terminate the contract (all committed costs for that phase would have to be paid, subject to the cap and incentive mechanism). The ES project would then endeavour to match LBHF with another provider and we could enter into a contract with them to deliver the next phase (or abort the project entirely). The phase gateways therefore give LBHF additional protection against a poor performing contractor.

LBHFs commitment of progressing with phases 1 and 2

29. LBHF to finalise the selection of the 27 homes, manage the retrofit of those homes, establish a new relationship (via the Comfort Plan) with the households occupying those homes, and agree the maintenance of the new retrofit assets and equipment. There would also be ongoing Resident Engagement to carry out.

Property Selection

30. The West Kensington Estate has been identified as having the terraced housing suitable for these first phases. ES supported the project team to identify 82 houses that could be suitable. 27 of these properties will be chosen to take part.
31. During the prototype phase, properties with tenants will be focussed on.

Construction

32. The capital delivery team will manage the construction phase which will begin in September/October 2021. While it is still to be agreed and is dependent on the design solution for each home, it is expected that residents will not have to leave the property as the works are complete. Clear contractual requirements will be put in place to minimise disruption.

Ongoing repairs and maintenance of the retrofit homes

33. The requirements of the specification are underpinned by the Comfort Plan. This is underwritten by the installers, which ensure that all the guarantees are adhered too and will be liable to the Council and tenant for any repairs, defects or breaches caused by the installation over the 30-year period. Due to this being an emerging market and a new approach this will be closely monitored.

Right to Buy (RtB)

34. As with any investment in the housing stock, there is a risk that a portion of the value of the investment and income is lost if the resident exercises their RtB.

35. The risk in the case of net zero retrofit is mitigated as follows:

- Subject to the Government's 'cap and cost floor' on RtB properties, a proportion of the investment could be recouped in the sale price, or the higher sale price may reduce the risk of RtB because the discount is significantly cut to reflect the most recent stock investment
- Retrofit equipment could be excluded from the demise of the RtB. This means the Council could sell the energy apparatus separately to the tenant exercising their RtB for a lump sum so that they continue to enjoy the guarantees. This would be applied through the separate agreement method of the Comfort Plan described above. Equally, the Council could sell the apparatus to the prospective buyer so that they could enjoy their benefits
- Comfort Plan agreement continues after the property is purchased. This can take place as a standalone agreement or in a service charge.

36. If the retrofitted property purchased through RtB without any of the above mitigations, the owner would not benefit from the comfort, energy or maintenance cost guarantees, which may be a disincentive to exercise RtB.

Resident Engagement

37. Despite the timelines being short, it is important that we engage residents as early as possible in the process. Residents will be given a choice as to their involvement in the project. The capital works delivery team, community engagement team and local area manager will support with this engagement. There are two tenant and resident associations on the estate, the West Kensington and Gibbs Green Estates TRA. A variety of methods will be used, including:

- Direct letters outlining projects and its benefits hand delivered to residents of identified properties, with reply number and email
- Where necessary phone calls to residents of identified properties to confirm interest
- Information sessions on the project and its benefits
- Meeting with TRA to explain the project in detail and get their feedback
- Dedicated client relationship manager when contract agreed with solution provider.

38. The Council has identified 27 homes and monitoring is taking place in a number of homes to validate the approach.

Reasons for Decision

39. To start the decarbonisation of social housing over 2021/22, and to support green jobs as part of the COVID-19 Economic Recovery Plan.
40. LBHF has pledged to combat climate change by cutting CO2 emissions from the council's activities to net zero by 2030.
41. To help meet our ambition to be the greenest borough in Britain.
42. To receive Social Housing Decarbonisation Fund investment worth £0.9 million.
43. The demonstrator project will look to decarbonise 27 properties on the West Kensington Estate over a one-year period.
44. To modernise and transform 27 homes with new windows, doors, heating, new insulated external walls, a new solar panel roof, all so consistently warm with lower utility bills and a performance guarantee on temperature, hot water and plug electricity. The approach can help those in fuel poverty make a warm home affordable.
45. To evaluate whether this can be a self-sustaining retrofit approach over 30 years.

Equality Implications

46. Properties that have been identified are chosen based on the archetype only and all residents that take part in the project do so on a voluntary basis. These residents will be given comprehensive information and engaged with throughout the project. Residents can decide not to go ahead at any point up to when the works begin.
47. The works will affect the chosen properties positively, giving a guaranteed level of temperature (21 degrees) throughout the year, at no extra cost to the resident.
48. The ES approach has the potential to positively impact the lives of many LBHF residents by making their homes more comfortable to live in at no added cost. It is also possible to support those in fuel poverty by making their homes energy efficient and so cheaper to run. The flexibility to reduce the Comfort Plan cost allows the Council to support those most in need to lower energy bills.
49. There will be minimal negative impact on the residents or estate.

Risk Management Implications

50. The project and proposals are consistent with the Council's priorities and the positive outcomes expected are adequately detailed within the report. Suitable project controls and gateway decision points provide further opportunity for review and assurance.

51. The contractual insurance requirements have been discussed with Rob Kyle and Deborah Down (Sharpe Pritchard) and a balance struck between protecting Council assets and liabilities whilst ensuring an achievable and commercially viable contractual environment to encourage contractor engagement.

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Other Implications

Procurement (*required for all contract awards*)

52. Participation in the project involves the GLA procuring retrofit providers on behalf of participating social landlords. The GLA will procure a Framework of providers, and the social landlords will appoint providers using the Call-Off Award Procedure and prescribed Call Off Contract.

List of Appendices:

None