

Report for: Cabinet, 16 March 2021

Title: Energiesprong retrofit pilot project progression

Report

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Ward(s) affected: Bounds Green (and White Hart Lane/Woodside for Option B and Fortis Green for Option C)

Report for Key/

Non-Key Decision: Key Decision

1. Describe the issue under consideration

- 1.1 The Haringey Climate Change Action Plan sets a date of 2041 to be a net zero carbon borough. This expects that the Council, retrofits the Council housing stock to an Energy Performance Certificate (EPC) rating of A where feasible. To deliver this ambition it is expected that homes will be required to undertake whole-house retrofits. This entails maximising insulation (loft, walls, and under floor), taking opportunities for renewable energy and moving to low carbon heat sources (replacing gas boilers).
- 1.2 One of the quickest and simplest methods for whole-house retrofitting and the most successful methods for this is a European model called Energiesprong. Based on this the GLA has supported the delivery of a larger pilot for London. As part of this pilot in London, housing estates that are low on energy performance and most suitable for this methodology have been reviewed. Following discussions with Haringey Housing Service and HfH, the Orlit properties (Tunnel Gardens) and properties in the White Hart Lane and Woodside Wards (centred around Rivulet Road and/or sheltered accommodation bungalows) and Coldfall estate (near Hill Road) were determined as the most appropriate and in need for energy works.
- 1.3 Energiesprong aims to retrofit homes to be net zero energy. A refurbishment comes with a performance warranty on the indoor climate and the energy performance. As parts are made off site, a complete home makeover can be completed in less than 15 days, with no need for residents to move out while works are undertaken. The outcome from all this work achieves a building with an EPC rating of A, with a minimal impact.
- 1.4 Alongside this approach the Government Department of Business, Energy and Industrial Strategy (BEIS) has agreed to support the London / GLA project through its Social Housing Decarbonisation Fund (SHDF) Demonstrator. The London led consortium has been awarded £9.6m, of which £1.6m has been awarded to Haringey.
- 1.5 This report seeks approval to undertake an Energiesprong pilot project on 51 council owned and tenanted properties on the Orlit properties (Tunnel Gardens) or White Hart Lane ward (centred around Rivulet Road and/or sheltered accommodation bungalows) or Coldfall estate (near Hill Road) and to accept the BEIS funding to deliver this.

2. Cabinet Member Introduction

The homes that the Council owns and manages on behalf of our community, need to be homes that are warm, comfortable, and affordable to live in. We need to work hard to ensure that these homes address the challenges of increasing energy costs, that are pushing more of our community into fuel poverty. While supporting the borough's strategic ambition to be zero carbon and improve local air quality. To deliver this we need our homes to become more efficient in their energy use, and drive down our energy consumption through energy efficiency measures. By addressing these challenges, we will also improve the social inequality in our community. With the rising cost of energy, those that are forced to use more energy due to inefficient homes have to pay more. To add further insult to this situation the way that our energy market is constructed means that those on pre-payment meters pay extra on their energy bills due to their historic credit rating. As a result of the COVID pandemic and its economic impact, we are currently seeing more households in the borough call the Council for energy advice and support in their energy consumption. For these reasons it is vital that we improve the energy efficiency and the carbon footprints from our housing stock.

Approximately 50% of the borough's carbon emissions come from our housing. Reducing these emissions that come from the energy we consume in our homes is vital if we are to realise Haringey's Net Zero Carbon ambition. This project aims to lift some of the worst energy performing housing in the Council's portfolio to make it some of the best. The Energiesprong approach is seen as one of the most effective, easiest, and simplest methods to retrofit our homes with the least impact on the occupiers, a performance guarantee and the ambition of all the measures installed and operational within two weeks.

By undertaking the Energiesprong approach set out in this paper we aim to address these challenges and deliver these improvements while at the same time reducing the stress of multiple installations of measures, and the need for decanting our residents from their homes. It is a pilot for London, but it is a proven approach across Europe. This has the potential to be a game changer for the UK in the way that our homes, both private and public are retrofitted. This is why the project has the support from the GLA and national government. It shows that Haringey is a leader in the UK, to improve the energy performance of our housing stock while reducing our carbon footprint.

3. Recommendations

It is recommended that Cabinet:-

- 3.1 Approve the undertaking of an Energiesprong pilot project on Option A, the Orlit tenanted properties on Blake Road, Durnsford Road, Tunnel Gardens and Park Grove N11. Or, in the event that structural surveys identify substantial remedial works are required, to undertake the pilot project on Option B, 51 tenanted properties located in White Hart Lane Ward (centred around Rivulet Road and/or sheltered accommodation bungalows) or Option C 51 tenanted properties on the Coldfall estate (around Hill Road).
- 3.2 Note that the decision on which option proceeds as the pilot project will be made by the Director of Housing, Regeneration and Planning in consultation with the Cabinet Member for Housing and Estate Renewal.

- 3.3 Accept £1.6m funding from the BEIS Social Housing Decarbonisation Fund (SHDF) Demonstrator to part fund this whole house retrofit project.
- 3.4 Approve the procurement of a contractor through the innovation partnership procedure to be carried out with the GLA to deliver an Energiesprong pilot project on Option A, the Orlit tenanted properties on Blake Road, Durnsford Road, Tunnel Gardens and Park Grove N11. Or, in the event that structural surveys identify substantial remedial works are required, to undertake the pilot project on Option B, 51 tenanted properties located in White Hart Lane Ward (centred around Rivulet Road and/or sheltered accommodation bungalows) or Option C 51 tenanted properties on the Coldfall estate (around Hill Road). The value of the contract will be less than the agreed maximum price of £4.3m and this will be funded from the £1.6m BEIS award and £2.7m from the HRA Capital.
- 3.5 Agree to design and consult with tenants on the Energiesprong model and the Comfort Charge.
- 3.6 To note that the decision whether or not to proceed with EnergieSprong pilot, including the Comfort Charge value, and implementation process will be determined by the Cabinet Member for Housing and Estate Renewal.

4. Reasons for decision

- 4.1 The Council is required to tackle and fund the energy efficiency of its housing stock to meet zero carbon commitments, alongside future legislation requirements. The Energiesprong approach could provide more benefits to residents than could normally be afforded as it allows retrofit costs to be paid back to the Council or private financing company through energy and maintenance savings over a 30-year period.
- 4.2 The UK Government offer of funding to support this pilot shows strategic buy-in and will reduce the financial ask on the Council's own funding. This benefit can then be passed on to tenants of the chosen properties. Should Cabinet decide to proceed with the Energiesprong project and claim the funding capital delivery costs could reduce from £4,335,000 to £2,817,750. However this comes with a requirement to complete the project by 31 December 2021 and will require an award of contract during the pre-election period.

5 Alternative options considered

- 5.1 *Undertake conventional energy retrofit programmes ie a package of measures, carried out in phases*
Installing energy saving components individually is time consuming and causes increased and repeated disruption for tenants. Some of these (such as internal wall insulation) require decanting. Energiesprong is a novel approach to 'whole house' retrofit. Whilst its cost is currently higher than the more usual incremental insulation upgrades it creates a net zero energy home in one step, which avoids later spending on a decarbonised heat system and also avoids potential spending on further efficiency measures in the future. Repeat visits to properties to carry out multiple energy efficiency projects is therefore not sustainable or suitable for all homes. Where this can be avoided this should be, for ease of delivery on the tenant and project management. The properties best suited for Energiesprong are those with a simple design.
- 5.2 *Undertake conventional energy retrofit programmes ie a package of measures, all at the same time*

Energiesprong is procured to deliver a 'design, build and guarantee' contract against the Energiesprong Performance Specification which guarantees the retrofit delivers predicted energy savings. Monitoring equipment is included within the installation which monitors energy use, humidity, air quality and comfort levels on a daily basis throughout the lifetime of the retrofit. Each property must achieve the performance outputs and maintenance costs predicted in the design stage or financial penalties can be placed on the contractor for up to 10 years after the installation. A conventional retrofit does not offer such certainty around the outcome or paybacks that will be achieved. Often a set of measures have interdependencies, for example the air ventilation system will need to work in conjunction with the air source heat pump (the heating system). If one fails it can impact on the operational performance and the guarantee of the other. Undertaking multiple contracts of multiple measures will require increased resources for contractual management and performance.

Energiesprong installations can be achieved without decanting residents. Roof units, modulated heating systems and prefabricated wall panels including windows and doors can all be manufactured off site making installations faster and reducing the impact on residents. The properties identified are simple in design, and are ideal for the Energiesprong approach.

5.3 *Deliver the project on another estate*

The Orlit properties have poor thermal energy performance. The units also suffer from internal damp through condensation brought on by cold bridging. The estate has been identified as in need of investment to get the properties up to the required standard.

Other estates have been considered and reviewed. The Orlit properties were chosen due to the simplicity of the design, and the need to invest in the estate to improve the quality of living. However further investigation into the structural integrity of these properties is required. Visual structural surveys are therefore in process. Should these surveys indicate that substantial spend is required to remedy structural faults it is proposed that the pilot project is undertaken on 51 properties in White Hart Lane ward or the Coldfall estate. These areas include properties with a simple architectural design which fits with the Energiesprong model. These areas have been identified on the basis that external works are required and the properties have EPC ratings of E, F and D.

5.4 *To not include a Comfort Charge*

Due to the scale of funding required to deliver energy efficiency projects across the whole of the Council's Housing Estate, it is vital that the model of delivery is financially sustainable. If the Council did not introduce a Comfort Charge and capture some of the energy savings secured by tenants who live in super insulated properties then the funding agreed for energy efficiency measures may not stretch across the whole portfolio. This may introduce inequality between properties, as although tenants may pay the same rent, they may have significant differences in their energy bills which would not be fair for tenants. The Housing Revenue Account (HRA) is paid into by all tenants and the benefits of any spend from it should be as equitable as it can be, benefiting as many as it can. The Comfort Charge will help refund the costs of the measures delivered by the Council through the HRA, and enable the Council to deliver further carbon reduction and energy efficiency projects across the wider Council Housing Estate.

5.5 *Do Nothing*

The Council has a commitment to become a zero carbon borough by 2041. Accepting the funding from BEIS would allow a net zero energy retrofit to be trialled at a significantly reduced cost.

5.6 *Delay*

The Council could wait until November 2023 when it is expected that a national framework will be available for Energiesprong and the gross maximum price for an Energiesprong installation is expected to have fallen by around 35%. However there is no financial benefit to this approach as Government subsidies are unlikely to be available once the economic price point has been reached. There is also the risk that Energiesprong will be dismissed as energy plans for the whole Council housing portfolio are being designed and conventional retrofits commence on estates which would have offered better results from an Energiesprong installation.

On the Orbit properties the Council would still be required to undertake upgrade works on the properties to ensure that they achieve the Council's housing standards.

Background information

- 6.1 The Haringey Climate Change Action Plan sets a date of 2041 to be a net zero carbon borough. This expects that the Council, retrofits the Council housing stock to an Energy Performance Certificate (EPC) rating of A where feasible. This will require whole-house retrofits. This entails maximising insulation (loft, walls, and under floor), taking opportunities for renewable energy and moving to low carbon heat sources (replacing gas boilers). To deliver this ambition the Council has allocated £101m in the capital programme to support the retrofitting of the Council's 16,000 tenanted and 4,500 leasehold properties.

Energiesprong¹

- 6.2 An Energiesprong retrofit takes a whole house approach. A single contractor is procured to deliver a 'design, build and guarantee' contract against the Energiesprong Performance Specification. The Energiesprong performance specification is outcome based and doesn't specify the technical solution, but in summary the specification will seek to provide a temperature of 21°C in living rooms and 18°C in bedrooms, hot water and plug power, at an affordable total cost.
- 6.3 In the Energiesprong model, tenants are charged a "Comfort Charge" (which is equal or less than their current combined utility bills). The aim is that the Comfort Charges and the reduction in planned maintenance charges over a 30 year period will cover the cost of the Energiesprong installation. See Appendix A – Energiesprong, for further information

Retrofit Accelerator programme

- 6.4 The London Borough of Haringey has joined the Mayor of London's Retrofit Accelerator programme. The programme provides technical expertise to local authorities to kick-start 'whole-house' deep retrofit projects, build the supply chain, and develop business cases to accelerate the retrofit of homes. The Retrofit Accelerator programme is led by Turner and Townsend and delivery partners include

¹ The following videos are available to explain the concept:-

- An example of what Energiesprong look like during installation:
<https://www.youtube.com/watch?app=desktop&v=I3WBT2eAArI> – 1 day on site/house
- This is how the Energiesprong technology works: <http://www.energiesprong.eu/>

Energiesprong UK, PA Consulting and the Carbon Trust. See Appendix B - Retrofit Accelerator programme for more information.

Council's Housing Stock and Energiesprong

6.5 In collaboration with HfH three pilot potential pilot projects have been identified:-

Option A: The Orlit properties have been identified as a potential pilot project. These council tenanted 51 x 3 bedroom properties are sited on Durnsford Rd, Park Grove, Blake Rd and Tunnel Gardens N11. See Appendix C for map. They are prefabricated reinforced concrete properties with EPCs ranging from E to D.

Option B: The White Hart Lane ward has been identified as Option B. 51 of the 713 council tenanted houses on this ward will be identified for an Energiesprong retrofit. These are likely to be 2 and 3 bedroom properties centred around Rivulet Road and/or sheltered accommodation bungalow properties located in this ward. These properties have EPCs ranging from F to D.

Option C: Properties on the Coldfall estate have been identified as Option C. 51 of the 213 council tenanted houses in this estate will be identified for an Energiesprong retrofit. These are likely to be 2/3 bedroom properties located in and near to Hill Road. These properties have EPCs ranging from E to C.

6.6 These were identified using the following criteria:-

- Energy Efficiency Standard Assessment Procedure (SAP) Rating
- Preferably 2 storey properties
- Simple architectural detail of the property
- Low population of leaseholds
- Estates/blocks where there are planned works
- Estates/blocks which are close to new build properties or areas of regeneration
- Properties in conservation areas were excluded

6.7 Investment scenarios were then generated using an Energiesprong UK excel template utilising HfH data including 30 years of planned maintenance data, previous 2 year responsive repair costs and gas servicing costs.

6.8 There are no leaseholders located in these pilot project areas. The project covers 51 Council tenanted properties which are interdispersed by some freeholder properties. These freehold properties will not be included in this retrofit project. See map of Orlit properties in Appendix C.

6.9 Tenants will be consulted during the design phase. Their feedback will be sought and be incorporated into the design where practical and acceptable. Communication will continue throughout the works and will include 12 months post installation support to ensure tenants can effectively use the new technology in their homes. Consultation on the proposals will commence after a decision is made by Cabinet. Engagement activities during the design phase could include:-

- visiting tenants with the relevant designers to identify potential technical and social problems;
- meetings with tenants’;
- open events and/or home visits;
- explanation of the Comfort Plan concept to tenants;
- conducting a tenant satisfaction survey; and
- a pre-retrofit comfort questionnaire and the collection of historic energy bill data.

- 6.10 Along with reduced energy bills, residents will also benefit from an improved neighbourhood with attractive refurbished houses whilst continuing to pay the same or less than they were paying for energy before the works took place. Their health and wellbeing is enhanced with the provision of year round comfort, improved indoor air quality and the eradication of condensation and mould issues which can increase the risk of experiencing health problems such as respiratory infections and asthma attacks. With the removal of gas services from the property residents will be “gifted” an electric cooker by the chosen contractor. This will be covered by a gift funding agreement and replacement/repair will be the responsibility of the tenant.
- 6.11 Additional long-term benefits to the Council could include:-
- A potential rise in property value. The pilot projects already completed in the UK have seen increases of around 20-25%.
 - Savings in planned maintenance and reactive repair costs. This is currently estimated at around £27k per property for the Orlit properties and £26k per property 3 bedroom properties on White Hart Lane ward and Coldfall estate over 30 years. This figure includes planned works costs for external windows, gutters, chimney works, loft insulation, dampness repairs, boiler/gas safety maintenance, roof, porch and canopy repairs.
- 6.12 As previously agreed, the Council has already committed £30,000 to a research and development phase of an Innovation Partnership procurement to design a technical solution and investigate the business case for retrofitting the Orlit properties to the Energiesprong specification. A further £10k would be required to cover GLA legal fees. However the potential funding from SHDF would include £16k towards fees reducing Haringey’s spend to £24k for this design phase.
- 6.13 If the specification is met and the business case is viable, a decision to proceed with the contract to deliver the proposed retrofit solution will be required. A gross maximum price has been set for the installation of the designed solution at £85,000 per unit (£4,335,000 for 51 units) which with the SHDF reduces to £55,250 per unit (£2,817,750 for 51 units).
- 6.14 The project and innovation partnership contract timeline is as follows:-

Procurement and award of contract	Dec 2020 until April 2021
Stage 1:- Design Phase	April 2021 until July 2021
Stage 2:- Installation on 51 dwellings	August 2021 – December 2021

At the end of each Stage an evaluation takes place to consider issuing a notice to proceed to the next stage of the project. The contract includes a clause to terminate at will.

- 6.15 Should the pilot project prove successful, initial analysis of the Council housing stock suggests a further 3,000 properties may be suitable for an Energiesprong retrofit. Under the proposed Innovation Partnership contract Haringey has the opportunity to undertake further stages:-

Stage 3: potential for 55-75 properties at £70,000	December 2021 – May 2022
Stage 4: potential for 15–250 properties at £55,000	June 2022 – November 2023

From November 2023 onwards any further installations could be facilitated through a national framework based around the experience and learnings from this pilot.

The Comfort Charge

- 6.16 With a conventional retrofit, energy efficiency measures are installed within a property. The tenants' rent remains unchanged, and they continue to pay their energy bills to their chosen energy supplier.
- 6.17 With an Energiesprong retrofit a Comfort Charge is introduced. As set out in paragraph 6.2 and Appendix A the Energiesprong installation provides tenants with all their plug power, a volume of hot water and thermal comfort. This is provided by onsite generation and battery storage. The tenants then would pay a pre-determined charge for this energy rather than paying their energy supplier.
- 6.18 The tenant will retain an account with an energy supplier of their choice. Enabling them to call off the grid if required.
- 6.19 Rather than make an amendment to the tenancy agreement it is recommended that the Comfort Charge is provided by a separate agreement. Alternatively where there is a communal heating system the payments can be collected through a service charge.
- 6.20 The Comfort Charge agreement will be governed by the Consumer Credit Act. In the event that the tenant does not pay their Comfort Charge, the electricity generated by the Solar PV supplies can be diverted to the grid. Tenants will then be required to run their home using grid supplier which will be far more expensive acting as an incentive to pay the charge.
- 6.21 The exact figure of the Comfort Charge will be agreed at final design, and the final Comfort Charge will be designed to maximise savings to the tenants. This will be based on the level of energy consumption through their energy bill.
- 6.22 All tenants regardless of their current energy spend will benefit from this approach. Where residents are currently spending a lot of money for their energy consumption they will secure a financial saving. Those tenants who cannot afford to adequately heat their homes will have a warm and comfortable home for no more than they are currently paying.
- 6.23 Determining current resident bills will be undertaken through resident engagement activities to ensure no residents see an increase in their energy bills. Without this information and until the on-going maintenance costs and subsidies are determined for the specific solution designed for the pilot project it is not possible to finalise the business case and the specific cost for the Comfort Charge required from tenants at this stage.
- 6.24 During the engagement process if it becomes apparent that a household is struggling to pay their energy bills further financial advice will be provided to make sure that no tenants are pushed into fuel poverty.
- 6.25 Under Section 105 of the Housing Act 1985 the Council has a legal obligation to consult with secure tenants where proposals may have a significant impact on them. Once the Section 105 consultation with secure tenants is carried out and responses considered before deciding whether or not to move to the installation stage, the Council has undertaken its statutory duty. The Council will undertake this to ensure that tenants are aware of and support the Energiesprong works, and also consult them on the Comfort Charge. See Appendix E – Engagement Outline, for more information.

BEIS Social Housing Decarbonisation Fund (SHDF) Demonstrator

- 6.26 Haringey joined a consortium bid for the Government's Social Housing Decarbonisation Fund. This bid was supported by the Mayor of London's Retrofit Accelerator programme with the GLA, Energiesprong UK and 6 other social landlords: LB Barking & Dagenham (lead), Bristol CC, LBs Ealing, Enfield, Hammersmith & Fulham, Haringey and Lambeth.
- 6.27 As a result of this bid, Haringey has the opportunity to claim £1,604,250:-
- £1,517,250 (£29,750 towards the cost of 51 properties)
 - £71,000 towards staffing
 - £16,000 towards fees
- 6.28 To claim this funding works need to be completed by 31 December 2021.

For more information see Appendix D - An overview of the BEIS Social Housing Decarbonisation Fund (SHDF) Demonstrator

Procurement of the Energiesprong Delivery Company

- 6.29 As set out in 6.3 and Appendix B, Turner and Townsend and Energiesprong UK are supporting the procurement process and are project partners in the SHDF Demonstrator which requires works to be completed by the end of 2021. This will be an OJEU compliant innovation partnership procurement and will ensure the Council terms of award are met.
- 6.30 The procurement timetable is as follows:-
- Procurement commenced – 6 November 2020 with Standard Selection Questionnaire (SSQ) Prequalification questionnaire. This has already been completed.
 - Request for proposals from chosen bidders - 22 Jan 2021 – April 2021.
 - Award of contract – April 2021
- 6.31 As the award of contract is due in April 2021, and this is during the pre-election period the Energiesprong delivery contract will be awarded by a Leader signing. This will follow the procurement procedure set out by the GLA and delivered by Turner and Townsend and Energiesprong UK. The value of the contract will be less than the agreed maximum price of £4.3m and this will be funded from the £1.6m BEIS award and £2.7m from the HRA Capital.

Delivery

- 6.32 Following an award of contract the project key delivery headlines and timetable are as follows:-
- Design of solution for the pilot project - April 21 to July 21
At the end of this Stage, the Contractor submits end of stage completion documents for evaluation. If the Contractor passes the assessment and the other requirements set out in the conditions of contract, a notice to proceed to the next stage is issued i.e. installation
 - Consultation and engagement with tenants – May to July 21
This will make tenants aware of planned works and the benefits that this will bring to the community and seek to address any concerns.

- Installation to commence:- Aug 21 to Dec 21
Under the Innovation Partnership Contract, at the end of this stage, the contractor submits completion documents as part of an end of stage evaluation. If the contractor passes the assessment and the other requirements of the conditions of contract, a further notice to proceed is issued, allowing further installations to take place if required, and if this fits with the energy strategy for the Council's entire housing stock.
- 6.33 If a notice to proceed to the next Stage is not issued for any reason, an instruction can be issued to remove the work required in the next Stage(s) from the Scope. This instruction is not a compensation event and the Council would not be liable to the contractor for any costs, expenses, losses or damages that it may incur as a result. In addition the Council has the right to terminate the contract at any time for any reason through a termination at will clause in the contract.
- 6.34 A joint HfH and Council delivery team is proposed, which will be funded through the BEIS funding and the capitalisation of costs.
- 7. Contribution to strategic outcomes**
- 7.1 This projects supports the Borough Plan by driving up the quality of housing for everyone (Housing) by delivering the following objectives: -
- To improve the quality of Haringey's Council housing, including by ensuring that a minimum of 95% of homes meet the Decent Homes Standard by 2022.
 - Improve residents' satisfaction with the service they receive from HfH to be in the top quartile for London (78%) by 2022.
 - Ensure safety in housing of all tenures across the borough, responding to any new regulations as they emerge.
- 7.2 Achieving the borough's Climate Change Action Plan outcomes will require extensive refurbishment of the borough's housing stock. This is a huge challenge both technically and financially. Energiesprong retrofits could potentially offer a solution.
- 7.3 There are estimated to be over 15,000 households experiencing fuel poverty in the borough. Improving the energy efficiency of our housing stock to reduce fuel bills is the most effective means of achieving a key objective of the Council's Affordable Energy Strategy 2020-2025. Improving the energy efficiency of homes remains the most sustainable, long-term solution to fuel poverty. With many homes requiring an extensive package of energy efficiency measures, whole house retrofit solutions, such as Energiesprong, offer many benefits.
- 7.4 Energiesprong also has the potential to contribute to the Council's Good Economy Recovery and Community Wealthbuilding plans. All Energiesprong UK projects to date have spurred local supply chain activity. For example, Melius Homes (Nottingham) opened a new factory producing wall panels with integrated doors and windows. Ventive (London) is developing and manufacturing first prototypes of their "Ventive Home" product in response to the pipeline of Energiesprong projects. Within the SHDF Demonstrator bid it has been projected that the project as a whole (across all partners) will deliver 158.5 FTE construction jobs, 17.5 FTE construction management jobs and 73 FTE factory based roles.

Statutory Officers comments (Chief Finance Officer (including procurement), Assistant Director of Corporate Governance, Equalities)

8.1 Strategic Procurement

Strategic Procurement was consulted and is fully aware on the developments in this project. Turner and Townsend is undertaking an OJEU compliant innovation partnership procurement process to appoint suppliers and their tender evaluation and award criteria are in line with the Council's Standing Orders (9.01.2e). Therefore, Strategic Procurement is in agreement with the recommendation put forth by the Carbon Management Team in section 3 of this report.

8.2 Financial Consideration

8.2.1 Orlit and White Hart Lane ward/Coldfall properties have been identified to be in need of significant major works and energy improvement works. This makes them perfect for whole house retrofit project.

8.2.2 The Council has been awarded £1.6m funding from the BEIS Social Housing Decarbonisation Fund (SHDF) Demonstrator to part fund this whole house retrofit project. This represents 37% of the total cost, including staff cost to facilitate the scheme.

8.2.3 The remaining £2.7m will be funded from the HRA carbon reduction capital programme budget/MTFS, which has a provision of £101m over a 10 year period. This brings the total cost to £4.3m for 51 properties.

8.2.4 Initial modelling of this scheme shows that the adoption of a Comfort Charge is vital for financial viability of this scheme as this charge needs to be designed such that it will repay the costs of measures over time.

8.2.5 It is anticipated that following consultation with residents, Comfort Charge will be set at a level that will repay the cost of the measures and offer residents savings on their current levels of spend on energy bills.

8.2.6 The total unit cost of the whole house retrofit project is £0.085m and net cost of £0.055m, after applying the grant from BEIS. An analysis of unit cost to the HRA of alternative approach as shown in the tables below.

Conventional Energy Retrofit Estimated cost/unit on the pilot site	
Measures	Install Cost
Solar PV Array	£5,000
External Wall Insulation	£10,000
Loft Insulation	£700
Multizone Controls	£650
Draughtproofing	£400
Floor Insulation	£3,500
Air Source Heat pump with enhanced radiators	£5,500
A++ tripled glazed windows	£7,100
Part L Insulated Doors	£1,900
Cavity wall insulation to party wall	£1,000
Solar thermal (heat pump compatible)	£4,500
Total Cost to HRA	£40,250
Whole House Retrofit - Energiesprong	
Measures	Install Cost
Entire package including external facade	£85,000
Less: BEIS grant	£29,750
Net cost to HRA	£55,250

8.2.7 The Energiesprong design appears to be £0.015m more expensive. However, it should be noted that the cost of the conventional retrofit does not include some external works included in the whole house retrofit such as roof replacement, etc. These are estimated to cost £0.021m over a 30 years period.

8.2.9 This scheme, at its present cost of £0.085m per unit, will be financially viable on sites that require significant external works and energy improvement works.

8.3 Legal Considerations

8.3.1 The Head of Legal and Governance has been consulted in the preparation of this report and comments as follows

8.3.2 By virtue of the provisions of the Council's Contract Standing Order (CSO) 17.1, Cabinet may approve the receipt of a grant where the value of the grant is £500,000 or more and as such Cabinet has power to approve the receipt of the BEIS Social Housing Decarbonisation Fund.

8.3.3 Pursuant to CSO 7, the Council may procure and enter into a contract with a contractor as part of a group of public sector bodies and as such the recommendation in paragraph 3.4 to procure the contract in the report jointly with the GLA is in line with the Council's Contract Standing Orders.

8.3.4 The innovation partnership procedure through which the contract in the report is to be procured is an OJEU compliant procurement procedure and Cabinet has power to award a contract where the value of the contract is £500,000 or more and as such Cabinet has power to approve the award of a contract resulting from the procurement exercise being carried out through the innovation partnership procedure to select the the innovation partner in relation to the contract in the report.

- 8.3.5 The proposal to retrofit the properties in Option A or Option B requires tenant engagement and for the secure tenants affected by the proposal this engagement needs to be in the form of statutory consultation pursuant to section 105 of the Housing Act 1985.

In the case of *R (Moseley) v Haringey* the Supreme Court endorsed the following general principles of consultation:

- That consultation must be at a time when proposals are still at a formative stage;
- That the proposer must give sufficient reasons for any proposal to permit intelligent consideration and response;
- That adequate time must be given for consideration and response; and
- That the product of consultation must be conscientiously taken into account in finalising any proposals.

The planned 6 week section 105 consultation is in accordance with the above principles and the outcome of the consultation will need to be considered in deciding whether or not the project should progress to the installation stage.

- 8.3.6 The Head of Legal and Governance sees no legal reasons preventing the approval of the recommendations in the report

8.4 Equality

The Council has a Public Sector Equality Duty under the Equality Act (2010) to have due regard to the need to:

- Eliminate discrimination, harassment and victimisation and any other conduct prohibited under the Act
- Advance equality of opportunity between people who share those protected characteristics and people who do not
- Foster good relations between people who share those characteristics and people who do not.

The three parts of the duty apply to the following protected characteristics: age, disability, gender reassignment, pregnancy/maternity, race, religion/faith, sex and sexual orientation. Marriage and civil partnership status applies to the first part of the duty.

The proposed decisions are to agree to the Council's participation in the GLA Retrofit Accelerator for Homes programme and to join an Innovation Partnership procurement to deliver a framework for whole-house retrofit. The objectives of the proposed decisions are to increase the energy efficiency of the Council housing stock and thereby make progress towards the Council's commitment to become a zero carbon borough.

Increased energy efficiency will benefit tenants in Haringey Council housing. Black people, older people, people with disabilities, and women are over-represented among current Council tenants. To the extent that the proposed decision enables Council tenants to reduce their energy bills, it will represent a measure to advance equality of opportunity for people who share the protected characteristics by meeting their needs where they are different to the needs of others.

Reducing carbon emissions has equality implications. The climate crisis can be expected to disproportionately impact younger people, people on lower incomes, and

groups that are already marginalised. Measures to reduce carbon emissions therefore represent means of preventing and mitigating future inequalities.

As an organisation carrying out a public function on behalf of a public body, the contractor will be obliged to have due regard for the need to meet the three aims of the Public sector Equality Duty as stated above.

9 Use of Appendices

Appendix A – An overview of the Energiesprong Approach

Appendix B – An overview of the GLA Retrofit Accelerator programme

Appendix C – Orlit properties map

Appendix D – An overview of the BEIS Social Housing Decarbonisation Fund (SHDF) Demonstrator

Appendix E – Energiesprong Engagement Stages and Outline

10 Local Government (Access to Information) Act 1985

None

Appendix A – An overview of the Energiesprong Approach

1. Energiesprong is an innovative, whole house refurbishment technique delivering a new build energy standard and funding approach. It is not a company, but an energy efficiency methodology.
2. Energiesprong UK is an independent company that aims to promote and enable the delivery of the Dutch approach in the UK. So far in the UK Energiesprong pilot schemes have been run by five landlords:-
 - [Nottingham City Homes](#)²: 48 homes. 389 to follow in 2021
 - [Moat Homes \(Malden\)](#): 5 homes delivered in 2019
 - Exeter City Council, North Devon Homes and Sanctuary – 16 homes to be completed early 2021 A further 30 homes to follow.

The completed projects have been successful with some tenants seeing monthly energy bills drop from about £120 to £60-£70 and reporting increased levels of thermal comfort. However, the UK market requires further scale and innovation to meet an economic price point. Social landlords, such as Haringey, are well positioned to leverage zero carbon commitments against future works to incentivise the market to meet this economic price point. By increasing demand, industrialising and standardising the approach, it is expected that a 50% cost reduction can be achieved by 2025.

4. An Energiesprong retrofit takes a whole house approach. This means that rather than installing one energy saving component at a time, and using several contractors. A single contractor is procured to deliver a ‘design, build and guarantee’ contract against the Energiesprong Performance Specification.
5. The Energiesprong performance specification is outcome based and doesn’t specify the technical solution, but in summary the specification will seek to provide:
 - A new energy efficient façade providing an air-tight, fire-compliant insulated cassette
 - A new roof covering with solar panel array
 - Incorporation of low carbon technologies such as heat pumps, battery storage, smart monitoring and controls integrated in a factory built energy module
 - An overall 80% improvement to the thermal comfort of the building – ensuring a temperature of 21°C in living rooms and 18°C in bedrooms, hot water and plug power, at an affordable total cost.
 - Installations must be achieved with minimal intrusion, and within 15 days.
 - The solution must come with a performance guarantee and ensure no overheating, noise or moisture/damp issues.
 - The approach needs to be delivered for the same level of expenditure that Councils would have to spend to maintain the properties to current standards and the occupier would spend on energy costs over a 30 year period.
 - Tenants’ energy bills should reduce dramatically covering the energy suppliers’ standard charge and any excess consumption.
6. In the Energiesprong model, tenants are charged a “Comfort Charge” (which is equal or less than their current combined utility bills). The aim is that the comfort charges and the reduction in planned maintenance charges over a 30 year period will cover the cost of the Energiesprong installation.

² <https://www.energiesprong.uk/newspage/energiesprong-uk-bbc-news>

7. There are options around setting the parameters for the Comfort Charge to ensure that residents are better off. The Energiesprong costs are expected to be met through a reduction in maintenance cost and subsidies. It is estimated that the removal of maintenance costs over 30 years will save approximately £27,000 per property. With the use of Air Source Heat Pumps government grants (RHI) could be secured to the value of approximately £10,000 per property, and with the Social Housing Decarbonisation Fund additional funding of approximately £29,750 per property can be added.
8. Contractors are required to complete installations in less than 15 days on site to reduce disruption to the occupier. Typically, wall and roof panel cassettes are manufactured off-site and transported to site for quick, 'wrap-around' installation. Heating, hot water, ventilation, and monitoring equipment are integrated into a single easy to install and maintain module. Photovoltaic (PV solar) generation is integrated into the roof system. There is no need for occupants to move out during the works.
9. Unintended consequences (e.g. air quality, damp, noise and overheating) are directly addressed via the outcome performance specification. Energiesprong's monitoring systems will be utilised to collect post retrofit data on health, comfort and well-being of occupants.

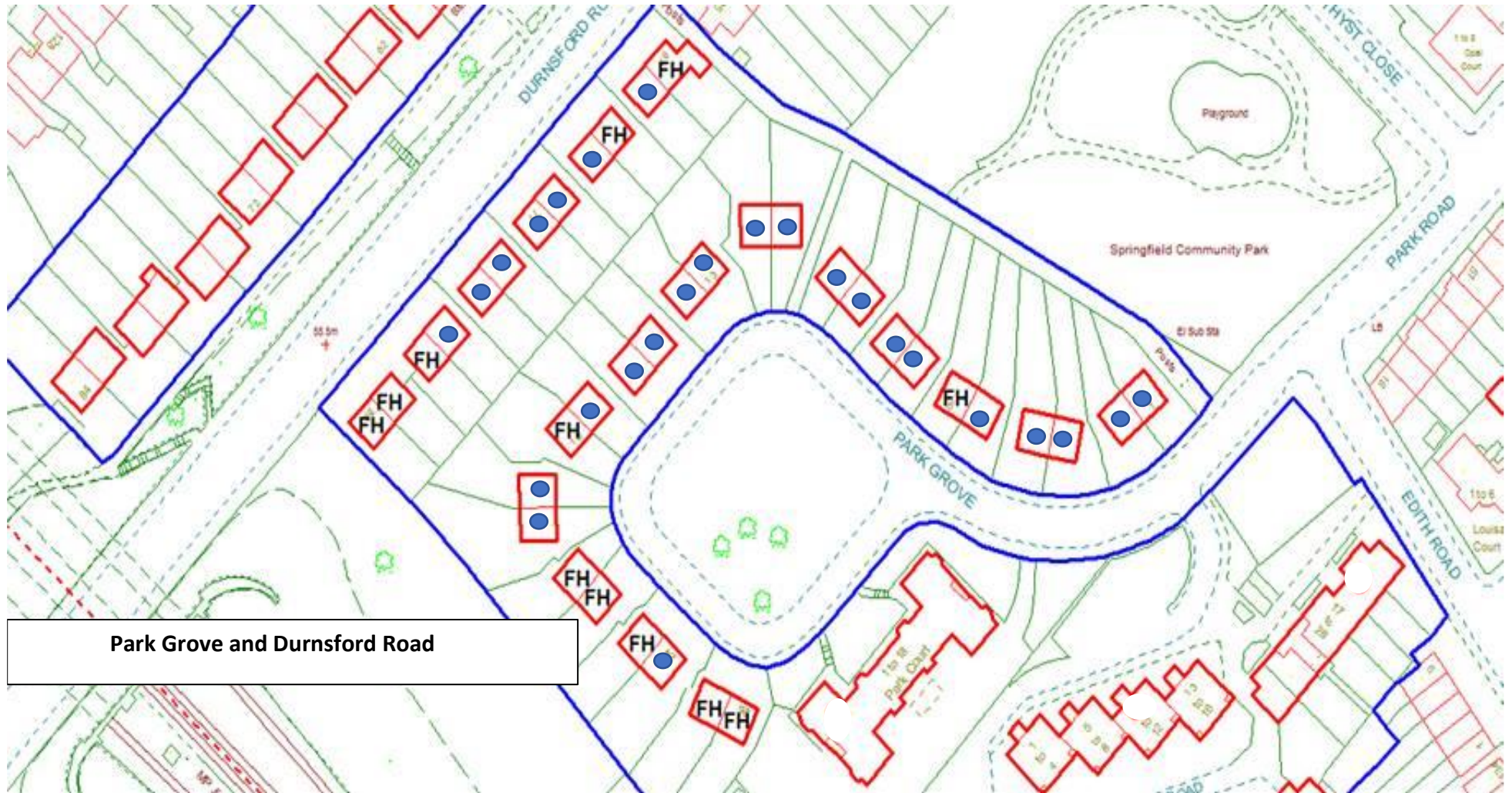
Appendix B – An overview of the GLA Retrofit Accelerator programme

1. The London Borough of Haringey has joined the Mayor of London's Retrofit Accelerator programme. This programme aims to speed up the delivery of energy retrofit measures in London's ageing and energy-inefficient housing and meet zero carbon targets. It is part of the Mayor's Energy for Londoners programme. The Retrofit Accelerator programme is led by Turner and Townsend and delivery partners include Energiesprong UK, PA Consulting and the Carbon Trust.
2. This Energiesprong pilot is a new approach, while a proven approach across Europe. Regional (GLA) and national government (BEIS) are supporting this pilot with direct funding and administrative support. They are keen to use these pilots to test the delivery of the methodology, and the implementation of the management of things like the Comfort Charge. Alongside this it is important for the Council and the UK to learn about the Energiesprong approach in a range of property types. The Council owns and manages various property types that range from street properties in conservation areas to high-rise properties. These may not be appropriate for an Energiesprong approach. By joining the GLA Energy Retrofit Accelerator Project the Council will share its learning with other Councils across London. This will strengthen the case for further roll out of the Energiesprong approach on properties when they have been assessed as technologically suitable. This pilot will support this learning and support the development of future business cases with the ambition to grow and expand.
3. The programme provides technical expertise to local authorities to kick-start 'whole-house' deep retrofit projects, build the supply chain, and develop business cases to accelerate the retrofit of homes. The Retrofit Accelerator programme is supporting Haringey with:-
 - Programme co-ordination
 - Funding reporting and coordination
 - Procurement support
 - Technical support on the Energiesprong specification
 - Interface with programme resources and knowledge
 - Innovation and lean process consultancy to drive efficiency and cost reduction.

Appendix C – ORLIT ESTATE MAPS

Freeholders identified (FH)

Properties identified for Energiesprong with ●





Tunnel Gardens and Blake Road

Appendix D - An overview of the BEIS Social Housing Decarbonisation Fund (SHDF) Demonstrator

- 1 In September 2020 the Government launched its Social Housing Decarbonisation Fund. The Government intends that the Social Housing Decarbonisation Fund (SHDF) Demonstrator will start the decarbonisation of social housing over 2020 to 2021, and support green jobs as part of the COVID-19 economic recovery plan.
- 2 Haringey joined a consortium bid supported by the Mayor of London's Retrofit Accelerator programme with the GLA, Energiesprong UK and 6 other social landlords: LB Barking & Dagenham (lead), Bristol CC, LBs Ealing, Enfield, Hammersmith & Fulham, Haringey and Lambeth.
- 3 The London Borough of Barking and Dagenham will enter a Memorandum of Understanding (MOU) with BEIS for the full consortium grant of £9.6m. Haringey is required to enter a back-to-back MOU with LB Barking and Dagenham to access its portion. The projects are expected to achieve the following objectives:
 - Achieve significant energy demand reduction in dwellings by applying a whole house retrofit approach that is compliant with PAS 2035 (is the new over-arching document in the retrofit standards framework) and a reduction in fuel bills
 - Achieve a significant cost reduction for the approach selected within the lifetime of the project, and provide evidence on the sources of cost reduction;
 - Support green jobs and utilise local supply chains to contribute to economic stimulus post COVID-19;
 - Safely treat an appropriate number of dwellings to demonstrate achievement of cost reduction in a replicable manner;
 - Provide evidence on replicability and scale-up of approach in future projects;
 - Ensure the improvement of health, comfort and well-being of occupants and mitigate any unintended consequences;
 - Provide evidence of performance evaluation post retrofit.
- 4 As a result of this bid, Haringey has the opportunity to claim £1,604,250:-
 - £1,517,250 (£29,750 towards the cost of 51 properties)
 - £71,000 towards staffing
 - £16,000 towards fees
- 5 To claim this funding works need to be completed by 31 December 2021.

Appendix E – Energiesprong Engagement Stages and Outline

1. Phase 1 – Notification to tenants that the Council is investigating Energy Efficiency measure on their properties – March 2021

2. Phase 2 - Initial Engagement Phase March 2021 – April 2021

This will include:

- Installing monitoring equipment in 10 of the pilot homes to enable ‘before and after’ impact reporting to funders.
- EPC and Structural surveys to be arranged.
- Collection of historic energy bill data including meter readings
- Pre-retrofit comfort questionnaire with all tenants
- Full explanation on the Energiesprong approach
- Tenants will be asked what their experience is of living in their home. If there any opportunity to improve the property at a minimal cost that can be incorporated into the design.

3. Phase 3 – Design Engagement – May 2021 – August 2021

Once the solution provider is awarded a contract and starts work on the solution design further engagement will be undertaken. The solution provider will have their own resident engagement lead who will work with the Council and HfH to design their own tenant engagement plan. When design is completed it will be shared with residents before works commence and residents will be advised of the works timetable. The design will help inform what form the Comfort Plan Agreement will take: a separate agreement, a service charge, a unit charge for heat and/or electricity. The design will also confirm planned energy use saving, to be used with residents’ historic bills to establish the Comfort Plan Charge level.

Once the proposed design is available a 6 week s105 consultation process will commence. This will be completed before the *installation* phase commences. A pack will be produced setting out the impact of the design and installation on the tenants. This will be available online and at least one meeting will be held with the affected community.

3. Phase 4 -Build process engagement August 2021 – December 2021

This will be lead by the solution provider lead with our support. Residents are likely to receive daily updates on what is happening on site and be kept informed any changes to the work schedule.

4. Phase 5 - Conclusion of works

Once works are completed monitoring data will be collected to verify the retrofit is working as it is meant to and that residents have warm homes at a low cost. It is at this point that the figures for the Comfort Plan can be confirmed and ‘before and after’ cost and comfort comparison can be given to residents, backed-up by performance data. Residents can be asked to sign the Comfort Plan agreement from this point.

5. Lessons learnt from this engagement will be factored into any future projects undertaken.