

<b>Committee(s)</b>	<b>Dated:</b>
Corporate Asset Sub-Committee (CASC)	November 24 <sup>th</sup> 2021
<b>Subject: CAS NZ1, NZ3 and RS3 Workstream update for the Operational Portfolio</b>	<b>Public</b>
<b>Which outcomes in the City Corporation's Corporate Plan does this proposal aim to impact directly?</b>	<b>5,11 &amp; 12</b>
<b>Does this proposal require extra revenue and/or capital spending?</b>	<b>Yes</b>
<b>If so, how much?</b>	<b>£1.525m (first 12 months)</b>
<b>What is the source of Funding?</b>	<b>CAS Budget</b>
<b>Has this Funding Source been agreed with the Chamberlain's Department?</b>	<b>Yes</b>
<b>Report of: The City Surveyor</b>	<b>For Information</b>
<b>Report author: James Rooke / Graeme Low</b>	

### Summary

This report presents an update on the key actions of the operational buildings workstreams as part of the climate action strategy (CAS). Progress has been made in the following key areas:

- Vital Energi have started a programme of building energy surveys, six out of 15 buildings have received initial surveys.
- £800k Social Housing Decarbonisation Fund bid for William Blake and Southwark Estates.
- Scoping study underway with Etude for whole life cycle carbon assessment.
- Appointment of Arcadis to provide assurance and support to City Surveyors led CAS Projects (NZ1, RS3 & NZ3).
- Two fixed term Energy Project Manager posts are currently in recruitment.

### Recommendation(s)

- Note the progress made on actions within the report.
- Note the appointment of Arcadis and the review of the Centre of Excellence.

### Main Report

#### Background

1. The Climate Action Strategy (CAS) measured our direct building emissions in 18/19 as 36 ktCO<sub>2</sub>e, by 2026/7 this must reduce to 17 ktCO<sub>2</sub>e to reach our net zero target. CO<sub>2</sub>e emissions for Housing and Corporate properties are as follows:

**Table 1: Current Carbon emissions by portfolio and 2027 target**

<b>Portfolio</b>	<b>12 months to Sept 21</b>	<b>2026/27 Target</b>
Housing	7.5 kt/CO <sub>2</sub> e	4.5 kt/CO <sub>2</sub> e
Corporate Property Group	16.8 kt/CO <sub>2</sub> e	10.8 kt/CO <sub>2</sub> e

2. To support this goal, the CAS buildings approach was presented at the April Sub Committee with a series of discrete actions which conjoin to deliver the CAS strategy NZ1, NZ3 and RS3 for the Corporate buildings' portfolio – including housing. These actions are summarised in the table 2 below.

**Table 2: NZ1 - Corporate Property and Housing Landlord Areas Actions**

1 - Commission building energy surveys – Corporate assets & Housing
2 - Develop building controls management strategy
3 - Enhance monitoring and targeting programme
4 - Decarbonisation of Heat
5 - Deep fabric retrofit pilot – Commercial asset
6 - Additional energy specialist resources
7 - Capital programme roll-out

## Status Updates

### **Action 1 Progress:** Commission building energy surveys – Corporate assets & Housing

#### **Corporate**

3. Through the GLA's retrofit accelerator framework, Vital Energi Ltd. have been appointed as the Energy Performance Contractor.
4. They are providing energy efficiency audits for the PSDS project and additional audits to the top 15 sites (appendix 1) in support of the Climate Action Strategy. Their activities will first involve a high-level assessment of each site, to provide a list of projects that can be immediately undertaken, and a list of projects that rely on other existing CoL projects finishing.
5. To date, six sites (LMA, Mansion House, Central Criminal Court, Girls School, Boys School, Freeman's School) have been through an initial survey. Details of the expected time frames for delivery of all the surveys and reports can be found attached in appendix 2.

#### **Housing**

6. The Housing Action Plan has been drafted and presented to Committees for approval in September.
7. We have identified several potential pilot locations to trial energy efficiency measures including Insulation; renewable heat; air tightness and ventilation.
8. An application to the Social Housing Decarbonisation Fund has been submitted for William Blake Estate and Sumner Building (Southwark Estate). The value of this project is £1.6m, with 50% grant funding. The proposal provided the best fit with the grant funding criteria.
8. Next Steps – **Action 1:**
  - a. Resource requirement to be addressed following Centre of Excellence review– Action 6
  - b. **Corporate:** Completion of energy surveys / reports fed into Climate AS project pipeline.
  - c. **Housing:** Commission building surveys and feasibility studies for pilot projects.

### **Action 2 Progress:** Develop building controls management strategy.

10. The Building Analytics (Smart Buildings) platform contract is being finalised; we expect this to commence mobilisation stage in November '21.
11. The Building Energy Management System Upgrade Phase 1 is currently at GW 2. Site surveys are being carried out to prepare GW3/4 report. A capital funding bid was submitted in October '21 for BEMS Upgrade Phase 2.
12. Detail discussions are in progress with ADR/Battery storage technology providers following soft market testing stage.

13. Guildhall Internet of Things (IoT) sensors - Proof of Concept project in progress, currently at the design stage.

14. Next Steps – **Action 2:** Resource requirement to be addressed following Centre of Excellence review– Action 6

**Action 3 Progress:** Enhance monitoring and targeting programme.

16. The TEAM Sigma software has been procured and is going through Beta testing. Training began in October with the system being rolled out in late November, beginning with the Energy Viewer Module.

17. Next Steps – **Action 3:** Resource requirement to be addressed following Centre of Excellence review– Action 6.

**Action 4 Progress:** Decarbonisation of Heat

19. Citigen - 4MW of heat pumps due to be installed December 2021 – Eon estimate 25% carbon reduction.

20. Corporate estate – Capital works assessment being undertaken by PSDS partners – further consultancy work will be required to develop.

21. Housing – Additional consultancy work will need to be commissioned as part of the programme.

22. Next Steps – **Action 4**

- a. Resource requirement to be addressed following Centre of Excellence review– Action 6.
- b. Identify additional funding streams for decarbonisation support.
- c. Continue with Citigen decarbonisation studies prior to review period in 2024.
- d. Undertake review of housing opportunity.

**Action 5 Progress:** Deep fabric retrofit pilot – Commercial asset

24. This project will be a proof of concept to inform our wider design and resilience standards. Scoping and delivery will be driven by the dedicated design resource

25. Next Steps – **Action 5:** Resource requirement to be addressed following Centre of Excellence review– Action 6.

**Action 6 Progress:** Additional energy specialist resources.

26. It has been identified and agreed that the current Energy and Sustainability Management Team require an additional specialist resource to meet the demands of the City Surveyor's work streams. We have approval to recruit two fixed term Energy Project Managers supporting the delivery of NZ1 and are currently engaged in the recruitment process. Initial approaches to resource via service procurement was unsuccessful.

27. A further review of the Centre of Excellence is now being carried out and the outcomes will be presented to the CAS programme team in due course with any request for change. This resource is also to address the NZ3 and RS3 work streams plus the Investment portfolio (NZ4) approach.

29. Next Steps – **Action 6:** Appointment of Energy Project Managers and remaining resource requirement to be secured following Centre of Excellence review – Action 6.

## **Action 7 Progress:** Capital programme roll-out

30. The main capital programme roll-out will flow from opportunities identified in action 1 energy surveys, however it should be noted that the energy team has already originated £15m of capital works which are now in gateway or procurement phases this FY. This includes the £9.5m PSDS project (completing in March 2022), Phase 1 & 2 of the Energy Reduction Programme (completion 22/23) and £4.5m Guildhall Cooling replacement project (completion expected summer 23).
31. In addition, the specialist design and engineering resource, once in place, will maximise opportunity on existing minor and major works and refurbishments.
32. Next Steps – **Action 7:** Resource requirement to be addressed following Centre of Excellence review– Action 6.

## **NZ3 Capital Projects Design Standards and RS3 Resilient Buildings**

33. The Energy and Sustainability Team are working closely with the Capital Projects team and liaising with DBE to identify synergies and opportunity for shared working. The resource expertise for these two workstreams is being reviewed currently as part of the Centre of Excellence reassessment (section 6). A scoping exercise has been commissioned via the projects team as the first step in the delivery of a suite of design standards to inform our future projects.

## **Project support activities**

Arcadis have been appointed by the City Surveyor, to provide project support across each individual project (NZ1, RS3 & NZ3). As part of this brief support will be in place to cover initial assurance support; ongoing assurance; establishing and promoting the Centre of Excellence and to lead the development of an auditable energy management system

## **Key Risks**

<b>Risk</b>	<b>Mitigation</b>
Delays in securing resource Impacts project delivery.	Review of Centre of Excellence underway to address this issue.
Funding gap emerges following investment grade proposals.	Existing funding allocation to be complemented with grant funding applications. Investigate Energy Performance Contracts option to minimise capital investment.
Carbon grid factors adversely affected.	Keep in review BEIS grid factors and their impact on reach the 2026/27 Targets.

## **Corporate & Strategic Implications**

### **Strategic implications:**

1. This suite of actions drives the objectives of the Climate action strategy, buildings stream and will provide linkage and co-ordination with ongoing property management, capital schemes and cyclical works

### **Financial implications:**

2. The overall programme capital and resource costs are estimated at £21m for the 6-year term. Year retained annual cost avoidance is estimated at £3m

**Climate implications:**

3. This action stream will deliver the Net zero carbon goals of the Corporation and support the climate residence goals of the broader programme

**Conclusion**

4. The City Surveyor has commenced the mobilisation of the 4 workstreams, 3 being relevant to this Sub Committee. We have encountered constraints around the supply of resource which has led to a review of the Centre of Excellence. A flexible approach will support our ability to moving the programme forward and meeting key milestones.

**Appendices**

- Appendix 1 – List of top 15 Corporate sites for assessment
- Appendix 2 – Corporate Site Survey Programme

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