

Committee(s)	Dated:
Operational Property and Projects Sub Committee	July 3rd 2023
Subject: CAS NZ1, NZ3 and RS3 Workstream update for the Operational Portfolio	Public
Which outcomes in the City Corporation's Corporate Plan does this proposal aim to impact directly?	5,11 & 12
Does this proposal require extra revenue and/or capital spending?	No
If so, how much?	
What is the source of Funding?	
Has this Funding Source been agreed with the Chamberlain's Department?	Yes
Report of: The City Surveyor	For Information
Report author: Graeme Low	

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:

- Investment Grade Proposals for 15 projects covering design and build proposals from Vital Energi. Citigen Decarbonisation transferred to the Square Mile Project Plan for CAS.
- The initial version of Design and Technology guidance has been completed, pilot use at key projects has begun.

Recommendation(s)

- Note progress made in delivery of project tasks including energy surveys, heat decarbonisation, and design and technology guidance.
- Note the progress on the delivery of capital projects including PSDS phase 1.

Main Report

Background

1. The Climate Action Strategy (CAS) measured our direct building emissions in 2018/19 as 36 ktCO_{2e}, by 2026/7 this must reduce to 15.3 ktCO_{2e} to reach our net zero target for our operational properties and Housing portfolio. CO_{2e} emissions are as follows:

Table 1: Baseline and current carbon emissions by portfolio and 2027 target.

Portfolio	Baseline 2018/19	(2022/2023) - PPA included	2026/27 Target
Housing	10.6 kt/CO _{2e}	5.82 kt/CO _{2e}	4.6 kt/CO _{2e}
Operational	22.2 kt/CO _{2e}	15.36 kt/CO _{2e}	10.8 kt/CO _{2e}

2. To support this goal, the CAS buildings approach was presented at the April Corporate Asset Sub Committee in 2021 with a series of discrete actions which conjoin to deliver the CAS strategy NZ1, NZ3 and RS3 for the Operational buildings' portfolio – including housing. These actions are summarised in the table 2 below and demonstrate the requirement for the City Corporation to continue investment in carbon reduction projects. Item 7 within the appendix provides an overview of the carbon reduction expected from planned interventions.

Table 2: NZ1 – Year 3 Operational property and housing landlord areas objectives

1. Capital Programme Development - Operational Properties	7. CoLC plan for Citigen
2. Delivery of Capital Programme – Operational Properties	8. Optimisation for sites connected to Citigen
3. Capital Programme Development - Housing Properties	9. Building controls management strategy and increased delivery capability
4. Delivery of Capital Programme - Housing Properties	10. Monitoring and targeting programme and increased delivery capability
5. Decarbonisation plans for Operational properties	11. Staff Resources
6. Decarbonisation plans for Housing properties	

Status Updates:

NZ1 Corporate Property and Housing Landlord Areas

Objective 1,2&5: Operational Properties: capital programme & decarbonisation plans

3. High Level Assessments have been undertaken of all the larger operational sites to identify viable carbon reduction measures. Based off these assessments a paper was approved by P&R and OPPS Committees in December 22 and January 23 respectively: Climate Action Strategy (CAS) – Capital Delivery Programme for Operational Buildings. The total estimated programme cost is c.£5.3mil (excluding risk) to deliver savings of c.£550,000 and c.500 tCO2 per annum with an average payback c.10 years and cost per ton of carbon saved of c.£10,000/tCO2. This is Phase 1 of a proposed 3 phase programme of capital works which will be delivered up to 2027.
4. A delivery plan to support the multi-phase capital programme is currently being drafted. This will build on the gateway report to provide further detail how capital projects will be developed and prioritised across the operational portfolio. A Phase 2 programme will be informed by this and composed of projects currently under assessment.
5. Investment Grade Proposals are currently being developed for 15 projects in the programme. These are fixed price design and build proposals from Vital Energi – our preferred main contractor. Gateway 5 papers are being prepared for each project and will be submitted for approval over June to August 2023. Delivery of the projects is projected over September 2023 to May 2024. Delivery will be supported through

commissioning of external programme and project management services and engineering expertise.

6. Decarbonisation studies are being finalised by external consultants for 10 operational sites. All associated site surveys have been completed and draft reports have been received for 7 sites, with all due for completion by end of August. The primary focus for these studies is to appraise the options for replacement of existing gas boiler systems with a low carbon heat supply to identify and provide costs and savings associated with the preferred solution. These solutions will then be appraised as part of the development of the capital programme (objective 1).
7. The delivery plan will be further supported by the development of c.33 in number site-specific Decarbonisation Plans. These will set out how each site can contribute to the 2027 net zero target and how measures will be supported through CAS.

Next Steps – Objective 1,2&5	
a.	Completion of delivery plan.
b.	Complete decarbonisation studies for 10 operational sites.
c.	Commission external support services for delivery of capital programme.
d.	Completion of GW3-5 papers for capital works.
e.	Enter contract to commence capital works on the first projects
f.	Develop IGPs for a Phase 2 of the Operational properties' capital programme
g.	Draft and approval of gateway 2 paper
h.	Drafting site-specific Decarbonisation Plans for highest priority sites

Objective 3,4&6: Housing - capital programme & decarbonisation plans

8. Survey work has been completed at the Barbican Estate to evaluate the benefit of improving insulation and heating controls with properties. Further cost analysis has recently been completed providing the value and benefit of undertaking these works. We continue to consult with Barbican residents as these proceed.
9. Housing surveys have been completed to assess options for improving the efficiency of landlord services have been completed. Final reports have been received and currently under review. These assess landlord operational emissions, focusing on options for PV, lighting upgrades, pump controls and ventilation improvements.
10. Decarbonisation studies on our 5 communally heated housing estates are in progress, with all sites surveyed and high-level assessments undertaken. Final reports have been completed for Barbican Frobisher and Isledon House with the remainder due for completion by August 2023.

Next Steps – Objective 3,4&6	
a.	Completion of surveys and feasibility studies for pilot projects.
b.	Complete the communally heating system studies.

Objective 7&8 Progress: Citigen: post-27 plan and site optimisation.

11. The approved Year 3 CAS plans transferred the Citigen decarbonisation to the Square Mile Plan to provide alignment with wider heat network workstreams. The scope of NZ1 focuses on the City Corporation's plans and options for the future supply of heat from Citigen to its own buildings and the optimisation of these buildings to support heat network efficiency.

12. City Surveyors have undertaken specific meetings with Citigen (and representatives from the parent company - E.On) to set out our priorities for Citigen beyond 2027. Citigen are due to provide a heads of terms document to frame our discussions on the future relationship. We are preparing engagement with senior officers to establish our needs and concerns and appraise the options for our future commercial relationship with Citigen. We plan to prepare an update report for committee later this year.
13. Several of our sites supplied by Citigen are not meeting their obligations regarding return water temperatures back to the network. This is a major barrier to network decarbonisation, so we have commissioned a study to identifying the technical issues and providing a costed plan for improvements. The full scope of the study is due to be completed in June 2023, following which we shall develop a business case for improvements.

Next Steps – Objective 7&8	
a.	Engagement with internal senior stakeholders
b.	Appraisal of future options, procuring specialist consultancy services to advise
c.	Complete Citigen connected sites performance improvement study by June 2023 and engage Citigen on the findings and prepare business case

Objective 9: Building controls management strategy and increased delivery capability.

14. The Schneider Electric Building Advisor platform (analytics) has been operating since July 4th for the Guildhall and LMA. A Gateway 3-5 paper was recently approved to extend the platform to Mansion House and Central Criminal Court in the coming months, as set out in the CAS Capital Programme.
15. The building controls strategy was drafted in November and is being reviewed prior to implementation.

Next Steps – Objective 9	
a.	Mobilisation of Building Analytics Software at Mansion House and CCC.
b.	BEMS integration with Team Sigma.

Objective 10: Monitoring and targeting programme and increased delivery capability.

16. Benchmarking, target setting and analysis against variables is currently being set up within Team Sigma for individual sites. In Q2 we plan to have individual targets updated within Sigma, league tables set up for building categories and benchmarks in place to compare our building performance against National datasets.

Next Steps – Objective 10	
a.	Agree targets and set up exception reporting for sites by Q2
b.	Set up management reporting dashboards for key stakeholders to measure and track progress at building level. Q2
c.	Implement process for rectifying issues found via FM. Q2

Objective 11: Staff resource

17. We have added support in place with Etude Consulting Ltd. Overseeing tasks relating to Housing. Additional levels of support are in place for 2023/24 for heat decarbonisation design standards and resilient buildings.

Next Steps – Objective 11	
a.	Appointment of remaining Energy Engineering Project Manager.
b.	Actions 1,2,3,4 & 5 are reliant on a fully resourced Centre of Excellence.

NZ3 Capital Projects Design Standards and RS3 Resilient Buildings

18. The focus following publication at the end of My 2023 is on embedding both the Design and Technology standards. Engagement with a number of different Project Leads to pilot elements of the Standards in 2023, these include Barbican Renewal Programme, 23 Finsbury Circus and the Markets Relocation project. Pilots are due to continue for the remainder of Year 3. Learnings will feed into the review and update of the Standards.
19. Discussions in Q1 and continue into Q2 with key Energy Team members to source a historic asset to implement interventions. This pathway project will be key to gaining insight into suitable intervention measures for historic assets in support of improving sustainability across the portfolio.
20. Review and consolidation of the priority asset list and intervention measures has been completed in Q1. The scope for the Resilient Buildings Action Plan is being developed, the Plan is to be produced by a supplier and due by the end of Q2. Training on the Asset Resilience Portal will be rolled out in Q2.

Project support activities

21. Arcadis have been appointed by the City Surveyor to provide, initial assurance support; ongoing assurance; establishing and promoting the Centre of Excellence and to lead the development of an auditable energy management system. The assurance support is extended for the year 2023/24.

Key risks

22. Key risks are included within item 4. of the appendix.

Corporate & Strategic Implications

Strategic implications:

23. 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:

24. The CAS tasks in this report are covered within the overall Climate Action Strategy programme. Capital and resource costs are estimated at £21m for the 6-year term for the tasks related to these project plans. This funding forms part of the £68m agreed at RASC and P&R committees in September 2020.

Climate implications:

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

Conclusion

26. Capital interventions are the primary focus for operational properties in 23/24 and work has begun to deliver these from Q1. Further phases of capital projects will be developed as part of a three-phase approach up to 2027. Design and Technology guidance is now developed to support the implementation of projects and will be introduced in the coming months.

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