Corporate Services, Climate Change and Scrutiny Management Committee **14 April 2025**

Report of the Chief Strategy Officer

Net Zero Fund: Project Update

Summary

1. City of York Council was awarded £2.9m from the Combined Authority Net Zero Fund to deliver projects that contributed to the decarbonisation of the region. The funding was awarded in November 2023 for both project development and project delivery. Projects were required to complete delivery and expenditure by 31 March 2025.

2. This report provides an update to the previous paper presented to Corporate Services, Climate Change and Scrutiny Management Committee in December 2023; summarising the status, benefits, challenges and lessons learnt from each of the projects, to inform future funding applications and project development and delivery.

Background

3. As part of York & North Yorkshire's devolution arrangements, a £7m Net Zero Fund was established in 2023 to enable the development and delivery of projects that would contribute to decarbonisation across the region.

4. The fund would support both development (revenue) and delivery (capital) projects, with funding allocated through a competitive application process.

5. An internal review and prioritisation process resulted in City of York Council submitting applications for 14 projects, totalling over £5m in grant funding ask for York. These projects are summarised in Table 1.

Fund	Project Title	Description
Development	Grimston Bar Solar Scheme	Feasibility study for potential ground-mounted solar PV scheme
Development	Onshore Wind	Feasibility study for potential wind turbine north

	(Wigginton)	of Wigginton
Development	Garden Village Decarbonisation Plan	Design assessment of lowest carbon, lowest cost approach to decarbonise the development
Development	York Sport Club Energy Savings	Heat Decarbonisation Plans for community sport facilities
Development	Harewood Whin Green Energy Park	Planning application and full business case for potential 28MW Green Energy Park project
Development	Post Occupancy Monitoring	Approach to monitoring 'as built' versus 'as modelled' energy performance of CYC's housing delivery programme
Delivery	CYC Lighting Upgrades	LED replacement at CYC office buildings, schools and sheltered accommodation
Delivery	HyperHub 4	Fourth EV charging hyperhub in the south of the city
Delivery	Alex Lyon & Honeysuckle House heat decarbonisation	Replacement of fossil fuel heating system with low carbon communal system
Delivery	Every Mouthful Matters York	Comprehensive approach to reducing food loss and improving redistribution
Delivery	LED Street Lighting	LED replacement of remaining streetlamps
Delivery	York Central – Commercial use	Environmental improvement to commercial units at York Central
Delivery	Coney Street environmental uplift	Environmental improvement to commercial units and public realm at Coney Street
Delivery	HRA Energy Efficiency Upgrades	Installation of battery storage and heat-pumps at CYC properties with Solar

Table 1: Projects submitted by CYC to the Net Zero Fund

6. Following independent assessment, City of York Council was awarded £2.9m from the Net Zero Fund in November 2023, for the following projects:

<u>Development</u>

- Harewood Whin Green Energy Park - £243,500
- Renewable generation Feasibility study: North Wigginton - £50,000
- Renewable generation Feasibility study: Grimston Bar - £50,000

<u>Delivery</u>

- Renewable Heating upgrades: Alex Lyon & Honeysuckle House - £1,895,000
- LED Conversion: Streetlighting - £352,282
- LED Conversion: Commercial - £354,000

7. On award of funding in November 2023, projects were required to be completed by end of March 2025. Subsequently, some projects have

applied for extensions from the Combined Authority to the end of June 2025 – this is noted below where relevant.

Project Updates

Project	**Harewood Whin Green Energy Park**
Summary	Develop an Outline Business Case to further investigate the technical and financial viability of installing renewable energy at the former landfill site.
Completion date	30/06/2025 – following agreed extension from the Combined Authority
Funding value	£243,500
Current Status	The project is on track. Completed: ○ Baseline scoping assessment ○ Longlist optioneering – which disaggregated a future review of Hazel Court Household Waste Recycling Centre as a separate project ○ Solar shortlisting In development: ○ Finalising Strategic Outline Case ○ High-level financial modelling We are exploring the opportunity to utilise the generated electricity for use by the council's own operations and by other partner institutions. Planning approval was granted at committee on 20/3/25 for a solar scheme of 16.5MW
Benefits	Reduced electricity costs for council and other city partners. Revenue for the council through resale of surplus electricity. Potential carbon saving of up to 20,000tCO_2e/yr.
Challenges	Required grid connection is costly and time-consuming. New contractual arrangements will be required to facilitate the supply and purchase of electricity. Landfill ground conditions mean that it is likely to be more costly to install solar on a former landfill site. Further ground investigations are needed to confirm viability. Additional revenue funding is required to progress the Full Business Case. Capital funding will need to be identified to support delivery. Delays in funding award and recruitment have compressed

	delivery timescales.
Lessons Learnt	Prioritise renewable generation projects where 'behind-the-meter' solutions are possible. Re-locating council operations close to sources of generation can improve the financial case, but also creates operational, financial and legal complexity, requiring longer term-planning and decision making.
Next Steps	Complete Strategic Business Case (mid-April). Finalise Outline Business Case (end of June). Seek additional development funding to progress Full Business Case (Energy Generation Accelerator Programme). Consider project as part of Local Net Zero Accelerator project.

Project	**Renewable Energy generation feasibility study: North Wigginton & Grimston Bar**
Summary	Produce techno-economic feasibility studies for potential renewable generation installations identified as priority projects in the Local Area Energy Plan at North Wigginton and Elvington Lane / Grimston Bar.
Completion Date	31/03/2025
Funding value	£100,000
Current Status	Desktop assessment of potential renewable generation at North Wigginton was deemed unviable due to commercial constraints. As a result, a project change request was submitted to the Combined Authority to vary the focus area of the study. An alternative location at Monks Cross was identified through desktop assessment as a viable location and taken forward to techno-economic feasibility. Desktop assessment at Elvington Lane / Grimston Bar identified 2 potential schemes: 1) Solar PV + onshore wind at University York 2) Ground-mounted solar PV / Solar canopy at Grimston Bar Park & Ride (with potential complementary

	technologies) Completed ○ Desktop assessment for renewable generation at North Wigginton ○ Techno-economic feasibility study for solar PV at Monks Cross ○ Techno-economic feasibility study for solar PV + onshore wind at University of York ○ Techno-economic feasibility study for solar PV at Grimston Bar Park & Ride The University of York have provided a letter of support for the solar PV techno-economic feasibility assessment. York Community Energy have provided a letter of support for all renewable energy projects.
Benefits	Reduce York's carbon emissions by increasing the supply of local renewable generation. Increase energy security and reduce the cost of energy in York through increased local renewable generation.
Challenges	Grid connection costs and timescales made sites unviable without a suitable off-taker. Planning constraints for onshore wind have eased but potential of this technology is untested in York. Additional funding required to progress projects to Full Business Case
Lessons Learnt	Land ownership and third-party data sharing agreements can add significant complexity and delays. Locate projects close to suitable off-takers to avoid requirements for grid connection. Competing outcomes for land uses requires strategic co-ordination at a regional/national scale.
Next Steps	Evaluate techno-economic feasibility reports. Seek additional funding from the Energy Generation Accelerator Programme to develop Business cases. Identify potential capital funding for project delivery.

Project	**Street Lighting LED Conversions**
Summary	Upgrades 933 streetlamps to LED (increased to 1,333 following additional grant funding award).
Completion Date	31/03/2025 (extended to 30/06/2025 following additional grant funding award).
Funding value	£352,282 (additional £122,000 awarded following successful completion of initial phase)
Current Status	Initial 933 installs completed by end of Feb 2025. Combined Authority awarded additional £122,000 of funding to deliver an extra 400 upgrades by end of June 2025. Supplier contract extended and delivery of initial phase is underway.
Benefits	Reduction in energy usage of 0.35MW/year. Reduction in annual electrical energy consumption of 11%. Estimated reduction in carbon emissions 65.5tCO_2/yr
Challenges	On-site logistics and access issues (e.g. parked cars). Existing street furniture and electrical connections are, in some cases, old and non-compliant, increasing cost of replacement. Variable performance from contractors requiring additional project management resource.
Lessons Learnt	Site Surveys prior to commencement will provide a more accurate picture of current asset condition and allow for smoother transition to delivery. Tighter controls required for contractor management, with more frequent project meetings to eliminate any issues more quickly.
Next Steps	Complete replacement of the additional 400 lanterns (end of June 2025). Ongoing monitoring and reporting of performance.

Project	**LED Replacement at City of York Council Commercial Properties**
Summary	LED replacement and installation of smart controls at West

	Offices and Hazel court.
Completion date	31/03/2025
Funding value	£354,000
Current Status	Full installation complete at both sites. New monitoring system installed for West Offices, with training being provided for Facilities Management staff in mid-April. Staff are able to undertake certain programming already via hand-held devices.
Benefits	Immediate on-site energy reduction of 60%; following training, and implementation of new programme settings, this could increase to 70%. Reduce maintenance costs and downtime. Improved individualised lighting comfort levels. Reduced carbon emissions by 37tCO_2e/yr. Saving of £68,000/yr on energy bills.
Challenges	Both sites have extended hours of operation, meaning additional health and safety measures were required to complete replacements while staff were on site. A lot more of the existing wiring required repair or replacement than expected.
Lessons Learnt	Staff visual comfort needs are more acute since lockdown and eyes have adapted for homeworking at lower lighting levels leading. This needs to be considered during lighting design to avoid office issues. A stakeholder management plan is vital to achieve a multifaceted implementation of new technology on existing live sites that are occupied with staff and public. Technology improvements must be accompanied with adequate training of facilities management professional. Lighting manufactures are not yet up to speed with connectivity and gateway controls within light fittings. There is a lack of industry expertise in developing a range of light fittings specifically designed for retrofitting existing workplaces (e.g. old wiring and old fixings often require a bespoke approach). Lighting manufacturers have limited experience of

	considering how light fitting designs are implemented on a listed building. Manufacturer technologies are typically closed protocol and not an open-sourced platform, which may result in 'technological lock-in'. Requiring installers that have LED retrofit experience is essential. It is not comparable to LED installation in new build.
Next Steps	Further training for Facilities Management team Ongoing monitoring and reporting of performance

Project	**Alex Lyon House & Honeysuckle House Renewable Heating Upgrades**
Summary	Replacement of expensive to operate electric storage heaters and immersion hot water tanks with a renewable heat-pump system at two large apartment buildings in York. Installation of solar photovoltaic panels to reduce energy bills and supplement the operation of the heat-pumps.
Funding value	£1,895,000
Current Status	Original system was designed to provide a communal heat-pump heating solution; however, further analysis indicated that cost inflation and requirements for decanting tenants would exceed the project budget. A revised design for individual heat-pump solutions was developed and approved by the Combined Authority to keep the project within budget and timescales without materially changing the outcomes. The revised design became the specification for the procurement process, which is currently live. A planning application submitted for both sites to install air-source heat pumps.
Benefits	Anticipated 50% reduction in energy bills for tenants. Improvement of thermal comfort throughout the winter. Reduced ongoing disruption and cost of maintenance. Increase in Energy Performance Certificate rating to band B or C.

	Annual carbon emissions reduction of 57tCO_2e.
Key Challenges	Despite the Net Zero Funding of £1.895,000 the overall project costs are forecast to be £2,534,000. Additional budget has, therefore, been required to complete the project, sourced from the Housing Revenue Account. Revised scoping has delayed procurement. Undertaking a project of this nature is always challenging, but particularly when you have residents in site, many of whom are vulnerable and have additional support requirements.
Lessons Learnt	Project development and feasibility needs to begin in advance of funding applications to provide sufficient time for delivery. Begin stakeholder engagement at the earliest opportunity.
Next Steps	A decision on planning is expected in April. Complete procurement and award delivery contract for installation. Manage delivery and stakeholder engagement through to project completion.

Carbon Negative Challenge Fund

8. Lessons learnt through the Net Zero Fund will be applied to projects submitted and delivered through the Combined Authority Carbon Negative Challenge Fund (CNCF).

9. The Carbon Negative Challenge Fund is an £8m fund established by the York and North Yorkshire Combined Authority to support the development and delivery of projects that can help York and North Yorkshire become England's first carbon negative region.

10. CNCF intends to deliver the following outcomes:
    a. Reduction of Greenhouse Gas (GHG) emissions
    b. Strengthening communities to take climate action
    c. Improved climate adaptation
    d. Established pipeline of investable projects
    e. Proof of Concept and Demonstrator Projects

A combination of revenue and capital funding has been made available. Funding limits for individual projects are set at £20,000 - £250,000 for revenue and £150,000 - £1.5million for capital. There is a match funding requirement of 20% for revenue projects and 40% for capital projects.

11. Following a process of refinement, the council are submitting applications for the following capital projects:

    - Solar and Electric Vehicle Charging co-location of garages – Total project cost £650k
    - Retrofit and Biodiversity Improvements to Gypsy and Traveller sites – Total project cost £1.2m
    - Installing solar PV and battery storage to garages with new or recently installed roofs and connect to neighbouring social housing to help reduce fuel poverty – Total project cost £650k
    - Installation of Air Source Heat Pumps for properties that are already well-insulated – Total project cost £750k
    - Provision of solar canopy at the EV HyperHubs – Total project cost £1m

12. We are also supporting applications from the NHS covering:

    - Primary Care Solar – Installation of solar panels at primary care trust buildings
    - Sustainable disposal of Inhalers - Increasing the frequency of the greener disposal of used inhalers and innovation for alternatives
    - York Hospital Food Waste – implement a circular economy strategy to reduce food waste at York Hospital Trust

13. Revenue projects under development for submission include:

    - Collective purchasing for solar PV
    - Provision of cargo-bike hire cross council's new build schemes
    - Non-traditional housing energy survey innovation pilot
    - Optimising communal spaces in the Housing portfolio to deliver climate change outcomes: Opportunity mapping study
    - Progressing actions to develop the circular economy in York
    - Retrofit One-Stop-Shop: Business Case options appraisal

Conclusions

14. This report presents an update on progress for the Council Net Zero Fund projects.

15. 4 of the projects have completed by the original end date of 31 March 2025;2 projects have been granted an extension to 30th June 2025 and 1 project has been awarded additional funding, with an extension to 30 June 2025 to complete delivery.

16. Capital projects will contribute to reducing annual carbon emissions by 170tCO_2e, with pipeline emissions reductions from the development projects in excess of 25,000tCO_2e.

Consultation

17. Internal consultation and governance of the Net Zero Fund projects is provided by the Climate Change and Natural Capital Programme Board and Asset Management Programme Board.

Council Plan

18. Projects described in this report directly contribute to delivering the Council Plan 2023-2027 Four Core Commitments covering Climate and the Environment with priority actions:
    - Reduce energy consumption and generate more local sources of renewable energy.

19. The content of this report supports the ambitions of the York Climate Change Strategy 2022-2032, and directly aligns with the objectives to:
    - Improve energy efficiency of existing buildings
    - Build strong relationships and networks
    - Move away from fossil fuel heating systems
    - Grow the green economy
    - Increase resilience to climate risks
    - Increase renewable energy generation

20. The Council Plan 2023-27 set the level of CO_2 emissions from council buildings and operations as a key performance indicator for council delivery.

Implications

- **Financial** – Unlike a number of external funding streams, the net zero fund does not require match funding to be provided by the council. Grant funding has been incorporated into currently approved revenue and capital budgets. Some of the schemes provide direct financial benefit by reducing council energy costs whereas others have the opportunity to provide income streams. Individual business cases have been produced for each project.
- **Human Resources (HR) –** Where roles funded by the Net Zero Fund on a temporary basis will be coming to an end, staff will be supported to find alternative employment within the council through the redeployment and skills match process (Contact – Head of HR)
- **Equalities –** No direct impacts identified
- **Legal** – Grant Funding Agreements have been reviewed by Legal Services.
- **Crime and Disorder** – No implications
- **Information Technology (IT)** – No implications
- **Property** – Projects will have a benefit to council buildings and reduce energy consumption

Risk Management

21. Projects extended to 30 June 2025 must complete all activity and spend by this deadline. Ongoing project management and governance is in place to ensure delivery.

22. Individual project delivery risks have been identified within the business cases and project plans.

23. A delay in completion of Net Zero Fund projects and the commencement of Carbon Negative Challenge Fund projects could result in a short funding gap which would need to be bridged to provide continuity and retain staff.

Recommendations

24. Members are asked to consider the content of the report

Reason:

Provide comment and feedback on the delivery of the Net Zero Fund projects and inform the development and delivery of Carbon Negative Challenge Fund projects.

Contact Details

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Wards Affected: **All** ✓

For further information please contact the author of the report.

Background Papers:

Net Zero Fund Update provided to Scrutiny Committee in December 2023: https://democracy.york.gov.uk/documents/s171696/Scrutiny%20Report_Net%20Zero%20Fund_December%202023.pdf

Annexes None

Abbreviations

CO_2e – Carbon dioxide equivalent
NZF – Net Zero Fund
CNCF – Carbon Negative Challenge Fund
CA – Combined Authority