

Corporate Scrutiny Committee

7 July 2025

Report of Chief Strategy Officer

Harewood Whin Green Energy Park Update

Summary

1. This report provides an update on progress of the Outline Business Case to create a Green Energy Park on the former landfill site at Harewood Whin.
2. The completed Strategic Outline Case (SOC) is included as Appendix 1, and identifies a preferred option for a phased delivery approach. This option has been taken forward into the Outline Business Case.
3. As the funded activity draws to a close at the end of June 2025, the Outline Business Case will be used to inform an Executive Decision in September as to whether to progress the scheme to Full Business Case, subject to additional funding from the Combined Authority.
4. Members are asked to consider the content of the report, provide comment and feedback on the delivery of the business case to date to help shape the potential work to follow on the full business case.

Background

5. An initial feasibility study was completed in 2021 to identify opportunities for generating renewable energy at the former landfill site at Harewood Whin. The study, commissioned by Yorwaste and the York & North Yorkshire Local Enterprise

Partnership, identified the potential for 28MW of ground mounted solar and complementing energy storage technologies.

6. On 20 February 2024 Executive approved the project initiation to progress the feasibility study and explore renewable energy options for the site in more detail to produce a business case for the Harewood Whin Green Energy Park. Revenue funding of £243,500 was secured via the Net Zero Fund, administered by York and North Yorkshire Combined Authority. The revenue funding was secured to deliver a Strategic Outline Business Case (SOC) and Outline Business Case (OBC) for the scheme by July 2025.
7. The SOC has been completed and is presented in the Appendix 1 of this report. The OBC is in the final stages of completion and will accompany an Executive report in September 2025. Both stages of business case completion follow the governments Green Book guidance¹.
8. Planning permission was obtained in April 2025 for a solar installation up to 16.5MW. The application was reduced in size from 28MW following objections to part of the scheme from the nearby airfield.
9. The Strategic Outline Business Case (SOC) recommends a 'Phased' approach to developing the Green Energy Park on the former landfill site at Harewood Whin. A phased set of project stages over time will create the best opportunity for early realisation of the benefits and mitigates the risks associated with one large project.
10. The first two phases would provide up to 6MW of solar electricity generation. The first element of this creating up to 1MW of installed capacity, to be funded and directly used by the site operator, Yorwaste. The second element would increase installed capacity by up to 5MW for City of York Council, creating both

¹https://assets.publishing.service.gov.uk/media/66449468ae748c43d3793bb8/Project_Business_Case_2018.pdf

financial and environmental benefits. Further phased stages are to be developed with other deployment of complementary technologies over time.

11. The SOC considers the financial case for delivery of each phase and identifies options to finance the initial phase through borrowing, generating income and a positive cash-flow over a 30-year period.
12. A previous update to Scrutiny Committee for Harewood Whin, was included within the Net Zero Fund Update presented in April 2025. A Current project update is as follows:

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	<p>The project is on track.</p> <p>Completed:</p> <ul style="list-style-type: none"> ○ Baseline scoping assessment ○ Longlist optioneering ○ Solar shortlisting ○ Planning Approval for 16.5MW solar scheme ○ High-level financial modelling ○ Strategic Outline Business Case <p>In development:</p> <ul style="list-style-type: none"> ○ Outline Business Case ○ Ground Investigation
Benefits	<p>Potential Revenue for the council through resale of surplus electricity.</p> <p>Potential carbon saving of up to 8,125tCO₂e</p> <p>Potential opportunity for Green Energy Tariff savings up to 200K.</p>
Options Discounted	Hazel Court in full or part, as transfer of operations to Harewood Whin to be a direct offtaker of the

	<p>electricity produced. All options for Hazel Court/Operational waste services will be considered separately via the Transformation Project</p>
Challenges	<p>Required grid connection is costly and time-consuming.</p> <p>New contractual arrangements will be required to facilitate the supply and purchase of electricity.</p> <p>Landfill ground conditions mean that it is likely to be more costly to install solar on a former landfill site. Further ground investigations are underway to confirm viability.</p> <p>Additional revenue funding is required to progress the Full Business Case. Capital funding will need to be identified to support delivery.</p> <p>Delays in funding award and recruitment have compressed delivery timescales.</p>
Lessons Learnt	<p>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.</p> <p>Benefits of a phased approach, reduce risk and create the potential for earlier financial and environmental returns.</p>
Next Steps (subject to approval)	<p>By 14/7/25 – Complete Outline Business Case</p> <p>By 14/7/25 – Complete Funders Claim</p> <p>By 31/8/25 – Complete Ground Investigation/Results Reporting</p> <p>By 31/8/25 – Funding for Full Business Case confirmed</p> <p>By 30/9/25 – CYC Executive approval to progress Full Business Case</p> <p>1/10/25 – 30/9/26 – Complete Full Business Case</p> <p>By 31/12/26 – Approve project approach</p> <p>2027 – Begin project works</p>

Consultation

13. The Strategic Outline Business Case (SOC) and Outline Business Case (OBC) were developed as a project reporting to the Climate Change and Natural Capital Programme Board, with quarterly updates provided to CMT.
14. The SOC and OBC was developed in consultation with Yorwaste. Arcadis (Technical Consultant) and a City of York Council Project Board that included representatives from across the Council. With representatives from City Development, Strategy, Carbon Reduction, Finance, Legal, Property, Ecology, Waste, Fleet, Operations and in consultation with representatives from the funder, York and North Yorkshire Combined Authority.
15. Regular Bi-monthly updates have taken place with the Chair of Rufforth Parish Council.

Options

16. Option A – Progress to Full Business Case, subject to funding from the Combined Authority.

This option would allow the continued development of the business case, providing greater clarity to the commercial and management case and progress the project to the point of delivery to realise the benefits. With grant funding support from the Combined Authority, this work can progress at no cost to the Council.

17. Option B – Do not progress to Full Business Case.

The Council's role in progressing the business case would come to an end. Other parties may pick-up this work at a future date, but there is an increased risk that the project will not develop, and the benefits will not be realised.

Benefits

18. The potential benefits that could be realised as part of the outline business case are outlined below:

Financial Benefits

- a) On a 5MW solar scheme over 30 years, the Council could achieve cashflow in excess of £7m, with Net Present Value (NPV) in excess of £2m.
- b) Further phases of up to 10MW could add an additional £10m, of cashflow for the Council, following the initial phases.
- c) The Council currently pays an additional amount for a Green Energy Tariff of £195K per year. This offsets emissions from electricity use in council reporting. Approximately half of this cost would be saved with a 5MW scheme, with a 100% saving at 10MW, as we demonstrate that at this point we are producing enough renewable energy to offset the Councils annual electricity consumption. This is based on the current contracted rate which could reduce when the next electricity contract is negotiated in March 2027.
- d) The Electricity generation income will require new contractual arrangements to be concluded. At present it is likely the Smart Export Guarantee will offer the best rates of income, securing rates of up to 11p per kWh. Alternatively, arrangements can be made via a Power Purchase Agreement (PPA). The PPA rates are likely to be lower, but the business case still provides a positive financial return at any income rates above 8p per kWh.²

Environmental Benefits

- a) 5MW of electricity generation is approximately 50% of the Councils annual generation. Once the scheme achieves generation of 10MW, the council will be meet all of its current demand through self-generation. This will negate the need for a Green Energy Tariff and obtaining the Renewable Energy Guarantee of Origin (REGO) certificates that currently cost 195K p/a. CYC can use evidence of the renewable generation to achieve zero emissions for electricity in greenhouse gas reporting.

² <https://www.ofgem.gov.uk/environmental-and-social-schemes/smart-export-guarantee-seg>

- b) Beyond 10MW, the opportunity is the additional electricity produced is used to offset other scope 1 and scope 2 emissions (mainly caused by fleet and heating emissions). As an example, it's estimated that each additional 5MW can offset 25% of the remaining scope 1 and scope 2 emissions. For future phases (that don't currently have planning approval), there is a further 12MW available for installation, which would fully offset all carbon emissions produced by CYC.
- c) There are wider indirect benefits achieved through civic leadership to deliver green energy. The project can act as a demonstrator to others in the city, including with strategic partners, who have the resources or opportunities to consider similar approaches. The Council will be taking an active leadership role in achieving our climate change ambitions.
- d) The project aligns with the national Government's legally binding target for the UK to be net zero by 2050 and the drive to grow the economy through green infrastructure projects.

Council Plan

- 19. The project directly contributes to delivering the Council Plan 2023-2027 Four Core Commitments covering Climate and the Environment with priority actions:
- 20. Reduce energy consumption and generate more local sources of renewable energy.
- 21. 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
 - Grow the green economy
 - Increase resilience to climate risks
 - Increase renewable energy generation
- 22. The Council Plan 2023-27 set the level of CO₂ emissions from council buildings and operations as a key performance indicator for council delivery.

Implications

Financial

23. The Council has received funding of £243,500 through the Net Zero Fund, from York and North Yorkshire Combined Authority, to support the development of a Strategic Outline Case (SOC), and subsequently an Outline Business Case (OBC), recommending the preferred route to Executive, in relation to the creation of a Green Energy Park on the former landfill site at Harewood Whin. The Net Zero Fund does not require match funding to be provided by the Council, and grant funding has been incorporated into the currently approved revenue budgets. Further funding will be required for the project to proceed to the development and preparation of the Full Business Case (FBC), likely from the Energy Generation Accelerator Programme (EGAP).
24. The level of capital expenditure required to deliver the project will depend on the specific technical option agreed for the project. The project development stages will identify and assess the implications of different financing options and delivery models for the delivery of the project. Guidance will be sought from the council's Finance team to assess the available options and determine the most appropriate financing and commercial structure.
25. The delivery of financial benefits for the Council, through income generation from the resale of surplus electricity, Green Energy Tariff savings and positive cash flows, is dependent on a number of variables, including installation costs, energy generation, Smart Export Guarantee (SEG) rates and borrowing rates.

Human Resources (HR)

26. There are no HR implications contained within this report. Should additional resources be required to progress this business case/project, then these will need to be identified, established and recruited to, in line with council policy.

Equalities

27. No direct impacts identified following completion of an Equalities Impact Assessment.

Legal

28. Regarding the Net Zero Fund revenue funding of £243,500, a subsidy control assessment has been carried out in relation to the activities undertaken in progressing the project to the Outline Business Case stage. The assessment concluded the revenue funding awarded will not be classed as a controlled subsidy under the Subsidy Control Act 2022 for the following reasons:
- a. as between the Combined Authority and the Council, as no economic advantage will be given to the Council because funding will be passed directly to end recipients, with no retention by the Council; and
 - b. as between the Council and the consultants it procures, as no economic advantage will be given so long as all contracts are procured using processes compliant with current procurement legislation and the Council's Contract Procedure Rules, with contracts being entered into at market prices and on market terms.
29. Under Section 1 of the Localism Act 2011, a local authority has the power to do anything an individual can do provided it is not prohibited by other legislation. Given the nature of this project, which could ultimately lead to the generation and onward sale of energy and utilities, this would be classed as a discretionary function.
30. It is noted that new contractual arrangements will be required to facilitate the supply and purchase of electricity for Electricity generation income. Further consideration will need to be given to the level of income generation to ensure the Council is complying with the obligations in the Localism Act 2011 regarding income generation and appropriate delivery models. Guidance will be sought from the council's legal team in assessing the available options and determining the most appropriate delivery model.
31. Although the Council is the freehold owner of the Harewood Whin site ("the Site"), the Site was leased to Yorwaste on 5th May 2004 and is currently occupied by them. The lease was varied by a deed of surrender of part and variation on 2nd June 2020

("Yorwaste Lease"). The Yorwaste Lease comprises approximately 229 acres consisting of 4 separate parcels of land, each of which are held on different terms. Therefore, any implementation of the proposed GEP project at Harewood Whin will require negotiations with Yorwaste and may necessitate agreed variations to the Yorwaste Lease, including potentially Yorwaste surrendering or handing back possession of part(s) of the site to the council. Part of the land is sublet to another third party who may need to be included in such negotiations if they remain in occupation.

32. Legal Services have carried out a preliminary title review of the Site which revealed the following:
- There are various title issues affecting the Site that will need to be resolved prior to commencing the proposed development. For example, part of the Site appears to be unregistered land which the Council may need to register and part of the land is subject to unknown restrictive covenants meaning there is a risk that a third party could object to the proposed development. This could be mitigated by the Council obtaining indemnity insurance for this title defect.
 - The Site is subject to various incumbrances (including a public bridleway) that may inhibit the proposed development. If this project is to commence to the next stage then Legal Services will need to be provided with more information about the proposed development in order to advise further as to the implications and any required action.
 - There are a number of private rights of way affecting the Site/surrounding roads which need to be reviewed and considered in close detail in order to determine whether or not they are relevant and may affect the proposed use of the site as a solar park.
 - A third party is seeking to claim a right of way in respect of part of Tinker Lane.
33. Further due diligence will be required to address all the matters raised in the preliminary report on title prepared by Legal Services if this project proceeds to full business case. It is also

recommended that a full set of searches is undertaken in respect of the Site as part of the preparation of the Full Business Case to ensure all relevant factors are taken into account when deciding whether to proceed with the proposed development.

Crime and Disorder

34. No implications

Information Technology (IT)

35. No implications

Property

36. Identified implication on the Yorwaste operating lease for the site. Legal and property teams fully engaged in the project. Property and Legal team will need to negotiate revised Yorwaste lease as part of any proposals.

Risk Management

37. The report identifies a number of opportunities that the development may be able to generate to the council. There are however a number of risks that need to be considered when ultimately determining the final business case and recommending a proposed way forward.
- a) Electricity Income Generation Rate – Securing the actual tariff is both complex and difficult to achieve before investing in the solar infrastructure. There is no guarantee that the rate achieved will be sufficient and no guarantee how long or for how many years over the 30-year period that the target rate is achieved.
 - b) Grid Connection – Costs remain estimates. Need to request a further budget cost and estimated timescale.
 - c) Borrowing Approach – Another variable that needs to be secured.
 - d) Ground Conditions – Will the former landfill site have the ability to install the proposed solar installation and will the additional costs allowed for installation on landfill actually be correct. Results of a Ground Investigation are awaited.

- e) Capital costs - We will only know the full value following a competitive tender process. Factors could change between now and that process and the tenders received back might exceed the estimates modelled.

Recommendations

38. Members are asked to consider the content of the report, provide comment and feedback on the delivery of the business case to date.

Reason: To help shape the full business case work to follow.

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Report
Approved



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Wards Affected:

All



For further information please contact the author of the report

Appendices

Appendix 1 - Strategic Outline Business Case (SOC)

Abbreviations

CO₂e – Carbon dioxide equivalent

CYC – City of York Council

EGAP – Energy Generation Accelerator Programme

kWh – Kilowatt Hour

MW – Megawatt

NZF – Net Zero Fund

OBC – Outline Business Case

SEG – Smart Export Guarantee

SOC – Strategic Outline Business Case

YNYCA – York & North Yorkshire Combined Authority