Attachment H

Investing in the West Suffolk Council Net Zero 2030 Emissions Target

Executive Summary

1.1 In September 2019, West Suffolk Council declared a climate emergency, and in 2020 Cabinet approved the Council's Environment and Climate Change Taskforce report and action plan. The Taskforce made a series of recommendations on the council's future role in protecting and enhancing the environment and tackling climate change, both in the way in which it carries out its operations and through specific initiatives.

1.2 The Taskforce developed a broad Action Plan and Trajectory to achieve Net-Zero Emissions by 2030. The plan focused on the greenhouse gas emissions arising from the Council's operations. Work has already been undertaken to decarbonise a number of buildings, with the council securing £1.4m from the Government's Public Sector Decarbonisation Fund as well as its own investment. The council has also invested in a range of renewable technologies at the new Mildenhall Hub. Further work has now been undertaken to develop specific projects that support the Net Zero ambition that can be delivered over the next 3 years.

1.3 This appendix sets out more detail on the additional **£9 million Capital Investment** facility within the Investing in Our Growth Agenda Fund (funded in the main by external borrowing), specifically allocated within the capital programme to deliver environmental projects which are anticipated to deliver a **31 percent carbon saving on council operations,** together with **a return to the council of 2 percent after allowing for borrowing costs.** This £9 million fund is to be utilised across the following proposed projects:

- **Council Buildings**: Improve the energy efficiency and incorporate renewable energy (electricity and/or heat) into buildings
- **Electric Vehicle fleet (EV) investment**: replace small vehicles on fleet with EVs when replacement falls due
- **Expansion of our West Suffolk Solar for Business scheme**
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1.4 The West Suffolk Energy Framework-(Adopted-June-2018) provides a framework for such investment decisions linked to the West Suffolk Growth Investment Strategy by utilising the delegations and governance arrangements described within.

1.5 This appendix explains how the programme of investment, when considered as a package, would generate **around £200,000** net revenue per annum after allowing for borrowing costs (not including the one-off charging infrastructure costs) by 2025 (the medium-term financial plans assume a profile to the capital spend and associated net revenue return).

1.6 In addition, it sets out the additional annual revenue costs anticipated on the proposed switch to use **Hydrotreated Vegetable Oil (HVO)** derived fuel in the remaining diesel-powered fleet. No vehicle modifications would be required. This would achieve carbon savings of nearly 400 tonnes Co2e per annum, having regard to emissions resulting from production as well as use. It will also deliver air quality improvements. Given the fluctuating market cost of this fuel (and comparative diesel cost) annual revenue costs have been modelled on high and low-cost estimates showing an additional annual cost to the council of between **£53,600 and £120,600.** A £100,000 annual revenue cost has been assumed within the 2022 to 2023 budget and this assumption will be monitored.

1.7 The council remains fully committed and continues to explore the potential for further large-scale floor mounted solar investment. However, at this stage the proposed £9 million capital fund does not include any financial provision for such large-scale solar investment. Any such project would be the subject of a separate full business case. The allocation assumes the council will capitalise any council costs including project management and legal where possible.

The West Suffolk Carbon Budget

1.8 The council has adopted a Carbon budget to frame its journey to net zero.

1.9 **Table 1 shows the carbon budget periods set out in West Suffolk Council's Environment and Climate Emergency Declaration**

Budget period	Period	Annual emissions at end of period	Emissions budget for the period
First	April 2020 to March 2023	4,675 tCO_2e per year	18,700 tCO_2e
Second	April 2023 to March 2026	2,484 tCO_2e per year	8,292 tCO_2e
Third	April 2026 to March 2030	840 tCO_2e per year	2,520 tCO_2e
Fourth	2030-31	Net zero emissions	

1.10 In 2020-2021 the annual emissions achieved were **4093 tCO2e**, ahead of budget, but noted that this was an exceptional year impacted significantly by Covid.

1.11 In total the projects proposed would deliver **2279 tCo2e** savings per annum once fully implemented. This should mean that the council would meet its Carbon Budget target for 2026 putting the council on the right path to meet its net zero ambition. The carbon performance of the fund will be monitored and reported on as part of the Council's annual Environmental Statement. The overall performance of the fund will be reviewed annually and will help inform any further funding requirements for the third and fourth periods of the net zero plan.

West Suffolk's Net Zero Projects:

1.12 **Council Buildings**

Significant improvements are already underway to the Council's estate as a result of Government Decarbonisation funding, supported by the council's own investment (total £1.4 million). Air source heat pumps, Solar PV, glazing and battery storage are being installed to a number of council buildings. Further opportunities exist to improve energy efficiency and incorporate renewable energy (electricity and/or heat) into all owned buildings within 5 years.

1.13 The detail and timing of the projects would be the subject of separate business cases in line with the Investing in our Growth Agenda Fund delegation limits, but the modelling has show that:

1.14 **Table 1: Buildings' investment proposal**

Capital cost Buildings' Investment	**Annual tonnes of CO_2e saved**	**Cost per tonne of CO_2e saved (based individual project lifespan)**	**Total annual savings, after borrowing, once capital fully invested**
£2.58m	381	£677	£81K

This element will deliver a return of 3.1 percent after allowing for borrowing costs.

1.15 **Electric Vehicle fleet (EV) investment**

The council's fleet accounts for 63 percent of the council's emissions, from 185 vehicles – everything from ride on mowers to large waste collection vehicles. Investment in EV is more expensive cost per tonne of CO2e saved. However, it is one of the areas where councils are expected to be green and indeed where investment is essential to achieve a net zero position.

1.16 Investment in fleet electrification will not provide a financial return, instead a -13 percent on investment after borrowing costs. This is why this investment is, in part, funded through a revenue provision in the 2022 to 2023 budget to cover the first two year programmed replacements with the remainder of the funding to come from returns from the other two net zero projects. The net zero investment plan have been assumed to accommodate this impact, resulting in a net £200,000 return across the programme.

1.17 The existing fleet renewal plan has been reviewed to identify opportunities to decarbonise over the next 4 years which will also deliver air quality benefits.

At this stage, technological limitations and uncertainty in regard to the Government's Resource and Waste Strategy (RAWS) mean officers continue

to review the opportunities around E- refuse collection vehicles (RCV) and they are not included in this proposal. The carbon budget the savings for RCV fuel replacement has been weighted towards years 2028-2030. Skip lorries will also be replaced later in programme for similar reasons.

1.18 This proposal focusses on the smaller vehicles in the fleet that are due for renewal up to 2025 and has been split into 2 phases to allow for review of cost and performance and review of overall fund performance. This is a significant change for the fleet and the market is constantly evolving. There are options in regard to the replacing the rest of the fleet where EV options are commercially available, and the plan will be kept under review. The Committee for Climate Change projects that the combined purchase price and lifetime running costs of an electric car will be lower than for a fossil-fuel one by 2025, and cheaper in terms of purchase price alone from 2030.

1.19 There will be additional costs to allow for charging infrastructure est. £60,000 for phases 1 and 2 (assuming no cabling upgrade), funded from the £9 million facility. The vehicle investment proposals are summarised in table 2 below:

1.20 **Table 2: Electric vehicle investment proposals**

Phase	**Option**	**Capital cost**	**Annual tonnes of CO_2e saved**	**Cost per tonne of CO_2e saved 8-year life**	**Total annual fuel savings for all vehicles Exc. Maintenance, 10k miles/ year**
1	14 oldest small vans, transits & 1 sweeper on fleet due for renewal in next 2 years	£535,000	39	£1,715	£10,940
1	Upgrade small vans and transit renewals for 23/24	£115,000	12	£1,198	£3,620
	TOTAL PHASE 1	**£650,000**	**52**	**£1,563**	

2	Upgrade small vans and transit renewals for 24/25	£390,000	30	£1,625	£8,900
2	Upgrade Road-sweepers due for renewal 24/25	£120,000	4	£3,750	£1,120
	TOTAL PHASE 2	**£510,000**	34	**£1,875**	

1.21 The total **annual cost** across both EV phases, after assuming the full investment was funded from borrowing would have been **£155,000** per annum. However, the first two years have been funded within the 2022 to 2023 revenue budget which reduces the borrowing costs and over all its anticipated that the fund will be able to accommodate residue revenue impact within the overall programme and achieve the net £200,000 return on the fund.

Expansion of our West Suffolk Solar for Business: Roof Mounted Solar Scheme

1.22 The council runs a Solar for Business (westsuffolk.gov.uk) scheme that has a track record of success. To date it has delivered more than 10,000 panels at 63 businesses saving them a collective £125k on energy bills and cutting carbon by 900 tonnes per year. There is an opportunity to expand the existing solar for business fund and programme to deliver both return to council and an emission's saving the council can include in its annual carbon reporting. Each installation goes through legal and financial due diligence and a recent marketing exercise showed there is significant interest in this scheme as West Suffolk businesses seek to improve their own environmental performance.

1.23 Providing an additional investment of **£5 million** into this scheme will deliver a return of **5.4 percent after allowing for borrowing costs.** Table 3 below provides further detail:

Table 3: Solar for business investment proposal

Capital cost	**Annual tonnes of CO_2e saved**	**Cost per tonne of CO_2e saved (based individual project lifespan)**	**Total annual savings, after borrowing, once capital fully invested**
£5m	1414	£141	£270k

Hydrotreated Vegetable Oil (HVO) derived fuel option

1.24 Given the challenges that exist with regards to RCV replacement, use of Low Carbon Fuel for the councils' vehicle fleet has been explored which would be an additional revenue cost. A switch to HVO derived fuel will achieve carbon savings and air quality improvements, even after allowing for production emissions HVO fuel price is fluctuating, and a new Crown Commercial Services Framework will be available in April 2022.

1.25 Modelling has been undertaken based on the council's current fleet diesel costs; these costs will reduce as EV vehicles come onto the fleet but it should be noted that 78 percent of fleet fuel costs are for HGvs which will not be replaced with EVs as part of this programme as they relate to the large waste vehicles where the EV technology is still developing and therefore will be considered in a future Net Zero programme. Table 4 below models costs and savings based on current prices (8 p/l differential and higher estimate assuming 18p/l differential (May 21 prices).

Table 4: HVO fuel annual revenue costs

	Additional revenue cost pa (based on 670,000 litres)	**Annual tonnes of CO_2e saved (Scope 1)**	**Annual tonnes of CO_2e saved (Scope 1, 3 & out of scopes)**	**Cost per tonne of CO_2e saved (Scope 1, 3 & out of scopes)**
Current cost	£53,600	1,659	398	£134.67
High estimate	£120,600			£303.02

Staffing and Governance- investment in our growth agenda fund

1.26 The investment facility would be managed in accordance with the principles agreed for the Investing in our Growth Agenda Fund. Growth Investment Delegations and Governance Each of the project areas will have a project team to manage and govern the development and implementation of the workstream. Each project must be able to clearly demonstrate its carbon reduction credentials and budget implications. This will be overseen by one of the council's Strategic Directors and the Director of Resources and Property. Environmental performance will be tracked through the council's performance reporting framework and annual environmental management statement.

Risks and Opportunities

1.27 Costs are estimated and there have been some significant price changes in recent months. This has impacted fuel, fleet and building costs. Future costs have been estimated and will be impacted by inflation/supply costs. The

facility sought includes a buffer of 3 percent to provide some comfort and costs will be continually reviewed. Supply chain challenges continue in some areas.

1.28 One of the announcements from the UK's Net Zero Strategy was the confirmation of funding arrangements for future decarbonisation work. The council has a strong record of success and will continue to monitor funding announcements and apply to relevant funds.

1.29 A communications plan will be developed to make the most of the council's leadership and action.