

Swansea Council Net Zero Delivery Plan 2030

Buildings and Energy

	Ambition	Activity	Timeline Short 2022/23 -2023/24 Medium 2022/23-2026/27 Long term 2022/23- 2029/30	Projected Costs	Resource	tCO₂e savings
NZ30/1	Decarbonise our public estate by reviewing our asset management strategy.	To ensure that any decisions relating to the Council's operational asset base are fully informed by energy efficiency data. This will enable maximised occupancy and co-sharing opportunities in the most appropriate assets. A reduction in assets will bring an immediate reduction in emissions. Will be informed by budget and service planning.	Short term then continuous	Within existing budgets initially but likely capital investment required	Within existing staff resources initially buy will likely require project management and technical input.	Further work needed to measure carbon savings
NZ30/2	Reduce the energy consumed across the council's buildings and estate. Long term investment planning for a renewable future addressing the challenges of Welsh Government commitments and the Authorities 'Climate Emergency' motion	Building Heat Decarbonisation assessments of Swansea Council public sector buildings estate (Solar PV, ASHP, all electric and combined technologies in conjunction with conventional energy efficiency, and building fabric improvements); complete financial cost modelling for each building, financial savings /payback and carbon emission savings	Short term then continuous	Further work needed to measure financial costs and savings but initial estimate of £7M to target poorly performing assets. Full decarbonisation, if possible, would total many £100Ms as it require demolitions and rebuilds	Local Partnerships doing benchmark calculations – data submitted	Local Partnership benchmark report expected Nov 22

	Carbon Reduction Retrofit Investment Programme – Welsh Government Funding Programme / Salix Finance	Investment in Energy Conservation Measures (ECMs) to improve the building fabric of council owned buildings delivering energy and carbon reductions, reducing maintenance costs. Phase 1 completed.	Short term then continuous	Further work needed to measure financial costs and savings. (Phase 1 - £1.3million; 7.5 yrs payback)	Phase 2 in progress towards High Level Assessment (HLA) being undertaken. Education Services to appoint schools Project Manager. Corporate buildings with Energy Manager.	Further work needed to measure carbon savings (Phase 1 - 379 tonnes of CO2 saved per year)
	Collaborate with Welsh Government and South West Wales (SWW) regions to establish a Local Area Energy Plan	Improving the energy infrastructure in Swansea and SSW in order to support low carbon energy and transport systems	Medium to Long term, then continuous	Welsh Government	Lead Contractor and Technical Advisor funded by Welsh Government. Swansea Council to appoint internal Project Manager	Local Area Energy Plan Report to be produced in 2024.
	Capital Maintenance Budget - Ensure investment in energy saving products with replacement of mechanical and electrical equipment as a result of nearing the end of their life expectancy; statutory compliances and business continuity concerns.	This will ensure energy efficient equipment is being installed reducing our carbon emissions which will in turn assist in maintaining a sustainable asset portfolio in line with the overarching asset management plan	Short term, then continuous	No additional Cost	Corporate Building Service	Dependent on total sum of equipment purchased/installed.
	Decarbonise the council's energy supply	Investigate viability and cost impact for all the council's buildings to move onto a 'green energy' gas contract. 'green energy' comes from renewable energy sources.	Short time	Further work needed to measure financial costs or savings (increase of £500k on natural gas costs before COVID and price increases)	Energy team	Further work needed to measure carbon savings in accordance with WG – Welsh Public Sector Net Zero Carbon Reporting
	Electrification of heating systems in buildings to reduce carbon emissions	Investigate the feasibility of installing electrification systems – or heat pumps – in buildings; prioritising buildings/schools still on	Medium to long term	Further work needed to measure financial costs or savings	Contractor to provide cost	Further work needed to measure carbon savings

		heating oil. Since substantial financial investment is needed for installation, further work needs to be done before choosing if they will be installed and which sites will benefit most.		(Air Source Heat Pump installed in Central Block, CBS replacing oil boiler - £70K)		
	Display Energy Certificates (DECs) and Advisory Reports (ARs)	DECs and ARs provide an energy rating of the building from A to G, where A is very efficient and G is the least efficient. The information contained in the Display Energy Certificates and Advisory Reports will be used to prioritise buildings towards improving its energy efficiency, well-being of occupants and financial return on investment.	Short term and continuous	Further work needed to measure financial costs or savings	Energy team	Further work needed to measure carbon savings
	Energy Champions	Appoint and provide continuing support to energy champions to advocate energy efficiency throughout their buildings to encourage their co-workers to adopt energy efficient practices in both the workplace and their everyday lives.	Short term and continuous	Nil Cost	Energy team	Further work needed to measure carbon savings
NZ30/3	Encourage employee behaviour change through training and process improvement	Premise Manager training and support package to be developed	Short term	£5,000	Resource assigned to task	
		Pilot launch Energy Sparks programme across Educational estate.	Short term	£26,400 (ERF bid) One year pilot	Energy Sparks driving delivery. Most schools can expect to achieve savings of around 10% in their first year of engagement, resulting in cost savings of between £2,500 to £6,000 (depending on	

					tariffs) and 8 tonnes of CO2 based on an average 2 form entry primary school.	
NZ30/4	Decarbonise street lighting with further investment in LED's	Procure LED materials to deliver programme	Medium term	£1m approved	Resource and finance in place to deliver 3400 street lighting lanterns. A further £800k required to complete, funding gap leaves a shortfall of 2512 lanterns and savings of 118,149 kg per kWh per annum.	159,902 kg per kWh per annum based on 3400.
NZ30/5	Ensure all new buildings are constructed to the highest possible sustainability standards.	Net Zero for all new build schools WG instruction	Short	TBC	Building Services Architectural Design Group	TBC upon completion of each project

Fleet and Mobile Equipment

	Ambition	Activity	Timeline Short 2022/23 -2023/24 Medium 2022/23-2026/27 Long term 2022/23-2029/30	Projected Costs	Resource	tCO ² e savings
NZ30/6	Transition the Council's fleet to zero emission equivalents in accordance with the Welsh Government's expectation of light commercial vehicles by 2025 and other vehicles by 2030	Continue to implement the Council's Green Fleet Policy and Ultra Low Emission Vehicle Strategy 2022-2030, review and re-profile Fleet Renewal programme to meet (known/expected) financial impacts, trial emerging technologies and ultra low fuel alternatives for interim and longer term decarbonisation solutions	Light Commercial vehicles (up to 3500kg) – Medium Term in line with 2025 expectation Heavy Commercial and specialist vehicles – Long Term in line with 2030 expectation	Estimated total increased (net) revenue costs of @ 450 light commercial vehicles to 2027 is £7m £9.3m vehicle acquisition costs (partly inflationary, partly ULEV) less	Net increases on the @ 450 Light Commercial to 2027 have already had fuel savings taken into account £484,000 EV capital funding (C03591) assigned to EVs (& Infrastructure) Revenue increases (known and tbc), as	To be scoped

				<p>£2.3m fuel saving costs</p> <p>Additional costing needed on all non-light Commercials and post 2027 renewals when greater range of vehicles and pricing known.</p> <p>Capital programmes for vehicle renewals also require review and re-profiling</p>	<p>well as increased capital costs (tbc) funding streams unknown.</p> <p>Expectation of stretching asset life to accommodate for increased costs.</p> <p>Some potential 'short term' Welsh Govt. supporting grants bridging increased capital costs, particularly for Waste related vehicles.</p>	
NZ30/7	Establish a fleet vehicle charge point infrastructure that supports this transition	<p>Continue to scope, design and install supporting charging infrastructure for fleet vehicles at depots in conjunction with fleet renewal progress.</p> <p>Impact of home to work travel and subsequent vehicle recharging to be assessed.</p>	Medium Term	<p>WGES ULEV Fleet Review (2021) projected £750,000 minimum for infrastructure, expectation likely to closer to £1m now</p>	<p>£300,000 WGES grant received for current phase of 60 charge points</p> <p>Future internal funding stream unknown (see capital funding C03591 above)</p> <p>Potential 'short term' infrastructure Welsh Govt grants and resource support</p>	n/a but supports above
NZ30/8	Optimise fleet vehicle use and efficiency	Undertake cyclical fleet performance reviews to maximise utilisation, downsize vehicles and/or reduce fleet	Short Term	Potential cost reductions tbc	Potential cost reductions tbc	Scoped as review outcomes known
NZ30/9	Establish integrated data systems for GHG measurement	Scope, design/acquire integrated data systems for Fleet Management for improved reporting/monitoring	Medium Term	£40,000 and annual support fees	Fleet Management budgets (26001/26003)	n/a but supports above

NZ30/10	Revise and approve the appropriate supporting policies, procedures and working practices	Review impacted policies (Home to Work for example) and working practices affected by transition to ULEV (fuel, maintenance, driver training etc)	Short Term	To be scoped as reviewed		n/a but impacted by above
NZ30/11	Decarbonise Grey Fleet Travel	Scope impact of new hybrid working on Grey Fleet mileage and identify ULEV options for remaining	Medium Term	Potential cost reductions tbc (£1.5m)	Potential cost reductions tbc	Scoped as review outcomes known (cf 429 tCO2e in 2019/20)
NZ30/12	Decarbonise mobile plant equipment	Limit the use of petrol or diesel powered portable plant items wherever possible to limit emissions.	Medium	TBC	Plant sections in individual sections to review availability of alternative plant items that do not require petrol or diesel to operate.	TBC

Land Use

	Ambition	Activity	Timeline Short 2022/23 -2023/24 Medium 2022/23-2026/27 Long term 2022/23-2029/30	Projected Costs	Resource	tCO2e gains
NZ30/13	Local Development Plan (LDP) policy reviewed to protect land soils and habitats rich in carbon	Establish a baseline and map opportunity for increasing carbon rich soils and habitats LDP policy review including public consultation and balancing needs of growth- v -protection of land Designation of more protected sites- Local Nature Reserves etc.	Medium term Medium term	£5,000 Staff time	LDP budget or grant funding (unless data already obtained through nature conservation ecosystem mapping) LDP budget There is currently no budget for managing	Unknown Unknown

		<p>Review Management plans for existing protected sites</p> <p>Protect land and habitats rich in carbon, keeping wet sites wet and grasslands/meadows scrub free, change grazing regimes/stock on Council grazing sites in order to benefit biodiversity</p> <p>GI Assessment to inform future Replacement LDP to identify areas important as Carbon SINCS.</p> <p>Future Replacement LDP will revisit all Ecosystem and Resilience policies. Policy criteria to protect important Carbon Sinks will be considered.</p>	<p>Medium term</p> <p>Short-medium term</p> <p>Medium term</p> <p>Short to medium term</p> <p>Short to medium</p>	<p>Staff time</p> <p>Current project</p> <p>Staff time</p> <p>Staff time</p> <p>Staff time</p>	<p>any of the Council's nature reserves – wholly reliant on grant funding. Potential for developer contributions</p> <p>Grant funded</p> <p>Grant funding</p> <p>Staff resource</p> <p>Staff resource</p>	<p>Unknown</p> <p>Unknown</p> <p>Unknown</p>
NZ30/14	Increase terrestrial Central Area GI to 26%	Establish a baseline and map opportunity for increasing biodiversity in the Swansea Central Area (SCA)	Short	£5,000	ENRAW Grant (current Welsh Government funding for 22/23)	Unknown

		<p>Deliver biodiversity /nature recovery enhancement schemes i.e. green roofs / walls/ rain gardens, wildflower planting etc.;</p> <p>Establish baseline and map opportunities for increasing canopy cover in the SCA.</p> <p>Multifunctional GI to be designed into appropriate development schemes as part of strategic place making agenda</p>	<p>Short, Medium and Long</p> <p>Short, medium and long term</p> <p>Short to medium term</p>	<p>£20,000 to £300,000</p> <p>£20,000 to £300,000</p>	<p>Capital funding and grants including from Section 106 agreements and also conditions of planning permissions for new development</p> <p>Capital funding and grants</p> <p>Staff time/cost</p>	<p>Unknown</p> <p>Unknown</p>
NZ30/15	<p>Tree planting opportunity areas mapped county wide</p> <p>1000s new trees planted</p>	<p>Ground truthing and mapping potential locations for tree planting on both Council land and ward by ward basis</p> <p>Maintenance of trees for up to 5 years following planting (longer for whips) including watering weeding, etc</p> <p>Tree planting sites linked to wider GI Strategy to facilitate enhanced GI connectivity</p>	<p>Short, medium and long term</p> <p>Short, medium and long term</p> <p>Short to medium term</p>	<p>Staff time. Work being taken forward by project group</p> <p>Estimated £1000 per tree</p>	<p>Grant funding , donations, developer contributions and tree nursery stock</p> <p>Grant funding , developer contributions, staff time</p> <p>Staff time/cost</p>	<p>Will depend on type , size, species and location</p> <p>Will depend on survival of tree</p>
NZ30/16	<p>Minimum 30% of protected sites in positive management for biodiversity</p>	<p>Management Plans adopted and implemented for all Council Local Nature Reserves.</p>	<p>Short term</p>	<p>Current project</p>	<p>Grant funding and staff resource</p>	

		Management plans prepared and implemented for other Council owned protected sites	Medium term	Staff time	Staff resource	
		Identify opportunities to reduce greenhouse gas emissions and increase sequestration through the sustainable management of land and sea assets	Medium term	Staff time	Staff resource	

Waste - Operational

	Ambition	Activity	Timeline Short 2022/23 -2023/24 Medium 2022/23-2026/27 Long term 2022/23-2029/30	Projected Costs	Resource	tCO ₂ e savings
NZ30/17	Encourage circular economy values within Swansea Council – to minimise and prevent - reduce, reuse, recycle.	Write and implement a revised Waste Strategy which further promotes the circular economy for residents	Medium	Further work needed to measure financial costs or savings	Within Waste Management service	Further research needs to be undertaken to measure carbon savings
		Review processes within the Council to ensure the circular economy is considered as part of any purchase, process review, or disposal	Medium	Further work needed to measure financial costs or savings	PM resource	Further research needs to be undertaken to measure carbon savings
NZ30/18	Reduce operational single use plastics wherever possible	Review sources of single use plastic and consider feasibility of alternatives	Medium	Further work needed to measure financial costs or savings	Each HoS to undertake review within their Service	Further research needs to be undertaken to measure carbon savings
NZ30/19	Reduce operational waste eg food, construction materials	Review sources operational waste and consider methods of reduction	Medium	Further work needed to measure financial costs or savings	Each HoS to undertake review within their Service	Further research needs to be undertaken to

						measure carbon savings
NZ30/20	Encourage operational recycle and repair.	Update Council website and literature to promote donation of items to charities or the Tip Treasures re-use shop	Short	No additional costs	Within Waste Management service	Further research needs to be undertaken to measure carbon savings
		Review opportunities to transform town centres so they include opportunities to swap, share and repair, shop at local businesses and zero waste shops	Long	Further work needed to measure financial costs or savings		Further research needs to be undertaken to measure carbon savings
NZ30/21	Reduce construction waste	Building Services Reuse and recycle wherever possible, through procurement focus on recyclable and sustainable products.	Short	No additional costs	Building Services Architectural Design Group and Procurement team	Further research needs to be undertaken to measure the carbon savings
		Highways Reuse and recycle wherever possible, through procurement focus on recyclable and sustainable products.	Short	No additional costs	Highways team	Further research needs to be undertaken to measure the carbon savings

New Ways of Working

	Ambition	Activity	Timeline Short 2022/23 -2023/24 Medium 2022/23-2026/27 Long term 2022/23-2029/30	Projected Costs	Resource	tCO²e savings
NZ30/22	Develop emissions data monitoring processes	Work with HR team to improve data collation	Medium Term		Existing PM resource	
NZ30/23	Reduce commuting miles	Work with HR and Facilities Management teams on agile working strategy	Medium Term		Existing PM Resource	
NZ30/24	Deliver agile working policy	Work with HR and Facilities Management teams on agile working strategy	Medium Term	Nil	Existing resource in Facilities Management and Human Resources team	
NZ30/25	Develop an staff active travel plan	Commission travel plan project	Medium Term – 3 year programme	£30,000	Existing resource in Facilities Management Team	
NZ30/26	Implement Healthy Travel Charter in Swansea Council	Commitment already made	Short – Medium Term	Nil	Existing resource in Facilities Management and Human Resources and Place Project team	
NZ30/27	Develop an electric vehicle charging strategy	Commitment already made	Short to Medium Term	Nil	Active Travel team	

Supply Chain

	Ambition	Activity	Timeline Short 2022/23 -2023/24 Medium 2022/23-2026/27 Long term 2022/23-2029/30	Projected Costs	Resource	tCO₂e savings
NZ30/28	Commit to Net Carbon Zero in our supply chain by 2050	Communications / Change / Transformation plan to be developed with appropriate support including procurement toolkit for use by Services	Medium	Staff resource	To be identified / at this time there is no staff resource in the Commercial Services area to support this work.	N/A
NZ30/29	Through forward planning and innovation develop new specifications for our contracts that deliver Net Carbon Zero	Linked to the above and working with partners including the Welsh Government and WLGA undertake research & development focusing on high spend / high impact service areas	Medium to long term / as contracts are renewed	As above	As above	TBD – this is the stand of activity which will provide the CO₂ savings
NZ30/30	Map and monitor our progress, with appropriate prioritisation and target setting	Interlinked with both points above – the development of appropriate governance framework to manage this work and ensure the required outcome of Net Carbon Zero.	Medium	As above	As above	N/A

Additional ambitions:

Council Renewable Energy

	Ambition	Activity	Timeline Short 2022/23 -2023/24 Medium 2022/23-2026/27 Long term 2022/23-2029/30	Projected Costs	Resource	tCO₂e savings
NZ30/31	Increase our carbon 'credit' by creating Solar farms (ground mounted solar PV / Wind farms/ hydrogenerator to the Tawe Barrage) to create renewable energy that the council can use in their buildings or income generation.	Further investigate the sites already identified for potential solar farms, and draw up business plans based on the best carbon and financial benefits.	Medium to long term	Further work needed to measure financial costs or savings	Contractors to provide costs	Further work needed to measure carbon savings
NZ30/32	Reduce our carbon emissions by expanding our use of Solar PV to generate renewable energy	Expand our current programme for installing Solar PV systems to more of the council's assets - include corporate buildings, depots, offices, schools, care homes, community centres, libraries (leisure centres) and car parks. Further investigate sites.	Medium to long term	Further work needed to measure financial costs or savings External investment with EGNU Co-Operative installing Solar PV on school roofs and Retrofit Energy conservation measure	Contractors to provide costs	Further work needed to measure carbon savings

Council Behaviour Change

	Ambition	Activity	Timeline Short 2022/23 -2023/24 Medium 2022/23-2026/27 Long term 2022/23-2029/30	Projected Costs	Resource	tCO²e savings
NZ30/33	To achieve One Planet Standard accreditation	Work towards Bronze accreditation	Short Term	Nil	Officer time allocated	
NZ30/34	To develop on line and front line training packages	Develop tool box talks and e-learning packages for all employees	Short term	Nil	Officer time allocated	
NZ30/35	To undertake Welsh Government training where appropriate	Undertake Welsh Government training sessions as appropriate	Short Term	Nil	Officers and members assigned	
NZ30/36	To develop supplier training	Commission and deliver supplier training support	Short term	£8,000 grant funded	Funded and externally delivery	
NZ30/37	Work collaboratively with Unions to deliver just transition	Provide regular updates and engagement	Short – medium term	Nil	Key officers	
NZ30/38	Support retraining of new and emerging technologies	Training delivery for operational staff working on new equipment	Short - Medium	Nil	Existing staff and Gower College supporting retraining.	