









APPENDIX B - Swansea Council: The Energy and Carbon Management Strategy Action Plan (2020 – 2030)

The Energy and Carbon Management Strategy Action Plan aligns its carbon emissions actions with the widely used international reporting tool, the Greenhouse Gases (GHG) Protocol which categories Greenhouse gas emissions into three Scopes


Scope 1 – Direct Emissions: Non-Domestic Buildings							
Energy Strategy and Management Actions							
No.	Projects	Action Required /Benefit of Objective	Lead Officer		Short Term 0 to 3 years	Medium Term 4 to 7 years	Long Term 8 to 10 years
	Energy and Carbon Management Plan	Plan being updated, reflecting climate change declaration	Energy Manager			Annual Review	Annual Review
	ISO 50001 / Carbon Trust Accreditation	Provides a recognised and accredited energy management framework of requirements	Energy Manager			Annual Review	Annual Review
	Publish performance reports on progress towards becoming a net zero carbon local authority by 2030	Waiting for Welsh Government to publish their Net Zero Carbon Reporting framework	Energy Manager			Annual Reporting	Annual Reporting
	Develop appropriate target for renewable energy generation /off setting as part of annual review of action plan	New buildings / Refurbishment programmes opportunities for installing renewable technologies / identify off setting opportunities	Energy Manager			Continuing	Continuing
	Energy management	Maintain CPD / complete related courses / attend energy events / support CLAW etc.	Energy Team			Continuing	Continuing
	Implement meeting with Building Maintenance Services	To discuss implementation of Capital Maintenance energy efficiency schemes / capital maintenance budget	Energy Manager			Monthly Review	Monthly Review
	Energy Purchase Analysis	Electricity and Gas EDI bills are imported into Team Sigma M&T system for data validation (consumption / cost).prior to payment	Energy Management Team			Monthly Review	Monthly Review
	Imbedding Sustainability within the Procurement Process	Include the Sustainable Procurement Assessment Framework (SPAF) in the procurement process.	Energy Manager		Included in the renewal of DEC/AR procurement assessment		



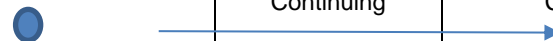


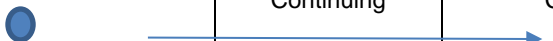
	Sigma Monitoring and Targeting Software system	Level 1 training to enable database set up; data analysis and reporting	Energy Management Team		Level 1 training completed 27 Feb 20		
	British Gas	Resolve issues of outstanding bills to release rebate value of £35k	Energy Management Team				




Scope 1 – Direct Emissions: Non-Domestic Buildings							
Energy Trend Analysis							
No.	Projects	Action Required /Benefit of Objective	Lead Officer		Short Term 0 to 2 years	Medium Term 3 to 7 years	Long Term 7 to 10 years
	Phase 1 Refit Project - Measurement and Verification (M&V)	M&V plans being compiled by the Service Provider, to be reviewed by WG Energy Services to measure and verify savings	Energy Manager			Annual Reporting (end of payback period)	
	SIGMA Monitoring and Targeting software system	Utilise the software modules (ie. energy reports) to support energy and cost reduction initiatives	Energy Management Team			Annual Reporting	Annual Reporting
	SIGMA Monitoring and Targeting software system	Budget Monitoring	Energy Management Team			Annual Review	Annual Review
	SIGMA Monitoring and Targeting software system	Import HH data from electricity and gas meters	Energy Management Team			Monthly Import	Monthly Import
	Review Display Energy Certificates and Advisory Reports	Set up a database to categorise buildings energy performance ratings to identify poor performing buildings.	Energy Management Team			Annual Review	Annual Review
	Fuel Sources	Collate consumption data from all fuel sources for data reporting accuracy	Energy Management Team			Monthly Collation	Monthly Collation
	Swansea Council – Solar PV modules	Corporate building (Guildhall) and Schools x 4	Energy Manager			Annual Review	Annual Review



	EGNI Co-op – Solar PV modules	Orsis Energize software to download generation from solar PV	Energy Manager		
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Scope 1 – Direct Emissions: Non-Domestic Buildings							
Energy Projects							
No.	Projects	Action Required /Benefit of Objective	Lead Officer		Short Term 0 to 2 years	Medium Term 3 to 7 years	Long Term 7 to 10 years
	Phase 1 Refit Project – Provide project management support towards its delivery	IGP in place identifying all sites for Energy Conservation Measures (ECMs) / cost and carbon reduction savings	Energy Manager		Project Implementation 	Measurement & Verification	Measurement & Verification
	Develop Phase 2 Refit: ECM projects (potential Phase 3)	Potential Services – Education; Housing; Community Care homes; decarbonisation of heat network	Energy Manager		Project Audits 	Project Implementation	Measurement & Verification
	Solar PV Farm – Working with Welsh Government Energy Services.	Collaborating with Welsh Government Energy Services on model size scenarios and financial appraisal assumptions towards the development of a Ground Mounted Solar PV farm	Energy Manager		Project Implementation 	Project Implementation	Measurement & Verification
	Endotherm - Heating additive designed to increase the efficiency of wet central heating systems; potential 15% savings on heating costs	Business case submitted to Head of Building Services for funding approval to undertake trial and monitor performance of financial and carbon savings. Potential rollout dependant on results and funding approval.	Energy Manager				
	Install Automatic energy metering (AMR) / smart meters across Corporate Premises	AMR framework contracts established by the Government Procurement Service.– accurate and timely energy data for energy analysis and billing	Energy Management Team		Project Implementation 	Installation as Required	Installation as Required
	Water Emissions – Scope 3 Reportable	Water information cleansing to be completed, data not being captured by SIGMA for emissions reporting; bill validation and water management (leakage)	Energy Management Team				

	Work with Welsh Water installing telemetry metering	To monitor nightlines, identify leakage and submit non return claims to Welsh Water. Project rollout dependent on funding approval.	Energy Management Team				
	EGNI – Solar PV for Schools	Business Case submitted to Education to Install circa 0.8 MW of solar PV on 15 schools	Energy Manager		Not approved due to installation timescales – EGNI to resubmit offer		

Scope 1 – Direct Emissions: Non-Domestic Buildings							
Energy Awareness Programmes							
No.	Projects	Action Required /Benefit of Objective	Lead Officer		Short Term 0 to 2 years	Medium Term 3 to 7 years	Long Term 7 to 10 years
	Develop and Implement staff awareness programmes	New behaviour programme / publicity required to be developed	Energy Management Team			Continuing	Continuing
	Energy Champions	Appoint energy champions to advocate energy efficiency throughout the Authority and encourage their co-workers to adopt 'cleaner' practices in both the workplace and their everyday lives.	Energy Manager			Continuing	Continuing
	Publish success stories of best practice Energy Conservation Measures	Publish success stories via staff intranet	Energy Manager			Continuing	Continuing
	Sigma Energy Viewer	Supports the delivery of the energy and carbon management strategy through data dashboards that enable users to monitor, engage and share their energy information across their entire estate.	Energy Manager			Continuing	Continuing
	Low Carbon Schools Programme	Engaging with head teachers, ECO Clubs, premise managers on energy saving initiatives	Energy Manager			Continuing	Continuing
	Support carbon awareness campaigns	Earth Hour	Energy Management Team			Continuing	Continuing

Scope 1 – Direct Emissions: Non-Domestic Buildings							
Energy Procurement							
No.	Projects	Action Required /Benefit of Objective	Lead Officer		Short Term 0 to 3 years	Medium Term 4 to 7 years	Long Term 8 to 10 years
	Energy Contracts & Tariff Selection/Analysis	Undertake an energy procurement review with potential savings typically >5% improvement on traditional buying consortium's offers	Energy Manager			Annual Review	Annual Review
	Maximum Import Capacity (MIC)	Review with electricity energy supplier MIC reduction across 18 MPANS with potential savings of £25k	Energy Manager			Annual Review	Annual Review
	Display Energy Certificates and Advisory Reports – Renew Procurement Contract	Current procurement contract expires 31 Mar 20 (compliant with Energy Performance of Buildings Regulations).	Energy Manager			Annual Requirement	Annual Requirement

Scope 2 – In Direct Emissions: Procurement of Energy							
Procurement of Energy							
No.	Projects	Action Required /Benefit of Objective	Lead Officer		Short Term 0 to 3 years	Medium Term 4 to 7 years	Long Term 8 to 10 years
	Electricity - Energy Purchase Renewable Sources	Electricity is 100% renewable sourced via Crown Procurement Service	Energy Manager			Contract Renewal	Contract Renewal
	Gas - Energy Purchase Renewable Sources	Green Gas - investigate viability and cost impact via Crown Procurement Service	Energy Manager			Contract Renewal	Contract Renewal

Scope 3 This covers carbon emissions not controlled or owned by the authority and only has powers of influence/ support / engagement to seek the necessary changes and needs to be divided into two elements:

- a. The authority’s own work and the wider economy, for example engaging with procurement covering environmental impacts as part of contract of services; housing (i.e. sustainability); collaborating with Welsh Government / working with other public sector organisations (Swansea University / Health Service).
- b. The second element of this strategy is to work with everyone else to achieve a significant Swansea change area wide, for example engaging with Low Carbon Swansea Bay & Swansea Environmental Forum / Community Enterprises / private sector

This engagement will be enhanced by the introduction of the Climate Change Charter.

Scope 3 – Indirect Emissions							
Indirect Emissions							
No.	Projects	Action Required /Benefit of Objective	Lead Officer		Short Term 0 to 3 years	Medium Term 4 to 7 years	Long Term 8 to 10 years
	Collaborate with Welsh Government and other Public Bodies to introduce carbon reporting as part of the ambition to achieve a carbon neutral Welsh public sector by 2030	Engage with local people and businesses and help them be smarter and better prepared for the impacts of climate change, this will be enhanced by the introduction of the Climate Change Charter	Biodiversity and Corporate Climate Change Working Group'				
	Collarbrate with Welsh Government and Swansea Bay City Region partners to establish a Regional Energy Plan for South West Wales	engage with local people and businesses and help them be smarter and better prepared for the impacts of climate change, this will be enhanced by the introduction of the Climate Change Charter	Biodiversity and Corporate Climate Change Working Group'				
	Swansea Community Energy & Enterprise Scheme (SCEES) – Solar PV Generation	Solar PV modules installed on 14 schools and 1 residential residence. Carbon savings claimed.	Energy Manager			Annual Review	Annual Review
	EGNI Co-op (Community scheme) – Solar PV for Schools	Solar PV modules installed on three comprehensive schools.	Energy Manager			Monthly Review	Monthly Review