

## CLIMATE CHANGE COMMITTEE

<b>Date of Meeting</b>	Wednesday 8 <sup>th</sup> January 2024
<b>Report Subject</b>	Financing Climate Action
<b>Cabinet Member</b>	Collective Responsibility
<b>Report Author</b>	Chief Officer (Planning, Environment & Economy)
<b>Type of Report</b>	Operational

### EXECUTIVE SUMMARY

The Council has an ambitious climate change strategy and plan of action to move the Council towards becoming Net Zero Carbon by 2030. A large quantity of these actions will require capital and revenue resource from either internal or external sources. Due to the current financial challenges facing the public sector, there is a great deal of uncertainty and trepidation over the ability to fulfil the actions within the climate change programme.

This report looks at where the Council has been successful in financing climate action to date, and where potential sources of income for further action can be secured.

### **RECOMMENDATIONS**

1	To note the contents of the report.
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### REPORT DETAILS

<b>1.00</b>	<b>EXPLAINING THE REPORT</b>
1.01	The Council has an ambitious climate change strategy and plan of action to move the Council towards becoming Net Zero Carbon by 2030. A large quantity of these actions will require capital and revenue resource from either internal or external sources. Due to the current financial challenges facing the public sector, there is a great deal of uncertainty and trepidation over the ability to fulfil the actions within the climate change programme.

	<p>This report outlines how previous Council climate action projects have been funded, and outlines further opportunities that could be considered for financing future projects.</p>
1.02	<p>In terms of energy efficiency works on the Council's non-domestic buildings, the Energy Conservation Unit ceased receiving a central capital allocation in 2012. Two main sources of funding have been used to undertake energy efficiency projects:</p> <p><b>Feed-in Tariff income</b></p> <p>These are generated by solar PV arrays (and a wind turbine) that have been installed at various buildings across FCC's estate. A certain price is paid by a supplier per unit of electricity generated by a building's solar array. For example, an array generates 5,000kWh of electricity in a year and a supplier pays 20p for each kWh unit – this results in a £1,000 payment from the chosen supplier to the generator.</p> <p>Feed-in-Tariffs exist on arrays that were installed between 2010 and 2019. This arrangement means that the building benefits from the free electricity that is generated, and the Energy Team collects the Feed-In Tariff to carry out further energy efficiency works.</p> <p>The Feed-In Tariff income is typically around £80,000p.a. and forms the largest part of the Energy Unit's budget each year – however, with some sites closing (Argoed HS, Mynydd Isa Infants) and arrays degrading with age this amount will decrease.</p> <p><b>Salix Recycling Fund</b></p> <p>Salix is wholly owned by the UK Government and operates as a Non-Departmental Public Body, under the sponsorship of the Department of Energy Security and Net Zero. Salix provides funding to the public sector to improve energy efficiency, reduce carbon emissions and lower energy bills. It's a form of spend-to-save; there is no upfront cost to the client – the initial amount of the loan is then repaid through the annual savings calculated to be made by the proposed technology.</p> <p>This is held by the Energy Unit and is a ring-fenced fund that was started in 2010. Any repayments go back into this fund to use for further energy efficiency schemes. Energy projects are identified within buildings based on the performance and needs of sites and then a proposal is taken to the site to gain agreement from the Site Representative.</p> <p>Since 2010 this has been used to deliver over £1.7m of projects consisting of: LED lighting, solar PV, insulation measures, swimming pool covers, cooling and heat recovery. In FY24/25 this fund sits at £75,000 of which there is a requirement to spend 75% of.</p> <p>Projects are selected based on several factors such as the energy intensity of a site, where works have been identified as being needed or suitable and by the sites themselves requesting works. However, budget formed by non-grant sources (i.e. the Feed-in Tariff) is not only used to fund energy efficiency projects but also for items such as the following:</p>

	<ul style="list-style-type: none"> <li>- Servicing of existing installations and recommended remedials.</li> <li>- Preparatory works (asbestos surveys, structural surveys, CDM services, feasibility studies).</li> <li>- Top up Salix funding to make paybacks more favourable for sites.</li> <li>- Minor works such as data cable runs, replacement ceiling tiles, pipework boxing, replacement actuators etc.</li> <li>- Support to other teams – biodiversity and pond creation, Greenfield Valley and waterwheel restoration.</li> <li>- Funds a technical support officer within the team.</li> </ul>
1.03	<p>Other sources of funding that have been utilised in the past:</p> <p><b>Wales Funding Programme (Salix)</b> – another form of Salix funding. This works in a similar way as the Recycling Fund detailed above, however, this must be applied for via the Salix Wales team rather than just drawn down from the Recycling Fund. The funding is provided by Welsh Government. This was formerly interest free, but from 24/25 a 2.05% interest rate is now applied.</p> <ul style="list-style-type: none"> <li>- £3.129m secured for First phase of LED streetlighting programme</li> <li>- £1.479m secured for Second phase of LED streetlighting programme</li> <li>- £0.123m – Energy efficiency works at Ty Dewi Sant</li> <li>- £0.130m - Energy efficiency works a Residential Care Homes</li> <li>- £0.030m - LED Lighting Upgrade, Ysgol Bryn Garth &amp; Penarlag CP</li> <li>- £0.110m – LED Lighting Upgrade, Elfed High</li> </ul> <p><b>Welsh Government’s Sustainable Communities for Learning Programme</b> which aims to invest in and improve educational facilities. To help meet the commitment to become a net zero carbon nation by 2050, Welsh Government requires all new school and college buildings, major refurbishment and extension projects to produce zero or negative carbon emissions as part of their operational energy (NZCio). This programme has supported current and upcoming school capital projects that are being built to NZCio including Mynydd Isa, Croes Atti, and Oakenholt.</p> <p><b>Welsh Government’s Integration and Rebalancing Capital Fund</b> Decarbonisation – The design of the scheme should aim to minimise the carbon impact of the building and as such it is expected that all reasonable efforts will be made to achieve net zero carbon in operation. This funding has been secured to contribute towards the development of the new Croes Atti care home built to Net Zero Carbon in operation.</p> <p><b>Renewable Heat Incentive (RHI)</b> (£10,000 p/a income) – applies to the 2no. biomass boilers that are located within schools. Payments are made based upon the amount of heat generated by the boilers which are supplied with wood chip or pellets. This primarily covers the costs to service and maintain the boilers.</p> <p><b>Low Carbon Heat Grant</b> (£160,000) – Welsh Government funding to install non-fossil fuel heat supplies. Will be used in this instance to install Air Source Heat Pumps at 2no. sites.</p>

	<p><b>Display Energy Certificates</b> (£10-15,000 p/a income) – both surveyors in the team are qualified to produce Display Energy Certificates, these are a requirement for public buildings. The team charge a fee per certificate produced.</p> <p><b>Repair and Maintenance allocation</b> – this is typically used to fund the annual servicing of heating controls at school sites. However, in 24/25 a larger amount (£250,000) was allocated to upgrade the heating controls across 28 school sites, this project is now coming to an end.</p> <p><b>Capital Programme on Invest to Save</b> – the Energy Unit have successfully delivered 4no. Solar farms at sites in Buckley, Connah’s Quay and Flint. The revenue generated by these goes towards repaying the initial amount and aids in the decarbonisation of the national grid.</p>
1.04	<p><b>Optimised Retrofit Programme (ORP)</b> is a whole house, pragmatic, approach to decarbonising existing homes. It takes into account the fabric or materials homes are made from and the way we heat and store energy. It also takes into account how energy reaches our homes. It is open to Registered Social Landlords (RSLs) and local authorities (LAs) to install a variety of home decarbonisation measures in existing social housing stock.</p> <p>An intention of ORP is to support the Welsh Housing Quality Standard 2023 as the Welsh Government and social landlords work towards establishing a new standard. The proposed new standard encourages landlords to consider issues around affordable warmth and decarbonisation across their whole stock to produce a plan for each home undertaking retrofit.</p> <p>There have been several phases of ORP funding, and the Council has been successful in securing funding from ORP 2.2 and ORP 3.</p> <p>ORP 2.2 proposed an Affordable Green homes scheme in Mostyn which delivered a comprehensive fabric first retrofit. After establishing the existing baseline through IES data testing, based on current usage and performance, a series of bespoke and innovative measures were implemented and monitored based on stock typology. A total of £3,984,922 was secured which benefited approx.. 196 homes.</p> <p>ORP 3 proposed schemes in Leeswood, Holywell and Alyn Meadow, including Intelligent Energy System &amp; Environmental Sensors, Solar PV / Cavity Wall Insulation, Low energy lighting, and Insulation with a total of £1,398,881 secured benefitting approx.. 294 homes over three iterations.</p> <p>On average, these schemes are lifting the Council’s domestic properties two full EPC bands with most achieving a minimum of EPC B, while ensuring tenants are not disadvantaged financially due to the changes in energy provision.</p>

1.05	<p>Various other grants and funds have been accessed on a one-off basis in the past including:</p> <p><b>Heat Network Delivery Unit funding</b> – feasibility study for the development of a heat network in Flint.</p> <p><b>Environment and Sustainable Development funding</b> – to install minor works such as insulation measures and to deliver Eco Schools workshops in schools.</p> <p><b>ORCS/ULEV funding</b> – funding from central and Welsh Government to aid in the rollout of EV charge points in public carparks, the Energy Unit have assisted Streetscene in delivering this.</p> <p>As well as a number of different Biodiversity/sustainability grants.</p>
1.06	<p><b>UK Shared Prosperity Fund (SPF)</b> has seen a number of successful projects to support local businesses within Flintshire to decarbonise:</p> <ul style="list-style-type: none"> <li>- FAST (Flintshire Sustainable Decarbonised Future) sought to: Undertake a comprehensive energy mapping exercise across all industrialists, to assess their current and future energy needs and accelerate the transition to Net Zero, Develop optional energy transition plans, Support the development of the decarbonisation roadmap, Support the development of the Land and Energy Investment Prospectus, Maximise knowledge transfer throughout the delivery chain, from early years education (STEM) to organisational collaboration.</li> <li>- The Flintshire Fund sought to provide and manage three grant funds to provide first stage support for businesses in their decarbonisation journey.</li> <li>- Flintshire Green Digital Academy providing expert evaluation and mentoring support to SMEs to improve their digital and Net Zero capabilities in line with their core business strategy, supporting businesses to accelerate efficiency, productivity, carbon reduction and to reduce costs.</li> <li>- Greenfield Valley Heritage Park Improvement Programme which included funding for carbon reduction plan and associated interventions.</li> </ul>
1.07	<p><b>Working in Collaboration</b></p> <p>Working in collaboration has assisted in maximising opportunities where there are commonalities in objectives and outcomes.</p> <p>The Council has a joint procurement service with Denbighshire County Council, and both Councils have commitments to reduce carbon emissions from their supply chains. In order to progress within this area, a dedicated resource was needed and this provided an opportunity for both Councils to contribute jointly towards the revenue costs of a dedicated role. This dedicated role is unique across the public sector and is accelerating the Council's progress with better understanding and reducing emissions from supply chain.</p>

	<p>The Council led a collaborative commission with other public sector organisations to procure the development of a ‘Climate Essentials’ E-learn module for employees. The collaboration developed following a call for evidence from the public sector to understand the current status of training provision and delivery. A number of Councils and Colleges were at a similar stage of need and were able to commit funds towards the project. The resulting training not only cost a small proportion of the total value, but has been developed to provide consistency in messaging and content across the region.</p> <p>The teams continue to network to identify opportunities for collaborative working within and outside of the public sector, across the region, and across the English border.</p>
1.08	<p><b>Working with Researchers</b></p> <p>The Council has demonstrated innovation by partnering up with academic institutions to find solutions to decarbonisation.</p> <ul style="list-style-type: none"> <li>- Work with University College London saw a research project installed at Wepre Park to understand the capabilities of a hydro power solution. If successful, the project would have seen the Council utilise a new innovative hydro power generator for the Visitor Centre at Wepre Park.</li> <li>- Work with Manchester University to develop a Carbon and Co-benefits tool to meet Welsh LA legislations, to replace the existing Integrated Impact Assessment (IIA). This work included development and piloting of the tool, employee and Councillor workshops, and showcasing within national networks. Further partnership working with Welsh Local Government Association (WLGA) will see support in training and governance for the effective integration of the tool within Council decision making.</li> </ul>
1.09	<p><b>Future Financing</b></p> <p>The teams across the Council continue to stay abreast of funding opportunities through networking and research.</p> <p>The Council are APSE Energy members and work closely with Welsh Government’s Energy service, both of which circulate funding opportunities regularly.</p> <p>Welsh Government funding is often released for specific decarbonisation projects, however projects need to be ‘shovel-ready’ to be procured and installed straight away due to the funding being communicated very late in the financial year. Funding will often be made open to bid for in the same financial year that it is required to be spent, which makes forward planning difficult.</p>
1.10	<p><b>Power Purchase Agreements for renewable energy installations</b></p> <p>An option that has been utilised by other Councils. Power purchase agreements (PPA) are increasingly being adopted to install renewable energy equipment such as solar photovoltaic panels without having to find upfront capital funding. A PPA is a long-term contract under which a</p>

	<p>business agrees to purchase electricity directly from an energy generator instead of purchasing electricity from the grid. The energy generator provides the capital funding for the renewable energy equipment, maintaining and monitoring it over the lifetime of the contract in return for the business agreeing to purchase energy at a reduced rate for typically 20 to 25 years. The rate paid for each unit of electricity is significantly less than the grid rate, typically 3 to 4 pence per kWh lower, and is indexed (usually to the RPI) to increase over the term of the contract. This provides a hedge against future electricity price rises and price shocks. At the end of the contract the business can typically buy the installation for a nominal amount such as £1 or require its removal.</p> <p>In addition to the free supply and installation of a renewable energy resource, advantages include financial certainty around energy costs for the long term via a fixed electricity price rising at an agreed rate, substantial energy cost savings, and reduced carbon emissions.</p> <p><b>Case Study - The City of London Authority</b></p> <ul style="list-style-type: none"> <li>● Signed a PPA with Voltalia for a 49 MW solar farm in Dorset.</li> <li>● Will save the City of London around £3 million in energy costs and provide half of its electricity demand.</li> <li>● PPAs are long-term electricity supply agreements between energy producers and consumers.</li> <li>● These contracts fix prices, protecting against market volatility and rising energy prices.</li> <li>● Energy performance contracts also save energy costs.</li> </ul>
1.11	<p><b>Workplace Parking Levy</b></p> <p>An annual fee for businesses with over a certain number of employee parking spaces. Revenue is used to improve public transport and active travel infrastructure, encouraging employees to leave their cars at home.</p> <p>The Council already operates a Workplace Parking Levy for employees at its main offices and this fee could subsidise carbon action.</p> <p><b>Case Study - Nottingham City Council</b></p> <ul style="list-style-type: none"> <li>• Annual fee for employers with over 11 parking spaces.</li> <li>• 7,840 tonnes of CO<sub>2</sub> saved since 2011.</li> <li>• £83 million raised, funding a major tram network extension and an expansion of the city's electric bus fleet.</li> <li>• City centre more attractive to employers thanks to public transport investment.</li> </ul>
1.12	<p><b>Climate Action Fund from Planning</b></p> <p>Such schemes have proven successful in other Councils. Further research could determine its suitability for Flintshire.</p> <p><b>Case Study - Milton Keynes</b></p> <ul style="list-style-type: none"> <li>● Uses Section 106 Agreements under the Town and Country Planning Act to require housing developers to pay £200/tonne of first year emissions per property.</li> </ul>

	<p><b>Case Study - South Gloucestershire</b></p> <ul style="list-style-type: none"> <li>• Uses the Community Infrastructure Levy to fund elements of its climate emergency action plan.</li> <li>• England and Wales - Planning obligations under Section 106 of the Town and Country Planning Act 1990 can be used to enforce developers to pay Local Authorities a fee to offset the 'planning gain' associated with property development.</li> <li>• The Community Infrastructure Levy (CIL) can also be levied by local authorities on new development in their area. The mechanism is already available to all councils – South Gloucestershire simply decided to use it for green purposes.</li> </ul>
1.13	<p><b>Community Municipal Bonds</b> Schemes have been successful in other Councils. Further research could determine feasibility for use within Flintshire.</p> <p><b>Case Study - Swindon Borough Council</b></p> <ul style="list-style-type: none"> <li>• Raised over £4.2 million for two solar farms.</li> <li>• Now power over 1,200 homes and provide a return on investment of ~ 6% annually.</li> </ul> <p><b>Case Study - West Berkshire Council</b></p> <ul style="list-style-type: none"> <li>• The green bond attracted over 840 investors and reached its £1 million target 5 days early.</li> <li>• Municipal bonds are a model of public sector crowdfunding.</li> <li>• The bonds in both case studies were issued in partnership with Abundance Investment, an online crowdfunding platform regulated by the Financial Conduct Authority.</li> <li>• Allows the risks and costs of low-carbon investment to be shared.</li> </ul>
1.14	<p>Officers across the Council continue to horizon scan and network so they are aware of funding opportunities when they become available, and where possible develop 'shelf ready' projects that can be used for funding applications at short notice. There should be consideration for innovation when considering future funding opportunities as outlined above.</p>

<b>2.00</b>	<b>RESOURCE IMPLICATIONS</b>
2.01	<p>The current climate change strategy review allows the opportunity to reflect on the impact of climate action already taken and the cost benefit of this work to determine a high level cost £/kgCO<sub>2</sub>e. This will assist in determining high level cost estimates for actions where more accurate methodologies do not exist.</p> <p>The review also gives the opportunity to review reduction target trajectories and determine a 'best case scenario' where the resources are readily available to the Council, as well as a trajectory based on the direction of travel reductions have taken over the past 5 years with known funding sources.</p>



<b>3.00</b>	<b>CONSULTATIONS REQUIRED / CARRIED OUT</b>

<b>4.00</b>	<b>RISK MANAGEMENT</b>
4.01	The suggested sources of funding within this report, and continued horizon scanning for developing funding opportunities will serve as mitigation towards the Corporate risk ' <i>RPE11 – Affordability of the Council being able to achieve its net zero carbon goal. Inability to commit or attract sufficient resource to coordinate the programme and deliver on projects, leading to opportunities not being maximised, actions not delivered and benefits not realised.</i> '

<b>5.00</b>	<b>APPENDICES</b>
5.01	None

<b>6.00</b>	<b>LIST OF ACCESSIBLE BACKGROUND DOCUMENTS</b>
6.01	-

<b>7.00</b>	<b>OFFICER CONTACT DETAILS</b>
7.01	<b>Contact Officer:</b> Alex Ellis – Climate Change Programme Manager <b>Telephone:</b> 01352 703112 <b>E-mail:</b> alex.ellis@flintshire.gov.uk

<b>8.00</b>	<b>GLOSSARY OF TERMS</b>
8.01	<p><b>Carbon emissions:</b> Used interchangeably with greenhouse gas emissions; meaning emissions of carbon dioxide, methane etc from human and natural activities and sources. Wider greenhouse gas emissions are collectively calculated into a 'carbon dioxide equivalent' displayed as CO<sub>2</sub>e.</p> <p><b>Carbon Footprint:</b> A measurement of the council's carbon emissions during a defined period of time, given as tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)</p> <p><b>Decarbonisation –</b> Reduction of carbon emissions that result from an activity, material or product</p> <p><b>Greenhouse Gas/ Carbon emissions:</b> Emissions of carbon dioxide, methane etc from human and natural activities and sources. Wider</p>

greenhouse gas emissions are collectively calculated into a 'carbon dioxide equivalent' displayed as CO<sub>2</sub>e.

**Methodology:** How the collected raw data used for carbon emission calculations is managed and rated in terms of its reliability. This is governed by Welsh Government.

**Net Zero Carbon:** Emissions of greenhouse gases are balanced by the removal of greenhouse gases from the atmosphere such as by trees, peatland and carbon capture and storage technologies.