

# Climate Emergency Advisory Committee



Report of Head of Partnership and Insight

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To: Climate Emergency Advisory Committee

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**AGENDA ITEM**

## Background Paper

### Appendix One - Scene Setting

#### Recommendation

Committee members are asked to note the content of this paper and review it as a supporting document to the report 'Climate Emergency: Options and Next Steps.'

#### Purpose of Report

1. This paper is for information only, to inform discussions arising out of the report 'Climate Emergency: Options and Next Steps'. This paper does not require any recommendations.
2. This paper outlines;
  - a. The national and international context
  - b. Vale of White Horse District Council (VOWH) history of activity up until December 2018
  - c. Current projects January 2019 to date
  - d. 'Business as usual' regarding council activity to reduce energy usage and carbon dioxide and equivalent (CO<sub>2</sub>e) emissions

## Climate Change: National and International Context

3. “Human activities are estimated to have caused approximately 1.0°C of global warming above pre industrial levels”<sup>1</sup>; researchers and scientists outline that human activities such as the burning of fossil fuels and deforestation have impacted on the balance of the carbon cycle, leading to a rise in greenhouse gases (carbon-based gases such as carbon dioxide and methane) in the atmosphere and as a consequence, a rise in global temperature. Global temperature rises cause climate patterns to alter, impacting on natural and human systems.

The below sets out a timeline of international and national milestones in addressing global warming and climate change:

4. **Intergovernmental Panel on Climate Change:** The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change and was established in 1988.
5. **The United Nations Framework Convention on Climate Change (UNFCCC):** An international environmental treaty adopted on 9 May 1992 and opened for signature at the Earth Summit in Rio de Janeiro June 1992. The IPCC produces reports that contribute to the work of the UNFCCC.
6. **Kyoto Protocol:** An international agreement linked to the UNFCCC, which committed its Parties by setting internationally binding emission reduction targets. The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. Under Kyoto, industrialised nations pledged to cut their yearly emissions of carbon by varying amounts, averaging 5.2% by 2012 (as compared to 1990 levels).
7. **The UK Climate Change Act:** Implemented in 2008 and provided a policy framework for carbon targets and carbon budgeting, placing the government under a legal duty to reduce greenhouse gas emissions by 80% below 1990 levels by 2050. The Act also created an independent Committee on Climate Change to provide advice to the government on these targets and related policies.
8. **Doha Amendment to the Kyoto Protocol:** The Doha Amendment refers to the changes made to the Kyoto Protocol in 2012, after the First Commitment Period of the Kyoto Protocol concluded. The Amendment adds new emission reduction targets for Second Commitment Period (2012-2020) for participating countries.
9. **The Paris Agreement:** At the Conference of Parties 21 in Paris, 12 December 2015, Parties to the UNFCCC reached an agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future. The Paris Agreement’s central aim was to strengthen the global response and keep a global temperature rise below 2°C above pre-industrial levels and to pursue efforts to limit the temperature

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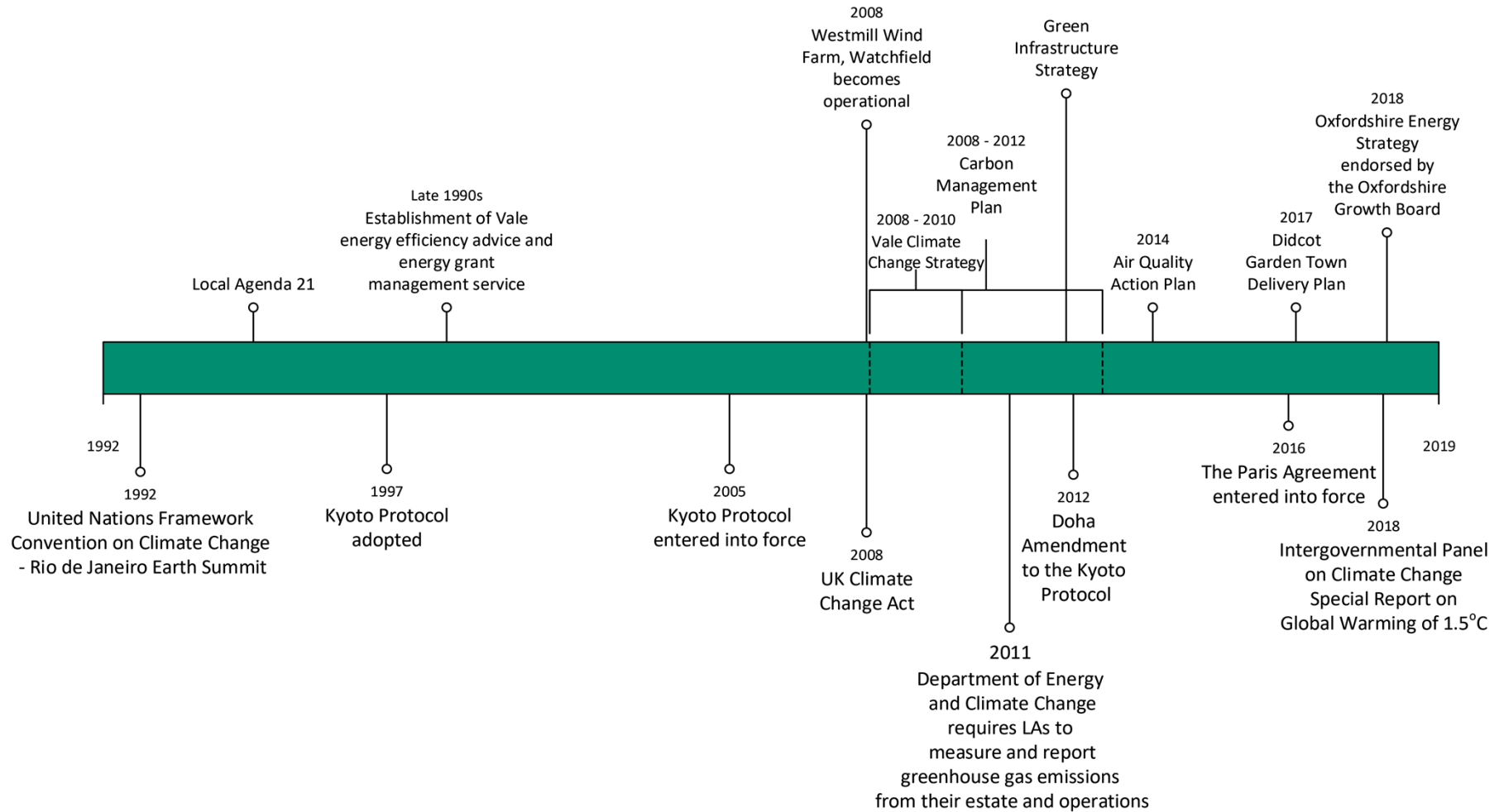
<sup>1</sup> IPCC, 2018 ‘*Summary for Policymakers: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*’, p.4.

increase even further, to 1.5°C. The Paris Agreement opened for signature on 22 April 2016, it entered into force on 4 November 2016.

10. **Intergovernmental Panel on Climate Change (IPCC) Special Report: Global Warming of 1.5°C:** Released October 2018, the report analyses how global warming can be limited to 1.5°C and outlines that this goal requires significant transformation. The report finds that significant climate impacts already occur at 1.5°C, but outlines risks associated with warming are substantially lower at 1.5°C than 2°C. The report estimates with high confidence that global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.
11. **Committee on Climate Change: Net Zero the UK's contribution to stopping global warming:** May 2019 the Committee on Climate Change released a report recommending a new emissions target for the UK: net-zero greenhouse gases by 2050. The Committee conclude that net-zero is necessary, feasible and cost-effective.
12. **Intergovernmental Panel on Climate Change (IPCC) Special Report: Climate Change and Land:** Released August 2019, the report emphasises a necessity to manage land resources sustainably and outlines several land-based climate solutions which the report proposes could reduce emissions.

# Vale of White Horse District Council History of Activity to December 2018

## 13. Timeline:



## **14. Vale Energy Team**

In the late 1990s, the Vale of White Horse was one of the first councils in the UK to set up an energy efficiency advice and energy grant management service. Grants of over £1m were given to residents, over ten years, for home insulation, followed up by spot checks to ensure the quality of installation work. This service was delivered alongside a primary school education scheme and a wide range of energy efficiency promotional events.

The council's grant schemes were eventually superseded by national grant schemes and an energy efficiency freephone provided by the Energy Saving Trust. The council also initiated the Vale Affordable Warmth Network, involving partners from across the district including housing associations and Age Concern (now Age UK). This network was the precursor to the Oxfordshire Affordable Warmth Network which is still in operation.

## **15. Climate Change Strategy**

The Vale's Climate Change Strategy was launched in 2007 with a high-profile sustainability event in Abingdon's Guildhall. One of the key projects to arise from the strategy was the development of sustainability guidance for planners.

## **16. Wind Energy**

The Vale Energy team provided essential support for the development of the Westmill Wind Farm at Watchfield, the first wind farm in the south east of England, which became operational in February 2008.

## **17. Carbon Management Programme**

In 2009, the Council adopted a Carbon Management Plan, in partnership with the Carbon Trust. The Council made good progress in reducing energy use and therefore carbon emissions, with an overall reduction in emissions from the baseline of 23 per cent at the end of 2012/13.

The savings were mainly due to ongoing investment in the leisure centres and a substantial reduction in fuel use following the adoption of a new, shared waste collection contract. Projects delivered included:

- a. Swimming pool covers
- b. Pipe and valve insulation
- c. Lighting upgrades and movement sensors
- d. Server virtualisation (reducing the number of physical servers and their requirement for cooling)
- e. Variable speed drives (allowing a reduction in the speed of pumps and fans)

## **18. Didcot Garden Town Delivery Plan**

In October 2017 South Oxfordshire and Vale of White Horse District Councils adopted the Didcot Garden Town Delivery Plan to achieve an exemplary sustainable future. Key development concepts include provision of carbon neutral homes, green energy supply, cycling, walking and public transit as primary means of transport and other ideas to reduce CO2 emissions. The document is a good reference for ideas for future living. 64 projects identified in the delivery plan are intended to implement the overall plan by 2031.

## **19. Oxfordshire Energy Strategy**

In 2018, The Vale of White Horse District Council worked closely with partners across Oxfordshire to develop the Oxfordshire Energy Strategy. At the end of the year the Strategy was approved by the OxLEP Board and the Growth Board. The Oxfordshire Energy Strategy was prepared following an invitation from the government department BEIS for each Local Enterprise Partnership to work with their local partners to prepare strategies which responded to the main energy concerns in their localities. The vision of the Oxfordshire Energy Strategy is for Oxfordshire to be at the forefront of energy innovation to foster clean growth. The Energy Strategy Delivery Plan identifies key priorities and sets out immediate and short-term actions.

## **20. Biodiversity**

- a. The County and District Councils have worked together with various partners since the late 1990's to establish and fund a number of partnership projects which continue to be important in the delivery of Biodiversity initiatives in the County. This includes the Local Wildlife Sites Project hosted by BBOWT and the Thames Valley Environmental Records Centre (TVERC).
- b. The Vale has delivered significant biodiversity enhancements at Abby Fishponds Local Nature Reserve.
- c. In 2007 Oxfordshire became one of the first counties in the Country to establish a network of Conservation Target Areas - these are the forerunners of the current initiative to establish a Nature Recovery Network. Vale of White Horse was involved in working with the County and other districts to establish the CTA's.
- d. In 2011 the council helped to establish the Trust for Oxfordshire's Environment (TOE). A charity which has distributed over £1million in grant funding for Low Carbon and biodiversity projects. The Council still holds a board level involvement, chairs the grants panel and distributes most of the offsetting funding through TOE.
- e. In 2013 South and Vale were the first Authorities in the Country to agree a Biodiversity Offsetting Scheme. The Vale continues to pioneer new initiatives in Offsetting ensuring that all major developments achieve a net gain for biodiversity
- f. In 2017 the South Oxfordshire and Vale of White Horse Green Infrastructure Strategy was published.

- g. In 2018 the Council became one of the first Authorities in the Country to hold a District Licence for Great Crested Newts. An initiative aimed at providing significant enhancements for newts and the environment on the back of new development.

## Current Activity

### 21. Projects 2019

A wide range of projects are underway in 2019 as set out below;

Project	SODC role and current status
<p><b>Oxfordshire Electric Vehicle Infrastructure Strategy</b> This Strategy will establish principles and an action plan to deliver the charging infrastructure needed to support the transition to low emission vehicles.</p>	<p>Led by Oxfordshire County Council, and supported by other Oxfordshire councils</p> <p><b>Status:</b> Early discussions underway <b>VOWH role:</b> VOWH is a full partner in the EV Working Group</p>
<p><b>Park and Charge</b> Park and Charge will see up to 300 electric vehicle (EV) chargers installed in 'charging hubs' using car parks located in residential areas, where properties don't have their own off-street parking. Smart meters will regulate when cars are charged. The majority of the £750K funding is earmarked for the district and city councils to deliver EV charging in their local authority car parks. The project will also include general communication about EVs.</p>	<p>Innovate UK funded project led by Oxfordshire County Council.</p> <p><b>Status:</b> Launch event to take place November 2019 <b>VOWH role:</b> VOWH is a full partner in this project, lead team: Technical Services</p>
<p><b>Vehicle to Grid Oxfordshire (V2GO)</b> Vehicle to grid technologies (V2G) enable electric vehicles to deliver electricity stored in their batteries back into the grid at peak times which can then be used to power homes and businesses. This project will trial the installation of V2G technologies into fleet vehicles. One of the participating organisations is located in Abingdon.</p>	<p>Innovate UK funded project led by Oxfordshire County Council.</p> <p><b>Status:</b> New project under development <b>VOWH role:</b> Promotion through Economic Development Team</p>

<p><b>Project LEO (Local Energy Oxfordshire)</b> This project will demonstrate a smart, flexible energy system in Oxfordshire, including energy trading to balance supply and demand. Two aspects of particular interest to VOWH are:</p> <ol style="list-style-type: none"> <li>1) County wide mapping project to identify sites best suited for renewable energy and heat, focusing on key development/regeneration sites</li> <li>2) Installation of new renewable energy projects that can demonstrate flexibility in the grid, with 25% match funding</li> </ol>	<p>This Innovate UK funded project is led by SSEN</p> <p><b>Status:</b> New project under development <b>VOWH role:</b> Meetings underway with partner organisations to identify how VOWH can best benefit from this project</p>
<p><b>Oxford Energy Superhub</b> The project will trial a new 50MW battery system, linking directly to the national grid, with the aim of accelerating Oxfordshire's EV and fleet charging capacity and providing low carbon ground-source heating to residential and commercial properties</p>	<p>An Innovate UK funded project, led by Pivot Power</p> <p><b>Status:</b> New project under development <b>VOWH role:</b> Pivot Power have been invited to present the project to relevant VOWH teams</p>
<p><b>South and Vale Taxi Licensing Policy</b> Revised taxi licensing policy will encourage low carbon vehicles and set out our future aspirations</p>	<p><b>Status:</b> Revised policy under development</p>
<p><b>Hello EV</b> Research project modelling the business case for establishing an electric pool car scheme in place of business mileage</p>	<p>Project funded by European Investment Bank and led by Urban Integrated UK</p> <p><b>Status:</b> Awaiting report <b>VOWH role:</b> The council has commissioned a report from Hello EV using VOWH data</p>
<p><b>Cosy Homes programme</b> This project will trial and demonstrate a model to deliver domestic energy efficiency, establishing trusted suppliers and installers and a follow through service to deliver best practice.</p> <p>A similar programme for small businesses is also under development.</p>	<p>Project led by the Low Carbon Hub and National Energy Foundation.</p> <p><b>Status:</b> Project currently in trial phase <b>VOWH role:</b> To be delivered through Housing Team</p>



<p><b>Oxfordshire Greentech</b> Oxfordshire Greentech is a new low-carbon business network, that brings businesses together to encourage innovation, collaboration and knowledge transfer</p>	<p>European funded project led by the Low Carbon Hub.</p> <p><b>Status:</b> Network established in 2019 with full programme of events <b>VOWH role:</b> Regular promotion through Economic Development Team and other channels</p>
<p><b>Oxfordshire Green Fund</b> Oxfordshire Green Fund supports implementation of business energy efficiency measures through free energy audits and grants. Low carbon feasibility funding is available for new start-ups</p>	<p>European funded project led by the Low Carbon Hub.</p> <p><b>Status:</b> Project well established <b>VOWH role:</b> Regular promotion through Economic Development Team and other channels</p>
<p><b>Hydrogen hub</b> The Hydrogen Hub is an organisation which is committed to advancing the deployment of hydrogen and fuel cell technologies in the UK. 2018 marked the launch of the second Hydrogen Hub, in Oxfordshire. Initial goals are to establish an Oxfordshire site for hydrogen generation and a hydrogen fuelling station</p>	<p>Industry-led partnership of stakeholders</p> <p><b>Status:</b> Projects subject to successful funding applications <b>VOWH role:</b> Support and promote local projects</p>
<p><b>Connected autonomous vehicles</b> This project will use autonomous (self-driving) public transport vehicles, initially operating in Milton Park, and linking to existing bus and rail services in the area. The project aims to establish good practice for integrating public transport offerings</p>	<p>Innovate UK funding the majority of the consortium project, with partners contributing industry matching funding.</p> <p><b>Status:</b> Project launch is planned for early 2020 <b>VOWH role:</b> Support and promote project; Didcot Garden Town team participate on consortium as a stakeholder</p>

<p><b>Countywide Local Cycling Walking Infrastructure Plan (LCWIP)</b>  LCWIPs are a strategic approach to identifying cycling and walking improvements required at the local level. They enable a long-term approach to developing local cycling and walking networks and form a part of the Government’s Cycling and Walking Investment strategy to increase the number of trips made on foot or by cycle. The County’s Active and Healthy Travel team will be producing initial LCWIPs for Didcot, Bicester and Oxford over the next 18 months</p>	<p><b>Status:</b> Led and funding held by Oxfordshire County Council  <b>VOWH role:</b> Stakeholder participation on the research, engagement, delivery and implementation of the LCWIP, with reference to the Didcot LCWIP – lead team: Didcot Garden Town</p>
<p><b>Air Quality</b></p> <p>Launched a vehicle anti-idling campaign, ‘Turn it Off’, that targets idling at locations with sensitive receptors, such as schools and medical practices  (<a href="http://www.southandvale.gov.uk/turnitoff">www.southandvale.gov.uk/turnitoff</a>)</p> <p>Feeding into Taxi Licensing Policy review proposing updates on reduced fees for low emission vehicles and penalties around anti-idling.</p> <p>Producing Air Quality Planning Guidance and updating it to ensure it promotes most recent best practice.</p> <p>Commencing the process of producing a new air quality action plan for Vale.</p>	<p><b>Status:</b> Active area of work led by Housing and Environment Service  <b>VOWH Role:</b> Active role local air quality monitoring and improvement sits with district councils, whereas traffic management and planning sit with Oxfordshire County Council.</p>
<p><b>Development of a Nature Recovery Network for Oxfordshire,</b></p> <p>This project is being initiated by Wild Oxfordshire and the Oxfordshire Biodiversity Action Group and is being funded by the County Council. The project will identify and map a Nature Recovery Network for the County.</p>	<p><b>Status:</b> Initial funding secured. This is a partnership project being led by Wild Oxfordshire.  <b>VOWH Role:</b> Input to project being led by the Specialist Team in Planning</p>

<p><b>CIL Spending on Biodiversity/Green Infrastructure.</b></p> <p>The CIL Spending Strategy allocated 5% of CIL receipts to funding Biodiversity/Green Infrastructure projects.</p>	<p><b>Status:</b> Expressions of interest received, and initial project proposals being worked up for award of funding later in 2019.</p> <p><b>VOWH Role:</b> Spending proposals being developed in partnership between the Specialist Team in Planning and the Infrastructure Development Team to be considered at a future CEAC meeting</p>
<p><b>Didcot Garden Town (DGT)</b></p> <p>The DGT delivery plan outlines projects which help plan for the expected new growth of just over 15,000 new homes and 20,000 new jobs coming to the town and surrounding areas. Garden town status emphasises the importance of keeping areas of unique green space for everyone living in area. A garden town can attract new sustainable and smart technology that helps to reduce the impact on the environment and funding to help to improve connections between the town and local villages and the surrounding countryside. The Delivery Plan (DP) ensures that sustainability is embedded in every aspect of decision making</p> <p>Below details some of the DGT sustainability projects within the DGT DP:</p>	
<p><b>Projects to design and construct transport improvements including cycleways and pedestrian provision:</b></p> <ol style="list-style-type: none"> <li>1. Science Bridge and A4130 Capacity Improvement (DP project 15)</li> <li>2. Access to Culham Science Centre Phase 1 (DP project 18)</li> <li>3. New Thames Crossing (DP project 22)</li> </ol>	<p><b>Status:</b> Housing Infrastructure Funding (HIF) awarded. DGT DP identifies these as medium-term projects.</p> <p><b>Role:</b> DGT participation on design teams as a primary stakeholder</p>
<p><b>Feasibility Study for Sustainable Fuels (DP project 38)</b></p> <p>This project will carry out feasibility and costing for implementation of sustainable fuels for council fleet and local private fleet operators</p>	<p><b>Status:</b> Capacity funding (revenue) awarded from Homes England, subject to cabinet budget approval. DGT DP identifies this as a near-term project.</p> <p><b>Role:</b> To be coordinated through DGT team</p>

<p><b>Third Party Development for Housing Projects</b> (DP Project 62)</p> <p>This project, exploring the use of a third party to deliver the council owned 116-118 Broadway, may include requiring third party delivery models to demonstrate smart, tech and sustainable living features in house construction. The intent is to showcase homes that achieve net zero carbon emissions, low water uses and flexible living spaces that can respond to the changing needs of people over time.</p>	<p><b>Status:</b> Capacity funding (revenue) bid/request made to Homes England July 2019. DP identifies this as a medium-term project.</p> <p><b>Role:</b> To be coordinated through DGT team</p>
<p><b>Feasibility Study for Renewable Energy Sources</b> (DP project 26)</p> <p>This project will conduct a feasibility study, including costing, for installation of renewable energy sources for new build and retrofit housing, implementation would be largely by private developers.</p>	<p><b>Status:</b> Funding not sourced. Estimated cost £15,000. DGT DP identifies this as a near-term project.</p> <p><b>Role:</b> To be coordinated through DGT team</p>
<p><b>Feasibility study for combined Recycle and Reuse Hub in Didcot</b> (DP project 39)</p> <p>This project will carry out feasibility and costing for introduction of recycling centre combined with Reuse Shop and community initiatives.</p>	<p><b>Status:</b> Funding not sourced. Estimated cost £20,000. DGT DP identifies this as a near-term project. <b>Role:</b> To be coordinated through DGT team</p>
<p><b>Strategy for promotion of growing local food</b> (DP project 48)</p> <p>This project will produce a strategy to bring together initiatives for growing local food, from community groups, bio-science organisations and landowners to bring about a strategy for projects. Implementation would largely rely on non-governmental organisations.</p>	<p><b>Status:</b> Funding not sourced. Estimated cost £45,000. Further funding to support implementation by third parties may be required. DGT DP identifies this as a near-term project.</p> <p><b>Role:</b> To be coordinated through DGT team</p>

## 22. Business as Usual

On an ongoing basis the council seeks to achieve reductions in energy use and carbon emissions through the following routine activities:

- a. Energy and water saving specifications in routine capital works including leisure centre maintenance programme and public convenience upgrade projects

- b. Specification of contracts involving the use of buildings and vehicles, and tender evaluation
- c. Installation of energy efficient technologies, for example new LED stage lighting at the Beacon

### **Financial Implications**

- 23. There are no financial implications arising from the past achievements and activity described in this report. Current projects will go through their own formal approval processes where necessary, before any commitments are made.

### **Legal Implications**

- 24. There are no legal implications arising from the past achievements and activity described in this report. Current projects will go through their own formal approval processes where necessary, before any commitments are made.

### **Risks**

- 25. Risks associated with any existing projects described in this report will be noted in their relevant project documentation.