

CABINET
17 NOVEMBER 2016**ENERGY AND CARBON MANAGEMENT PLAN 2016-2021**

Relevant Cabinet Member

Mr A N Blagg

Relevant Officer

Director of Economy & Infrastructure

Recommendation

1. The Cabinet Member with Responsibility for Environment recommends that Cabinet approves:

(a) the implementation of the new Energy and Carbon Management Plan 2016-2021 set out in Appendix 1; and

(b) the proposed 20% reduction target in CO₂ emissions from the Council's operations and activities for which it is directly responsible from 2015/16 baseline by the end of March 2021 as set out in that plan.

Background

2. 'The Environment' is one of the Council's four key priorities in the current Corporate Plan 2013-17 and its proposed refresh, with progress being measured by a reduction in Greenhouse Gas emissions and increasing renewable and low carbon energy generation in the county. The Council itself has a large part to play in this through activity on its own estate. The Council's new draft Corporate Plan 2017-2022 notes the commitment to "*encourage and monitor responsible environmental performance by our suppliers and contractors*" and continuing to "*champion the use of appropriate renewable energies, with a focus on energy efficient schemes that make a positive contribution to the environment.*"

3. The Council has been actively addressing energy use for a number of years in order to save money and reduce carbon emissions arising from its activities and operations. It partnered with the Carbon Trust to develop the Council's first Carbon Management Plan in 2003.

4. In 2010, the Council partnered with the Carbon Trust again to produce the second Carbon Management Plan 2011-2016 and set an aspirational target to reduce CO₂ emissions from Council operations and activities by 30% by the end of March 2016, from a 2009/10 baseline. The plan focused on reducing emissions from Council buildings (including schools), street lighting, vehicle fleet, staff mileage and emissions from gas, electricity and fuel use from the Council's contractors for large outsourced services - highways and waste disposal.

5. Since the 2009/10 baseline year, the Council's CO₂ emissions have decreased by 23% and savings of just under £700,000 per year have been made through energy efficiency measures in Council buildings and street lighting. Alongside this, other initiatives are helping to reduce the Council's energy costs, including staff engagement, behaviour change campaigns and smarter energy monitoring.

6. Successful projects to reduce CO₂ emissions include:

- Replacement of street lights with LEDs and part-night switch off across the county
- Implementation of £2.3m Energy Efficiency Spend to Save fund across corporate sites and schools, including improved insulation, efficient lighting, voltage optimisation and installation of Solar Photovoltaic (PV) panels
- Better Use of Property asset rationalisation programme
- Installation of Automated Meter Reading (AMR)
- Internal Sustainability Champions scheme
- Staff communications around sustainability and energy efficiency
- Energy efficiency improvements in IT infrastructure
- Reduction in grey fleet (staff business mileage).

7. The new Energy and Carbon Management Plan 2016-2021 sets out the strategy to further reduce energy costs associated with the Council's operations and activities, which in turn will reduce carbon emissions.

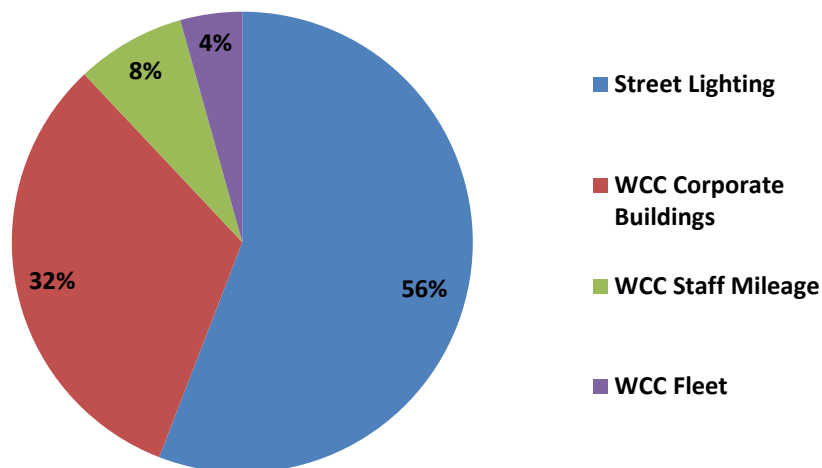
8. The key objectives of the new Energy and Carbon Management Plan are to:

- reduce the Council's overall energy consumption, and reduce the amount of money spent on energy bills and the carbon tax obligation under the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme
- reduce the Council's CO₂ emissions by 20% from the 2015/16 baseline
- develop renewable energy generation, where possible and affordable, to reduce our dependence upon fossil fuels, increase our resilience with regard to energy and fuel security, and generate additional income
- bring together existing and future carbon management projects for the Council's buildings portfolio, street lighting assets, fleet and other transportation activities into a coherent programme
- encourage cross-Directorate involvement in the identification of opportunities and the implementation of carbon management projects
- raise the sustainability profile of the Council and lead other organisations, businesses and residents in the county by example
- form part of the Council's broader Sustainability Action Plan
- support the ongoing delivery and implementation of the Worcestershire Climate Change Strategy
- support the objectives of the Environment Priority in the Council's Corporate Plan.

9. The scope for the new plan will include emissions for which the Council is directly responsible: Council owned buildings (excluding schools); non-school PFIs for which

the Council is responsible; Council owned fleet transport; street lighting, and Council staff and Members' business mileage (grey fleet).

10. In 2015/16, the Council emitted 18,105 tonnes CO₂ under the new scope of the plan:



11. The Energy Management Board proposes a CO₂ reduction target of 20% from 2015/16 baseline by the end of March 2021.

12. The first set of projects for implementation are detailed under the Energy and Carbon Management Projects Register in Appendix 2. These projects will, upon implementation, achieve a 9% reduction in emissions from the baseline – nearly half of the proposed 20% reduction target. The Energy Management Board will need to collate additional projects over the lifetime of the plan to achieve the final target. The target will be challenging, as many 'quick wins' in relation to energy and carbon reduction have already been achieved over the years the Council has been actively addressing this agenda.

13. The expected cost savings from the initial projects detailed under the new plan total approximately £116,000 per year, on top of the £700,000 per year already being saved through projects under the previous plan.

14. Projected cost savings that may be achieved through a 20% reduction in CO₂ emissions total approximately £240,000 per year, based on current energy prices.

15. The main funding stream for the plan will be the Council's internal Energy Efficiency Spend to Save programme. This fund has increased to £3 million following approval by Cabinet in September 2016 to invest a further £0.7 million into the programme.

16. The programme of energy efficiency spend to save works has been very successful; the scheme is self-financing with savings in energy budgets funding the cost of borrowing.

17. A total of 108 Spend to Save projects have so far been completed, 56 of which were solar PV projects. The Spend to Save projects are saving just over £300,000 per year, including income from the Government's Feed in Tariff Scheme (FiTs) - a total of £52,815 income was generated through FiTs from solar PV projects on Council properties (including schools) in 2015.

18. The Council's cross-directorate Energy Management Board, chaired by Councillor Anthony Blagg, meets on a quarterly basis. It has responsibility for overseeing delivery of energy and carbon-related activities and will take strategic ownership of the new plan to ensure effective governance. Any barriers or risks to progress will be escalated to the Board so they can act to address these and any other issues.

Legal, Financial and HR Implications

19. **Legal and Financial Implications** – The Council is mandated to participate in the Government's Carbon Reduction Commitment (CRC) Energy Efficiency Scheme and obliged to pay a tax on CO₂ emissions from gas and electricity use in corporate sites and electricity used by the street lighting portfolio. In 2015/16 the Council emitted 15,658 tonnes of CO₂ under the CRC Scheme and paid £252,094 in CRC tax. Each year, the cost of CRC allowances will increase in line with the Retail Price Index (RPI). There are significant civil and financial penalties associated with non-compliance with the CRC Scheme.

20. The Government has advised that the CRC will be scrapped in 2019 and will be replaced with an increase in Climate Change Levy (CCL) costs and the introduction of a new reporting regime, to be confirmed in due course. This means that although the CRC will come to an end, the Council will still be obliged to pay additional costs associated with its CO₂ emissions.

21. Future energy costs are set to increase due to rising international prices for fossil fuels, rising network charges and energy company operating costs. Over the 5 year lifetime of the plan, Government projections show energy prices may rise marginally for gas, but significantly for electricity - a projected 20% increase in unit costs of electricity. Any activity undertaken now to reduce the Council's outgoings on energy or to increase renewable energy generation on the corporate estate will ensure the Council is more resilient to these energy price rises in the future.

22. **HR Implications** – There are no HR implications arising directly from this report.

Privacy and Public Health Impact Assessments

23. There are no privacy implications arising directly from this report.

24. Public health impacts include:

- actively reducing CO₂ emissions will support the Government's objectives under the Climate Change Act (2008). Climate Change is resulting in increased extreme weather events such as flooding and heat waves, which can pose significant public health issues e.g. excess deaths associated with extreme summer temperatures; potential contamination risks from flooding (if sewage is present)

- improved local air quality linked with sustainable travel choices - in particular use of the electric vehicle (zero emissions) pool cars and courier van; adoption of eco driving techniques when staff use their own vehicles to reduce fuel consumption and tailpipe emissions
- air quality can have a significant effect on the health and well-being of residents and is worsened by high pressure (linked with higher temperatures) as pollutants remain at lower levels thus having a detrimental effect on the air that we breathe. This exacerbates existing health conditions such as respiratory illnesses
- sustainable building design and refurbishment of corporate sites will have clear links to the health and well-being of the occupants. Excellent insulation in residential properties in the Council's building portfolio (e.g. care homes) can help to reduce excess winter deaths.

Equality and Diversity Implications

25. An Equality Relevance Screening has been completed in respect of these recommendations. The screening did not identify any potential equality considerations requiring further consideration during implementation.

Supporting Information

- Appendix 1 - Proposed Energy and Carbon Management Plan 2016-2021
- Appendix 2 - Energy and Carbon Management Projects Register

Contact Points

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Background Papers

In the opinion of the proper officer (in this case the Director of Economy & Infrastructure) the following are the background papers relating to the subject matter of this report:

Agenda and background papers for the meeting of the Cabinet held on 29 September 2016