

HAMPSHIRE COUNTY COUNCIL

Report

Committee/Panel:	Buildings, Land and Procurement Panel
Date:	13 October 2020
Title:	Climate Change and Energy Programmes Update
Report From:	Director of Culture, Communities and Business Services

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Purpose of this Report

1. The purpose of this report is to update members of Buildings Land and Procurement Panel (BLaPP) on progress in relation to energy and carbon reduction programmes in the context of the declaration of a climate emergency by the County Council in 2019. It also explains that a much wider and inclusive approach is now required to measure the total carbon consumption based on the latest national benchmark guidance.

Recommendations

2. That progress on the energy and carbon reduction programmes be noted.
3. That the further reduction in the County Councils carbon emissions to 2020 in relation to corporate buildings, street lighting and officer travel of 3.4% contributing to a total reduction since 2010 of 46.7% be noted. This is well on track to meet the target of 50% by 2025 previously approved by the Executive Member.
4. That BLaPP note the new context in which the carbon and energy programmes now sit and support the research into measuring the wider carbon emissions of the built estate. Proposals for future programmes of work will be brought back to this panel for consideration in due course.
5. That BLaPP support the early work to define the challenge of achieving net zero carbon by 2050 in relation to the built estate in support of the County Councils commitments and in line with the Climate Change Strategy approved by Cabinet in September 2020.

Executive Summary

6. The County Council declared a Climate Emergency in June 2019 in support of the national government and in line with many other Local Authorities. This set two challenging targets for the Council and County area – to be carbon neutral by 2050 and to build resilience to a two degree rise in temperature. The Councils own built estate and property activities are a significant contributor to the emissions.
7. Since 2010 the focus of the Councils Property Services has been on the reduction of carbon emission in relation to our corporate buildings, street lighting and business travel through a range of Energy Performance Programmes (EPPs). These have been successful in achieving a reduction in the specific scope of 46.7% over the decade. This has translated to cumulative cost savings of £30m over this period (including schools in the first phase of the plan from 2010 to 2015).
8. Setting the target of carbon neutrality by 2050 across all the County Councils activities significantly increases the scope of the work and magnifies the challenge well beyond any previous programme. This report will explain the early work that is now underway to define the current total emissions across all activities in line with accepted national guidance on the metrics and definition of carbon. This now needs to include, for example, the schools estate, embedded carbon in construction and the emissions created off site by energy consumption. The scope of the previous carbon reduction programme will be absorbed into the new approach. To put this into context as the wider emissions come into scope, the previous carbon reduction programme was little more than 10% of the new required approach.
9. The scale of the task just to get accurate data on the total emissions should not be underestimated. Work has now been underway for many months to assess and capture this. The Carbon Trust have been commissioned by the Council to provide expert assistance and advice in collating and measuring the emissions from a wide range of sources. They have been working with Property Services to share methodologies and innovative ways of data capture to ensure a consistent and robust baseline is created. This is essential on which to base the evidence for the priorities of future phases of the programme and to create a long term plan to achieve the target.
10. The report contains an update on the Energy Performance Programmes and demonstrates that good, solid progress continues to be made. Work is ongoing on improving building performance, installing LED lights, measuring and procuring our energy efficiently and delivering renewable energy projects. This work has been funded by the County Council capital energy fund and the investment continues to be paid back over time by energy savings. External loan and grant funding have been leveraged through national initiatives like Salix.

11. The definition and data capture work are now progressing at speed and it is intended to report regularly to BLAPP on this subject in future meetings. It is also proposed to include a detailed presentation to members at a future meeting to enable more debate, discussion and Member input on this very important matter.

Climate Change Strategy – Energy and Infrastructure workstream

12. Phase 2 of the carbon reduction strategy (2015 to 2025) has concentrated on reducing carbon emissions from the corporate estate and business travel by officers, with good progress reported annually to this Panel. Following the County Council's Climate Change Emergency declaration of July 2019 and its adoption of the policy objectives of net-zero CO₂ emissions by 2050 and increased resilience to the impacts of a 2°C rise, this approach is now being widened in scope through a series of workstreams overseen by the Director of CCBS, under the County Council's Climate Change Strategy.
13. An 'Energy and Infrastructure' workstream has been established, covering all the County Council's freehold and leasehold land, buildings, highways and street lighting. In line with the internationally recognised Greenhouse Gas Protocol definitions, this workstream addresses the following emissions issues:
 - Scope 1: Direct CO₂ emissions from the heating of the corporate and schools' estate, together with the greenhouse gas emissions (methane and nitrous oxide) from the rural estate.
 - Scope 2: Indirect CO₂ emissions due to electricity consumption within the corporate and schools' estate and streetlighting.
 - Scope 3: Indirect CO₂ emissions embodied in the manufacture, transport and construction of the Council's building and highway works, together with those from the energy consumption of offsite digital data storage.
14. The total carbon emissions in scope for the Energy and Infrastructure workstream is currently estimated to be 125,000 tonnes and a very high level estimate for all three scope emissions is 200,000 tonnes. In particular the latter figure should be taken with some caution at this stage as measuring emissions that are indirectly created in the manufacture of products that we buy is challenging. The Director of CCBS will continue to undertake further research and engage with national experts like the Carbon Trust to refine the data.

15. In addition to emissions, the Energy and Infrastructure workstream will also attempt to measure and addresses the following climate change and sustainability issues:
16. The impact of climate change on the County Council's energy consumption, buildings and infrastructure arising from a potential 2°C rise and the adaptation measures required.
17. Nitrate effluent, potable water consumption, construction waste and loss of natural capital arising from the operation and development of the County Council's buildings and infrastructure.
18. Data is being collated on the above issues to establish a baseline 'State of the Estate' summary report, providing a wider and comprehensive context for the relative scale of the issues, current performance and the impact of investments made to date. Such rigorous, holistic, data-driven research is an essential foundation for the formation of a long-term strategic approach to the investment decisions that will be required over the next 30 years to reduce the County Council's CO₂ emissions to net-zero and address the impacts of the changing climate.
19. It is proposed to bring a summary of the 'State of the Estate' report to a future meeting of this panel in 2021. Initial progress to date indicates some key challenges and opportunities:
20. Embodied emissions from construction activity represent a significant proportion of the County Council's energy and infrastructure annual emissions. Establishing accurate data across several hundred contracts each year to measure progress on reducing these embodied emissions will be a necessary but very complex challenge.
21. With increasing progress in the 'greening' of the National Grid, reductions in the County Council's electrical consumption will have progressively less impact on its own carbon reduction in the future, potentially requiring a shift in focus to concentrate on other causes of emissions.
22. There may be potential to use the County Council's land and buildings to offset and sequester a proportion of its own carbon emissions.
23. In due course, the Scope 3 emissions of the Travel, Food, Product Lifecycle and Environment workstreams (other streams overseen by the Director of CCBS) will be added to those of Energy and Infrastructure to establish a complete CO₂ emissions summary of all the County Council's activities and the scale of the challenge and opportunities they represent to achieve a net-

zero carbon footprint by 2050.

Energy Programmes Activity & Update

24. Further good progress has been made in the 2019/20 “energy year” in reducing carbon emissions by 3.4% from street lighting and buildings in the corporate estate and business travel by officers. Emissions have reduced by 46.7% since 2010 and the County Council is on track to achieve the 50% reduction by 2025 if not earlier. The table below outlines the positive progress the County Council has made in the reduction of emissions in scope of the Carbon Management Plan agreed by Cabinet in July 2010.

Table of Carbon Emissions from 2010

Sector	2010 Emissions Tonnes	2015 Emissions Tonnes	2016 Emissions Tonnes	2017 Emissions Tonnes	2018 Emissions Tonnes	2019 Emissions Tonnes	2020 Emissions Tonnes	2025 Target Emissions
Corporate Buildings	21,000	19,060	16,829	16,830	16,425	14,928	13,772	
Street Lighting	26,600	17,558	13,450	12,119	11,560	11,234	10,717	
Officer Travel	6,600	4,889	4,534	4,605	4,420	4,555	4,395	
Total	54,200	41,507	34,813	33,554	32,405	30,717	28,884	27,100
% Reduction	-	-23.4%	-35.8%	-38.1%	-40.2%	-43.3%	-46.7%	-50.0%

25. 2018/19 was the final year of the nationally reported Carbon Reduction Commitment (CRC) scheme, which provided the method for calculating our carbon emissions year on year against the original base year of 2010. The base year factor had been used to calculate our carbon footprint each year to ensure our savings have been due to decreased consumption rather than just “cleaner” electricity generation.

26. The future reporting of the carbon emissions of the County Council will be reported in line with the Greenhouse Gas (GHG) reporting and will be widened to cover Scopes, 1 2 and 3 as part of the Climate Change Strategy. The national Carbon Reduction Commitment Phase 2 (2014/15) excluded the school estate from the carbon emission figures, but with the wider and more challenging climate change agenda at the forefront now our forward reporting will again include schools carbon reporting aligned with the Scopes 1, 2 & 3 criteria noted previously.

Energy Programmes Headlines

27. Below are some key highlights of progress on the Energy Performance Programmes that have been successfully running for some years. These have been and will continue to be reported to BLaPP but will need to be incorporated into the longer term strategy and action plan for the County Council approved by Cabinet in September this year.

- Energy Performance Programme 4 – LED Lighting – £1.62m programme nearing completion. Saving over £200,000 and around 600 tonnes of carbon.
- Energy Performance Programme 4, 5 & 6 for Electric Vehicle Charging Points (EVCP) have delivered Public EVCPs at Calshot Activities Centre, Country Parks and more are being delivered. The Central Southern Regional EVCP Framework is being used by 55 Contracting Authorities delivering EV infrastructure with 382 EV charge points installed to date and many more planned. HCC have installed 138 so far (126 fleet and 12 public) with more underway as part of a planned network to be in place to support business activities. The three Winchester Park and Rides car parks, Manor Farm and River Hamble Country Park and other locations are planned.
- Energy Performance Programme 5 – Battery Storage – a feasibility study has been undertaken and a pilot project planned.
- Energy Performance Programme 6 – The Salix Corporate Estate Decarbonisation fund is being set up and will focus on more LED lighting, Solar PV, and integrating energy saving works into maintenance programmes.
- Corporate Solar PV Programme – This £1m programme is complete. 38 Corporate Buildings have PV installed with the installation at Bar End warehouse in contract.
- Schools Energy Performance Programme continues to deliver energy cost reduction where 30 schools have already benefitted from LED lighting, and energy efficiency projects over the past 2 years saving £116,000 and 380 tonnes of carbon.
Schools PV – Schools continue to engage with Property Services for solutions to support Climate Change and carbon/energy reduction. Property Services energy team continue to engage with schools on the solutions for PV and have a business case prepared for a Schools Salix de-carbonisation fund
- The Property Services Energy Team continue to engage and share their expertise with other Local Authorities promoting best practice and enablement.

Energy & Utility Services.

Electricity & Gas

28. The Electricity and Gas contract for Hampshire County Council (HCC) and public sector partners has been re-procured and will commence in October 2020. The new contract provides the benefit of flexible purchasing of energy when the market is attractive. The contract also offers the provision of purchasing fully renewable Electrical Energy from sustainable generation sources to reduce Carbon.

29. The option and scheme for purchasing Electrical renewable energy is by use of a “Renewable Energy Guarantee of Origin” certificate (REGO). This evidences the energy used is from renewable sources only. This is a significant option as it provides the Council, Schools and Partners a facility to help achieving Carbon reduction targets.
30. The REGO cost premium it is very small and can be offset by savings achieved in the new contract flexible procurement. The HCC Corporate Estate REGO cost is £32k per annum against an annual cost of around £6.5m. For schools, the cost is £32.6k against an annual cost of £6.7m. The decision for changing to fully renewable energy using the REGO scheme for the Corporate Estate has been supported by the Climate Change Board for approval and announced by the Leader at Cabinet in September 2020. This is step made possible by the recent procurement of energy contracts which facilitate the purchase of carbon neutral electricity. Moving to carbon neutral space and water heating is much more challenging and it is hoped that the recent announcement of a national De-Carbonisation fund (referred to below) will provide an opportunity to secure funding for this. It should be noted that the carbon reduction as a result of purchasing REGOs represents around 5% of the total scope 1,2,3 emissions. More will be reported to a future meeting of the panel.

Energy Consultancy Services

31. The development of specialist energy & utilities consultancy has delivered significant efficiencies for the Council and tangible financial, and qualitative benefits which can be evidenced within this paper providing savings in excess of £2.5m as a result of astute forward purchase of energy etc. Additional qualitative benefits are in areas of supplier relationship management; contract rationalisation by combining fractional and legacy industry elements; improved invoicing and payment processes, improved understanding of energy markets; proactive support with external blue light partners and other Councils; and the opportunity for further savings, efficiencies as the markets change.

Liquid Fuels

32. The Heating Oil & Road Fuels framework contract is in the process of being re-procured for HCC and partners including Blue light services (refer to elsewhere on this agenda). This is a new generation framework and will include the provision of Biofuels such as Hydrogenated Vegetable Oils (HVO), which is considered a growing need for larger fleet vehicles where Electric Vehicles are not a viable alternative, and supports clean air and de-carbonisation of the Councils transport fleet. The contract for Liquid Petroleum Gas (LPG) has been extended for a further period to identify and develop efficiencies within the supply chain for the future contract procurement.

Water Services

33. Following deregulation of the commercial water industry HCC procured a new contract which amalgamated the eight existing water supply, and waste-water contracts into one inclusive contract. This provided efficiency and consistency in billing and payment, reduced contract administration and accurate water data. The contract further included a Hampshire wide water resilience strategy to ensure key Council services are supported in potential drought events.

Government Announcements

34. In July 2020 the Government announced £1bn grant funding to support “A Plan for Jobs 2020” which refers to the Governments 2017 Clean Growth Strategy³⁸ to support the Green recovery. The Public Sector Decarbonisation Scheme (Clean Growth Strategy), set out the government’s ambition to halve greenhouse gas emissions from the public sector by 2032. This scheme is targeted to fund both energy efficiency and low carbon heat upgrades which cannot easily be delivered within the existing Salix loan scheme’s criteria. The de-carbonisation grant aims to deliver funding for the more challenging initiatives within the public sector building environment. The fund strategy was announced in September 2020 through Salix Finance being a department of Business Enterprise & Industrial Strategy (BEIS). Bids are being compiled by Property Services for submission for both the Corporate and school’s estate to develop and deliver the opportunity.

Consultation and Equalities

35. At this stage consultation is limited to internal departments and functions as the response to the Climate Change Strategy is developed.
36. There is no current requirement for an Equalities Impact Assessment, but these will be done when programmes of work are defined that impact on service delivery or community involvement.

REQUIRED CORPORATE AND LEGAL INFORMATION:

Links to the Strategic Plan

Hampshire maintains strong and sustainable economic growth and prosperity:	Yes
People in Hampshire live safe, healthy and independent lives:	No
People in Hampshire enjoy a rich and diverse environment:	No
People in Hampshire enjoy being part of strong, inclusive communities:	No
OR	
This proposal does not link to the Strategic Plan but, nevertheless, requires a decision because:	

Section 100 D - Local Government Act 1972 - background documents

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

Document

Location

None