



RHONDDA CYNON TAF COUNTY BOROUGH COUNCIL

CLIMATE CHANGE CABINET STEERING GROUP

02 MARCH 2022

SUMMARY REPORT OF OUTCOMES IN RECENT YEARS

REPORT OF THE DIRECTOR OF CORPORATE ESTATES IN DISCUSSION WITH THE CABINET MEMBER FOR CORPORATE SERVICES

Author(s): David Powell, Director of Corporate Estates and Anthony Roberts, Head of Energy & Carbon Reduction.

1. PURPOSE OF THE REPORT

- 1.1 The purpose of the report is to provide an update to the Climate Change Cabinet Steering Group, with regards to the key environmental and energy outcomes achieved in recent years and highlight work underway on the development of renewable energy projects and certain other carbon reduction related issues.

2. RECOMMENDATIONS

It is recommended that:

- 2.1 The Steering Group Members read, comment on and acknowledge the contents of this report, as part of the ongoing work of the Climate Change Cabinet Steering Group.
- 2.2 Further reports are presented to the Steering Group in the future, providing further updates on achievements and progress.

3. REASONS FOR RECOMMENDATIONS

- 3.1 The contents of this report provide background information and key updates pertinent to the Climate Change Cabinet Steering Group. It provides an update on the key energy reduction achievements in recent years and provides further brief details on all the positive measures taken by the Council, in response to the Climate Change Agenda.

4. BACKGROUND

- 4.1 In RCT's Corporate Plan 2020-24, 'Making A Difference', the Council acknowledged that delivering on our Climate Change commitment is our greatest challenge. In our plan we committed to delivering priorities, all of which will contribute to and benefit from tackling climate change. The Climate Commitments set out in the plan underpin the work of the CCCSG and set priorities, and as such the content of this report seeks to record the good work undertaken so far, underline what we are doing now and set out what we need to do in the future.

5. WHAT HAVE WE DONE SO FAR ?

- 5.1 Rhondda Cynon Taf Council purchases 100% of its electrical energy supply from renewable energy sources and since 2009 the Council's commitment to carbon reduction has resulted in a total spend exceeding £9.6million in energy conservation projects up to FY' 2021/22. This focused approach has already produced reductions of around 40% of reported carbon emissions, in relation to our direct energy consumption, and has resulted in annual savings of around £2million per year for our Schools, Care Homes, Leisure Centres and Council Buildings (circa 7,000t., i.e.7,000 Metric Tonnes of CO₂).
- 5.2 All street lights in RCT (approx., 29,700) have already been converted to LED versions, or equivalent, and since 2016 this has resulted in an annual 84% reduction in the reported carbon (equivalent to 5,300t. per annum) by 2018/19.
- 5.3 The Council has installed 108 Solar Panel arrays across Schools and Corporate Buildings, a total already around 2MW and equivalent to 4 football fields in size. As part of an incentive scheme for solar installations, we currently receive approx. £120K in cashback every year and in addition to this we are also saving far more on our own energy costs, by generating our own energy thus reducing our offtake from 'Grid'.
- 5.4 In addition to item 5.3, and new for 2022, we have just completed our largest rooftop solar array project so far, at the Rhondda Fach Leisure Centre, rated at 150kWp, and work has just started on site to install an additional 200kWp array, at Ty Elai, which will take the total solar capacity at Ty Elai to 250kWp.
- 5.4 Apart from installing Combined Heating and Power Units (CHP's) at all our leisure centres with pools, we were one of the first Councils in Wales to install Hydrogen Fuel Cells and now have 21 such units installed in Leisure Centres, Schools and Offices, throughout RCT. We have also previously invested in 8 Biomass boilers, consuming sustainable wood pellets, producing clean energy 'in-situ' to heat some of our Schools.

- 5.5 To date, over 80% of the Council owned buildings have benefitted from an upgrade to more energy efficient lighting, mostly using LED technology, and additional controls have been afforded in many instances to fully optimise savings. Since 2010 the Council has invested some £4.4million on such initiatives, resulting in a savings of over 7million kWh (over 1,800t. of CO₂).
- 5.6 The Council has previously commissioned over 22 Voltage Optimisation units, mainly at very large consuming sites, producing on average around 10% in savings on their electricity bills.
- 5.7 Over 11,000t. of food waste is collected from RCT households every year & recycled at the Biogen site where it is converted into energy, enough to power the equivalent of over 1,000 homes (further information on the work of AMGEN at Bryn Pica and other sites, is included in Appendix A).
- 5.8 In October 2020, a report on the results of an in-depth audit on high use single use plastics were presented, which focused on the Council's food and catering sector. Following this review, some immediate steps were taken, with further analysis and progress undertaken in other areas. Given the desire to achieve a sustainable approach to the Council's supplies, the review then broadened to include other single use items (i.e. not just plastics) where a more sustainable alternative could be sourced, and this subject area is covered 'in depth' in a separate report, brought forward by the Head of Procurement today.
- 5.9 Through various Government grant schemes, the Council has enabled many residents on low incomes to improve the heat insulation in their own homes, working with Housing Associations and other partners. The Housing Strategy Team introduced the 'Arbed am Byth' scheme in Penrhiwceiber, which has recently helped 113 homes out of fuel poverty, by helping facilitate a range of new efficient energy measures (further information on this work is included in Appendix B).
- 5.10 RCTCBC has declared that all new Schools and other Council buildings are to be certified as BREEAM "Very Good" or "Excellent" with EPC ratings of A, including the recent opening of a new low carbon Primary School building in Hirwaun.
- 5.11 The Council has been working with partners across South-East Wales to ensure there is a joined-up approach to tackling Climate Change and this includes working with the ten councils in the Cardiff Capital Region to develop sustainable transport options across the area including the South Wales Metro, trialling Electric Vehicle taxis and buses, with further plans to install Electric Vehicle charging points at major car parks. The Council has already invested in park and ride facilities across the County Borough to help get people out of their car and onto the train/metro. A good example of this is the new transport hub being built in Porth that connects bus and rail transport to make it easier to travel by public transport.

- 5.12 Delivering the Carbon Reduction Programme during the period of the pandemic has been challenging. However, despite this, during 2021/22:
- We have installed LED lighting upgrades at 10 sites.
 - Delivered our largest solar PV installations installed to date at Tonyrefail, Rhondda Fach Leisure and Ty Elai Offices, totalling 400kWp as an addition to our solar portfolio.
 - We have continued to develop water saving measures by installing telemetry devices to our Leisure Centre water meters to provide consumption monitoring features.
 - Tonyrefail Leisure Centre has seen an upgrade to its air handling unit, including heat recovery, and pool covers have been installed at Rhondda Sports Centre and Bronwydd Pool.
 - We have continued to explore the potential of exciting new technology with support from the Welsh Government's Smart Living through their WBRID decarbonisation studies and have been working closely with the Welsh Government Energy Service, scoping and modelling larger renewable energy projects, which are mentioned in further detail later in the report.
- 5.13 Through planning agreements with windfarm developers, hundreds of hectares of peat and associated habitats have been targeted for restoration and their carbon and water storage has been increased, where they have the potential to store much higher amounts of carbon than trees, for any given area of land. We have also invested in the Healthy Hillides project with Welsh Government and the Fire Service, with benefits for carbon reduction, biodiversity and air quality.
- 5.14 The RCT Carbon Footprint Project commenced in conjunction with Carbon Trust in January 2021 and produced a report on RCT Council Emissions for the Financial Year 2019/20, finalised in April 2021. This report gave a comprehensive analysis of the RCT Carbon Footprint for 2019/20. Following the completion of the 2019/20 Carbon Footprint, it was agreed to establish the RCT Carbon Footprint for the Financial Year 2020/21. This exercise commenced in July 2021 and a further comprehensive report on the RCT Carbon Footprint for the Financial Year 2020/21 was finalised in September 2021.
- 5.15 During the Council's progress of the Carbon Footprint project, Welsh Government published its Welsh Public Sector Net Zero Carbon Reporting Guide in May 2021 and subsequently clarified the reporting guidance in September 2021. The Welsh Government Carbon Reporting requirement was then that both FY'2019/20 and FY'2020/21 needed to be reported by 31st October 2021, and this target was achieved by RCT.
- 5.16 A system of corporate governance and reporting has been set up, involving a structure of sub-groups and a main working-group, to help develop and support the work of the CCCSG, and more details of this are provided later in the report and in Appendix C.

- 5.17 The Council has recently published its Electrical Vehicle Charging Strategy which was a substantial element of work prepared under the umbrella of the 'Transportation & EV Charging' sub-group, reporting to the CCCSG.
- 5.18 The Council has undertaken several trials of electric vehicles to assess their suitability for purpose, with varying results. Recently, in late 2021, 1 RCV, 2 Large Vans & 2 Small vans were trialled over a short period. The RCV was found to operate acceptably on the flat, however some serious issues were noted when used on hillier terrain. The vans were found to be quite satisfactory in operation.

6. WHAT ARE WE DOING NOW ?

- 6.1 A new Carbon Reduction Programme for FY'2022/23 is in the final stages of approval. The proposed programme has been developed to continue the LED lighting upgrade work and will include a particular focus on solar arrays for the Education portfolio. Work will also continue installing telemetry for water meters and heat saving measures, and we will be also exploring the potential of 'mine water' heat recovery to power heat networks.
- 6.2 At Taffs Well we are installing water source heat pumps to utilise geothermal heat from Wales' only 'Thermal Spring'. Plans are in place to provide a low carbon heating solution for a new school extension block and sports pavilion, with an estimated annual carbon saving of around 17t., and scheduled for completion in early/mid 2022. When complete it is hoped that the lessons learned during this project will act as 'stepping-stones' to future larger heat recovery networks, involving 'mine water', at targeted locations within the County Borough, or in partnership with adjacent authorities.
- 6.3 RCTCBC is already on course to meet the Welsh Government's recycling target of 70% for 2025 and we have Increased our recycling target to 80% by 2025, the only Council in Wales to do so.
- 6.4 The Council has invested in a world leading automated recycling plant at Bryn Pica that has improved the Council's recycling rates and is exploring the option of using the energy generated from the anaerobic digestion plant (Biogen site) to breakdown hard plastics and manufacture alternative products at source. This will eliminate the transfer of the plastic to processing plants and it will create local employment (further information on the work of AMGEN at Bryn Pica and other sites, is included in Appendix 'A').
- 6.5 The Council's Officers are now working, across service areas, to warrant that all future schools are to be elevated above the previously required 'Excellent' BREEAM ratings" to meet the requisite 'Net Zero Carbon - in operation' standard, which aims to further the Council's own carbon neutral objectives, looking towards 2030. EV chargers are also being

introduced to 10% of parking spaces in all new school developments, with a further commitment to allow 'passive infrastructure' for a further equivalent increase, when needed.

- 6.6 Plans are well underway for the development of a 'Land Based Solar Farm' (LBSF), to be located on Council owned land. The facility will, when constructed, be an asset owned and operated by Rhondda Cynon Taf County Borough Council. The project, if realised, has the potential to 'offset' over 1,500t. of carbon per-annum and approaching 54,000t. over the expected lifecycle of the project, and will take the Council's portfolio of renewable energy potential from Solar over the 8MWp threshold. There is also a further feasibility study taking place to develop a second 3MW 'LBSF' at a second site, in an initiative being driven by AMGEN (again - please refer to Appendix 'A').
- 6.7 The Council has been successful in obtaining two grid connections from WPD in pursuit of its aspirations to generate wind energy, one for 4.2MW at 11kV and a second for 6MW at 33kV. Discussions are underway with several wind farm developers, who have plans to construct turbines on land adjoining to that owned by the Council. Respective grid connection offers, of both parties, are currently being discussed in detail with WPD, with some assistance from the developers, to determine usage details and the potential levels of curtailment. The outcome of these discussions will have a major bearing on the future size and shape of the potential projects, and we remain optimistic that the Council will own substantial wind generation capacity in the near to mid-term.
- 6.8 A specialist company has been engaged to reconsider the previous feasibility study (circa 2010) for a potential hydro-electric scheme at Treforest Weir. The outcome of this review is due in mid to late February 2022. The team have also engaged a specialist company to provide a detailed study of the previously published Dare Valley Country Park proposals. This review report has now been received and is in the process of internal review, however the early indications are that we may have a viable project to bring forward. Further reviews of other potential 'Hydro' opportunities are planned for the near future.
- 6.9 We have some amazing biodiversity work going on all around the County Borough to make the most of our amazing valleys and mountains. We are exploring how trees and peatbogs can be used to capture and store carbon. These include a range of 'Living Landscape' projects, ongoing across RCT, from Dare Valley and Clydach Vale Country Parks, to 'Trees for Parks', to 'Green Roof Classrooms', to community growing areas. Tree planting has increased to around 1,200 within the Council's scheme, this FY' and the Council has commissioned a study of our Peatlands with a view to bringing back some 700ha of peatland to good condition, to prevent any further release of carbon.
- 6.10 A number of 'Active Travel' routes have already been established in RCT such as the Taff Trail, Church Village Community Route and Cynon Trail. The focus is now on improving this network, and to develop new routes

that improve connectivity and serve key local facilities such as schools, colleges, places of employment and shops. The Metro will help with this. There will be space for bikes and more regular services in the evenings and on weekends for people to travel in and out of the County Borough.

- 6.11 The Amgen Board have instructed Officers to add additional decarbonisation aims and objectives into the Company business plan. The Board have set a target to source 80% of energy, used in the recycling and sorting process, from renewable energy by 2025 (please refer to Appendix 'A').
- 6.12 Changes to the way we deliver goods and services are being put in place by the Procurement Service, to reinforce the Council's direction of travel, in support of its carbon neutral ambitions. Further details and a summary of these actions are provided in a separate report, brought forward by the Head of Procurement today.

7. **LOOKING FORWARD.**

- 7.1 Appendix 'C' illustrates the governance and reporting structure we have set up for sub-groups and a main working-group, to help deliver actions, measure progress and obtain support for future workstreams, all on behalf of the CCCSG. We have already identified and set up sub-groups for Community Engagement and Comms, Transportation (including EV), Natures Assets, Built Assets & Construction, Energy Generation Projects and our Carbon Footprint. The work of the sub-groups is dynamic and will respond to changing demands. Likewise, the attendees of the sub-groups will also change, based upon the scope of work being delivered at any one time.
- 7.2 Work is about to start on developing the content and conclusions of the Insights and Recommendations report provided by the Carbon Trust in support of the RCT Carbon Footprint Project undertaken during 2021. The next stage of developing the contents of the Insights and Recommendations report into a full-blown Decarbonisation Plan (DP) will be one of the priorities of the Council during 2022/23, the outcomes of which will be used to guide future policy direction and activities in this area.
- 7.3 The DP is just one component part of the wider the Climate Change Strategy. This huge and crucial piece of work looks at the complete picture across the entire County Borough. This plan will be a framework to guide us and shape what we do to reduce both the Council's carbon footprint and that of the wider County Borough, learning from best practice, eliminating barriers, and strengthening our data arrangements, so that we are better able to challenge and demonstrate our progress. Much of the work in this plan is reflected and aligned to other plans, strategies, and policies, across the Council. The plan will work in tandem with the Welsh Government's Delivery Plan for a 'Low Carbon Wales'.

- 7.4 Now the Council has published its Electrical Vehicle Charging Strategy, the 'Transportation & EV Charging' sub-group has now moved on to the next stage and is in the process of compiling an Implementation Plan, which will provide a road map to people and organisations aspiring to provide EVC infrastructure. Included in the document will be an Action Plan to help drive future decisions under the influence of the Council and ensure that we can measure our progress, as an organisation, moving forward.
- 7.5 Working with the Cardiff Capital Region, 2022 will see the further roll out of Electric Vehicle charging points at around 30 off-street locations across RCT. The Council will also be assessing further locations for expansion of these facilities, in accordance with the requirements and targets within the Action Plan, when published.
- 7.6 The Council will continue to work in partnership with like-minded organisations such as the Welsh Local Gov't Assoc', Welsh Gov't Energy Service, CLAW, Cwm Taff UHB, Cardiff Capital Region, Office for Low Emission Vehicles (OLEV), National Resources Wales, etc. in order to pool resources, share ideas and partake in collaborative working ventures, etc., all in the collective effort to reduce all carbon consumed and achieve our carbon neutral objectives.
- 7.7 Staff training will be essential to raise awareness further, across all service areas. This will help facilitate and promote behavioural change, whilst giving officers the knowledge and tools that they need to take responsibility for their own carbon footprint, and that of their service area. Also, the recruitment of accomplished staff, plus the thriving programme of recruiting talented graduates, will be key factors in our success moving forward.
- 7.8 A 'Green Space' has been created in Teams, the aim of which is to provide staff with the opportunity to discuss climate change issues and share suggestions on how to reduce their carbon impact. From time to time, members of the 'Green Space' will also be invited to participate as a member of a virtual panel to engage with the Council on climate related projects and work programmes. The objective is that once established, the 'Green Space' will be managed by its members. The 'Green Space', and the whole approach is a pilot, and will be reviewed at the end of August.
- 7.9 The Council have applied to the WGES for grant funding to assist with the cost of replacing existing diesel fleet vehicles with ULEV versions. The application was submitted in mid-December and officers are hopeful that a positive decision will be forthcoming soon. As mentioned briefly earlier, the WLGA have also provided £350k of grant funding to assist the Council in meeting the charging needs of any future EV's that will become part of the fleet during FY'2022/23 and beyond.

8. EQUALITY AND DIVERSITY IMPLICATIONS / SOCIO-ECONOMIC DUTY

- 8.1 This supporting report is for the purpose of update and consequently an Equality Impact Assessment is not required with regard to this report.

9. WELSH LANGUAGE IMPLICATIONS

- 9.1 This supporting report is for the purpose of update and consequently Welsh Language Impact Assessment is not required with regard to this report, however a copy can be made available in Welsh if requested.

10. CONSULTATION / INVOLVEMENT

- 10.1 There are no consultation requirements at present with regards to this supporting report.

11. FINANCIAL IMPLICATION(S)

- 11.1 All existing 'live' projects are currently funded through relevant cost centres and an existing enabling budget so there are no further financial implications aligned to this interim report.

11. LEGAL IMPLICATIONS OR LEGISLATION CONSIDERED

- 11.1 There are no legal implications aligned to this report

12. LINKS TO THE CORPORATE AND NATIONAL PRIORITIES AND THE WELL-BEING OF FUTURE GENERATIONS ACT.

- 12.1 The Council has committed to becoming a Carbon Neutral Council by 2030 and to work with residents and businesses to ensure the whole County Borough is Carbon Neutral, as close as possible to the 2030 target. This supports the priorities of the Council's Corporate Plan 2020-24 "Making a Difference".
- 12.2 The work set out in this report reflects the Sustainable Development principle of the 'Well-being of Future Generations Act', meeting present needs without comprising the ability of future generations to meet theirs. The work described within the report will contribute to all seven national Well-being goals, with more immediate direct contributions to a Globally Responsible Wales, a more Resilient Wales, a Healthy Wales and a Wales of Cohesive Communities.

13. CONCLUSION

- 13.1 This report provides background information pertinent to the Climate Change Cabinet Steering Group. It provides brief information on the achievements of the Council, to date, and the significant contributions already made towards the Council achieving its Carbon neutral targets. It also provides key updates on some other associated strategies and plans to reduce the Council's wider carbon impact.

Contact Officers: David Powell 01443 424144 and
 Anthony Roberts 01443 281146

Appendix 'A'

- Amgen Update.

Appendix 'B'

- Housing Strategy Team Update.

Appendix 'C'

- 'CCCSG', Organogram of Governance.
-