



CABINET - 14TH JUNE 2023

SUBJECT: UPDATE ON DECARBONISATION ACTION PLAN AND PROPOSED FUTURE APPROACH

REPORT BY: CORPORATE DIRECTOR FOR ECONOMY AND ENVIRONMENT

1. PURPOSE OF REPORT

- 1.1 To provide Cabinet with an update on the work undertaken to deliver the actions set out in the Decarbonisation Action Plan.
- 1.2 To seek Cabinet approval of the recommendations on the next steps towards achieving our target to be net zero carbon by 2030.

2. SUMMARY

- 2.1 In June 2019 Caerphilly County Borough Council (CCBC) declared a Climate Emergency and committed to 'making Caerphilly County Borough Council a net zero carbon local authority by 2030'.
- 2.2 A Decarbonisation Strategy and accompanying Action Plan, containing 122 actions was approved in November 2020. A Decarbonisation Team was appointed in 2022.
- 2.3 Updates have been provided for each of the actions, and an assessment of progress against each action has been undertaken. Of the 122 actions:
 - 9 have been completed,
 - 27 are making good progress,
 - 30 are making reasonable progress,
 - 44 have started but it is too early to report on progress,
 - 3 have started but not progressing well
 - 9 have not yet started

A full update of all the actions and their assessed progress is attached as Appendix 1.

- 2.4 Over half of the 122 actions are either complete, or at least reasonable progress has been made. Some of the corporate and cross cutting actions are behind schedule due to the gap between the approval of the Action Plan and the appointment of the dedicated Decarbonisation Team. Very good progress has been made against some important specific actions. The authority now has a much better understanding of the scale of the challenge ahead, and it is clear that a step change and acceleration is required for the organisation to reach the 2030 targets.

- 2.5 Carbon baseline data has been submitted through the Welsh Public Sector Net Zero Carbon Reporting Scheme. Following an analysis of current progress, 9 recommendations have been made to enable the authority to meet the milestones set for 2026 in the Welsh Government route map for Decarbonisation across the Welsh public sector. These recommendations include the establishment of carbon budgets, the establishment of 4 working groups, and specific recommendations on renewable energy production, carbon offsetting and tackling supply chain emissions.

3. RECOMMENDATIONS

- 3.1 That Cabinet notes the progress made to date on the actions set out in the Decarbonisation Action Plan

- 3.2 That Cabinet considers the 10 recommendations set out below.

Recommendation 1: That the CCBC Decarbonisation Action Plan is reviewed and updated to focus on the 2030 organisational requirements, to align with the WG route map and timeframes, and that a separate action plan for the county borough as a whole in accordance with the 2050 targets, is developed and considered.

Recommendation 2: That each Directorate and Service area is given a copy of their carbon baseline, and that during 2023/24 financial year work is done to support them to fully understand and analyse those emissions and to identify priority areas for reduction.

Recommendation 3: That from 2024/25 carbon budgets, with identified reduction targets, are agreed with CMT for each service area, and reported via Directorate Performance Assessments.

Recommendation 4: That a working group for each of the 4 pillars of Reduce, Produce, Offset and Buy is established to co-ordinate the work on each area.

Recommendation 5: That the following 5 corporate commitments are agreed:

- Net zero carbon considerations should be included in all major decisions as part of the Integrated Impact Assessment process
- All new corporate buildings and schools will be designed to net zero carbon standards where possible.
- All new heating systems will transition to low carbon heat with appropriate insulation upgrades where possible with fossil fuels will be used only as a last resort
- A low carbon travel hierarchy should be developed and implemented for business travel which accelerates the transition to low carbon transport.
- We will aim to plant 300,000 new trees before 2030 where land availability allows.

Recommendation 6: That a programme of skills development, awareness raising and behaviour change is developed alongside detailed support for specific roles, including technical knowledge

Recommendation 7: That we continue our work to develop specific renewable energy projects that contribute to our overall programme.

Recommendation 8: That detailed land mapping and evaluation is undertaken to

protect existing habitats and to identify land for tree planting. Further work should be undertaken to assess the feasibility of a potential Caerphilly Forest programme and the potential for growing our own trees.

Recommendation 9: That low-carbon procurement policies be embedded through procurement frameworks forming a key part of cost-benefit analysis and contract appraisal. Suppliers and services are challenged to identify and make significant supply chain emissions reductions.

Recommendation 10: That progress is monitored and evaluated on an annual basis with key metrics to be agreed with individual services and included in an Annual Decarbonisation Report prepared each November.

4. REASONS FOR THE RECOMMENDATIONS

- 4.1 To contribute to the Council's commitment to become net zero carbon by 2030.

5. THE REPORT

- 5.1 In June 2019 Caerphilly County Borough Council (CCBC) declared a Climate Emergency and committed to making CCBC a net zero carbon local authority by 2030. In working to achieve this objective, a Decarbonisation Strategy was agreed in November 2020, along with an accompanying Action Plan containing 122 actions.
- 5.2 The Strategy and Action Plan were structured on four pillars with an overarching section on corporate or cross-cutting actions. The pillars are:
- **Reduce** - Focussing on reducing the amount of energy we use through good housekeeping, changing behaviour and capital investment including insulation, low energy lighting or more efficient heating systems.
 - **Produce** - Generating our own 'green' electricity and heat through technologies such as photovoltaic systems or solar thermal.
 - **Offset** - Offsetting any carbon emissions through habitat management or tree planting.
 - **Buy** - Everything we purchase has embedded carbon associated with it and this will need to be considered in the procurement process
- 5.3 In 2022 approval was given to put in place a new Decarbonisation Team of four officers with the specific aim of leading and driving the decarbonisation work. This Team is now in place.
- 5.4 The initial tasks for the new team were to submit carbon baseline data through the Welsh Public Sector Net Zero Carbon Reporting Scheme, to assess the work done to date, and to make recommendations on the next actions required to enable the authority to achieve its target of being net zero carbon by 2030. This report is therefore split into two elements, firstly looking back to assess progress on the 122 actions included in the Action Plan, and secondly looking forward and making recommendations on the proposed future approach.

Update on the Decarbonisation Action Plan

- 5.5 As part of the review of the 122 actions, the services responsible for each action were

contacted to provide and update on progress against their actions. Following that the Decarbonisation Team ranked progress against each action. The total number of actions against each heading were ranked as follows:

- 9 have been completed,
- 27 are making good progress,
- 30 are making reasonable progress,
- 44 have started but it is too early to report on progress,
- 3 have started but not progressing well
- 9 have not yet started

A full update of all the actions is attached as Appendix 1.

- 5.6 Whilst the key corporate action of submitting carbon baseline data through the Welsh Public Sector Net Zero Carbon Reporting Scheme was achieved on time, the majority of the corporate/cross cutting actions were rated as “started but too early to report progress”. The gap between the approval of the Strategy and Action Plan, and putting in place a dedicated Decarbonisation Team has delayed some corporate and cross cutting actions being delivered. Now that the Decarbonisation Team is in place it is anticipated that the pace will be increased, particularly with the key actions around engaging with staff, raising awareness, delivering carbon literacy education sessions, and building relationships key partners.
- 5.7 The authority first submitted baseline data to Welsh Government for the reporting year 2019/20. There have been some fluctuations in the figures reported, mainly due to difficulties with obtaining accurate data and changes to reporting methodology and scope of emissions. This means that making comparisons on progress over these years compared to 2021/22 is not possible, however the reporting methodology and data is now more consistent and it should hopefully be possible to make meaningful comparisons in future years.
- 5.8 For the reporting year 2021/22 Caerphilly CBC reported an emissions total of 101,677,791 kg CO₂e (22,560,205 kg CO₂e operational emissions plus 79,117,586 kgCO₂e supply emissions). This was offset by -7,420,489 kgCO₂e through our land use, giving a submitted carbon emissions figure of 94,257,302 kgCO₂e (or 94,257tCO₂e).
- 5.9 The “Reduce” section of the Action Plan has the most listed actions, with 55, in the Action Plan. This division of actions is consistent with the aims of the Strategy and decarbonisation, with direct emissions reduction being central to any decarbonisation agenda. Thirty-seven of the actions have either been completed or are making at least reasonable progress. Reducing emissions from our corporate non-domestic buildings and street lighting are examples where very good progress has been made. Business travel or grey fleet emissions (the emissions resulting from the miles travelled by employees, during work time, in their own vehicles) have reduced significantly, primarily due to changes in the way that we operate as the result of COVID-19.
- 5.10 Of the 20 actions in the “Produce” section of the Action Plan, 8 are making good or reasonable progress. Fifty-three of our schools now have photo-voltaic (PV) systems installed. The Cwm Ifor solar farm project, a 20MW solar farm development is progressing well with the submission of a planning application anticipated early in 2023. If we progress with an ownership stake in the project it will be the largest local authority owned solar farm in Wales and will generate enough electricity to power around 6,000 homes.

- 5.11 Of the 24 actions in the “Offset” section, 10 are making at least reasonable progress. Over 34,000 trees were planted in the 2021/22 planting season at Ynys Hywel Farm forming part of a Covid Memorial Woodland – one of three across Wales.
- 5.12 Of the 11 actions in the “Buy” section of the Action Plan, 1 is complete and a further 7 are making good or reasonable progress. This is an important area, with 80% of the authority’s emissions related to the goods and services that we procure.
- 5.13 In total just over half of the 122 actions are either complete or are making at least reasonable progress. Some of the actions are either medium or long-term so significant progress will not have been expected yet. Very good progress has been made with some service area specific projects. Overall progress has been rated as reasonable, but a step up in scale and pace will be required to achieve the net zero carbon target by 2030.
- 5.14 The CCBC Decarbonisation Strategy and Action Plan were developed and agreed before Welsh Government (WG) published their Net Zero Carbon Reporting Scheme, , or aspirational target for net zero for all emissions (including businesses and residents) by 2050. The analysis of the baseline reporting data has also given us a better understanding of where our emissions come from and therefore our priority areas for action.
- 5.15 WG have also more recently published their “Net Zero Carbon Status by 2030 – A Route Map for Decarbonisation across the Welsh public sector”. This provides a strategic overview of the key priority areas for action and milestones needed for the Welsh public sector to reach net zero greenhouse gas emissions by 2030. The route map sets expectations to be achieved between now and 2026 for us to be on track to achieve the 2030 targets.

Looking Forward – Proposed approach to decarbonisation

- 5.16 The proposed approach to decarbonisation across the authority will be based on the 4 pillars of reduce, produce, offset and buy as set out in the Decarbonisation Strategy and summarised in section 5.2. A key first element will be to for service areas to understand the carbon emissions that they are responsible for, and for them to take ownership of these emissions and responsibility for their reduction. Central corporate support will be provided and co-ordinated by the Decarbonisation Team.
- 5.17 Around 20% of our emissions are “operational” emissions such as diesel used to fuel our vehicles or gas and electricity used in our buildings or street lighting. We have direct control over our operational emissions, and these are considered to be the key emissions for us to tackle as a key priority, with becoming net zero carbon on our operational emissions a key primary target.
- 5.18 The largest proportion (approximately 80%) of our emissions are identified as “supply chain” emissions resulting from the goods and services that we procure. These emissions will be much harder to reduce as they relate to the embedded carbon in the materials that we buy or the emissions of our suppliers. We must look to purchase materials with lower embedded carbon and influence our suppliers to reduce their emissions. However, it must be understood that we will still need to purchase goods and services, for example to construct new schools and to deliver social care etc so there will be considerable emissions related to this that we will not be able to eliminate.

- 5.19 An analysis of data submitted to the Welsh Government to calculate the 2021/22 carbon report has been undertaken. This has enabled us to identify the emissions for each service area against the reporting categories in the WG report, both operational and supply chain. This has enabled us to produce detailed carbon baseline data for each of the 16 service areas across all emissions and offsetting.
- 5.20 It is considered to be a key element in reducing our emissions that we have a detailed understanding of where they are from, and that those responsible for the emissions are also responsible for driving the reductions. In line with the stages set out in the WG route map it is proposed that each service area is given a detailed breakdown of its emissions in the same format as the organisation reports to WG. Support will then be provided to enable them to fully understand their emissions.
- 5.21 The proposed next stage is to use the baseline data to allocate a 'carbon budget' for each service area, in the same way that they would have a financial budget. The objective of this exercise is to empower each service area to take ownership of their carbon emissions and to develop robust action plans to reduce those emissions.
- 5.22 Allocating carbon budgets, with reduction targets will present varying degrees of difficulty for each service area. The emissions from some services are less avoidable than others, and some have more opportunities to offset than others. With supply chain emissions being hard to reduce, the primary focus, initially will be on operational emissions. It is proposed that the carbon budgets are reported as part of the Directorate Performance Assessments.
- 5.23 With the Decarbonisation Strategy being structured around four pillars: Reduce, Produce, Offset and Buy, it is proposed to establish working groups for each of these 4 areas. The working groups will enable the Decarbonisation Team to effectively coordinate actions, share best practices and drive forward projects to accelerate the decarbonisation of the organisation in line with our strategy goals.
- 5.24 To drive progress it will be important to provide direction on specific areas by setting corporate principles and commitment. The following commitments will drive progress:
- Net zero carbon considerations should be included in all major decisions as part of the Integrated Impact Assessment process
 - All new corporate buildings and schools will be designed to net zero carbon standards
 - All new heating system will transition to low carbon heat with appropriate insulation upgrades where possible with fossil fuels used only as a last resort
 - A low carbon travel hierarchy to be implemented for business travel which accelerates the transition to low carbon transport.
 - We will aim to plant 300,000 trees where land availability allows between November 2020, when the Decarbonisation Strategy was agreed, and November 2030. While this target seems challenging, we are currently in the process of developing a register of trees planted. By the end of April 2023, we will have planted around 80,000 trees. The 5 phases of planting at Ynys Hywel will account for 100,000 trees. Housing have also identified 10 potential sites totalling around 25 hectares. Trees are planted at 1m spacings so if suitable this land could accommodate a further 250,000 trees. We will also be embarking on a similar process to identify suitable land with other services with significant opportunities in Parks and Countryside.
- 5.25 Building knowledge, understanding, and skills, including raising awareness of

decarbonisation issues will be vital in mobilising employees across the authority to play their part in delivering the Decarbonisation Strategy. Both general awareness raising and bespoke training for specific roles and tasks will be required. There will also be a need to increase technical knowledge and expertise in renewable energy and carbon reduction technology and processes.

- 5.26 Renewable energy production should be an important element of our decarbonisation approach. Specific schemes in development which should continue to be supported are:
- Cwm lfor – 20MW solar Farm near Caerphilly which has the potential to generate enough green energy to power around 6,000 homes.
 - Hydrogen – Green hydrogen is seen as an increasingly important element of the decarbonisation programme and bids have been submitted to undertake feasibility studies to inform decisions on its generation and use.
 - The installation of photovoltaic (PV) schemes in suitable locations on our estate.
 - Other schemes are also being considered and developed, including wind power and green heat schemes.
- 5.27 To be net carbon zero, any emissions which cannot be eliminated will need to be offset. There are two principal ways that this can be done, carbon sequestration (capturing carbon usually by planting trees or by habitat management) or by purchasing carbon units/offsetting credits. Sequestration should be the primary option. Service areas with high land ownership will need to review land assets to identify opportunities for offsetting emissions through tree planting, improved land management and carbon sink habitats.
- 5.28 The supply of the quantities of locally sourced native trees is likely to be an issue and therefore partnership opportunities to develop our own tree nurseries are being investigated.
- 5.29 Supply chain emissions accounted for around 80% of CCBC carbon emissions and, in order to achieve Net Zero, a closer focus will be needed on supply chain emissions. Strategies to reduce emissions within each service area will be a key element of this work, with robust low carbon procurement policies enacted to ensure contracts are appraised in terms of their sustainability credentials and carbon emissions. Within the supply chain the largest emitters reported by CCBC in 2021/22 were:
- Social Care; 21,331,517 kgCO₂e.
 - Construction; 16,857,359 kgCO₂e
 - Computer, electronic and optical products; 10,395,000 kgCO₂e.
- 5.30 Progress towards the overall Net Zero target will be monitored and measured on an ongoing basis and will be reported on as part of an Annual Decarbonisation Report to be prepared each November (with reporting as set out below). The annual submission of carbon emissions data through the Welsh Government's Welsh Public Sector Net Zero Carbon Reporting Scheme will be a key headline indicator of progress within the annual report. Other key metrics including the number of trees planted, the number of kWh of electricity generated from renewable sources and the percentage of employees receiving carbon literacy training will be established with targets and timescales. Following the evaluation of baseline carbon emissions by each service area, individual carbon budgets will be agreed and these will form a key element of year on year targets which will be assessed, reviewed and reported on an annual basis. Actions in the Decarbonisation Action Plan will be evaluated and

reviewed on an annual basis, with reports from each of the 4 pillar groups of Reduce, Produce, Offset and Buy also included as part of this process. Decarbonisation performance data will feature in the Economy and Environment Directorate Performance Assessment (DPA) and Annual reports on progress against the agreed Decarbonisation Action Plan will be provided to Corporate Management Team, the Environment and Sustainability Scrutiny Committee and Cabinet.

6. ASSUMPTIONS

- 6.1 It has been assumed that the WG guidance and net zero carbon reporting methodology will not change. Previous reporting has changed which has made it impossible to compare year on year progress.

7. SUMMARY OF INTEGRATED IMPACT ASSESSMENT

- 7.1 The IIA identifies that as this covers a strategy there is no direct impact to service delivery from the provision of the strategy document. Impacts that come about as a result of the implementation and roll out of the strategy will be assessed in due course.

There will be CO₂ and greenhouse gas savings which will provide health and wellbeing benefits, and other advantages to be gained from the implementation of the strategy.

The full IIA can be found at:
[lia-decarbonisation-strategy-report \(caerphilly.gov.uk\)](http://caerphilly.gov.uk/lia-decarbonisation-strategy-report)

8. FINANCIAL IMPLICATIONS

- 8.1 A budget of £500,000 was allocated for decarbonisation work by Cabinet in 2020/21. As yet this budget has not been accessed, with the achievements and actions to date being undertaken by services within their existing programmes and budgets.
- 8.2 The internal Salix Local Authority Energy Fund (LAEF) invest to save scheme has invested over £2 million in energy efficient technologies in projects in corporate, non-domestic buildings which meet the scheme and pay back criteria. This will continue to be an important element in delivering our net zero ambitions.
- 8.3 The authority has been successful in securing funding from various grant sources to support this work. Identifying and securing grant support is an important element of achieving our decarbonisation targets.
- 8.4 Calculating the cost of becoming carbon neutral by 2030 is extremely difficult at this stage. It will however be considerable, and identifying the cost of the various elements of work will be required in order to develop a fully costed delivery plan. This work should be prioritised as a key initial action.
- 8.5 Specific, detailed, and costed proposals for future work will be developed and brought forward as future reports for consideration.

9. PERSONNEL IMPLICATIONS

- 9.1 The Corporate Director Lead will be the Corporate Director for Economy and Environment. The Decarbonisation agenda and its supporting performance data will feature in the Economy and Environment Directorate Performance Assessment (DPA) and Annual reports on progress against the agreed Decarbonisation Action Plan will be provided to the Environment and Sustainability Scrutiny Committee followed by Cabinet. Annual reports to Welsh Government through the Welsh Public Sector Net Zero Carbon Reporting Scheme will also be required.
- 9.2 For the authority to become carbon neutral by 2030 a whole organisation approach and cultural shift will be required. Service areas will need to allocate staff resources to understand and to reduce their emissions. Significant work will be required to build knowledge, understanding, and the skills required to enable all employees across the authority to play their part in delivering the Decarbonisation Strategy
- 9.3 The newly formed Decarbonisation Team will have a key role to play in driving forward this agenda, co-ordinating work, facilitating training and managing individual projects. The establishment of the four corporate pillar groups; Reduce, Produce, Offset and Buy will be an important element, which should be the catalyst to drive culture change in services but will also require specific input from services. These groups will be co-ordinated by the Decarbonisation Team. The Team will also work with each directorate to enable them to understand their emissions, to identify priorities for reduction and to support with decarbonisation projects. Project specific work will be undertaken with all services, but will require input from Finance, Procurement, Legal and Property, plus support from HR, IT and Policy on specific work. Additionally opportunities will be considered to engage employees in a “bottom up” approach to assist in mobilising employees in this programme of works.

10. CONSULTATIONS

- 10.1 The views of the listed consultees have been reflected within this report.
- 10.2 The Update on the Decarbonisation Action Plan and Proposed Future Approach report was considered by the Environment and Sustainability Scrutiny Committee on Tuesday 2nd May, 2023.

One Member welcomed the report and highlighted the need to have realistic actions that did not have a negative impact on parts of the World where raw materials are sourced.

Another Member praised the progress made on the actions set out in the report and emphasised the need to reduce the reliance on fossil fuels.

The report was then duly noted by Committee Members in accordance with the recommendations set out in the report.

11. STATUTORY POWER

- 11.1 Climate Change Act 2008.

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Consultees:

- Cllr James Pritchard – Deputy Leader and Cabinet Member for Prosperity, Regeneration and Climate Change
- Cllr Nigel George – Cabinet Member for Corporate Services, Property and Highways
- Cllr D.T Davies Chair Environment and Sustainability Scrutiny Committee
- Cllr A Hussey Vice Chair Environment and Sustainability Scrutiny Committee
- Christina HARRY – Chief Executive
- Richard Edmunds, Corporate Director, Education and Corporate Services
- Dave Street, Deputy Chief Executive
- Mark S Williams, Corporate Director of Economy and Environment
- Rob Tranter, Head of Legal Services/ Monitoring Officer
- Stephen Harris, Head of Financial Services and S.151 Officer
- Sue Richards, Head of Education Planning and Strategy
- Keri Cole, Chief Education Officer
- Ben Winstanley, Head of Property
- Lynne Donovan, Head of People Services
- Liz Lucas, Head of Customer and Digital Services
- Marcus Lloyd, Head of Infrastructure
- Rhian Kyte, Head of Regeneration and Planning
- Rob Hartshorn, Head of Public Protection, Community and Leisure Services
- Nick Taylor-Williams, Head of Housing
- Jo Williams, Assistant Director – Adult Services
- Gareth Jenkins, Assistant Director – Children’s Services
- Kathryn Peters, Corporate Policy Manager
- Allan Dallimore, Regeneration Services Manager
- Paul Rossiter, Energy and Water Officer
- Heather Richardson, Decarbonisation Project Officer
Environment and Sustainability Scrutiny Committee.

Appendices

Appendix 1. Decarbonisation Action Plan Progress December 2022