

Place and resources Overview Committee

Revised greenhouse gas (GHG) emissions reduction trajectories and key milestones

For Decision

Cabinet Member and Portfolio:

Cllr N Ireland, Leader of the Council, Climate, Performance and Safeguarding

Local Councillor(s):

County Wide

Executive Director:

A Dunn, Executive Director, Corporate Development

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Report Status: Public

Brief Summary:

The climate and ecological crises that the world now faces are well versed. Recent reports have confirmed that 2024 was the first year where average temperatures exceeded 1.5 degrees above pre-industrial levels¹, and our natural systems continue to face increased pressure². Leadership to help reverse these trends is needed at all levels of society, and the role of Dorset Council is of paramount importance to ensure that we are embedding the actions required to deliver local solutions to these generational challenges that matter to the residents of Dorset. How we also build in resilience to a changing world will also become increasingly important over time.

¹ [Copernicus: 2024 is the first year to exceed 1.5°C above pre-industrial level | Copernicus](#)

² [Facts about the nature crisis | UNEP - UN Environment Programme](#)

The [Dorset Council Plan 2024-29](#) identifies responding to the climate and nature emergencies as one of four strategic priorities for the council. The plan commits to accelerating efforts to reduce carbon emissions, by bringing forward net zero targets for the council and county by 5 years to 2035 and 2045 respectively.

Underpinning the council plan is the [Natural Environment, Climate and Ecology Strategy](#), which outlines the carbon emission reduction trajectories and milestone targets necessary to achieve a carbon neutral council and county, as well as setting out the ambition for our natural environment and our approach to adaptation. The carbon emission trajectories and targets now need to be updated to align with the revised net zero dates set out in the council plan.

This paper presents the greenhouse gas emission reduction trajectories and 5-year milestones required to achieve a net zero council by 2035 and a net zero county by 2045, along with the action needed to accelerate the pace and scale of delivery.

Recommendation:

That Place and Resources Overview Committee recommend to cabinet that

- a) it agrees revised greenhouse gas emission reduction 5-year milestones and trajectories to net zero.
- b) the Natural Environment, Climate and Ecology Strategy is updated to reflect revised targets and trajectories and required programmes of work.

Reason for Recommendation:

The Dorset Council Plan 2024-29 sets tackling the climate and nature emergencies as one of four strategic priorities. As part of this it brings forward the council and county net zero carbon targets by 5 years to 2035 and 2045 respectively.

The council's Natural Environment, Climate and Ecology Strategy is the principal strategy to underpin the council plan's priority on climate and articulates the action required to achieve net zero, and the desired trajectories and milestones to meet the council's net zero targets, which in turn set the pace and scale of action required. The new corporate targets require a revision of the trajectories and interim targets currently outlined in the Natural Environment, Climate and Ecology Strategy and consideration of the action required to accelerate delivery.

1. **Introduction**

- 1.1 Dorset Council adopted its first climate strategy in July 2021 in response to its 2019 climate emergency declaration. The adoption of the strategy committed the council to (a) become a carbon neutral council by 2040 (through an operational programme to cut emissions we directly control); and (b) support Dorset to become carbon neutral by 2050 (through a facilitation programme). These were accompanied by milestone targets which frontloaded these reductions.
- 1.2 The strategy was refreshed in 2023 with the aims of making it clearer, more concise, and more up to date, it was noted that this was a living document that would evolve as action, scientific understanding, technology and policy progressed.
- 1.3 The Dorset Council Plan 2024-29 sets responding to the climate and nature emergencies as one of four strategic priorities and has brought forward the council and county net zero carbon targets by 5 years to 2035 and 2045 respectively. The Natural Environment, Climate and Ecology Strategy sets out the strategic framework to deliver against this corporate priority and articulates both the anticipated trajectories to carbon reduction and the council's leadership role in tackling these areas of work in its own operations and to enable and facilitate action across the county.
- 1.4 As part of its ambitions for emission reduction the council established a desired trajectory or pathway for emissions reduction needed to reach net zero, for both the council and county. These dictate the scale and speed of transition anticipated, the overall scale of cumulative greenhouse gases likely to be emitted into the atmosphere over time and defines more granular 5-year reduction targets against which performance is monitored. These need to be updated within the strategy and consideration given to the action required to accelerate programmes of work in line with the council plan.

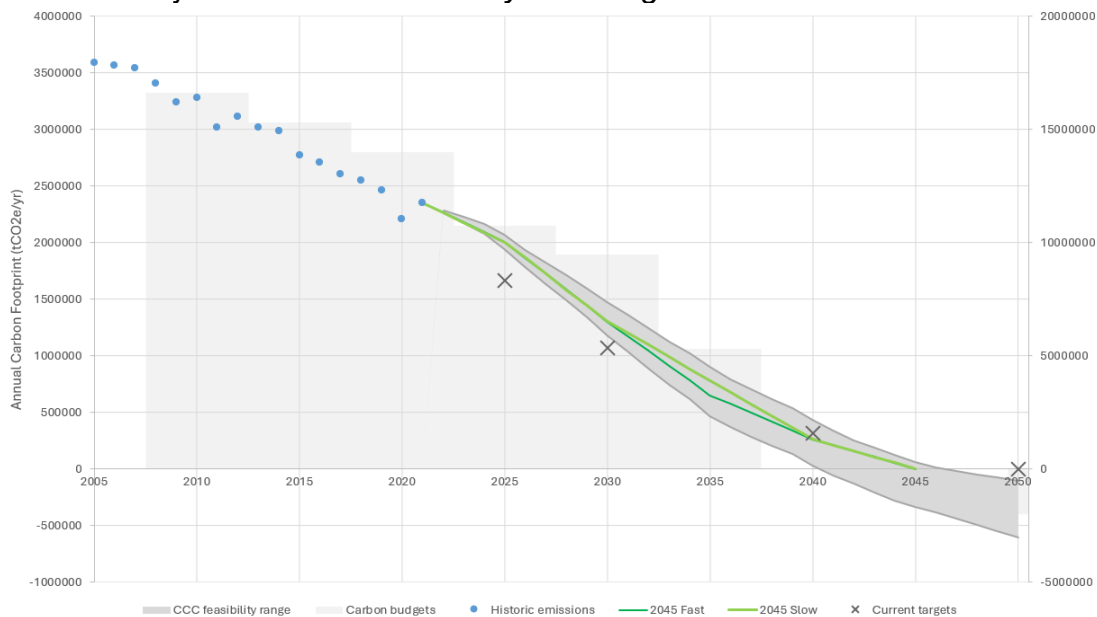
2. **Facilitation Programme Targets – becoming a net zero county**

- 2.1 The council's original targets reflected the best evidence at the time from national policy, national advice from the Committee on Climate Change (CCC), and international and national carbon budgets. Over recent years there has been mounting national and international concern about the pace of carbon reduction and greenhouse gas emissions in the atmosphere supporting the council's drive to bring forward carbon reduction targets.

2.2 The trajectory or pathway taken to achieve these targets will determine the amount of cumulative greenhouse gases emitted to the atmosphere over time and will be dependent on a wide range of factors. The Committee on Climate Change (CCC) sets out 5 possible scenarios (ordered most to least optimistic): *Tailwinds*, *Widespread Innovation*, *Widespread Engagement*, *Balanced*, and *Headwinds*. These take account of the range of key factors including technological development and deployment, the extent of behaviour change, the scaling of markets, infrastructure and supply chains, and the relative mix of different interventions or technology. They are ambitious but pragmatic and take a conservative approach to minimise risks around achievability or costs.

2.3 Consideration of both the UK’s 6th carbon budget and the 5 scenario-based pathways from the CCC, provides a basis on which to set a trajectory to work towards a net zero county target of 2045. The range of potential trajectories is seen in Chart 1.

Chart 1: Trajectories to meet County wide targets.



2.4 The 2045 fast pathway (the dark green line) is recommended as the adopted pathway for county wide carbon reduction. This closely aligns to CCC’s recommended *balanced pathway* (it’s slightly more ambitious than that pathway), reflects the likely viability of achieving current 2025 and 2030 targets and provides a buffer to mitigate the risk of overshoot.

2.5 Revised milestone targets are set out in table 2 below. Compared to the current 2050 pathway set out in the council’s Natural Environment,

Climate and Ecology Strategy this would yield approximately 5% less emissions (roughly equivalent to a year’s worth of Dorset emissions at our current emission levels).

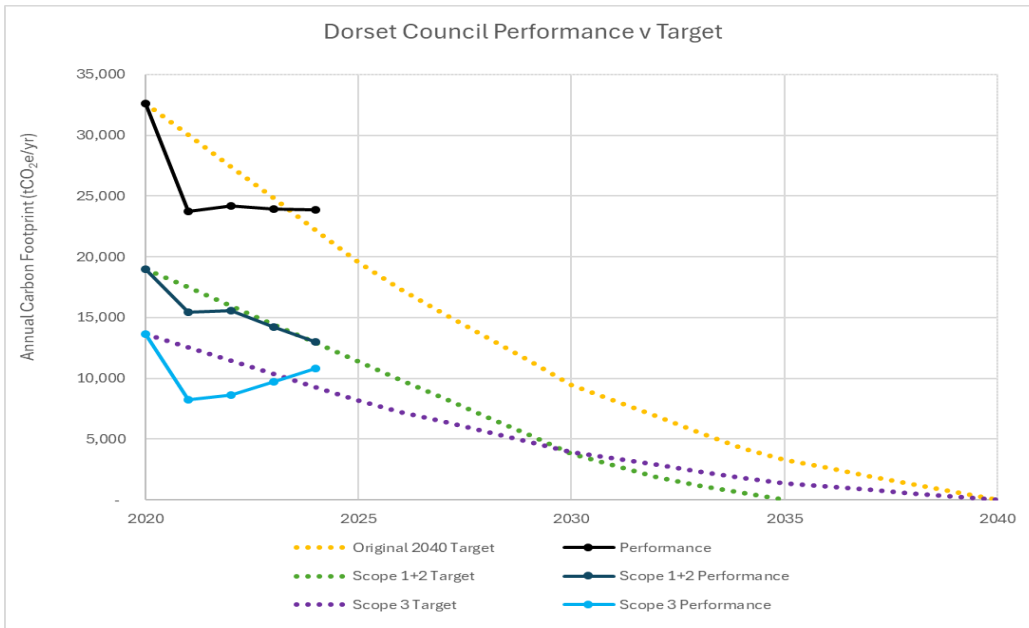
Table 1: Dorset greenhouse gas emissions targets (c.f. 2017 baseline):

	Current	Proposed
2025	-36%	-23%
2030	-59%	-50%
2035	-	-75%
2040	-88%	-90%
2045	-	-100%
2050	-100%	-

3. **Operational Programme Targets – becoming a net zero council**

- 3.1 In 2019 Dorset Council’s operational emissions baseline was 33,000 tonnes of carbon dioxide equivalent (tCO₂e). These break down into the categories of scope 1 and scope 2 (emissions from fuel and electricity use from/by our own buildings, vehicles and Dorset streetlights), and scope 3 (indirect emissions from things like staff commuting, business travel, school travel, highways materials and waste).
- 3.2 Since 2019 the council has achieved a 27% reduction in emissions as detailed in the latest [Natural Environment Climate and Ecology progress report – Autumn / Winter 2024](#). This noted the excellent work already achieved but highlighted the challenges of reducing emissions in areas which are out of the council’s direct control.
- 3.3 The current target trajectory for the council is steeper than that for the county, reflecting greater confidence in our ability to decarbonise at a faster pace than the county – due to our own emissions being relatively easier for us to control or influence. The relative strength of this ambition for the council enabled us to use our proposed county trajectory to determine a modified trajectory for council emissions.
- 3.4 It is recommended to accelerate our de-carbonisation pathway by bringing forward for all organisational emissions over which we have direct control i.e. scope 1 and scope 2, while maintaining existing targets and continuing to work with our partners, suppliers and employees to influence reductions in scope 3 emissions.

Chart 2: Pathways for operation emissions reduction



- 3.5 Revised milestone targets recommended are set out in Table 3 below. Compared to the current 2040 pathway set out in the council’s Natural Environment, Climate and Ecology Strategy. Overall, this will save approximately 26,000 tCO₂e (equivalent to 2023’s whole year emissions), relative to maintaining our current trajectory. Chart 2 shows the new council trajectory alongside the current targets.

Table 3: Dorset greenhouse gas emissions targets (c.f. 2019 baseline):

	Current (all scopes)	Revised Scope 1+2	Revised Scope 3
2025	-40%	-40%	-40%
2030	-70%	-80%	-70%
2035	-	-100%	-90%
2040	-100%	-	-100%

4. Developing an accelerated operational and facilitation programme

- 4.1 A considerable amount has been achieved so far as detailed in the bi-annual [natural environment, climate and ecology progress reports](#), but achieving these revised targets will require an acceleration and strengthening of our programme, a structured council-wide approach, and further investment.

4.2 Our emissions are primarily the consequence of burning fossil fuels for power, heat, and transport – alongside those from industrial and agricultural processes, waste disposal, natural habitat degradation and land use change. Each of these sectors have a role and progress will be dependent on demand reduction for carbon-intensive activity, adoption of low-carbon technologies, continued expansion of low-carbon energy and storage, and land use and management changes to support low-carbon farming and natural sequestration. This will require policy, technology, efficiencies, infrastructure, investment and behavioural change.

4.3 National policy and funding will of course remain a critical determinant of our success. But equally, we have very important roles to play in demonstrating leadership and facilitating and influencing change.

5. **Operational Programme – becoming a net-zero council by 2035**

5.1 A £10million capital programme, supported by external grants such as Salix Public Sector Decarbonisation Scheme, has already delivered significant carbon reduction and financial savings. This programme of work is delivered through a senior level operational group made up from services across the council.

5.2 To reflect commitments within the council plan (2024-29) additional provisional revenue has been included in budget papers for Cabinet in Jan 2025. In addition, a capital investment proposal is being prepared which will be taken to Cabinet for consideration in the near future. The majority of the schemes will be self funding. Proposals being developed include:

- electrification of all small fleet vehicles by 2030 and electrification of other vehicles as technology becomes viable, together with increased charging infrastructure across the estate to support the move to EV
- transition to alternative low carbon fuels such as HVO by 2026, as well as new low carbon technologies for larger vehicles as these become available
- additional electric pool cars to support a reduction in emissions from business travel
- continued delivery of building energy retrofit programmes across our estate to include switching all oil heating systems to electric by 2028, a

programme of LED lighting upgrades, fabric improvements, low carbon heat, and control systems

- an accelerated programme of solar PV installations on our buildings to deliver an additional 5MW of roof mounted solar by 2030
- consideration of opportunities for larger scale renewable energy installations on Dorset Council land
- continued energy efficiency upgrades to Dorset streetlights
- development and delivery of an approach to offsetting some of our emissions through nature-based solutions.

5.3 Work is underway to define these 5-year programmes of work in more detail, this includes detailed energy and heat decarbonisation surveys of council buildings and schools, solar PV studies across the estate to design systems for delivery, studies for future EV charging infrastructure on Dorset Council sites, exploration of larger scale renewable energy opportunities of Dorset Council land assets and survey of Dorset Council land assets to identify opportunities for biodiversity gain and carbon reduction through nature-based solutions.

5.4 Achieving the next key milestone for 2030 will be challenging, and at this stage it is estimated that the emission reduction programmes noted above may still fall short of the 2030 interim targets. It will be critical therefore to maximise carbon benefits from programmes already identified, explore opportunities for additional external funding from schemes such as Public Sector Decarbonisation Scheme (PSDS), maximise income to support future programmes and develop a strategic approach to offset residual emissions through nature-based solutions and renewable energy, utilising our own assets.

6. **Facilitation Programme – becoming a net zero county by 2045**

6.1 [Progress reports](#) have highlighted work underway to help facilitate the county's journey to net zero. This has started to develop key partnerships and engagement, improve infrastructure and develop best practice exemplars that can be more widely replicated. As well as supporting emissions reduction, these can act as a foundation from which to further develop and accelerate activity at all levels from strategy to community and individual action.

- 6.2 Everyone has a role in reducing country wide emissions, but through leadership the council can help to facilitate and accelerate the pace of the change required. Some key areas of work to be developed and delivered over the next few years will include:
- securing further competitive funds or alternative finance models to support the resourcing of the activities required by all
 - strengthening partnership working and engagement to facilitate wider change across sectors and working more closely with communities
 - developing an approach for strategic energy planning – including grid constraints, hydrogen and the role of larger scale renewable energy. First stages of a local area energy plan to be developed in 2025/26
 - developing a more strategic approach to smaller scale retrofitting of homes and buildings for low carbon heat, energy efficiency and generation
 - strengthening ways to facilitate low carbon development and technology deployment
 - maximising economic growth and job creation through opportunity for strategic renewable energy and infrastructure projects
 - developing an approach for food and agriculture building on the work already undertaken through the [Dorset Local Nature Recovery Strategy](#) and Dorset's [Farming in Protected Landscapes programme](#)
 - understanding our need and approach for natural sequestration, ensuring its quality, and maintaining a mitigation-first approach
 - developing an approach to adaptation alongside mitigation – work has started to explore the implications of climate change to Dorset Council services. A strategic approach across the county needs to be developed with partners in 2025/26
 - improving corporate embedding, monitoring and training – especially for procurement and clarifying service and staff roles
 - embed in critical new plans, policies and strategies
- 6.3 The council has a critical role to ensure that our place shaping strategies fully embed the principle for climate, nature and resilience. Dorset Council is at a crucial point in the development of this strategic framework for the county with several key strategies, plans and programmes currently being defined. These include the Housing delivery plan, Local Plan, Local

Transport Plan, Local Nature Recovery Strategy, Waste Strategy, Economy Strategy, and internal plans such as Council Travel Plan and Strategic Asset Management Plan.

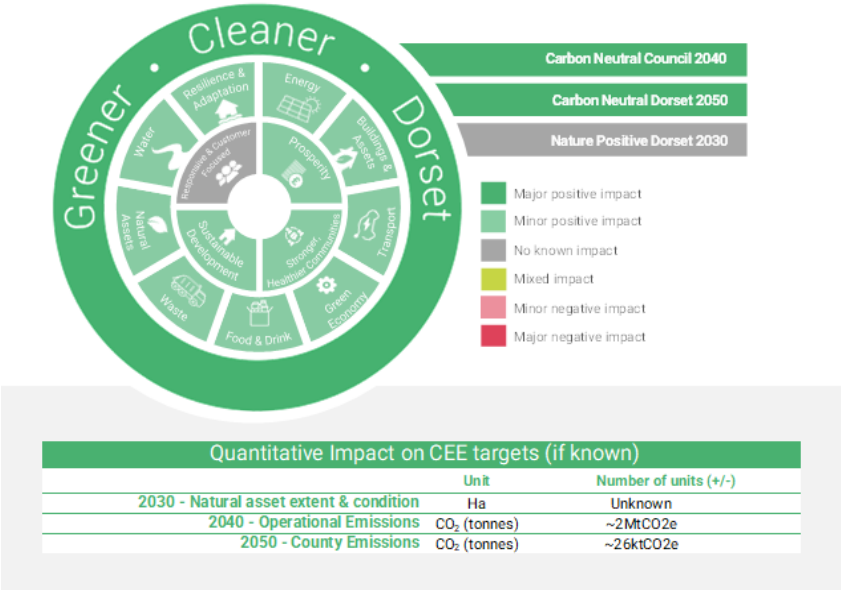
7. Financial Implications

- 7.1 The council committed £10million for climate change programmes for 2022 – 2027, focused on reducing the council operational carbon footprint. This has included grant support for the Healthy Homes Dorset and Low Carbon Dorset programmes and accelerating deployment of public EV infrastructure. To date, £6 million has been spent and the remainder allocated to projects which will deliver carbon reduction to 2026/27. This has been supplemented by over £24m of external funding from schemes such as the Public Sector Decarbonisation Scheme (PSDS) and Low Emission Vehicle Infrastructure (LEVI),
- 7.2 To support acceleration of carbon reduction programmes to achieve stretching carbon reduction targets, in line with the ambitions set within the Council Plan (2024-29), a capital investment proposal is being prepared which will be taken to Cabinet for consideration in the coming months. The majority of the schemes will be self funding..
- 7.3 In addition to carbon reduction, some measures will also achieve revenue savings from reduced electricity, fuel, material and travel costs as well as potential for income generation through renewable energy schemes.
- 7.4 Securing external funds to support this programme will be critical to meeting the council's own carbon reduction targets and facilitating the county to reduce emissions. Future government funding streams are still largely unclear. However, it is hoped that announcements of Great British Energy, and a desire to strengthen local government role in responding to climate change at a local level will see strengthened financial support for areas such as renewable energy and decarbonisation of housing.
- 7.5 The council has recently appointed a climate funding and policy officer to support in the identification of future external funding streams, explore alternative fund models such as community bonds, and place the council in a strong position to realise competitive external funding opportunities.

8. Natural Environment, Climate and Ecology Implications

- 8.1 The council's Natural Environment, Climate and Ecology Strategy aims to deliver positive benefits across all areas highlighted by the wheel.

Acceleration of the council’s carbon reduction pathways and targets could achieve significant cumulative emissions savings for the county and council enroute to net zero, relative to the alternative pathways to 2050 and 2040 respectively. The decision-wheel evaluates most domains as ‘minor positive’ only owing to the high-level nature of the strategy targets.



9. Wellbeing and Health Implications

9.1 Climate change poses numerous health and wellbeing risks to residents, such that expediting our targets and thereby further mitigating the climate change risks helps to indirectly mitigate those health risks. Moreover, the transition will realise co-benefits (e.g. more active travel, healthier homes etc.), such that accelerating the targets may expedite their realisation.

10. Other Implications - None

11. Risk Assessment

11.1 Having considered the risks associated with this decision; the level of risk has been identified as:

Current Risk: High
Residual Risk: Medium

11.2 The impacts of climate change pose a significant risk to council services and budgets and the wider Dorset area in the medium and long term.

Failure to effectively address the climate and nature emergencies and resilience will increase the risks associated with climate change

12. **Equalities Impact Assessment**

- 12.1 The IPCC and Climate Change Committee have highlighted the disproportionate impact of climate change on vulnerable people. These impacts are still being investigated at an international and national level, but a more Dorset-specific scoping exercise is being undertaken to highlight localised impacts that need to be considered.

13. **Appendices - None**

14. **Background Papers**

[Natural Environment Climate and Ecology Progress Report AutumnWinter 2024.pdf](#).

15. **Report Sign Off**

- 15.1 This report has been through the internal report clearance process and has been signed off by the Director for Legal and Democratic (Monitoring Officer), the Executive Director for Corporate Development (Section 151 Officer) and the appropriate Portfolio Holder(s)