

BUILDINGS

In order to reach national carbon-reduction targets emissions from Dorset buildings will need to be eliminated and all energy used to maintain a comfortable indoor environment will need to be generated from renewable sources.

Dorset Council is extremely limited in the powers it has to achieve this. However, we do have control of our own current buildings and any future buildings that are constructed on our land. We are also able to influence and stimulate action with partners to facilitate change.

After detailed evidence and information gathering exercises, led by the EAP and carried out by officer working groups, it has been recommended that the Council **implement the following 37 actions.**

Each action has been categorised with either a short-term, mid-term, or long-term time-scale. And combined will help deliver the Council's target to reach net-zero by 2040, and the county target of 2050 as outlined in the Climate & Ecological Emergency Strategy.



ACTION PLAN: Buildings



| OBJECTIVE | ACTION TYPE | CO ₂ SAVING POTENTIAL | CO-BENEFITS | COST | 2021-23 TARGET |
|--|-------------|----------------------------------|-------------------------------------|------|--|
| ACTIONS | | | | | |
| Ensure Council estate becomes zero-carbon by 2040 | D I P | Footprints | ecology, resilient, economy, health | £ | Guidance created and deployed by 2023 |
| Ensure climate considerations are included as part of the Asset Review, and that the future asset management plan is aligned to achieving DC carbon budgets to 2040 | D I P | Footprints | ecology, resilient, economy, health | £ | Studies completed by June 2021 |
| Commission study to identify opportunities for small scale on-site renewable energy installations on Council buildings & assets | D I P | Footprints | ecology, resilient, economy, health | £ | 250 audits carried by 2023 (80 in year 1, 120 in year 2) |
| Carry out audits to identify opportunities to retrofit energy efficiency, water efficiency, and renewable energy generation across the estate on completion of the Asset Review. | D I P | Footprints | ecology, resilient, economy, health | £ | 10% of programme completed by 2023 |
| Increase capacity of Energy Team to develop and implement retrofit programme | D I P | Footprints | ecology, resilient, economy, health | £ | 10% of programme completed by 2023 |
| Implement retro fit programme (to include LEDs, thermal upgrade, ambient cooling, conversions to low carbon energy sources) based on audits | D I P | Footprints | ecology, resilient, economy, health | £ | Procurement specification specifies energy efficient equipment by 2023 |
| Ensure procurement specification favours energy efficient equipment | D I P | Footprints | ecology, resilient, economy, health | £ | |

D Direct action

I Indirect action

P Partnership / influence action

Improves ecology

Builds resilience

Encourages economic sustainability

Enhances health & wellbeing

Estimated potential carbon savings

Estimated cost to implement action

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|---|-------------|----------------------------------|-------------------------------------|------|---|
| Ensure Council estate becomes zero-carbon by 2040 | D I P | Footprints (3) | ecology, resilient, economy, health | £ | Costs identified & analysis completed by 2023 |
| ACTIONS | | | | | 2021-23 TARGET |
| Investigate the costs involved in making key buildings (such as County Hall & South Walks House) carbon neutral | D I P | Footprints (3) | ecology, resilient, economy, health | £ | Costs identified & analysis completed by 2023 |
| Re-instate a school's energy programme to support and work with schools to reduce energy and maximise use of renewable energy technologies | D I P | Footprints (3) | ecology, resilient, economy, health | £ | G11 Schools liaison officer employed, Engagement/ improvement plan developed & initiated, Improvement targets set by 2023 |
| Expand centralised utility management service across Dorset Council to incorporate an oversight of energy use, monitor consumption and target energy reduction at site level. | D I P | Footprints (3) | ecology, resilient, economy, health | £ | G11 Energy officer employed, Improvement plan developed & initiated, Improvement targets set by 2023 |
| Expand centralised energy management system | D I P | Footprints (3) | ecology, resilient, economy, health | £ | Infrastructure evaluation completed by 2023 |
| Review operational controls on energy using equipment across council estate to ensure optimum efficiency | D I P | Footprints (3) | ecology, resilient, economy, health | £ | 50% of building controls checked by 2023 |
| Keep cost/payback of streetlights, bollards and signals under review to identify when they meet a payback that satisfies loan requirements or finance policy requirements | D I P | Footprints (3) | ecology, resilient, economy, health | £ | 4,000 lights replaced by 2023 |

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| ACTIONS | | | | | |
| Ensure all new Council developments are zero-carbon | D I P | Footprints | ecology resilient economy health | £ | Policy developed by 2023 |
| Establish a policy to ensure all new buildings that Dorset Council has direct influence over (as landowners, clients, or designers) are zero-carbon (this being true zero-carbon, and so a negative BER to cover the unregulated emissions) | D I P | Footprints | ecology resilient economy health | £ | Future action beyond 2023 |
| Trial tools to measure the embodied carbon in construction, such as the open source "EC3" tool | D I P | Footprints | ecology resilient economy health | £ | Future action beyond 2023 |
| Investigate available tools to incorporate whole-life costing into property processes | D I P | Footprints | ecology resilient economy health | £ | Future action beyond 2023 |
| Promote more sustainable materials for new constructions based on the BREEAM tool | D I P | Footprints | ecology resilient economy health | £ | Future action beyond 2023 |
| Develop and promote case studies and examples of best practice on our own estate to encourage replication by others | D I P | Footprints | ecology resilient economy health | £ | Future action beyond 2023 |

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|--|-------------|----------------------------------|----------------------------------|-------|--|
| Decarbonise heating in housing and community, public and commercial buildings | D I P | Footprints | ecology resilient economy health | £ £ £ | |
| ACTIONS | | | | | |
| Lobby government for clarity on national strategy for heat and national policy framework | D I P | Footprints | ecology resilient economy health | £ £ £ | Lobby paper presented to Government by 2023 |
| Investigate large scale installation of low carbon sources of heating (air/ground/water source heat pumps), using social housing as a test bed in partnership with RSLs | D I P | Footprints | ecology resilient economy health | £ £ £ | Liaised with RPs to assess their plans, and Identified potential for large scale installations by 2023 |
| Undertake heat mapping exercises to identify opportunities for low carbon heat in Dorset such as any clusters of buildings suitable for district heating, or large heat demands off the gas grid | D I P | Footprints | ecology resilient economy health | £ £ £ | Heat mapping completed by 2023 |
| Investigate support for Dorset Council employees working from home in winter (funding / thermal upgrades / advice) | D I P | Footprints | ecology resilient economy health | £ £ £ | Advice provided to employees (by CSE) , and Funding opportunities investigated & identified by 2023 |

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| ACTIONS | | | | | |
| Decarbonise heating in housing and community, public and commercial buildings | D I P | Footprints | ecology resilient economy health | £ | Communications plan developed, Staff resource provided, and Campaign initiated by 2023 |
| Targeted campaign to encourage all buildings off the gas grid to switch to heat pumps or biomass for heating | D I P | Footprints | ecology resilient economy health | £ | Future action beyond 2023 |
| Use Council buildings in trial projects to test the use of hydrogen heating | D I P | Footprints | ecology resilient economy health | £ | Future action beyond 2023 |
| Investigate potential in Dorset for large-scale 'blue' hydrogen generation with carbon capture and storage | D I P | Footprints | ecology resilient economy health | £ | Green Homes Grant bid made by Sept 2020 |
| Access new funding to assist residents to decarbonise heating (delivered through Healthy Homes Dorset Scheme) | D I P | Footprints | ecology resilient economy health | £ | Estimated potential carbon savings |
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| ACTIONS | | | | | |
| Ensure new buildings in Dorset are zero-carbon | D I P | Footprints | ecology resilient economy health | £ | Zero-carbon standards investigation completed by 2023 |
| Set true net zero carbon homes standards through the Local Plan in partnership with other southwest local authorities | D I P | Footprints | ecology resilient economy health | £ | Guidance developed by 2023 |
| Encourage designs and layouts which lend themselves to low-carbon energy solutions, and provide guidance and advice for developers to achieve zero carbon standards | D I P | Footprints | ecology resilient economy health | £ | Plans / Strategies identified, and Carbon emission reductions & risk to climate impacts identified in plans by 2023 |
| Ensure the relevant housing strategies and policies incorporate the reduction of carbon emissions and increased risk to climate impacts | D I P | Footprints | ecology resilient economy health | £ | Future action beyond 2023 |
| Develop trials and pilots, with RSLs, of localised off-site manufacturing for new build and retrofit | D I P | Footprints | ecology resilient economy health | £ | |

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| ACTIONS | | | | | |
| Improve energy efficiency of current housing stock | D I P | Footprints | ecology resilient economy health | £ £ £ | Staff resources made available, and Enforcement plan developed by 2023 |
| Enforce minimum energy efficiency standards in the private rental sector (focus on EPC certificates E & F without exemptions) | D I P | Footprints | ecology resilient economy health | £ £ £ | Strategy developed, and Programmes initiated by 2023 |
| Work in partnership (e.g. with RSLs, other councils and partners) to deliver programmes to improve energy efficiency of housing stock & hard to treat properties | D I P | Footprints | ecology resilient economy health | £ £ £ | Communication plan developed and implemented by 2023 |
| Educate residential and non-residential sectors on low-carbon technologies, energy efficiency, and sources of funding to encourage behaviour change & greater uptake of low-carbon technology | D I P | Footprints | ecology resilient economy health | £ £ £ | Future action beyond 2023 |
| As far we can within our powers, relax the Listing and Conservation Zone rules to allow low-carbon measures, such as better windows and solar PV | D I P | Footprints | ecology resilient economy health | £ £ £ | |

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| Improve energy efficiency of commercial premises | D I P | Footprints | ecology resilient economy health | £ | |
| ACTIONS | | | | | 2021-23 TARGET |
| Lobby government for more funding for climate risk management | D I P | Footprints | ecology resilient economy health | £ | Lobby paper presented to government by 2023 |
| OBJECTIVE | ACTION TYPE | CO ₂ SAVING POTENTIAL | CO-BENEFITS | COST | 2021-23 TARGET |
| Increase buildings resilience to climate change | D I P | Footprints | ecology resilient economy health | £ | |
| ACTIONS | | | | | 2021-23 TARGET |
| Develop local plan policies to ensure climate risks are identified and avoided in new developments, including flood risk and overheating | D I P | Footprints | ecology resilient economy health | £ | Local Plan policy in place by 2023 |
| Work with partners to increase climate change resilience of communities & buildings by understanding the future climate risks within Dorset | D I P | Footprints | ecology resilient economy health | £ | Relevant forum identified or if necessary created by 2023 |
| Ensure Emergency Plans are adapted to reflect changing climate risks and are tested and proven fit for purpose | D I P | Footprints | ecology resilient economy health | £ | Top 10 'highest risk' plans reviewed by 2023 |

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