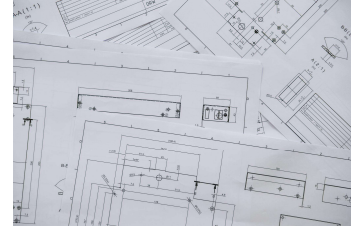

2. Power Down

Defining a Vision for 2030



We cannot solve the climate and ecological crises simply by switching to renewable energy. Our natural resources are being depleted faster than they can be replenished. Although enough sunlight reaches the earth to provide 16,300 kW energy for every person in the worldⁱ, and research has shown that current energy demands could be met using just 0.1% of total land surface, if we don't address our growing demand for energy, the whole of the land mass of the Earth would need to be covered by solar panels to meet our needs in the futureⁱⁱ. Equally, although the 'fuel' used by renewable technologies is limitless, the infrastructure needed to capture it is not. We must 'power down'.

In 2030...

Everyone lives in a home that is dry and warm in winter and comfortable in summer. Following the success of the Smart Community Project's Bridport affordable housing development, this new model for living was adopted as a template for many new housing developments across the county. Every new home in the county is now built to Passivhaus standards, and all existing properties have been retrofitted to a similar standard of insulation. Running costs have declined in line with improved standards and the costs of retrofitting were backed by a series of Government and Council led programmes that ensured everyone could afford the improvements required. There has been a concerted effort to move from gas to electricity as the principal energy source for residential and commercial properties and this has also provided opportunities for re-skilling the workforce and contributing to the 'green' economy.

Local community groups working with the two Councils have been instrumental in helping households understand and reduce their energy use by adopting low-carbon lifestyle choices. All households have integrated smart meter technology that enables appliances to be used when renewable energy generation is at its highest (and costs at their lowest), linked to local energy generation. Energy use and running costs have also fallen through employing smart technology, with home appliances running on timed systems, activated when excess energy is available from the grid and local energy systems.

Groups in each workplace and neighbourhood consider on-going energy requirements and develop and share ideas to create bio-city opportunities in their areas; built on a model pioneered through the Dorset Green Living Project. Commercial and industrial premises have been built to similar standards since the mid- 2020's and the fitters who were part of the mass retrofitting programme have now moved over to look at the remaining commercial premises across the county.

Assessment Framework

How are we performing currently?

The framework below sets out the criteria against which the current status can be assessed. Aspirational objectives are then set to encourage progress towards the vision.

Category	Assessment Criteria
1	Little evidence of energy use in Dorset's buildings being addressed beyond individual efforts.
2	Energy use in Dorset's buildings is beginning to decrease but is reliant on ad-hoc programmes and individual efforts.
3	Energy use in Dorset's buildings has been reduced by more than 20% from 2019 levels, with large-scale programmes being initiated to address energy usage across the county. These plans include the switch from gas to electricity for heating homes, widespread retrofitting to insulate homes and community engagement to reduce energy demand through lifestyle choices.
4	Energy use in Dorset's buildings has been reduced more than 40% from 2019 levels; large-scale, comprehensive programmes are in place to ensure the remaining reductions are secured across the county.
5	Energy use in Dorset's buildings has been reduced by more than 60% from 2019 levels.

2021 Assessment

2	<p>This measure is focused on energy reduction (primarily in buildings), so the reduction in emissions (due to grid decarbonisation) is not applicable here. While the Councils' CEE plans largely acknowledge the steps required and a number of encouraging initiatives are in place, the lack of action on the former and the lack of appropriate scale on the latter have resulted in a rating of 2.</p> <p><i>Please see main report for the full analysis for 2021.</i></p>
---	---

2022 Assessment

2	<p>Some funding secured to help Dorset residents improve the energy efficiency of their leaky homes for those eligible to apply, but still insufficient monies available to tackle the 200,000+ homes that still need to be upgraded by 2030.</p>
---	---

2022 Observations

Most of the analysis in our original report remains valid at the end of 2022. However, we have noted the following developments during the year.

Insulate Britain

Earlier in the year Chris Stark, the head of the UK's Climate Change Committee, urged the UK government to do more to improve the energy efficiency of existing housing stockⁱⁱⁱ. At long last such funding has appeared, with £7.6 billion (Help to Heat and ECO+ schemes) for households to improve leaky homes. A new Energy Efficiency Taskforce is to be set up to deliver the schemes. Across Dorset in 2021, there were an estimated 206,504 (56%) of dwellings at Energy Performance Certificate (EPC) Band D or lower^{iv} v. The government target is for all fuel poor homes to be upgraded to EPC Band C by 2030 and as many homes as possible to be EPC Band C by 2035 where practical, cost-effective and affordable. The target for rented properties is to reach EPC Band C by 2030.

Power Down Dorset

In June 2022, we hosted a Power Down webinar to discuss the urgent need to accelerate efforts to improve energy efficiency of homes and businesses across the county to help reduce bills, cut carbon emissions and provide more comfortable and healthier buildings.

Local Energy Advice Partnership

With the cost-of-living crisis and rising energy bills, both Councils have provided guidance on how to improve energy efficiency in the home. The Healthy Homes Dorset scheme^{vi} helps residents keep warm by installing loft and cavity wall insulation and offering free, impartial energy advice. The Local Energy Advice Partnership (LEAP)^{vii} restarted in July 2022 and will run continuously for the next 4 years, throughout the whole of Dorset. LEAP is a FREE home visit scheme to assist residents with free energy advice, energy saving devices, along with access to other improvements like heating upgrades, insulation, free appliances and replacement boilers.

Council Action

Bridport Town Council launched their energy efficiency campaign: 'Lowering Household Bills – Lowering Carbon Emissions'^{viii} to help residents with a range of affordable energy conservation measures, such as lining curtains.

Big Energy Savings Network

Dorset Community Action (DCA)^{ix} is part of the Big Energy Savings Network and co-regional lead for the South West. Part of this involves training front-line workers to spot the signs of fuel poverty, understand the effect it has on people, and refer them to the right place for help and advice, such as Citizens Advice East Dorset and Purbeck.

Saving money in quiet spaces

During 2022, Dorset Council installed a wide range of energy efficiency and renewable energy measures at fifteen library sites^x. The measures – that range from highly efficient LED lighting to advanced building management systems – are expected to save over £40,000 a year in electricity and gas costs and reduce annual energy use by more than 275,000 kWh (which is over a quarter of the energy used in 2021 across all 15 sites).

Still too little on new builds

There is an urgent need for the government to update building standards so that new builds are designed to meet the net zero target. The Future Homes Standard^{xi} (where new homes are expected to produce 75 - 80% less carbon emissions) is not expected until 2025. The Passivhaus standard is a way to ensure homes or buildings are very energy efficient, by reducing energy demand to very low levels, particularly for heating. BCP Newbuild Housing and Acquisition Strategy (CNHAS) is progressing across the town with three new 'Passivhaus' projects

that will provide much-needed additional council housing for local people^{xii}. Residents will directly benefit from significantly reduced fuel bills, as these houses require around 90 per cent less energy than standard UK buildings.

1st Waste

Local businesses continue to seek opportunities to reduce their energy bills and carbon emissions. In 2022, 1st Waste^{xiii}, with the help of a grant from Low Carbon Dorset and the European Regional Development Fund, invested in 225 LED lighting panels and 68 PV panels on their office roof at Regency House in Bournemouth; saving a huge 3,000 kgs of CO2 per year.

What do we need to focus on in 2023?

- As a matter of urgency invest in energy efficiency measures in existing homes (owned and rented) and businesses to reduce fuel bills and carbon emissions.
- Both Councils adopt more ambitious energy efficiency standards for new builds (beyond the current 30% lower carbon emissions standard).
- Urgent need to find new funding for Low Carbon Dorset so they can continue their work to help communities, businesses and public sector reduce their energy and carbon emissions post March 2023.

V0.6

ⁱ There is No Planet B, Mike Berners Lee (2019) p66

ⁱⁱ There is No Planet B, Mike Berners Lee (2019) p68

ⁱⁱⁱ <https://www.bbc.co.uk/news/science-environment-60290876>

^{iv} <https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants>

^v

<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/energyefficiencyofhousingenglandandwaleslocalauthoritydistricts>

^{vi} <https://www.healthyhomesdorset.org.uk/>

^{vii} <https://www.ridgewaterenergy.co.uk/projects-and-services/leap/>

^{viii} <https://www.bridport-tc.gov.uk/climate-emergency-action-plan/>

^{ix} <https://www.dorsetcommunityaction.org.uk/energy-saving-advice-sessions/>

^x <https://news.dorsetcouncil.gov.uk/2022/09/27/dorset-council-takes-steps-to-reduce-energy-use-in-libraries/>

^{xi} <https://www.gov.uk/government/consultations/the-future-buildings-standard>

^{xii} <https://www.bcpccouncil.gov.uk/news-article.aspx?title=ambitious-programme-of-affordable-rented-homes-for-residents-begins-building-in-bournemouth>

^{xiii} <https://www.1stwaste.co.uk/news/partnering-with-low-carbon-dorset>