



2030 Energy Strategy



Contents

Foreword	3	Priority 3: Social value from energy	12	Delivery	15
Our Vision	5	Exemplar Project 3: Social Value From Energy at West Sussex County Council	12	Policy alignment	17
Introduction	6	Priority 4: Local energy resilience	13	Governance	18
The Strategy	8	Exemplar Project 4: Local Energy Resilience at West Sussex County Council	13	Funding	19
Priority 1: Sustainable energy	9	Priority 5: Sustainable income generation, savings and cost avoidance	14	Measuring and reporting progress	20
Exemplar Project 1: Sustainable Energy Generation at West Sussex County Council	10			Appendix 1: Glossary	21
Priority 2: Emissions reduction	11				
Exemplar Project 2: Emissions Reduction at West Sussex County Council	11				

Foreword

We are proud to have established ourselves as one of the leading local authorities for delivering successful clean energy projects.

From our solar farms and energy storage projects to the Solar for Schools Programme and energy upgrades on our own buildings, we have shown that large organisations such as ours can lead by example and invest in initiatives that support climate change mitigation, deliver robust financial returns and drive local economic growth.

We have also recognised the urgent need to support our residents and businesses to make the transition to zero carbon energy. Our Solar Together Sussex scheme offers residents competitively priced solar panels and battery systems and we have also embarked on a major

project with our district and borough partners to deliver a public electric vehicle charging network across the county. Our partnership with the Manor Royal Business District is also demonstrating how businesses can invest and work together towards a clean, low carbon future by establishing a local energy community.

However, we need to quicken the pace of change if we are to achieve our net zero ambitions. That's why our new Energy Strategy takes its lead from the National Grid's 'Leading the Way' Future Energy Scenario. This ambitious model for the future advocates high levels of investment in renewable energy, good consumer engagement and rapid decarbonisation of our energy system. The £42 million we have already assigned to sustainable energy projects through our capital programme is a clear sign that the county council is committed to this pathway.

It is clear, however, that we cannot achieve the transition to low carbon energy on our own. Collaboration and sharing knowledge between local partner organisations are at the heart of this strategy and will be key to achieving more and faster. Nurturing and developing our relationships with our local authority partners, local businesses, community energy groups and energy industry peers, including the Distribution Network Operators, potential funders and technology suppliers, will enable us to influence and shape the future energy system of West Sussex for the benefit of the people that live and work here. These partner organisations will be closely involved in the development of the action plan to deliver this strategy.

In working towards a net zero future for West Sussex we must also ensure that all our residents, including those on low incomes, are not left behind and can benefit from affordable, secure and environmentally sustainable energy offered by a new, low carbon energy system. This will involve close partnership working with our district and borough councils through the West Sussex Affordable Energy Partnership to identify and develop opportunities for joint working. Other partners,

including our social housing providers, private landlords and third sector organisations will be key to delivery in this area.

This strategy will enable us to build on the progress we have made and take us to the next level. It provides the county council and its partners with a clear and ambitious framework to guide our action plan and deliver the transition to clean, zero carbon energy in West Sussex on behalf of the communities we serve.



Cllr Deborah Urquhart
Deputy Leader and
Cabinet Member for
Environment and
Climate Change

Our Vision

By 2030, West Sussex County Council will have actively supported a resilient and equitable local energy transition through decarbonisation of energy sources and the delivery of projects which have enabled economic development and contributed to the needs of our communities.



Introduction

Climate Change is one of the biggest challenges we will ever face in our county.

The 2018 report from the United Nations Intergovernmental Panel on Climate Change concluded that without substantial efforts to curb greenhouse gas emissions over the next decade we are likely to face severe, widespread, and irreversible impacts on societies.

In response to this, West Sussex County Council acknowledged the threat of climate change and passed a motion pledging to try to reach net zero carbon emissions by 2030, adopting a new [climate change strategy](#) in 2020 which set out five priorities:

- » **mitigate the effects of climate change by reducing carbon emissions**
- » **adapt and be resilient to a changing climate**
- » **source and use resources sustainably**
- » **support and grow our local green economy**
- » **transform how we work.**

The strategy also recognises that, due to the county council's unique position, it has three critical opportunities to act by:

- » **showing leadership - taking the lead by making positive changes to our own assets, our operations and our contracts.**
- » **enabling - enabling our communities, our suppliers and partnerships to live and work in different ways by making decisions, setting policies and strategies and spending our budgets in ways that create and unlock opportunities for all of us.**
- » **influencing - using our influence to engage with others to make changes beyond what we control.**

The council strengthened its commitment to action on this agenda by making climate change an overarching priority in its Council Plan in 2021. The Energy Strategy will play a key role in achieving our corporate targets.

Other organisations have similarly responded to the need to reach net zero emissions and the Electricity System Operator for Great Britain, National Grid ESO, has set out a range of ['Future Energy Scenarios'](#) that chart the specific energy transitions required to achieve net zero by 2050. The 'Leading the Way' scenario is the county council's preference as it poses least risk of missing the net zero target and achieves the greatest reduction in emissions of carbon dioxide in the shortest amount of time.

Partner local authorities in West Sussex have also developed, or are in the process of developing, climate change strategies to meet the net zero target.

The Strategy

This strategy identifies how the county council's climate change commitments will be met in part through the decisions it takes related to energy. The ambition set out here is aligned with the local energy transition required to meet the 'Leading the Way' scenario set out by National Grid in their Future Energy Scenarios (2021) document.



In order to deliver this strategy, the county council will focus on four priority areas.

Priority 1: Sustainable energy

- » We will develop, and support our partners to develop, more sustainable energy generation and (heat) networks in West Sussex which will contribute to the decarbonisation of energy (heat and power) in the county.
- » We will use mature technologies such as solar, battery, wind and heat pumps as well as new and emerging technologies over the course of the strategy (i.e. hydrogen technologies).



- » Our projects will support the strategic direction of key stakeholders' action on energy & climate change including:
 - National Grid's 'Leading the Way' Future Energy Scenario;
 - Local Distribution Network Operators' (DNOs') Future Energy Scenarios (UK Power Networks and Scottish and Southern Energy Networks);
 - West Sussex District and Borough Councils' Climate Change Strategies;
 - Coast 2 Capital Local Enterprise Partnership's 'South2East' Energy Strategy;
 - Neighbouring local authorities; and
 - Community Energy groups within the county.

Priority 1: Sustainable energy

- We will use our procurement of energy to drive further deployment of sustainable energy generation within the county – be that from our own projects, or those of our partners or community energy groups/local energy communities.



Exemplar Project 1: Sustainable Energy Generation at West Sussex County Council

The county council has advocated for the local generation of renewable energy, investing in two solar farms (at Tangmere and Westhampnett) that generate more electricity than the county council's corporate operations require. The solar farm at Westhampnett received a commendation in the category of Special Award for Contribution to Net Zero from the industry body, the Association for Decentralised Energy.

Priority 2: Emissions reduction

- » Our energy projects will seek to identify the most viable technologies for our own property portfolio and suitable funding to enable delivery.
- » Opportunities for decarbonisation in sectors over which the county council has greatest influence (e.g. transport) will be prioritised. This may include supply, facilitation of project development or other contributions towards progress in this important area.



Exemplar Project 2: Emissions Reduction at West Sussex County Council

In 2006, the county council was one of the first public sector organisations to develop an 'Invest to Save' fund to drive emissions reductions in its buildings with Salix Finance. Financial savings on utility costs from energy efficiency projects are recycled to be used to fund further efficiency measures. Using this fund, the council was able to halve its carbon footprint and keep energy costs manageable when prices rose.

Priority 3: Social value from energy

- » Our energy projects will support council finances through cost reduction/cost avoidance or income generation to ensure public services are protected.
- » An equitable transition to sustainable energy will be secured through collaborative projects with partners that provide businesses and residents with affordable options to procure technologies, such as rooftop solar panels and battery storage options.
- » Financial support from energy projects will support organisations working to alleviate the incidence of fuel poverty in West Sussex.
- » Local ownership of the energy transition will be enhanced through the development of community energy groups and local energy communities.

Exemplar Project 3: Social Value From Energy at West Sussex County Council

The incidence of fuel poverty in West Sussex stimulated the development of a Fuel Poverty Fund, into which surplus income is directed from energy projects ranging from a set of energy tariffs to the Solar Together Sussex group purchasing scheme. The Fuel Poverty Fund has enabled our partners to provide support to vulnerable residents in West Sussex experiencing a financial crisis.

Priority 4: Local energy resilience

- » We will evaluate the readiness of the local distribution network to meet the net zero challenge and target our grid-connected battery storage projects to support local energy resilience.
- » Energy assets (e.g. battery storage and smart devices) located within our properties and those of our partners will be supported to provide flexibility to local distribution networks.
- » We will use energy efficiency projects to proactively return surplus electrical capacity to the local distribution network.



Exemplar Project 4: Local Energy Resilience at West Sussex County Council

Large scale battery storage allows the electricity grid to be balanced, matching the supply of power with demand on a second-by-second basis without the need for carbon-intensive gas turbines to be deployed. Since it was energised, the battery storage system at Westhampnett has delivered flexibility to the electricity grid which has allowed it to be more resilient to shocks such as unplanned outages from power stations or the flow of electricity across international interconnectors being suddenly interrupted.

Priority 5: Sustainable income generation, savings and cost avoidance

Supporting these four priority areas, the county council will also deliver a fifth area:

- » We will identify opportunities to generate sustainable income for the county council through savings on corporate utilities costs, sale of energy, provision of energy and flexibility services and identification of avoided future costs.



Delivery

Delivery of the priority areas will be supported through an increased focus on:

1. Collaboration

- The council will develop a collaborative business relationship management system.
- The council will support other organisations to lead on action, where appropriate, through the development of local energy communities.
- The council will invest in the necessary platforms, tools and support functions to help local energy communities achieve their aims.

2. Data Management

- The council will develop a data quality management system.
- The council will make publicly available all appropriate datasets relating to the projects delivered and energy assets developed.
- The council will use data management to develop and share insights into successful projects to support their rapid replication.
- The council will develop a data management offer to local energy communities.

3. Innovation

- The council will develop an Innovation Management System.
- The council will support other organisations to innovate through the application of lessons learned when developing energy projects.
- The council will support the controlled trial of emerging technologies, markets and business models where appropriate.

4. Green Energy Skills

- The council will develop partnerships with local training providers to support the development of green energy skills provision.
- The council will use its investment activity and existing assets to leverage learning opportunities for green energy skills.

5. Future Energy Transition Hub

- A new Future Energy Transition Hub will be established to support the delivery of these priorities in the county council's buildings and across the county.
- The hub will be designed as the most efficient and effective means of harnessing partners' combined ambition to act on climate change locally by providing coordinated support to local energy communities.



Policy alignment

This strategy is aligned with the county council's corporate plan 'Our Council Plan'.

It will specifically support delivery of Outcomes 1 (Resetting and rebooting the local economy) and 5 (A sustainable economy that adapts to climate change) of the county council's priority 'A sustainable and prosperous economy'.

This strategy will also support delivery of Outcome 5 (Working in partnership) of the 'Making the best use of resources' priority.

Key benefits identified in the Climate Change Strategy will be part-delivered through this strategy including (1) A greater and greener local economy; (2) Reduced bills and (3) Energy security.

This strategy supports achievement of those benefits by delivering on the following specific commitments made in the Climate Change Strategy:

- » **Commitment 1 (a): We will be a net carbon zero organisation by 2030**
- » **Commitment 1(c): We will increase the amount of renewable energy used and generated in West Sussex**
- » **Commitment 3 (a): We will use resources efficiently and economically**
- » **Commitment 4 (c): We will encourage sustainable businesses**
- » **Commitment 5 (e): We will challenge and support others to follow our example**
- » **Commitment 5 (f): We will work in partnership to find innovative solutions and collaborative ways of working to tackle climate change.**

Governance

Following adoption of the Climate Change Strategy, the county council established a Climate Change Board.

Its corporate role is to:

- » establish the initial work programme needed and identify and secure the resources to deliver it;
- » oversee delivery against the commitments set out in the climate change strategy;
- » hold the organisation to account and ensure progress is being made at the pace we want and need.

The governance of this strategy will fall within the remit of the governance structure for the existing West Sussex Climate Change Strategy.



Funding

The county council has committed £42m to deliver the ongoing programme of work on sustainable energy.

It has supplemented this investment with circa. £500k grant funding from Salix Finance, the European Union, Innovate UK and, most recently, Government's Public Sector Decarbonisation Scheme. These funding streams will continue to be used to deliver this strategy as follows:

1. Corporate capital resources

» The council will use its own capital resources to invest in sustainable energy generation and storage assets which will generate benefits for the local energy networks and communities as well as a financial return for the council.

2. Grant funding

» The council will use grant funding to

- Deliver energy efficiency measures
- Support the deployment of sustainable energy generation and storage assets
- Support the development of local energy communities

3. Surplus income from sustainable energy projects

» The council will use surplus income from sustainable energy projects to

- Invest in the underpinning mechanisms that support delivery of this strategy
- Support action on fuel poverty within the county

Measuring and reporting progress

The measurement of progress toward delivery of this strategy will be developed in line with the Data Quality Management System.

The contribution of this strategy toward Our Council Plan will be measured and reported by assessing:

- » **The number of enterprises supported to start, revive, innovate and grow**
 - Key Performance Indicator Number 15 for Outcome 1 of 'Our Council Plan' priority 'A sustainable and prosperous economy' and
 - The equivalent tonnes (te) of CO2 emissions from WSCC activities

- » **Key Performance Indicator Number 22 for Outcome 5 of 'Our Council Plan' priority 'A sustainable and prosperous economy'**
 - The percentage of contracts valued over £500k where the opportunity to work in partnership has been appraised
- » **Key Performance Indicator Number 52 for Outcome 5 of 'Our Council Plan' priority 'Making best use of resources'**



Appendix 1: Glossary

Community Energy Groups

Community energy groups aim to deliver community-led renewable energy, energy demand reduction and energy supply projects, whether wholly owned and/or controlled by communities or through a partnership with commercial or public sector partners.

Distribution Network Operators (DNOs)

DNOs are responsible for ensuring that distribution networks (operating at lower voltages than the Electricity Transmission (ET) network) are able to deliver for the needs of customers in their respective geographical area. DNOs are responsible for investment and innovation across their networks and coordinate development with Ofgem and National Grid in those areas.

Electricity System Operator (ESO)

The Electricity System Operator (ESO) is responsible for several important functions relating to the management of the electricity network; from second-by-second balancing of electricity supply and demand, to developing markets and advising on network investments. The ESO has an important role to play in the UK's transition to a decarbonised, decentralised and digitalised energy system. In Great Britain, this role is undertaken by National Grid ESO.

Electricity Transmission (ET)

The high-voltage electricity transmission network in England and Wales. Following generation (often in large, centralised power stations) electricity is transported at high voltage across England and Wales through the Electricity Transmission Network. This network is owned by National Grid Electricity Transmission (ET).

Future Energy Scenarios:

Future Energy Scenarios (FES) represent a range of different, credible ways to decarbonise the energy system of the United Kingdom. They are updated annually by the Electricity System Operator (National Grid ESO). They provide the basis for the network investments outlined in the Electricity Ten Year Statement and Gas Ten Year Statement.

Future Energy Transition Hub

A one-stop-shop for comprehensive information about West Sussex buildings and the decarbonisation of energy in the county. The Hub will be developed by the county council and partners to provide an efficient and effective support framework that local energy communities can use to drive forward the energy transition in their area.

Innovation Management System

A guiding framework to enable an organisation to improve and increasingly develop innovative and effective approaches to the challenges it faces while managing any emerging risks.

Local Energy Community

An association, cooperative, partnership, non-profit organisation or other legal entity composed of consumers (or 'pro-sumers'), formed to meet a community's energy needs using solely or primarily local sources of generation. The LEC's area of operation will necessarily be grounded in the local physical electricity infrastructure. The community could comprise representatives from domestic or commercial properties as well as the county council's own properties and a Community Energy Group. LECs will benefit from dedicated support from the Future Energy Transition Hub.

Ofgem

The Office of Gas and Electricity Markets (Ofgem) is the independent energy regulator of Great Britain. It is responsible for (a) working with government, industry and consumer groups to deliver a net-zero economy, at the lowest cost to consumers; (b) stamping out sharp and bad practice, ensuring fair treatment for all consumers, especially the vulnerable; and (c) enabling competition and innovation, which drives down prices and results in new products and services for consumers.

Partners

Partners constitute any organisation with whom the county council works on an ongoing basis to achieve this strategy, including but not limited to district councils, borough councils, parish councils, the county council's geographic neighbours and statistical neighbours, statutory undertakings within West Sussex, colleges, universities, suppliers and contractors to the county councils, local energy communities and community energy groups, businesses, and advocacy groups.



