

# Gloucestershire Sustainable Energy Strategy

January 2019





## Foreword by David Owen, CEO GFirst LEP

As we continue to invest in growing our county: building more houses, the development of employment land and supporting infrastructure, this in turn poses environmental challenges for the county. The Government's Clean Growth Strategy identifies the need to reduce carbon emissions nationally, and Gloucestershire has implemented its commitment to change, with the development of the county's energy strategy.

The road map identifies specific activities to ensure short, medium and long term changes from 2019 to 2025 whilst ensuring all policies and programmes respect the strategy's ambitions.

An overarching SWOT identifies areas for development, with the 9 key building blocks underpinning the commitment required to deliver these.

The strategy also highlights 6 key ambitions for energy reduction in the county, including the commitment to become carbon neutral by 2050 – reflecting the ambitious but realistic nature of the strategy.

The ambitions outlined in this energy strategy for Gloucestershire will become key factors in the development of other projects within the county as well as playing a vital role in the development of the county's Local Industrial Strategy.

# The Gloucestershire Sustainable Energy Strategy

This strategy draws on the report of a project commissioned from the Centre for Sustainable Energy by GFirst LEP (Local Enterprise Partnership), funded by the Department of Business, Energy and Industrial Strategy (BEIS).

It is based on an extensive evidence review and stakeholder engagement undertaken between May 2018 and October 2018, including a workshop involving some 50 stakeholders from all sectors in the county and the regular involvement of a strategy development steering group drawn from the GFirst LEP's Energy Business Group.

The report contains significant additional analysis and detail which underpins the recommendations and conclusions presented in this strategy. It can be accessed by contacting [info@gfirstlep.com](mailto:info@gfirstlep.com)

Partners:



# Introduction: the need for change, the opportunity for Gloucestershire

Gloucestershire, like everywhere else in the country, needs to contribute to achieving the UK's legally binding carbon emissions reduction target while sustaining reliable energy supplies and ensuring energy costs remain (or, for some, become) affordable.

As the Government has outlined consistently over recent years and most recently in its Clean Growth Strategy, our energy system needs to change and everywhere needs to play its part.

This creates great opportunities and the potential to realise significant economic, social and environmental benefits. Both the Government and the Committee on Climate Change consider that this shift to a very low carbon energy future represents the best course of action for the UK's economic development. Many of the steps required will contribute to a lower risk of fuel poverty and its associated health impacts while others can reduce the air pollution associated with emissions from vehicles and heating systems.

This sustainable energy strategy sets out how Gloucestershire can play its part in achieving these changes, enabling its businesses and citizens to capture the economic and social benefits of doing so. Whilst there is action to be taken in the county that is common to all parts of the UK – such as improving the energy performance of buildings – this strategy and its proposed actions reflect the specific circumstances found in Gloucestershire and how they shape the county's approach.

The strategy is designed to make the most of Gloucestershire's strengths, creating opportunities to secure business advantages in relevant local, national and international markets. It also identifies a number of weaknesses which could see the county lose out and fail to deliver if they were to remain unaddressed.

Putting Gloucestershire on a course to securing these benefits for its businesses and residents will require purposeful effort from many different stakeholders in the county acting across many different fronts with shared purpose. This strategy sets out this shared purpose, captured in a set of longer term strategic ambitions which together represent the county 'playing its part' in the national programme of change while reflecting local conditions.

It also describes the nature of the purposeful effort required, starting from the current conditions in the county – its strengths

and weaknesses. It outlines a series of 'first next steps' which are designed both (a) to seize emerging opportunities by gathering appropriate parties around the county's strengths, and (b) to address the weaknesses by instigating improvements which make further action more possible and more effective.

These are captured in a series of nine key building blocks and one over-arching commitment, with an indication of the proposed lead organisation for each. A road map of actions to establish these building blocks and implement the commitment is outlined on pages 14 – 17, focusing on the next 6 years.

The required 'over-arching commitment' reflects the need for the carbon emission reduction and associated sustainable energy ambitions established here to shape other key strategic developments in the county – from transport planning and management (which was beyond the scope of this strategy) to the emerging Local Industrial Strategy and key new developments such as the Cyber Park.

This is a strategy for Gloucestershire as a whole. By 'Gloucestershire' we mean every institution, business, social enterprise, voluntary and community group operating in the county and every citizen living and working here. The strategy describes the full range of activities which need to take place across the county to put Gloucestershire on a course to achieving the objectives and goals it sets out.



# Reaping the benefits of action

## The benefits on offer: a significant productivity gain, at least £1.15 billion GVA by 2030 and leading county status on decarbonising heat.

More than two thirds of the value of the county's current expenditure of more than £1 billion a year on electricity, gas, oil, coal, petrol and diesel is exported from the county. Improving the energy performance of buildings and equipment in the county and shifting to electric vehicles (EVs) for transport could reduce the county's energy bill by £250 million (releasing the money for more locally beneficial expenditure) and create an energy productivity gain for its businesses of some 20%.

If the energy performance improvements are undertaken by companies based in the county, the potential Gross Value Added (GVA) gains are significant. For example, improving all of the county's housing to an Energy Performance Certificate (EPC) of C requires an investment of £1.2 – 2 billion and could generate £0.75 – 1.3 billion GVA for the county's building and heating engineering businesses. Similarly, the required investment of about £1 billion in new renewable energy

capacity by 2030 could result in some £400 million of GVA if the focus is on using county-based engineering, construction, legal and financial expertise. If the investment was sourced from local and community sources, the long term value of the investment (typically an annual return of 6 – 7%) would also be retained within the county, increasing the investment's local economic multiplier effect.

By taking a lead nationally in developing the understanding, skills, techniques and technologies to deliver fossil-free heat – through an 'ultra-low carbon thermal energy cluster' which creates a focal point for interested parties – Gloucestershire's businesses will be in pole position to gain the GVA from heat decarbonisation both within the county and by exporting technologies and services to other parts of the UK as they address this challenge.

Delivering on the ambitions outlined in this strategy also offers wider environmental benefits and strong health and social benefits. These particularly arise from reducing air pollution through the switch to EVs and by tackling fuel poverty through improving the energy performance of Gloucestershire's housing.



# What needs to change and how

The changes required in Gloucestershire's energy system over the next 20 years are already well understood. They are, by and large, the changes required nationally and across every other part of the UK, as documented in various official national strategies and plans:

- i. a complete shift to very low or zero carbon electricity generation, mostly renewable and much of it decentralised
- ii. smarter and more flexible management of demand, including storage, to enable higher penetration of variable renewable generation and to optimise electricity system operation
- iii. huge reductions in energy demand by improving significantly the energy performance of our buildings (across all sectors and all tenures) and the equipment and processes within them
- iv. decarbonisation of heat (i.e. stop relying on fossil fuel gas and oil) for buildings, hot water and industrial processes
- v. a dramatic rise in the use of electric vehicles and other steps to cut the carbon emissions of road transport (as electricity is decarbonised)
- vi. ensuring new build developments achieve their full low carbon potential and contribute effectively to a smarter energy system.

By their nature, these changes will need to be made right across the county's economy and will involve action by all of its economic sectors. However, as outlined here, this action needs to be shaped by the conditions found in Gloucestershire, including:

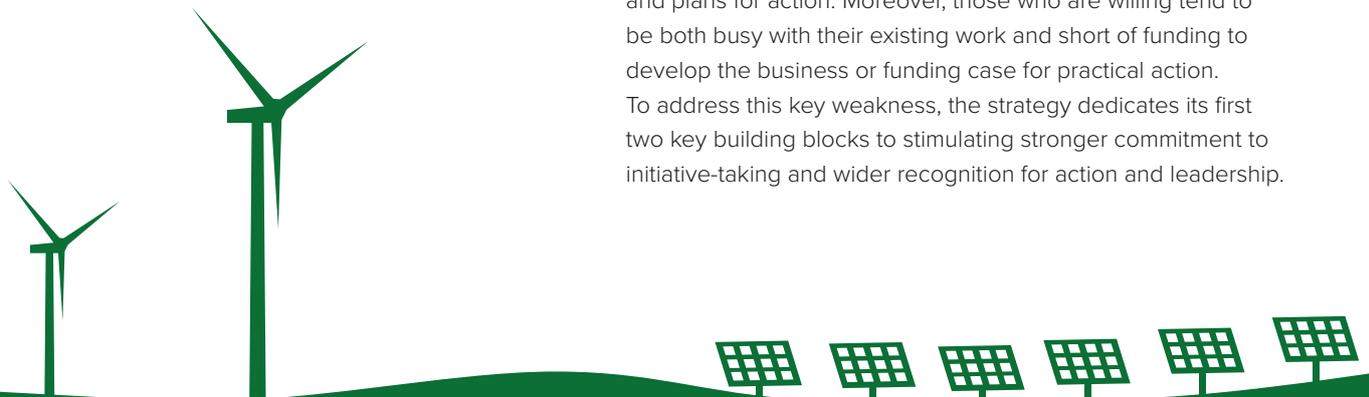
- a. The county's circumstances relevant to energy – natural resources, patterns of economic activity and land-use, existing and planned buildings and infrastructure, and socio-demographic characteristics – and how they vary across the county.
- b. The current and potential strengths and weaknesses relevant to energy – both at local level in terms of capacity and resources, and nationally in terms of the state of national policies, programmes and market regulations which shape the potential for, and value of, action anywhere.

The scale of the changes required is significant. Gloucestershire currently meets at least 85% of its energy needs (for heating, power and transport) from fossil fuels. That needs to be close to zero by 2050.

Nevertheless, the county enjoys significant technical potential for action across all of these areas. And it has particular existing strengths associated with decarbonising heat (from industrial and commercial expertise to agricultural and forestry sectors seeking new markets) and in tackling fuel poverty through effective partnership working.

However, a key weakness is that the county is short of initiative-takers willing and/or able to take forward the many ideas and plans for action. Moreover, those who are willing tend to be both busy with their existing work and short of funding to develop the business or funding case for practical action.

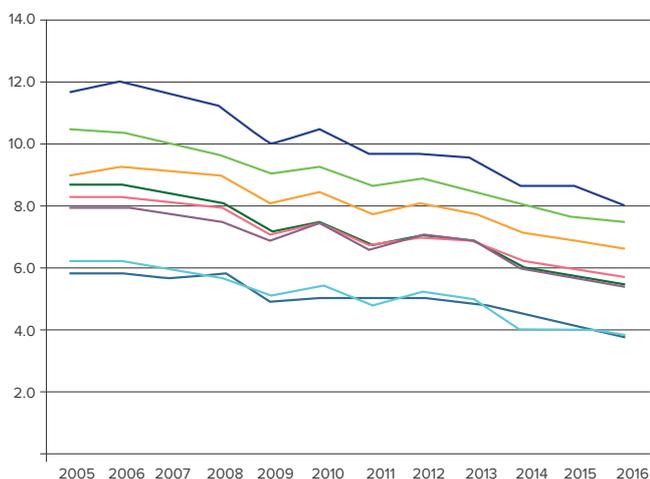
To address this key weakness, the strategy dedicates its first two key building blocks to stimulating stronger commitment to initiative-taking and wider recognition for action and leadership.



# The current state of play on energy and carbon emissions in Gloucestershire

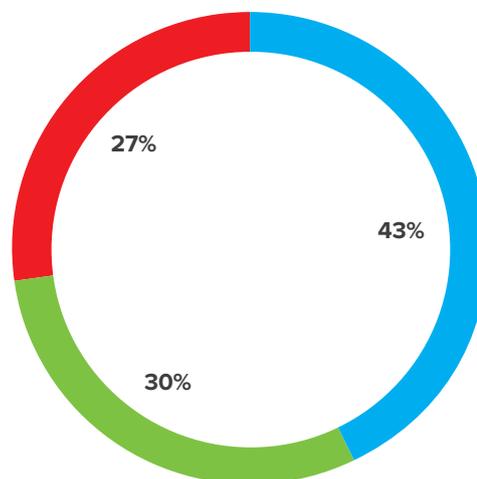
- Gloucestershire's households, businesses and organisations collectively spend more than £1 billion a year on electricity, gas, coal, oil, petrol and diesel. At least 85% of the energy used is fossil fuelled.
- Carbon emission reductions across the county (-27% since 2005) have been broadly in line with the national picture, largely as a result of increased use of renewables (mainly elsewhere) and by gains from energy efficiency improvements in building and equipment (particularly boilers, domestic appliances and lighting).

Per capita CO<sub>2</sub> emissions 2005-2016: locals vs national



- Cheltenham
- Cotswolds
- Forest of Dean
- Gloucester
- Stroud
- Tewkesbury
- Gloucestershire
- National

Gloucestershire CO<sub>2</sub> emissions by sector (2016)



- Transport
- Domestic
- Industry and Commercial (including public sector)

**Gloucestershire spends more than £1 billion per year on:**

- Electricity
- Gas
- Coal
- Oil
- Petrol
- Diesel

**-27%**  
Carbon emissions (Since 2005)

**-20%**  
Gas consumption (Since 2005)

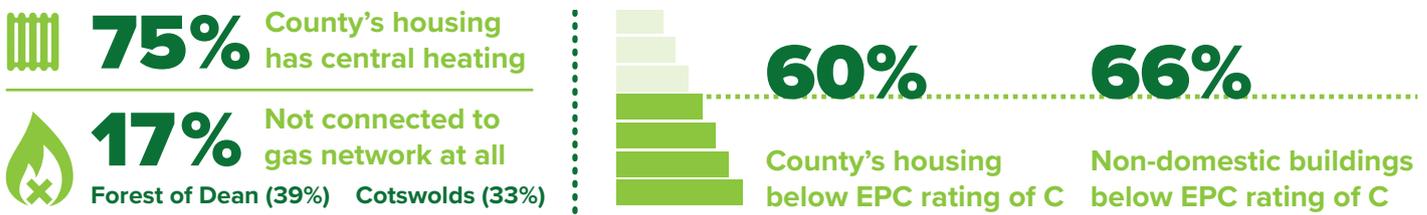
**-9%**  
Electricity demand (Since 2005)

**85%**  
of energy used is fossil fuelled

**1/25**  
HOMES  
Solar PV

Fuel poverty affects **25,000** HOUSEHOLDS

- Reductions since 2005 in the county's electricity demand (-9%) and gas consumption (-20%) are both significant but smaller than national reductions (-13% and -26% respectively).
- Fuel poverty affects 25,000 households – nearly 1 in 10 households – in the county, almost all of whom live in buildings with Energy Performance Certificate (EPC) ratings of below C. The incidence is worse in the Forest of Dean (nearly 1 in 9 households) and less severe in the more affluent Tewkesbury (1 in 12 households).
- Renewable energy accounted for 30% of all UK electricity generated (2017 data) but only 11% of electricity used in Gloucestershire was generated from 'within-county' renewables (nearly all of which was from solar and bio-energy). 1 in 25 homes now have solar PV (with highest levels in the Forest of Dean and Stroud).
- More than 60% of the county's housing is below an EPC rating of C, similar to the national average. More than three quarters have gas central heating, but, reflecting the rural character of much of the county, 17% are not connected to the gas network at all. There are much higher 'off gas' levels in the Forest of Dean (39%) and the Cotswolds (33%).
- 66% of the county's non-domestic buildings are below an EPC rating of C, in line with the national average.
- Roughly 4% of Gloucestershire's buildings have listed status, double the average for England.
- Take up of electric vehicles (EVs) is doubling every 18 months, both in the county and nationally.
- New developments are not currently being designed and built to zero carbon standards. If the 60,000 new homes planned for the county were to be built to current building regulations (rather than to zero carbon standards), the county's carbon emissions would rise by 3.4%. There will be similar upward pressure on carbon emissions if proposed new commercial developments such as the Cyber Park are not built to zero carbon standards.
- The UK is legally committed to cutting its carbon emissions by 80% by 2050 (from 1990 levels). The Government has recently asked the Committee on Climate Change to review this target in the light of the latest scientific evidence; as a result, the target is likely to be tightened to 'carbon neutral by 2050'.



**Renewable Energy**  
**30%**  
of all UK electricity generated

**11%**  
Renewable energy used in Gloucestershire was generated 'within county'

**4%**  
Gloucestershire buildings with listed status (England average = 2%)

**UK AIM: CARBON NEUTRAL BY 2050**

# Gloucestershire's energy-related strengths, weaknesses, opportunities and threats

This strategy draws on an extensive SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis to establish how well – or badly – Gloucestershire is currently set up to take action to meet the proposed strategic ambitions, taking account of national policies, funding programmes and market conditions which strongly influence local opportunities. Understanding this 'current state of play' is vital; it is where any strategy must start if it is to prove successful.

The principal Gloucestershire-specific aspects of the SWOT analysis are summarised below; the more extensive detail (including the implications of the national policy, regulatory and funding picture and developments such as technology cost reductions) is available in the accompanying evidence report for this strategy which is available by contacting [info@gfirstlep.com](mailto:info@gfirstlep.com)

## Strengths

- Strong technical potential in Gloucestershire and commercial development capabilities for expanding renewable energy generation
- Relevant industrial and commercial expertise and capabilities for decarbonising heat
- Gloucestershire Renewable Energy, Engineering and Nuclear (GREEN) skills training facility (at Berkeley)
- Buy-in from GFirst LEP and sustainable energy ambition in 'Gloucestershire 2050 Vision' from Leadership Gloucestershire
- Nationally recognised track record in tackling fuel poverty through Warm & Well partnership (local councils, health sector, Severn Wye Energy Agency)
- Gas and electricity networks actively involved (with Western Power Distribution particularly on EVs and Wales & West Utilities on green gas and hydrogen)
- Public sector lead on EV adoption in own fleets

## Weaknesses

- Limited political appetite for new renewables with designated high value landscapes limiting siting options in some parts of county
- Carbon emission standards in policies for new developments not strong enough to curb emissions or drive zero carbon exemplars
- Focus for action often unclear – who takes the lead on different issues in Gloucestershire?
- Lack of initiative-takers who are willing or have resources to step up, secure funding and lead action
- No consensus (after many attempts) on capture of tidal energy from the Severn or its commercial viability
- Transport planning and other policy areas not fully integrated with carbon emission targets



## Opportunities

- To organise local expertise (as a cluster) to become leading county for heat decarbonisation
- High % of off-gas homes in the Forest of Dean and the Cotswolds create potential for 'fossil free heating zone' exemplars
- Renewable energy production from farming and forestry sectors ('green gas' and biomass)
- Refresh of local plans set zero carbon standards for new developments
- Investment interest and wealth available within some parts of county to increase local economic capture of investment benefits
- High car dependency in county so big potential gains from shift to EV (carbon and air pollution reduction)
- Strengthen support for energy management in commercial sector to drive productivity
- £1.5 – 2 billion market for low carbon housing retrofit over next 15 years
- Exemplary low carbon retrofit of heritage buildings

## Threats

- Focus on new build developments and flagship projects ignores need to act extensively on existing buildings and infrastructure
- Grid constraints will reduce renewables potential if not addressed promptly and imaginatively (linking to more flexible demand)
- Supply chain for building retrofit too busy with normal ('not low carbon') retrofit to engage with low carbon market
- Complexity of participation in new 'smart energy' markets limits local participation without expert support
- Reduced public sector capacity undermines participation by local councils
- Other regions and counties are better organised so tend to be awarded the available funding
- Failure to take early steps to address lack of initiative-takers with support and seed funding leaves strategy undelivered



# Strategic energy ambitions for Gloucestershire

Taking account of the range of national targets and ambitions adopted by the Government for different aspects of the energy system, a set of strategic energy ambitions for Gloucestershire are proposed. These represent the county ‘playing its part’ in national efforts while reflecting local conditions, constraints and opportunities.

## **Committing to reducing carbon emissions**

Gloucestershire to become carbon neutral by 2050, reducing carbon emissions by 60% by 2030 (on 2005 levels) and to virtually zero by 2050 with any residual emissions offset by additional tree planting or other carbon absorbing measures (in line with the anticipated new national target).

## **Increasing renewable electricity generation**

Carbon emissions per unit of electricity below 100g by 2030 with at least 30% of electricity consumed in the county generated from renewable energy sited within the county.

1 TWh a year of renewable electricity sourced from projects sited within the county by 2030 (requiring an extra 0.75 TWh from 2017 levels).

## **Improving building energy performance (and tackling fuel poverty in the process)**

Every existing building (domestic and non-domestic) upgraded to at least an EPC rating of C by 2035 – and upgrading fuel poor homes to at least a C by 2030.



### **Decarbonising heat**

Heat demand in the county – for heating buildings and for industrial processes – needs to be decarbonised (i.e. not reliant on fossil fuel gas or oil) by 2040.

### **Shifting to Electric Vehicles (EVs)**

By 2028, half of all new vehicles in Gloucestershire are EVs (with smart charging to minimise network costs and maximise the value of renewable electricity generation).

### **Securing zero carbon new development**

All new developments in the county to be net carbon negative and smart-energy-enabled from 2020.



# Nine key building blocks and one over-arching commitment

The strategy identifies nine key building blocks for purposeful effort and one over-arching commitment which need to be put in place in Gloucestershire to deliver on its ambitions.

These address key existing weaknesses and build on strengths in the county. Together they provide the foundations for a strategic approach to realising the county's ambitions and capture the benefits of doing so for the people and businesses of the county. Much more detail on each key building block can be found in the accompanying evidence report for this strategy which is available by contacting [info@gfirstlep.com](mailto:info@gfirstlep.com)

The proposed lead for each building block is shown underneath – as the organisation which will take the early responsibility for initiating action (often to be taken by or with others) to establish the building block.

**1** **Distributing strategic leadership and creating 'branding' for action** to develop a set of acknowledged initiative-takers and create an explicit sense of shared purpose (*Lead: GFirst LEP*)

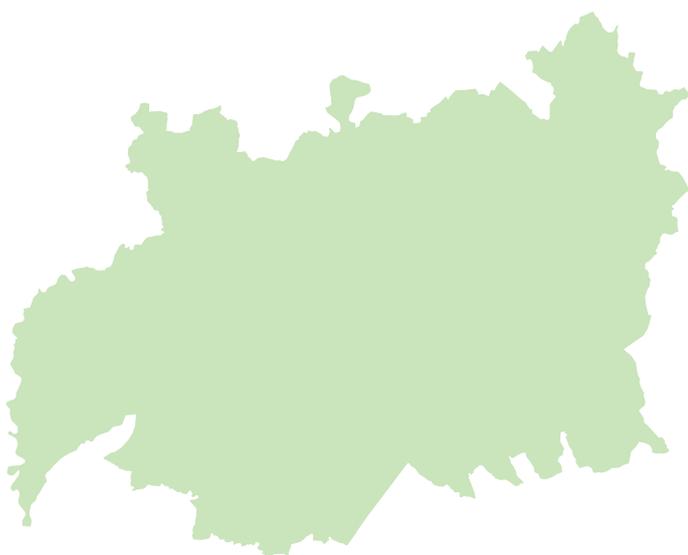
This will address the relative lack of acknowledged and supported initiative-takers across the county and establish a recognised brand which draws positive attention to those taking action which is contributing to Gloucestershire's strategic energy ambitions.

**2** **Establishing county-wide leadership and meaningful public consent** for the energy transition (*Lead: GFirst LEP*)

This envisages GFirst LEP working with Leadership Gloucestershire to identify a lead in establishing a positive role in shaping public and business opinion in support of this strategy, alongside building block 1. In addition, it will use approaches such as neighbourhood planning, consultation processes for new local plans and community engagement on energy to engage the public in discussions about energy system change and what it means for them and where they live and work.

**3** **Enabling business sector productivity gains** through (smart) energy demand reduction and new approaches to funding (*Lead: GFirst LEP Energy Business Group*)

Stimulating action by businesses on making energy efficiency improvements is notoriously difficult, but represents a significant potential productivity gain. Key initial steps include (a) a better understanding of the opportunities for improvement in businesses based in the county and (b) working with other LEPs through the South West Local Energy Hub to assess the potential business case for an Energy Efficiency Fund to provide off-balance-sheet investment for improvements.



**4 Taking the lead on decarbonising heat** by establishing an ‘ultra low carbon’ thermal energy cluster and ‘off gas’ fossil-free heating zone exemplars (**Lead: GFirst LEP Energy Business Group**)

Organising the disparate industrial, commercial and consultancy expertise and interests on heat across the county into a meaningful cluster, creates the opportunity for the county to take a leading role nationally in developing the multi-disciplinary skills and capabilities required to decarbonise the UK’s heat supply to buildings and industrial processes by 2040. This would also engage with the forestry and agricultural sectors as potential sources of renewable heat.

**5 Developing stronger planning policies** which enable more local renewables and require zero-carbon, smart-enabled new developments (**Lead: GFirst LEP**)

To meet long-term targets, new planning policies need (a) to ensure that all new developments contribute to reducing carbon emissions rather than increasing them and are resilient to climate change and (b) to enable the growth of renewable energy generation and smart energy infrastructure, taking appropriate account of landscape sensitivities.

**6 Creating a ‘Renewable Energy Leadership Group’** to bring forward scalable new business models for smartly integrated local renewables with community and other local investment (**Lead: GFirst LEP Energy Business Group**)

With renewables having to succeed in the future without subsidy, the county’s renewable energy sector – from large players like Ecotricity, to community-scale groups keen to develop projects – needs to work together to find smart new ways to develop viable renewable

energy projects. This is likely to involve storage, smart demand management and/or local energy trading and, to maximise the economic value to Gloucestershire, a focus on securing community and local investment.

**7 Accelerating low carbon housing retrofit**, with a particular focus on home-owners and building trades who are ‘ready to act’ (**Lead: Severn Wye Energy Agency**)

The market for low carbon housing retrofit needs orchestrating – bringing together householders keen to take action with a well-trained local supply chain which understands low carbon retrofit techniques and appropriate material choices for local buildings.

**8 Tackling fuel poverty at its roots** by building on Warm and Well and transferring Private Rented Standard Minimum Energy Efficiency Standard enforcement powers to District Councils (**Lead: Warm and Well Steering Group**)

Gloucestershire’s award-winning Warm and Well partnership has the potential, but not currently the resources, to expand and deepen its activities and significantly reduce levels of fuel poverty across the county.

**9 Co-ordinating the growth of electric vehicles** and associated charging infrastructure (**GFirst LEP will work with Leadership Gloucestershire to identify a lead**)

The rapid growth of electric vehicles anticipated over the next decade requires a co-ordinated approach across the county to ensure the timely, orderly and cost-efficient development of the electric vehicle charging network, keeping costs down and removing barriers to electric vehicle take up.

**The over-arching commitment:** Ensuring all public sector policies and funding programmes (including all sponsored new developments) are aligned with Gloucestershire’s sustainable energy ambitions (**GFirst LEP will work with Leadership Gloucestershire to identify a lead**)

The success of this energy strategy depends on other policies and programmes across Gloucestershire embedding and respecting its ambitions and contributing appropriately to their achievement. This applies to the county’s transport strategy planning and the Local Industrial Strategy and GFirst LEP’s broader priorities, flagship projects and funding commitments.

# The road map to a sustainable energy future for Gloucestershire: from 2019 to 2025

To show how the 'first next steps' – creating the key building blocks outlined overleaf – can be sustained with purposeful effort from 2019 through to 2025, a road map is provided. It rather crudely divides the steps – or activities – into 'Doing', 'Preparing' and 'Exploring'.

## Doing:

Activities which can be done now with more or less immediate impact.

## Preparing:

Steps which need taking now so that Gloucestershire is ready to 'do more' in a year to two years' time.

## Exploring:

Initiatives to take now to improve prospects for future activity by helping to create conditions which make impact more possible in the future.

Each step is also annotated with the key building block to which it relates and the proposed lead for that action. All of the actions in 2019 represent the 'first next steps' to create each of the key building blocks.

# 2019

## Doing

(New) things to do now for impact now

- Develop a 'brand identity' to be used to create a shared sense of purpose and to draw positive attention to actions being taken (**1 – GFirst LEP with wider stakeholders**)
- Adopt the strategic sustainable energy ambitions as outlined in pages 10 and 11 (**2 – GFirst LEP**)
- Review all existing new developments (e.g. Cyber Park) and current funding proposals for their sustainable energy and carbon emission impacts, strengthening requirements where necessary (**2, 3, 5 and overarching commitment – GFirst LEP**)
- Establish the Heat Decarbonisation Task Group (**4 – GFirst LEP Energy Business Group**)
- Make clear to National Government Gloucestershire's intent to be the leading county for decarbonising heat (**4 – GFirst LEP**)
- Set up 'Renewable Energy Leadership Group' to drive development of new business models to grow local renewable generation in 'smarter system' and enable local and community investment (**6 – GFirst LEP Energy Business Group**)
- Adopt new 'Build2LC' (Build to Low Carbon) programme as new Affordable Warmth Strategy for Gloucestershire (**8 – Warm & Well steering group**)

# 2019

## Preparing

Things to do now for impact in 1-2 years

- Identify lead organisations for each of the key building blocks, secure their involvement and establish the support they need to take required initiative **(1 – GFirst LEP)**
- Work to achieve zero carbon and smart enabled standards for new developments as new Local Plans (and Joint Strategy) are developed. **(5 – GFirst LEP)**
- Promote consideration of low carbon energy in neighbourhood planning activities across the county. **(2 & 5 – GFirst LEP Energy Business Group)**
- Develop costed proposal for Gloucestershire wide low carbon housing retrofit accelerator programme and identify potential funding sources **(7 – Severn Wye Energy Agency)**
- Establish an EV Growth Co-ordination Group, with focus on engaging with Western Power Distribution **(9 – GFirst LEP will work with Leadership Gloucestershire to identify a lead)**
- Create a systematic process to assess the carbon emission and sustainable energy impact of proposals **(Overarching commitment – GFirst LEP with South West Local Energy Hub)**

## Exploring

Things to do which create the conditions which make impact more possible in the future

- Explore potential funding sources for all 'key building blocks', identifying gaps and opportunities to include in next Local Growth Plan **(1-9 – GFirst LEP with South West Local Energy Hub, Department of Business, Energy & Industrial Strategy, Ministry of Housing, Communities & Local Government and United Kingdom Research & Innovation)**
- Commission a study into business energy use across the county, including potential to improve performance and level of demand flexibility **(3 – GFirst LEP Energy Business Group)**
- Develop (in partnership with the SW Local Energy Hub) potential business case for a regional Energy Efficiency/ Demand Response Fund for the business sector **(3 – GFirst LEP Energy Business Group)**
- Explore potential for funding for SME business energy advice within replacement for European Regional Development Fund (ERDF) funding post-Brexit (avoiding risks associated with ERDF funding) **(3 – GFirst LEP)**
- Explore potential sites in the Forest of Dean and in the Cotswolds for 'fossil free' heating zones **(4 – GFirst LEP Energy Business Group)**
- Commission studies of (a) opportunities in the county for recovering industrial process heat to displace other heating fuels and (b) 'green gas' production opportunities in the county **(4 – GFirst LEP Energy Business Group)**



# 2020

- Promote and use the 'brand identity' to establish shared sense of purpose and draw positive attention to actions being taken *(1 – GFirst LEP with wider stakeholders)*
- Promote exemplary low carbon neighbourhood plans and support communities to follow through on opportunities identified *(2, 5 and 6)*
- Set out the county's potential and its ambitions as the leading county for decarbonising heat *(4)*
- Bring first 'new business model' renewable energy projects to market for local/community investment *(6)*
- Initiate local low carbon housing retrofit accelerator *(7)*
- Enforce Private Rented Standard Minimum Energy Efficiency Standard in domestic sector to upgrade worst rented properties *(8)*
- Launch programme to influence locations of EV charging points and take up of smart charging options *(9)*
- Finalise business case and funding for SW Business Energy Efficiency/Demand Response Fund (in partnership with other LEPs) *(3)*
- Develop advice and support programme for Gloucestershire to drive take up of SW Business Energy Efficiency/Demand Response Fund (working with existing energy manager networks) *(3)*
- Secure funds for heat decarbonisation cluster *(4)*
- Engage stakeholders and put funding package together for 'fossil free' heat zones in the Forest of Dean and the Cotswolds *(4)*
- Finalise new policies for zero carbon development and site allocations for solar and wind in Local Plans *(5)*
- Review all existing and proposed policies and programmes (using systematic process developed in 2019) to ensure they support, rather than undermine, the energy strategic ambitions *(over-arching commitment)*
- Draw up Gloucestershire Heat Decarbonisation plan *(4)*
- Develop exemplary low carbon retrofit projects for heritage buildings *(7)*



# 2021

- Strong shared sense of purpose and extensive participation in 'brand' and associated actions to cut carbon and deliver sustainable energy **(1, 2)**
- Launch SW Business Energy Efficiency/Demand Response Fund and drive take up within Gloucestershire **(3)**
- Launch Gloucestershire heat decarbonisation cluster and publish (and deliver) heat decarbonisation plan for the county **(4)**
- Launch fossil free heat zones **(4)**
- Enforce new zero carbon and smart policies in Local Plans for all new developments **(5)**
- Bring second wave of 'new business model' renewable energy projects to market for local/community investment **(6)**
- Double rate of take up of low carbon housing retrofit **(7)**
- All proposals being endorsed by GFirst LEP with other key stakeholders fully aligned with sustainable energy and carbon reduction ambitions **(1, 2 and overarching commitment)**

# 2025

- Gloucestershire businesses are actively securing the productivity gains of improved energy efficiency **(3)**
- Gloucestershire is leading county for heat decarbonisation with plan being put into action **(4)**
- All new developments are meeting zero carbon and smart energy standards **(5)**
- 1 in 15 homes in county have solar photovoltaic (PV) panels **(6)**
- Subsidy-free solar and on-shore wind being realised at scale with local/community investment, thanks to supportive local and neighbourhood plans **(6)**
- Low carbon building retrofit is the 'norm' in the domestic **(7)** and non-domestic **(3)** sectors
- Fuel poverty eradicated from homes below an EPC rated D **(8)**
- Electric vehicle (EV) take-up and charging point roll-out managed smartly to minimise cost and resilience risks to local distribution networks while maximising EV growth **(9)**

2021

2025



# Implementing the strategy: the initial steps

Delivering this strategy will require action by a wide range of stakeholders across the county serving common ambitions.

Some will need to lead new initiatives and seek the involvement of others, some to accelerate and deepen their existing activities and many to become involved in new initiatives as willing and committed participants.

Key building blocks 1 and 2 are at the heart of creating this sense of shared purpose and the extensive leadership and stakeholder involvement required.

To take this strategy forward immediately, GFirst LEP will take the lead responsibility for key building blocks 1 and 2. It will also support the membership of its Energy Business Group to do likewise, encouraging other initiative-takers to join this group as the main co-ordinating body for the strategy. In addition, GFirst LEP will engage other key institutions in the county with this strategy and the establishment of its key building blocks.

GFirst LEP will take responsibility for annually reviewing progress on the strategy and action plan, identifying progress and gaps. It will also work with the new government-funded South West Local Energy Hub and maintain the relationship with government officials to sustain policy alignment and identify funding opportunities.

The South West Local Energy Hub will be supporting the initial progression and continuing development of key projects in the form of a regional energy Project Manager which BEIS have agreed to fund for the first two years, together with an energy strategy delivery co-ordinator for the county. In order to enable the development by potential initiative-takers of strong proposals for funding and investment from both local and national sources, GFirst LEP with the aid of the South West Energy Hub will be able to assist in directing them to technical support and 'Seed' style funding opportunities for these projects.





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