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Marches LEP Energy Strategy

Energy Strategy for the Marches Local Enterprise Partnership

Executive summary

The Marches Local Enterprise Partnership (LEP) has recognised that energy provision can impose a barrier to economic growth. The way that energy is generated and consumed in the UK is changing and it is important to understand this when setting out a strategy for future energy use in the Marches.

The current energy infrastructure is already at capacity in many areas and this presents both a threat to future business and housing development but also an opportunity to invest in innovation that can overcome these challenges while providing a unique selling point for those in the energy supply chain to invest in the area.

The Marches is an area with ambitious growth plans; it is set to create 40,000 new jobs and 70,000 new homes over the twenty years to 2031. Energy is a vital component in the realisation of these plans in terms of the availability and reliability of supply to be able to support this growth trajectory. Within the energy sector, there are also opportunities to expand high-value supply chains supporting technological innovation.

This energy strategy has been commissioned by Marches Local Enterprise Partnership (LEP) with support from the Department of Business and Industrial Strategy (BEIS). Its objectives are to:

- Identify barriers to growth from current energy infrastructure.
- Highlight opportunities for the Marches to deliver its growth potential through innovative and low carbon related business opportunities.
- Develop an achievable action plan required to mitigate risks and capture the opportunities for the Marches that come with change in the national energy system.

Assessing the local energy system

The strategy has been built on a review of the existing evidence base of data and documentation on all aspects of the local energy system. This included national datasets of energy consumption across the region by sector, fuel type and location. This data was benchmarked against national averages to be able to identify regional differences and examined to understand the strengths and weaknesses of the Marches' use of energy today, and the aspects of energy usage in the region that may be a threat or present an opportunity for growth.

Local datasets were also incorporated, the key to this exercise was understanding what had already been achieved. This was particularly important in areas such as energy efficiency and supply, strengthening opportunities in the low carbon supply chain and understanding what was still proving to be a barrier to development. Additionally, analysis of electricity grid constraints across the Marches was undertaken, as it had already been identified as an area of weakness for delivering some of the key strategic development required.

Key findings included

- There is significant potential for renewable generation including biomass, solar, wind and anaerobic digestion.
- A significantly constrained electrical grid both in terms of generation and supply leading to difficulties in connecting both new development and energy generation assets.
- The Marches is already a national leader in the deployment of anaerobic digestion plants.
- The rural nature of the area results in;
  - > Comparatively high transport emissions as vehicles have to travel further to their destinations.
  - > Significant areas off the gas grid leading to the relatively widespread use of high carbon and high-cost fuels.
  - > Above national and West Midlands average levels of fuel poverty.

Looking to the future

The local Marches energy system (generation, supply, and infrastructure) is completely interconnected with the national system. The national energy system is undergoing a period of significant and in some cases disruptive change, such as the rise in the contribution of local renewable generation to our energy mix and changes in energy use in transport through the increased use of electric vehicles. This presents both opportunities and threats to local Marches businesses.

A number of future energy scenarios have been developed by National Grid, these consider the uptake of electric vehicles, heat pumps and other technological innovation. This strategy presents two of these scenarios, the first entitled *Steady State* shows business-as-usual with only slow uptake of these technologies and the other, *Two Degrees*, shows an accelerated path to decarbonisation with large subsequent impacts on local electricity distribution networks and changes in the way energy is produced and consumed.

Forming the vision

The evidence base and the national context for transformational change in the national energy sector was considered alongside in-depth analysis of strengths, weaknesses, opportunities and threats relating to the Marches energy system. This work and consultation with stakeholders has informed the development of a vision for energy in the Marches.

2030 Vision Statement

> The Marches area has an energy generation and supply system which is **flexible and reliable,** delivering energy that is low carbon and low cost to businesses and communities, can accommodate planned growth and can support well developed low carbon supply chains.

Key priorities

In order to achieve this strategy, a number of key priorities were developed:

Key priority 1: Smart control and mitigation of grid constraints
Key priority 2: Innovation in agricultural technologies
Key priority 3: Sufficient reliable energy supply
Key priority 4: Development of the supply chain in key areas of the low carbon economy
Key priority 5: Local renewable energy supply
Key priority 6: Addressing high levels of fuel poverty

Pilot

Developing a pilot grid constraints mitigation project as a national demonstrator

57%

Carbon emissions excluding agriculture reduced in line with UK targets, a 57% reduction on 1990 levels

1000

1000 new jobs in the Low Carbon and Renewable Energy sector

Leader

Continue to be a national leader in deployment of anaerobic digestion

≤10%

Fuel poverty reduced below **10%**

Centre

Centre for UK agriculture innovation and low carbon transition

50%

Renewable electricity meeting 50% of local demand

Delivering the vision

The vision is an aspirational target for 2030 and achieving this will require a number of work streams by a range of stakeholders. This strategy aims to articulate the primary tasks by work stream and assign action owners in order to make it clear who needs to do what by when in order to drive towards the same outcomes. Some of the key actions to be undertaken are set out below.

Action	Timescale	Owner
Adopt 2030 Energy Vision aspirations	March 2018	Marches LEP Board
Liaise more closely with the local electricity network operators (DNOs) to understand constraints and planned work	2018	Marches LEP and partners
Development of Energy Innovation Zone to undertake pilot smart grid project	2019	Marches LEP
Facilitating establishment of Centre for Agri-Tech Innovation in the Marches	2022	Marches LEP
Work with energy companies to influence local use of ECO funds for energy efficiency	2019	Marches LEP

How the vision falls within the LEPs strategic priorities

The LEP has already developed a number of strategic priorities; the strategy delivers against a number of these and this is mapped in the following graphic.

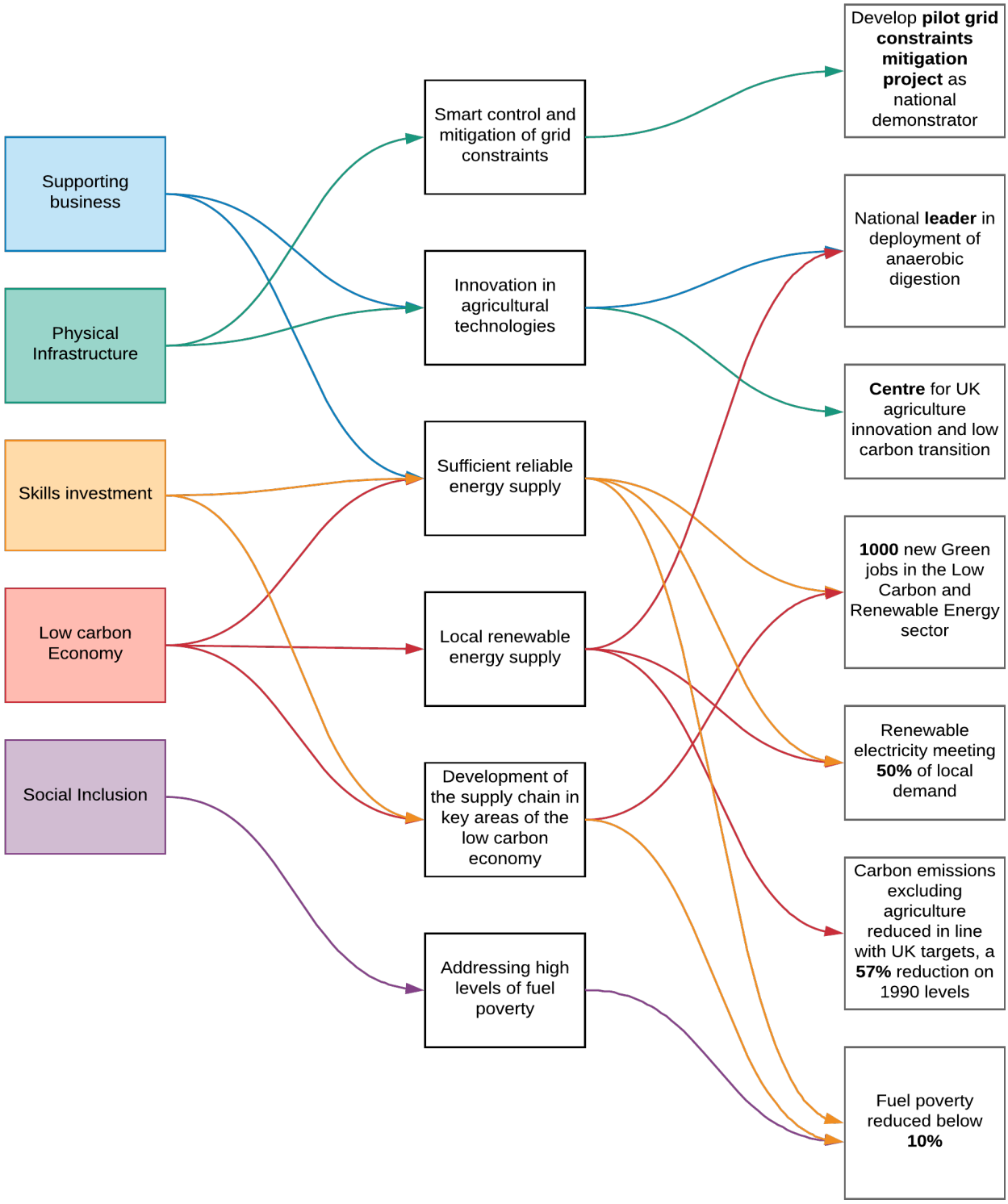

Figure 1 - Mapping LEP strategic priorities against deliverable actions.

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