

West Midlands Local Industrial Strategy: Low Carbon and Environmental Technology sector Action Plan - Primer

Introduction

The West Midlands is one of three trailblazing regions to develop the first Local Industrial Strategies. The West Midlands Local Industrial Strategy has now been [published](#) and Greater Birmingham and Solihull Local Enterprise Partnership has been tasked with producing a number of action plans for the key sectors identified in the Local Industrial Strategy.

This document is a primer for the action plan intended to prompt discussion around the plan with stakeholders. We invite criticism of the example interventions set out below and we would also welcome suggestions about what challenges the sector are facing in the region, what opportunities the sector could take advantage of and what possible interventions could help the sector to grow.

Business Environment

Opportunity

The Low Carbon & Environmental Technology sector is expected to grow dramatically in response to the escalating concern about climate change and the need to decarbonise our economy. The sector is expected to grow by 11% per year between 2015-2030 across the UK, which is 4 times the growth rate of the UK economy overall¹. There is an opportunity to pre-empt this low carbon transformation by making use of public procurement and capital expenditure to bolster demand for LCET services in the region. This would create opportunities for our existing low carbon businesses to grow, encourage more companies to locate in the West Midlands and develop a cluster of low carbon companies who can benefit from a shared access to talent, knowledge and infrastructure.

Example interventions:

1. Set improved environmental standards (above regulatory requirements) across LEP capital programmes. This will mean that projects will be encouraged to make use of latest low carbon and energy technologies in the construction and maintenance of buildings that the LEPs fund, creating a significant local demand for the low carbon/environmental sector. This can accelerate the growth of the existing businesses in the sector, attract new businesses to set up in the region as well as creating a demand for new skills and jobs.
2. Work with key anchor institutions in the region such as the universities, councils, NHS and large businesses to encourage low carbon and environmental procurement criteria in their tender processes; this, combined with an emphasis

¹ [Committee on Climate Change & Ricardo Energy and Environment, 'UK business opportunities of moving to a low-carbon economy'](#), (March 2017)

on procuring *local* businesses, as recommended by the Centre for Local Economic Studies, should bolster the demand for the services of low carbon and environmental technologies in the region².

3. Scale-up existing programmes which support businesses with improving energy efficiency and environmental standards such as the Low Carbon SMEs programme run by Aston University and the Environmental Technologies, the Resource Efficiency Support Service run by the University of Wolverhampton and (SME Support) Coventry and Warwickshire Low Carbon Programme run by Coventry City Council³. This will also contribute to the update of low carbon/environmental technologies and hence bolster demand for these services in the region.
4. Ensure that business support from Local low Carbon and Energy Programmes continues after Brexit through the allocation of UK Shared Prosperity Fund. This will help to keep up the momentum and avoid a slow-down investment in low carbon technology.
5. Encourage financial institutions, banks and public authorities to deploy financial instruments and zero interest loan products targeting energy efficiency improvements and purchase of low carbon technologies. This would also contribute towards growing the regional demand for low carbon services.
6. Increase usage of energy monitoring and measuring technologies and services across all sectors.

Challenge

The Low Carbon and Environmental Technology sector is a small (3.1% of the GVA in the West Midlands Combined Authority⁴), but rapidly emerging part of the economy and is underdeveloped in terms of business representation and business ‘voice’, compared to more established sectors like Business Services and Automotive.

Local networks for low carbon businesses, supported by the public sector, are an excellent means of supporting growth of low carbon sectors.⁵ Evidence suggests that businesses in this sector benefit particularly from targeted business support that focuses on building networks and partnerships that support local businesses to scale.⁶

² CLES, Community Business and Anchor Institutions, (February 2019)

³ More relevant projects:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/773885/ESIF_2014-2020__List_of_beneficiaries_January_2019.xlsx

⁴ [West Midlands Industrial Strategy Sector Evidence Full Pack \(September 2018\)](#)

⁵ <http://www.sustainabilitywestmidlands.org.uk/wp-content/uploads/Core-City-Report-final-clean.pdf>

⁶ <http://www.centreforcities.org/wp-content/uploads/2014/08/13-12-17-Delivering-change-How-cities-go-low-carbon-while-supporting-economic-growth.pdf>

However, the business support often comes from different sources each with different outputs, therefore businesses might find confusing to understand “who does what”, “who to go to” and what support are they eligible for.

Example interventions:

1. Strengthen the LEP role as a first point of contact for business support. Because of its role as enabler⁷ of local growth, the LEP is in an ideal position to act as a “go-to” place for business support enquiries, including low carbon funding and networking opportunities.
2. Carry out a mapping exercise to map organisations in the region and their role within the low carbon sector.
3. Carry out mapping exercise of all low carbon and energy efficiency funding programmes available in the region and their eligibility criteria.
4. Map out existing low carbon networks for businesses in the sector to learn from each other and to communicate any challenges, concerns, opportunities and suggestions and establish new groups where demand exist.
5. Through the Growth Hub and partners, develop a programme of support to help low carbon businesses to improve their competitiveness, achieve relevant green accreditation that could help strengthen bid submissions, find suitable funding or finances, identify joint ventures opportunities, up-skill their workforce.
6. Develop governance and organisation arrangements among local partners to encourage a collaborative approach to delivering this action plan.

Ideas

Opportunity – *The West Midlands Science and Innovation Audit (2017) identified that the region has ‘significant potential in the development and commercial application of a range of technologies in energy storage including batteries (materials and chemistry), and hydrogen storage.’⁸ This is based on the research excellence of the universities and energy storage facilities in the region.*

Example Interventions:

1. Increase the commercialisation of near to market low carbon technologies and solutions (heat and power generation, low carbon smart grid, energy and building controls, energy management and storage, low carbon fuel, etc).
2. Maximise local collaboration between research and innovation entities and businesses to encourage development and commercialisation of our research strengths.

Opportunity – *there are unique opportunities for the sector to benefit from **cross-sectoral collaborations**, for example between transport, energy, construction and digital sectors, and the transfer of know-how from sectors such as advanced manufacturing and logistics to*

⁷ GBSLEP Annual Delivery Plan 2019-20

⁸ SQW, A Science and Innovation Audit for the West Midlands, (June 2017) p.76

construction and energy. The West Midlands has strengths across all these areas which presents the region with a unique opportunity⁹.

Example Intervention:

3. Set up mentoring programme, workshops, case studies to demonstrate ways of working across sectors and share knowledge and skills between them.

People

Challenge – Skills shortages are an impediment to growth in the low carbon and environmental technology sector with 36% of vacancies, nationally, attributed to skills shortages – a higher percentage than for any other sector¹⁰. The sector is heavily reliant on rapidly evolving technologies and there is a challenge around how to ensure that the skills of the workforce evolve at a rate that can keep up with technological progress.

Example Interventions:

1. LEPs to map local skills provision and pathways for the LCET sector.
2. Energy skills re-training programme for those currently working in fossil fuel intensive sources of energy to develop skills in the low carbon sector.
3. Increase in the number of LCET sector apprenticeship standards delivered within the region and encourage regional employers to get involved in apprenticeship design.
4. Expand scale of Knowledge Transfer Partnerships and SME/graduate job matching schemes in LCET sector.
5. Establish an Institute of Technology in the region for low carbon technologies.
6. Ensure the LCET sector has a representative on the GBSLEP Employment and Skills Board
7. Support the [Enterprise Adviser Networks](#) to provide advice on LCET sector education and careers. This could be an opportunity to create a campaign around promoting the sector as a career option. Young people in the region are particularly engaged and concerned about environmental issues.
8. Identify low carbon energy leaders and share successful case studies.

Infrastructure

Challenge – the region will require significant improvements in infrastructure to meet the growing demand for energy and the changing nature of energy towards low carbon and decentralised distribution systems.

Example Interventions:

⁹ Energy Capital, A Regional Energy Strategy for the West Midlands, (November 2018), p68

¹⁰ Energy & Utility Skills Sector Council <<http://www.euskills.co.uk/2018/02/09/skills-strategy-impacts-energy-utilities-sector-ahead-first-anniversary/>>

1. Invest to ensure that the region has enough capacity to meet the growing demand for energy in general and the growing demand for low carbon energy in particular.
2. Create a regional energy infrastructure putting the region at the leading edge of the global energy and transport systems transition (A Regional Energy Strategy for the West Midlands¹¹).
3. Support the development of local smart energy systems such as the Constraint Management Zones defined by Western Power Distribution.

Opportunity – *there are a number of significant transport projects taking place in the region and there is an opportunity to leverage the opportunities for the sector to develop low carbon transport technologies.*

Example Interventions:

1. Ensuring that there is the potential to scale-up and develop the hydrogen bus project if it is a successful trial.
2. Take advantage of the Birmingham Clean Air Zone (CAZ) to test and develop technologies around emissions monitoring and low emissions vehicles.
3. Programme to retrofit vehicles to comply with CAZ
4. Working with partners to create opportunities for the sector arising from major projects such as Sprint, HS2 and the Metro extension.
5. Increase the production of low carbon fuel for transport and develop infrastructure for their storage and distribution.

Place

Opportunity – *The Regional Energy Strategy for the West Midlands proposes the introduction of a series of Energy Innovation Zones. Energy Innovation Zones are a defined geographical area operating with specified flexes in energy and planning regulations to encourage clustering and innovation in energy infrastructure systems to meet local needs¹². This pioneering place-based approach to energy strategy represents an opportunity for the low carbon and environmental technologies sector to benefit from preferential regulations and the proximity to other businesses in the sector – this can facilitate knowledge sharing between firms and the emergence of a pool of talent around these EIZs with skills relevant to the sector.*

Example Interventions:

1. Contribution to executive team supporting EIZs. Est. £20,000 per annum from SEP Enabling Fund plus BEIS funded post
2. Support the successful delivery of EIZs with Executive Officers allocated for each of the areas.
3. Promote and signpost the opportunity for companies to locate in Energy Innovation Zones, via Growth Hub, communications, and the Low Carbon Network.

¹¹ <https://www.energycapital.org.uk/wp-content/uploads/2019/01/A-Regional-Energy-Strategy-for-the-West-Midlands-FINAL.pdf>

¹² Energy Capital, A Regional Energy Strategy for the West Midlands, (November 2018), p34

Opportunity – *The Commonwealth Games represents a key opportunity for the sector in terms of benefiting from procurement opportunities to deliver a ‘Green Games’.*

Example Interventions:

1. Support Low carbon businesses to understand how they can link up with the delivery of the games in terms of procurement
2. Work with local membership organisations and advocacy groups to discuss how the Commonwealth Games can be delivered in a way that is as environmentally sustainable as possible and create demand for local LCET businesses.

DRAFT