

Energy and low carbon activity and structures in combined authority areas

For: Energy Capital

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ENERGY CAPITAL

Report information

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We are the sustainability adviser for the leaders of the West Midlands. We are also the regional sustainability champion body for the West Midlands, designated by government. We are a not-for-profit company that works with our members in the business, public and voluntary sectors. Our Board is private sector led and has cross-sector representation; they are supported by our team of staff and associates.

Our vision is that by 2020 businesses and communities are thriving in a West Midlands that is environmentally sustainable and socially just.

Our role is to act as a catalyst for change through our advice to leaders, to develop practical solutions with our members and share success through our communications.

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1. Introduction

This report analyses the structures and activities that are operating in combined authorities in England that are related to energy and low carbon. Demonstrating good practice from elsewhere can help to inform how the West Midlands [Energy Capital initiative](#) can be properly linked and embedded into West Midlands Combined Authority (WMCA) structures to ensure that delivery of activities can take place to achieve the overarching aim of Energy Capital: *“to make the West Midlands one of the most attractive locations to build innovative clean energy technology companies in the world.”*

2. Checklist for Energy Capital

The key elements that have generated success in other combined authorities in relation to embedding energy and low carbon activity are outlined below. Energy Capital can use this as a checklist when looking to move discussions forward with the WMCA.

- The WMCA Mayor should be aware of the Energy Capital initiative and act as its voice on the national stage, encouraging investment and helping the WMCA to fully embed Energy Capital into its structures.
- There should be a clearly nominated cabinet portfolio holder to whom the Energy Capital Executive (see below) should report to. This role should allow for developments to be reported at Board level.
- The Energy Capital Board should become part of the wider suite of WMCA Boards and be convened by the Energy Capital Executive (see below).
- There should be an individual (Energy Capital Manager) embedded into the WMCA who can drive forward the delivery of activities encompassed within the Energy Capital initiative.
- This individual should be supported by an Executive Team to help assist project delivery and provide secretariat support, such as at Board meetings.
- Working groups should be developed where additional expertise or collaboration on projects from relevant organisations is required to help move activity forwards.

3. Evidence: summary of relevant activity and structures in combined authorities

To support the recommendations outlined in the checklist in Section 2, it is useful to look at the structures and activity of other combined authorities in England to see where good

practice can be gleaned. It should be noted that the WMCA is one of the leading combined authorities on the low carbon agenda to date and, consequently, less activity is taking place in most of the other combined authorities.

Based on previous SWM research, Table 1 provides a summary of the criteria and the ranking of each CA on wider sustainability issues. Overall progress on energy specifically is indicated in the shaded grey column.

KEY	Poor evidence 0-15%	Some evidence 16-49%	Good practice & evidence 50-82%	Leading practice & evidence 83-100%
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Table 1: Summary benchmarking of sustainability leadership, strategy and delivery activity reported across all CAs

COMBINED AUTHORITIES	Sustainability Criteria for Combined Authorities (%)					Overall Score (Ranking of CA)
	Social Health inequality, fuel poverty, air quality	Environment Carbon emissions, green infrastructure, biodiversity, natural capital, climate resilience	Business, Low carbon economy, business support, buildings, resource efficiency	Energy Energy systems, renewables, district heating, energy efficiency	Transport Public transport, cycling/walking, low emission vehicles and infrastructure	
CAMBRIDGE & PETERBOROUGH	14	6	8	8	17	11 (9)
GREATER MANCHESTER	64	75	64	61	78	68 (1)
LIVERPOOL CITY REGION	44	42	44	58	60	49 (3)
NORTH EAST	19	7	23	41	50	28 (6)
SHEFFIELD CITY REGION	15	36	42	30	36	31 (5)
TEES VALLEY	11	25	39	33	19	27 (7)
WEST OF ENGLAND	11	8	19	14	19	14 (8)
WEST YORKSHIRE	39	45	33	36	52	41 (4)
WEST MIDLANDS	56	44	50	42	70	52 (2)

Greater Manchester CA is the highest performer, not just on overall sustainability, but also on low carbon aspects with strong commitments across areas such as fuel poverty, carbon emissions, low carbon business support, renewables and low carbon transport. Other strong performers include the WMCA, Liverpool City Region CA and West Yorkshire CA.

On energy, Manchester again is leading the way with Liverpool not too far behind. There is limited progress so far in other CA areas. Table 2 provides a summary of activities happening in each CA, with reference to energy where relevant. This includes an indication of internal

structures and leadership to help support the agenda (far right columns) that Energy Capital can learn from.

Table 2: Summary of low carbon priorities across all CAs

CA	Mayoral Manifesto – Low Carbon Priorities	Devolution Deals - Low Carbon Aspects (Deal date)	Carbon Reduction Target	SEP / Overarching Plan & Other Strategies - Low Carbon Priorities	Board or Cabinet member responsibility	Supporting delivery structures
CAMBRIDGE & PETERBOROUGH	Public transport	Government to support more local powers over public transport (June 2015)	No	Promoting local strengths in low carbon and clean-tech Local public transport	Cllr Lewis Herbert responsible for "Energy and Clean Growth"	No
GREATER MANCHESTER	Public transport, carbon reduction and exploring 'carbon neutrality', green economy	Government to support regional low carbon meetings to explore new ways of working (Nov 2014, July 2015)	Reduce carbon emissions by 48% by 2020 from 1990 levels.	Electrification of all local freight and passenger transport Energy efficiency for all 1.1m homes – target of 25,000 retrofitted homes per year Clean energy plan and Energy company to promote £200m pipeline of heat networks, street lighting, sustainable lifestyles, energy switching projects Business and skills support for low carbon business e.g. construction & energy & resource efficiency	Cllr Alex Ganotis will lead on Greater Manchester's efforts to improve and protect the environment, including carbon reduction	Low Carbon Hub, run by a board of public, private, voluntary, university and government reps Team of approx. ten staff led by Mark Atherton, Director of Environment
LIVERPOOL CITY REGION	Public transport, electric charging infrastructure, new buses low carbon by 2020, zero carbon by 2040, renewable energy company & fund, green building standards, green economy	Government to support more local powers over public transport, tidal power scheme, energy efficiency for housing, and improved local grid connections (Nov 2015, March 2016)	Zero carbon by 2040	Electric charging infrastructure and low carbon bus fleet Renewable energy company and fund – tidal & solar power & district heating strategy City sustainable housing strategy to drive up energy efficiency standards – building on UK's largest retrofit programme Support green business growth (4.5 billion private investment over last 5 years) e.g. resource efficiency & remanufacturing, procurement, light-weighting of cars, 2 nd largest concentration offshore wind in world, largest source of hydrogen fuel in Europe.	Energy and Renewables – Cllr Rob Polhill (Leader Halton Council) Spatial Planning, Environment and Air Quality – Cllr Barrie Grunewald (Leader St Helens Council)	No
NORTH EAST	No Mayor	No Deal	No	Energy alliance to promote low carbon business strengths e.g. offshore wind, energy systems, electric vehicles (region produced 26% of all electric cars in Europe in 2015), sustainable manufacturing	No (except for transport)	No

CA	Mayoral Manifesto – Low Carbon Priorities	Devolution Deals - Low Carbon Aspects (Deal date)	Carbon Reduction Target	SEP / Overarching Plan & Other Strategies - Low Carbon Priorities	Board or Cabinet member responsibility	Supporting delivery structures
SHEFFIELD CITY REGION	First Mayoral elections expected in 2018	Local public transport improvements, use of public estates land for energy generation (Dec 2014, Oct 2015)	No	Low carbon energy, waste, utilities plan to attract 12,000 jobs by 2025 e.g. energy from waste and local heat networks, energy business parks, electric car charging, light-weighting manufacturing	No	No
TEES VALLEY	Mayor – but no manifesto	Support for Carbon Capture & Storage Schemes, improved local grid connections (Oct 2015)	Reduce Carbon emissions by 25% not clear by when.	Circular economy – foresight design, re-engineering, and super integrated industrial processes sites e.g. Wilton Decentralised energy networks and generation, use of waste industrial heat to tackle fuel poverty Decarbonising heavy industry and use of Carbon Capture and Storage.	No	Teesside Collective is a cluster of energy-intensive industries helping to make the area the go-to place for CCS Neil Kenley employed by CA to lead on low carbon, although primarily CCS
WEST OF ENGLAND	Mayor – but no manifesto	Support for local public transport and tidal power schemes (March 2016)	No	Promoting green business strengths of climate and environmental risk, and sustainable materials, fuel cells & hydrogen (25% of HQs of UK environmental research bodies, highest concentration of climate scientists in world)	No	No
WEST YORKSHIRE	No Mayor	No deal	Emissions reductions against programmes, not clear on overall target	Energy efficient and healthy housing improvements to tackle fuel poverty Business support to improve business resource efficiency and new low carbon opportunities Set up municipal energy company to help with smart meter roll-out, energy switching and £300m pipeline of district energy and renewables projects. Promoting low carbon buses, cars, and car clubs. Large renewables energy production, bio-energy and hydrogen into gas grid	No	No (except for transport)
WEST MIDLANDS	Public transport, electric charging infrastructure, low carbon buses &	Local transport (Nov 2015) Second devo deal (Nov 2017); factors related to energy:	40% reduction from 2010 baseline by 2030	Promotion of low carbon research and business strengths and support in cars, buildings and energy storage and networks (e.g. Energy capital initiative).	Cllr. Pat Harley, portfolio holder for Environment	No (except for transport)

CA	Mayoral Manifesto – Low Carbon Priorities	Devolution Deals - Low Carbon Aspects (Deal date)	Carbon Reduction Target	SEP / Overarching Plan & Other Strategies - Low Carbon Priorities	Board or Cabinet member responsibility	Supporting delivery structures
	vehicles, greater energy efficiency standards for buildings, promoting green economy	<ul style="list-style-type: none"> • £120k govt support for local energy strategy • Develop model of regional energy governance, innovation and regulation. • Local energy efficiency scheme for businesses and residents. • Share of £1.12m funding across Midlands Engine to build WMCA capacity to take forward local energy projects 		Electric car charging network and promotion of low carbon public transport Energy efficient buildings and housing retrofit Local heat and energy networks Waste reuse programme for major businesses		

The results indicate that having an elected Mayor appears to help drive CA low carbon priorities, given that most of the manifestos contain low carbon commitments. However, in many cases this is building on the strong corporate commitment already in place through local partnerships and strategies.

Where there are devolution deals, beyond devolving local transport planning and operations, the low carbon aspects often appear to be a commitment to the government and CA to explore particular regulation or delivery ideas together. As far as energy is concerned, examples include local grid connections, tidal power, use of surplus government land for energy use, or to be first to pilot new national housing retrofit schemes. However, the new devolution deal for the West Midlands takes this one step further, as indicated in Table 2, representing a particular opportunity for Energy Capital.

It is also surprising, given the strategic nature of CAs and the significant funds they are influencing, that only over half of CAs have a carbon reduction target which can help monitor the success of implemented activities.

The types of low carbon priorities in each CA often have strong similarities given the nature of low carbon delivery and geography. They tend to fall within these broad areas, with most of them containing a partial or full focus on energy:

- Electrification of public and private road use and improved public transport.
- Promotion of key local strengths in low carbon research and the business base.
- Energy infrastructure improvements such as local grid connections, district energy and local energy generation.
- Improved energy efficiency building standards and the retrofit of existing housing.
- Business support to focus on energy and resource efficiency.
- Setting up specific investment and delivery vehicles such as municipal energy companies or partnerships (such as Energy Capital).

4. Evidence: good practice examples

Table 3 outlines a few examples showing what good practice looks like in reference to energy activity taking place in CA areas, taken from existing SWM research.

Table 3: Energy activity in CA areas. Letters in square brackets represent the CA the activity refers to: [GM = Greater Manchester; NE = North East; TV = Tees Valley; SCR = Sheffield City Region; LCR = Liverpool City Region; WM = West Midlands]

<p>Leadership</p> <ul style="list-style-type: none"> • The Low Carbon Project Delivery Unit is a specialist team part-funded by the CA to support Greater Manchester to deliver a low carbon energy projects across the city-region [GM]. • Development of an Energy Alliance building on existing academic, research and industry-facing strengths in the local area [NE]. • Teesside Collective is a cluster of energy-intensive industries with a shared vision: to establish Teesside as the go-to location for Carbon Capture and Storage (CCS), supported by the CA [TV]. <p>Strategy</p> <ul style="list-style-type: none"> • Ambition to advance a Low Carbon Energy Strategy for the City Region, integrated with waste and utilities [SCR]. • Using a Strategic Infrastructure Plan to incorporate future activity related to energy, including heat networks, energy efficiency and CCS [TV]. <p>Delivery</p> <ul style="list-style-type: none"> • Using the CA to enable acceleration of the delivery of a low carbon energy investment pipeline worth up to £200m, to include smart grids, heat networks, energy trading and energy efficiency [GM]. • Central government to support with energy efficiency, community energy and business energy tax reform as part of a further devolution deal [GM]. • “We will make the most of our key natural assets to create a Renewable Energy Company to harness the river Mersey and use offshore tidal energy to power our homes and workplaces” [LCR]. • The creation of a £20m National Centre for Energy Systems Integration will bring together energy expertise from across the world to work collaboratively on future energy networks [NE]. • The scale of the CA means it can seek ELENA funding for a large-scale energy project to generate and manage energy demand to benefit businesses and residents [WM].
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Provided below is a more detailed overview of the projects and structures that are being implemented in the leading combined authority on wider sustainability issues, Greater Manchester. This expands on the information provided in Tables 2 and 3.

Greater Manchester Combined Authority (GMCA)					
GMCA	BOLTON	MANCHESTER	ROCHDALE	STOCKPORT	TRAFFORD
	BURY	OLDHAM	SALFORD	TAMESIDE	WIGAN
<p>Leadership</p> <p>GMCA has a strong commitment towards delivering low carbon activity, including energy, and this is driven by a clear mayoral ambition, well defined leadership structures and influential and passionate staff.</p>					

"Within a year of the election, we will host a Mayor's Green Summit to declare a new, accelerated ambition for Greater Manchester on the green economy and carbon-neutrality" - Mayoral Manifesto.

This leadership is then clearly supported by a Board member, staffing and partnership structures.

"Leader of Stockport Council Cllr Alex Ganotis will lead on Greater Manchester's efforts to improve and protect the environment, green spaces and air quality. He will also bring forward plans for a Green Summit, bringing together environmentalists, experts and others to set a new ambition for carbon neutrality across Greater Manchester" - GMCA Website.

"The CA's work is centred on our Low Carbon Hub, run by a board of public, private, voluntary, university and government representatives. The hub combines business innovation with a special interest in a green, sustainable environment. There are 16 members of the LCH Board, including senior representatives from LAs, Wildlife Trust, University, Housing association, BBC, Siemens, Viridor, EA, Arup, New Economy Manchester, Electricity NW. Staff contact: Mark Atherton, Director of Environment" - GMCA Website.



**GREATER MANCHESTER
LOW CARBON HUB**

"The Low Carbon Hub is led by senior individuals within organisations that make up the GMCA; this can ensure sustainability aspects are dealt with across all programmes" - GMCA Website.

Government officials also sit on the GM Low Carbon Hub Board, attend quarterly Board meetings to review progress, unblock barriers, identify future opportunities and enhance cooperation between national and local government. There are ongoing discussions about areas such as energy efficiency, community energy and business energy tax reform.

Strategy

The GMCA has an overall strategy, *'Stronger Together,'* which sets out the carbon reduction target. This is then cascaded and referred to within a range of other supporting strategies such as the GMCA Growth and Reform Plan and the GM Climate Change and Low Emission Strategy. The GMCA has the largest number of supporting plans and strategies of any CA, with good integration in the delivery of the overall carbon reduction target within the plans, although the number of plans can sometimes be difficult to navigate.

Delivery

There is also clear monitoring against the target in the annual review and across all activity.

"The new plan indicates that, from a 2013 baseline, 2.5 million tonnes CO₂e (carbon dioxide equivalents) of savings will be delivered by 2020 if all of the existing and planned actions of this plan are fully implemented. There will be a further 1.2 million tonnes of cuts associated with background (national) activities on grid supply decarbonisation, appliance and vehicle efficiencies. This leaves at least 0.5 million tonnes of savings to be identified between now and 2020 beyond the proposed programme" - Annual Review.

There are also many examples of GMCA delivering, or supporting others to deliver, projects around low carbon energy; these include air source heat pumps and demand side-response, smart energy systems, heat networks, whole energy systems analysis, LED street lighting, supporting non-domestic organisations to reduce energy usage and setting up a District Energy Procurement

Agency. More details on these projects and the above structures can be found on the [Low Carbon Hub](#) and the [Low Carbon Project Delivery Unit](#) websites.

5. References

- [The UK Clean Growth Strategy](#), *the UK Industrial Strategy and West Midlands Devolution Deal: Opportunities for the West Midlands Industrial Strategies*, Sustainability West Midlands, December 2017.
- [Combined Authority Sustainability Benchmarking](#), *Technical Report – analysis of strategies*, Sustainability West Midlands, October 2017.
- [Core City and Combined Authority Climate Change & Low Carbon Economy Good Practice](#), Sustainability West Midlands, September 2017.
- [Review of operation options for the Birmingham Environment Partnership: Lessons for the Green Commission](#), Sustainability West Midlands, 2014 [see pages 19 and 27-30 for some useful information on structures].

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