

Briefing note on the West Midlands Combined Authority Carbon Reduction Target

(Version: 22.11.18)

Introduction

At the May 2018 meeting of the WMCA Environment Board the current target was asked to be reviewed based on:

- Alignment with the latest Climate Change Committee targets
- Other Combined Authorities

Background to the WMCA Carbon Reduction Target

In 2007 Advantage West Midlands (AWM) produce 'Connecting to Success' covered the West Midlands region and becoming the UK's first regional low carbon economic development strategy. Part of the [evidence base](#) included developing targets to reduce carbon emissions whilst improving economic productivity. At the time the Climate Change Committee as part of the UK Climate Change Act, was recommending a national reduction target range of 26-32% from 1990 levels by 2020, as part of an overall reduction of 80% by 2050. As a result, one of the top indicators for the new strategy was an indicator showing how many tonnes of CO₂ were produced per £10,000 worth of General Value Added of Economic Value, and targeted actions were put in place that would help the region meet the national carbon target. This was despite the extra challenges the region faced of being the centre of manufacturing, the transport network, and no coastline for off-shore renewables.

In 2010 Sustainability West Midlands (SWM) translated the evidence base and other additional research to produce the West Midlands Sustainability Roadmap covering the period 2010 to 2020. This has been [subsequently monitored](#) and reported on annually, the only region in the UK still to do so. The carbon emissions target in this strategy was updated as "Regional direct carbon emissions reduced by around 30% from energy efficiency action and 20% of electricity generated from renewable sources, from a 2010 baseline." Therefore, this was a higher target as the baseline was 10 years later than 1990 and higher than the minimum 26% reduction by 2020.

In 2016 the SWM 2020 Roadmap targets were built into the new WMCA Single Economic Plan and supporting [Performance Management Framework](#). Therefore, the WMCA SEP target was now "Our carbon dioxide equivalent (CO₂e) produced from direct emissions by transport, business and housing based on a 2010 baseline will be 30% less in 2020 and 40% less in 2030. This will contribute over an 8% improvement to GVA by 2030".

During the electoral hustings, the current Mayor signed up to a target of [100% clean energy production by 2050](#). This is similar to the Climate Change Committee target, but using different language with a focus and aspiration on energy. Subsequently several local authorities within the WMCA area have signed up to this campaign and target, although the WMCA has not collectively as it already has an agreed target in the SEP, and new targets would have to be agreed by all the local authorities within the WMCA area.

How the current WMCA SEP target compares to the latest Climate Change Committee (CCC) target

The CCC's [UK carbon budget level](#) for 2008-2012 was 3,018 MtCO₂e. The mid-range of this carbon budget period is 2010, therefore one can use this as the equivalent baseline for the WMCA's carbon reduction target.

Similarly, the CCC's UK carbon budget level for 2028-2032 is 1,725 MtCO₂e. The mid-range of this carbon budget period is 2030, therefore one can use this as the equivalent target year of the WMCA's carbon reduction target.

Therefore, the percentage decrease between the 2008-2012 (2010) and 2028-2032 (2030) CCC carbon budget target is -42.84% which is therefore how much the CCC suggests the UK should have reduced its emissions by between 2010 and 2030. This is slightly greater than the WMCA's target of 40% between the same time periods.

This is an approximation and further data analysis would be required to provide a more accurate comparison, but overall it shows that the WMCA target is approximately in line with the national CCC's carbon budgets.

How does the WMCA SEP carbon target compare to other Combined Authorities?

In August 2017 [SWM conducted comparison work on CAs low carbon targets](#) and energy activities. This table has been updated below.

Summary of low carbon priorities across all CAs

COMBINED AUTHORITIES	Mayoral Manifesto – Low Carbon Priorities	Devolution Deals - Low Carbon Aspects (Deal date)	Carbon Reduction Target	Strategic Economic Plan / Overarching Plan & Other Strategies - Low Carbon Priorities
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
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
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

COMBINED AUTHORITIES	Mayoral Manifesto – Low Carbon Priorities	Devolution Deals - Low Carbon Aspects (Deal date)	Carbon Reduction Target	Strategic Economic Plan / Overarching Plan & Other Strategies - Low Carbon Priorities
				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.
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
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
TEES VALLEY	Mayor – but no manifesto	Support for Carbon Capture & Storage Schemes, improved local grid connections (Oct 2015)	Reduce Carbon emissions by 25% but 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.
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)
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

COMBINED AUTHORITIES	Mayoral Manifesto – Low Carbon Priorities	Devolution Deals - Low Carbon Aspects (Deal date)	Carbon Reduction Target	Strategic Economic Plan / Overarching Plan & Other Strategies - Low Carbon Priorities
				<p>pipeline of district energy and renewables projects.</p> <p>Promoting low carbon buses, cars, and car clubs.</p> <p>Large renewables energy production, bio-energy and hydrogen into gas grid</p>
WEST MIDLANDS	Public transport, electric charging infrastructure, low carbon buses & vehicles, greater energy efficiency standards for buildings, promoting green economy	Local transport (Nov 2015)	40% reduction from 2010 baseline by 2030	<p>Promotion of low carbon research and business strengths and support in cars, buildings and energy storage and networks (e.g. Energy capital initiative).</p> <p>Electric car charging network and promotion of low carbon public transport</p> <p>Energy efficient buildings and housing retrofit</p> <p>Local heat and energy networks</p> <p>Waste reuse programme for major businesses</p>

What progress is the WMCA making on carbon reduction compare to other Combined Authorities?

Earlier this year, SWM published the second iteration of the ‘Combined Authority Sustainability Benchmarking Technical Report – annual analysis of metrics.’ This looks at comparing key sustainability metrics across all nine combined authorities to determine progress on each; carbon emissions is one of these metrics.

At the time the research for the report was carried out, data reflecting carbon emissions from 2015 were the latest available, therefore we used this and compared progress from the previous year (2014) and from the WMCA target baseline year, 2010, across all combined authorities. We looked at both absolute and per capita emissions. The results of this exercise are presented below/overleaf.

CA Absolute Carbon Emissions League Tables

Performance in most recent available year

Rank	CA	ktCO ₂ (2015)
1	West of England	3,727
2	Cambridge & Peterborough	6,473
3	North East	5,911
4	Liverpool City Region	9,502
5	Sheffield City Region	11,093
6	Tees Valley	12,048
7	Greater Manchester	12,653

Progress between baseline and latest available year

Rank	CA	ktCO ₂ % (2010-2015)
1	North East	-43.3
2	Liverpool City Region	-24.3
3	Greater Manchester	-22.7
4	West of England	-19.3
5	West Midlands	-18.3
6	West Yorkshire	-18.2
7	Sheffield City Region	-17.7

8	West Yorkshire	15,185
9	West Midlands	21,696

8	Cambridge & Peterborough	-16.8
9	Tees Valley	+19.9

CA Per Capita Carbon Emissions League Tables

Performance in most recent available year

Rank	CA	tCO ₂ (2015)
1	North East	3.1
2	Greater Manchester	4.7
3	West of England	4.9
4	West Midlands	5.3
5	Liverpool City Region	5.5
6	West Yorkshire	6.2
7=	Cambridge & Peterborough Sheffield City Region	7.0
9	Tees Valley	16.9

Progress between baseline and latest available year

Rank	CA	tCO ₂ % (2010-2015)
1	North East	-42.0
2	Liverpool City Region	-27.7
3	Greater Manchester	-25.5
4	West of England	-23.3
5	Cambridge & Peterborough	-20.6
6	West Midlands	-20.4
7	West Yorkshire	-19.4
8	Sheffield City Region	-16.7
9	Tees Valley	+17.9

The tables show that the West Midlands emits significantly more carbon than any other CA area; 6,500 ktCO₂ more than the next highest emitter. However, this can largely be attributed to its heavily urbanised geography and the results are more comparable when analysing per capita emissions, which show that the West Midlands is fourth out of nine CAs in terms of the amount of carbon emitted per person. This is a more encouraging picture when compared to other CA areas.

The West Midlands is about average in terms of the reduction it has seen in carbon emissions since 2010, placed in fifth for absolute emissions and sixth for per capita. However, absolute emissions have reduced by 18.3% between 2010 and 2015 suggesting that the West Midlands is currently on track to exceed the 40% reduction from 2010 by 2030 carbon target established by the WMCA.

Potential Developments

The Committee on Climate Change (CCC) has been commissioned by the UK Government to review the current target of 80% Carbon Reduction by 2050. This is to check that the UK Government's target is "fit for purpose" and aligns with the newly published Intergovernmental Panel on Climate Change (IPCC) Special Report on the impacts of global warming of 1.5 degrees. Review is set to conclude within 6 months – before April 2019.

Manchester City Council has announced a revised ambition in October 2018 to make the city zero carbon by 2038. The Greater Manchester Combined Authority has yet to adopt this target.

Recommendations

The WMCA should retain the current target of reducing the area's emissions by 40% by 2030, from a 2010 baseline. This is because:

- It is approximately in line with the national carbon budgets and is therefore fairly consistent with national action and law: the Climate Change Act
- The target seems realistic and achievable given current progress
- Based on 2017 information, it is one of the few CAs with a carbon target in place that is being actively monitored.

However, the WMCA should consider the following:

- Ensure that resource remains in place so that the target can be annually monitored (and potentially be made more ambitious if this becomes viable and achievable)
- Ensure that the target is reviewed every year to check that it is not falling behind other CAs and to check for consistency with national policy
- Ensure that the target is transparently reported on in WMCA annual reporting
- Undertake a comprehensive review in 2028 to establish a new target based on national policy and local ambition
- Check how the current target fits with per capita emissions and whether the target will ensure the West Midlands continues to perform well on per capita emissions
- Establish other targets focusing on other sustainability metrics where progress is slower.
- ***When the CCC produces its recommendations in April 2019 of any new targets for the Climate Change Act based on the latest science the WMCA should review the regional target then.***

Alan Carr, SWM July 2018, and Emma Hall, WMCA November 2018.

END