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## LOW CARBON LEADERSHIP

Established on 1st April 2011, the Greater Manchester Combined Authority provides for the ten local authorities to come together to take on devolved powers in transport, planning and economic development. It will also take a pioneering stance on climate change.

A Greater Manchester Climate Change Strategy will be published in 2011.

## WORKING WITH GOVERNMENT

Greater Manchester is engaged with a number of government departments, including the Department for Communities and Local Government and the Department for Energy and Climate Change, from which we secured funds from the Local Carbon Framework to take forward development work in four areas:

Carbon metrics

Energy planning

Retrofit partnerships

Investment appraisal

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## DELIVERING OUR LOW CARBON FUTURE

Ours is a large and ambitious prospectus that will require new types of investment to deliver key projects. These are at a scale that offers significant potential returns for investment partners.

In return for sharing the risk of our low carbon investment opportunities, partners will share in the rewards. By investing now, savings in energy and other benefits such as local economic growth, jobs created and the area's attractiveness to further investment, will accrue, and return a healthy profit in the long term.

*Decarbonising the city*

*Overview*

# GREATER MANCHESTER'S LOW CARBON INVESTMENT OPPORTUNITY

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## CONTACT

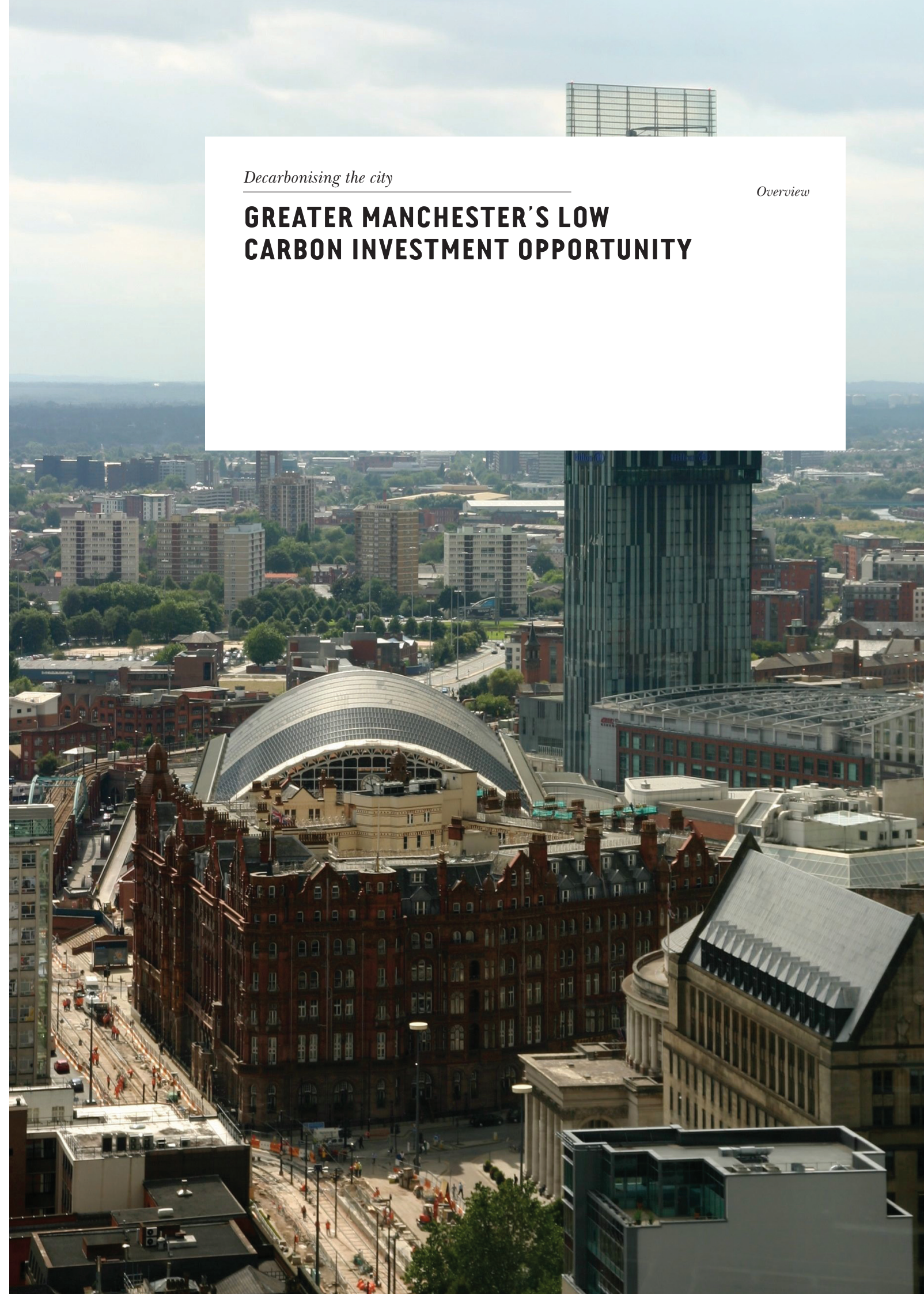
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Decarbonising the city is funded by DECC's Local Carbon Framework and NWIEP





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## SYNOPSIS

The world's definitive industrial city, which made its name and livelihood from coal and steam and the utilisation of natural resources, is marking out a new, sustainable path for its future. The price of carbon is set to challenge the price of oil as our primary economic barometer. Nations and cities that embrace a low carbon future will be more competitive and future-proofed. We have to change the way we think, the way we work and the way we live. In Greater Manchester, we aim to become a global leader in a new kind of economics.

## OUR SUSTAINABLE PLAN FOR GROWTH

Greater Manchester was designated as the UK's first Low Carbon Economic Area for the Built Environment in December 2009. In practical terms this makes Greater Manchester a 'hot house' for low carbon solutions related to existing and new buildings, both residential and non-residential. The five-year plan for action takes in large-scale retrofit programmes for our building stock, investment in critical infrastructure such as district heating networks, renewable energy schemes and a programme tackling behavioural change.

## THE LOW CARBON JOURNEY

Greater Manchester's £8-10 billion low carbon investment pipeline is expected to support a total of 68,920 new jobs, an additional £650 million per annum for the local economy. We also plan to save over six million tonnes of CO<sub>2</sub>.

Our 'low carbon sector' of dynamic enterprises will grow faster than other areas of industry, fuelled by a partnership of government, business and higher education. In supply chain areas such as building technologies, energy management and renewables, Greater Manchester has a green plan for major growth. This is because tackling climate change, cutting carbon and securing greater prosperity are the key driving forces behind our strategy for the future.

The Local Enterprise Partnership will work closely with the Greater Manchester Environment Commission to oversee the transition to a low carbon economy, making Greater Manchester a world leading green city by 2020. We are building capacity by developing the skills base; increasing local and inward investment in energy infrastructure and retrofitting in all sectors; applied innovation and skills exchange; building low carbon supply chains and developing opportunities for manufacturing throughout the business sector.

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## INTELLIGENCE LED

Greater Manchester won its status as a Low Carbon Economic Area in no small part because of its unrivalled research base, which takes in the Joule Centre for Energy Research and Development, the Tyndall Centre North, the University of Manchester's Institute for Sustainable Consumption and the UK's highest rated research department for the built environment at Salford University. The National Skills Academy for Environmental Technologies has identified a cluster of Greater Manchester colleges which will deliver the new NVQ Diploma and Access to Building Services Engineering courses that include environmental technology installations. The Oldham College is building upon this role through the development of a Green Technology Centre to equip young people with the skills needed to deliver Greater Manchester's ambitious low carbon investment programme. Greater Manchester Colleges also deliver excellence in construction skills, with some specialising in the low carbon built environment. Building on these strengths, Greater Manchester is now capturing investment opportunities, creating new and highly skilled jobs, particularly around the development and installation of low carbon technologies.

## THE GREEN INVESTMENT OPPORTUNITY

As Greater Manchester tests new business models, champions new technologies and brings large scale projects into play, there are significant investment opportunities that, when grasped, will propel our plans to an even higher level. The 'Evergreen Fund' (EU JESSICA bid) has already started to attract significant interest from private sector investors. The emerging landscape of fiscal incentives provides an opportunity for schemes to deliver carbon reductions in line with legal obligations, whilst also making an economic return for investors and developers

The greater the level of investment we succeed in securing, the greater the economic benefit for the Greater Manchester. Economic modelling undertaken by Ernst and Young suggests that a growth scenario of 4.3% based on our built environment interventions could be boosted to as much as 9% if the investment portfolio is widened to recycling, alternative fuels and vehicles, wind power and water and waste water treatment, with even moderate intervention in these areas showing a potential 6% growth rate.

We want such investment to be underpinned by some clear principles. Investments will be expected to provide opportunities for an income stream for Greater Manchester partners for re-investment in future low carbon projects, and to make a significant contribution towards the aims of the Greater Manchester Strategy, including:

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**Increased GVA** from the low carbon sector

**A significant percentage reduction** in carbon emissions

**A strengthened and expanded** local supply chain

**Support** for local business growth and start up

**Creation** of employment opportunities

**Up skilling** of local residents in low carbon skill growth areas.

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## PLAY TO YOUR STRENGTHS

The global market for Low Carbon Environmental Goods and Services (LCEGS) is worth £3.2 trillion per year. It is a market in which Greater Manchester plans to play an ever greater role. Already worth £4.2 billion per year across almost 2,000 companies employing 34,000 people, this sector is set to grow.

Greater Manchester already has key strengths in areas such as contaminated land remediation, carbon capture and storage, additional energy sources, alternative fuels and environmental consultancy. Greater Manchester is also looking to build on its strengths in building technologies and energy management, where our market is worth £516 million per year, employing 4,360 people. Renewables alone are worth £1.14 billion, with 9,457 people employed. Through this investment Greater Manchester is rapidly gaining a reputation for attracting, nurturing and retaining talent in the low carbon skills area. This is supported by a newly established skills hub and the highest concentration of universities of any European city.

## A LOW CARBON LABORATORY

Corridor Manchester is a partnership of the area's universities, hospitals, schools, local authority and major property owners based in central and south Manchester. The Corridor in Manchester offers a range of investment opportunities in a high density linear area of the city that takes in the higher education quarter, a significant number of knowledge-based businesses and a major healthcare campus. The proposal in development for the Corridor outlines an integrated programme of complementary projects including retrofit of social housing stock, a fleet of low carbon buses, a freight consolidation centre, a low carbon emissions zone, a remote wind farm, improved cycling and walking, low energy lighting, a 'thin' computing project and work around a smart grid. The Corridor programme will act as test-bed for further action research and catalyse project replication throughout Greater Manchester.

## THE FUTURE IS ELECTRIC

Greater Manchester has been awarded £4 million from the Government's Plugged in Places programme (matched by £4 million by the partners). Manchester Electric Car Company has been established to install a network of plug-in points that allow motorists to charge battery-powered cars.

The initial scheme will see 300 fast charging units and five rapid charging units installed during the first two years. The project will also encompass the promotion and creation of a fleet of electric vehicles, to encourage take-up and create extra opportunities for investment.

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## THE GREAT RETROFIT CHALLENGE

Achieving carbon reduction through Greater Manchester's building stock is one of the earliest actions being undertaken. This involves the delivery of basic energy efficiency measures – insulation – to 75% of the homes that are at present under insulated, a total of 400,000 measures: an initial £10 million social housing retrofit programme announced in October 2010 is expected to expand to £30 million during 2011. Higher specification 'GM Retrofit Standard' is being developed along with new financial models and delivery vehicles to start delivering these more advanced 'eco-upgrades'.

With an accompanying behavioural change programme and work on renewable energy installations the combined programme will save money on bills and will capture CO<sub>2</sub>. The basic energy efficiency measures alone are forecast to reduce residents' bills by £26 million and reduce emissions by 100,000 tonnes.

Greater Manchester has a good track record with established programmes for commercial buildings, including the solar array on the CIS and the environmental interventions at MediaCityUK.

There has been no difficulty in engaging commercial stakeholders and companies, such as Bruntwood and the Cooperative Group, which have been leading the way, pioneering private sector commercial retrofit.

We will build on this by identifying opportunities at scale for public sector retrofit and through development of a commercial exemplar project.

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**An example of public sector retrofit: Manchester Town Hall**

The City Council has committed to reduce its operational carbon emissions by 20% by April 2014 and 41% by December 2020. The current building stock presents the biggest opportunity to deliver financial and carbon savings, contributing 73% of the 2008/09 baseline CO<sub>2</sub> levels. Over the next 10 years the City Council's stock will be transformed through downsizing the current portfolio; energy efficiency improvements to the retained stock; and the generation of low and zero carbon energy.

The transformation of the Town Hall Complex will see over £150 million of investment up to 2013 and will deliver significant financial and carbon savings, as well as helping the Council to deliver improved services to the city's residents.

## DISTRICT HEAT NETWORKS

A number of local authorities have undertaken feasibility studies that have demonstrated the long term financial and carbon savings of district heat networks.