

# 1. Introduction

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In this section we set out the background to this study, including the role of the Association of Greater Manchester Authorities (AGMA), the study brief and its key aims and objectives.

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## 1.1 The Association of Greater Manchester Authorities (AGMA)

The Association of Greater Manchester Authorities (AGMA) is an organisation representing the ten districts in Greater Manchester. It was formed to pursue matters of common interest and concern and to co-ordinate joint action and working between the councils following the abolition of the Greater Manchester Metropolitan County at the end of March 1986. The districts that make up AGMA and the Greater Manchester City Region are:

- Bolton MBC
- Bury MBC
- Manchester CC
- Oldham MBC
- Rochdale MBC
- Salford CC
- Stockport MBC
- Tameside MBC
- Trafford MBC
- Wigan MBC

With Central Government supporting a move towards formal status for the 'Manchester City Region' AGMA is in the process of establishing seven new Commissions with delegated responsibility from the Executive Board for overseeing strategic working at the sub regional level:

- Economic development, employment and skills
- Environment
- Health
- Improvement and Efficiency
- Planning and Housing
- Public Protection
- Transport.

Each Commission will be formed from a mix of elected members and other partners. They are intended to demonstrate a readiness to manage strategic development and financial resources delegated from either a national or a regional level.

## 1.2 Background to the study

Across Greater Manchester, work is progressing on Core Strategy and Site Allocation Development Plan Documents (DPDs), a Joint Waste DPD (JWDPD), and a Multi Area Agreement (MAA), and a Housing Growth Point Expression of Interest have been submitted and accepted by Central Government. There are also changes to sub regional Governance with new powers being conferred to the 'Manchester City Region', requiring greater cross boundary working and the establishment of shared resources.

It is against this context of economic growth, regeneration and the delivery of sustainable development that AGMA sought to commission a study to provide an evidenced based understanding of local feasibility and potential for renewable and low carbon energy technologies within the Greater Manchester City Region.

The provision of decentralised energy infrastructure, placing Low and Zero Carbon Technologies (LZCT) at its core, is critical to the delivery of economic growth and prosperity within Greater Manchester. The key tool for delivering this infrastructure lies within the delivery of spatial strategies and energy planning at a town and city scale and requires a strategic approach supported by strong planning policies and complementary enabling mechanisms.

The Planning Policy Statement: Planning and Climate Change - Supplement to PPS1 (December, 2007) outlines how planning should contribute towards reducing carbon emissions in order to support national regulatory targets, including the new carbon budget framework, those associated with the Code for Sustainable homes and the forthcoming UK Renewable Energy Strategy.

Renewable and low-carbon energy generation and the Code for Sustainable Homes provide the backbone to PPS1 Climate Change Supplement and the Practice Guide. Both have significant implications for Core Strategies and Site Allocation DPDs, as well as raising the prospect of the need for joint working at a sub-regional level.

The PPS1 supplement makes the point that *"in developing Core Strategies and supporting Local Development Documents, Planning Authorities should provide a framework that promotes and encourages renewable and low carbon energy generation"*.

It is also essential that connections are made between new development and existing communities, the aspirations of Sustainable Community Strategies, delivery of Local Area Agreements and achievement of National Indicators aimed at reducing fuel poverty and carbon emissions from community activities. This is to ensure that spatial planning and development management is re-enforced by others areas of Local Authority responsibility in order to drive action.

### 1.3 Study brief and objectives

The focus of the study is on providing sufficient strategic evidence to enable Core Strategies to set minimum targets for heat and power and identify opportunities for linking new development and supporting energy infrastructure with existing communities. These targets should clearly relate to a broad framework for achieving zero carbon buildings by 2016 and 2019 and on / off site delivery mechanisms such as Energy Service Companies (ESCOs) and the Community Infrastructure Levy.

The delivery of zero carbon buildings and decentralised energy will be a challenge and information on feasibility, implementation and technologies will continue to evolve. Nevertheless, it is essential that AGMA begins to identify a strategic sub regional framework and locally specific evidence base to support emerging Core Strategies and other development projects within Greater Manchester. On this basis the overall objectives of the study are two-fold:

- To identify the most appropriate energy mix for delivering new development and growth aspirations across Greater Manchester;
- To clearly set out the spatial planning actions required to deliver this 'new' critical infrastructure

On many, particularly smaller urban sites within Greater Manchester it may not be practicable and cost effective to achieve these reductions in emissions through on-site measures alone. Therefore, the study should differentiate between on-site / near site and off site energy generation and should allow for the different circumstances of different sites and different parts of Greater Manchester.

The study should investigate constraints, current supply and future potential across Greater Manchester for accommodating renewable / low carbon technologies and targets. This should be achieved by dividing the conurbation into character areas (e.g. inner city, suburban, industrial, town centres etc) and by aligning the character areas with the location and scale of proposed new development as outlined in:

- Regional Spatial Strategy (RSS) growth targets and their spatial distribution;
- Housing Growth Point;
- Core Strategy Preferred options if available;
- Housing Market Renewal Pathfinder areas.

This sub regional assessment will be followed by / in parallel with separate commissions providing more detailed analysis of specific development opportunities such as site allocations and master plans and identified regeneration projects.

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## Study objectives

The project objectives are taken from the PPS1 Climate Change Supplement and the Draft Practice Guide. Paragraphs 18-32 of the PPS (and 3.11-3.12 of the Draft Practice Guide) outline the need for an evidence based understanding of local feasibility and potential. The study should:

- Assess the area's potential for accommodating renewable and low carbon technologies and examine existing constraints and the scale, density and location of proposed new development.
- Assess the potential for all existing energy 'Infrastructure' to provide heat and power to new developments and existing communities.
- Identify opportunities, particularly in areas of change and in association with major development projects for the extension of district heating and/or the development of other decentralised sources of energy.
- Identify broad areas of potential for renewable and low carbon energy sources and supporting infrastructure, where necessary, for delivering national and regional targets.
- Set a target percentage of the energy or CO<sub>2</sub> emissions reduction to be achieved by new development by connection or installation of decentralised and renewable energy or low carbon energy sources.
- Provide an understanding of the viability and indicative costs of meeting renewable / low carbon energy targets, now and projected into the future (15 years) and achievement of low and zero carbon buildings within Greater Manchester.
- Consider the potential to establish enabling mechanisms to facilitate investment and connections e.g. Infrastructure fund and Energy Service Company (ESCO).

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## 1.4 Methodology for the study

The study was carried out during the period between November 2008 and March 2009 by a team led by URBED together with AECOM and Quantum Strategy & Technology. Additional expert input was provided by Michael King, an associate of the Combined Heat and Power Association (CHPA), and Pernille Overbye, a district heating specialist from Rambøll Denmark.

The methodology used to carry out the study is reflected in the structure of this report, which comprises the following sections:

- The long view: Desk-based research into the historical development of Greater Manchester's electricity and gas networks;
- The present position: Desk and survey-based review of the current energy policy framework, alongside growth and development projections for the City Region;

- The changing role of planning: Desk and survey-based review of current and future planning policy provision to support low and zero carbon development;
- The existing network infrastructure: Desk and interview-based review of current and future electricity, gas and district heating networks across Manchester City Region;
- Future potential: Desk and practice-based review of low and zero carbon energy technologies and their potential for application across Manchester City Region;
- Character areas of change: Desk, practice and site-based identification and analysis of a series of case studies representative of different scales/forms of development;
- Enabling the changes: Desk and practice-based review of finance and delivery mechanisms for low and zero carbon energy technologies;

Each section is concluded with a summary discussion of the salient points that arose, which are then brought together into a proposed planning policy framework in sections 9 'Bringing it all together' and 10 'An energy spatial plan for the City Region'.

The evidence base provided by the study has two main components – a 'top down' understanding of the City Region's potential which is summarised in section 6 and a 'bottom up' analysis of a number of case studies of 'character area of change' as identified in section 7. Example energy proposal plans and the supporting analysis for each character area of change have been compiled as a separate volume of this report

## **1.5 Engagement with the districts**

Engagement with representatives of the ten districts of Greater Manchester was an important element of the work programme. Three workshops were held in November 2008 (planning context), January 2009 (case study selection) and March 2009 (discussion of emerging findings). The workshops engaged members of planning, regeneration and sustainability teams from each district. An additional workshop was held in March 2009 involving representatives from utilities, property developers and specialist investors.