

CONNECTED: THE GREATER MANCHESTER ENERGY PLAN



GREATER MANCHESTER
ENERGY GROUP

Sarah Davies

Head of Strategy and Programmes
Greater Manchester Environment Team

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

CONNECTED: THE GREATER MANCHESTER ENERGY PLAN



GREATER MANCHESTER
ENERGY GROUP

- **What is the Energy Plan?**
- **Who is it for?**
- **Who produced it?**
- **What's it about?**
- **What happens next?**

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

Who is it for?

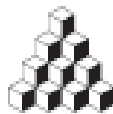


GREATER MANCHESTER
ENERGY GROUP

- **Senior Decision makers**
- **Energy companies**
- **Local Authorities**
- **Big businesses**
- **Third sector – energy interests**

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

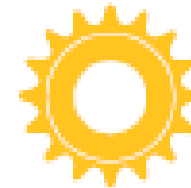
Who produced it?



GREATER MANCHESTER
ENERGY GROUP

The Greater Manchester Energy Group

- Established by AGMA/GMCA
- Develop and implement the Energy theme of the GM Climate Change Strategy
- Cross cutting overview of energy issues



GREATER MANCHESTER
ENERGY GROUP

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

What's it about?



GREATER MANCHESTER
ENERGY GROUP

- **A low carbon, robust energy system**
- **A changing climate**
- **Energy Security**
- **A growing low carbon economy**
- **A growing city region**

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

What's it about?



GREATER MANCHESTER
ENERGY GROUP

RISING TO THE CHALLENGE

The key challenges Greater Manchester needs to address are:

Carbon emissions reduction and associated market drivers, including an ambitious CO₂ emissions reduction target of 48% by 2020;

Ageing and vulnerable distribution infrastructure, which needs to adapt to new connection, management and two-way flow requirements;

A drop in UK generation due to the decommissioning of old nuclear, gas and fossil fuel power stations;

The price, availability and impacts of fossil fuel extraction, distribution and use; Increasing electricity demand associated with uptake of digital technologies, and, in the mid term, switching from fossil fuels to electricity for heat and transport;

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

What's it about?



GREATER MANCHESTER
ENERGY GROUP

To meet these challenges, Greater Manchester needs to:

Change energy systems, use and behaviour to capitalise on times when intermittent renewable supplies are abundant and network capacity is available;

Identify opportunities and locations for new low carbon energy generation and distribution infrastructure, aiming for GM to host 1 TWh/year of electricity generation and 2-3TWH of heat generation by 2020, requiring a total investment of around £3.5 billion to achieve this;

Harness the substantial economic opportunities arising from the changing ways in which Greater Manchester and the world will meet its future energy requirements; and support partners in investing c£500 million+ to make our energy distribution networks fit for purpose in a low carbon economy; ;

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

What's it about?



GREATER MANCHESTER
ENERGY GROUP

Make sure we have the skills, expertise and knowledge needed to deliver GM's future energy system;

Recognising that the majority of investments and actions will need to be market and private sector driven, to forge and maintain strong relationships and partnerships with key energy stakeholders, including the Greater Manchester Energy Group; and make sure that communities have a stake in their energy future;

Capitalise on, and grow our substantial energy systems R&D and innovation capability.

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

What's it about?



GREATER MANCHESTER
ENERGY GROUP

- **An evidence base to inform action**
- **Overview of Policy, legislation and drivers**
- **Strategic context**
- **Agreed Priorities**
- **A web resource**

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

What's it about?



GREATER MANCHESTER
ENERGY GROUP

- **In 2005, our direct CO₂ emissions were a little over 18 million tonnes, decreasing by 4% to around 17.5 million tonnes by 2008**
- **In 2009, GM used 25.8 TWh of gas and 11.7 TWh of electricity.**
- **Around 20 TWh of petroleum products was used for transport activities.**
- **Since 2005, gas and electricity use have decreased by 17% and 9% respectively, but transport fuel consumption has increased.**
- **In 2010 the average household spent over £1,100 on gas and electricity, an increase of 20% since 2007.**
- **GM spent over £5 billion on its gas and electricity bills during 2010.**



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

What happens next?



GREATER MANCHESTER
ENERGY GROUP

• Short term priorities

- **R&D: Linking university R&D with business for innovation and supply chain opportunities and to align strategic research programmes with GM priorities;**
- **Financing the Future: Strengthening access to and integration of energy schemes with GM investment models and developing investment opportunities;**
- **Delivering schemes: Taking concepts to 'fundable, doable' programmes;**
- **Communication and engagement; outreach;**
- **Planning Framework: Influencing strategic, spatial and economic planning; and**
- **Low Carbon Growth: Securing benefits from the supply chain, engaging with companies to strengthen energy performance.**



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

What happens next?



GREATER MANCHESTER
ENERGY GROUP

- **Projects**
 - **Capacity to Customers**
 - **Heat Networks**
 - **Smart grids**
 - **Virtual Energy Exchange**
 - **Big Private Schemes**
 - **Community Energy Schemes**
 - **Manchester Energy (£100M research output)**
- **City Deal**
 - **Hub**
 - **UK GIB Joint venture**

Connected was funded

by:



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES

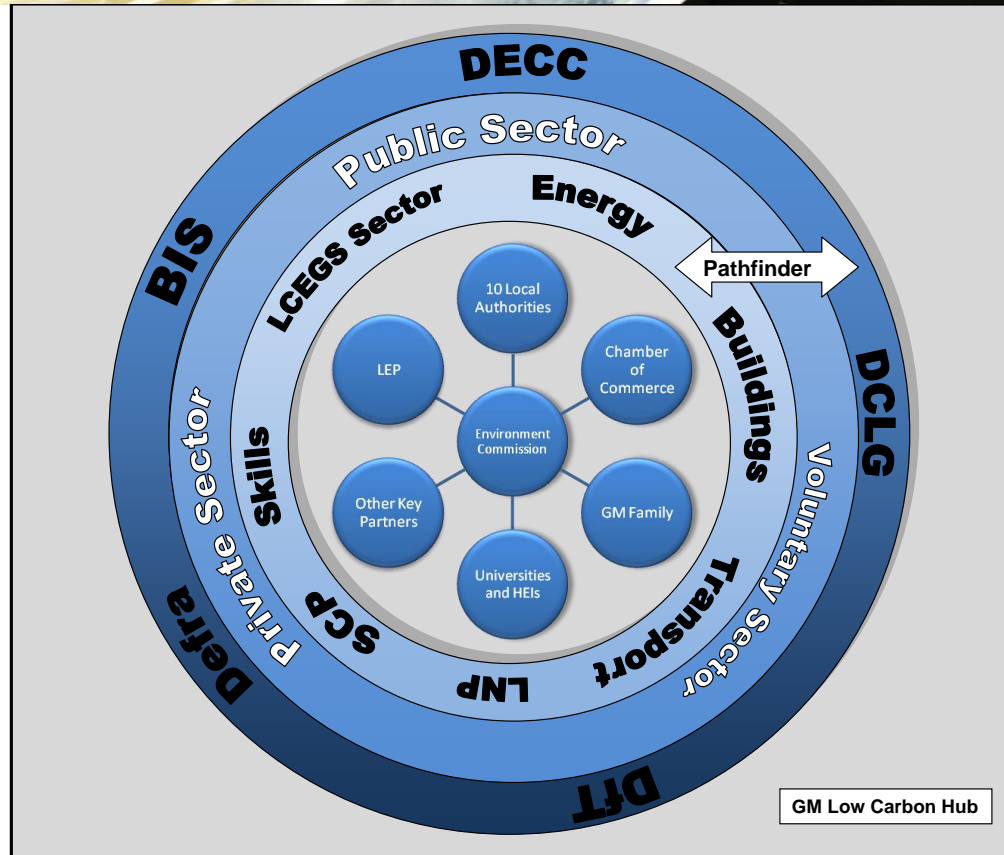


CLASP. Environment
Resilience
Resources
& Support

Low Carbon Hub

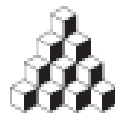


GREATER MANCHESTER
ENERGY GROUP



Connected was funded

by:



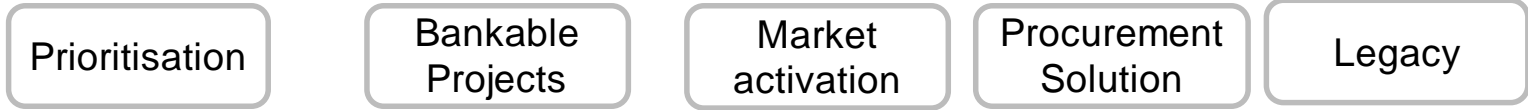
AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES



CLASP. Environment
Resilience
Resources
& Support

Low Carbon Investment – Joint Venture with UKGI

GREATER MANCHESTER
ENERGY GROUP



Mobilisation

Evaluation
Tools
Governance
Marketing

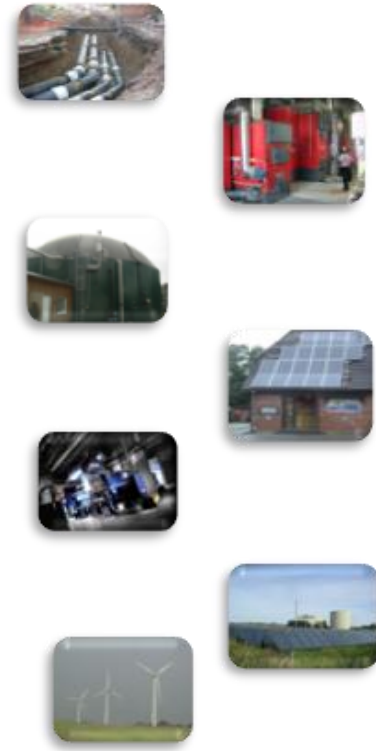
Screening

Technical / Commercial Review

Refinement / Delivery

Contract

Procurement Solution



Phase I
Connected was funded

by:



Phase II



AGMA
ASSOCIATION OF
GREATER MANCHESTER
AUTHORITIES

Procurement



CLASP. Environment
Resilience
Resources
& Support