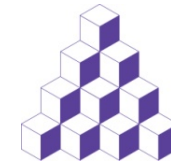


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Greater Manchester Heat Network Programme

Jonathan Sadler
Manchester City Council

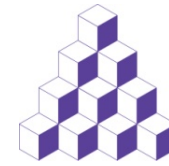
CLASP Heat Network Event
17th May 2012



Overview

- Background & Introduction
 - GM Heat Network Programme: overview
 - Projects & Work To Date
 - Next Steps
 - Key Points
-

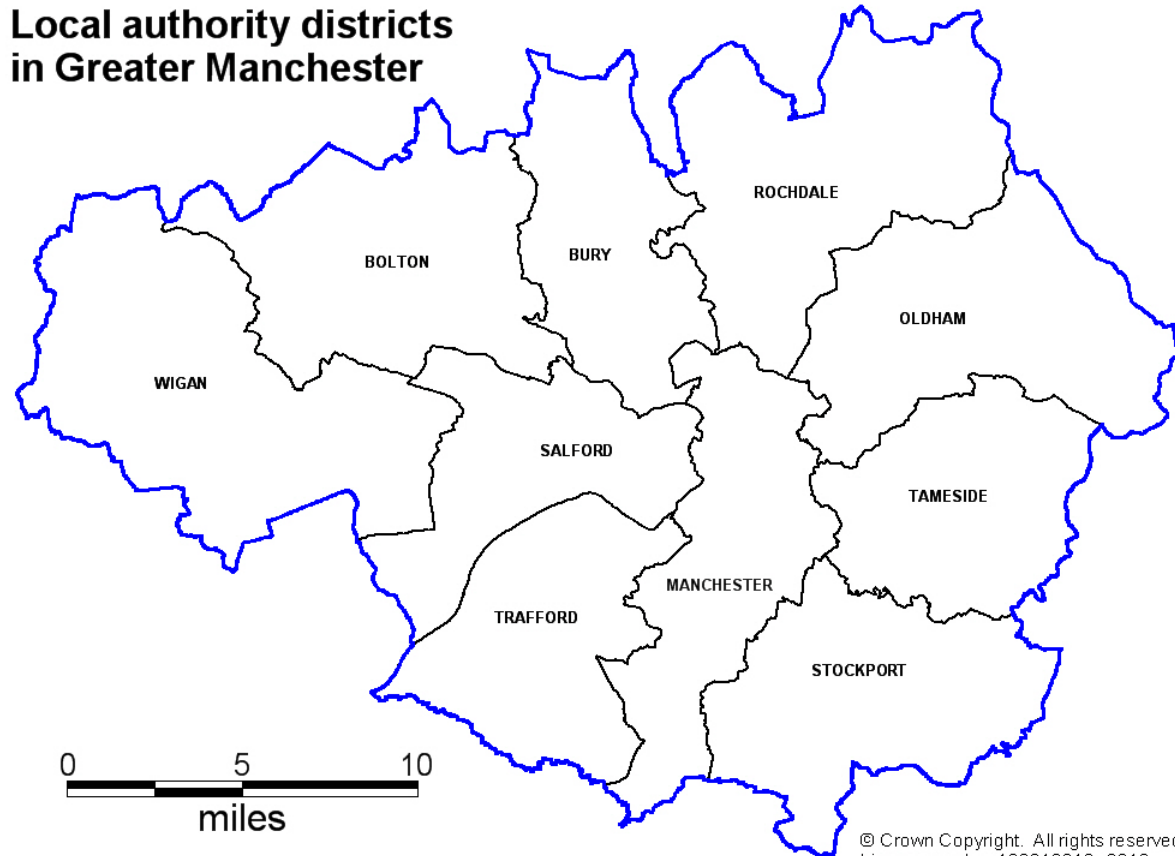
Background & Introduction (1)



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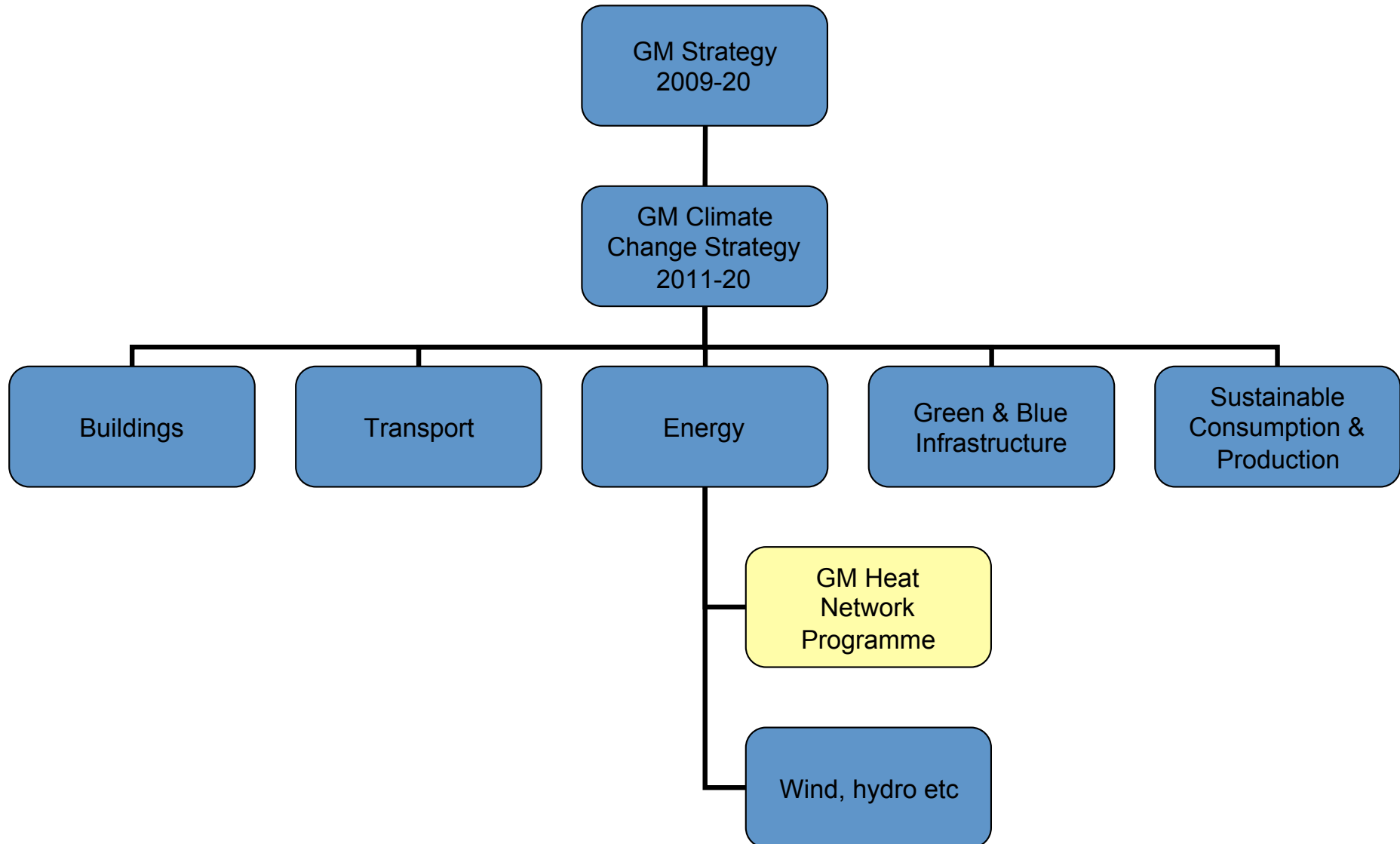
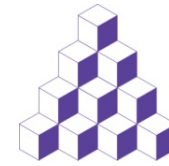
- 2.6m residents
- 1,272km²
- €55.3m GVA
- GMCA & LEP

Local authority districts
in Greater Manchester

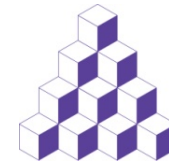


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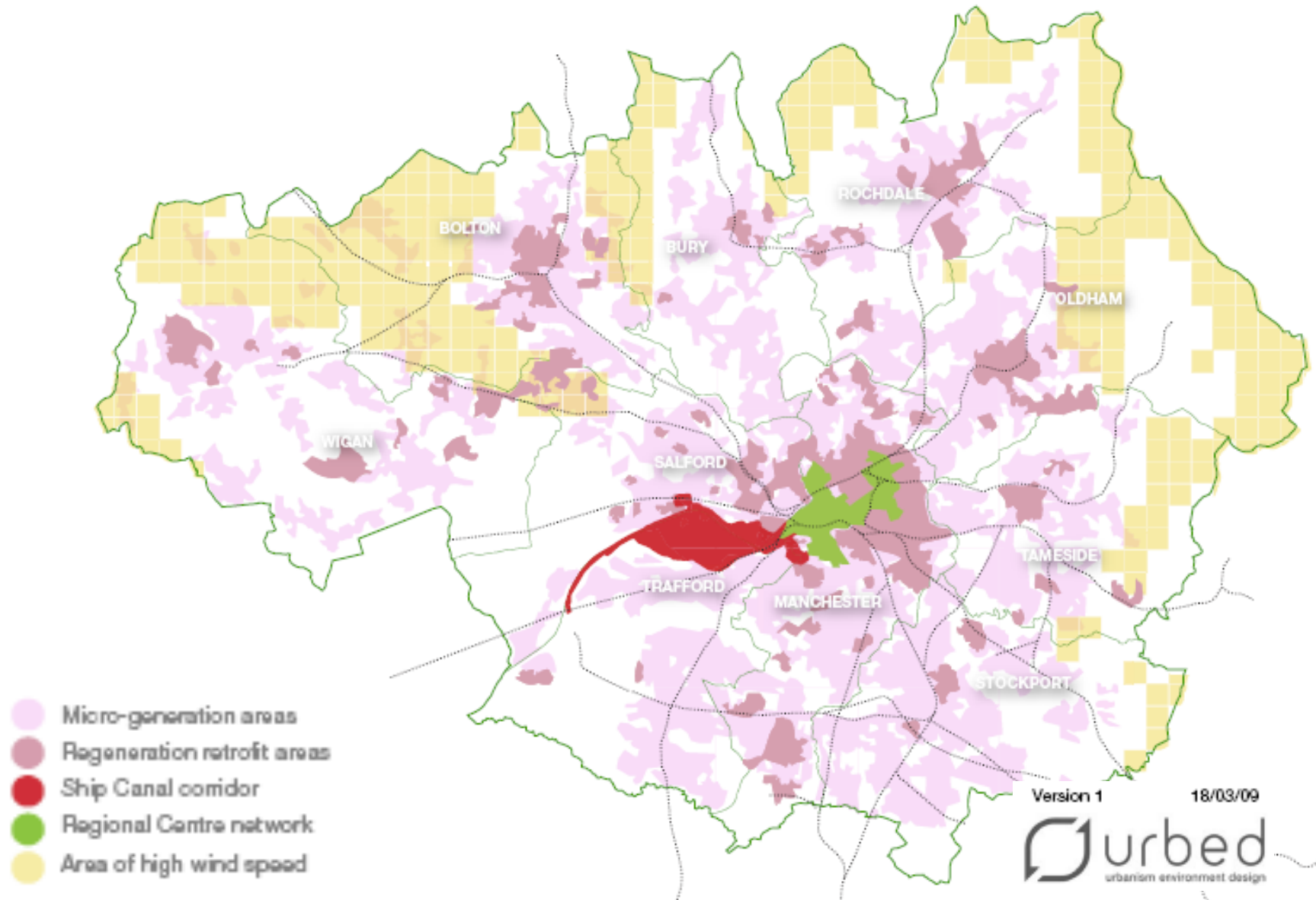
Background & Introduction (2)



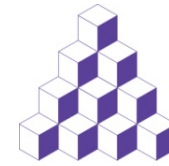
Background & Introduction (3)



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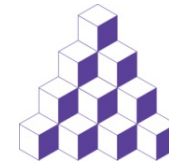


GM Heat Network Programme



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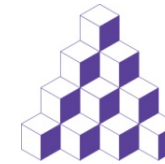
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| Tameside | Trafford – Carrington | Rochdale Salford | | Bolton | Trafford – Stretford Rd Bury Wigan | Mcr - Town Hall Oldham Stockport | | | | | |



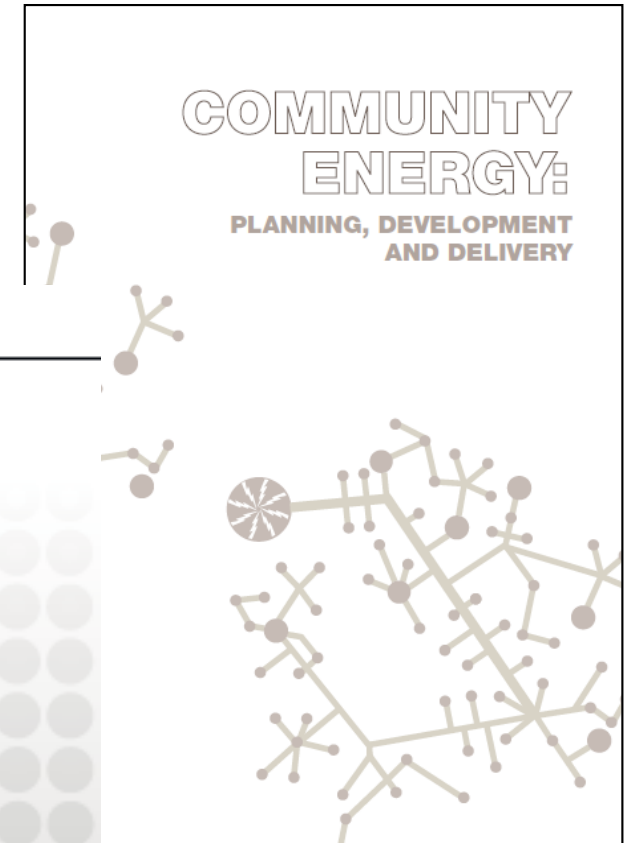
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Projects

Project Development Process



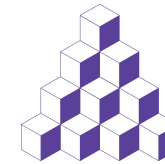
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Area-wide energy mapping by local authorities



Manchester – Town Hall



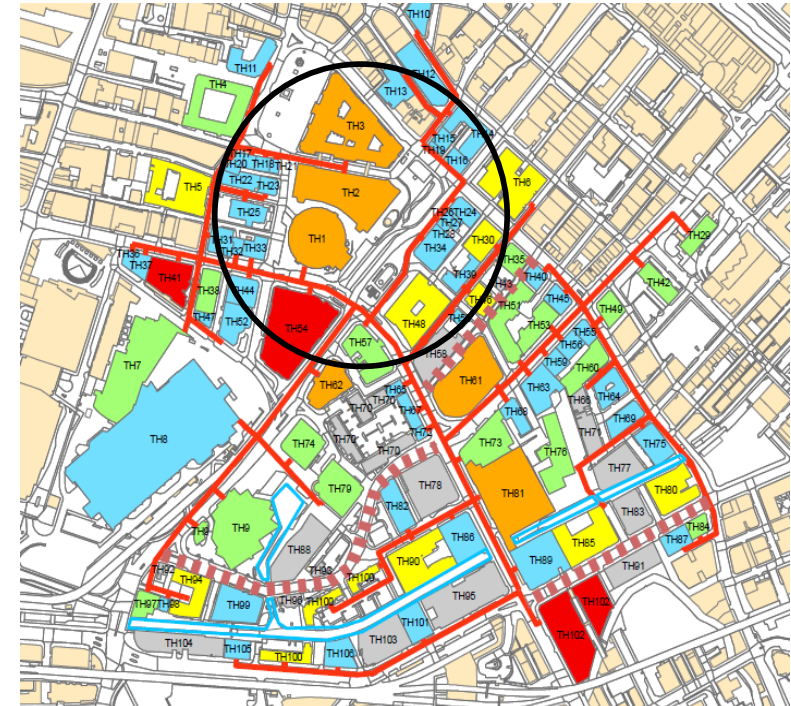
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Project Overview

- 1 of 4 city centre clusters
- 5 buildings:
 - Town Hall (Grade 1 Listed)
 - Town Hall Extension (Grade 2* Listed)
 - Central Library (Grade 2* Listed)
 - Midland Hotel
 - 1 St Peter's Square (new build office)
- €5.8m
- 1,375 tonnes CO₂

Technical Overview

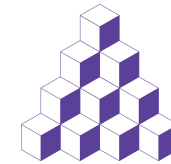
- 1 no. 2,000kVa CHP unit
- 2 no. 2.9MWth gas boilers
- 2 no. 20,000 litre thermal stores
- CHP unit = 60% of the heat demand
- 100% electricity used locally; no grid connection



Funding to date

- MCC (£40k)
- Carbon Trust SDA (£40k)

Oldham – St Mary's



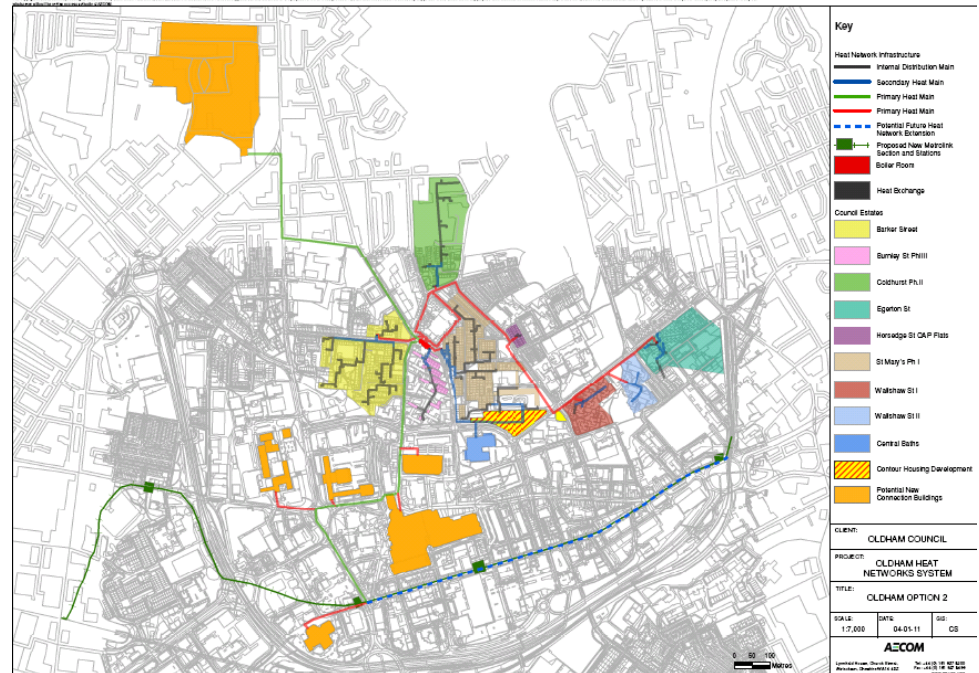
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Current Scheme

- 1,400 First Choice (social) homes
- Leisure centre
- 3 boilers: a dual fuel, gas and gas-oil fired boiler
- And 4 pass boilers which heat the primary air from the flue.

Project Overview

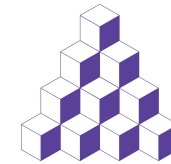
- Option 1:
 - Gas boiler replaced with biomass
 - No network expansion
 - €12.4m
- Option 2:
 - Gas boiler replaced with biomass
 - Network expansion to: 6 existing buildings; 2 new build
 - €19.7m



Funding to date

- OMBC
- Carbon Trust SDA

Bury – Town Centre



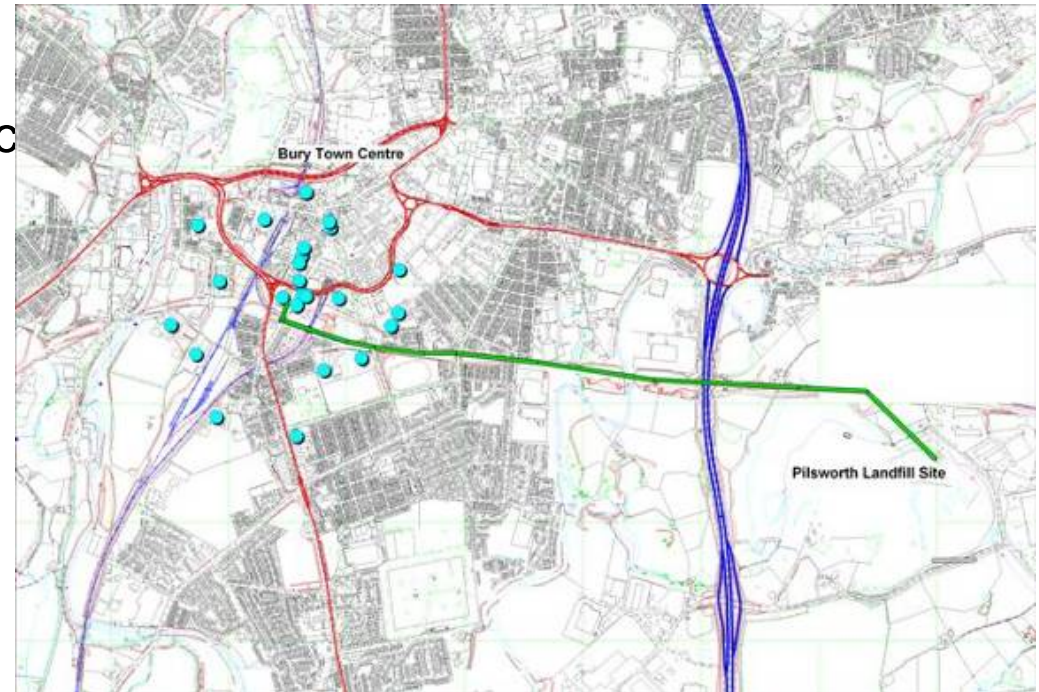
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Project Overview

- Landfill gas at Pilsworth used for elec generation; 40% efficient
- Heat recovery project
- 1.5km pipeline to Bury Town Centre
- Option A: 17 buildings connected
- Option B: 26 buildings connected

Technical Overview

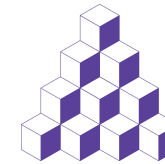
- Option A
 - Coolant only heat recovery
 - 600kW
 - €4.6m
- Option B
 - Coolant and exhaust heat recovery
 - 1250kW
 - €6.2m



Funding to date

- BMBC (£15k)
- Carbon Trust SDA (£15k)

Stockport – Town Centre

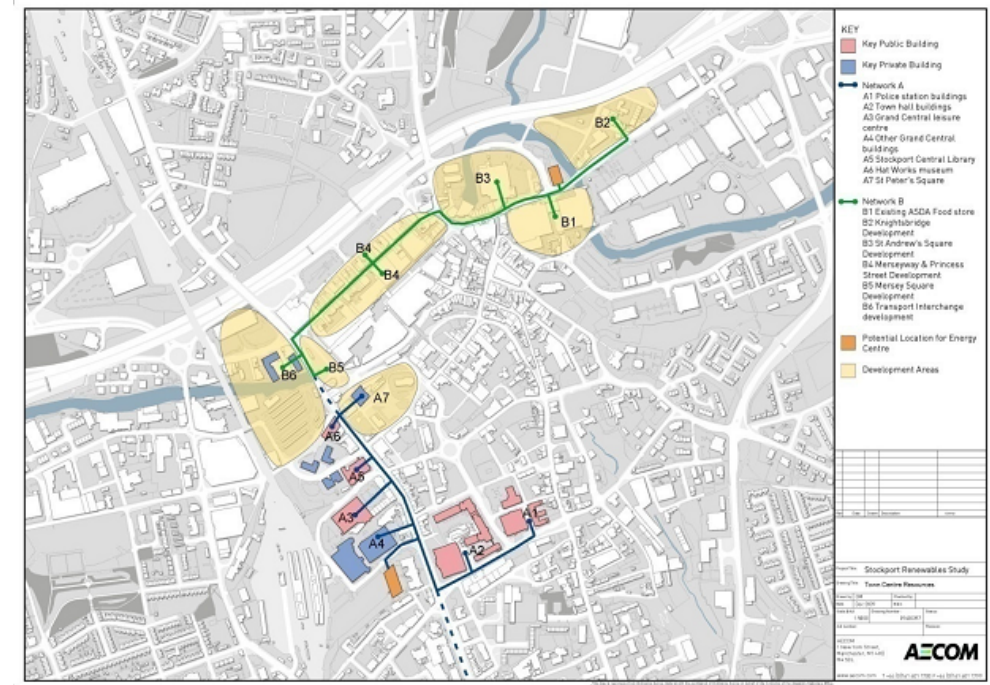


Project Overview

- Phase 1a of wider network
- 5 buildings:
 - Stockport Town Hall
 - Stopford House
 - Fred Perry House
 - Grand Central Pool
 - Stockport College

Technical Overview

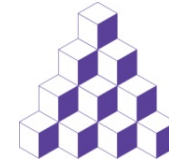
- Option 1:
 - 1 no. 571 kWe gas fired reciprocating CHP
 - €3.7m
- Option 2:
 - 1 no. 500 kWe biomass gasification CHP
 - €5.7m



Funding to date

- SMBC

Next Steps (1)



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What we have:

- 6 projects; €92.39 - €103.47 million
- No/limited in-house capacity and/or expertise

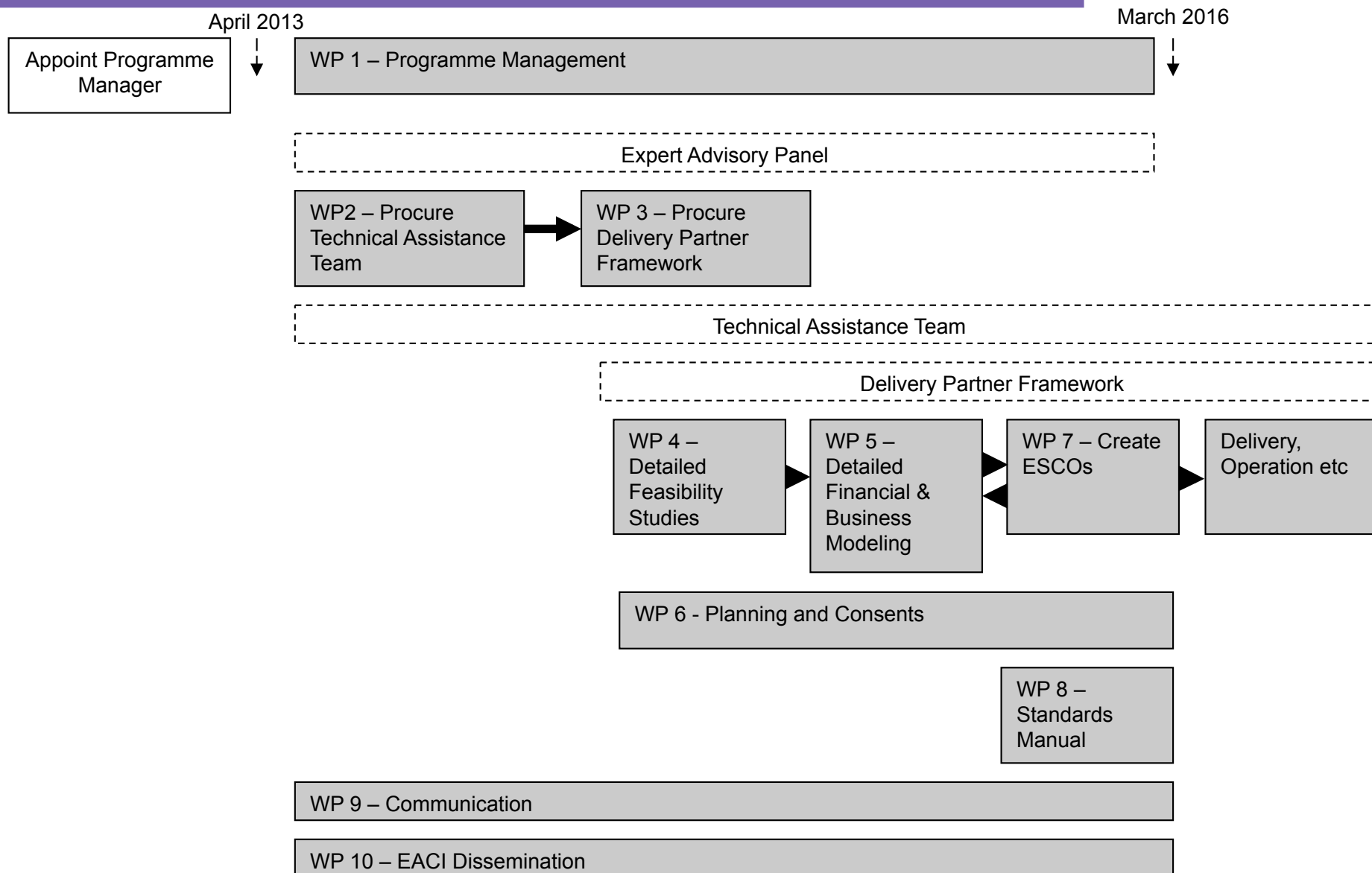
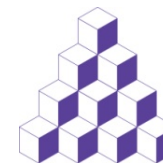
What we need:

- €4.51 million for project development & procurement work (4-5% of total capital cost)
- Secure (private) investment
- Secure delivery partner(s)

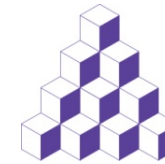
Next Steps:

- €3.36 million from IEE MLEI PDA (75%)
-

Next Steps (2)



Key Points



- Designated resource & support: officer, senior officer & politician

- Project development expertise

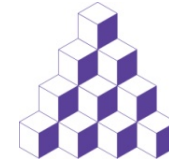
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- Project development ££ is key barrier – EU funding available

- Capital funding available but private sector want 12-15% IRR

- Work at scale:

- Economies of scale for project development & procurement
- Attract investors and delivery partners



Further Information

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Manchester City Council

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j.sadler@manchester.gov.uk

Community Energy: design, development and delivery

[http://www.tcpa.org.uk/data/files/
comm_energy_plandevdel.pdf](http://www.tcpa.org.uk/data/files/comm_energy_plandevdel.pdf)
