



## Environmental Theme Group

### Innovative network of decentralised energy production + distribution

#### Meeting Details

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Date: 8<sup>th</sup> December, 2008

Venue: Tanners Room, Council House

Attended by:

Kevin Palmer	Coventry City Council
Mark Nicholls	CV-One
Nick Hillard	University of Warwick
Monika Bzowy	IKEA
Tom Hellberg	Friends of the Earth
Richard Gray	Coventry + Solihull Waste Disposal Company (CSWDC)
Mike Foxall	Coventry University
Elise Smithson	Coventry University
Nigel Wain	Coventry Partnership
Michael Checkley	Coventry City Council
Melody Stokes	Coventry City Council
Peter Woodward	Quest Associates (Facilitator)

#### Current Situation:

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**Existing waste to energy plant** has the capacity to export 14-15MW electricity to the grid (enough for 15-20,000 homes). 2 turbines with max. capacity of 18MW (uses 3MW to operate plant). Provides high pressure, hot water (steam generated passed through heat exchanger). Electrical output is reasonably constant.

Hot water originally provided to Peugeot plant. The developers of the Peugeot site were not encouraged to use the supply and this is unlikely to be used for the replacement buildings.

Currently looking at alternative users of heat – Asda, Whitley Depot, Sports Centre, laundry, and a significant heat load at Jaguar. Smaller businesses have low individual demands.

Takes 240,000 tonnes waste per annum (diverted from landfill)

Current plant capable of operating up to 2020. More efficient plant could improve efficiency by 20-25%.

#### University of Warwick

4.2MW generation via 3 CHP units. 4<sup>th</sup> being considered. Accounts for 60% of load. High load in early morning for hot water supply. Not currently supplying buildings at Kirby Corner. Interested in linking to other district schemes, possibly Canley.

#### Coventry University

Currently 2 MW CHP. Considering strategy for replacements / new developments

#### Coventry Council Buildings & Schools

Target of 30% reduction in CO2 emissions by 2013 (activities identified in the Carbon Trust's Local Authority Carbon Management Programme plan).

#### Existing ground source heat pumps

2 schools, IKEA (hot water pre-heat), Severn Trent building

#### Issues:

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Could we use power from energy from waste plant within the City rather than export?

Could we use locally generated power for street lighting?

How do we deal with the heat supply opportunity from the energy from waste plant?

Planners have a key role in supporting the vision for a district heat/power scheme.

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15<sup>th</sup> December, 2008

Melody Stokes, Coventry City Council (Tel: 024 7683 2093 email: Melody.Stokes@coventry.gov.uk)

Can we work together to secure a reliable source of sustainable fuel, e.g. biomass?

Ideal would be both private wire and district heating

Want a system that is scalable – grow with the City + demand

A wider network allows maximised use of waste energy (matching supply and demand)

### **Revised Proposition:**

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- Coventry city centre supplied by city waste products for heating, cooling and power
- Link existing heat + power supplies with new low-carbon heat + power units, joined together in a centralised network
- Maximise use of surplus/waste energy in Coventry
- Innovative network of decentralised energy production and distribution
- Maximum utilisation of heat and electricity generation from waste streams within the city
- In the short term, improve use + distribution of existing CHP in the city and in the longer term ensure the city maximises the use in new developments
- Maximise current opportunities for district heating matching demand to supply (new and existing) to create a network that is capable of being scaled up and grown organically
- Increase and facilitate energy independence (from grid gas and electricity) for the city and clusters of users in the city

Of these the new title for this project stream was chosen to be:

**'Innovative network of decentralised energy production and distribution'**

### **Next Steps**

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#### **Suggestions:**

Identify existing and future supply and demand: key suppliers, excess capacity (CSWDC has assessed demand around the Energy from Waste plant)

Focus of both heat and power

Consider a Coventry ESCO

Set up a small steering group (City Council, CSWDC, Univ of Warwick, Coventry University)

Input to Local Development Framework (by 19<sup>th</sup> December)

Connect with all relevant Councillors (Cllr Lee, Cllr Noonan, Cllr Ridley)

Communicate progress to wider partnership – invite collaborators

Write a brief and start talking to ESCOs

Identify key route forward by end January '09

#### **Agreed actions:**

Discuss similar project that Kirklees District Council are progressing

*(Melody Stokes, w/c 15<sup>th</sup> Dec '08)*

Melody Stokes to draft outline proposal and circulate to steering group (Michael Checkley and Kevin Palmer, CCC; Elise Smithson, Cov Uni; Richard Evans, CSWDC; Nick Hillard, Uni of Warwick)

*(Melody Stokes, w/c 5<sup>th</sup> Jan '09)*

Finalise outline proposal and begin discussions with key ESCOs

*(Steering Group, by end Jan '09)*

Reconvene full project group

*(Feb '09)*