

District Heating Opportunities in Glasgow

21 June 2016 (10:00 - 13:30)

C407, Joseph Black Building, University of Glasgow

Photos



Attendees

Margo Livingstone – Glasgow Uni
Maureen Mulvery - DRS
Michelle Mundie – DRS
Gillian Dick – DRS
David McEwan – Edu
Cheryl Breen – Edu
Jamie Rodden LES
Tony Murray - LES
Janice Powell – Aberdeen Heat and Power
Colin Reid - GHA
Jim Clegg - LES
Greig MacDonald - LES
David Hawkey – University of Edinburgh
Ruth Bush – Stratego project
Andy Mouat - LES
Gavin Slater - LES
Colin Cheung - LES
Jim Clegg - LES
Peter Haggarty – Glasgow Uni
Christine Downie - LES
Craig Wheatley – Crown House Technologies
Clive Garroway – Crown House Technologies
Scott Durham – Crown House Technologies
Ken MacRae – Crown House Technologies

Minutes

10 :00– 10:15

Registration

10:15

Welcome

David Hall, Glasgow University Estates and energy manager welcomed all attendees to the university.

10:15 – 10:45

Gavin Slater – Introduction/ setting context

Presentation: https://prezi.com/sj-lkux9edna/a-city-network/?utm_campaign=share&utm_medium=copy

Gavin highlighted Glasgow City Council’s Energy and Carbon Masterplan which sets a target of reducing carbon emissions by 30% by 2020. He reported that the city was on target for meeting this target, and had met a reduction of 14% in 2014.

Examples of existing successful district heating project in Glasgow were highlighted.

A number of challenges to developing district heating were also discussed including:

- Issues of timing - for example, where an organization needs to update their heating system before a near-by potential district heating project can successfully be developed. Loss of the potential heat load results in an undermining the viability of the network as a whole.
- Interconnecting of projects – the council is exploring options for an ESCO to manage the complexities of the interconnecting pipes and shared energy centres.

10:45 – 11:15 Janice Lyons - Aberdeen Heat and Power – Case Study, Q&A

Presentation: http://www.heatandthecity.org.uk/_data/assets/pdf_file/0017/208007/Glasgow_-_Stratego_Presentation_210616_-_Janice_Lyon.pdf

Questions which were put to Janice:

- How do you manage congestion of utilities under the roads? Do you get a contractor to deliver the construction work?
 - o Answer: We use a contractor for the mains, and they have a sub-contractor for the civil works. The company chief executive is an engineer and they act as overall project manager. They also value having an on-site clerk of works.
 - o There are parts of the city that are just too congested and we have had to build around. The key is knowing about this in advance and building this into plans.
- Who is your Distribution Network Operator (DNO)? Have you connected to the network and have the costs for this been significant?
 - o SSE is the DNO. Yes, we have connected, and the capital costs of the project include upgrades to the grid where they are needed. The costs to this can be significant, but this has been worthwhile because of the income that can come from this connection.
 - o Having a good relationship with the DNO has been useful as they try to help.
- Do you charge heat with rent? How do you deal with the Heat Metering and Billing Regs?
 - o Yes, we do for existing customers. For new properties we are installing metering, which costs £70 per year – but we are able to use DEAL to subsidise this cost.

11:15 – 11:45 Colin Reid – Glasgow Housing Association (Wheatley Group) – Case Study, Q&A

Presentation: http://www.heatandthecity.org.uk/_data/assets/pdf_file/0018/208008/Glasgow_-_Wheatley_Group_DH_Strategy_and_Business_Planning_Presentation.pdf

Colin gave an overview of the Wheatley Group existing activities on district heating for its housing stock:

- They were just beginning to consider the strategic overview and potential to link clusters of existing networks.
- They have spent £1.3 billion on energy efficiency (external cladding, double glazing, etc.) which has reduced energy consumption, but the price of energy has increased so much that all of the investment has had very little impact on fuel poverty.
- They have calculated that they need heat prices to sit at 8-8.5p/kWh for heat, including the standing charge in order for a person on benefits to not be in fuel poverty (but this doesn't include electricity, so the calculation has its limitations).

- An overview of upcoming projects was given: Broomhill (where they are planning to use a biomass boiler which offers a higher carbon offset and enables them to access ECO funding); Hill Park Drive (and Energy Challenge Fund Project) using an air source heat pump; and Drygate where they are planning to take heat from a neighbouring boiler house which has excess heat available.

11:45 – 13:30 Glasgow University – Case Study, tour and lunch

Presentation: http://www.heatandthecity.org.uk/_data/assets/pdf_file/0014/208013/Glasgow_-_District_Heating_Scheme_-_The_Journey.pdf

Chris Hopper (project manager for the University district heating project) gave an overview of delivery of the new district heating network for the University of Glasgow. This involved changing from a steam network, using a plant operated by coal, to a gas CHP and hot water based system.

Presentation: http://www.heatandthecity.org.uk/_data/assets/pdf_file/0011/208010/Glasgow_-_UofG_GCC_Presentation.pdf

This was followed by a presentation and tour of the on-side CHP plant from Craig Wheatley, Crown House Technologies, the engineering company responsible for delivery of the Glasgow University district heating project.

