

District Energy Vanguards – Newsletter 32



[This issue 32 is now available online.](#) It is called January 2016 as it mainly reports news items and emerging events announced during January 2016. [Click here for back issues.](#)

Book for 1- or 2-day CIBSE / ADE Heat Network CoP Training: discount rates below.

1. The Heat Regulation : Cost conundrum

The Energy and Climate Change Committee at Westminster are conducting a [Low Carbon Network Infrastructure Inquiry](#). On 26 January the [Committee heard calls from the Association for Decentralised Energy, the Energy Technologies Institute and Wales and West Utilities](#) for a “level playing field” for district heating with other energy infrastructure sectors such as the gas and electricity industry. [[See Tim Rotheray’s comment here.](#)]

On the face of it such equality would only seem fair. In practice it could be a double-edged sword. Both gas and electricity industries are heavily regulated. There has been a long debate on the appropriate level of regulation for district energy.

At one end consumer representatives call for tighter regulation, particularly over prices, whilst at the other end there is concern that the district energy industry is too small to carry a heavy regulatory burden. Carrying such a burden could slow or stop progress towards a fully developed industry that could compete with traditional energy supplies. Furthermore, any regulatory costs would be passed through to customers anyway.

A better approach is a journey towards better regulation. This started with establishment last year of the [Heat Trust](#) and [CIBSE / ADE Code of Practice for Heat Networks](#). These need to bed in and the Code needs to ratchet up standards of design and construction.

Firstly, heat network operators often have to pay business rates on their enterprise while other utility network operators do not. These charges are fed back directly to customers. Local authorities might complain that a business rates exemption for heat pipework will result in lost revenues. But then they would gain from the resilience, energy security and improved health benefits as well as the economic multiplier effect of lower energy costs.

Secondly, other utilities have statutory undertaking rights to break open the road. Heat network operators do not. This is a scary one for politicians who dread the disruption of street works. However there are pressures now on utility industries to get their act sorted out and coordinate road work operations. And it should be noted that the digging up of roads will continue apace as government ambitions to shift more of the heat and transport sectors to be powered by electricity will require major new electrical infrastructure to be added to existing networks.

Now is a good time therefore for heat networks to be given statutory undertaking rights and involved in this coordination process with these other utilities. An issue to take forward with the new [National Infrastructure Commission](#)? [Live consultation till 17 March.](#)

Thirdly, other energy utilities have the right of entry to customers' premises to gain access to the meter. This should not be necessary for new heat networks as they should incorporate external or remote meter reading facilities. But what about the need to ensure that a customer's internal heating system is properly set and balanced so as to deliver a low return temperature? Access for such purposes could help the customer achieve the best value from their system by ensuring it is operating effectively.

There is a chicken and egg situation where high standing charges are applied to the fixed infrastructure costs to meet the cost of capital that is higher for heat networks because they are unregulated and therefore perceived as risky investments.



ation should reduce these costs – but we can't get there in one bound.

Heat customers are frustrated because they have no way of comparing the charges made by their heat network operator. The Heat Trust is developing a [Heat Price Comparator](#). Alongside such a tool it should publish online an annual table of prices for members, as happens in Denmark, so that customers can understand how their network is performing relative to others.

These are all simple steps that could be implemented to accelerate the journey towards greater regulation. The [Scottish Expert Commission on District Heating](#) has submitted its report on regulation for Scottish Ministers. Most of these points will likely be included as recommendations and careful consideration by the Ministers will be welcome.

2. Developing a Heat Networks Investment Scheme

In the Autumn Statement in November the Chancellor announced an investment of £300m in heat networks. DECC are now undertaking a programme of work to design an investment scheme. Initially they are engaging with key stakeholders, including the Vanguards Network convenors, in one-to-one meetings to gather information and views.

This engagement will then be broadened to a wider range of interested parties including the Vanguards Network and the UK Energy Research Centre, potentially via workshops to be held in April. We are working with DECC to firm up these ideas.

The intention is that, subject to Ministerial approval, these engagement activities will be used to shape and define a formal consultation on the proposed scheme design in the early summer. Meantime – see Training offered below on good Heat Network design.

3. Recognising a legal pioneer

Lastly, I am sad to report that Charles Smith, from the Edinburgh lawyers Brodies, died unexpectedly end of January. He was a great supporter and advocate of local district energy companies and worked with many councils to advise on their establishment.

Charles wrote early guidance on establishing local ESCO's for the London Energy Partnership in 2006 as well as the report on delivery structures for heat networks for the Scottish Futures Trust last year.

As well as being a true professional Charles had a wickedly dry sense of humour which made him a great companion. He was a friend to many people in our industry myself included and will be sorely missed by us all.

Michael King, Editor

Training: CIBSE / ADE Heat Networks Code of Practice

The £300million recently allocated by the UK Government for heat networks likely means competitive bidding for funding where good quality design will be an absolute requirement. The Code published in 2015 offers an excellent organisational and technical framework.

Readers are invited to choose EITHER the 1-day **Introductory Workshop** OR the 2-day in depth **Technical Workshop**. It is not recommended to attend both. **Publicly-funded bodies in Scotland are offered heavily-discounted fees* – first come first served!**

Heat Networks Code of Practice: 1-Day 9-5 Wed 16 March, Edinburgh

Provides an introduction to heat networks Code of Practice for policy / procurement staff promoting heat networks or specifying the Code to establish Heat Networks.

Key areas:

1. Gain a general understanding of heat networks
2. Gain an understanding of the aims of the Code
3. Gain an understanding of how the Code should be used
4. Gain an overview of the key requirements of the Code for contract specification
5. Gain an overview of the benefits of the Code for the consumer.

***£45 fee for first 20 registered / £295 fee for all others – VAT exempt. [Register now.](#)**

Participants receive a hard copy of the Code worth £28 and a CPD Certificate.

Heat Networks CoP: 2-Day 9-5 Tues & Wed 5 & 6 April, Edinburgh

Outlines technical themes and challenges in heat networks and how to apply the Code.

Key areas:

1. Gain understanding of the aims of Code and challenges for heat network design
2. Gain a more detailed understanding of how to use the Code
3. Understand Requirements and Objectives for each Stage of HN development
4. Understand the application of the Code to different types of heat networks
5. Achieve certification in the use of the Code following an exam.

This is intensive / requires a high level of knowledge / two years' experience - so check on: [Competencies](#) / [Self-assessment questions](#) / [List of required reading and preparation](#).

***£95 fee for first 15 registered / £495 fee for all others – VAT exempt. [Register now.](#)**

Participants receive a hard copy of the Code worth £28 and a CPD Certificate.

End of Day 2 (3.30-5pm) participants may take an exam for entry to the [Heat Networks Consultant register](#). **NB** This doesn't guarantee delivery expertise in all areas of the Code.

***SPECIAL RATE** for bodies named in Public Bodies Duties on Climate Change, Scottish Local Authorities, Housing Associations, Local Authority energy service companies, Our Power Community Benefit Society members, other not for profit organisations in Scotland.

[Heat Networks Code of Practice Certification](#): CIBSE also offer the 2-day course with opportunity to take exam leading to entry on the [Heat Networks Consultant register](#). Dates offered in England: [Manchester 1-2 Mar](#) / [London 9-10 Mar](#) / [London 18-19 May](#) / [Leeds 8-9 June](#) / [London 6-7 July](#) £600 Member / £672 non-Member.

The CIBSE / ADE Heat Networks Code is [making a difference says Gareth Jones](#).

Other Workshops, Events, Guidance and Consultations

[Consultation on how DECC and the Oil and Gas Authority \(OGA's\) regulatory activities interact with energy sector](#) encourages innovation. Responses invited by 11 February.

[EU-BIOTEAM Consortium](#) offers a [free morning workshop Tues 16 February](#) in Brussels to report back on urban decarbonisation and innovation through modern DH systems.

[International 2016 Low Carbon Heat and Water Conference & Showcase](#) – 23 Feb 2016: low carbon heat & cooling and water & wastewater sectors. Free. Glasgow.

DECC seeks views on heat network financing at [Energy from Waste Conf 25 Feb](#), London.

[HEATNET / Nordic Heat Masterclasses focus on Commercial Case for DH](#) 22 Feb London 23 Feb Stoke, 15 Mar Manchester, 17 Mar Edinburgh ailsa@claspinfo.org 01524 824325.

[REHAU District Heating Workshop](#) 9am-2pm Wednesday 2 March at ECCI, Edinburgh.

ADE and Osborne Clarke [Capturing energy innovation seminar](#) 2-6pm 15 March, London.

COGEN Europe ["Power of Heat" Conference will take place on 22 & 23 March](#) in Brussels.

The Treasury are consulting on the governance, structure and operation of the proposed [National Infrastructure Commission](#) led by Lord Adonis. DH role? Respond by 17 March.

[Consultation on Tenements \(Scotland\) Act 2004 \(Heating Services\) Regs](#) seeks views on installation of pipes for district heating and communal heating. Respond by 14 April.

Scottish Government drafting [Energy Strategy for Scotland](#) (beside RPP3). Core themes:

- Decarbonise the energy system by 2050, in line with Scottish climate change targets.
- Develop a whole system view considering energy supply *and* end use
- Make the *national* energy strategy a *local* energy strategy – localising the approach

Helpful [Frequently Asked Questions on Heat Network \(Metering and Billing\) Regs](#).

[Scottish Government responded Dec 2015](#) to Oct 2015 report from Economy, Energy and Tourism C'tee: [Plugged-in Switched-on Charged-up: Ensuring Scotland's Energy Security](#).

[DECC Q3 2014 to Q3 2015 report non-domestic energy cost move](#): Gas -6.6%, Coal -21% & Heavy Fuel Oil -33% with electricity up by 0.8% (in real terms inc Climate Change Levy).

UK General News

U Cardiff research [Uncertainties in decarbonising heat in the UK](#) Energy Policy Dec 2015.

[Air pollution in London exceeded 2016 limits in just seven days](#) – esp for NOx. Mainly due to diesel taxis, buses and cars but also from gas-fired CHP says [Policy Exchange report](#).

Speaking at Bunhill Energy Centre, Mayoral hopeful [Sadiq Khan promised a not-for-profit "Energy for Londoners"](#) to lead on clean energy across the city – solar & district heating.

London Borough of Sutton – [home of BedZED](#) – seems to be having some [problems implementing the DH part of the £1bn Veolia SLWC Incinerator](#) built near a country park.

Riverlight housing (£880,000 for 2-bed flat) at London's Nine Elms development, has 4MW [gas-fired group heating](#) & 1.5MW [ground-source heat pumps for cooling](#) & LTHW pre-heat.

Reflective anthropology article about how the [Pimlico District Heating scheme](#) – originally fired from Battersea Power Station – has contributed a cohesive effect on the community.

Scottish Equity Partners investing up to £9m in [new heat delivery company, Ardor Energy](#).

European Green Capital 2015 [Bristol Smart Energy City Collaboration](#) report focused on Preventing Illness by Tackling Cold Homes (PITCH) and their [10-Point Plan for 2016](#).

Imperial College's Data Science Institute displayed [a huge digital perspective from English National Heat Map](#) to visualise data extracted in a way that offers new insights.

[Cube HA, Glasgow £11m upgrade for 712 flats](#): external insulation, 1.5MW biomass plus 1.5MW gas boilers installed by BG – next to £20m 1,200 home Wyndford Estate project.

Cambridge-based [COHEAT](#), with support from National Grid Affordable Warmth Solutions, has delivered an [advanced heat network](#) to both control and meter heat to tenants.

[CPV's Hiline Flex cross-linked polyethylene pipe](#) is designed for buried heating & cooling networks: a flexible pipe encased in polyurethane foam insulation, with casing of LDPE.

The Association for Decentralised Energy has appointed [Dr Barney McManigal as Policy Manager](#) for district heating – focusing on seeing that £300m of new funding is well spent.

Global Conferences, Knowledge-share & Developments

International Congress on District Energy in Cities: [District Heating - The Main Pillar for Implementing the Energy Transition in European Cities, 21 April, Frankfurt, Germany](#).

[15th International Symposium on District Heating and Cooling, 4-7 Sept, Seoul, Korea](#).

Submit 300 word abstract by 26 Feb to rolf.ulseth@ntnu.no with copy to iea-dhc@agfw.de

4th [International Solar District Heating Conference 21-22 Sept in Denmark](#) – submit 2 page abstract before 14 March to SDHConference@solar-district-heating.eu using our [template](#).

The UN system is gearing up for [major cities conference 17-20 October in Quito, Ecuador](#) with a Global Report due April and a [series of Habitat III preparatory regional meetings](#).

IDEA online map interactively links over [800 North American District Energy Systems](#).

Governor Cuomo's [\\$5bn Clean Energy Fund](#) to grow New York's Clean Energy Economy.

Very ambitious [net-zero strategy for massive Minnesota medical centre](#) with useful report.

Warmer [subsurface urban heat islands under older German cities](#) offer a new potential heat source which can be identified and exploited say researchers from Karlsruhe.

[Great lessons in effective support for Austrian Biomass DH](#) from Manchester researchers.

[CELSIUS – an EU platform of networking and knowledge](#): 41 cities seeking to overcome technical, social, financial and political barriers to urban district heating & cooling solutions.

You are invited to submit a cartoon on the social benefit of district heating to District Heating Cartoon Contest 2016, Hungary by 15 March. [Wonderful set of competition rules!](#)

[Helsinki broke previous record with 2,650 MW heat demand](#) on 7 January after cold spell.

The city of Mäntsälä, Finland, is to halve its gas consumption and cut carbon emissions up to 40 percent by [pre-heating its district energy with waste heat from Russian data centres](#).

[Siemens CCGT "Fortuna" CHP in Dusseldorf](#) generates 600MWe and 300MWthermal – responding to variable renewables inputs from solar and wind [with up to 85% efficiency](#).

Review on IDEA blog summarises [challenge facing Ireland developing community energy](#).

[COGEN Europe has appointed Roberto Francia as new Managing Director](#) taking over from Dr Fiona Riddoch who returns to Scotland after leading COGEN Europe 2006-2015.

Request for Research themes for IEA-DHC research

Last month Robin Wiltshire outlined [District Heating & Cooling \(DHC\) research programme of International Energy Agency](#) – bringing countries together to research, innovate and grow DHC. Log in for [Dozens of very useful Research Reports](#) since 1983. Current projects: District Heating Planning, System Transformation, Smart Use and Governance.

In a consultation launched January 2016, about topics for the next set of projects, readers are invited to send views to Robin.Wiltshire@bre.co.uk by 29 February 2016 on:

1. **What is your vision for the development of DHC in the UK?**
2. **What are the major opportunities (and the obstacles) to be addressed to assist the development of the DHC sector over the next 5 to 10 years?**
3. **What are the five main research topics you wish investigated in this area?**

[Link to the glossary of terms and acronyms](#)

This newsletter is prepared in Edinburgh with support of correspondents who alert me of useful content. All contributions welcomed – email to David.Somervell@ed.ac.uk.

This is a legacy service of the [Heat and the City project](#) at the University of Edinburgh, which continues to support leading practitioners promoting District Energy in the UK.
