

BULLETIN DECENTRALISED ENERGY & SMARTER GRIDS



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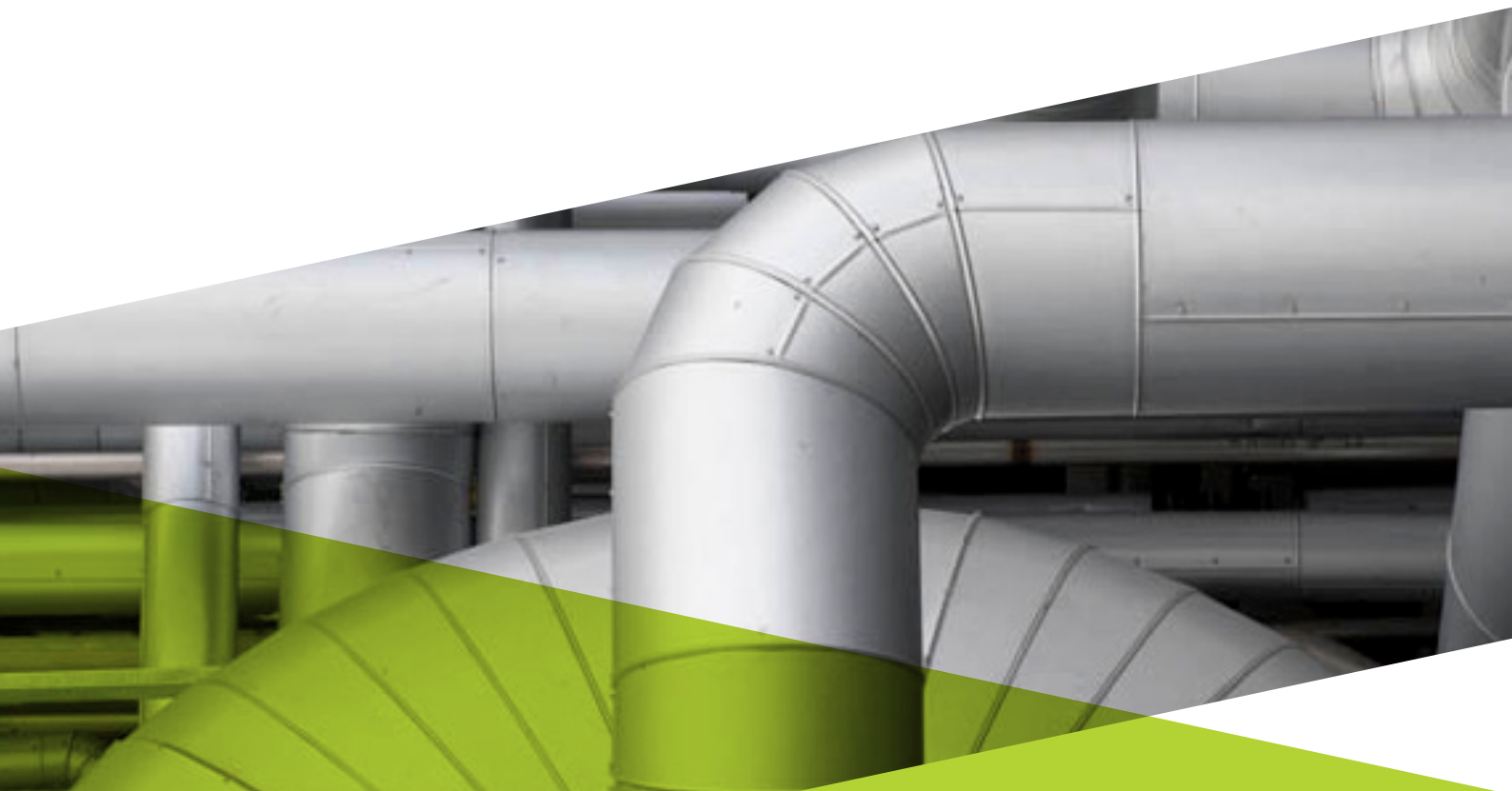


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FUNDING DISTRICT HEATING NETWORKS: IS "LICENCE LITE" THE ANSWER?

Structuring a district heating project can present unique challenges, not least in considering the potential impact of the likely ratio of power to heat when sizing the plant that will generate the heat for the district heating network ("DHN"), and considering how to maximise the revenue streams produced by the project in order to introduce an element of "self-funding".



COST ISSUES & SURPLUS ELECTRICITY

Combined heat and power plants ("CHPs") typically produce heat, steam and electricity. They are often used, sometimes in combination with geothermal, to underpin a DHN, fuelled by woodchip or natural gas. CHPs are usually set to be either heat led or electricity led depending on what they are to be used for and, in the case of a CHP linked to a DHN, the goal is usually to attain a high heat output. However that will in turn lead to higher electricity production. One issue therefore that must be grappled with when structuring a DHN project, is what you intend to do with the electricity produced. Can you use it all on site? If not, you will have a surplus of electricity which cannot be stored easily. However, availability of surplus electricity can be a good thing.

Installing the pipework necessary for DHNs is very capital intensive and the costs are often prohibitive. There is encouragement from a UK policy perspective for DHNs, but there is no central Government capital funding available. Sale of surplus electricity could therefore be a way to generate a steady income stream for a DHN operator ensuring the financial viability of the project.

However, the difficulty is that, unlike the production of heat and steam, it is an offence to generate, transmit, distribute, or supply electricity unless authorised to do so by a licence or exemption (Section 4, Electricity Act 1989). Various individual and class exemptions do exist, and have been set out in the class exemption regime set out in the Electricity (Class Exemptions from the Requirement for a Licence) Order 2001 (the "Order"). The Order allows a DHN system operator to generate, distribute and supply up to 5MW of electricity (2.5MW of it is supplied to domestic customers over public network and 1MW over private wire network). Typically CHP led DHN's will be sized between 500kW to 1 MW.

The options for selling electricity surplus, therefore, include:

Private wire

- Putting a private wire network in place where the supplier bypasses the public distribution system, or the "Grid", completely;
- However, this is a geographically limiting solution: you have to find demand in the vicinity of the generator, otherwise the cost of the private wire can be prohibitive. There are also monopoly concerns as private wire networks by definition bar other suppliers from supplying electricity to the end consumer; and

Grid connection

- Exporting excess power to the Grid.
- However, as a matter of practicality the Order was aimed at giving operators of small power stations, particularly those based on CHP and renewables, the right to generate, distribute and supply electricity to users on the same site as the power generator or to export it direct to the Grid (basically meaning selling electricity to a utility company by way of an "Export Contract" whereby the DHN system operators are paid the spot price set by Ofgem for the export of electricity to the Grid, called the "Export Tariff" (currently 4.85p/kWh)). It was not aimed at allowing small generators to supply electricity to end users directly across the Grid.

This point is highlighted by the fact that the Order does not exempt suppliers of electricity to the Grid from compliance with the various applicable codes, including the Balancing and Settlement Code (the "Codes"). The Codes collectively ensure that electricity generated, transmitted, distributed using the Grid is flowing at the appropriate voltage and that the generation and consumption are evenly matched. Therefore, notwithstanding the exemption provided by the Order, any effort to sell electricity to end users across the Grid would require doing so through a Third Party Licensed Supplier ("TPLS") playing intermediary to ensure adherence to the Codes. This type of agreement is referred to as "sleeving" and is aimed at linking large scale generators with high consumption consumers (above 50 MW) through the TPLS. Negotiating such agreements with TPLSs can be an expensive and protracted exercise. DHN system operators typically being small scale generators therefore tend not to find sleeving agreements to be an attractive or viable option.

POTENTIAL FOR USING SURPLUS ELECTRICITY PRODUCTION TO CROSS SUBSIDISE COST OF DHNS - "LICENCE LITE"

If, however, a way could be found to supply electricity directly to consumers across the Grid that could produce a tariff of, for example, 10p/kWh for the surplus electricity, cross subsidisation of DHNs through electricity generation and distribution could be achieved. There may be such a route - the "Licence Lite" regime.

In 2009, the Government recognised the difficulty faced by the decentralised energy operators. It recognised that the regulatory framework and various incentives, including the climate change levy exemption applicable to decentralised energy operations, were complex and sometimes at odds with each other. It therefore consulted with the wider industry and introduced, in 2011, a derogation to Electricity Supply Licence Condition 11.2 to allow certain suppliers to be exempt from being signatories the Codes themselves ("Licence Lite"), provided they partnered with a TPLS which would itself provide compliance with the Codes, network connection agreements and other obligations. This would enable not just generation of electricity and "own use" on site, but direct supply of that power over the Grid to third parties including domestic consumers.

However, Licence Lite led to significant uncertainty among Licence Lite applicants (especially small scale generators like DHN system operators) and TPLSs as to how the Department of Energy and Climate Change ("DECC") and Ofgem saw this arrangement working in practice: in particular, how it will go beyond the class exemptions set out in the 2001 Order considering that a partnering agreement must still be signed with a TPLS.

As a result, since 2009, Ofgem has only received and potentially approved (it is going through the various stages of approval) one Licence Lite application - that from the Greater London Authority ("GLA"). However, the landscape is changing fast as the details of the first approval are emerging, and we understand that a number of local authorities are preparing to submit their own applications.

The market has been closely watching the GLA application. GLA intends to use Licence Lite to buy electricity from other decentralised energy operators rather than installing any generation capacity itself. It will then sell it direct to consumers at market rates (approximately 16p/kWh). It recently conducted a tender exercise seeking interest from generators entering into a "capacity auction" of sorts, whereby those generators will negotiate a power price with the GLA directly, allowing increased feasibility for their projects (PQQ's closed in May). The Mayor has recently stated in response to questions that an announcement about Licence Lite should be expected by January 2016 as the procurement process involving the electricity generators has taken longer than originally anticipated.

If the GLA plan is successful, then it may be possible for CHP led DHN system operators to sell their surplus electricity through an entity like GLA, which has already obtained Licence Lite approval and partnered with a TPLS, for a price far closer to market than that otherwise available via the Export Tariff. We understand that other organisations, including local authorities, are waiting to see what comes of the GLA application before submitting their own Licence Lite applications.

