DISTRICT HEATING MANUAL FOR LONDON

MAYOR OF LONDON
PLANNING GUIDANCE FOR DEVELOPERS
This chapter briefly covers the planning policy and development control issues which are likely to arise in connection with new development which could or does connect to a district heating network, and development of stand-alone DH networks themselves.

The London Plan requires that all major developments seek to achieve demanding carbon reduction targets through the application of the Energy Hierarchy (see Figure 22) to the design of the scheme. The GLA has worked with its borough partners to establish a standard of good practice for borough-level policies and development management practices to ensure widespread compliance with London Plan policy. This chapter also provides a brief introduction to the relevant planning policy and guidance on the typical requirements of local planning authorities in relation to the development of and connection to district energy networks.

8.1 Do district heating systems need planning permission?

The construction and installation of district energy networks would normally fall under the definition of ‘development’ under the Town and Country Planning Act 1990. Therefore such works would normally need planning permission. There are however, some cases where planning permission for such works does not need to be sought. These cases include:

- Permission as part of a wider development;
- Local authority permitted development rights;
- Electricity Undertaker permitted development rights;
- De minimis treatment of DH works; and
- Adoption of a Local Development Order.

Two of these cases are explained in more detail below.

8.1.1 Part 12 permitted development rights (local authorities)

One such case would be where a network is brought forward by a local authority on land in its ownership or for which it is the Local Highways Authority and can therefore be delivered using Permitted Development Rights afforded to the Local Authority in Part 12 of the Town and Country Planning (General Permitted Development) Order 1995 (as amended). Such powers are subject to maximum thresholds which state that buildings must be no more than 4m in height and the total volume of development (i.e. buildings and pipework) must be no more than 200m$^3$. 

Figure 22. The energy hierarchy
8.1.2 Adoption of a local development order

One alternative to conventional planning permission is to develop a Local Development Order (LDO) to secure a ‘class-based’ planning permission for the development of DH networks. LDOs can be adopted by local authorities to grant permission for a class or type of development across a whole or part of a local authority area. A development which met the description contained within the LDO would be able to commence as soon as any conditions set out in the LDO were satisfied.

8.2 The Planning Policy Framework

There is considerable policy support for the implementation of DH systems. Decentralised energy promotion is a key policy theme in the National Planning Policy Framework, which requires local authorities to identify and plan for opportunities for Decentralised energy including district heating systems.

Local authorities are increasingly adopting targets for borough-wide carbon reduction, and this is translated into planning policy requirements related to the implementation of DH networks. Local Plans usually contain one or more over-arching policies which are supplemented with information in more detailed plan documents such as Supplementary Planning Documents (SPDs). Decentralised energy policy can take a variety of forms and the following sections set out requirements which might reasonably be expected in local planning policy.

This guidance is not intended to supersede or take precedence over adopted planning guidance. Instead, it is provided as general guidance on the issues which are likely to arise in relation to DH within and connected to new development.

Developers should always take planning advice or check with their local planning authority at an early stage in the project to ensure that they have an up-to-date understanding of relevant planning policy and statute.

8.2.1 Requirement to connect

Where there is an existing DH network, policies may require new developments to connect to the network unless it would not be feasible or viable to do so (see Section 8.3 for further details).

Such policies may set a distance threshold or designate an area within which developments are expected to connect. The requirement to connect will typically include the provision of the means to connect to that network and a requirement to bear the cost of connection.

8.2.2 Concurrent planning of new development and new networks

One of the key challenges of developing a new district heating network is the timing between the delivery of the new network and the completion of new developments which would be connected to the network. If the network is delivered early, viability may be affected by delays to consumer connections. If it is delivered late, new developments may need to secure contingency supplies of heat, or they may have to commit to alternative heat supply solutions. This section provides some initial proposals of how to address this issue through planning.

There are essentially three cases to consider assuming that a new building development falls within an Energy Master Plan (EMP) that proposes a district heating DH network. These are identified below and commentary provided on options for the new development.
Where an EMP identifies the feasibility of an area-wide heat network but no firm plans exist as to who will build the network or by when:

- The development should ‘future-proof’ a connection assuming it has a single plant room producing hot water for space heating and domestic hot water. Future-proofing involves providing ‘tees’ and isolation valves in the hot water headers to facilitate the connection of an interfacing heat exchanger at a later date.
- A space reservation could be provided for the heat exchanger, or it could be planned that the heat exchanger replaces a heat-only boiler at time of making the connection to the DH network.
- Provision should be made in the building fabric to facilitate future district heating connections;
- External buried pipework routes should be safeguarded to a nearby road way or similar location where connection to the main DH network would be made.

Where there is a DH network being delivered but there is no programme to connect the development due to its distance from the network and the lack of plans for intervening sites:

- The development should be designed on the basis of its own CHP with standby boilers etc, and ‘future-proofed’ according to the guidelines given above;
- Allowance could be made to defer investment (installation) in the CHP plant for, say, five years to allow time for the DH to be constructed and connected to the network. Once the network connection is made, the requirement to install CHP falls away.
- If the DH network connection is not made within five years and there is no reasonable prospect of doing so, then the development should be required to install CHP. A planning obligation could be employed from the outset to ensure the CHP installation is carried out.
- During the five year period, the development will be supplied with heat from its own heat-only boilers noting that the environmental benefits will not accrue until either the DH network connection is made or CHP installed.
- The developer could be given a planning condition allowing any ‘freed-up’ plant space resulting from the DH connection to be used for more profitable purposes.

Where there are firm plans to connect a development to the heat network, but the network build-out will not reach the new development until some years after the development is complete:

- The development should design for a district heating connection from the outset which would entail a smaller plant room to accommodate the interfacing district heating heat exchanger and displace the requirement for heat-only boiler and CHP plant.
- Heat should be provided by temporary local heat-only boiler arrangements provided by the entity responsible for the DH network.

8.3 Feasibility and viability assessments

New development will be required to adhere to policy requirements to connect to DH networks or include future proofing measures unless it has been demonstrated that it is not feasible and viable to do so. Most local authorities will require applications to be accompanied by a feasibility and viability assessment which will be scrutinised by their officers in order to determine whether connection is reasonably practicable.
In assessing viability (cost and financial implications) and feasibility (engineering and practical constraints) local planning authorities are likely to consider the following:

- The size of the development, and the heat load and energy demands;
- The distance of the development to DH network;
- The presence of physical barriers such as major roads or railway lines;
- The cost of connection and the impact this has on financial viability;
- What efforts the applicant has made to secure agreements to create a new network through connection of nearby buildings or estates. This will be an increasingly important part of driving the development industry to take ownership of planning and development networks;
- The distance of the development to planned DH networks;
- The proximity of any public sector estates and buildings with communal heating systems, especially uses such as swimming pools, hospitals and large housing estates;
- Land use mix of proposed development;
- Land use mix and density of surrounding built environment.

The developer should agree the scope of a feasibility and viability assessment with the local authority early on. The local authority, or relevant Energy Service Company, may be able to provide relevant information to inform the assessment, including for example the approximate cost of connection.

Where connection is not considered possible due to feasibility or viability, developers will be expected to prepare an alternative energy strategy and submit details of this with the planning application.

### 8.4 Relationship with other policy requirements

In addition to specific requirements to connect to DH networks, local planning policy may require a certain level of energy performance on site, for example a requirement to achieve a certain reduction in CO₂ emissions or a Code for Sustainable Homes / BREEAM level. In some instances there may also be specific targets for the percentage of the energy demand to come from decentralised and renewable or low-carbon energy sources.

It will be for the applicant to determine the best method to achieve the target for their particular development. Connecting to a DH network is likely to make a significant contribution to on-site carbon reduction and hence the achievement of other policy targets.

Where such a policy target exists, the CO₂ reductions anticipated from connection will need to be assessed and agreed by the local planning authority. Other measures proposed to contribute to the relevant CO₂ reduction target should be complementary with network connection technologies in order to achieve maximum reasonable CO₂ reductions.

### 8.5 Technical specification

Local planning authorities may wish to take into account the design standards set out in the DH Manual when specifying connections or future proofing measures and in assessing planning applications. In some cases local authorities may choose to adopt the specifications contained in this guidance as an SPD.
8.6 The Planning Application Process

8.6.1 Pre application discussions

Each development site will have a unique set of circumstances and opportunities which will affect the ability to provide or connect to a DH network. It is therefore vital that discussions regarding DH connection are commenced with the local planning authority as soon as possible. Such discussions can be combined with discussions on the development more generally; however it is essential that the relevant carbon/energy officer from the local authority is in attendance.

The following topics in respect of the provision of DH might be discussed at the pre application meeting:

- Potential of the development for DH;
- Local policy requirements;
- Planning application boundary (should be drawn so as to include all local supply pipework required for the connection outside the public highway);
- Specification of DH connection/apparatus;
- The expected location and timing of connection to the network; and
- Information to be submitted with the application.

8.6.2 Information to be submitted

In preparing a planning application, the local authority’s validation list should be referred to. This list, which can usually be found on the authority’s website, sets out the information the local planning authority expects to be submitted with various types of application.

A DH connection is not likely to significantly increase the amount of information to be submitted as part of the planning application and is unlikely to trigger the need for additional assessments to be undertaken. Where a planning application is supported by other assessments, such as a Utility Strategy, Archaeological Assessment or Flood Risk Assessment, the DH connection or future proofing apparatus should be assessed in the same way as the rest of the development.

In respect of applications for developments which include a DH connection or future proofing measures, the following information might reasonably be expected in addition to that already required for the development:

- Plan showing the pipe route and connection point to the wider network;
- High level technical specification;
- Date of implementation and connection;
- Details of financial contributions;
- Feasibility and viability assessment; and
- Energy statement demonstrating carbon and energy savings.

8.6.3 Other consents

In addition to securing planning permission there may be other consents which must be in place before work can commence. These include the need for permits under the Environmental Permitting Regulations (EPRs) should these be required. Any works undertaken in Air Quality Management Areas may also require additional approval under the Clean Air Act (1993). In order to implement elements of a scheme that fall within the highway, it may also be necessary to secure a Street Works Licence under Section 50 of the New Roads and Street Works Act (NRSWA) 1991. Before an application can be submitted all statutory undertakers, including utilities operators, must have been consulted and confirm that they are satisfied with the proposal in respect of the protection or diversion of their apparatus. In order to determine the Street Works Licence application the local authority will also need to be satisfied that the proposed operator and contractor would meet
their requirements i.e. that the operator will undertake the works in the highway in an acceptable way. Section 81 of NRSWA sets out the ‘duty to maintain apparatus’; the organisation undertaking the work must demonstrate that it will be able to maintain the apparatus once it is installed. Therefore, this process will also satisfy the local authority that an operator who can demonstrate the relevant credentials will be installing and maintaining the apparatus.

8.6.4 Planning conditions and obligations

Where connection to an existing or future DH network is feasible and viable, a commitment to connection may be secured via a legal agreement; this may include provision for a financial payment to the local authority to enable connection (although a connection charge may instead be paid directly to the DH network operator). Planning conditions may also be used to ensure the connection is implemented.

Where it has been agreed that the development will connect to an existing DH network, a planning condition might be used to prohibit the development being occupied until a physical connection to the network has been installed and commissioned.

Where it has been agreed that a development will connect in the future, a legal agreement may be used to require a development to connect at any economically viable opportunity. Such an obligation is likely to state that the developer should use all reasonable endeavours to connect and should also recognise that the most suitable opportunity may arise at some point in the future, for example at the end of the economic life of a stand-alone CHP plant. Within the legal agreement a cut-off point will be defined, which will be the latest point at which a decision can be made in relation to network connection. If at this time it is not possible to agree connection to a network, due to the network being incomplete, the alternative energy strategy submitted with the planning application should be implemented (or submitted for agreement and then implemented).

8.6.5 Financial contributions

Increasingly local authorities in London are seeking to secure financial contributions to fund off site infrastructure which might include DH. There are two main routes to securing such contributions; Section 106 Agreements and the Community Infrastructure Levy (CIL).

The introduction of the CIL significantly reformed regulations governing the use of financial contributions. It is likely that the majority of local authorities will adopt a CIL Charging Schedule in the future. Once a Schedule is adopted all new development will be charged at a flat rate on a per metre squared basis, and this payment should be taken into account in viability modelling from the offset. Local authorities may choose to fund DH infrastructure using receipts from the Levy which potentially means there is a new funding stream available to deliver DH. These contributions - whether through a S106 agreement or through a CIL – would be separate and additional to the connection charge which would be made by the DH network operator to cover the reasonable cost of connection itself.