SAA
Scottish Assessors Association

Revaluation 2023

Utilities Committee

Practice Note 8
Valuation of District Heating Facilities

1. Introduction

1.1 District Heating Facilities in many cases will present themselves as lands and heritages which should feature as entries within the Valuation Roll. A District Heating Facility will generally provide a hot water and heating source to a series of properties.

1.2 Consideration should be given to whether a District Heating Facility, or parts of it, could be judged to be a pertinent of a dwelling house in terms of Section 72 (2) of the Local Government Finance Act 1992.

1.3 The Council Tax (Dwellings) (Scotland) Regulations 2010 make special provision for systems with combined heat and power generation sources, specifically defining aspects of the pipework, distribution network and "power station" that in certain situations may be included or excluded within the definition of a dwelling.

2. Basis of Value

2.1 Subjects covered by this practice note should be valued on the Contractors Basis having regard to the 2023 SAA Basic Principles Committee Practice Note 2 and the 2023 SAA Public Buildings Practice Note 4, where appropriate.

This follows previous advice given within the English rating case John Leslie Head VO vs London Borough of Tower Hamlets (2005). The president (of the Lands Tribunal) addressed specifically the question of valuation

approach in the judgement stating “I can see nothing inappropriate in the use of the contractor’s basis…” It should also be noted, in a Scottish context, although not in contention, the method of valuation applied within the Scottish District Heating case of Assessor for Renfrewshire V Burgh of Paisley (1962) was the Contractors Method.

3. General Overview of District Heating Facilities

3.1 District Heating Facilities can take many forms but in general they will feature two main items, a building or structure containing the energy source which is often described as an energy centre, and a system of insulated distribution pipes which are normally (although not always) buried underground to circulate the heat energy contained in hot water in a flow and return pattern from the energy centre to consumers.

3.2 Heat sources within energy centres can vary and can include Combined Heat and Power (CHP) gas driven engines and biofuel boilers. Adjacent processes such as incineration systems can also act as heat sources. Additional heat pump systems can also draw heat energy from various alternative sources such as sewage and river water. The energy centre will also feature complex control systems and there will usually be backup boilers to supplement the main heat source.

4. Survey and Measurement

4.1 The areas of any buildings which form ~~a~~ part of the facility, such as the “energy centre” should be measured on a gross external area basis.

4.2 The flow and return pipework network can be extensive and can form a significant element within the valuation. Distribution pipework will generally be of varying nominal diameters (excluding the insulation layer) and normally the pipe network will decrease in diameter as it extends and branches away from the energy centre. Efforts should be made to ascertain and schedule the extent of the differing diameters of pipework, both flow and return. The required information can often be obtained from detailed schematic diagrams and plans of the distribution network.

5. Valuation – The Distribution Pipework Comprised Within the Heat Network

5.1 This will normally be rateable under Class 3, paragraph (g) of the schedule appended to the Valuation for Rating (Plant and Machinery) (Scotland) Regulations 2000.

5.2 The cost of the installed distribution pipework can differ greatly depending on various factors including the extent of the pipework, the diameter of pipework and the terrain to be crossed during installation. In practice, ground conditions and specific locational circumstances will vary in complexity and difficulty in terms of trenching etc.

5.3 It is recommended where possible, a breakdown of the actual cost, specifically relating to the pipework installation should be obtained, to assist with the appraisal of the estimated replacement cost. As the nature of DHF heat networks can vary markedly, as indicated in paragraph 5.2, it may also be prudent to consider any actual relevant cost information derived from characteristically similar DHF heat networks. Actual costs may require appropriate adjustment and consideration should be given to comparing recent actual costs with cost information provided in the 2023 Rating Cost Guide Scotland (RCGS)

5.4 If actual costs are unobtainable, it is further recommended that the nature of the system, or parts of the system be best categorised as either hard dig or soft dig and the appropriate cost rates per linear metre contained within the 2023 RCGS applied to the schedule of pipework diameters within the valuation to arrive at the estimated replacement cost.

5.5 It should be noted that the 2023 RCGS only covers pipework for nominal diameters up to 150 mm, whereas in reality, some schemes may feature pipework with greater nominal diameters.

In the absence of actual costs, the following table provides guidance on the proportional increase in cost of insulated pipework with nominal diameters in excess of 150 mm.

Pipe Diameter	Relationship to 150mm Dia. Pipe
150 mm	1.00
200 mm	1.03
250 mm	1.10
300 mm	1.19
400 mm	1.41
500 mm	1.77
650 mm	2.22

5.6 Limited evidence exists to suggest that larger heat networks may be able to achieve economies of scale in respect of pipeline costs. To account for this, it is proposed that the following allowances should be applied to the overall pipeline cost shown in the valuation, where costs have been obtained from the RCGS.

Total pipeline length valued 0 – 5000 linear metres = 0%
Total pipeline length valued 10000 linear metres = 5%
Total pipeline length valued 15000 linear metres = 12.5%
Total pipeline length valued >20000 linear metres = 25%

Interpolate as necessary.

5.7 Within phased schemes only the live and connected sections of the network should be valued.

6. Valuation – Other Items

6.1 Although not exhaustive, details pertaining to further items of plant and machinery, structures and other elements that may be typically encountered within District Heating Facilities are provided in the following paragraphs. Technologies employed within newer facilities are continually evolving and consideration may have to be given to the rateable nature of any items of plant which are not referred to in this Practice Note.

6.2 The Energy Centre Building can vary in size and construction and will often be of modern panelled appearance. Some buildings can be more elaborate, providing sizeable areas for demonstration and education purposes and on occasion some energy centres may be incorporated within refurbished existing buildings. It would be expected that the shell and basic fit including internal supports, gantries and platforms will comprise the rateable elements. The CHP engines will not be rateable and the (backup) boilers and heat pumps (if appropriate) will not usually be rateable but some consideration will have to be given as to their size and situation in terms of Class 4 of the schedule appended to the Valuation for Rating (Plant and Machinery) (Scotland) Regulations 2000. If available, actual costs of the shell and basic fit of new buildings should be obtained for consideration and possible use to assist with appraisal of the Estimated Replacement Cost. The actual costs may require adjustment. In the absence of this, equivalent unit costs for the appropriate category and size of industrial building may be obtained from the 2023 RCGS.

6.3 Chimney and Flue Structures attached to the Energy Centre, will generally be rateable in terms of Class 4 of the aforementioned schedule. Equivalent costs may be obtained from the 2023 RCGS.

6.4 Thermal Storage Tank. Although unlikely to be in excess of 400m^3 or 400,000 litres of capacity, the situation of this item should be considered in terms of Class 4 of the aforementioned schedule. The supporting structure is likely to be rateable.

6.5 Pump Sets may be rateable in accordance with Class 3 of the aforementioned schedule.

6.6 Electrical equipment such as control panels, switchboards circuit breakers, transformers etc may be rateable in accordance with Class 1 of the aforementioned schedule.

6.7 Land and Siteworks. Land upon which the energy centre is situated, and any further areas judged to be in the demise of the facility should be valued in accordance with local evidence. Siteworks should be valued by reference to 2023 SAA Public Buildings Practice Note 4.

6.8 Wayleaves. Valuers should be alert to the consideration of any wayleave agreements instituted to allow for the burial of pipework.

7. Overview

7.1 District Heating Facilities and their associated heat networks can vary considerably. In terms of capital outlay, the most efficient heat networks serve large numbers of domestic dwellings within higher density housing, generally in urban areas. District Heating Facilities primarily designed to serve domestic dwellings may be encountered which feature an extensive heat network of pipelines far greater than would normally be found. Economies of scale in these settings have already been addressed in Paragraph 5.6. There may however be occasions where such larger facilities serve relatively few dwellings with little prospect of further connections without significant expansion. When these conditions have been fulfilled and pipeline costs have been obtained from the RCGS, it may be considered appropriate to incorporate a further end allowance of up to 10% within the valuation. It is envisaged that this would only apply to systems where the pipeline length valued extends beyond 10,000 linear meters and the ratio of pipeline length in meters to each domestic connection exceeds 20.