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# district heating

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**ENGLAND:**

**DISTRICT HEATING  
ASSOCIATION, LIMITED**

**EDITOR'S NOTE:** In the Winter 1967 issue of DISTRICT HEATING we reported on the proposed formation of a District Heating Association sponsored by Mr. A. Ernest Haseler, C.Eng. M.I.E.E., M.I.H.V.E. This Association has now been formed and its chairman is Mr. Haseler, with whom we are maintaining a friendly contact. Herewith are some excerpts from some recent papers by Mr. Haseler and also a resumé of the purposes and aims of this new Association.

**FROM: "THE VAST POTENTIAL OF DISTRICT HEATING"**

District heating is a term used in Britain to describe the centralized supply of heat to a number of buildings in part of a town. Abroad it is on a much bigger scale and the number of schemes is rapidly increasing.

There has been a dramatic change in our ideas and demands concerning domestic heating standards in recent years. We have long had a reputation abroad for having the coldest houses. A famous Arctic explorer, in reply to a question as to the place where he had been coldest, replied: "an English bedroom." Many have been brought up to believe it is chastening and toughening to have a cold bedroom with open windows and icy-cold sheets. Whatever the hidden benefits of our stoic upbringing, the national health standards have suffered very heavily with consequent high cost of medical services and loss of industrial productivity. We are top of the world league by far for the death rate from respiratory diseases. More people die of the cold each year than are killed on the roads.

Now, suddenly, Britons have decided that they want constantly and thoroughly warmed homes, just as other nations have enjoyed for many years. The reasons for this revolution are fairly obvious, i.e. higher standards of living and education, home studies, more opportunities to make comparisons with how people live abroad, and lighter and less clothing. We have cut down on carbohydrates!

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**One Big Boiler**

Many responsible people seemingly cannot understand why a rationalized, co-ordinated method of energy-supply, such as district heating, can supply heat cheaper by means of hot water than by single small fuel pipes. Cheaper fuels is one reason. Bulk supplies can be a third the price of a domestic tariff.

Another reason is that one large central plant, automatic in operation, works at high efficiency all the time, whereas domestic installations, invariably much over-sized in boiler power, usually work at an average efficiency over 12 months of about half that of a central plant.

District heating can be produced at a sixth of the cost of the domestic combustion appliance. There is also the cost of the builders' work, flues, chimneys, fuel stores and access roads which are otherwise unnecessary. The space occupied per dwelling can, in some cases, equate to one extra house in 25. This is a very real point for a borough treasurer as well as a housing manager.

Why haven't we had successful district heating before now? Every other similar country has one and has been making good use of it for up to three quarters of a century. There are many thousands of schemes in Europe and

America. In France, the authority puts down district heating, together with all the public utilities and roads in large new developments. It is a condition of any architect or builder that any building which he erects must be connected to the district heating scheme. In this way the capital and running costs are only a fraction of what they would be if, say 60 per cent, were connected. The fuel people are happier, and so are Electricity, because the economies of scale and far better load factors increase profitability.

**FROM: "THE FUTURE OF DISTRICT HEATING"**

**Health**

The medical researchers in recent years have been ascertaining just how many people die because they suffer a condition known as Hypothermia, being too cold to keep healthy and alive. It affects all ages, especially the elderly. Over 30,000 people died from the cold in a recent cold winter. Now a series of surveys and investigations, with which I have been privileged to help as heating adviser, have shown a clear and direct relationship between cold bedrooms and living rooms and hypothermia. Adequate heating, at a cost people can afford, i.e., district heating can prevent these deaths which are only the tip of the iceberg of the misery so much of the population suffers from in cold weather.

**DISTRICT  
HEATING ASSOCIATION LIMITED**

**Objects of the Association**

The Association is an executive, action group comprising members who are concerned with District Heating, i.e., centralised heat generation and distribution.

The members shall be those who wish to help the development of district heating and its application in the best possible manner in all cases where it is demonstrably the optimum method.

*The objects of the Association are:*

(a) To be an executive, action group of those directly concerned with district heating who have a responsibility in their own particular field of activity for its development and operation.

(b) The primary aim is to further the cause of district heating in principle and in practice and to encourage this logical form of heat service whenever and wherever it is demonstrably the optimum method for the consumer, the operator and the nation.

*(Continued on next page)*

(c) To create and promote by publicity and education an informed public opinion on the value and importance of district heating, which expression includes the production, supply and distribution from a central source, of heating for public, industrial, commercial and domestic buildings in the associated area, either local or remote.

(d) To diffuse among its members, the Press and the public generally, information on all matters concerning district heating and to print, publish, issue and circulate such papers, periodicals, books and circulars as may seem conducive to any of these objects.

(e) To give to members of the Legislature and other public bodies facilities for conferring with and ascertaining the views of persons engaged or interested in district heating as regards matters directly or indirectly affecting the same.

(f) To originate and propose improvements in the law to facilitate and encourage the development of district heating; to support, promote or oppose alterations therein, and to effect improvements in appropriate local and national administration, finance and planning policy, and for the purposes aforesaid to petition Parliament to take such other steps and proceedings as may be deemed expedient in order that district heating shall be accepted as a public utility.

(g) To promote excellence in district heating and just and honourable practice in the conduct of district heating business and to discourage malpractice therein, and to establish minimum standards in the design, production, supply and installation of district heating.

(h) To improve and elevate the technical, professional and general knowledge of persons engaged in, or about to engage in district heating, or in any employment, manual or otherwise, in connection therewith.

(i) To establish, form and maintain a library and collection of models, designs, drawings and other articles of interest in connection with district heating, and provide facilities for using modern techniques when determining the optimum design and economic conditions.

(j) To do all or any of the objects of the Association on a national basis, paying regard to international progress and practice in district heating.

(k) To initiate, support and co-operate with professional institutions and other organizations in proposals calculated to assist the promotion of district heating.

## Membership

The subscribers to the Memorandum of Association and such other persons who support the object of the Association shall be Members of this Association.

(a) Every application for membership shall be in writing, signed by the applicant, or where the applicant is a Corporation, by some person authorized in that behalf of the applicant.

It should be pointed out here that those companies involved in district heating and anxious to see its use extended are, by supporting the Association as Sustaining Members, enabled to make the greater positive contribution to its effectiveness. They will have a larger influence on its policy, progress and operation.

(b) Any Society, Institution, Company, Association, Board or Group being in each case an incorporated body supporting the objects of the Association, shall be eligible to be a Sustaining member or a Corporate member.

(c) Any Public or Local Authority supporting the objects of the Association shall be eligible for admission as a Public Authority member.

(d) Any individual who supports the objects of the Association shall be eligible for admission as an Individual member.

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## Co-operation with Professional Institutions and other Organizations

Moves already made will be continued and extended to contact and establish fraternal co-operation with such recognized Authorities as the Institution of Heating & Ventilating Engineers, The Heating & Ventilating Contractors Association, The Heating & Ventilating Research Association, The Royal Institution of British Architects, The Institution of Electrical Engineers, The Town Planning Institute and other equally authoritative organizations.

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## Responsibility to the Public

The Association in pressing for district heating to be applied whenever it is the optimum method from all points of view, will need to subscribe to the World Power Conference primary declaration — 'Total utilization of available energy is the ultimate expression of the engineer's art.' The choice of the fuel will be left for the consumer to decide and will depend on competition. The Association will urge the Total Energy concept, including combined heat and power generation whenever it is to the users and taxpayers interest.

The Association will look forward to new developments to fulfill its aims, such as district cooling in selected areas and using the same energy source as the district heating system.

The Association is endeavoring to establish a Government policy for district heating to be used whenever it is the most satisfactory method and to have one informed, experienced and properly staffed Government Authority, preferably with regional offices.

## Immediate Objective

Already the Working Party are taking executive action to try and ensure that from now on new town development corporations, Local Authorities and others will have to include district heating amongst the alternatives before deciding on methods of heating and hot water for new developments. This to apply not only to housing but to civic centres, commercial, industrial and educational buildings whether new or subject to redevelopment.

The comparison to be on the basis of 'average weekly outgoings' including all standing charges, administration, maintenance, replacements and amortization based on the building life of 60 years.

The parallel objective will be to ensure that the 'British compromise' method of trying to please all fuel and energy interests will be replaced by the right solution in each case for the taxpayer and the user and the good of the nation.

All fuels and electricity will be needed to their utmost capacity for this greatest growth industry. With district heating they can all play their part. In the District Heating Association there is representation at sufficiently high level to have demonstrated already that, although still competitors, they can work in a friendly, mature and enlightened atmosphere for the common good.+