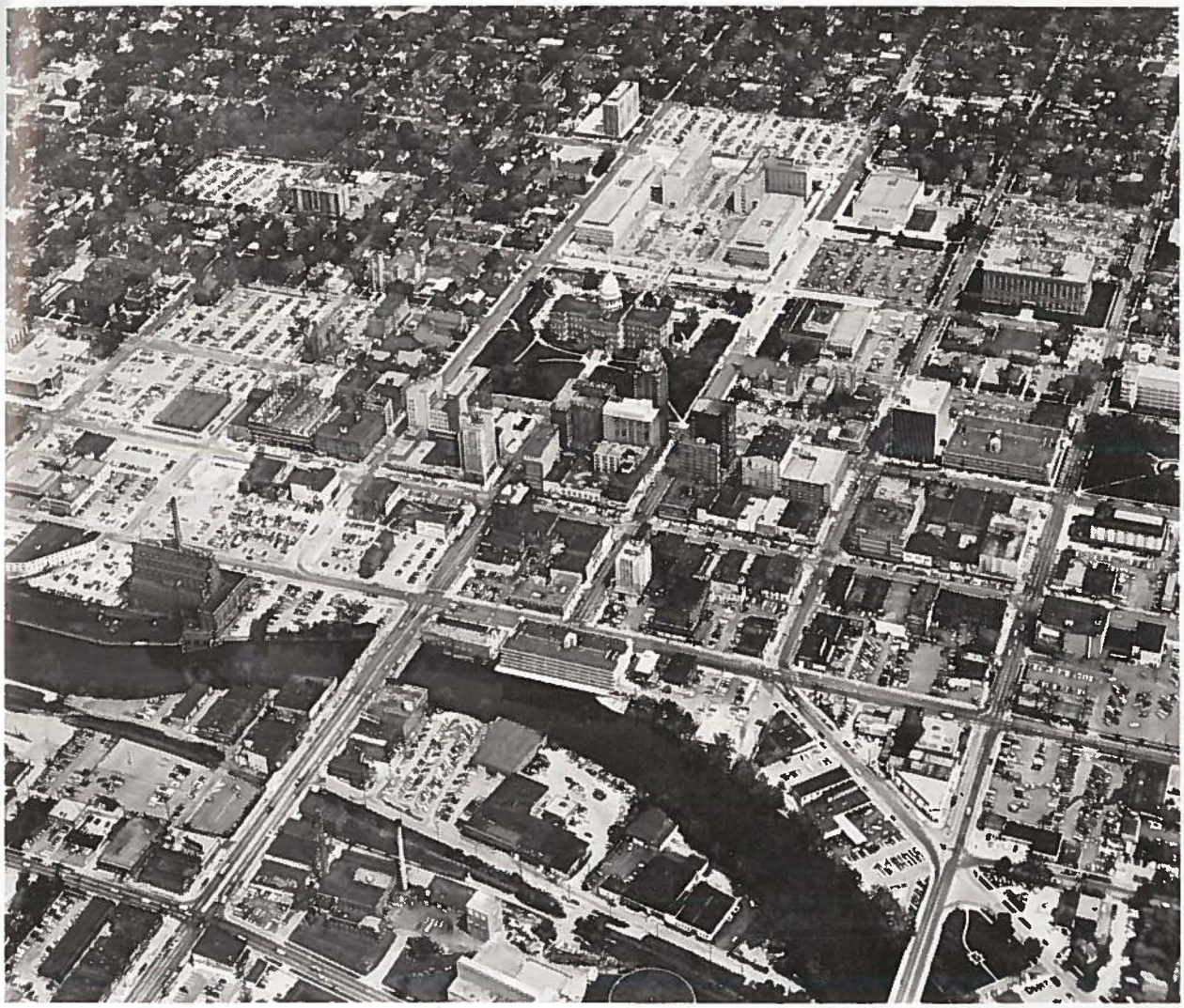
DISTRICT HEATING



Downtown Lansing, Michigan showing area served by the Board of Water and Light's steam system — story on page 10

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AN OFFICIAL PUBLICATION OF THE INTERNATIONAL DISTRICT HEATING ASSOCIATION

INTERNATIONAL DISTRICT HEATING CONVENTION

LONDON, ENGLAND

SPRING 1970, APRIL 20-25

by A. W. BROWN, Convention Secretary
District Heating Association
London, England

Many countries now giving consideration to district heating, see it not only as a more economical and convenient way of providing heat than by means of individual systems, but also as being environmentally beneficial. An exchange of knowledge, practical experience and example against a background of informed discussion has been seen as an effective way of giving encouragement to the introduction and wider use of district heating in these countries. At the same time, it provides an opportunity for methods, designs and equipment already successfully used to be introduced where the most effective results can be obtained.

The idea of holding an International District Heating Convention in London in the Spring was widely welcomed, and was given official support in the form of a Government Reception for all delegates.

With the help of District Heating Associations and interests on a wide scale, offers of authoritative contributions were received from over 40 speakers in 13 countries. These include the U. S. A., the U. S. S. R., Japan, Sweden and the United Kingdom, and cover an international survey of district heating. Basic energy systems using conventional fuels, nuclear power and the incineration of refuse; the design of district heating systems and the special problems of heat distribution are all dealt with.

The worldwide interest in the effects of technological development on the environment has linked the Convention closely with both the United Nations Environmental Year 1972 and with the Council of Europe Conservation Year 1970. Sections on environmental implications, and the provision of district heating in new cities and old towns, constitute an important part of the Conference business.

Local interest is served by the sessions dealing with heat service and meters, leading up to an appraisal of the economics of district heating.

On the social side, delegates attend a banquet at the Guildhall, where they will be received by the Lord Mayor of London and addressed by Lord Robens, Chairman of the National Coal Board. There will also be a dinner given by the Presidents of the District Heating Association and the Institution of Heating and Ventilating Engineers; and the President of the Heating, Ventilating and Air Conditioning Manufacturers Association. Speakers at luncheons during the Convention include Sir Norman Elliott, Chairman of the Electricity Council; Sir Henry Jones, Chairman of the Gas Council; and the Right Honourable Reginald Freeson, M.P., Parliamentary Secretary to the Ministry of Housing and Local Government.

The Convention has been planned to accommodate 600 delegates and a brochure giving programme details, information and registration forms can be obtained by immediate application to Mr. A. W. Brown, Convention Secretary, District Heating Association, Derbyshire House, St. Chad's Street, London, W.C. 1 England.

CONVENTION PROGRAMME

COUNTRY	AUTHOR	SUBJECT
CZECHOSLOVAKIA	**L. Bohal,** Ing. CSc. General Director of Power Research Institute	Development of District Heating in Czechoslovakia
	J. Vlach, Dr. Ing. Dr.Sc. Head of District Heating Division, Power Research Institute; Director of Prague Power Research Institute	Research Projects in District Heating Systems in Czechoslovakia
	J. Baier, Ing. Ceske Energeticke Zavody	The Development of Central Heat Supply in Conditions of Czechoslovakia in Relation to Electricity Distribution
	V. Sladek, Zapadoslovenske Energeticke Zavody	Technical and Economic Considerations

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COUNTRY	AUTHOR	SUBJECT
DENMARK	**O. Morch,** M.Sc., M.Ing.F., M.D. S.O.V. Consultant	District Heating for Existing Cities and New Towns, and the Use of Incineration as a Base Heat Supply
	J. L. Mansa, Consultant to Danish Government	Meters and Metering
FINLAND	**K. Skogster,** Dipl. Ins. Helsinki Electricity Authority	Metering the Heat Supplied
	H. Bostrom, B.Sc. Helsinki Electricity Authority	Co-Author
	K. Tidenberg, Dipl. Ins. Helsinki Electricity Authority	Computer Planning of Hot Water Distribution Systems and Operational Calculations
	H. Hiidenpalo, Dipl. Ins. Helsinki Electricity Authority	Determination of Heat Output Capacity in Hot Water Distribution Systems
	R. Vartia, Dipl. Ins. Helsinki Electricity Authority	Planning and Construction of District Heating Pipelines
FRANCE	**A. Visseq,** President of Comite National Francais du Chauffage Urbain	The Production of Heat for Paris District Heating
	P. Bertrand, President of Syndicat National des Exploitants de Chauffage et des distributeurs de Fluides Thermiques	Heat Service During Buildup and Operation
	J. LeJarre, Director of Technical Research Compagnie Generale de Chauffe	Heat Service
	M. Gerard, Gas de France	Total Energy
	M. Brangier, Jr. Dir. General Compagnie des Production des Thermique et de Distribution	Co-Author
	M. Alexandre, Director Compagnie Generale pour l' Enterprise et 1' Exploitation des Equipments Thermiques	Co-Author
GERMANY	**Dr. E. Tremba,** Diplomingenieur Technische Hochschule Berlin; Director Hamburgische Electricitats-Werke; Secretary Union Internationale des Distributeurs de Chaleur (UNICHAL)	An International Survey of District Heating
	M. Wolf, Dr. Ing.Dr.Jur. Former Technical Director of the Wibera Wirtschaftsberatung Aktiengesellschaft, Dusseldorf: Author of 200 scientific works; Contributor to the World Energy Conference, Moscow, 1968	District Heating Through Nuclear Power Plants, Especially by Way of Closed and Open Cycle Gas Turbine Processes
	Steinkohlen-Elektrizitat Aktiengesellschaft	District Heating Design and Operation
	H. P. Winkens, Director, Energie-und Wasserwerke Rhein-Nechar A.G.	Application of District Heating to Old Cities and New Towns
	O. Patow, Esso A.G.	Practical Experience with Metering of District Heating Plants for Residential Purposes

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COUNTRY	AUTHOR	SUBJECT
HUNGARY	**Dr. A. Biro,** Deputy Director, Hungarian Research Institute for Fuel Technology	Paper on District Heating
	Dr. L. Banhidi, Hungarian Institute for Building Science	Results of Theoretical and Practical Research Carried Out in Hungary on the Direct Use of Hot Water
ICELAND	**J. Zoega,** Dipl. Ing. Technische Hochschule Munchen; Director Hitaveita Reykjavikur	District Heating for Old and New Town Development
	G. Kristinsson, BSc. Edinburgh University; Reykjavik District Heating Service	Co-Author
JAPAN	**H. Kimura,** Ph.D., Architectural Institute of Japan; Member Japan Architects Association; Member International District Heating Association; Professor Department of Environmental Engineering of Architecture Kantogakuin University; Chairman Research Association of City Environmental Engineering	Present Position and Future Development of District Heating and Environmental Considerations in Japan
	M. Kono, Consultant Nikken Sekkei Komu	District Heating Applied to Old Cities and New Towns in Japan
POLAND	**Z. Neumann,** President, State Inspection of Fuel and Power	Technical and Economic Aspects of the Heat Industry Development in Poland
	Dr. J. Marecki, Doc. Dr. Inz. Professor, Technical University of Gdansk	Co-Author
	J. Wojcicki, B.Sc. State Inspection of Fuel and Power	Co-Author
SWEDEN	**J. E. Ryman,** Managing Director, Stockholms Elverk, Electricity Supply Authority of Stockholm	District Heating in the Larger Stockholm Area, Including Heat Production from Nuclear Dual Purpose Plants
	T. Waldenby, Secretary, Swedish District Heating Association	District Heating in Sweden
SWITZERLAND	**A. Darvas,** Sulzer B	Pipe Sizing Applied to District Heating Networks
UNITED KINGDOM	**J. C. Knight,** C.Eng., M.I.Mech.E., P.P.I.H.V.E. Assistant Chief Engineer, Ministry of Public Building & Works	District Heating — Practice and Prospects in U. K.
	A. W. Loten, B.A., C.Eng., M.I.Mech.E., M.I.H.V.E. Senior Engineer, Ministry of Public Building & Works	Co-Author
	R. Boote, Chairman of the European Commission for the Conservation of Nature and Natural Resources	Environmental Considerations

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COUNTRY	AUTHOR	SUBJECT
UNITED KINGDOM (continued)	**J. P. Macey,** F.R.I.C.S., F.I.H.M. Director of Housing Greater London Council	Economic Considerations
	E. A. French, B.Sc. Econ., LL.B. Lecturer at the London School of Economics	The Principles of Appraising District Heating
U. S. A.	**P. L. Geiringer,** Partner, Paul L. Geiringer & Associates; Member International District Heating Association	District Heating by Means of High Temperature Water in Combination with Power Plant Design
	J. H. Henderson, American Gilsonite Company; Member, International District Heating Association	Economic Justification of Insulation Sizing for Underground Hot and Chilled Pipelines
	F. A. Govan, Executive Vice-President, York Research Corporation	Design Criteria for Underground Heat Distribution Systems
	R. M. Beningson, President, Todd-CEA Corporation	The Applicability of Refuse-Burning Incinerator-Boiler Systems for Total Energy Systems
	N. Dimetrais, Chief Engineer Department U. S. Army	District Heating
U. S. S. R.	Committee for participation in International Power Conferences	The Advantage of the Centralised Heat Supply and its Efficiency in Application and Practice
	Committee for participation in International Power Conferences	Open Schemes of Hot Water Supply

NEW HEATING-COOLING SYSTEM BEING CONSTRUCTED IN OKLAHOMA

Thermal Systems, Inc., a wholly-owned subsidiary of Oklahoma Natural Gas Company is building for the future of downtown Oklahoma City.

Now under construction, the downtown central plant will provide heating and cooling for Oklahoma City's new convention center and will also serve the Skirvin Hotel and Tower. According to James Tyree, ONG vice-president, other firms are in negotiation for the service. Future downtown developments including apartment complexes, shopping centers, and buildings are prime customers for the plant which will provide heat and chilled water.

Including the distribution system, the first phase cost of the downtown plant is reportedly estimated at $3.7 million. A saving of an immediate $840,000 is projected for the city when the convention center opens; this is the amount it would have cost the city to furnish individual heating and cooling systems. An additional saving of $50,000 a year is anticipated for the convention facility as a result of using the central plant rather than maintaining its own individual equipment.

If demand warrants, the plant will be constructed with a possibility of doubling its 10,000 tons of heating and cooling capacity. Total construction time has been estimated at about 20 months. Downtown streets are in the process of being torn up to make way for the heating and cooling lines, or will be torn up in the near future.

According to city officials, an additional benefit to the convention center is that by using the central plant, the city will gain about 20,000 sq ft of space that otherwise would have been used for heating and cooling equipment. ●