

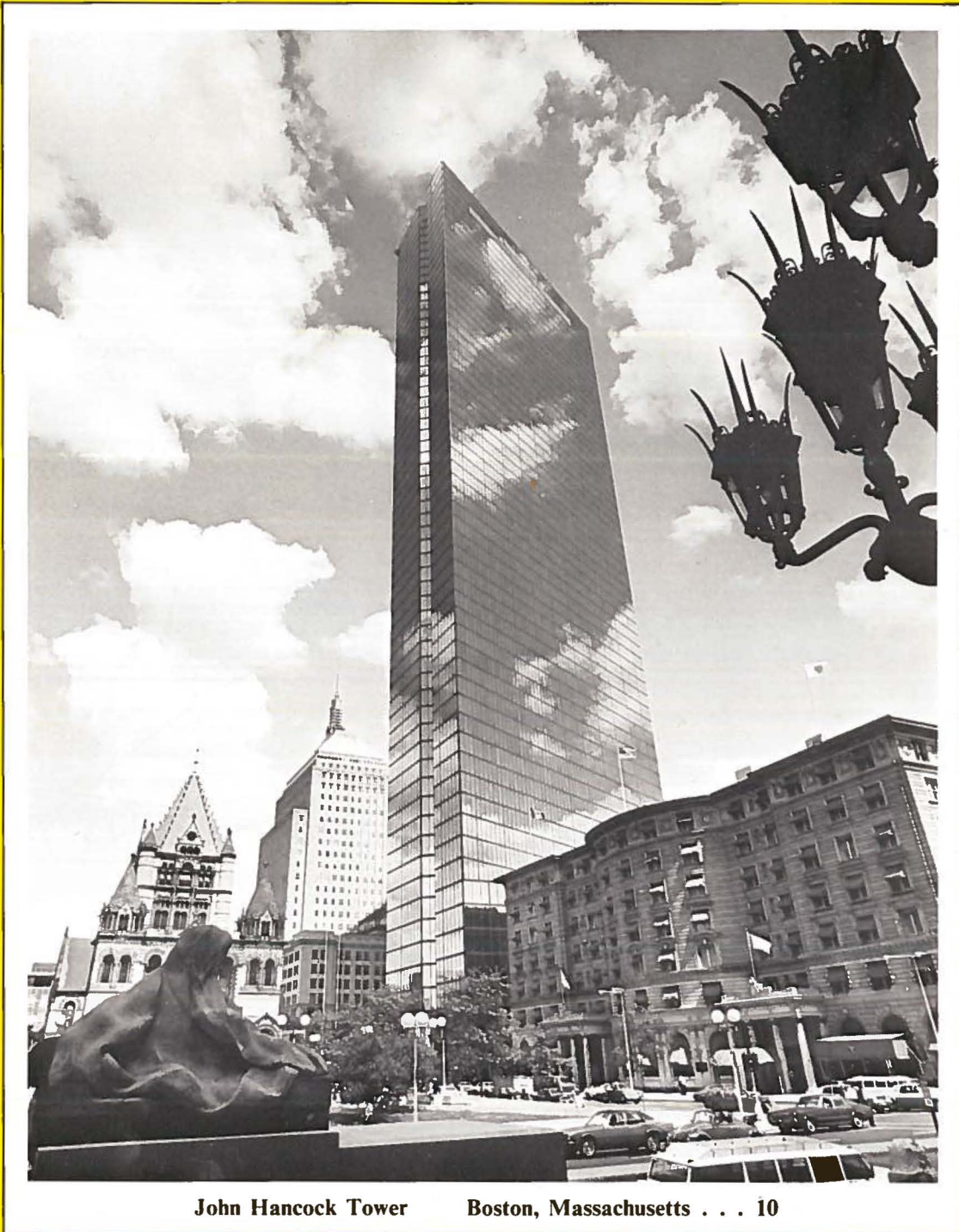


# District Heating

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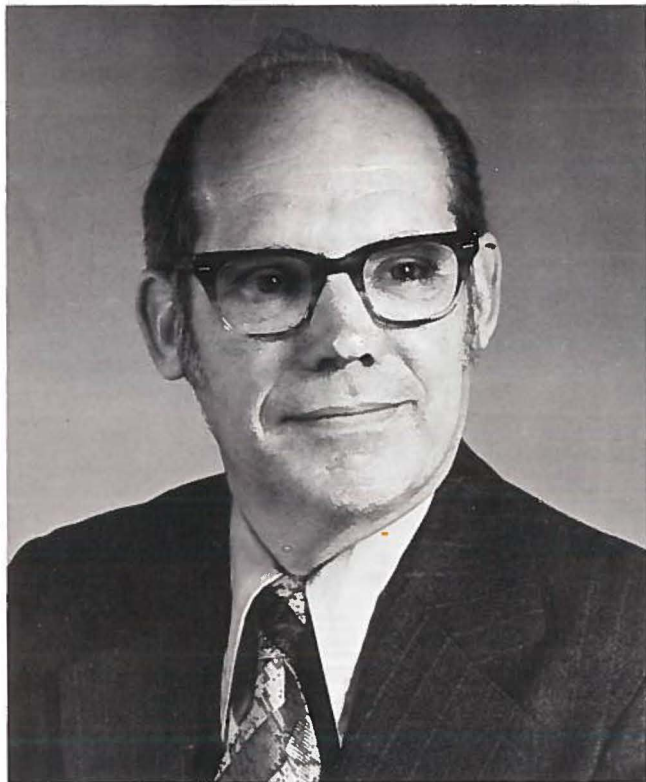


John Hancock Tower Boston, Massachusetts . . . 10

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# The President's Message



## Reflections—on Returning from Warsaw

Winging homeward, high above the North Atlantic—in just three hours we'll be passing over Gander, heading down the northeastern coastline of the United States, and HOME! Home—after a 10 000 mile adventure to deep inside the Eastern Bloc, more than a quarter of the way around the world, where I was privileged to enjoy a special kind of hospitality, learned much about life there, including an appreciation for the courage and warmth of the Polish people, and where many new friends were made for IDHA.

The sun is streaming through the window now, quite a contrast from the night flight eastward when the darkness was shattered by a dazzling, continuous display of the Northern Lights. But, now in spite of the brightness in the cabin, a dreamy mood persists, as I contemplate the events of the last three weeks. Thankful for the experience, I feel that much has been accomplished during this period. Perhaps time will prove that the most important benefit has been the firming of communication channels within our industry throughout much of the

world. Indeed there is a genuine desire by all participants (over 900 of them) in the III International District Heating Conference to continue and improve this triennial event. International politics and misunderstandings will no doubt always exist; but I sensed a real commitment to the concept of periodic technological exchange that is certain to overcome any problems in organizing future gatherings. That we should give our full support to this effort, will, I hope, be your conclusion as well as mine, after you receive my full report which will be given at our Annual Convention in Saratoga Springs. In the meantime, for your information, the formal address I made at the opening session, on your behalf, appears on Page 3 of this issue. It was well received and opened up many discussions which led to better understanding of our differences. Even more amazing, though, were the number of delegates expressing similar concerns. In short, it appears that geography, ideology, and national background might have less influence than we are sometimes led to believe, when it comes to providing for our energy and environmental needs.

Now, at home, as we finalize plans for our 67th Annual Convention, I'm given to a certain amount of reflections on the past year as a whole. Certainly our horizons have been greatly expanded. With Constitutional changes allowing for broader participation by all of our members, and the dedicated efforts by many of you in national and inter-agency affairs, I believe our Association is growing stronger year by year. We should continue to work more and more effectively in the future toward the expansion of our vital district heating services, through improved technology and better understanding.

It has been an exciting and active year. I hope that our close association with important Federal agencies will prove worthwhile, and that our International ties will grow stronger.

May this serve as a final invitation to you to join with us as we look forward to our "Gathering at the Gideon," where old friendships will be renewed, and new acquaintances made. For the real strength of our conventions, yes the Association itself, is in its people and the sharing of experiences. And I can't think of a finer group of people with whom I'd like to share in celebrating our nation's 200th Anniversary. The chairmen, officers, and I, are sure you'll be glad you came.

*Edward A. Blumer, Jr.*  
President



**IDHA President's Address**  
to the  
**Third International Organizing Committee Conference**  
at the  
**Third International District Heating Convention**  
**Warsaw, Poland** **April 1976**

Mr. Chairman, Distinguished Ministers and Delegates, My Fellow Engineers, and Friends:

As the first delegate from the United States to this triennial convention, it is indeed a great honor for me to address such a distinguished group of professionals as yourselves. In fact, this is my first visit to Poland, and I want to thank you for a warm reception, and I look forward to a most enjoyable stay in this great city. I bring you not only the warmest greetings from the United States of America and IDHA, but also our sincerest wishes for a successful convention as you debate the vital issues of energy management. Having spent a major part of my career in district heating, I naturally have a very strong feeling for its importance in the proper use of our energy resources and improvement of the environment.

Truly, though, it should be kept in mind that these concerns, the three "E's," energy, economy, and environment, have always been at the very heart of our efforts. About 70 years ago, when the "steam heating" business was experiencing its first real expansion in America, the National District Heating Association (NDHA) was formed. Its purpose was, and still is, to promote and improve the art, science, and understanding of district heating. But, for decades, the industry existed as an adjunct to, even an undesirable "moral obligation" of, the rapidly growing electric utility industry. Located in the downtown areas of our major cities, this early growth was actually nurtured and subsidized by the larger, more powerful electric companies which were shutting down private plants and had to supply steam service as part of the new electric service contracts. Thus most of the industry today continues based on steam as the heating and process medium. There are, today in the USA, 50 to 100 large systems in major cities. The largest is New York City (8 to 9 000 000 lb/h peak), second and third are Philadelphia and Detroit (2.5 to 3.0 x 10<sup>6</sup> lb/h peak sendout). To be sure, newer systems, particularly in universities and other institutions, are using more and more hot water and combined heating and cooling systems. But starting out new can be an entirely different situation than expanding an old system. Unfortunately, during much of

this period we devoted most of our efforts to technology, virtually ignoring the more important outside forces and institutional constraints that were actually limiting the very growth we thought would somehow continue by itself.

#### A New Era

Happily, though, in recent years, there has been a gradual awakening to the fact that there is much more involved in this business than mere technology and rates. Many economic, political, and social changes were creating a situation whereby our industry was actually losing ground. And the worst part of it was that in reality just the reverse should have been true. Fortunately, it appears that the light has been seen in time. Our technical programs have become broader in scope, we have been carrying our message beyond the confines of our own Association, and many of our speakers are now



President Clymer (1) and Janusz Rosada, Chairman of the Polish Organizing Committee.



drawn from areas of government and other influential positions. As a result, government programs aimed at improving our national energy situation are beginning to look at district heating as a means to improve our energy efficiency while preserving and improving the environment.

### International Affairs

Then, at last, recognizing the important developments abroad, our Association a few years ago, changed its name to the International District Heating Association. IDHA, as it is known today, now has affiliates all over the world, which we believe is vital to the direction we have set for ourselves. For there is a growing awareness in America that there are, indeed, improved methods being developed outside of our national boundaries, that we should avail ourselves of. And in return, we believe there is much we can contribute. Thus, the IDHA deemed it fitting and appropriate to send me to this important international meeting. Hopefully we will find it worthwhile to continue the practice in the future. Perhaps this triennial convention might one day even take place in the USA, or at least on the North American continent.

### Some Common Concerns

The problems we all face and the solutions we can envision, if compiled, would make a list far too long for this brief statement. One of these involves combined electric power and district heating operations. For decades some of our larger systems have reaped considerable savings from topping or bleed-type of operations, whereby each pound of steam has generated some electricity before being sent out as district steam. But, we are well aware that much more can be accomplished in this regard. To be sure, the heat rejected from conventional electric generation cycles is enormous. The greatest potential for district heating probably lies in this area and cannot be overlooked by us. With the development of nuclear power, the thermodynamics and economics appear even more compelling. We are, at this moment, formulating studies aimed at application of these principles, and want to learn as much as possible about the plans of others. Long distance thermal transmission technology is, of course, a vital link, and new methods must be developed as rapidly as possible.

In many situations district heating provides a convenient means for utilizing heat from the burning of city refuse. My Company, Philadelphia Electric Company, has an agreement with the City of Philadelphia to work out a joint project wherein a large part of the City's trash will be converted to steam for our steam heating network, the second largest steam system in the USA. While there are a few other refuse/energy projects on our continent, either operating or in various stages of planning or construction, we believe the concept is merely in its infancy, and has considerable potential, particularly in conjunction with town heating. Furthermore, we are well aware that European practice is probably way ahead in this field.

### The Road Ahead

Those are but two examples where opportunities abound. But in all of these endeavors there is an almost overwhelming amount of work required. Not only must we strive to develop and apply new techniques, but we must find ways to overcome the financial, institutional, and political constraints which vary from place to place, even from time to time in the same place. Yet, if the job looks immense, the needs and ultimate benefits appear far greater. None of us, I'm sure, can presume to have all of the answers. Collectively, though, I'm confident that we do. The cities and towns of the future require the intelligent application of district heating concepts to preserve our tiny planet's limited fuel resources. With continued international cooperation of the type exhibited at this convention, this important task will surely be accomplished.

On behalf of the International District Heating Association, I extend to you our very best wishes for a successful and worthwhile convention.

Thank you.

Ellwood A. Clymer, Jr.  
President of IDHA

### STATEMENT OF POLICY

The International District Heating Association represents those companies and individuals engaged in the concept of supplying thermal energy in the form of steam, hot water, and chilled water for heating, cooling and process use in organized communities. It represents the industry throughout the United States and Canada, and has affiliates throughout the world.

The membership is involved in and greatly concerned with the most efficient use of energy, the planning and development of central cities and other high density areas, the conservation and encouragement of investment in the industry, and the protection of the environment in an intelligent and rational manner.

The IDHA, by the very nature of the industry, supports clean air and protection of the urban sector because these efforts are best achieved by central energy distribution methods. It is opposed to an emotional atmosphere in environmental matters resulting in unnecessarily costly, constrictive or ambiguous governmental controls. It supports safety programs that are proven concepts with economically justified benefits.

The Association's objectives are to collect, coordinate and disseminate ideas and information on efficient methods of producing, distributing, marketing and utilizing central energy systems, and on the accounting and administrative methods employed in the industry; to advance knowledge and learning, and to stimulate invention and research; and to cooperate with other organizations and agencies by interchange of ideas and information.