DISTRICT ENERGY AND MOBILITY

District energy is a subject that seems to be coming at me from every direction these days. Ron Swail, assistant vice president of Facilities & Services at the University of Toronto, recently forwarded me an article by Andrea Shabbar that’s posted on his department’s website (www.fs.utoronto.ca). Titled “One Hundred Years of District Energy in Toronto,” it outlines the first century of centralized energy management at the university’s central St. George Campus. Back in 1912, U of T was one of the first Canadian institutions to implement this type of system, and the basic logic behind it hasn’t changed all that much in 100 years. “In essence, district energy supplies heating or cooling media to multiple buildings from a single central production plant,” Ms. Shabbar writes. “Initially the concept of district energy was focused on heating. The alternative to district energy would require individual boilers or furnaces located in each building… Much later enlargements to the concept of district energy included centralized production and distribution of chilled water for air conditioning and even generation and distribution of high voltage electricity to service the ‘city within a city’ that U of T has evolved into.”

Advantages of the centralized approach include providing the same margin of backup safety with fewer pieces of redundant equipment, and being able to buy fuel and electricity in bulk at lower rates. And with more recent technological advantages in cogeneration – the capture and reuse of waste heat – having a centralized energy plant makes even more sense for organizations that own multiple buildings in proximity to one another.

Our February issue cover story on Evergreen Brick Works in Toronto mentioned how waste heat generated by the refrigeration system for that complex’s outdoor ice rink was used to heat the nearby café, and in this issue we feature Honda’s new Canadian headquarters campus in Markham, ON, which has a centralized energy plant for its three facilities: a LEED® Gold office building, a technical building, and a parts and distribution centre.

District energy is certainly a hot topic on the “bricks and mortar” side of FM, and if you’re pondering how to adapt your skills to the burgeoning “clicks and mortar” world of increasingly mobile workers who need less office space and spend less of their time in it, you might want to pick up a copy of the new IFMA Foundation book Work on the Move: Driving Strategy and Change in Workplaces, edited by Diane Coles. We’ve got a brief piece on it on page 22, and I’d have to say that this book is one of the most eye-opening and informative FM publications I’ve read during my five years in this job.

In the year that one of Canada’s oldest institutional district energy systems turns 100, the concept is a hot topic.

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