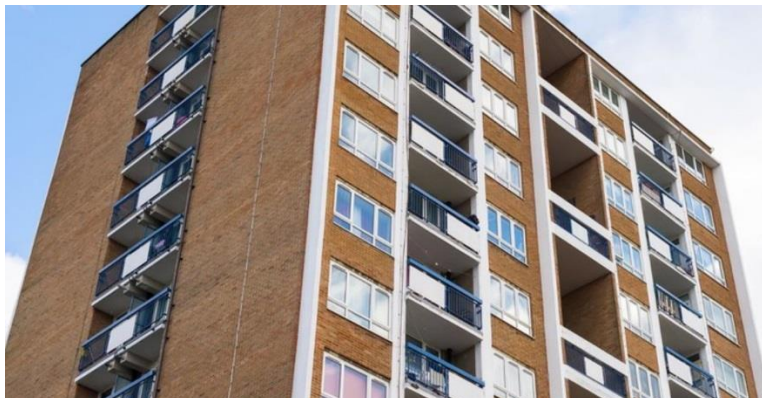




enercare™
connections

April 2019

Thermal Sub-metering Warming Up In Canada



Utility sub-metering for monitoring and billing individual tenants for their utility use has been the answer to the prayers of owners of multi-tenant buildings and condos that for many reasons include utility costs in the rent — especially when they see heat waves billowing from wide-open building windows on a cold winter day.

In contrast to typical utility sub-metering that involves installing separate electricity meters in each building room or space, **next-generation thermal sub-metering devices** measure the amount of energy required to heat and cool individual building units. Thermal sub-metering measures the temperature of a flowing liquid passing through a fan-coil system before and after entering a building space, enabling accurate billing for the energy used to heat and cool individual units, and ensuring transparency of utility costs for both residential and commercial spaces.



“[Thermal metering](#) is definitely a **good choice for high-rise building developers** with centralized heating and cooling that need to allocate or recover energy costs from multiple business entities,” says Ephram Spiegelman, marketing and sales VP at Enercare Connections, Canada’s largest non-utility sub-metering provider.

“We offer a full range of electricity, water, thermal and gas sub-metering solutions for condominium and apartment suites. However, we believe applying thermal metering to a mass-market residential application should be decided on a case-by-case basis, following reviews and recommendations from our project management and engineering teams.”

Regulatory Approval

Thermal sub-metering provides a host of benefits, particularly with regard to **consolidating energy usage** into a single bill for the ratepayer. However, relatively mature thermal sub-metering technologies and devices that are established and proven in Europe are struggling for traction with multi-residential and commercial developers in Canada. Why? Sophisticated revenue-grade thermal metering technology is more costly compared to other sub-metering solutions — consequently driving higher billing administration fees — and thermal sub-metering devices are not yet regulated and approved by Measurement Canada.

“Thermal metering has been regulated in Europe for many years and we believe Measurement Canada will likely model their thermal metering regulations and



requirements after the European standard,” says Wilson Chung, engineering and quality management director at Enercare Connections, who says “uncertainty over future regulatory approval should not stop building developers today from adopting thermal sub-metering in Canada.”

Photo credit to: Carlo Vitale Photography

“Because our thermal meters sourced from a leading European manufacturer conform to the EN-1434 European standard, we are optimistic they will be approved by Measurement Canada after lab testing or “grandfathered” to permit their full 15 years of estimated service life,” says Chung. “If not, we will make the necessary adjustments or equipment exchanges to meet unforeseen regulatory changes or installation requirements.”

Lower Admin Fees

Thermal sub-metering delivers multiple advantages for building developers and owners, including accurately measuring energy consumption in individual building units or spaces, and real-time monitoring and tracking of energy consumption patterns to help improve overall energy efficiency. However, sophisticated and sensitive thermal sub-metering devices and solutions are currently more expensive compared to other sub-metering solutions, creating the potential for unacceptably high administration fees.

“We believe the higher cost of thermal sub-metering devices and installation is offset partially by the superior metering and billing accuracy they deliver, but we’ve noticed a few situations where cost-recovery efforts were causing the administration fee amount to become a significant amount of the overall utility bill — and that’s bad business in our view,” says Spiegelman. **“An administration fee should never outweigh the commodity charge and we intend to keep our administration fee for our thermal sub-metering services as a relatively low percentage of the overall bill.”**

Thermal sub-metering is not ideal for all building situations and should be selectively applied on a case-by-case basis, according to Chung, adding that considerations for evaluating thermal sub-metering should include system type, unit sizes, the impact of geographic location on heating and cooling load and electricity and natural gas rates.

“Our role as the ‘trusted energy management partner’ requires applying our experience and expertise to educate our clients help them make the best decisions,” says Chung. “The industry knows that Enercare Connections is one of the few third-party sub-metering organizations in Canada that will be around for the long haul — and that we will support what we install.”



Enercare’s Vice President of Sales and Marketing, Ephram Spiegelman brings sales leadership, client management, and teambuilding expertise driving the company’s Enercare Connections sub-metering and energy management solutions for electricity, water, thermal, and gas consumption metering in the multi-residential and commercial sectors. You can find Ephram on [LinkedIn](#).



Wilson Chung is the Director of Engineering and Quality Management System at Enercare Connections and has been with the organization since 2015. Wilson is a Professional Engineer and Certified Measurement and Verification Professional with close to ten years of experience in energy consulting services for commercial properties. You can find Wilson on [LinkedIn](#).

David Stewart Jones is an environmental technology writer and researcher based in Toronto, Canada. Correspondence can be addressed to Client.Care@enercare.ca, or emailed to davidstewartjones@outlook.com