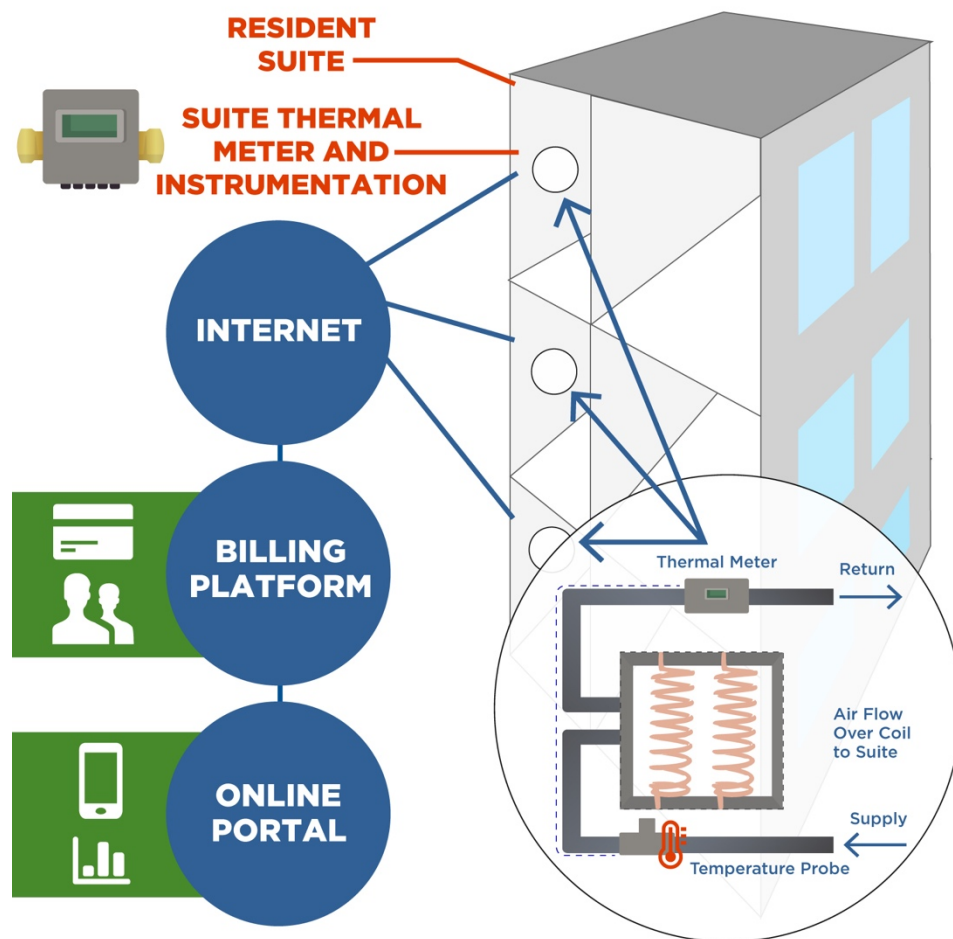


## The Advantages of Thermal Metering for New-Build and Retrofit Multi-Residential Buildings

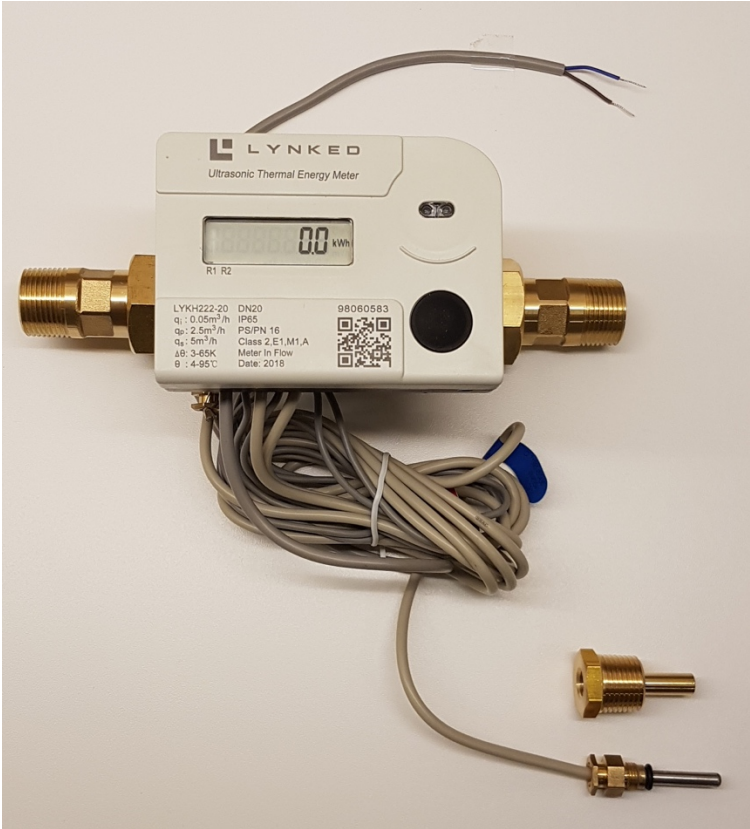
British Thermal Unit (BTU) Metering allows property owners to capture the cost of heating and cooling for units that isn't caught by electrical meters. A thermal meter captures thermal energy in a unit in an effort to maintain a comfortable temperature. Advanced BTU metering systems measure the hydronic flow rate and temperature differential across the in-suite HVAC unit. This calculation measures each suite's actual thermal consumption. Whether you are designing a new build or looking to retrofit your existing building with BTU meters, it is in the best interest of any landlord or building owner to meter multiple utilities, and recover as much of the cost as possible by passing the responsibility on to the residents, thus driving environmentally conscious behaviours. The resulting reduction in consumption results in lowered costs for both the residents and the landlord.



### BTU Metering in New Builds Vs. Retrofit

While it is possible, retrofitting can be slightly more complicated for BTU meters. Buildings require a fan coil unit (a liquid to air heat exchanger system) to support the thermal metering technology, as well as access for the technician to install and work within it. New advances in

communication technology removes the burden of hard-wiring in-suite meters back to a central data collection point.. The long-term savings and increase in property value that BTU metering provides makes it a worthwhile investment. Thermal metering has proven to save up to \$600 per suite per year, with an average 20% reduction in annual consumption for metered units in both retrofit and new construction projects.



In the following case study, Wyse Meter Solutions completed a thermal metering retrofit project in which a building with 92 units are now being metered and billed for the cost of heating and cooling.

**Table 1: Case Study by Wyse Meter Solutions: Average kWh Thermal Consumption Over a 6-Month Period in Billed vs. Unbilled Suites**

Total Units	Buildings	Avg Billed Consumption	Avg Unbilled Consumption	% Difference If Billed
92	1	456.51	759.40	-39.89%

## New Wireless Technology is Making BTU Installations Easier than Ever

In response to the complicated and costly nature of traditional wired BTU meters, a new wireless metering technology is available in the Canadian market and is quickly gaining popularity for retrofit and new build projects alike. This new option looks identical to its wired counterpart, but is far less invasive, easier to implement, and works similarly to a water meter, using the same type of transponder. Both the wireless and hard-wired BTU meter is basically a liquid flow meter with a computer attached that converts the amount of energy in terms of British Thermal Units that are released to heat and cool the unit into a kWh equivalent. The new wireless option eliminates the cost of conduit, wiring, and labour costs to run wires, as well as any confusion about which trade will be responsible for wiring installations.

Like other utilities such as electrical and water, thermal metering will boost your net operating income, energy efficiency and sustainability. Through BTU metering, residents reduce costs through reduced consumption, and stop subsidizing their neighbour's high usage.

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