SuiteHeat™

Real-Time Energy Control of
Electrically Heated Buildings

Utility savings of 30%

Payback in 2-4 years



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Be Empowered By The Power Of SuiteHeat™

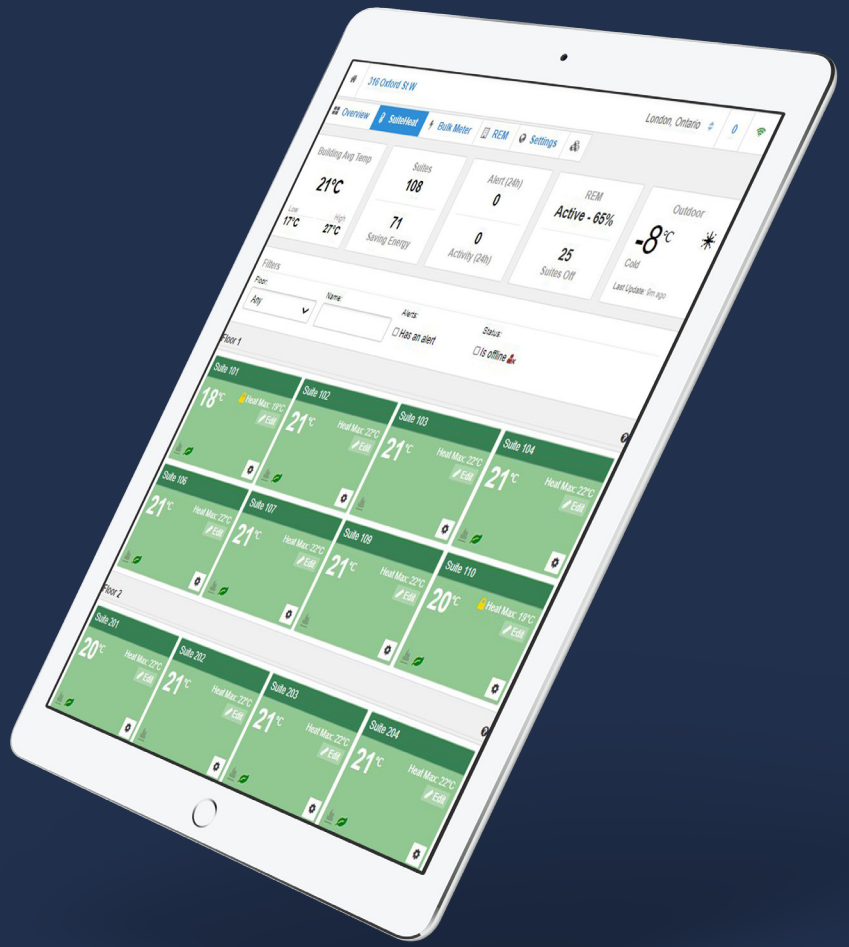
The SuiteHeat™ solution interfaces into the suites' circuit panels that support the existing electrical heating equipment.

By utilizing in-suite sensors and control devices, SuiteHeat™ communicates data over a wireless network through a local on-site SensorSuite Matrix™ Gateway to a secured cloud-based dashboard.

The SuiteHeat™ dashboard is easily expandable to wirelessly support, visualize, and control one to hundreds of buildings and suites with a smartphone, tablet, or computer. By viewing a building portfolio as a single system of interconnected parts as opposed to separate, independently heated units, big reductions in overall electricity consumption can be achieved. SuiteHeat™ allows stakeholders to adopt system-wide heating strategies — so that individual suites may work together in support of a portfolio master plan.

REM (Responsive Energy Management) is a powerful feature that has been introduced to yield further energy savings. This new intelligent feature makes instantaneous adjustments as weather patterns fluctuate. REM will not only accept in-suite temperature as a control variable, but it will also analyze outdoor weather, indoor building temperature, runtimes, and other data points to automate and optimize the building in real time. Moreover, demand management can be performed at an aggregated portfolio level by intelligently enabling electrical loads in multiple buildings to communicate and coordinate with one another. Based on the results, REM has been proven to optimize energy savings during the shoulder periods, with reductions of up to 70% on heating load.

SENSORSUITE'S CLOUD-BASED DASHBOARD



The SensorSuite Mesh Network Solution

Rather than relying on WiFi, SensorSuite relies on a proprietary 900 MegaHertZ (MHz) mesh network to achieve its wireless capabilities. Mesh networks offer far greater range, particularly when delving into basements and other concrete-encased spaces that may impact connectivity. This sophisticated wireless mesh forms a network of nodes where each node can pass information on to the next node. Devices can communicate over long distances on a self-healing network, capable of reconfiguring itself when disruptions or issues arise. By utilizing a mesh network, SuiteHeat™ becomes a stable, reliable, and easily reconfigurable system that meets any smart building's connectivity requirements.



TOTAL REMOTE ACCESS

SuiteHeat™'s dashboard can be accessed from any smartphone, tablet, or computer anywhere in the world. See the big picture of energy usage. Proprietary algorithms use collected data to schedule maintenance and predict problems with heating before they happen. Sensors can help you avoid damages from incorrect temperature settings. They can also help control costs by automatically reducing power usage in empty rooms.



REDUCE EMERGENCY REPAIRS

The custom analytics provided through SuiteHeat™ can predict equipment malfunction and schedule maintenance service, ending late night phone calls and expensive overtime. By studying performance over time, the system will also alert you when it is time for a major equipment upgrade, preventing unexpected downtime. The sensors can even help prevent a pipe burst in an empty apartment.



COMFORT WITHOUT COMPROMISE

Electrically heated buildings are most likely one of your top expenses, often due to excessive use. Smart sensors know when the climate is perfect - and how to keep it that way. They also allow for per unit flexibility, as everyone's needs are different. However, SuiteHeat™ can set a hard limit so that no one may take advantage.



SAVE TIME AND EFFORT

Respond to emergencies more efficiently, and in some cases instantly, via the remote app. Faster service will also improve tenant morale. At the same time, you can utilize temperature history readouts to curb excesses or false complaints of problem tenants. Instant alerts keep you in the know.

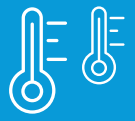
A Deep Dive Into The SuiteHeat™ Dashboard

The SuiteHeat™ Cloud Dashboard is a single screen view of the solution's critical sensory and control data monitored in real-time.

Collected data is presented in an easy-to-read format, making it possible for users to understand large amounts of complex information at a glance. This tool presents an opportunity to track, contextualize, and leverage data in a way that can dramatically enhance the operational efficiency of electric heating systems in buildings. Both flexible and powerful, the SuiteHeat™ Cloud Dashboard makes it easy to identify inefficiencies and optimize processes, allowing decision-makers to drill down into the data to gain a more detailed understanding of their heating landscape. More than just a simple digital readout, this dashboard is designed to provide a visually appealing interface with an extraordinary level of accessibility, transparency, and automation. This real-time window into complex operations engages viewers to more closely examine data and act upon the insights revealed. As a result, information is transformed into savings.



Capture real-time and historical comparisons of electrical consumption for heating purposes.



Limit maximum temperature from your connected smartphone, tablet, or computer.



See summary views of all facilities under monitoring and control, providing real-time consumption comparisons, to promote more efficient behaviour between facilities.



Reset to outside weather conditions by increasing or decreasing the percentage of space heating energy.



Present data in a meaningful way to all stakeholders



Access historical portfolio, charts, tables, and metrics.

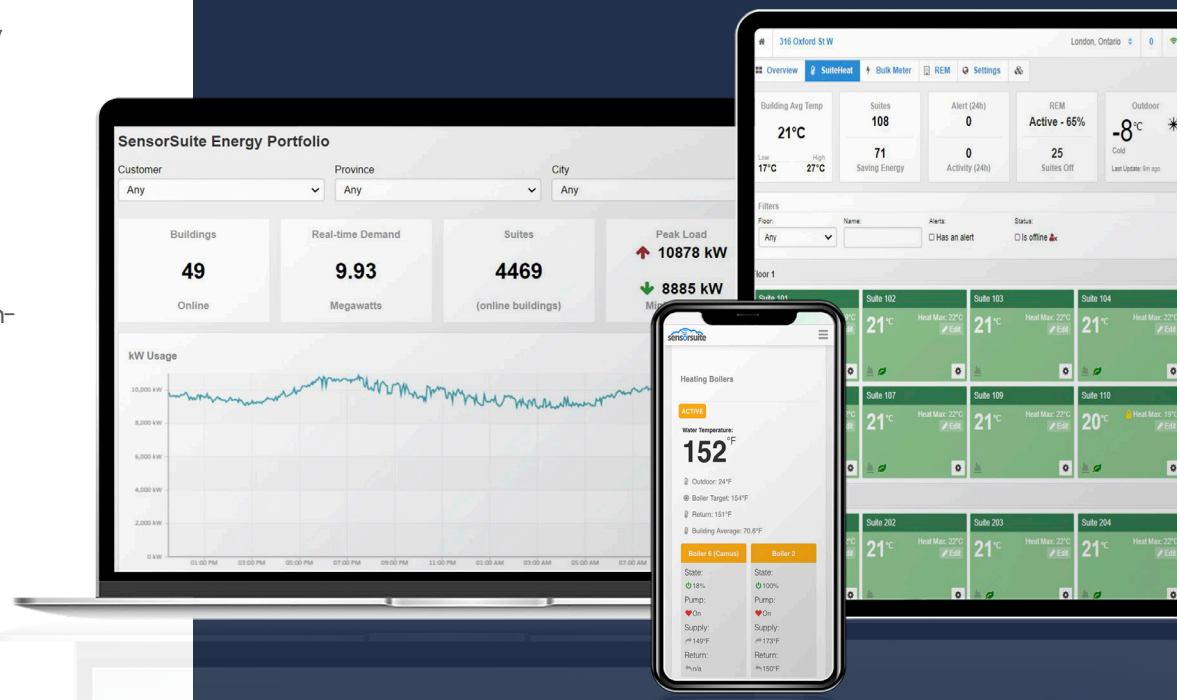
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Key Drivers to Take Control With SensorSuite

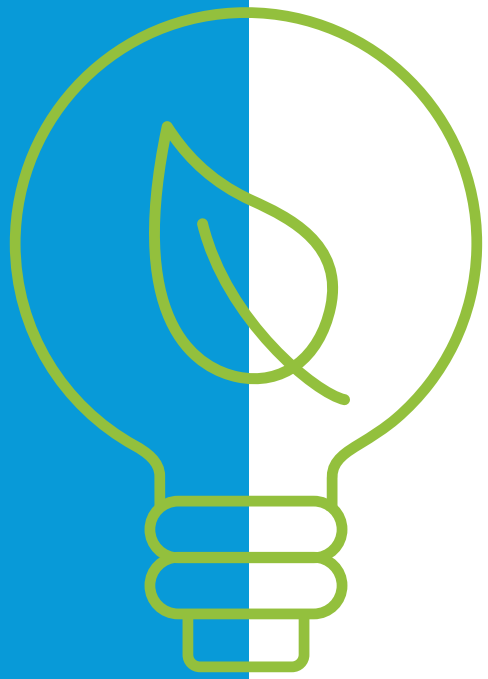
> The cost of electricity is increasing at an alarming rate with no end in sight. For many multi-residential facilities and social housing / public housing complexes, mitigating the risk of this threat is a top priority.

Building stakeholders have begun to take steps towards making their portfolio more efficient and environmentally responsible. As electricity prices increase and the world's socio-political culture shifts towards an urgency to address climate change, SensorSuite will continue to be a valuable resource as a leader in the smart buildings space. The main driver for companies and organizations to transform their existing building stock to these smart building standards is quite simple: building owners have been challenged with finding economical ways to look after the people inside their buildings all while acting as responsible stewards to the outside world.

Connecting traditionally unconnected equipment and machines — monitoring, analyzing and controlling business processes without much human intervention — will lead to the improved management of assets and translate into happier occupants and improved profitability.



The SensorSuite Difference



INTELLIGENT INTEGRATION

Once installed, the backbone of this solution can support the monitoring of other building equipment, capturing meaningful data on a unified cloud-based dashboard that contains a range of energy data you need to operate at the highest efficiency.

SAFE AND SECURE WIRELESS SYSTEMS

As a truly wireless system, SuiteHeat™ can be installed for a fraction of the cost of a typical hardwired system. The low impact installations don't require running wires throughout the buildings, so heritage buildings are kept intact and costs are dramatically reduced on every type of building installation.

CLOUD-BASED POWER

There's no need for a server on premise. The SuiteHeat™ dashboard resides on the cloud — allowing authorized users to connect from anywhere, using any computer, tablet, or smartphone. Data is backed up to the cloud, minimizing data losses in disaster situations.

LOW-COST INSTALLATION

The initial cost of an installed system is much lower than a typical Building Automation System (BAS) or a heatpump retrofit installation with paybacks of up to 16 years! In many instances, companies make the mistake of investing too much in a BAS that is "overkill" compared to what they actually require. SuiteHeat™ is easy to understand and use. Therefore, there's no need for additional staff to operate the solution.

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Case Study

PROJECT TYPE
100+ Multi-unit Residential Building,
Electric Baseboard Controls

PROJECT AT A GLANCE
108 Suite Apartment, London, Ontario

TIMING
January 2019 – January 2020

ENERGY SAVINGS
Realize unprecedented energy savings from your electrically heated buildings. This cost-effective technology helps optimize electrical heating equipment, through real-time weather responsive controls while maintaining tenant comfort.

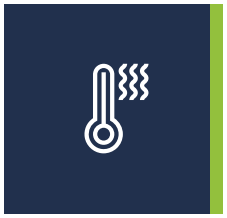


THE CHALLENGE

At this 108-suite building in London, Ontario, the primary source of space heating consists of electric baseboard heaters. The temperature set point and runtimes are adjusted through the wall thermostat within the suite or on the electric baseboard itself. As a result, the property manager has no control over the coincidental peak demand (kW) or consumption (kWh). Tenants do not pay the utility costs, as property management/building owners pay this expense, and so they may not take energy conservation into consideration.



INCREASE PROPERTY CASH FLOW AND VALUE



MINIMIZE WASTEFUL OVERHEATING



REDUCE OPERATING COSTS



REDUCE CARBON FOOTPRINT

THE SOLUTION

SensorSuite integrated its SuiteHeat™ controllers into each suite which began to manage the heat load at the breaker panel. This non-intrusive solution was easily installed in the suites and allowed the property manager to effectively reduce all the usage of tenants that were abusing the heating system.

108 SUITE APARTMENT, LONDON

ELECTRIC BASEBOARD CONTROLS

Project Summary

- Project Cost: $73,369 (+HST)
- Utility Incentive: $15,010 ($0.10/kWh)
- Net Cost: $58,359
- Cost Savings: $18,587 ($0.13/kWh)
- GHG Reduction: 3.02 tonnes of CO2e
- Projected Payback: 3.14 Years

Energy Savings: 150,105 kWh/year

Cost Savings: $18,587/year

31%

Energy Saved

3.14

YEARS

Payback Period

SuiteHeat™

Overview of the SensorSuite Solutions



RELIABLE WIRELESS TECHNOLOGY

A single SensorSuite Matrix™ Gateway can safely and securely connect 100+ control devices within the same building. This reliable wireless network successfully powers tens of thousands of devices on the market today.

POWERFUL CLOUD DATA CAPABILITY

Data is the key to unlocking savings in the building environment. We provide access to the largest and most powerful cloud technologies available on the market while respecting and maintaining the security and integrity of data.

INTELLIGENT INTEGRATION

Sensorsuite's unique and customizable SuiteHeat™ system is a unobtrusive and simple integration solution that allows the property manager to monitor and control the energy and comfort for each unit via a centralized easy-to-use interface.

FOR MORE INFORMATION www.sensorsuite.com | sales@sensorsuite.com | 1.855.773.6767

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