CASE STUDY

Multi-Residential Building

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With SensorSuite's BoilerLink solution, existing heating boilers can be retrofitted to allow monitoring and control at your fingertips through Apple, Android, and Windows devices.

SensorSuite's BoilerLink can operate up to four boilers to maintain a target water temperature. Compatible with both condensing & non-condensing boilers that are either modulating, single stage or two stage to provide flexibility. The target temperature will be based on outdoor temperature reset. In addition, SmartPlugs will optimize system performance by providing in-suite temperature feedback. The utilization of BoilerLink will give the ability to reduce gas usage without compromising tenant comfort.

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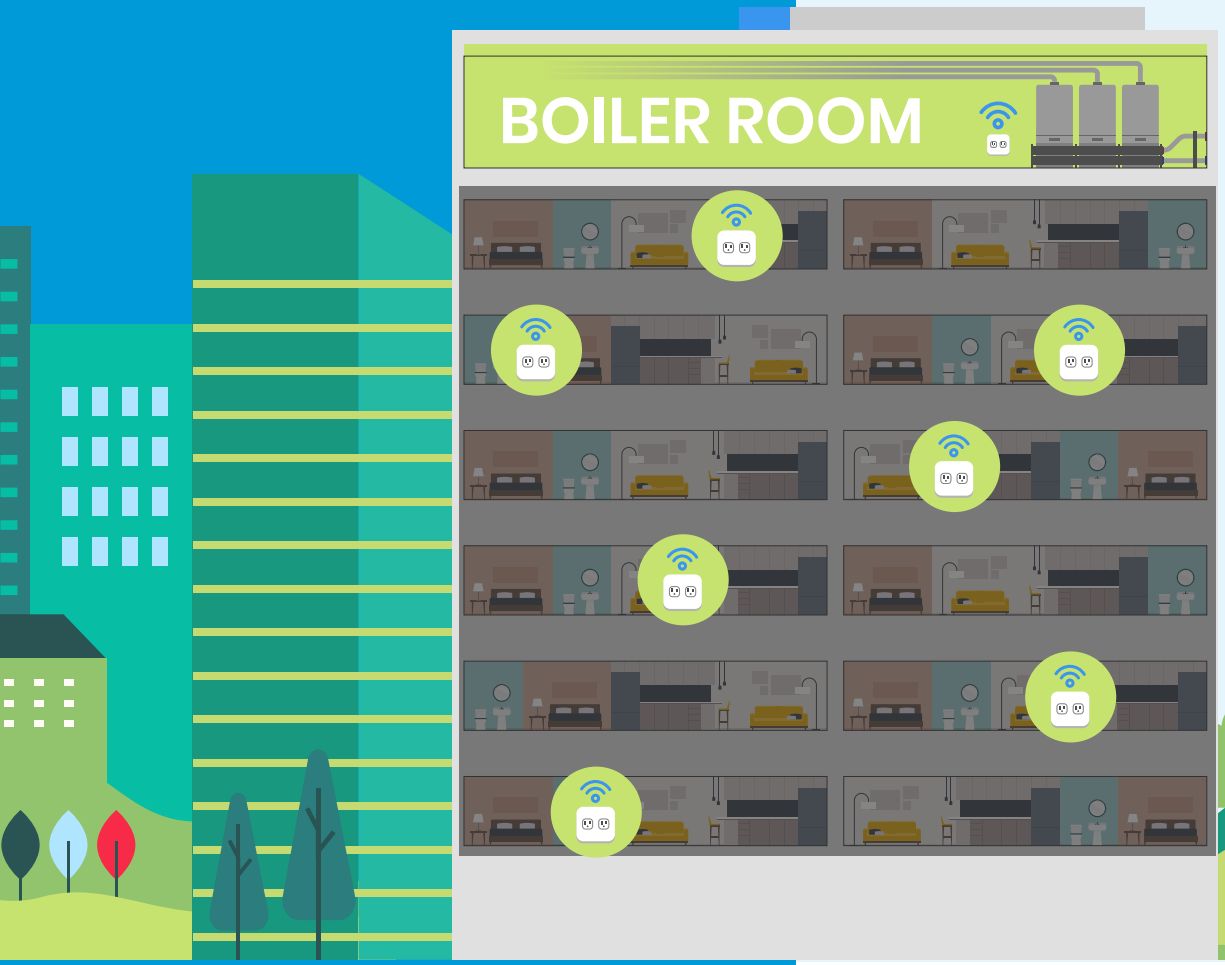
Remote Control Of Your Boiler Room & Real-Time Alerts



- Temperature monitoring
- Leak detection
- Water metering

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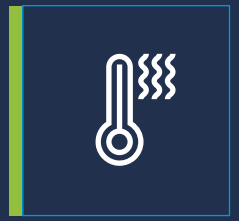
The Challenges

The primary source of space heating consists of hydronic radiators. The heating boiler temperature set point is controlled by property management/boiler technician. As a result, tenants do not have the ability to adjust the temperature and will typically open windows to regulate the ambient space temperature.

ENERGY PRICES CONTINUE TO RISE



OVER HEATINGAND/OR WASTEFUL HEATING

REDUCING CARBON FOOTPRINT

Project at a glance

LOCATION
Richmond Hill, Ontario

BUILDING DESCRIPTION
Apartment buidling
32 Units
4 Storeys

PREVIOUS CONDITIONS
Hydronic Radiators

PROJECT COST
$10,249.99 (+HST)

UTILITY INCENTIVE
$1,444.50

NET COST
$8,805.49

SAVINGS PERIOD
Oct 2018 - Oct 2019

COST SAVINGS
$5,133 ($0.34/m3)

GHG REDUCTION
28.67 tonnes CO2e

PROJECTED PAYBACK
1.7 years

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Methodology

Linear Regression Analysis will be utilized to validate and determine energy savings for the BoilerLink solution. Due to fluctuating weather conditions, it poses a challenge to quantify energy use patterns through consulting data.

However, with Heating Degree Days (HDD) a correlation factor can be calculated using historical local weather data to correct the weather variation. The regression model will allow prediction of energy required to maintain building temperature based on weather conditions.
Once the baseline model is established, energy savings can be quantified from Energy Conservation Measures (ECM) after a measurement period such as one full heating season.

BoilerLink Results

The energy savings of 15,097 m3 of natural gas and cost savings of $5,133 have been achieved. BoilerLink control period began October 2018 through October 2019 and resulted in 24% reduction.

FOR MORE INFORMATION

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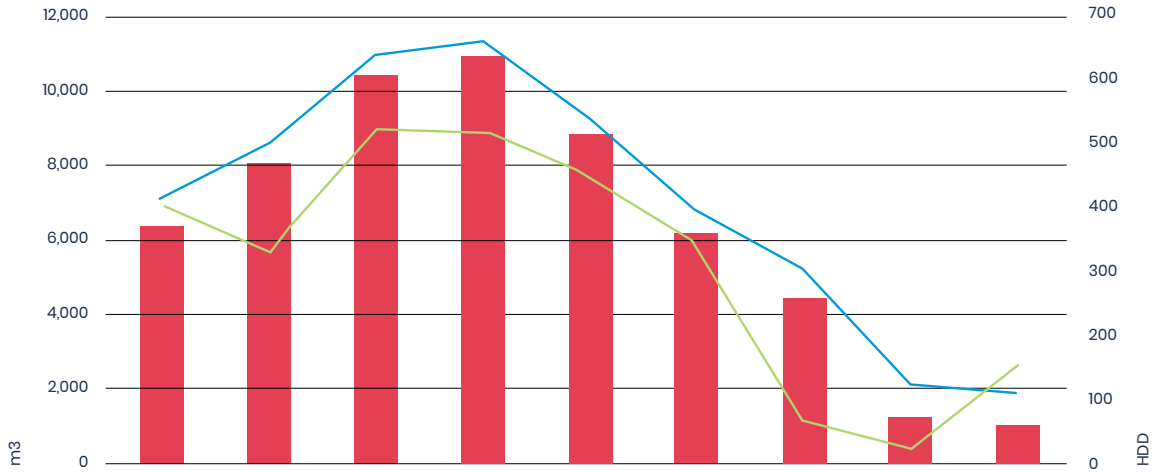
BoilerLink PERFORMANCE: HEATING COMPARISON



	11/20/2018 10/19/2018	12/20/2018 11/21/2018	1/21/2019 12/21/2018	2/20/2019 1/22/2019	3/20/2019 2/21/2019	4/18/2019 3/21/2019	5/21/2019 4/19/2019	6/18/2019 5/22/2019	10/18/2019 9/21/2019
HDD	372	470	608	639	514	361	258	72	62
Base Year	7,122	8,606	10,900	11,332	9,247	6,816	5,281	2,105	1,945
After	6,960	5,696	8,955	8,929	7,715	5,903	1,117	342	2,640