

CASE STUDY

SuiteHeat 2.0 at Oxford Street, London



CASE STUDY

SuiteHeat 2.0 at Oxford Street, London



With SensorSuite's SuiteHeat solution, existing electric baseboard heaters can be retrofitted to allow monitoring and control at your fingertips through Apple, Android, and Windows devices.

SensorSuite's SuiteHeat control device utilizes relays for each heating circuit to control heating consumption and demand. The SuiteHeat device also has an integrated CT to monitor consumption and heating duration. Suites are then controlled by a pre-set temperature building wide or specific temperature for each individual suite set through the powerful dashboard. Moreover, demand management can be performed intelligently by enabling electrical loads to communicate and coordinate with one another. Now with SuiteHeat 2.0, a powerful new feature called REM (Responsive Energy Management) 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 also analyses outdoor weather, indoor building temperature, runtimes, and other data points to automate and optimize the building. Based on the results at this electrically heated building, REM has proven to optimize energy savings during the shoulder periods with savings up to 70%+ reduction on heating load.

CASE STUDY

SuiteHeat 2.0 Oxford Street, London



Wireless, Robust & Secure Controllers

The SensorSuite SuiteHeat is an innovative cloud based wireless electric heat controller

Enable the SensorSuite Matrix™

Connect your SensorSuite-enabled machine to the SensorSuite Matrix™ cloud – either on your smartphone, tablet or computer.

Powerful Dashboards

The powerful SensorSuite app helps gain insight and analytics on your buildings and machines, and sends alerts the instant a problem happens.

The Challenges

At this 108 suite building, 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. As a result, the property manager has no control of the coincidental peak demand (kW) or consumption (kWh). Tenants do not pay the utility costs as property management pays this expense. As a result, energy conservation may not be taken into consideration by the tenants.



**INCREASE PROPERTY
CASH FLOW AND VALUE**



**REDUCE OPERATING
COSTS**



**MINIMIZE WASTEFUL
OVERHEATING**



**REDUCE CARBON
FOOTPRINT**

Project at a glance

LOCATION

Oxford Street, London, Ontario

BUILDING DESCRIPTION

Apartment building

108 Units

11 Storeys

PREVIOUS CONDITIONS

Electric baseboard heaters

PROJECT COST

\$73,369 (+HST)

NET COST

\$60,689

SAVINGS PERIOD

Mar 2019–Feb 2020

COST SAVINGS

\$17,970

PROJECTED PAYBACK

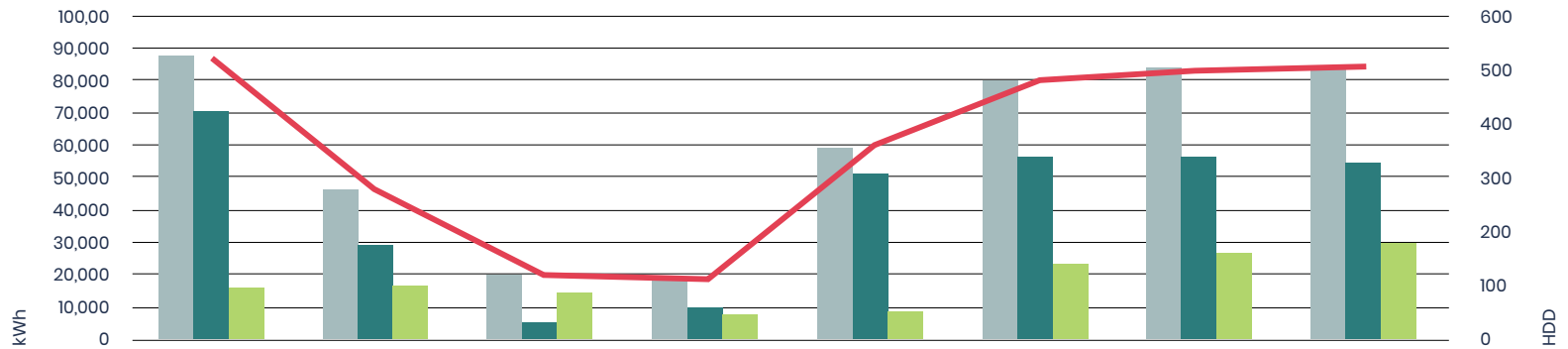
3.38 years



SuiteHeat 2.0 Results

SuiteHeat began control on March 2, 2019 and reduced 145,121 kWh within the first year ending on February 28, 2020. Based on the “Predicted Heating kWh” compared to “Actual Heating kWh”, it resulted in **30%** heating reduction.

SuiteHeat PERFORMANCE: FIRST CONTROL PERIOD

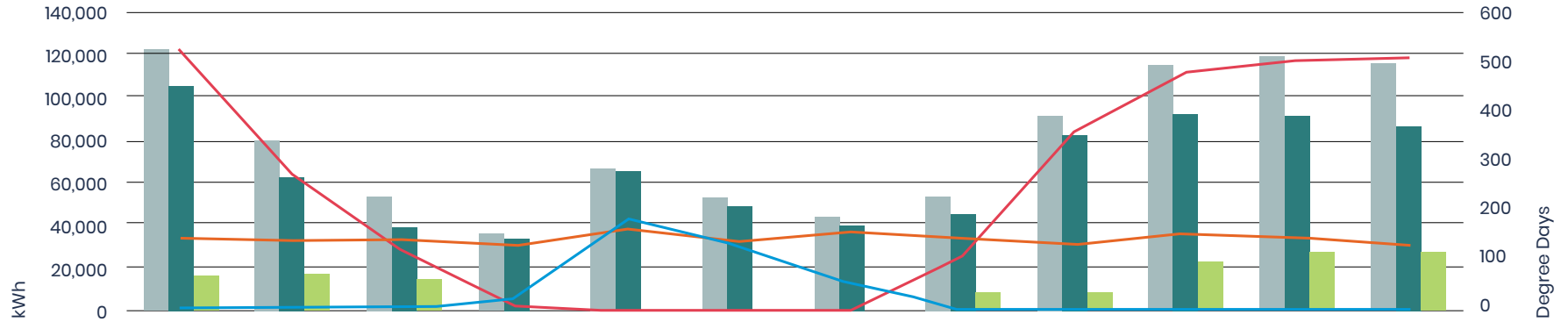


	4/1/2019 3/2/2019	5/1/2019 4/2/2019	5/31/2019 5/2/2019	11/1/2019 10/2/2019	11/29/2019 11/2/2019	12/31/2019 11/30/2019	1/31/2020 1/1/2020	2/28/2020 2/1/2020
Predicted Heating kWh	87,033	46,306	20,449	19,002	59,775	79,480	83,438	84,345
Actual Heating kWh	70,566	29,391	5,579	10,554	50,997	56,478	56,226	54,915
Savings	16,466	16,915	14,870	8,448	8,778	23,003	27,212	29,430
HDD	521	277	122	113	358	476	500	505

MONTHLY REM RESULTS

START	END	DAYS	HDD 15.5	CDD 18	PREDICTED HEATING KWH	ACTUAL HEATING kWh	SAVINGS kWh	COST SAVINGS	kWh SAVINGS %
3/2/2019	4/1/2019	31	521	-	87,033	70,566	16,466	\$2,039.03	19%
4/2/2019	5/1/2019	30	277	-	46,306	29,391	16,915	\$2,094.55	37%
5/2/2019	5/31/2019	30	122	-	20,449	5,579	14,870	\$1,841.34	73%
6/1/2019	6/28/2019	28	11	18					
6/29/2019	8/1/2019	34	-	176					
8/2/2019	8/30/2019	29	-	129					
8/31/2019	10/1/2019	32	0	50					
10/2/2019	11/1/2019	31	113	0	19,002	10,554	8,448	\$1,046.10	44%
11/2/2019	11/29/2019	28	358	-	59,775	50,997	8,778	\$1,087.00	15%
11/30/2019	12/31/2019	32	476	-	79,480	56,478	23,003	\$2,848.41	29%
1/1/2020	1/31/2020	31	500	-	83,438	56,226	27,212	\$3,369.66	33%
2/1/2020	2/28/2020	28	505	-	84,345	54,915	29,430	\$3,644.29	35%
					479,830	334,708	145,121	\$17,970.37	30%

OVERALL BUILDING PERFORMANCE



	4/1/2019 3/2/2019	5/1/2019 4/2/2019	5/31/2019 5/2/2019	6/28/2018 6/1/2019	8/1/2019 6/29/2019	8/30/2019 8/2/2019	10/1/2019 8/31/2019	11/1/2019 10/2/2019	11/29/2019 11/2/2019	12/31/2019 11/30/2019	1/31/2020 1/1/2020	2/28/2020 2/1/2020
Predicted kWh	121,750	79,904	54,047	36,172	66,821	53,491	44,130	53,720	91,133	115,318	118,156	115,703
Actual kWh	105,284	62,989	39,177	33,668	65,892	49,003	39,597	45,272	82,355	92,315	90,944	86,273
Savings	16,466	16,915	14,870					8,448	8,778	23,003	27,212	29,430
Baseload	34,715	33,598	33,598	31,358	38,077	32,478	35,837	34,718	31,358	35,837	34,718	31,358
HDD	521	277	122	11	-	-	0	113	358	476	500	505
CDD	-	-	-	18	176	129	50	0	-	-	-	-

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