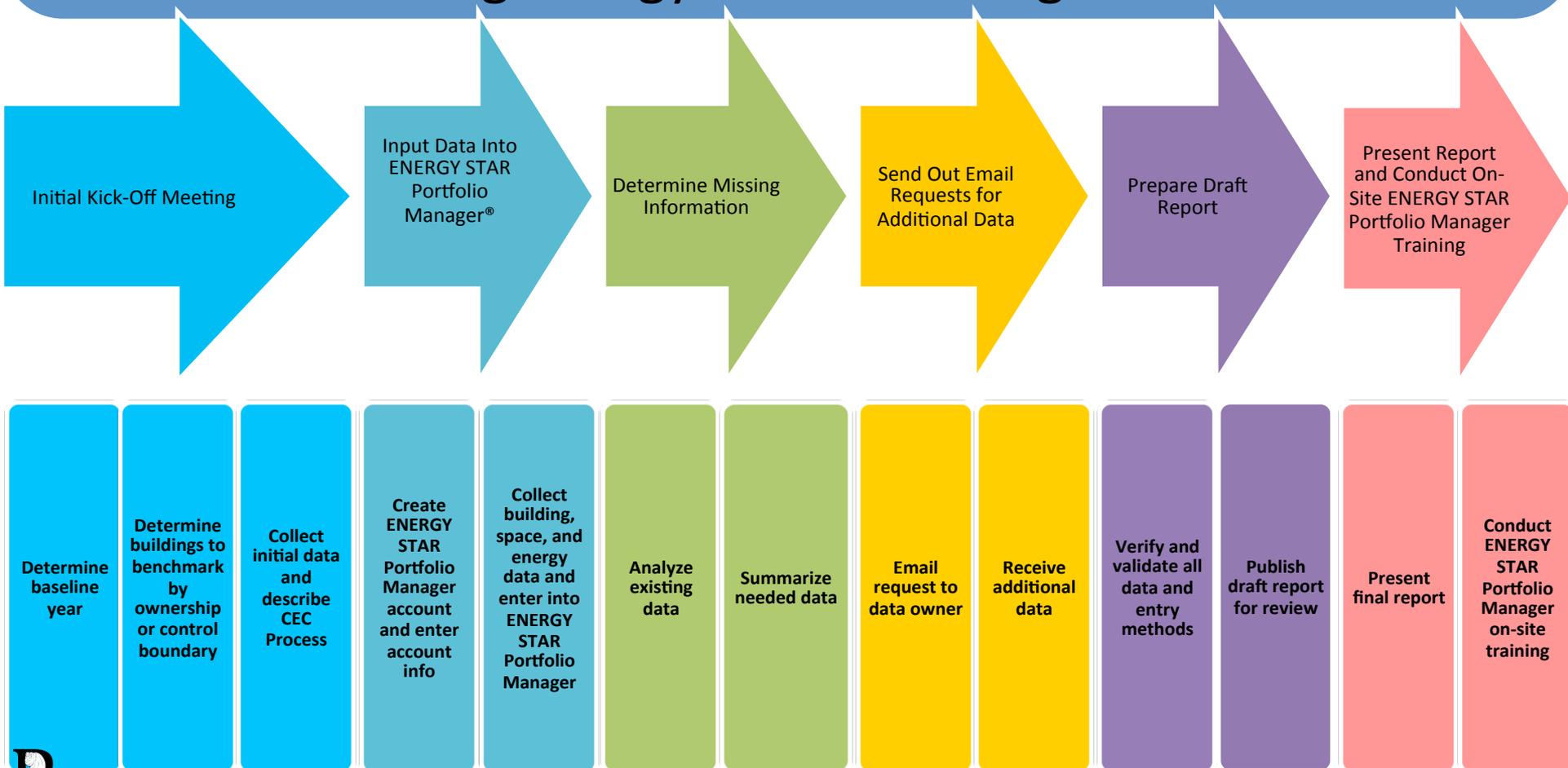




ENERGY STAR Portfolio Manager[®] Building Energy Benchmarking Report Apple Rehab Senior Care Community East Haven, Connecticut March 24, 2017

Business Sustainability Challenge (BSC) Senior Care Community (SCC) or Residential Care Facility (RCF) Building Energy Benchmarking Process



Project Data Collection Required

- Sign Business Sustainability Challenge (BSC) Commitment
- Sign Utility Release Forms On-Site
- ENERGY STAR PM Account Setup On-Site
- Building Information Collected On-Site
- Utility Account Information Received On-Site
- List of Energy Projects Completed or In-Process Received from UI and customer
- All Utility Usage and Cost Data Received
 - Electricity – UI
 - Natural Gas – SCG
 - Water - RWA



Building Narrative

ENERGY STAR Property Profile

CTSCC_EastHaven_AppleRehabLaurelWoods_415NHighSt

415 N. High Street
East Haven, CT 06512

[Map It](#)



Apple Rehab Laurel Woods in East Haven, Connecticut was built in 1993 and is a nursing home and rehabilitation center primarily caring for elderly clients. On the first floor there is an entryway with administrative offices to the left and a large meeting room on the right, a chapel, and physical therapy rooms. These spaces use a central AC system.

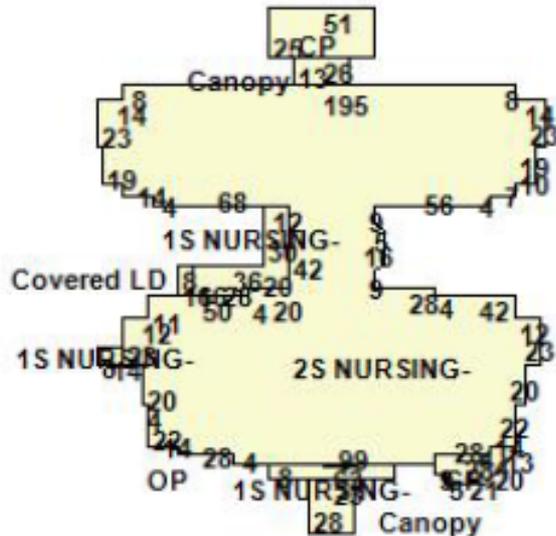
The remaining facility contains three rehabilitation units with 22 rooms each and 40 beds each, totaling 120 patient capacity. Each unit contains its own dining and recreation facility. Each room is cooled with window A/C units and heat and cooling is individually controlled by the resident. All space is 100% cooled with either central air or window units. The kitchen uses minisplits to heat and cool.

All interior and exterior lights were upgraded to LED's over the past 2 years and 2 boilers were replaced in 2016 with standard efficiency boilers.



Building Information

Property Name	Year Built	Property Type - Self-Selected	Gross Floor Area	How Many Buildings?
CTSCC_EastHaven_AppleRehabLaurelWoods_415NHighSt	1993	Senior Care Community	62,534	1



Category:	Elderly	Use:	Nursing Home	GLA:	62,534
Stories:	2.00	Construction:	Fireproof Steel and Concrete	Year Built:	1993
Heating:	Hot Water	Fuel:	Oil	Cooling Percent:	100
Siding:	Vinyl/Stc - Fr / Blk	Roof Material:		Beds/Units:	120



Parking and Site Information

Property Use Name	Detail Name	Detail Value
Parking Use	Open Parking Lot Size	55,000
Parking Use	Partially Enclosed Parking Garage Size	-
Parking Use	Completely Enclosed Parking Garage Size	-
Parking Use	Supplemental Heating	No



Building Use Details

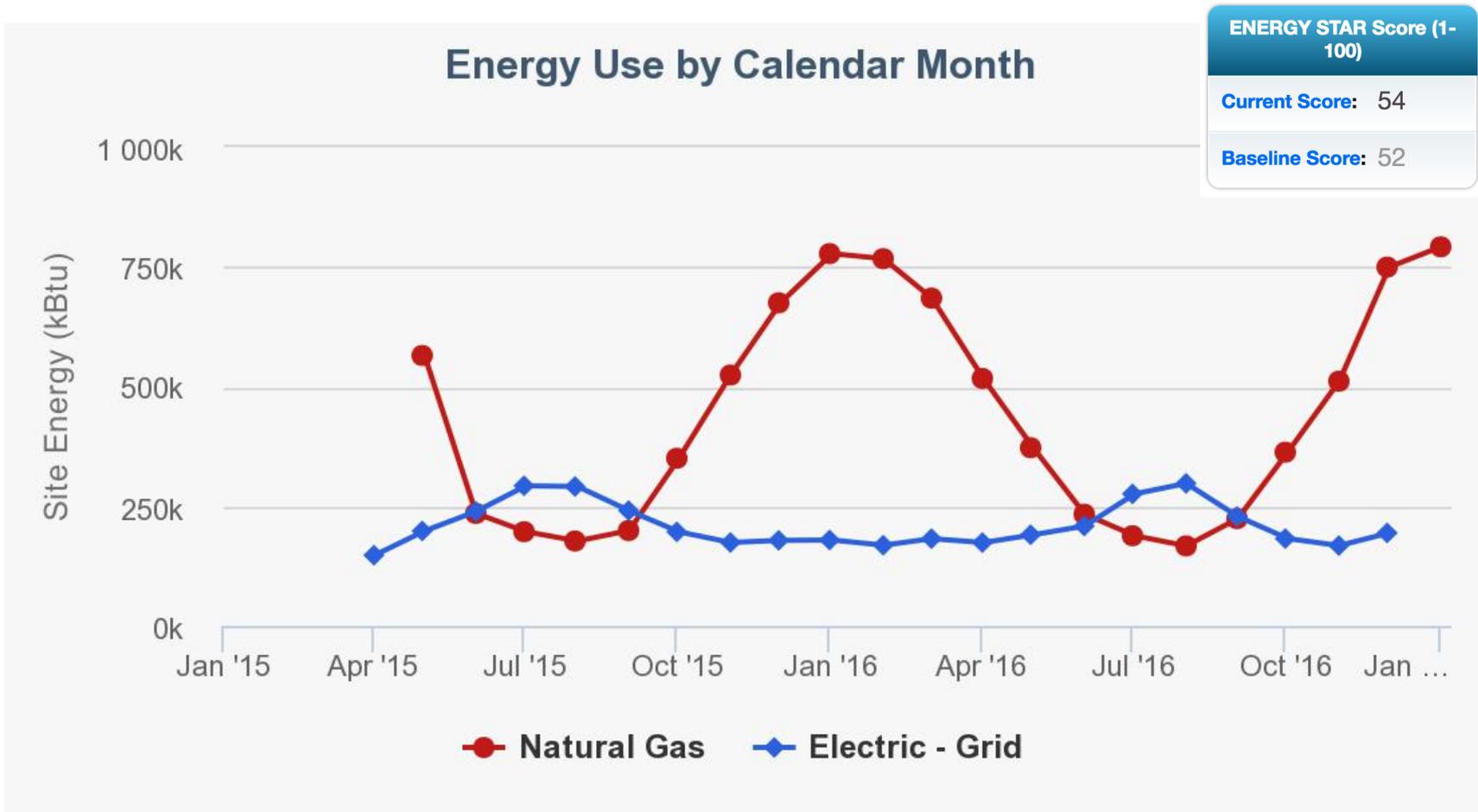
Detail Name	Detail Value
Gross Floor Area	62,534
Maximum Resident Capacity	120
Average Number of Residents	110
Total Number of Residential Living Units	66
Licensed Bed Capacity	120
Number of Workers on Main Shift	70
Number of Computers	30
Number of Residential Washing Machines	1
Number of Commercial Washing Machines	3
Number of Residential Electronic Lift Systems	6
Number of Commercial Refrigeration/Freezer Units	2
Percent That Can Be Heated	All of it - 100%
Percent That Can Be Cooled	30



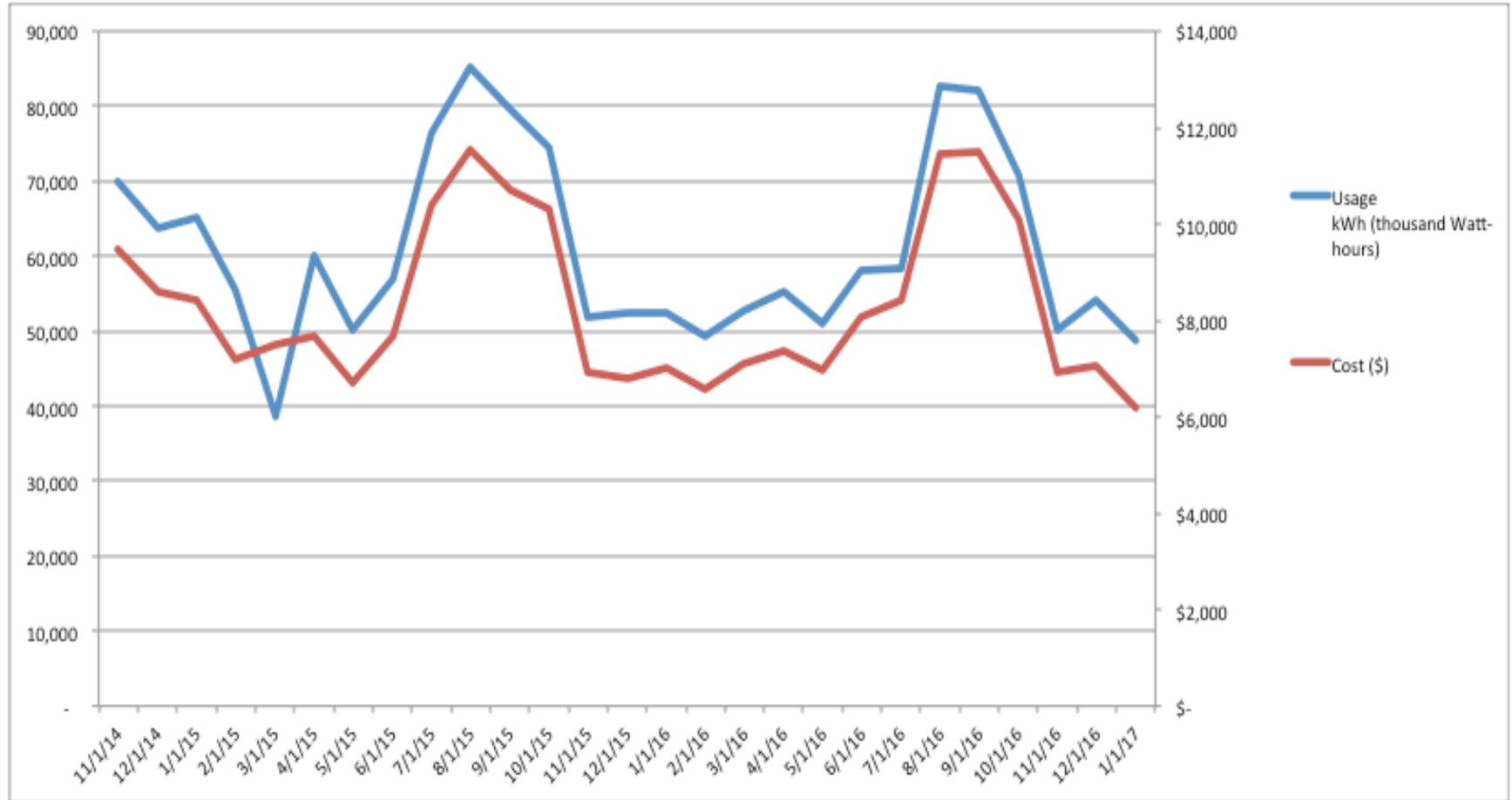
Building Energy Meters

Meter Name	Meter Type	Units	Date Meter became Active	First Day of First Meter Entry	Last Day of Last Meter Entry
E-1	Electric - Grid	kWh (thousand Watt-hours)	4/6/15	4/6/15	12/31/16
G-5	Natural Gas	ccf (hundred cubic feet)	5/1/15	5/1/15	2/15/17
G-5	Natural Gas	ccf (hundred cubic feet)	5/1/15	5/1/15	2/15/17
W-	Potable: Mixed Indoor/Outdoor	ccf (hundred cubic feet)	11/19/13	11/19/13	11/15/16
W-	Potable: Mixed Indoor/Outdoor	ccf (hundred cubic feet)	1/1/14	1/1/14	6/30/17

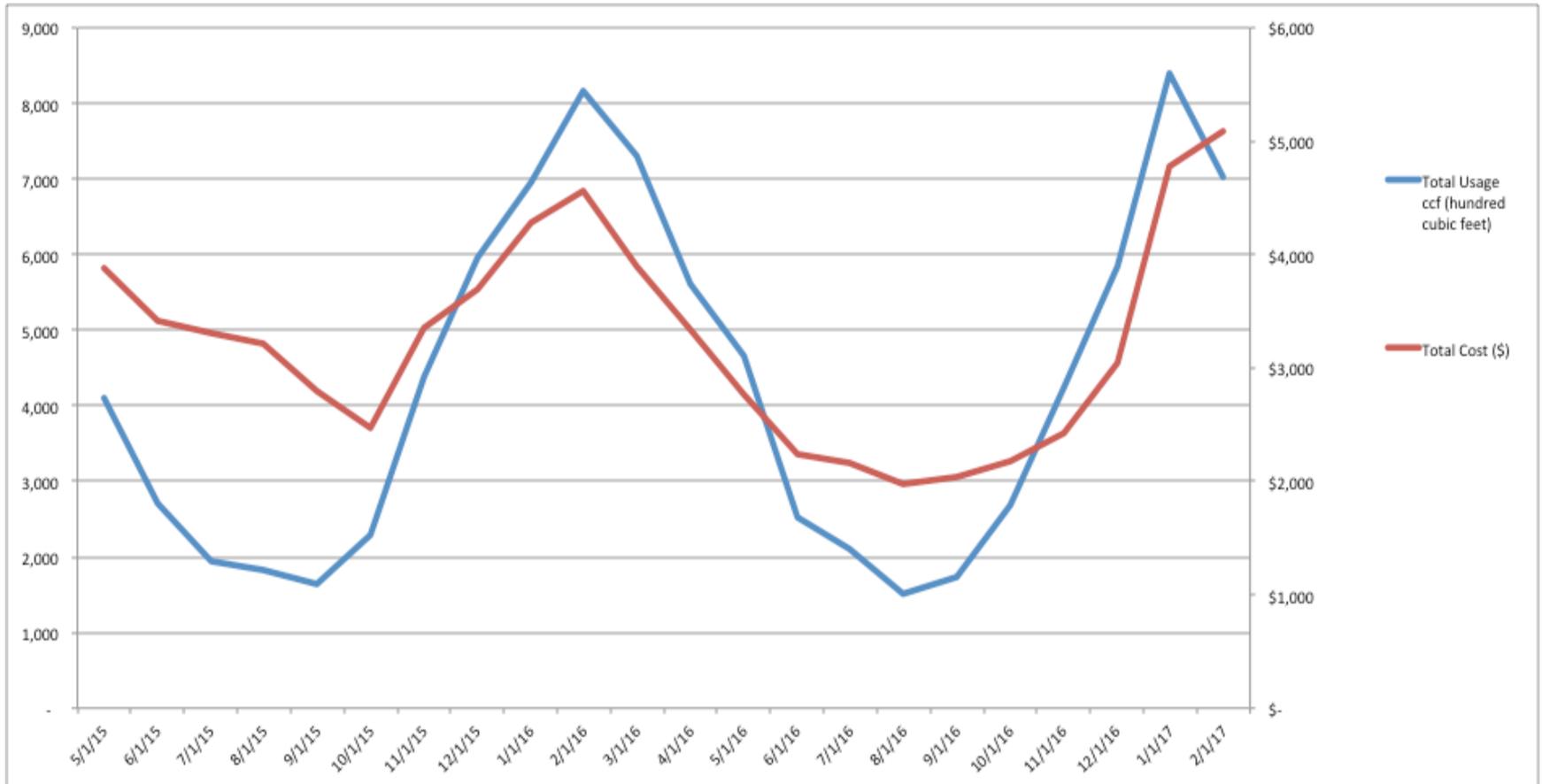
Energy Usage Trend



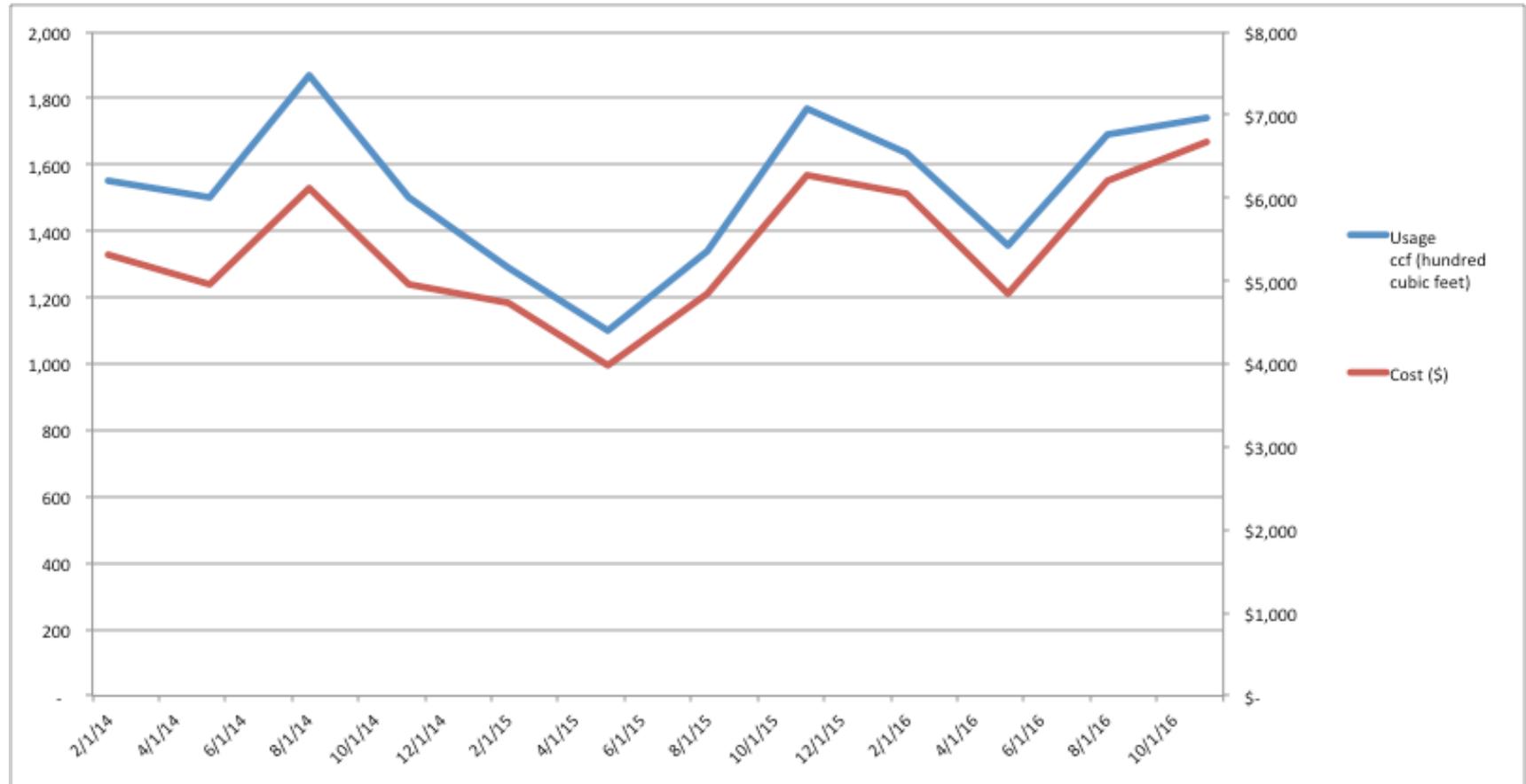
Electric Trend



Natural Gas Trend



Water Trend



Apple Rehab Performance Metrics Summary

Metrics Summary		 Change Time Period	
Metric	May 2016 (Energy Baseline) 	Dec 2016 (Energy Current) 	Change
ENERGY STAR score (1-100)	52	54	2(3.8%)
Source EUI (kBtu/ft ²)	217.8	216.2	-1.6(-0.7%)
Site EUI (kBtu/ft ²)	127.7	127.9	0.2(0.2%)
Energy Cost (\$)	139,858.75	133,651.24	-6207.51(-4.4%)
Total GHG Emissions (Metric Tons CO ₂ e)	505.1	504.1	-1.0(-0.2%)
Water Use (All Water Sources) (kgal)	4,590.6	Not Available	N/A
Total Waste (Disposed and Diverted) (Tons)	Not Available	Not Available	N/A

Apple Rehab Energy Usage Change

Baseline Year to Current Year: Dec. 2016

Year Ending	Cooling Degree Days (CDD) (°F)	Heating Degree Days (HDD) (°F)	Electricity Use - Grid Purchase and Generated from Onsite Renewable Systems (kWh)	Electricity Use - Grid Purchase and Generated from Onsite Renewable Systems (kBtu)	Natural Gas Use (kBtu)	Site Energy Use (kBtu)	National Median Site Energy Use (kBtu)	Target Source Energy Use (kBtu)	Weather Normalized Site Energy Use (kBtu)
12/31/16	1,207	4,691	717,863	2,449,349	5,550,104	7,999,453	8,244,822	11,655,153	8,474,460
5/31/16	1,077	4,464	734,853	2,507,318	5,475,901	7,983,219	8,091,808	11,551,170	8,474,335
% Change			-2%	-2%	1%	0%	2%	1%	0%



Apple Rehab Energy Cost Change

Baseline Year to Current Year: Dec. 2016

Year Ending	Cooling Degree Days (CDD) (°F)	Heating Degree Days (HDD) (°F)	Energy Cost (\$)	National Median Energy Cost (\$)	Electricity (Grid Purchase) Cost (\$)	Natural Gas Cost (\$)
12/31/16	1,207	4,691	\$ 133,651	\$ 137,751	\$ 98,476	\$ 35,175
5/31/16	1,077	4,464	\$ 139,859	\$ 141,761	\$ 99,339	\$ 40,519
% Change			-4%	-3%	-1%	-13%



How Did Apple Rehab Get There?

- All interior and exterior lighting upgraded to LED lighting with controls.
- Use a building energy management system with programmable set points, setbacks, and other management features.



Thanks To Project Sponsors



- United Illuminating Business Sustainability Challenge (BSC) Program
 - Amy Mclean-Salls
- United Illuminating Clean Energy Communities (CEC) Program
 - Sheri Borrelli
- ENERGIZE CT and the Connecticut Energy Efficiency Fund
- The US EPA
 - Linda Darveau
- CT DEEP, Department of Energy & Environmental Protection

