

University of Vermont Medical Center Energy Efficiency Plan Update

The University of Vermont Medical Center (UVMCMC) is committed to continuing its long history of sustainability programming, of which energy reduction is an important component of that work. Efforts continue to reduce overall Energy Use Intensity (EUI) through new project development and operating improvements. In addition, the Medical Center continues to engage in the exploration of alternative energy sources where feasible. Over the last two years the Medical Center has steadily converted Main Campus open/storage spaces into functional space thus increasing the energy demand. At the same time, as depicted below, the Energy Use Intensity has remained relatively flat or has been reduced. The Medical Center’s Main Campus Site EUI is at 269 which is a reduction from the December 2015 rate of 278. The Fanny Allen Campus EUI is at 229 which is a reduction from the December 2015 rate of 297. These improvements are a direct result of ongoing work in partnership with Burlington Electric, Efficiency Vermont, Green Mountain Power and Vermont Gas. The last graph depicts the Main Campus overall kWh usage and the energy impacts of this ongoing work.

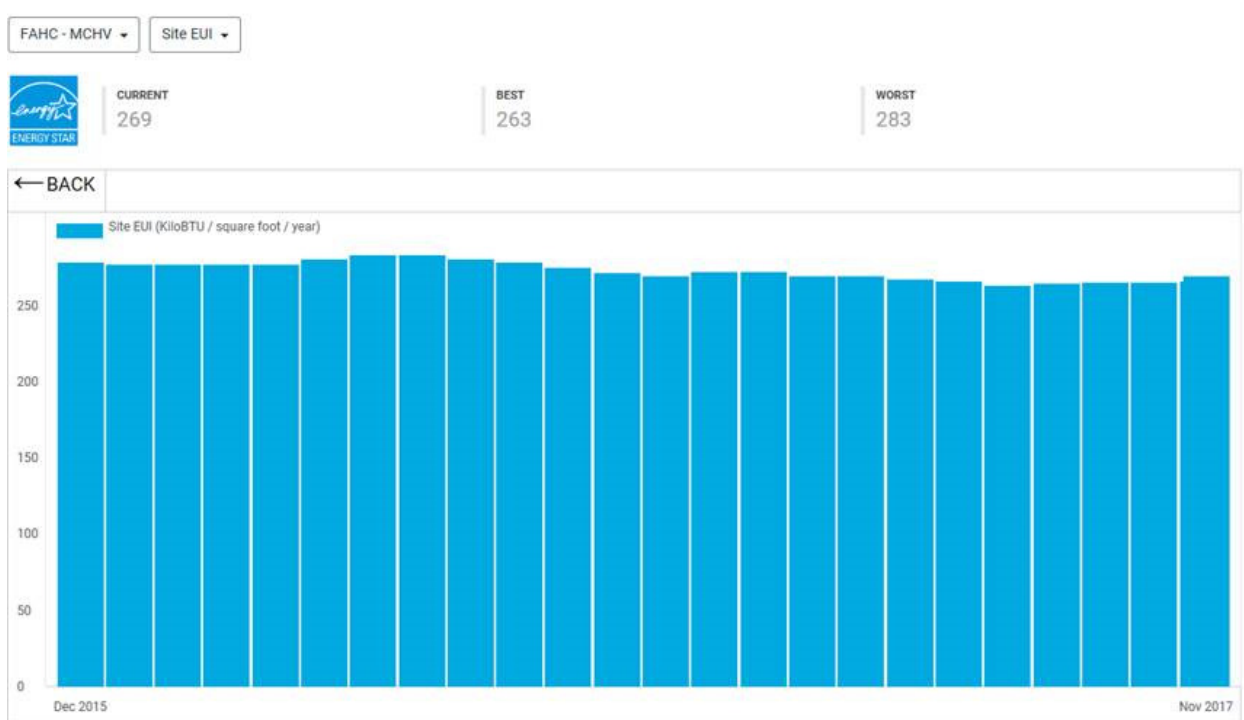
In addition, over the past two years the Medical Center has completed five LEED Certified Projects, three of which received Gold Level Certification.

Main Campus Energy Action Plan 2015

Action Plan FY15	Status
1. Chiller Plant Optimization	
– Evaluate adding a 4 th cooling tower cell	Completed
– Evaluate cooling tower fans/VFD	Deleted
– Upgrade sequence of operations in the chilled water system	Completed
– Upgrade chiller controls	In Progress
2. Boiler Plant Optimization	
– Replace combustion management controls	Completed
– Replace steam traps	Completed
– Tune dampers	Deleted
3. Building Envelope Improvements	
– Replace Baird building roof	Completed
– Replace Shepardson North roof	Completed
– Replace Engineering building roof	Completed
– Replace windows and doors where necessary and feasible	Ongoing
– Replace MRI roof	Deleted
4. Lighting Upgrades	
– Upgrade interior lighting to LED technology	Ongoing
– Upgrade exterior lighting to LED technology	Completed
5. Lighting Controls/Energy Management System Upgrades	
– Evaluate opportunities for improved lighting controls	In Progress
– Evaluate and institute off-hours setbacks on HVAC systems	In Progress
6. Building Management System Upgrade	
– Evaluate and program system controls to maximize efficiencies	In Progress

7. Upgrade or Optimize HVAC Systems	
– Fletcher building HVAC upgrade	Completed
– McClure building HVAC upgrade	Completed
– Remove Baird 1 & 2 electric heat	In Progress
– Upgrade the Baird air system, including the addition of 2 ERU's	In Progress
– Evaluate night setbacks in the ACC building	Completed
8. Operating Efficiencies	
– Coil cleaning	Ongoing
– Filter changes	Ongoing
– Evaluate UV technology for air systems	Deleted

Main Campus Site Energy Use Intensity



Fanny Allen Campus Energy Action Plan 2015

Action Plan FY15	Status
1. Chiller Plant Optimization	
– Evaluate cooling tower fans/VFD	Deleted
– Evaluate sequence of operations in the chilled water system	Completed
– Evaluate chiller controls	Completed
2. Boiler Plant Optimization	
– Evaluate combustion management controls	In Progress
– Evaluate a process boiler in order to minimize gas consumption	Deleted

– Replace steam traps	Completed
3. Improve the Building Envelope	
– Replace windows and doors where necessary and feasible	Ongoing
4. Lighting Upgrades	
– Upgrade interior lighting to LED technology	Ongoing
– Upgrade exterior lighting to LED technology	Completed
5. Lighting Controls/Energy Management System Upgrades	
– Evaluate opportunities for improved lighting controls	In progress
– Evaluate and institute off-hours setbacks on HVAC systems	Completed
6. Building Management System Upgrade	
– Evaluate and program Honeywell controls system to maximize efficiencies	Completed
7. Upgrade or Optimize HVAC Systems	
– Evaluate potential for night setbacks	Completed
8. Operating Efficiencies	
– Coil cleaning	Ongoing
– Filter changes	Ongoing
– Evaluate UV technology for air systems	Deleted

Fanny Allen Campus Site Energy Use Intensity

FAHC - Fanny Allen Hospital ▾ Site EUI ▾

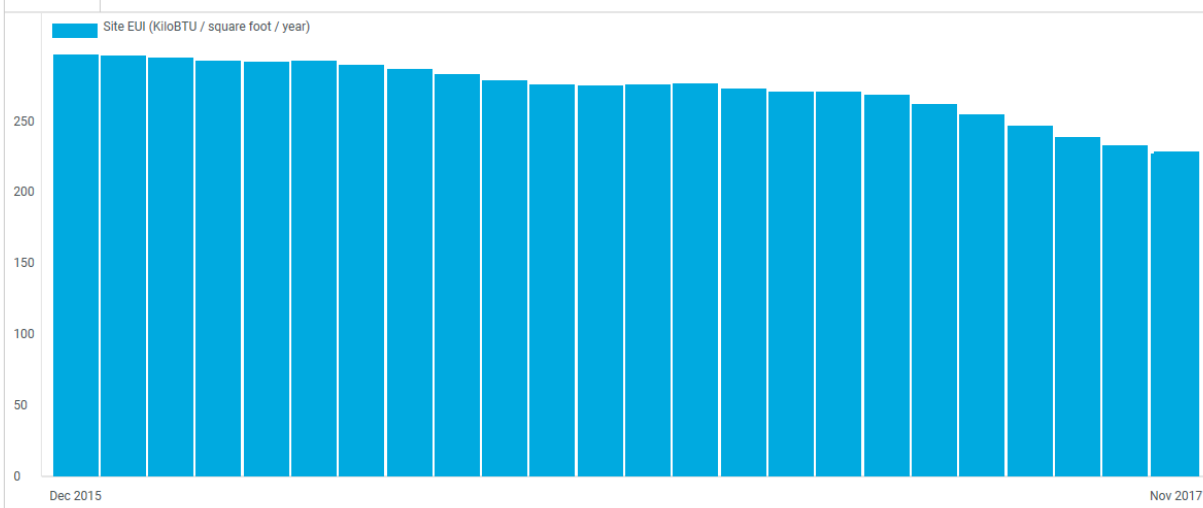


CURRENT
229

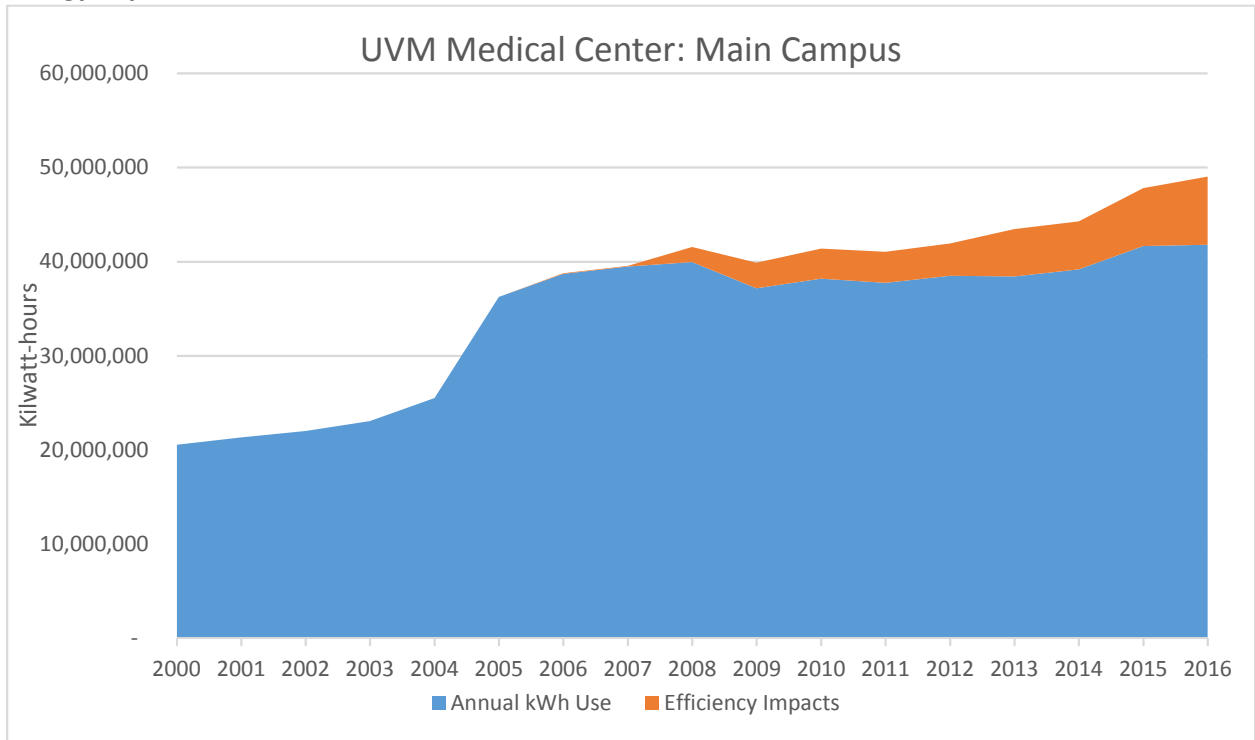
BEST
227

WORST
297

← BACK



Energy Impacts



January 31, 2018