



Improvement Status

In 2012, NHDOT surpassed the goal set for 2025. NHDOT was recognized by the NH Office of Energy and Planning for being a leader in state agencies relative to energy consumption reduction. This goal was met due to a number of reasons: 21 outdoor wood boilers were installed to supplement heating systems; the implementation of Hooksett Open Road Tolling reduced the number of street lights, renovations at Nashua Bus Station and Hooksett Toll Administration building; lowering temperature settings by 33% in 28 EZ pass lanes that are unoccupied by attendants; each of these was aided by a low winter severity.

The winter severity directly impacts that energy consumption, since the number of hours worked by the crews during the winter months was less resulting in less energy use in the shed occupied by employees. In addition to these larger impacts, additional energy efficiency projects were completed including: installation of perimeter doors, new window and siding projects, various insulation projects and HVAC improvements.

RSA 21-1:14-c is based on square footage. Therefore the following table represents the usage in FY 2005, FY 2011, and FY 2012 based on square footage.

FY 2012 shows an overall usage per square foot reduction of 29.79% with a cost decrease of 20.55% over FY 2011. The energy usage and cost comparison per square foot for FY 2012 to FY 2005 shows an overall usage reduction of 43.59% with a cost decrease of 6.24%.

The Department has met the goal set by RSA 21-1:14-c however will continue to improve energy efficiency and will continue to see the usage decrease.

Protect and Enhance the Environment

Energy Usage of NHDOT Facilities

Purpose:

This measurement indicates change in energy usage for DOT facilities with the goal to reduce energy consumption. In 2010, the State of New Hampshire enacted RSA 21-1:14-c calling for a reduction in fossil fuel use in state facilities by 25 percent over the 2005 levels by the year 2025. DOT usage for FY 2005 was 85,142,753kBTU (124.33 kBTU/SF). A 25% reduction would place a goal of 63,857,064kBTU (93.25kBTU/SF if the square footage of the facilities remained constant through FY 2025). The Department used 43,006,079kBTU (60.07kBTU/SF) in FY 2012.

Data:

The facilities energy usage is measured in kBTUs and dollars collected from "Department of Administrative Services Energy Efficiency in State Government" database available through their website. Fluctuation in "heating degree days," "winter severity" and "price per energy unit" will have to be factored into the overall usage and cost when comparing year to year reduction.

FY	Square Foot	kBTU	Cost	kBTU/SF	Cost/SF
2011	735,269.00	72,648,813.00	\$1,787,985.75	98.81	\$2.43
2012	725,333.00	50,320,594.00	\$1,401,277.72	69.38	\$1.93
Percentage of Change					
	-1.35%	-30.73%	-21.63%	-29.79%	-20.55%
FY	Square Foot	kBTU	Cost	kBTU/SF	Cost/SF
2005	684,787.00	84,224,389.00	\$1,410,963.59	122.99	\$2.06
Percentage of Change					
2011	7.37%	-13.74%	26.72%	-19.67%	18.02%
2012	5.92%	-40.25%	-0.69%	-43.59%	-6.24%

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