

Sustainability Focus: Energy

Energy Strategy	Progress
Strategy 1: Track and understand energy performance	<ul style="list-style-type: none"> All 2012 energy data entered into Energy Star Portfolio Manager New engineering firm hired System-level Energy Manager hired Enrolled in Healthier Hospitals Initiative's Leaner Energy Challenge
Strategy 2: Implement energy efficiency and conservation measures	<ul style="list-style-type: none"> Retuned building management systems Evaluated preventative maintenance strategies
Strategy 3: Support new technologies which promote energy conservation and efficiency	<ul style="list-style-type: none"> Installed magnetic bearing chillers at Inova Mount Vernon Hospital Implemented Trane Building Logix operational dashboards and system diagnostics Supported energy-saving technologies including motion and daylight sensors, LED and induction lighting and solar panels Supported the procurement of Energy Star- and EPEAT-rated desktop electronics and other appliances

Each year, Inova's hospitals use enormous quantities of energy to power our life-saving medical equipment and mechanical support systems. In 2012 we spent nearly \$14 million on energy for our five main hospitals, using over 140 million kilowatt hours of electricity and over 7.5 million therms of natural gas. This amount of energy is enough to power 7,260 single-family homes for a year. Our associated carbon dioxide emissions are roughly equivalent to the annual emissions of 29,380 passenger vehicles.

The majority of the energy we use to power our healthcare facilities comes from non-renewable fuel sources which create pollution when they are extracted, transported, stored and burned. The pollution from these energy sources can lead to a wide range of health issues including decreased respiratory function and environmental exposure to toxic heavy metals such as mercury, arsenic and lead.

In 2012, Inova brought on a new engineering firm to focus

on the standardization of all engineering processes across the system. A system-level Energy Manager was also hired to develop a broad-scale approach to energy management and oversee coordination of energy initiatives across all Inova hospitals.

"I believe with the right motivation we can cut our energy usage, saving money and making an impact environmentally."

- Employee feedback, Going Green survey

Once these teams started work, they discovered that many electrical and mechanical systems were not operating at ideal efficiency levels. The new engineering team's first step was to retune Inova's building management systems (BMS) and undertake facility assessments at each operating unit, including the monitoring and evaluation of existing preventative maintenance (PM) strategies. This approach helped set the stage for the future development of a long-term strategic energy management plan (SEMP), and also helped the team identify and prioritize upcoming projects.

As we move into the future, we will continue to streamline our energy consumption and reduce our impacts.

2012 Energy Impacts

Inova Energy Consumption			
Year	Electricity (kWh)	Natural Gas (therms)	Total Costs
2011	141,122,710	7,631,781	\$14,754,108
2012	141,814,170	8,199,507	\$13,950,708
Change	+416,342	+2,930,384	-\$803,400

Associated GHG Emissions (metric tons)		
	2011	2012
Carbon Dioxide	137,728	141,055
Methane	6,559	6,717
Nitrous Oxide	444	455
Hydrofluoro-carbon gases	11.8	12.1
Perfluoro-carbon gases	21.2	21.7
Sulfur hexafluoride	5.8	5.9