



Southampton Hospital
Environmental Assessment:
MOU SemiAnnual Report
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Environmental Protection Agency
Region 2

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Accomplishments

Reductions of 5,115 MTCO₂e



Memorandum of Understanding

On November 15, 2010, Southampton Hospital signed a Memorandum of Understanding (MOU) pledging to become an environmental steward by implementing a number of green initiatives that would reduce its carbon footprint and further improve our planet's environment. This partnership with the United States Environmental Protection Agency (EPA) and Southampton Hospital has resulted in reducing energy, water and solid waste production across hospital operations.

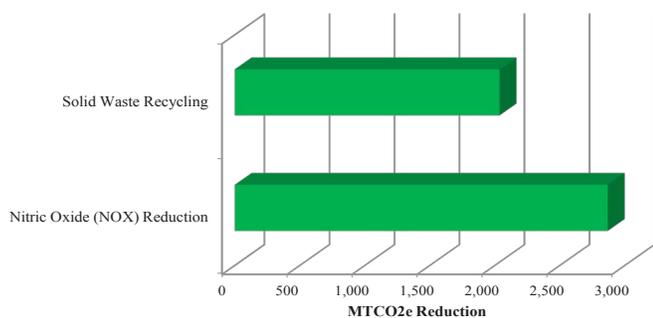
Reduction in Environmental Footprint

This is the fifth update for Southampton Hospital and its green initiatives. The EPA has analyzed the submitted information and generated an environmental footprint for the hospital. Due to the progressive green efforts of the organization, the hospital has managed to reduce its carbon footprint by 5,115 MTCO₂e* and saved an estimated \$115,000 in operating expenses.

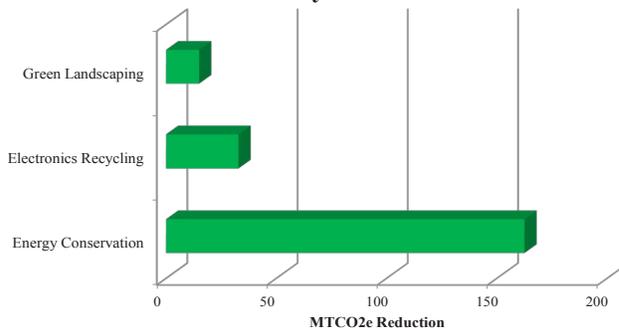
Environmental Metrics	Total Sector (MTCO ₂ e)
Energy Conservation	162.6
Solid Waste	2,036.3
Green Landscaping	15.0
Electronics	32.8
Nitric Oxide (NOX) Reduction	2,868.5
Total (MTCO ₂ e)	5,115.2

*Metric Ton Carbon Dioxide Equivalent

Primary Initiatives



Secondary Initiatives



Measurement and Continuous Improvements

EPA uses these environmental conversion models to calculate metric tons of carbon dioxide equivalents:

Greenhouse Gas Equivalencies (GHG) Calculator converts GHG reductions into scenarios that can be easily communicated to the public.

eGRID Version 1.1 (2007) and the EPA Pollution Prevention (P2) GHG Conversion Tool which convert standard metrics for electricity, green energy, fuel use, chemical use, water use, and sustainable materials management into MTCO₂e.

The EPA WARM Model which helps calculate GHG emission reductions from several different waste management practices, including source reduction, recycling, combustion, composting and landfilling.

The EPA Pollution Prevention (P2) Cost Calculator that estimates cost savings associated with GHG reductions.

Certain environmental data points cannot be converted to MTCO₂e because scientific models do not currently exist. As methodologies improve, environmental assessments will be updated to include any new GHG reduction estimates.

Accomplishments

Reductions of 5,115 MTCO₂e

Greenhouse Gas Equivalencies

What does the reduction of 5,115 MTCO₂e represent ?

The organization's effort is equivalent to any one of the following:

- Annual greenhouse gas emissions from 1,066 passenger vehicles



- Carbon dioxide emissions from 573,453 gallons of gasoline



- Carbon dioxide emissions from 11,896 barrels of oil consumed



- Carbon dioxide emissions from the energy use of 263 homes for one year



- Carbon dioxide emissions from 213,133 propane tanks used for home barbeques



- Carbon dioxide emissions from gasoline carried by 67.5 tanker trucks



- Carbon dioxide emissions from burning 22 railcars' worth of coal (1/3 of a mile long)



Environmental Metrics	Nov 2010 MOU	May 2011 Update	Nov 2011 Update	May 2012 Update	Nov 2012 Update	May 2013 Update	Total Conversion (MT-CO ₂ e)	Cost Savings (est.)
Energy Conservation/Energy Star								
Total Savings (MTCO₂e)	14.8	29.6	29.6	29.6	29.6	29.6	162.6	\$38,698
Miscellaneous Energy Conservation	24,344 kwh	48,688 kwh	48,688 kwh	48,688 kwh	48,688 kwh	48,688 kwh	162.6	\$38,695
Web Based Energy Competition								
Motors and Transformers								
Lighting Project Fixtures (bulbs and ballast)		3.8 kwh	3.8 kwh	3.8 kwh	3.8 kwh	3.8 kwh	0.0	\$3
High Temp Hot Water Pipe Replacement								
HVAC, Chiller & Electrical								
Bulb Replacement (CFLs, LEDs)								
Gas Savings								
Fuel Oil Savings								
Steam Savings								
Alternative Energy								
Total Savings (MTCO₂e)							0.0	\$0
On-Site Solar								
On-Site Wind								
On-Site Geothermal								
On-Site Combined Heat and Power								
Purchase of Green Energy/Green Power								
Water Conservation/WaterSense								
Total Savings (MTCO₂e)					0.0	0.0	0.0	\$23
Miscellaneous Water Conservation								
Low Flow/Hands Free Faucets (18)					4500 gal	4500 gal	0.0	\$23
Low Flow Toilets								
Low Flow Shower Heads								
Low Flow Urinals								
Waterless Urinals								
Solid Waste Recycling								
Total Savings (MTCO₂e)	536.7	228.6	228.6	62.0	689.2	291.2	2,036.3	\$74,834
Mixed Recyclables (includes Wastewise)		4910 lbs	4910 lbs		182.44 tons	80.61 tons	750.3	\$10,718
Pallets Waste Avoided / Wood Recycled		7.8 tons	7.8 tons				38.4	\$624
Steel Recycled Offsite during Deconstruction								
Concrete / Asphalt Recycled during Deconstruction								
Recycled C&D Waste (construction waste)								
Cardboard (construction/non-construction/sharp containers)	165 tons	18.91 tons	18.91 tons	18.84 tons	21 tons	19.87 tons	816.5	\$10,501
Mixed Metal (construction/non-construction)								
Paper, Mixed		1.5 tons	1.5 tons		31.2 tons		120.4	\$1,368
Plastic, Mixed (bottles, construction/non-construction, sharp containers)	45,000 lbs	6750 bottles + 9082.3 lbs	6750 bottles + 9082.3 lbs				32.3	\$1,320
Can / Bottle Recycling					300 lbs	500 lbs	2.0	\$16
Blue Wrap Waste Reduction		5000 lbs	5000 lbs	5000 lbs	5000 lbs	5000 lbs	12.3	\$500
Mixed Organics								
Food Donation (Waste diversion)								
Biosolids and Food Waste Recycling / Composting								



Environmental Metrics	Nov 2010 MOU	May 2011 Update	Nov 2011 Update	May 2012 Update	Nov 2012 Update	May 2013 Update	Total Conversion (MT-CO2e)	Cost Savings (est.)
Fluorescent Bulbs		2100 lbs	2100 lbs	345 lbs			0.3	\$91
Ceiling Tiles Recycled								
Carpet Recycled								
Waste Oil Recycled		100 gal	100 gal				2.4	\$34
Magazines / Third Class Mail								
Newspapers								
Office Paper	1075 lbs	90909 lbs	90909 lbs				260.6	\$3,658
Phonebooks								
Textbooks								
Dimensional Lumber								
Fly Ash								
Aluminum Cans				200 lbs			0.9	\$4
Glass								
HDPE / LDPE / PET								
Appliances								
Non-Ferrous Metals								
Fats, Oils, Grease								
Instrument Recycling								\$5,000
Medical Device Reprocessing								\$41,000
Green Procurement								
Total Savings (MTCO2e)							0.0	\$0
Re-Use/Purchase of Materials with Recycled Content								
Purchase / Use of Compost Socks								
Purchase of EPEAT Products								
Use of Recycled Steel during Construction								
Use of Recycled Iron during Construction								
Use of Recycled Plastic during Construction								
Use of Recycled Aluminum during Construction								
Use of Recycled Concrete / Asphalt during Construction								
Use of Coal Combustion Products								
Green Landscaping								
Total Savings (MTCO2e)		3.0	3.0	3.0	3.0	3.0	15.0	\$834
Green Roofs								
Porous Pavement								
Grass								
Low / No Mow Area		6000 sq ft	15.0	\$834				
Green Space								
Re-use of Collected Stormwater								
On-Site Use of Compost / Mulch								
Moisture Sensing Sprinklers								
Number / Acres of Trees								
Reflective Roof								
Synthetic Turf								
Native Plants								
Leaves Composted								

Environmental Metrics	Nov 2010 MOU	May 2011 Update	Nov 2011 Update	May 2012 Update	Nov 2012 Update	May 2013 Update	Total Conversion (MT-CO ₂ e)	Cost Savings (est.)
Electronics/EPEAT								
<i>Total Savings (MTCO₂e)</i>		13.9	13.9	3.3	1.7		32.8	\$410
Recycling of Electronics		6248 lbs	6248 lbs	4000 lbs	2171 lbs		14.9	\$373
Re-Use/Donation of Used Computers								
Toner/Ink Recycling and Use of Recycled Ink		875 lbs	875 lbs				17.9	\$35
Battery Recycling				80 lbs			0.1	\$2
Mass Transit								
<i>Total Savings (MTCO₂e)</i>								
Miles Avoided								
Transportation								
<i>Total Savings (MTCO₂e)</i>							0.0	\$0
Hybrid Vehicles								
Electric Vehicles								
Biodiesel Vehicles								
Clean Construction Vehicles								
LNG Vehicles								
Alternate Fuel Vehicles (Zipcar)								
Smartway Transporters								
Bike Racks		2	2	2	2	2		
LEED Projects								
<i>Total Savings (MTCO₂e)</i>								
Silver - 10%								
Gold - 17%								
Platinum - 20%								
Misc. - Further Clarification								
<i>Total Savings (MTCO₂e)</i>		573.7	573.7	573.7	573.7	573.7	2,868.5	\$459
NOX (equipment only)		2.04 tons	2,868.5	\$459				
NOX (includes vehicles)								
MTCO₂e Savings								
<i>Total (MTCO₂e)</i>	551.5	848.8	848.8	671.5	1,297.2	897.5	5,115.2	\$115,258
Energy	14.8	29.6	29.6	29.6	29.6	29.6	162.6	\$38,698
Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$23
Solid Waste	536.7	228.6	228.6	62.0	689.2	291.2	2,036.3	\$74,834
Green Landscaping	0.0	3.0	3.0	3.0	3.0	3.0	15.0	\$834
Electronics	0.0	13.9	13.9	3.3	1.7	0.0	32.8	\$410
Misc. - Further Clarification	0.0	573.7	573.7	573.7	573.7	573.7	2,868.5	\$459



2013

Southampton Hospital Additional Green MOU Accomplishments and Cost Savings

Southampton Hospital has been recognized as one of the nation's "Most Wired - Small and Rural" hospitals, according to the results of Health Forum's 2012 Most Wired Survey released in the July issue of Hospitals & Health Networks magazine. Healthcare information is a Board-level priority and a critical part of Southampton Hospital's strategic plan to build a more robust healthcare system for its communities that will enable the Hospital to integrate existing physician offices, testing and treatment facilities. The hospital is creating a paperless care environment that relies on digital information for all of its care records.