



Southampton Hospital
Environmental Assessment:
MOU SemiAnnual Report
February 18, 2014



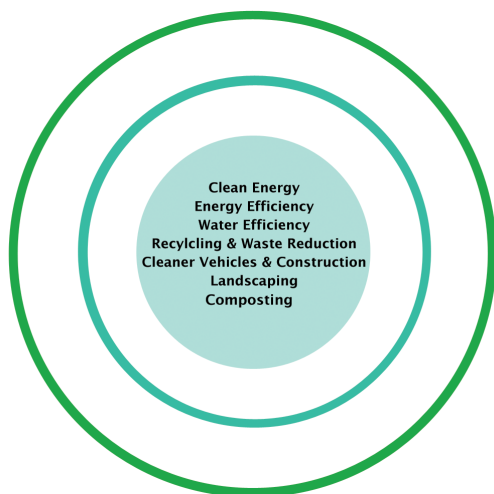
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Accomplishments

Reductions of 6,390 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.

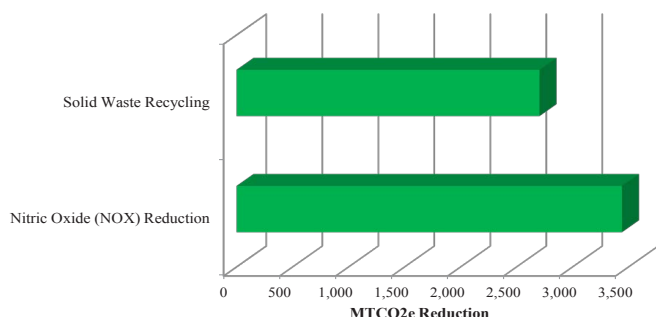
Reduction in Environmental Footprint

This is the sixth 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 6,390 MTCO₂e* and saved an estimated \$211,000 in operating expenses.

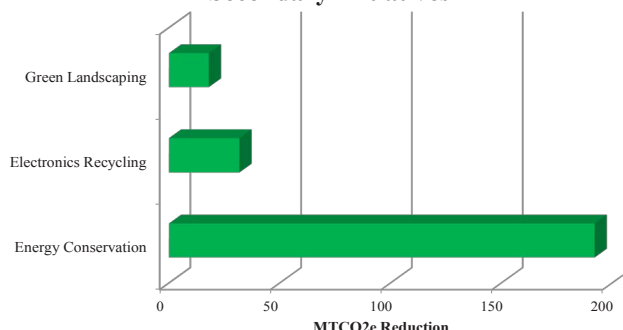
Environmental Metrics	Total Sector (MTCO ₂ e)
Energy Conservation	192.1
Solid Waste	2,705.9
Green Landscaping	18.0
Electronics	31.8
Nitric Oxide (NOX) Reduction	3,442.2
Total (MTCO ₂ e)	6,390.1

*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 6,390 MTCO₂e



Greenhouse Gas Equivalencies

What does the reduction of 6,390 MTCO₂e represent ?

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

- Annual greenhouse gas emissions from 1,331 passenger vehicles



- Carbon dioxide emissions from 716,379 gallons of gasoline



- Carbon dioxide emissions from 14,861 barrels of oil consumed



- Carbon dioxide emissions from the energy use of 319 homes for one year



- Carbon dioxide emissions from 266,254 propane tanks used for home barbeques



- Carbon dioxide emissions from gasoline carried by 84.3 tanker trucks



- Carbon dioxide emissions from burning 27.5 railcars' worth of coal (almost 1/2 mile long)





Environmental Metrics	Nov 2010 MOU	May 2011 Update	Nov 2011 Update	May 2012 Update	Nov 2012 Update	May 2013 Update	Nov 2013 Update	Total Conversion (MTCO2e)	Cost Savings (est.)
Energy Conservation/Energy Star									
Total Savings (MTCO2e)	14.8	29.6	29.6	29.6	29.6	29.6	29.6	192.1	\$45,733
Miscellaneous Energy Conservation	24,344 kwh	48,688 kwh	48,688 kwh	48,688 kwh	48,688 kwh	48,688 kwh	48,688 kwh	192.1	\$45,730
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	3.8 kwh	0.0	\$3
High Temp Hot Water Pipe Replacement									
HVAC, Chiller & Electrical									
Bulb Replacement (CFLs)									
Bulb Replacement (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	0.0	\$34
Miscellaneous Water Conservation									
Low Flow/Hands Free Faucets (18)					4500 gal	4500 gal	4500 gal	0.0	\$34
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	669.7	2,705.9	\$163,475
Mixed Recyclables (includes Wastewise)		2.45 tons	2.45 tons		182.44 tons	80.61 tons	158.71 tons	1,194.6	\$17,066
Pallets Waste Avoided / Wood Recycled		390 pallets (7.8 tons)	390 pallets (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	17.86 tons	872.0	\$11,216
Mixed Metal (construction/non-construction)									
Paper, Mixed		1.5 tons	1.5 tons		31.2 tons		46.8 tons	285.1	\$3,240
Plastic, Mixed (bottles,construction/non-construction,sharp containers)	22.5	6000 bottles + 750 5gal bottles + 9082.3 lbs (5.25 tons total)	6000 bottles + 750 5gal bottles + 9082.3 lbs (5.25 tons total)					32.3	\$1,320
Can / Bottle Recycling					300 lbs	500 lbs	500 lbs	3.2	\$26
Blue Wrap Waste Reduction		5000 lbs	5000 lbs	5000 lbs	5000 lbs	5000 lbs	5000 lbs	14.7	\$600



Environmental Metrics	Nov 2010 MOU	May 2011 Update	Nov 2011 Update	May 2012 Update	Nov 2012 Update	May 2013 Update	Nov 2013 Update	Total Conversion (MTCO2e)	Cost Savings (est.)
Mixed Organics									
Food Donation (Waste diversion)									
Biosolids and Food Waste Recycling / Composting									
Fluorescent Bulbs		3292 (approx 2100 lbs)	3292 (ap- prox 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	107,500 sh (215 reams approx 1075 lbs)	90909 lbs	90909 lbs					260.6	\$3,658
Phonebooks									
Textbooks									
Dimensional Lumber									
Fly Ash									
Aluminum Cans				200			300	2.2	\$10
Glass									
HDPE / LDPE / PET									
Appliances									
Non-Ferrous Metals									
Fats, Oils, Grease									
Instrument Recycling						\$5,000			\$5,000
Medical Device Reprocessing						\$41,000	\$79,590		\$120,590
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	3.0	18.0	\$1,001
Green Roofs									
Porous Pavement									
Grass									
Low / No Mow Area		6000 sq ft	6000 sq ft	6000 sq ft	6000 sq ft	6000 sq ft	6000 sq ft	18.0	\$1,001
Green Space									
Re-use of Collected Stormwater									
On-Site Use of Compost / Mulch									



Environmental Metrics	Nov 2010 MOU	May 2011 Update	Nov 2011 Update	May 2012 Update	Nov 2012 Update	May 2013 Update	Nov 2013 Update	Total Conversion (MTCO2e)	Cost Savings (est.)
Moisture Sensing Sprinklers									
Number / Acres of Trees									
Reflective Roof									
Synthetic Turf									
Native Plants									
Leaves Composted									
Electronics/EPEAT									
Total Savings (MTCO2e)		13.9	13.9	3.3	1.7			31.8	\$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					16.8	\$35
Battery Recycling				80 lbs				0.1	\$2
Mass Transit									
Total Savings (MTCO2e)									
Miles Avoided									
Transportation									
Total Savings (MTCO2e)								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	2		
LEED Projects									
Total Savings (MTCO2e)									
Silver - 10%									
Gold - 17%									
Platinum - 20%									
Misc. - Further Clarification									
Total Savings (MTCO2e)		573.7	573.7	573.7	573.7	573.7	573.7	3,442.2	\$551
NOX (equipment only)		2.04 tons	2.04 tons	2.04 tons	2.04 tons	2.04 tons	2.04 tons	3,442.2	\$551
NOX (includes vehicles)									
MTCO2e Savings									
Total (MTCO2e)	551.5	848.8	848.8	671.5	1,297.2	897.5	1276.0	6,390.1	\$211,204
Energy	14.8	29.6	29.6	29.6	29.6	29.6	29.6	192.1	\$45,733
Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$34
Solid Waste	536.7	228.6	228.6	62.0	689.2	291.2	669.7	2,705.9	\$163,475
Green Landscaping	0.0	3.0	3.0	3.0	3.0	3.0	3.0	18.0	\$1,001
Electronics	0.0	13.9	13.9	3.3	1.7	0.0	0.0	31.8	\$410
Misc. - Further Clarification	0.0	573.7	573.7	573.7	573.7	573.7	573.7	3,442.2	\$551



2014

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.