



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

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Accomplishments

Reductions of 2,270 MTCO₂e



Memorandum of Understanding

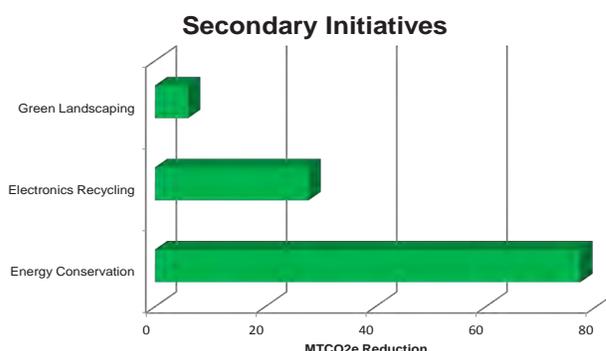
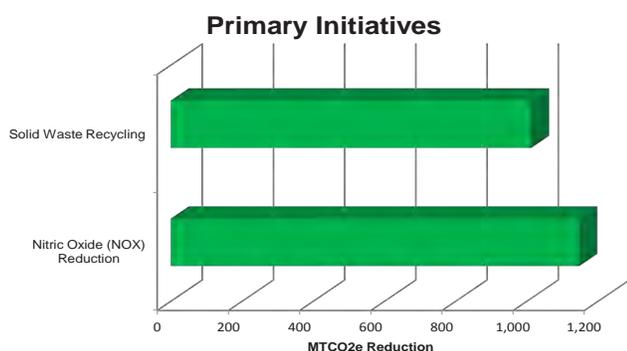
On November 15, 2010, Southampton Hospital signed a Memorandum of Understanding (MOU) pledging to become an environmental steward by implementing a number of green initiatives that would reduce its carbon footprint and further improve our planet's environment. This partnership with the United States 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 second 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 2,270 MTCO₂e* and saved an estimated \$73,200 in operating expenses.

Environmental Metrics	Total Sector (MTCO ₂ e)
Energy Conservation	77.2
Solid Waste	1,012.1
Green Landscaping	6.0
Electronics	27.9
Nitric Oxide (NOX) Reduction	1,147.4
Total (MTCO ₂ e)	2,270.5

*Metric Ton Carbon Dioxide Equivalent



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) which converts 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 2,270 MTCO₂e

Greenhouse Gas Equivalencies

What does the reduction of 2,270 MTCO₂e represent ?

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

- Annual greenhouse gas emissions from 445 vehicles



- Carbon dioxide emissions from 254,540 gallons of gasoline



- Carbon dioxide emissions from 5,280 barrels of oil consumed



- Carbon dioxide emissions from the energy use of 197 homes for one year



- Carbon dioxide emissions from 94,604 propane tanks used for home barbeques



- Carbon dioxide emissions from gasoline carried by 29.9 tanker trucks



- Carbon dioxide emissions from burning 12.4 railcars' worth of coal (nearly 1/5 of a mile long)



Environmental Metrics	Nov 2010 MOU	May 2011 Update	Nov 2011 Update	Total Conversion (MTCO2e)	Cost Savings (est.)
Energy Conservation/Energy Star					
Total Savings (MTCO2e)	15.4	30.9	30.9	77.2	\$12,563
Miscellaneous Energy Conservation	24,344 kwh	48,688 kwh	48,688 kwh	77.2	\$12,562
Web Based Energy Competition					
Motors and Transformers					
Lighting Project Fixtures (bulbs and ballast)		3.8 kwh	3.8 kwh	0.0	\$1
High Temp Hot Water Pipe Replacement					
HVAC, Chiller & Electrical					
Bulb Replacement (CFLs, LEDs)					
Gas / Fuel Oil / Steam Savings					
Alternative Energy					
Total Savings (MTCO2e)				0.0	\$0
On-Site Solar / Wind / Geothermal					
On-Site Combined Heat and Power					
Purchase of Green Energy/Green Power					
Water Conservation/WaterSense					
Total Savings (MTCO2e)				0.0	\$0
Miscellaneous Water Conservation					
Low Flow / Hands Free Faucets					
Low Flow Toilets / Shower Heads / Urinals					
Waterless Urinals					
Solid Waste/Industrial Materials Reuse/Green Products					
Total Savings (MTCO2e)	546.8	232.6	232.6	1,012.1	\$60,349
Mixed Recyclables (includes Wastewise)		4,910 lbs	4,910 lbs	14.1	\$196
Re-Use/Purchase of Materials with Recycled Content					
Pallets Waste Avoided / Wood Recycled		390 pallets (7.8 tons)	390 pallets (7.8 tons)	38.4	\$624
Use of Recycled Steel / Iron during Construction					
Use of Recycled Plastic / Aluminum during Construction					
Use of Recycled Concrete / Asphalt during Construction					
Use of Coal Combustion Products					
Steel Recycled Offsite during Deconstruction					
Concrete / Asphalt Recycled					
Recycled C&D Waste (construction waste)					
Cardboard (construction/non-construction/sharp containers)	165 tons	18.91 tons	18.91 tons	628.7	\$8,113
Mixed Metal (construction/non-construction)					
Paper, Mixed		1.5 tons	1.5 tons	10.5	\$120
Plastic, Mixed (bottles,construction/non-construction,sharp containers)	45,000 lbs	6,000 bottles + 750 5gal bottles + 9,082.3 lbs	6,000 bottles + 750 5gal bottles + 9,082.3 lbs	49.5	\$1,320
Can / Bottle Recycling					
Blue Wrap		5,000 lbs	5,000 lbs	7.5	\$200
Mixed Organics					
Food Donation (Waste diversion)					
Biosolids and Food Waste Recycling / Composting					
Fluorescent Bulbs		3,292 (approx 2100 lbs)	3,292 (approx 2100 lbs)	0.3	\$84
Carpet / Ceiling Tiles Recycled					
Waste Oil Recycled		100 gal	100 gal	2.4	\$34
Newspapers / Magazines / Third Class Mail					

Environmental Metrics	Nov 2010 MOU	May 2011 Update	Nov 2011 Update	Total Conversion (MTCO _{2e})	Cost Savings (est.)
Office Paper	107,500 sh (approx 1075 lbs)	90,909 lbs	90,909 lbs	260.6	\$3,658
Phonebooks / Textbooks					
Dimensional Lumber					
Fly Ash					
Glass / Aluminum Cans					
HDPE / LDPE / PET					
Appliances / Non-Ferrous Metals					
Fats, Oils, Grease					
Instrument Recycling / Medical Device Reprocessing					\$5,000
Green Landscaping					
Total Savings (MTCO_{2e})		3.0	3.0	6.0	\$0
Green Roofs / Reflective Roof					
Porous Pavement					
Grass					
Low / No Mow Area		6,000 sq ft	6,000 sq ft	6.0	
Re-use of Collected Stormwater					
On-Site Use of Compost / Mulch					
Moisture Sensing Sprinklers					
Number / Acres of Trees					
Synthetic Turf / Native Plants					
Leaves Composted					
Electronics/EPEAT					
Total Savings (MTCO_{2e})		13.9	13.9	27.9	\$285
Recycling of Electronics		6,248 lbs	6,248 lbs	10.0	\$250
Re-Use/Donation of Used Computers					
Toner/Ink Recycling and Use of Recycled Ink		875 lbs	875 lbs	17.9	\$35
Battery Recycling					
Purchase of EPEAT Products					
Transportation					
Total Savings (MTCO_{2e})				0.0	\$0
Hybrid / Electric / Biodiesel Vehicles					
Clean Construction / LNG Vehicles					
Alternate Fuel Vehicles (Zipcar)					
Smartway Transporters					
Bike Racks		2	2		
Misc. - Further Clarification					
Total Savings (MTCO_{2e})		573.7	573.7	1,147.4	\$0
NOX (equipment only)		2.04 tons	2.04 tons	1,147.4	
NOX (includes vehicles)					
MTCO_{2e} Savings					
Total (MTCO_{2e})	562.2	854.1	854.1	2,270.5	\$73,197
Energy	15.4	30.9	30.9	77.2	\$12,563
Solid Waste	546.8	232.6	232.6	1,012.1	\$60,349
Green Landscaping	0.0	3.0	3.0	6.0	\$0
Electronics	0.0	13.9	13.9	27.9	\$285
Misc. - Further Clarification	0.0	573.7	573.7	1,147.4	\$0



2011

**Southampton Hospital Additional
Green MOU Accomplishments and Cost Savings**

Nothing to report