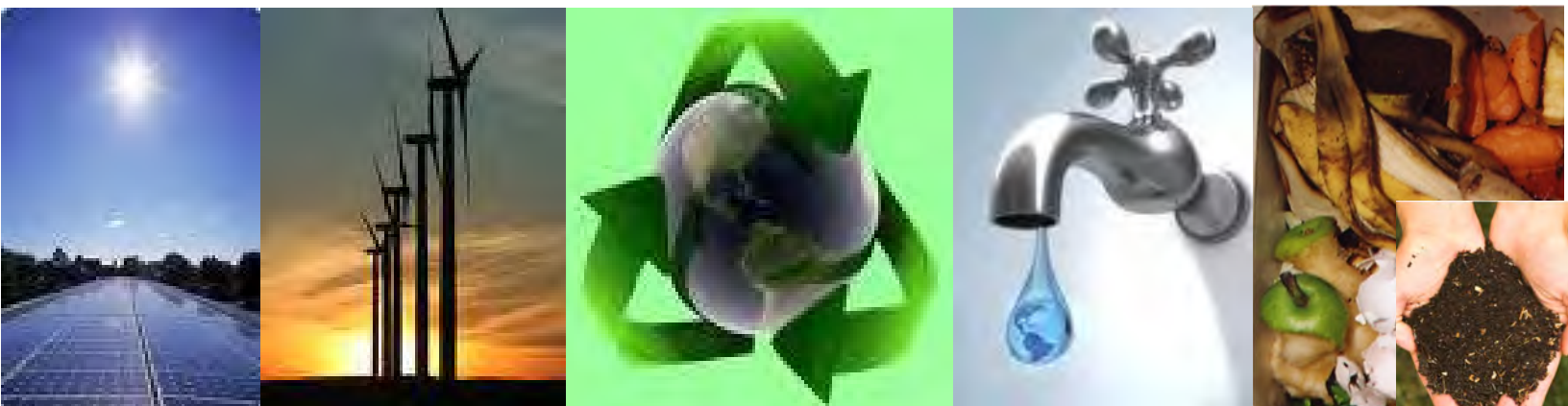




**Reckson**  
**Environmental Assessment:**  
**MOU SemiAnnual Report**  
**May 1, 2012**



**Environmental Protection Agency**  
**Region 2**

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## Accomplishments

**Reductions of 13,815 MTCO<sub>2</sub>e**



## Memorandum of Understanding

On April 21, 2011, Reckson 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 Reckson has resulted in reducing energy, water and solid waste production across their entire operations.

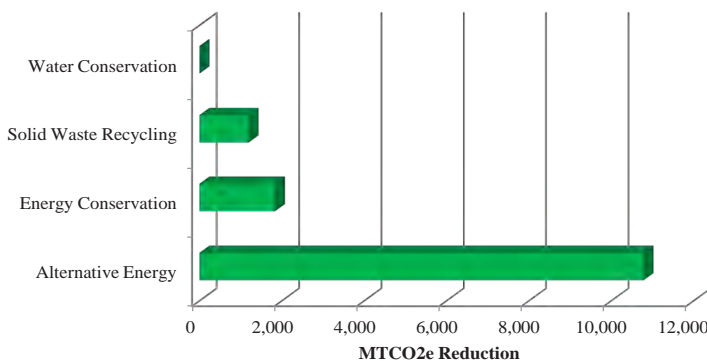
## Reduction in Environmental Footprint

This is the first update Reckson has provided documenting its green initiatives. The EPA has analyzed the submitted information and generated an environmental footprint. Due to the progressive green efforts of the organization, Reckson has managed to reduce its carbon footprint by 13,815 MTCO<sub>2</sub>e\*.

\*Metric Ton Carbon Dioxide Equivalent

Environmental Metrics	Total Sector (MTCO <sub>2</sub> e)
Alternative Energy	10,785.8
Energy Conservation	1,834.2
Solid Waste	1,192.8
Water Conservation	3.1
Total (MTCO <sub>2</sub> e)	13,815.8

## Reckson 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) which converts standard metrics for electricity, green energy, fuel use, chemical use, water use, and sustainable materials management into MTCO<sub>2</sub>e.

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 MTCO<sub>2</sub>e 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 13,815 MTCO<sub>2</sub>e

## Greenhouse Gas Equivalencies

What does the reduction of 13,815 MTCO<sub>2</sub>e represent ?  
The organization's effort is equivalent to any one of the following:

- Annual greenhouse gas emissions from 2,709 passenger vehicles



- Carbon dioxide emissions from 1,5485,857 gallons of gasoline



- Carbon dioxide emissions from 32,130 barrels of oil consumed



- Carbon dioxide emissions from the energy use of 1,196 homes for one year



- Carbon dioxide emissions from 575,658 propane tanks used for home barbeques



- Carbon dioxide emissions from gasoline carried by 182 tanker trucks



- Carbon dioxide emissions from burning 75.2 railcars' worth of coal (over 1 1/8 miles long)





Environmental Metrics	Apr 2011 MOU	Apr 2012 Update	Total Conversion (MTCO2e)	Cost Savings (est.)
<b>Energy Conservation/Energy Star</b>				
<i>Total Savings (MTCO2e)</i>		<i>2184.0</i>	<i>1,834.2</i>	<i>\$323,223</i>
Miscellaneous Energy Conservation				
Mechanical Retrofit (100 Summit, 140 Grand St)		936,853 kwh	524.4	\$96,683
Mechanical Retrofit (1010 Washington Blvd)		402,963 kwh	220.2	\$41,586
Mechanical Retrofit		52,744 therms	279.8	\$39,558
Lighting Project Fixtures (bulbs and ballast)				
High Temp Hot Water Pipe Replacement				
HVAC, Chiller & Electrical				
Boiler Upgrade		29,730 therms	157.7	\$22,298
Bulb Replacement (CFLs)				
Bulb Replacement (LEDs)		1,192,811 kwh	651.9	\$123,098
Gas Savings				
Fuel Oil Savings				
Steam Savings				
<b>Alternative Energy</b>				
<i>Total Savings (MTCO2e)</i>		<i>13286.6</i>	<i>10,785.8</i>	<i>(\$398,853)</i>
On-Site Solar				
On-Site Wind				
On-Site Geothermal				
On-Site Combined Heat and Power				
Purchase of Green Energy/Green Power		19,268,260 kwh	10,785.8	(\$398,853)
<b>Water Conservation/WaterSense</b>				
<i>Total Savings (MTCO2e)</i>		<i>3.8</i>	<i>3.1</i>	<i>\$4,135</i>
Miscellaneous Water Conservation (360 Hamilton)		500,000 gal	0.9	\$1,250
Low Flow/Hands Free Faucets		750,000 gal	1.4	\$1,875
Low Flow Toilets				
Low Flow Shower Heads				
Low Flow Urinals (140 Grand, Summit Lake Drive)		404,000 gal	0.8	\$1,010
Waterless Urinals				
<b>Solid Waste/Industrial Materials Reuse/Green Products</b>				
<i>Total Savings (MTCO2e)</i>		<i>1192.8</i>	<i>1,192.8</i>	<i>\$12,604</i>
Mixed Recyclables (includes Wastewise)				
Pallets Waste Avoided / Wood Recycled				
Steel Recycled Offsite during Deconstruction				
Concrete / Asphalt Recycled durin Deconstruction				
Recycled C&D Waste (construction waste)				
Cardboard (construction/non-construction/sharp containers)		66.4 tons	205.8	\$2,656
Mixed Metal (construction/non-construction)				
Paper, Mixed		227.7 tons	799.2	\$9,108
Plastic, Mixed (bottles,construction/non-construction,sharp containers)		8.1 tons	12.2	\$324
Can / Bottle Recycling				
Mixed Organics				
Food Donation (Waste diversion)				
Biosolids and Food Waste Recycling / Composting				
Fluorescent Bulbs				
Ceiling Tiles Recycled				



Environmental Metrics	Apr 2011 MOU	Apr 2012 Update	Total Conversion (MTCO2e)	Cost Savings (est.)
Carpet Recycled				
Waste Oil Recycled				
Magazines / Third Class Mail				
Newspapers				
Office Paper				
Phonebooks				
Textbooks				
Dimensional Lumber				
Fly Ash				
Aluminum Cans		12.9 tons	175.6	\$516
Glass				
HDPE				
LDPE				
PET				
Appliances				
Non-Ferrous Metals				
Fats, Oils, Grease				
Instrument Recycling				
<b>Green Procurement</b>				
<b>Total Savings (MTCO2e)</b>		<b>0.0</b>	<b>0.0</b>	<b>\$0</b>
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				
<b>Green Landscaping</b>				
<b>Total Savings (MTCO2e)</b>			<b>0.0</b>	<b>\$0</b>
Green Roofs				
Porous Pavement				
Grass				
Low / No Mow Area				
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				
<b>Electronics/EPEAT</b>				
<b>Total Savings (MTCO2e)</b>			<b>0.0</b>	<b>\$0</b>
Recycling of Electronics				



Environmental Metrics	Apr 2011 MOU	Apr 2012 Update	Total Conversion (MTCO2e)	Cost Savings (est.)
Re-Use/Donation of Used Computers				
Toner/Ink Recycling and Use of Recycled Ink				
Battery Recycling				
<b>Mass Transit</b>				
<b>Total Savings (MTCO2e)</b>				
Miles Avoided				
<b>Transportation</b>				
<b>Total Savings (MTCO2e)</b>			<b>0.0</b>	<b>\$0</b>
Hybrid Vehicles				
Electric Vehicles				
Biodiesel Vehicles				
Clean Construction Vehicles				
LNG Vehicles				
Alternate Fuel Vehicles (Zipcar)				
Smartway Transporters				
Bike Racks				
<b>LEED Projects</b>				
<b>Total Savings (MTCO2e)</b>				
Silver - 10%				
Gold - 17%				
Platinum - 20%				
<b>Misc. - Further Clarification</b>				
<b>Total Savings (MTCO2e)</b>				
NOX (equipment only)				
NOX (includes vehicles)				
<b>MTCO2e Savings</b>				
<b>Total (MTCO2e)</b>	<b>0.0</b>	<b>16,667.2</b>	<b>13,815.8</b>	<b>(\$58,891)</b>
Energy	0.0	2,184.0	1,834.2	\$323,223
Alternative Energy	0.0	13,286.6	10,785.8	(\$398,853)
Water	0.0	3.8	3.1	\$4,135
Solid Waste	0.0	1,192.8	1,192.8	\$12,604



2012

## Reckson Additional Green MOU Accomplishments

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Reckson, the suburban division of SL Green Realty Corp., is committed to providing innovative sustainable solutions through socially responsible best practices, including conservation, recycling and energy efficiency, benefiting its employees, tenants, and partners.

### Some of Reckson's market-leading construction initiatives include:

A rigorous recycling program that covers:

- Various construction and scrap materials, including partition studs, door frames, ceiling grid, hardware, ductwork and, after a 2007 program expansion, carpet and ceiling tile. To date, the program has diverted over 500 tons of debris from landfills.
- Donation or reuse of doors, glass and cabinetry when possible.
- Recycling all fluorescent light bulbs from discarded light fixtures.
- Maintaining recycling bins for collection of plastic, glass and aluminum.

Installation of energy-efficient light fixtures (40% more efficient than industry standard), occupancy sensor devices, and LED exit signs.

Maintaining a comprehensive Indoor Air Quality Management Plan throughout construction.

Utilizing low-VOC paint and adhesives as well as non-urea formaldehyde millwork substrates.

Selecting carpet, rubber base, and ceiling tiles with high levels of recycled post-consumer-based content.

Engaging vendors who conduct environmentally responsible business practices, including a carpet manufacturer that produces building-standard carpet through purchase of 100% wind energy.

Utilizing low-flow water devices and fixtures in tenant pantry areas for additional conservation.

Incorporating natural day-lighting within project design.

### Some of Reckson's notable sustainability accomplishments and milestones:

Installation of an on-site renewable solar energy system consisting of 100kw photovoltaic solar panels at 500 West Putnam Avenue.

Installed new water saving devices throughout the suburban portfolio, including faucet aerators, low flow shower heads and flush sensor devices, to save over 900,000 gallons of water annually.

Conducting a portfolio wide energy efficiency program, including both lighting and mechanical systems, to save over \$1.25 million annually.

Established a new sustainable partnership with the U.S. Environmental Protection Agency to continue to develop our environmental initiatives.

Recipient of U.S. EPA Energy Star Label award at six different properties.