



**Continuum
Environmental Footprint Report
Boston Office
June 5, 2008**

Continuum's initial environmental footprint summary is an important milestone in the process of becoming a more sustainable design and innovation consultancy. It begins with an understanding of what our impact is. From here, we begin to find ways to reduce our impact and have a sense of how well we're doing at it.

Our process has been to measure our footprint and then identify all the ways we can reduce that impact. We've prioritized our options, developed a plan and started. We've learned about renewable options and considered carbon offsets.

This is a work in progress that we'd like to share. We'll continue to measure and seek out additional ways to reduce our environmental impact and post our progress periodically.

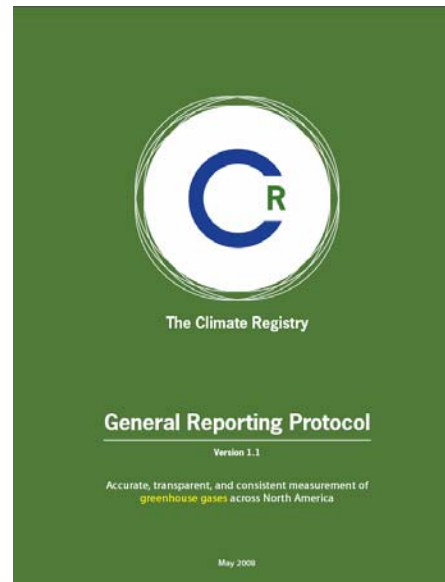


Continuum's 2007 Baseline Footprint

↘ Our Baseline

Our baseline footprint process began by hiring a third party to conduct an audit of our facility in Boston. They utilized the World Resources Institute Carbon Dioxide Inventory Report as a guide and format. This audit was helpful in determining our Scope 2 (indirect) emissions but proved to be incomplete in summarizing our Scope 1 and Scope 3 emissions.

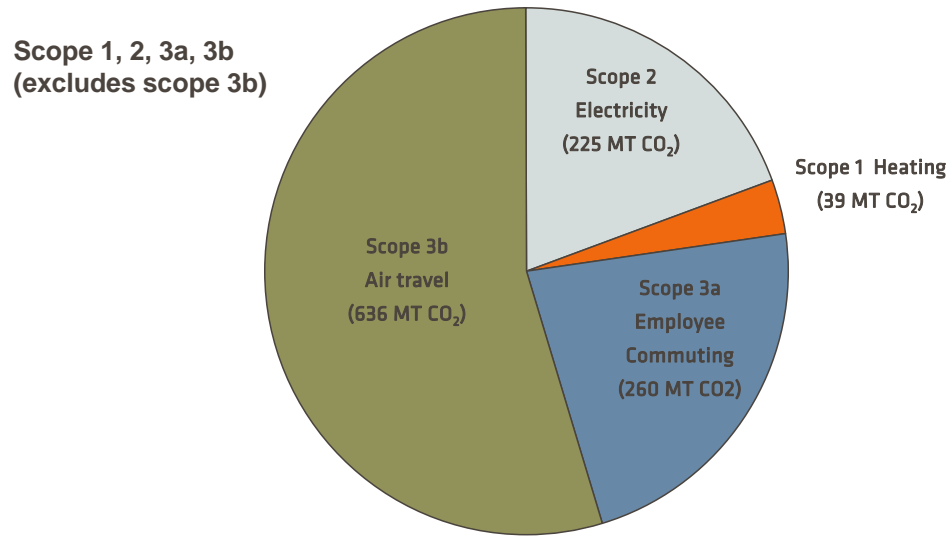
Based on a review of the Climate Registry's General Reporting Protocol Version 1.1, May 2008 we have generated what we consider to be a more accurate representation of our base year footprint.



<http://www.theclimateregistry.org/downloads/GRP.pdf>

↘ Continuum's 2007 Baseline Footprint

Scope	(MT CO₂)	Emissions Source	Data Source
Scope 1 (direct emissions)	38.62	Stationary combustion (Natural Gas for Heat)	Keyspan Energy
Scope 2 (indirect emissions)	225.27	Purchased and consumed electricity	NSTAR Electric
Scope 3a: Employee commuting	259.85	Employee commuting to and from work	Continuum Audit
Scope 3b: Business air travel	636.43	Employee business air travel	Continuum Accounting Group
Scope 3c: Practice impact	TBD	Downstream emissions from the use of sold products and services	TBD
TOTAL (excludes scope 3c)	1160.17	(8.92 per employee @ 130 employees)	









<http://www.theclimaterestory.org/downloads/GRP.pdf>


We recognize that our environmental impact goes beyond green house gas (GHG) emissions. Additional ecological concerns include; ozone depletion, acid rain, water eutrophication, habitat alteration and ecotoxicity. Human health is affected by photochemical smog and air pollutants, health damaging substances and carcinogens. Depletion of resources such as fossil fuels, fresh water, minerals and topsoil are also important measures. (Source: OKALA, second edition 2007)

GHG emission measurements have become an established starting point for companies to quantify their emission impacts. As the methods of measurement evolve, Continuum will consider new methods that include a more holistic view of our total environmental impact.

In this report, we will outline our initial efforts to address our environmental impact beyond GHG emissions.

Ecological Damage		
Global warming		
Ozone depletion		
Acid rain		
Water eutrophication		
Habitat alteration		
Ecotoxicity		
Human Health Damage		
Photochemical smog & air pollutants		
Health damaging substances		
Carcinogens		
Resource Depletion		
Fossil fuels		
Fresh water		
Minerals		
Topsoil		

Source: Okala Guide 2007



Scope #1 - 2007 Direct Emissions

Continuum uses Natural Gas from KEYSpan to heat our office space. In 2007 we used 7,279 Therms as reported on our gas bill. The table below is based on the guidelines outlined in the Climate Registry's General Reporting Protocol Version 1.1, May 2008 CHAPTER 12: DIRECT EMISSIONS FROM STATIONARY COMBUSTION.

Therms	Btu/Therm	Btu's	MBtu	CO ₂ /MBtu	kg CO ₂	Metric Tons of CO ₂
7,279	10,000	72,790,000	727.90	53	38,622	38.62

Note: CH4 and N2O equivalent emissions were less than 0.004 Mt of CO2.

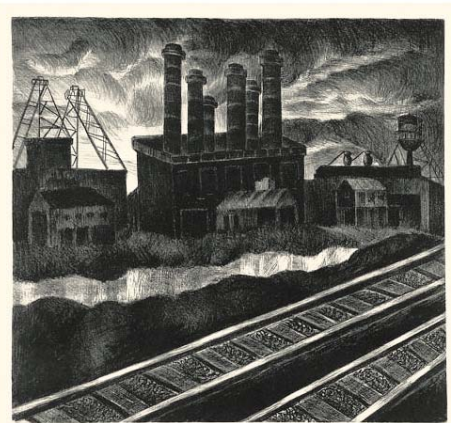


<http://www.theclimateregistry.org/downloads/GRP.pdf>

Scope #2 - 2007 Indirect Emissions

Continuum sources our electric power from NSTAR. In 2007 we used 546,400 kWh. 546,400 kWh. equals 546.4 MWh. The table below is based on the guidelines outlined in the Climate Registry's General Reporting Protocol Version 1.1, May 2008 CHAPTER 14: INDIRECT EMISSIONS FROM ELECTRICITY USE.

2007 Electricity Use (MWh)	New England Emission Factor (Lbs. CO ₂ /MWh)	Pounds of CO ₂	Pounds per Metric Ton	Metric Tons of CO ₂
546.40	908.90	496,623	2,205	225.27



Riva-Helfond

Scope #3a – 2007 Employee Business Travel

As an international consultancy we track every business flight for every client and company project. Continuum’s finance group has created an airline mileage database and captured our domestic and international air mileage for 2007: 1,753,856 miles. To convert our miles into metric tons of CO2 we used a flight calculator offered by Native Energy :

http://www.nativeenergy.com/pages/travel_calculator/30.php

2007 Total Air Miles	Conversion Calculator	Metric Tons of CO ₂
1,753,856	www.nativeenergy.com	636.43

1	From	To	Round Trip?	Mileage	Domestic/Intl.	# Travelers	Total Mileage (Mileage x Travelers)	De
493	Boston	Toronto	Y	861.50	International	1	861.50	3/27: Air Canada - Boston to Toronto RT
494	Boston	Toronto	N	430.75	International	1	430.75	3/29: Air Canada - Boston to Toronto - P
495	Boston	Toronto	Y	861.50	International	1	861.50	3/29: Air Canada - Boston to Toronto RT
496	Boston	Toronto	Y	861.50	International	1	861.50	3/29: Air Canada - Boston to Toronto RT
497	Boston	Toronto	N	430.75	International	1	430.75	3/30: Air Canada - Boston to Toronto - P
498	Boston	Toronto	Y	861.50	International	1	861.50	6/11-12 RT airfare (Bos-Toronto) DB - Ro
499	Boston	Toronto	Y	861.50	International	3	2584.50	6/26-28 RT airfare (Bos-Toronto) EM, MK
500	Boston	Toronto	Y	861.50	International	1	861.50	6/7-12 RT airfare (Bos-Toronto) DW - Rot
501	Boston	Toronto	N	430.75	International	1	430.75	American Airlines Flight to TO
502	Boston	Toronto	N	430.75	International	1	430.75	Expedia Flight to Toronto
503	Boston	Vancouver	Y	5009.17	International	1	5009.17	1/20: Alaska Air - Bos. to Vancouver RT
504	Boston	Vancouver	Y	5009.17	International	1	5009.17	1/20: Alaska Airlines - Bos. to Vancouve

Scope #3b – 2007 Employee Commuting to and from Work

Most Continuum employees commute to work by car or truck. Some employees carpool while others ride bicycles, walk, or take public transit. We surveyed each commuter for their method of commute, make/model/year of vehicle, public transportation, bike, walk, carpool, etc... We then input this data into the Terrapass driving emissions calculator to estimate the net commuting-related emissions of CO₂ to the atmosphere (<http://www.terrapass.com/carbon-footprint-calculator/#road>).

2007 Total Commuting Miles	Conversion Calculator	Metric Tons of CO ₂
710,439	www.terrapass.com	259.85



make / model / year
(estimated average fuel efficiency)



(daily commute in miles)
x
(235 working days)

Carbon Footprint Calculator

The screenshot shows the 'Carbon Footprint Calculator' interface. At the top, there are icons for Driving, Air Travel, Home, and Take Action. A summary box displays 'Total carbon footprint: 2,059 lbs CO₂' and 'Offset 3,000 lbs'. The 'Driving' section is active, showing a total of '2,059 lbs CO₂ per year'. Below this, there are input fields for 'Year' (2004), 'Make' (Volvo), and 'Model' (S60 R AWD). The 'Transmission' is set to 'Automatic'. A 'Miles per year' field is set to '2,000'. A pop-up window shows details for the '2004 Volvo S60 R AWD' with '0 mpg', '16 city / 23 hwy', and 'Automatic transmission', resulting in '2,000 miles (105 gallons) per year' and '2,059 lbs CO₂ per year'. Buttons for 'Add another vehicle' and 'Calculate air travel' are visible at the bottom.

Scope #3c - Downstream Emissions from Sold Products and Services

Our practice impact is difficult if not impossible to quantify. As a consultancy we can influence our clients products, services, environments, brands and overall business depending on the scope of the projects we work on.

Continuum does not manufacture or produce any tangible objects. We develop innovative ideas and help our clients make them real. Our impact is indirect, incremental, and real.

In most cases our clients have been manufacturing or plan to manufacture something to meet their business objective. Continuum's role is to identify the right idea and help make it real. Our indirect environmental impact can be manifested in several ways. We are investigating methods to categorize and estimate this impact.

Until then, we are committed to finding ways to reduce our practice impact on a project by project basis regardless of the specific or estimated measure.



2008 Reduction Plan

↳ Scope 1,2,3a,3b: “Operational” Reduction Plan

- Continue to raise awareness through measures, tracking and sharing our footprint
- Optimize our programmable thermostats and monitoring
- Upgrade to timers on all main studio light fixtures
- Upgrade to dimmable fluorescent lights
- Identify replacement bulbs (or fixtures?) for hanging halogen pendant lamps
- Set default energy saver settings on all printers
- Encourage Energy saving measures on all computers - machines off overnight where possible
- Move to multi-PC render farms
- Virtualization on servers to optimize utilization
- Turning off blower systems in our shop when not in use.
- Shop machinery to be run more efficiently (i.e. turn off at night)
- Question each flight taken; Is there another way to do this without flying there and back?
- Pursue better video, phone and computer conference technologies
- Provide helpful commuter suggestions via our internal web site
- Explore options to reduce the barriers for our employees to minimize their commute impact

↳ Scope 3c: “Practice” Reduction Plan

- Develop a comprehensive sustainability workshop and have all employees take the workshop this year
- Research, select, train and utilize a life cycle analysis (LCA) tool
- Develop a relevant eco-materials reference library
- Raise awareness through better consumer understanding – conduct an in-depth research project on how people think about sustainability and green design – The Colorblind Project
- Establish a Continuum “green team” to review projects and highlight sustainable opportunities
- Commit to a dialog with clients on sustainability (Designer’s Accord)
- Continue to invest in sustainable concept projects to raise awareness and grow experience



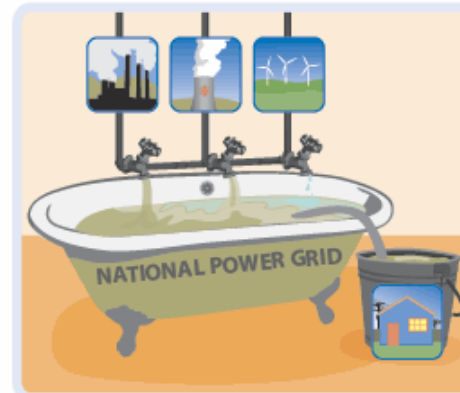
Renewables and Offsets

↘ Renewable Energy for Continuum

Near term – Continuum will purchase 100% renewable energy credits through Renewable Choice to bring our scope-2 (indirect) emissions to a carbon neutral level. “Purchasing Renewable Energy Credits (REC’s) allows consumers to guarantee the electricity they consume is replaced by clean power.”



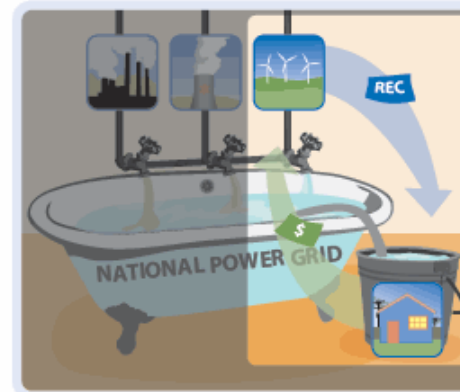
renewable choice
ENERGY



The United States power grid is like a big bathtub filled with electrons. Power generators of all types dump their electricity into this bathtub.

Since seventy percent of these electrons come from burning fossil fuels, this “water” is pretty dirty.

We all draw electricity from this bathtub, so we can’t help but consume a lot of “dirty water”.



Renewable energy producers generate Renewable Energy Credits every time they generate electricity.

Renewable Choice Energy sells these credits on behalf of the renewable energy producers.

Purchasing Renewable Energy Credits allows consumers to guarantee the electricity they consume is replaced by clean power.

<http://renewablechoice.com/business/?id=22>

↘ Renewable Energy for Continuum

Long Term – Continuum will pursue the installation of a 100 kW photovoltaic solar system on our rooftop. Since we don't own our rooftop we will identify a company that can design, install and manage a system and propose a system for our building owner's approval.



<http://www.evergreensolar.com>



Reasons to Offset:

- “I’ve run out of options to reduce my impact so I use offsets to complete the balance.”
- A means to “donate” to organizations that are developing green project(s) to reduce environmental impacts.

Reasons for Continuum not to offset operational impact:

- We are pursuing and investing in several options to reduce our “net” impact.
- Offsetting is a new and developing industry and it takes time to research, clarify, identify and manage offsets. We feel that our limited time and money is better applied to directly reducing Continuum’s impact.

http://sca21.wikia.com/wiki/Carbon_offset

<http://www.guardian.co.uk/environment/2007/jun/16/climatechange.climatechange>

↘ End

Please contact info@dcontinuum.com for any questions about this report.