GreenStep

Agenda

Our Purpose: To Change the World

GreenStep Overview

- Founded in 2008 to help businesses and organizations measure and improve sustainability performance
- Worked with thousands of businesses and organizations
- Two divisions: Sustainability Consulting and Sustainable Tourism + EcoBase Carbon Software
- Strategy, research, carbon measurement, life cycle analysis, energy, water and waste conservation, training, assessments, and certifications
- Sustainable Tourism Assessments & Certifications for tourism businesses and destinations

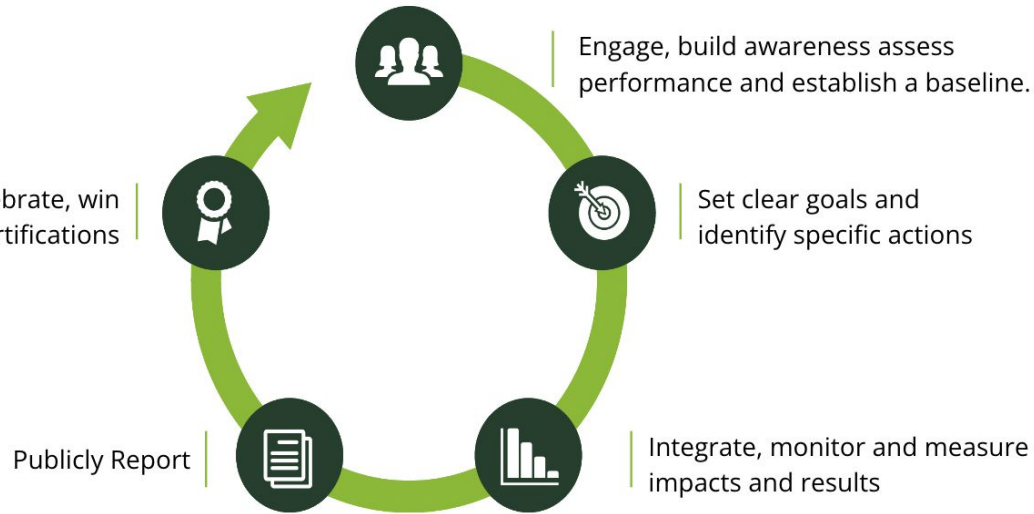# The Business Case for Carbon Footprint Measurement

The Sustainability Advantage

Opportunities		Income Statement	Risks
1. Increased Revenue	9%	**Revenue**	**Decreased Revenue**
2. Reduced Energy	75%		
3. Reduced Waste	20%		
4. Reduced materials	10%	**Expenses**	**Increased Expenses**
5. Increased employee productivity/innovation	2%		
6. Reduced employee turnover expenses	25%	**Profit Increase: +51% to +81%**	**Profit Decrease: -16% to -36%**

GreenStep Sustainable Tourism Framework

Engage, build awareness assess performance and establish a baseline.

Set clear goals and identify specific actions

Integrate, monitor and measure impacts and results
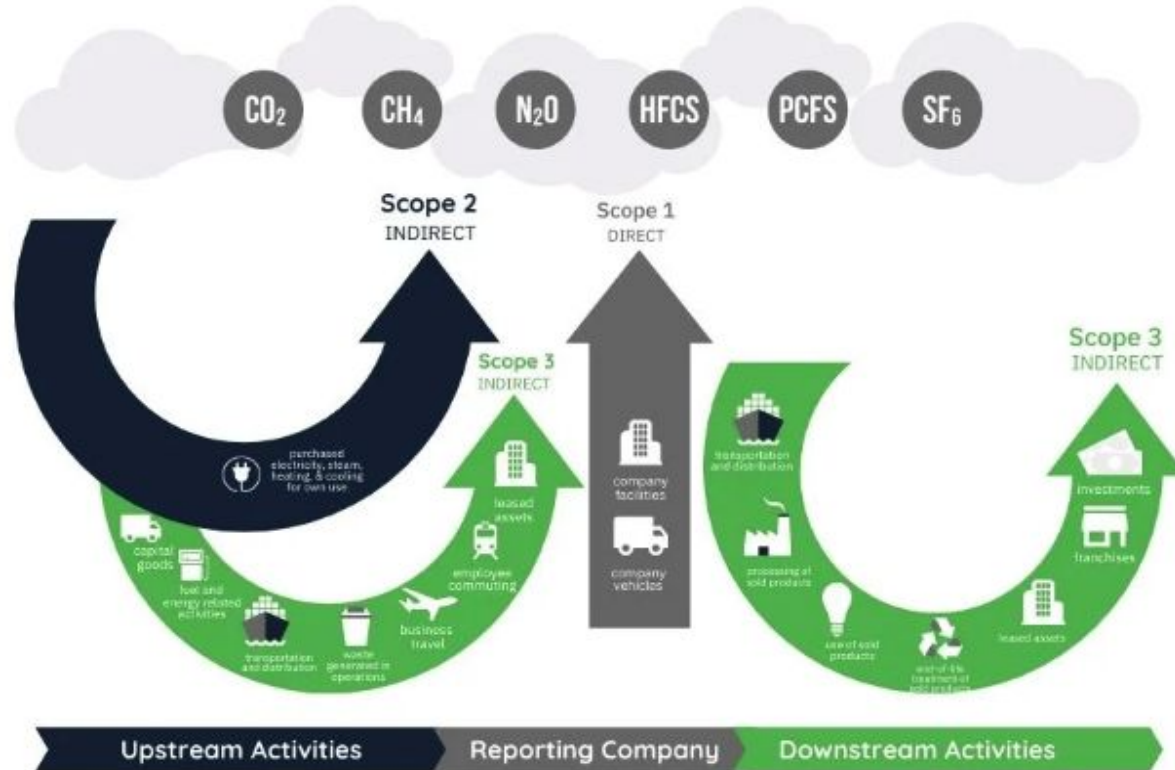
Publicly Report

Achieve goals, celebrate, win awards, pursue certifications

1. Measure
2. Goals + actions
3. Implement
4. Measure + report
5. Offset + celebrate
6. Repeat!

Carbon Emissions Scopes

What to Measure?

Greenhouse Gas Protocol

- **Scope 1:** Direct emissions from stationary and mobile sources, including fuel combusted in company-owned and controlled equipment, vehicles, and buildings, as well as refrigerants: Natural gas, propane, diesel, gasoline
- **Scope 2:** Indirect emissions from electricity: Electricity
- **Scope 3:** Indirect value chain emissions to be determined based on the mapping exercise looking at significant emissions sources along the value chain.
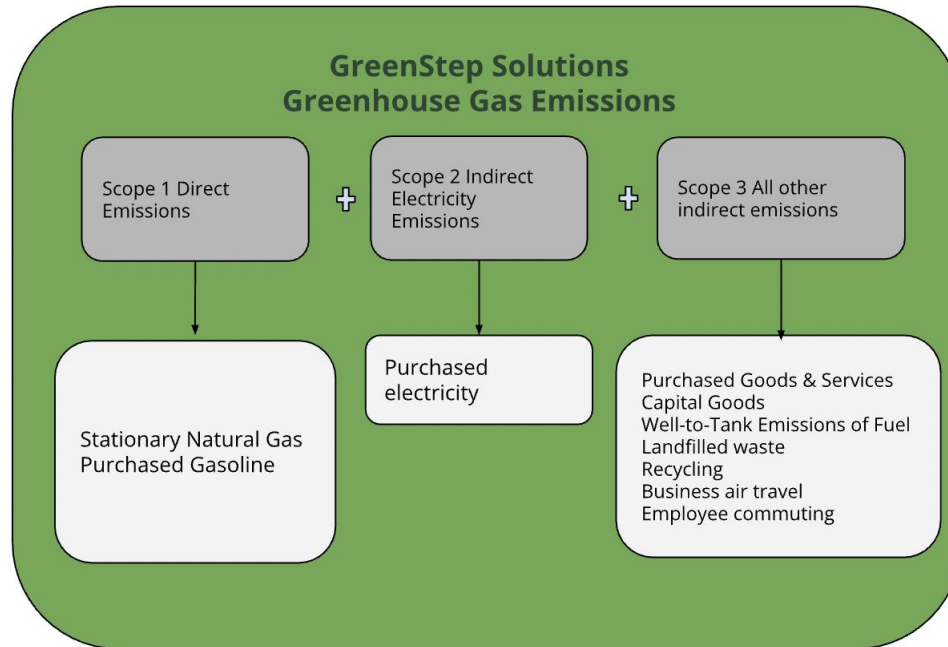
Emissions Boundary Mapping

Control Approach - Account for 100% of GHG emissions from operations that you control, financially or operationally.

Equity Approach - Account for the % of GHG emissions from operations based on share of equity/ownership in the operation.

Exercise:

1. List all of the buildings, locations, vehicles, and fuel-burning equipment that your organization owns or controls (typically via a lease or equity stake).
2. Map this out as a drawing to help visualize what needs to be collected

GreenStep's Emissions Boundary

GreenStep Solutions
Greenhouse Gas Emissions

Scope 1 Direct Emissions ＋ Scope 2 Indirect Electricity Emissions ＋ Scope 3 All other indirect emissions

Stationary Natural Gas
Purchased Gasoline

Purchased electricity

Purchased Goods & Services
Capital Goods
Well-to-Tank Emissions of Fuel
Landfilled waste
Recycling
Business air travel
Employee commuting

Scope 3 Categories

1 Purchased goods and services
2 Capital goods
3 Fuel- and energy-related activities
4 Upstream transportation and distribution
5 **Waste generated in operations**
6 **Business travel**
7 **Employee commuting**
8 Upstream leased assets

9 Downstream transportation and distribution
10 Processing of sold products
11 Use of sold products
12 End of life treatment of sold products
13 Downstream leased assets
14 Franchises
15 Investments

Collecting Your Data

Scope 1: Utility bills for natural gas and propane, fuel bills or receipts for gasoline and diesel for company owned vehicles and equipment, etc.

Scope 2: Electricity bills

Scope 3: Annual waste volume (Eco Efficiency Report or waste hauler), staff survey for employee commuting (distance and mode of transportation), business travel data (airline trips, mileage claims, taxi and ferry receipts, etc)

Tip: Create a spreadsheet for all of this information, and use it as a template for future years to streamline the process. Can add to it as you add more Scope 3 emissions categories.

How to Organize Your Data

- Break it down by location first
- For each location, list out each of the Scopes
- For each scope, list out each of the activities for which you will be collecting data

How to Organize Your Data

Emissions Sources	Location 1	Location 2
Scope 1		
Natural gas bills	GJ of natural gas	GJ of natural gas
Gasoline for car	L of gasoline	
Diesel for truck		L of diesel
Scope 2		
Electricity bills	kWh of electricity	kWh of electricity

Carbon Reporting Best Practices

1. Report on emissions by each scope (download from EcoBase)
2. Break down each scope by source (download from EcoBase)
3. Compare emissions year over year (download from EcoBase)
4. Do NOT include any carbon offsets or renewable energy credits in your total emissions
5. Highlight actions/ changes that have that resulted in emissions increases or reductions
6. Use an intensity metric to show downward or upward trends
7. Communicate your emissions reduction target and date
8. Communicate your emissions reduction plans and future actions
9. Communicate your plans and/or purchases of carbon offsets

GreenStep's 2021 Carbon Footprint

Scope	tCO2e	% of total
Scope 1	2.26	17.18%
Scope 2	0.26	1.96%
Scope 3	10.64	80.86%
TOTAL	13.15	

17.18%

80.86%

Scope 1
Scope 2
Scope 3
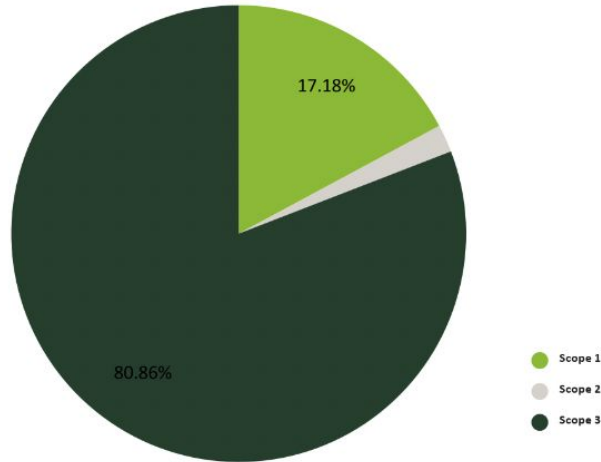
GreenStep's 2021 Scope 3 Emissions Breakdown

Scope	Category	Emissions Sources	tCO2e	% of Scope 3	Overall CO2e Ranking
	Scope 3.1: Purchased goods and services	Office supplies	0.03	0.28%	8
	Scope 3.2: Capital Goods	Laptop, Monitor, Phone	2.25	21.15%	3
	Scope 3.3: Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2	Well-to-tank emissions from used fuel and electricity	0.58	5.44%	5
	Scope 3.5: Waste in operations	Waste from GreenStep's office	0.36	3.39%	6
	Scope 3.6: Business travel	Corporate travel (flights and ground travels)	5.59	52.56%	1
	Scope 3.7: Employee commuting	Employee commuting from GreenStep's office, Emissions from teleworking	1.83	17.17%	4
TOTAL			10.64	100%	

GreenStep's 2021 Year Over Year Comparison

	tCO2e			%
	2019	2020	2021	Compared to 2020
Scope 1	1.40	1.40	2.26	61.1%
Scope 2	0.00	0.00	0.26	100.0%
Scope 3.1: Purchased Goods and Services	0.01	0.05	0.03	-43.0%
Scope 3.2: Capital Goods	0.00	0.00	2.25	100.0%
Scope 3.3: Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2	0.00	0.00	0.58	100.0%
Scope 3.5: Waste in operations	0.48	0.36	0.36	0.1%
Scope 3.6: Business Travel	5.81	0.57	5.59	881.0%
Scope 3.7: Employee Commuting	0.15	1.32	1.83	38.3%
Total	7.84	3.71	13.15	254.9%

Carbon Reduction: Getting to Net Zero

- Achieve net zero emissions by 2030, including Scope 1, Scope 2, and most relevant Scope 3 emissions
- Use science-based targets to reduce emissions wherever possible
- Use verified offsets, emphasizing carbon removal projects, to balance emissions that cannot be eliminated
- Reduce emissions by 50% by 2030
- Reduce emissions by 90% to 95% by 2050

Certified B Corporation

NET ZERO | 20 30

Glasgow Declaration
Climate Action in Tourism

RACE TO ZERO

Supported by   United Nations Climate Change   COP25 CHILE   UN CLIMATE CHANGE CONFERENCE UK 2021

Science Based Reduction Targets

"Science-based targets provide a clearly-defined pathway for companies to reduce greenhouse gas (GHG) emissions, helping prevent the worst impacts of climate change and future-proof business growth."
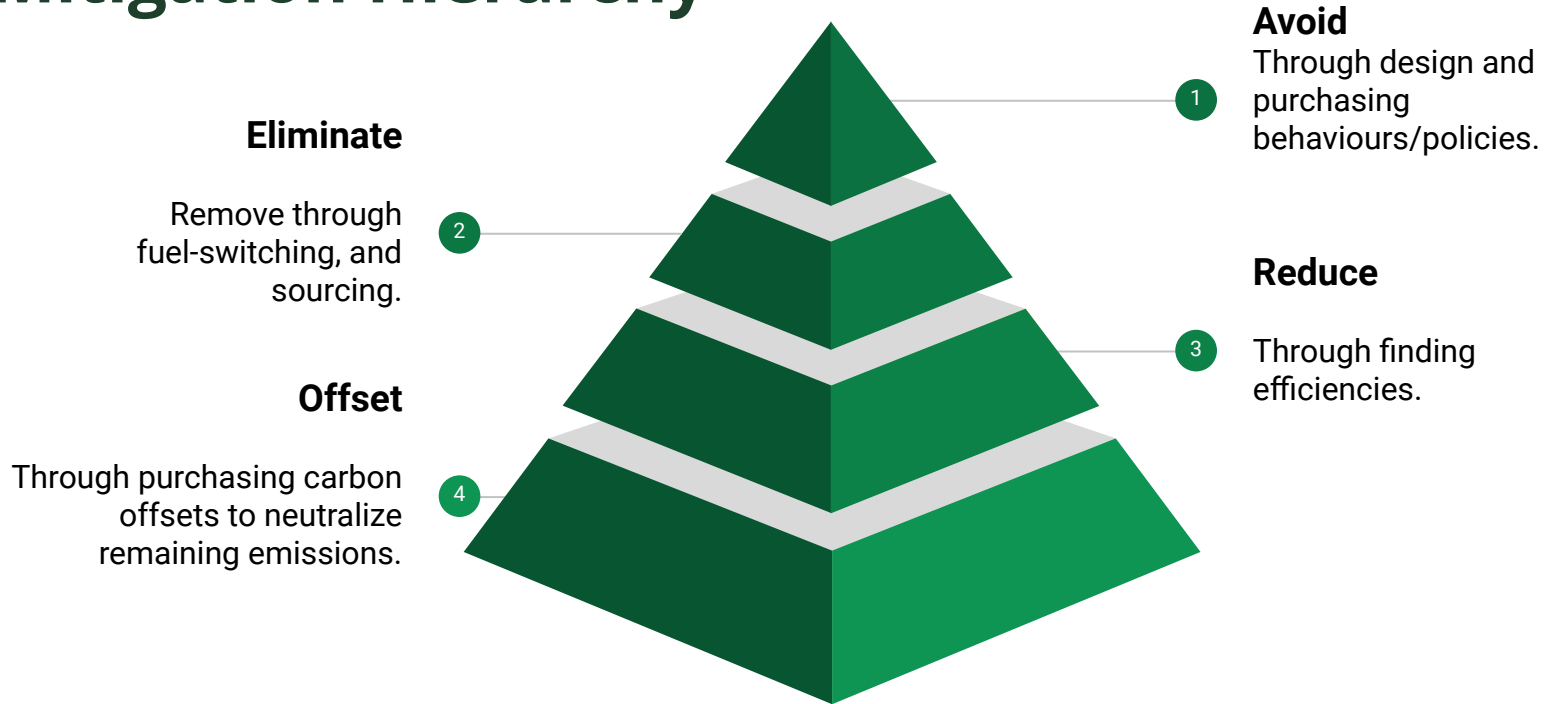

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Carbon Reduction Actions

Office & Building Space (HVAC)

❑ Lower thermostat/temperature when office and building space is vacant.

❑ Control office environment with an energy management system.

❑ Use a third party to examine all energy systems, building management controls and heat recovery, and make recommendations for renovations.

❑ Install occupancy sensors in washrooms to control exhaust fans.

❑ Share fuel and electricity data with employees to educate them on energy use and encourage conservation.

❑ Turn off any equipment at night and at times of low occupancy.

Fleet Vehicles and Heavy Equipment

❑ Replace fleet vehicles with hybrid equivalents or smaller, more fuel efficient models (if possible).

❑ Enforce an anti-idling policy in and around the facility.

❑ Develop an environmental policy for equipment procurement and ensure vehicle purchases meet environmental criteria.

❑ Conduct regular vehicle maintenance and ensure tires are properly inflated.

Carbon Reduction Actions

Lighting and Electricity Consumption

- ❑ Install occupancy sensors in restrooms and common areas.
- ❑ Use a third party to examine lighting systems and make recommendations.
- ❑ Request that all employees, suppliers, and contractors turn off lights prior to exiting the facility.
- ❑ Strategically place stickers on light switches reminding staff to turn off lights when not needed.
- ❑ Develop a procurement policy that mandates EnergyStar office equipment.
- ❑ Purchase 'Green Power' electricity which uses low-impact renewable sources.

Computers

- ❑ Create a policy to ensure computers and printers are turned off at night.
- ❑ Replace old monitors with LCD monitors.
- ❑ Put a policy in place to ensure that all computer and printing equipment purchases are EnergyStar rated.
- ❑ Install stickers on monitors reminding staff to turn off monitors, computers and powerbars when not in use.
- ❑ Where possible, give preference to laptop computers rather than desktop computers, as laptops typically consume less energy.

Carbon Reduction Actions

Paper Usage

- ❏ Purchase 100% recycled paper.
- ❏ Set printers and computers to default double-sided printing.
- ❏ Use an email signature that reads "Please do not print this email" and append it to email signatures.
- ❏ Look for more opportunities in everyday workload to scan instead of printing or faxing
- ❏ Convert internal documentation such as financial statements to Adobe .pdf format instead of printing.
- ❏ Ensure all public documents are available online and in Adobe .pdf format.

Recycling & Waste

- ❏ Expand existing recycling program to include more items that typically end up in landfills.
- ❏ Compost all organic waste.
- ❏ Avoid use of disposable utensils and dishes in favour of reusable items.
- ❏ Provide mugs to employees to limit use of cardboard coffee cups.
- ❏ Reduce wastebasket size and increase the number of recycling bins to encourage more recycling

Carbon Reduction Actions

Business Travel

❑   Consider implementing a program to allow employees to share taxis.

❑   Encourage mass transit such as bus or train over personal vehicle usage.

❑   Encourage employees to request hybrid rental cars where possible.

❑   Permit only critical, unavoidable air travel.

❑   Purchase carbon offsets for all air travel.

❑   Combine trips that require air travel.

❑   Increase the usage of video conferencing as an alternative to air travel.

Staff Commuting

❑   Offer staff incentives to purchase transit passes, such as discounted pricing, and payroll deductions

❑   Investigate building/expanding bike lockers and showers for employees.

❑   Promote biking to work.

❑   Post rideshare notices on employee bulletin boards to facilitate car pooling.

❑   Allocate a number of parking stalls exclusively for car pooling or hybrid vehicles.

Carbon Reduction Actions

Couriers

❑   Avoid couriers by scanning and emailing documents rather than sending hard copies.

❑   Use green couriers where possible.

Suppliers and Contractors

❑   Develop environmental provisions in supplier contracts.

❑   Use local suppliers to reduce the environmental impact of supplies.

❑   Encourage suppliers and contractors to eliminate all non-reusable containers brought onsite.

General

❑   Create an environmental committee to generate more ideas regarding energy reduction strategies.

Carbon Offsets & Carbon Neutrality 101

Carbon Offsets: Credits for GHG reductions made through a project that can be purchased by another company to compensate for their emissions that could not be reduced by other means.

Carbon Neutral: 100% of the reporting company's calculated footprint is offset through the purchase of verified offsets.

Best Practices for Carbon Offsetting:
- Reduce first, then offset what can't be avoided - consider investing in reductions vs offsets
- Purchase carbon offsets that actually draw carbon out of the atmosphere, i.e. Gold Standard tree planting projects or other sequestration initiatives
- To become certified, most providers will require **ALL** relevant Scope 3 emissions to be calculated, and exceptions explained

Canadian Carbon Offset Providers

- **Ostrom Climate** (carbon offsets) - https://ostromclimate.com/
- Less Emissions (carbon offsets) - https://www.less.ca/
- Bullfrog Power (RECs) - https://bullfrogpower.com/

Next Steps

- Reach out to Kavan and TOTA team to get your EcoBase account set up
- Measure your 2021 and/or 2022 carbon footprint
- GreenStep has an affordable "Supported DIY" service that provides one-on-one guidance to help you get started in your first year, providing templates and support so that you can continue measuring on your own in future years

Changing the world,
one business at a time.

Contact Information:

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