

Sustainable Industry The Carbon Footprint Assessment

@ TRI-TEX Co Inc.



Global Warming danger

Over the past few years, climate change issues have moved from the academic arena to front page headlines in mainstream newspapers worldwide. Promoted by weather events such as the European heat wave in 2003, Hurricane Katrina in the United States in 2005 and melting icebergs, climate change has itself moved up from public debates to the political agenda.

According to leading scientists, the planet is in its danger zone with CO2 concentrations higher than 350 ppm. The red line for danger has already been passed, as the atmospheric concentration of CO2 measured 390 ppm in 2009, with an annual increase over 2 ppm.



Simplified cause-effect chain

from ghg emissions to climate change



CARBON FOOTPRINT GLOBAL WARMING IMPACT: CO2 EQ.

The carbon footprint is a measure of the exclusive global amount of carbon dioxide (CO_2 in Kg or tonnes) and other greenhouse gases emitted by a human activity or accumulated over the full life cycle of a product or service.





CARBON MITIGATION

CHEMICALS COMPANY CASE



October 2010



Life Cycle Analysis Selection



CARBON FOOTPRINT DIRECT AND INDIRECT GHG EMISSIONS



Tritex Co buildings 690 & 1001, Blvd Industriel, Saint Eustache, Quebec, Canada



A chemical product or company can be investigated over its complete life span, from the extraction of raw material and manufacturing to the use of the end-product by consumers and endof-life processes.

The impact analysis limited to emissions that have an effect on climate change with focus on scope 1&2 and scope 3 optional in reference to GHG Kyoto protocol.



WHICH GHGs ARE REPORTED?

There are 6 greenhouse gases internationally recognized by the Kyoto Protocol



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Carbon Footprint: Scope range

- In our assessment scope - Out of our assessment scope

Carbon Footprint

Scope 1: Direct Emissions Scope 2: Indirect Emissions (Purchased energy)

Scope 3: Other Indirect Emissions

- Combustion Sources
- Site owned vehicles
- On site electrical generation
- CFC and HFC losses
- from refrigeration equipment
- Sulfur hexafluoride
- losses from electrical equipment

- Electricity
- steam
- high temperature
 - hot water

- Transportation of purchased
- material or goods
- Employee business travel
- Employee commuting impacts
- Outsourced work
- Emissions from finished products
- Transportation of waste
- Vegetation & Trees



OBJECTIVE & METHOD: CARBON FOOTPRINT

Project Objectives and scope

- Cradle to-gate boundaries of Tritex Co on Saint-Eustache sites, Quebec, Canada (1001 and 690 buildings) to calculating its carbon footprint by an international consultant expert Rexizon CE.
- The carbon footprint assessment includes GHG Kyoto Protocol scope 1 and 2 and partial scope 3 including : .Employee business travel .Employee commuting impacts .Transportation of waste



- The year end base line is fixed on 30 September 2010 with tracing back years 2009 and 2008 used as average references for reduction assessment.
- For project methodology standard references as ISO 14040 & 14064 series and PAS 2050:2008 guidelines have been followed with the illustrated
- stepwise approach using pertinent and latest emissions factors.

CARBON FOOTPRINT ASSESSMENT: RESULTS :TRI-TEX CO INC.

Carbon Footpri							
End year 30.09.2010		Year 2008	Year 2009	Year 2010			
					Assessment	Reduction %	
Absolute footprin	t tCO2e	2,808.40	3,816.20	2,787.20	PASS	15.9%	
Relative benchma	rk tCO2e /	Tonne 0.269	0.36	0.196	PASS	37.6%	
Turnover benchm	ark tCO2e /	\$mn 63.972	99.135	66.992	PASS	17.9%	
Indirect Emissions 6%	E	Direct Emissions 94%		Business travel Imported power Fugitive emissions Owned transport			
			Statio	nary sources	8	36%	
Fig 1: Emissions type 2010			Fi	Fig 2: Emissions origin 2010			

CARBON FOOTPRINT ASSESSMENT: RESULTS :TRI-TEX CO INC.

Carbon Footprint Ass						
End year 30.09.2010		Year 2008	Year 2009	Year 2010		
					Assessment	Reduction %
Relative benchmark	tCO2e / Tonne	0.269	0.36	0.196	PASS	37.6%





BLUE CARBON LABEL CERTIFICATION

Black label: <10% CO2 e Reduction Red label: >10% CO2 e Reduction Green label: 20%- 40% CO2 e Reduction

Blue label: more than 40% CO2 e. Reduction







To achieve the Blue Carbon Mitigation certification and label for one year need to meet three criteria:

1. Provide an accurate footprint measurement including all required emission sources: PASS

2. Demonstrate an absolute reduction of your footprint or equivalent relative efficiency improvement: PASS for GREEN LABEL

3. Demonstrate good carbon management to our standard including carbon governance, accounting, reduction methods and targets:

In the carbon management section an overall score of at least 60% will be required: Over all score = 24%:FAIL





KNOW YOUR EMISSIONS



Rexizon Consulting Expertise in Sustainability Development

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Vision on Horizon