


Transportation Investment Corporation

2011 Carbon Neutral Action Report



Port Mann / Highway 1
Improvement Project

www.pmh1project.com



Executive Summary	2
Overview	2
2011 Greenhouse Gas Emissions	3
Offsets Applied to Become Carbon Neutral in 2011	3
Changes to Greenhouse Gas Emissions and Offsets	3
Emissions Reduction Activities	3

EXECUTIVE SUMMARY

Transportation Investment Corporation (TI Corp) manages construction along the 37 kilometres of the Port Mann/Highway 1 Improvement Project corridor, implements and operates its tolling systems, and ensures the delivery of travel time and fuel savings for the travelling public and the movement of goods and services. The Port Mann/Highway 1 Improvement Project will reduce greenhouse gases associated with congestion-induced idling and traffic delays, as well as make public transit across the Port Mann Bridge possible for the first time in more than 20 years.

The construction of convenient Park & Ride areas at 202 Street in Langley and 160 Street in Surrey will give commuters more opportunities to take advantage of HOV lanes, their associated toll discounts and greenhouse gas reductions.

Cycling and pedestrian measures will be incorporated into all new interchange and overpass structures where they connect to existing or planned infrastructure. Once complete, the Port Mann Bridge will include a pedestrian and cyclist pathway.

TI Corp's vision is to implement self-sustaining infrastructure projects for the benefit of British Columbians, which includes strict compliance with the province's Climate Action targets to continually reduce its carbon footprint and ultimately, its environmental impact. Since its inception, TI Corp has been fully committed to climate change activity, at an operational level and at a broader project and community level.

OVERVIEW

A. Project-wide

TI Corp project and corporate offices continue to promote awareness of climate change activities and eco-centered actions taking place across the project. For example, the PMH1 Project includes an environmental team dedicated to ensuring important environmental and habitat work, on- and off-corridor, is delivered to the highest environment standards. This work has four main components: enhancement, compensation, construction timing, and protection/restoration. All work is done in accordance with environmental requirements, including measures to protect fish, wildlife, and their habitat. Fish and wildlife habitat work for the PMH1 Project is being carried out on a larger scale than any previous environmental projects undertaken by the Ministry of Transportation and Infrastructure in British Columbia.

B. Operational

For the period 2010/11, TI Corp introduced the following measures within the project and corporate teams to reduce carbon emissions on an operational level. These small but significant behavioral changes are encouraged whenever possible:

2011 GREENHOUSE GAS EMISSIONS

For 2011, TI Corp's total greenhouse gas emissions were 67 tonnes (CO₂e), consisting of 62.4 direct and indirect emissions (buildings) and 4.38 (office paper) emissions.

OFFSETS APPLIED TO BECOME CARBON NEUTRAL IN 2011

TI Corp purchased 67 tonnes (CO₂e) of carbon offsets to become carbon neutral in 2011 at a cost of \$1,876.

CHANGES TO GREENHOUSE GAS EMISSIONS AND OFFSETS

2011 is TI Corp's first year reporting its greenhouse gas emissions and offsets. As such, there are no changes to report from previous years.

EMISSIONS REDUCTION ACTIVITIES

In 2010 TI Corp created its Climate Action Team to oversee the reduction of carbon emissions at an operational level. The following is an overview of the reduction measures implemented:

1) *Electronic Records Management Systems*

Centralized Records Information Management (RIM) systems for collaboration and storage of documents significantly reduce the amount of documents printed.

2) *Reduced Electricity Usage*

Reductions in electricity usage were achieved by reminding employees to turn off lights and computer monitors when not in use, powering off computers at end of day, default print settings to two-sided, using a coffee press instead of using electronic coffee maker and paper filters, and encouraging paperless meetings whenever possible.



3) Recycling

Recycling bins for (non-confidential) paper under each employee's desk, scrap books made up of "damaged" paper from the copier, recycling bins for cardboard and plastics, and containers for recycling batteries and light bulbs help reduce and reuse paper products.

4) Promoting Green Transportation to the Team

Promoting participation in bike-to-work week, taking transit and carpooling helps reduce GHG emissions.

5) Green Products

Using eco-friendly cleaning products and 100% post-consumer recycled paper reduces reliance on chemicals and encourages use of recycled products.

6) Composting

Putting composting buckets in all kitchens for discarded raw fruit and vegetable pieces, used tea bags and coffee grinds reduces waste.

Transportation Investment Corporation - 2011 Carbon Neutral Action Report

Actions Towards Carbon Neutrality

The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act*.

Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Mobile Fuel Combustion (Fleet and other mobile equipment)							
This section is either not applicable, not yet evaluated, or was completed before 2011							
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Owned buildings							
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress			New office space still in the construction phase and being built according to LEED Gold	In construction	2011	2012
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	80	% of computers shut down automatically outside of regular business hours	Enforced shut down of PC's, corporate and project wide, between Monday - Thursday. IT has advised that for updating purposes the machines must be kept on over the weekend	Monitoring on an ongoing basis. Campaign to be implemented.	2011	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	95	% of servers have been virtualized since start year indicated	Working to achieve 100% server virtualization implementation	Monitoring on an ongoing basis.	2011	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	100	% of computers have auto-sleep settings applied	Achieved 100% auto-sleep settings	Monitoring on an ongoing basis.	2011	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	75	% reduction in printers, copiers, and/or fax machines since start year indicated	25% in use are kept as back-up machines	Monitoring on an ongoing basis.	2011	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	100	% of devices have auto-sleep settings applied	Achieved 100% auto-sleep settings on printers, copiers, fax machines etc	Monitoring on an ongoing basis.	2011	No End Date (Continuous)
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	100	% of current staff have completed a workstation tune-up	Recycling bins at each workstation. Reminder sticker on each computer monitor reminding to shutdown Monday - Thursday.	Monitoring on an ongoing basis. Campaign to be implemented.	2011	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress	50	% of current staff have closed blinds during or at end of work day to reduce heating/cooling demands	1 of 2 offices are currently implementing.	Monitoring on an ongoing basis. Campaign to be implemented. Goal is 100% implementation.	2011	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress	100	% of staff are encouraged to use air sdry settings on dishwashers.	Those staff in charge of kitchen duties must use air dry settings and encourage others to do the same.	Monitoring on an ongoing basis.	2011	No End Date (Continuous)

Transportation Investment Corporation - 2011 Carbon Neutral Action Report

Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress	100	encouraging all staff via email to be concious of other means of transportation.	Encouraging bike to work, carpooling and transit.	Conducting a carpooling survey and from the results we are going to build a carpool network. In addition, encouraging employees to participate in "bike to work week" and aim to surpass last year's KMs.	2011	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress	50	encouraging all staff at the Project Office to use stairs	Reminder placed in Project office elevator encouraging people to use stairs for health and reduction in energy.	Use of stairs in Corporate building not a practical option given it's on the 14th floor.	2011	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	100	encouraging all staff to be concious of energy savings	Lights automatically shutoff in Corporate Office, cleaning staff turn off lights in Project Office	Awareness campaign through stickers.	2011	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	100	% of total paper purchased contains 100% recycled content	All our paper purchases are 100% post-consumer recycled.	Continue purchasing 100% post-consume recycled paper.	2009	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	In Development	75	% of network printers or photocopiers are set to automatic double-sided	Settings adjusted to default to double-side printing for most documents. One quarter of our documents must be single sided (legal documenst, drawings and maps).	Ongoing	2011	No End Date (Continuous)
Electronic media in place of paper							
Use electronic document library for filing common documents	Ongoing/In Progress	80	% of our filing is electronic	Shared secured drives, collaborative portal, and electronic archive.	Ongoing	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress	70	% of our materials are not posted online	Emailing meeting minutes and agendas with the understanding that these should not be printed.	Sharing one printed item during a meeting.	2011	No End Date (Continuous)
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	90	% of staff currently have received collaborative software training	Designing portal (SharePoint) for collaborative communication instead of using shared drives.	Rollout of portal.	2011	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	50	% of meetings are paperless	Emailing meeting minutes and agendas with the understanding that these should not be printed.	Ongoing	2011	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress	70	% of scrap paper is being used	Printer paper wasted is turned into scrapbooks for employees to take.	Ongoing	2011	No End Date (Continuous)

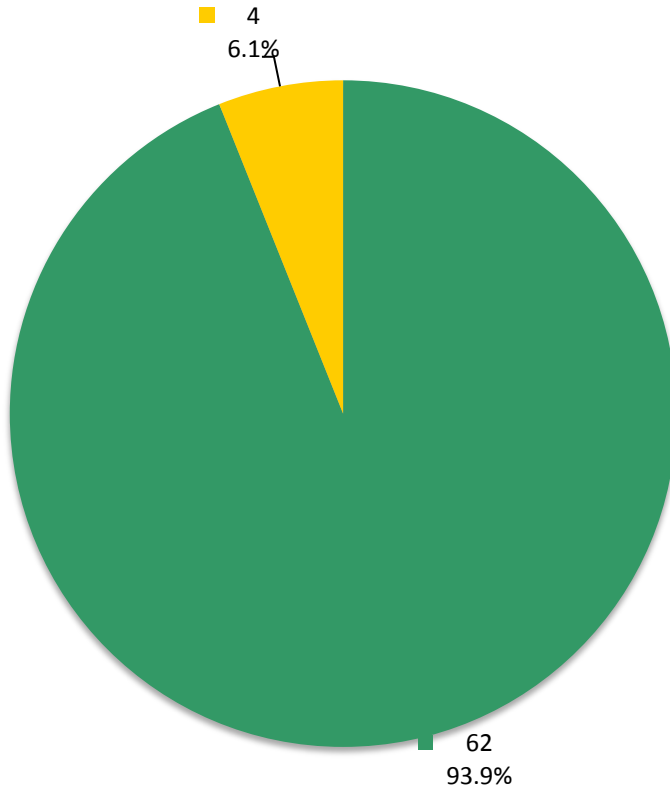
Transportation Investment Corporation - 2011 Carbon Neutral Action Report

Actions to Reduce Provincial Emissions and Improve Sustainability

The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act*. Public sector organizations can optionally use this section to report on actions that will help British Columbia meet its provincial greenhouse gas reduction targets, engage the public, and improve environmental sustainability across all aspects of their organization.

Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Education, Awareness, and Engagement						
Awards/Recognition						
Establish a sustainability/green awards or recognition program	Completed in 2011		We recognized sustainable behaviour amongst the employees through a monthly recognition newsletter.		2011	2011
Staff awareness/education						
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		Turning lights off, composting, greenie of the month campaign, VACC	Continue	2011	No End Date (Continuous)
Other Sustainability Actions						
Procurement (non-paper supplies)						
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Ongoing/In Progress		Wax based toners for our three largest printers	Continue	2011	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		Environmentally friendly cleaning products	Continue	2011	No End Date (Continuous)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	In Development		Scent-free policy work in progress	Implement	2011	2012
Commuting to and from home						
Encourage commuting by foot, bicycle, carpool or public transit	In Development		Campaign in progress	Implement	2012	No End Date (Continuous)

**Transportation Investment Corporation
Greenhouse Gas Emissions by Source
for the 2011 Calendar Year (tCO₂e*)**



Total Emissions: 67

■ Stationary Fuel Combustion (Building Heating and Generators) and Electricity

■ Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2011 (Generated May 18, 2012 10:17 AM)

Total offsets required: **67**. Total offset investment: **\$1,675**. Emissions which do not require offsets: **0** **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.