

Carbon Neutral Action Report Ministry of Environment (MoE) and Environmental Assessment Office (EAO)

Executive Summary

The Ministry of Environment (MoE) is targeting a reduction in its operational greenhouse gas emissions (GHGs) by 6% by 2012 and 33% by 2020. MoE is also targeting a 33% improvement in the efficiency of its water use by 2020. These are part of the key objective behind MoE's Carbon Neutral Action Plan (CNAP), which is to meet or exceed all environmental performance measures required of the province.

The vision of our plan is for MoE operations to become ecologically restorative. This vision will encourage the Ministry to be ambitious in its actions and will ensure that GHG reductions are targeted along side other environmental improvements.

Some key completed actions in 2008 include:

- Purchasing of work bikes for MoE headquarters
- Implementation of zero-waste program at MoE headquarters
- Installation of low flush toilets at MoE headquarters
- Implementation of sustainable purchasing pilot for office chairs (Cradle-to Cradle certified)
- Automatic double-sided printing for printers
- 100% recycled paper purchasing
- Energy audit conducted at MoE headquarters

Some key planned action items for 2009 and onwards include:

- Increased energy efficiencies of IT equipment, appliances, lighting and heating/ventilation systems
- Increased composting and recycling in MoE offices and facilities
- Green building certification for selected buildings
- Green fleet standard requiring hybrid vehicles for all new leases
- Increased access to and training for videoconferencing and other telecommunication services
- Ministry-wide Sustainable Procurement Policy
- Information sessions, advertising and newsletters promoting energy reductions in the office
- Inclusion of a Green Goal in every employee's EPDP

The CNAP was written by MoE's Carbon Neutral Action Team, which is led by the Climate Change Branch in the Environmental Protection Division, and is comprised of divisional representatives. Successful implementation of the plan will be achieved through the continued and co-ordinated efforts of MoE Green Teams, Corporate Services Division and the Green Procurement Steering Committee

Objectives

1. *Meet and Exceed all Provincial Commitments*
 - 33% more efficient use of water in MoE operations by 2020
 - EnerGuide Rating of 77 in all MoE buildings
2. *Incorporate Life-Cycle Costing into decision-making processes*
3. *Design and implement innovative and creative projects to improve the sustainability of MoE operations*

- 4. Collaborate across other Ministries to the greatest extent possible.
- 5. Engage Green Teams to the greatest extent possible.

Part 1: Actions Taken to Reduce Greenhouse Gas Emissions in 2008

Overview

- Two work bikes were purchased for MoE headquarters, and have reduced taxi travel for in-town business-related travel.
- Implementation of Zero-Waste program for Moe headquarters featuring organic composting and enhanced recycling capability (i.e. soft plastics, styrofoam, and batteries, in addition to hard plastics, glass and paper products).
- Most toilets at MoE headquarters were replaced with low-flow units to reduce water consumption
- Implementation of sustainable purchasing pilot for office chairs (Cradle-to Cradle certified). These chairs are made from recycled and reused materials and can be disassemble and reused after their useful lives.
- Automatic double-sided printing for most printers
- 100% recycled paper purchasing
- Energy audit conducted at MoE headquarters

1.1 Mobile Fuel Combustion

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	Complete		1 2003 Jeep liberty replaced with Ford Escape Hybrid
Initiated new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	Complete		Fleet vehicles are scheduled to be serviced every 6 months or 8,000 kms
Established anti-idling behaviour change program (e.g. signs, stickers, messages)	Complete		Initiated by Air Protection Branch, prior to its move to MHLS
Encouraged car pooling in fleet vehicles	Complete		Most of the fleet is pooled except the highly outfitted COS vehicles
Encouraged use of public transit/active transportation	In progress		Work-bikes available at MoE headquarters Initiative underway to make discounted pay-per-use bus passes available across the Victoria public service
Encouraged alternatives to travel in fleet vehicles – bicycles, scooters, electric carts	Complete		Two work-bikes available at MoE headquarters
Adopted a travel policy	Complete		Policy allowing bikes on out-of-town travel

1.2 Stationary fuel combustion and electricity			
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Undertaken workstation tune-ups to help staff understand what they can do to reduce personal energy use	In Progress		Education and awareness of turning off monitors and unplugging equipment communicated through Green Teams
Replaced # computers with EnergyStar models	In Progress		Part of U2 refresh
Asked staff to close blinds daily	Complete		Communicated through Green Team advertisings
Encouraged staff to use stairs	Complete		Communicated through Green Team advertisings
Turned off lights in unused rooms	Complete		Communicated through Green Team and BC Hydro Power Smart advertisements next to light switches
Replaced standard bulbs with CFLs	Complete		Commitment to replace old bulbs with CFLs made in fall 2008 at EAO
Utilized desk-top power management settings on computer	Complete		Optimized by WSI
Unplugged unused equipment	Complete		Communicated through Green Team advertisings
Undertaken building energy audit at LOCATION(s)	Complete		MoE headquarters in Victoria
Lighting Schedule Optimization	Complete		Completed for Victoria and Cranbrook offices

1.3 Supplies			
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Committed to use 100% recycled paper	Complete	Increased % of all paper purchased is 100% recycled	
Initiated automatic double sided printing	Complete		Most printers use double siding now
Committed to hold paperless meetings	Complete		Commitment made in Fall 2008
Developed document library (online and one printed copy) for large documents	Complete		Part of Corporate Memory Project
Used collaborative software to edit on-line	Complete		Ongoing use of SharePoint
Actions on non-paper related supplies:			
Purchased cradle to cradle goods	Complete		Option for all new office chairs to be Cradle-to-Cradle certified
Chose "Green" items from Distribution Centre	Complete		About 20% of purchases were environmentally preferable

1.4 Travel			
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Trained staff in the use of Live Meeting (or other desktop collaborative software)	In Progress		Planning of information and demonstration sessions began in 2008
Initiated Travel Policy	Complete		Ability to bring bikes for out-of-town travel
Supported alternative travel (bike/skateboard/walk/transit) for meetings	In Progress		Work-bikes available at MoE headquarters Initiative underway to make discounted pay-per-use bus passes available across the Victoria public service

1.5 Employee Engagement			
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Provided climate change education	Complete		Series of lunch and learn information and video sessions and advertisings put on by Green Teams
Provided conservation education	Complete		Series of lunch and learn information and video sessions and advertisings put on by Green Teams
Held contests to change behaviour/make pledges	Complete		Coffee-cup c challenge put on by Green Teams
Held contests/support to generate ideas	Complete		MoE Climate Action Site created where employees submitted ideas for improving sustainability at MoE
Developed Green Teams	Complete		10 regional Green Teams created
Supported Green Teams (resources)	Complete		Green Team Steering Committee created, funding for projects provided by Climate Change Branch, MoE ADM as Green Team Champion
Provided green tips	Complete		Email and poster advertisings put on by Green Teams
1.6 Sustainability Actions (others)			
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Took water conservation measures – low flow showers or toilets, fix leaks	Complete		Low-flow toilets installed in most MoE headquarters bathrooms
Ran dishwasher only when full	Complete		At EAO, advertised through Green Team
Improved recycling measures	Complete		Zero-Waste program implemented at MoE Headquarters; Enhanced recycling implemented at EAO
Supported composting	Complete		Zero-Waste program implemented at MoE Headquarters; Enhanced recycling implemented at EAO
Purchased green cleaning products	Complete		At EAO commitment was made in September 2008 to use green cleaning products for the kitchens
Supported sustainable procurement practices	Complete		Cradle-to-Cradle office chair purchasing pilot
Pocket Market	Complete		Local, organic produce available for purchase once a week at MoE headquarters, discontinued due to lack of interest

Part 2: Plans to Continue Reducing Greenhouse Gas Emissions 2009 -- 2011

Overview

Key planned action items for 2009 and onwards include:

- Increased energy efficiencies of IT equipment, appliances, lighting and heating/ventilation systems
- Increased composting and recycling in MoE offices and facilities
- Green building certification for selected buildings
- Green fleet standard requiring hybrid vehicles for all new leases
- Increased access to and training for videoconferencing and other telecommunication services
- Ministry-wide Sustainable Procurement Policy
- Information sessions, advertising and newsletters promoting energy reductions in the office
- Inclusion of a Green Goal in every employee's EPDP

2.1 Mobile Fuel Combustion

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Replace # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	In Progress	# of vehicles replaced	2 Prius converted to plug-in	2009/10: Replace
Provide driver training to reduce fuel use	In Progress	# of staff trained	Early planning stages, likely to align with LCS cross-government initiative	Unclear, currently in early planning stages
Establish anti-idling behaviour change program (e.g. signs, stickers, messages)	In Progress		Continuing from 2008 efforts to promote anti-idling	Ongoing
Encourage car pooling in fleet vehicles	Planned	Percentage of MoE employees using RideShare service in 2009/10	Jack Bell RideShare Service promotion through work done by Green Team Transportation Working Group	<ul style="list-style-type: none"> • Summer 2009: Conduct survey • Fall 2009: Identify barriers • 2009/10: Make recommendations
Encourage use of public transit/active transportation	In Progress	<p>Increased use of work-bikes, measurable through sign-out history</p> <p>Decreased use of taxis, measurable through accounting records</p> <p>Number of discount bus tickets used</p>	<p>Bike-to meeting reward program</p> <p>Initiative underway to make discounted pay-per-use bus passes available across the Victoria public service</p>	<p>2008/09: Design and implement</p> <p>2009/10: Review</p>
Encourage alternatives to travel in fleet vehicles – bicycles, scooters, electric carts	In Progress	<p>Increased use of work-bikes, measurable through sign-out history</p> <p>Decreased use of taxis, measurable through accounting records</p>	Bike-to meeting reward program	<p>2008/09: Design and implement</p> <p>2009/10: Review</p>

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Electric bike pilot purchase	Planned	Number of electric bikes purchased Number of employees using electric bikes Decreased use of taxis, measurable through accounting records	Pilot purchase for electric bike at MoE headquarters	Spring 2009: Conduct needs assessment and draft proposal 2009/10: Consult Spring 2010: Purchase
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2.2 Stationary Fuel Combustion (including electricity)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Undertake workstation tune-ups to help staff understand what they can do to reduce personal energy use	In Progress	Reduction in electricity consumption	BC Hydro Workstation Tune up tool released through Green Team Energy Conservation Working Group, advertised by MoE Green Team	Spring 2009: Distribute tool
Replace # computers with EnergyStar models	In Progress	Number of computers replaced	Part of ongoing U2 refresh	Fall 2009: All computers replaced across MoE
Ask staff to close blinds daily	In Progress	Reduction in electricity consumption	Continued advertising of BC Hydro Workstation Tune Up Tool and Green Guides produced by Green Team Energy Conservation Working Group	Ongoing advertising Spring 2009: Green Guides released
Encourage staff to use stairs	In Progress	Reduction in electricity consumption	Continued advertising of BC Workstation Assessment Tool and Green Guides produced by Green Team Energy Conservation Working Group	Ongoing advertising Spring 2009: Green Guides released
Turn off lights in unused rooms	In Progress	Reduction in electricity consumption	Continued BC Hydro PowerSmart advertising and circulation of Green Guides produced by Green Team Energy Conservation Working Group	Ongoing advertising Spring 2009: Green Guides released
Replace Refrigerators (EnergyStar rated appliance)	Planned	Reduction in electricity consumption		2008/09: Document appliances 2009/10: Replace 2010/11: Purchase only Energy-Star here onwards
Replace other appliances (with EnergyStar rated appliance)	Planned	Reduction in electricity consumption Number of inefficient appliances replaced		2008/09: Document appliances 2009/10: Replace 2010/11: Purchase only Energy-Star here onwards

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Install multi-function devices (and remove stand-alone printers/faxes)	Planned	Reduction in electricity consumption Number of inefficient equipment replaced		2008/09: Document equipment 2009/10: Replace
Replace standard bulbs with CFLs	Planned	Reduction in electricity consumption	Replacement cost under the umbrella of mandatory operational maintenance; At EAO, ongoing commitment since Fall 2008 to replace expired standard bulbs with CFLs	2008/09: Review and document. 2009/10: Get executive approval to replace 2010/11: Implement
Install motion activated lights	Planned	Reduction in electricity consumption Number of lights replaced	For bathrooms and meeting rooms only	2008/09: Review and document. 2009/10: Get executive approval to replace 2010/11: Implement
Undertake lighting retrofit	Planned	Reduction in electricity consumption Number of lights replaced		2008/09: Review and document. 2009/10: Get executive approval to replace 2010/11: Implement
Utilize desk-top power management settings on computer	Planned	Reduction in electricity consumption	Part of U2 refresh optimization, optimal power management settings to be advertised by Green Teams	2009/10: Draft and distribute ads
Unplug unused equipment	In Progress	Reduction in electricity consumption		Ongoing advertising and promotion
Apply for LEED existing building rating	Planned	# of buildings in certification process	Pilot projects may include Victoria and Kamloops offices	2008/09: Engage ARES and WSI 2009/10: Develop project plan 2010/11: Implement

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Undertake building energy audit at LOCATION(s)	Planned	# of buildings audited	To be conducted in participation with ARES	2008/09: Engage ARES, identify buildings 2009/10: Support ARES in their audits 2010/11: Audit additional buildings not done by ARES
2.3 Supplies				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Commit to use 100% recycled paper	In Progress	Percentage of 100% recycled paper purchased	Continued commitment since Fall 2008	2008/09: Recycled copy paper only 2010/11: All paper products (e.g. envelopes, business cards, etc.)
Initiate automatic double sided printing	In Progress	# of printers using double sided technology	Continuation of 2008 initiative	2009/10: All printers are double sided
Change document template margins	Planned		Messaging to staff through Green Teams	2009/10: Messaging
Commit to hold paperless meetings	Planned	Amount of paper purchased	Introduce PC Tablets for use in meetings; Paperless meetings piloted at EAO in 2008 and continue	2011/12 All meetings are paperless
Develop document library (online and one printed copy) for large documents	In Progress		Corporate Memory Project	Ongoing
Use collaborative software to edit on-line	In Progress		Continued use of SharePoint	Ongoing
Use laptops/tablets	Planned	Number of units purchased		2011/12 All meetings are paperless
Restructure a process to use less paper	Planned	Amount of paper purchased	Reduced paper pay stubs and faxes	2010/11 Reduced printing Paperless approvals, stubs,
Actions on non-paper related supplies:				
Purchase cradle to cradle goods	In Progress	# of chairs purchased	Ongoing from 2008 initiative	Ongoing
Choose "Green" items from Distribution Centre	In Progress	Percentage of sustainable products purchased	Part of Sustainable Procurement Policy and MoE Sustainable Business Practices Guide Sustainable procurement training for staff with purchasing power	2009/10: 25% increase from 2008/09 2010/11: 50% increase from 2008/09
Encourage re-use of furniture and equipment	In Progress		Encouraging the purchasing of used furniture through Asset Investment Recovery	Ongoing

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Encourage sustainable cleaning products for staff personal use	In Progress		Fact sheets and group purchasing (co-op) to be established; Commitment made in fall 2008 at EAO and promoted through Green Team	March 2009: Communication 2009/10: Fact sheet and group purchasing planned
Sustainable Procurement Policy	In Progress	See Sustainable Business Practices document for list of measures	Policy is in consultation stage with executive, pending approval	June 2009: Anticipated executive approval

2.4 Travel

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Train staff in the use of Live Meeting (or other desktop collaborative software)	In Progress	Decrease in travel dollars spent	Participation in cross-gov't Green Team pilot project - 'Travel Champions' Demonstration, information, and training sessions for Live meeting planned throughout 2009	2009/10: Implement 2010/11: Review
Install Video Conferencing facilities	In Progress	Decrease in travel dollars spent	Site assessment for MoE headquarters underway Looking at Microsoft Roundtable as inexpensive alternative to existing videoconferencing plan	2009/10: Implement 2010/11: Review
Support alternative travel (bike/skateboard/walk/transit) for meetings	In Progress		Bike-Use Reward Program initiated in 2009 Continued promotion of Jack Bell ride share Initiative underway to make discounted pay-per-use bus passes available across the Victoria public service	2009/10: Implement 2010/11: Review
Support Lowest Carbon Option for out-of town travel	In Progress	Reduction in SmartTec emissions per employee	Includes promotion of bus/ferry vs. float plane to Vancouver, bringing bike out-of-town, etc.	Ongoing
Electric Bike Purchase	Planned	Reduction in taxi fares	Purchase electric bike for MoE headquarters	2009/10: Planning and consultation 2010/11: Purchase

2.5 Employee Engagement

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide climate change education	In Progress		Monthly Green Team newsletters, series of lunch and learn information and video sessions and advertisings put on by Green Teams	Ongoing
Provide conservation education	In Progress		Monthly Green Team newsletters, series of lunch and learn information and video sessions and advertisings put on by Green Teams	Ongoing

Government of British Columbia

Hold contests to change behaviour/make pledge	In Progress	Reduction in taxi fares	Bike-Use Reward Program, rewarding employees who bike the most km per month; At EAO annual paper cup challenge, and Earth Week contests	2009/10: Continue Program 2010/11: Review
Support Green Teams (resources)	in Progress		Climate Change Branch financial support of regional Green Team projects Increased communication and collaboration between regional Green Teams	Ongoing
Provide green tips	In Progress		Monthly Green Team newsletters, series of lunch and learn information and video sessions and advertisings put on by Green Teams	Ongoing
Add a green work goal to performance management	Planned		Green goal in every MoE employee EPDP	2009/10: Propose 2010/11: Implement
2.6 Sustainability Actions (others)				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Take water conservation measures – low flow showers or toilets, fix leaks	in Progress	Reduction in water use	Replacing shower heads and MoE headquarters with low-flow models	2009/10: Implement
Run dishwasher only when full	in Progress		At EAO, promoted through Green Teams	Ongoing
Improve recycling measures	Planned		Expansion of zero-waste program to regional MoE offices	2009/10: Assess 2010/11: Implement
Support composting	in Progress	Number of offices with enhanced composting	Expansion of zero-waste program to regional MoE offices Recent worm composting system installed in Skeena	2009/10: Assess 2010/11: Implement
Use re-usable dishes	in Progress		Most MoE offices and EAO, supported by Green Teams	Ongoing
Purchase green cleaning products	in Progress		Staff encouraged to purchase green cleaning products; Commitment made in fall 2008 at EAO and supported by Green Team	Ongoing communication
Support sustainable procurement practices	in Progress	See Sustainable Business Practices document for list of measures	Sustainable Procurement Policy is in consultation stage with executive, pending approval	June 2009: Anticipated executive approval
Adopt low-carbon contracting practices	in Progress	Value of low-carbon products purchased	Notice to vendors regarding GHG commitments for government planned for Spring 2009 as part of the Procurement Policy Climate Change Working Group (reporting to CAS and Procurement Council)	Spring 2009: Notice to vendors
ADDITIONAL ACTIONS TAKEN OR PLANNED				
Strive to Stay in Green-Key hotels	in Progress		Promote the use of Green-Key rated hotels for employees on business travel	Ongoing