



## EcoDriver: A Landmark Case Example of CBSM

Presented by Beth Jones, M.A., February 15, 2012



Natural Resources  
Canada

Ressources naturelles  
Canada

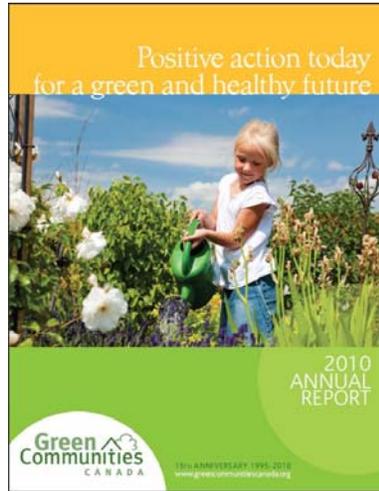


## About Green Communities:



- 30 members
- help people go **green**:
  - Households, businesses, municipalities, local utilities
- are non-profits
- are community-based
- \$24M
- 595 employees
- 2000+ volunteers

## About GCC:



Members enjoy

- information
- inspiration
- capacity building
- joint programs:



National/provincial programs:



[www.greencommunitiescanada.org](http://www.greencommunitiescanada.org)



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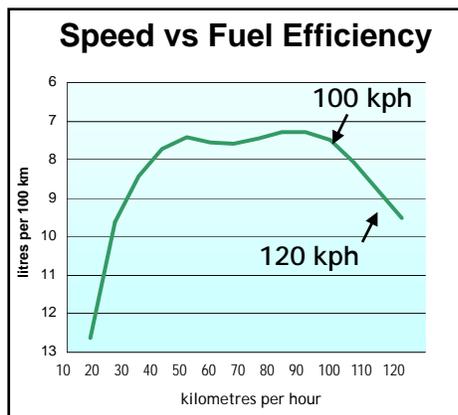
## Promotes:



- 1) Driving Fuel Efficiently  
35% difference between most and least efficient
- 2) Buying Fuel Efficient Vehicles  
most efficient midsize 33% less fuel than median
- 3) Driving Less  
most effective way to reduce emissions



## Slow down and save.



For every 10 kph above 100 fuel efficiency drops 10%

Going 120 is like paying 20% extra at the pump.

## Go Idle Free.

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TEN SECONDS of idling uses more fuel than restarting.

The best way to warm up a car is to DRIVE IT.

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## Other fuel efficiency factors.

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- ✓ tire pressure
  - ✓ combining trips
  - ✓ coasting to stop
  - ✓ tune ups
  - ✗ hard starts & stops
  - ✗ heated seats, ac
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## Timeline

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- 2006: Clean Nova Scotia's DriveWiser
- 2007: MOE proposal, successful \$120K
- 2008-9: Phase 1 Implementation
- 2009-10: Phase 2 MOE + NRCan \$175K
- 2010-11: Phase 3 NRCan \$120K
- 2010-11: Fleet Training OSRA , Calgary



## Program Development

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- 1) Research, Drafting Materials
- 2) Focus Groups:
  - \$1500 budget, tested logo, tagline, draft materials
- 3) Peer Review
- 4) Two-day Training





## Program Elements

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Workshops – 4,987 attendees



Community Events – 26,500 reached



Tire Clinics – 1,260 vehicles



## Program Elements

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Media – 77 media hits, 3.4M impressions



Other activities:

- Billboard (Collingwood)
- EcoDriver Challenge Rally (T-Bay)
- Hybrid Alley (York Region)



## Program Resources

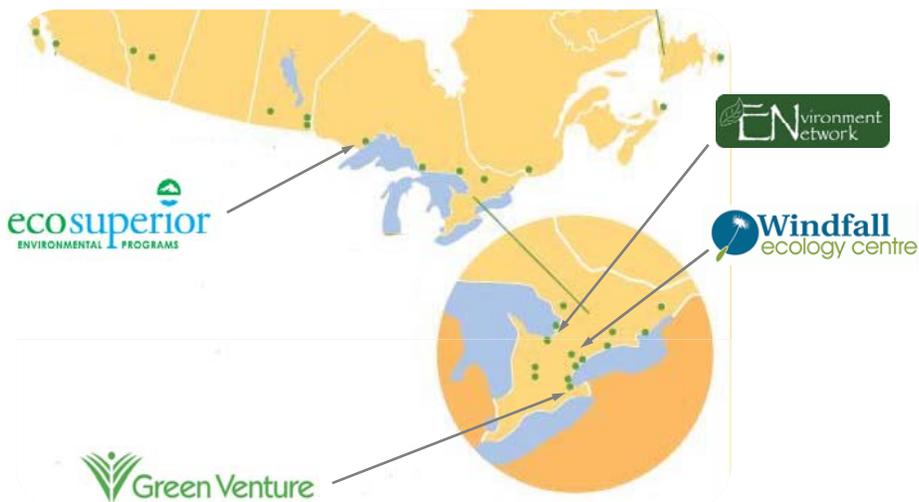
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- Signage
  - Powerpoint Template
  - Backgrounder (60 pages)
  - Exit and Follow up Surveys
  - Reporting Templates
  - Newsletter, list-serve
  - Webinars
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## Phase 1 delivery:

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## Phase 1 “seed” delivery:



## Phase 2-3 delivery:



# Measurable Outcomes

**ecoDriver** Workshop Survey

How would you rate today's workshop?  
 Interesting and Engaging  Excellent  Good  Needs Improvement  
 Well organized  Excellent  Good  Needs Improvement  
 Useful for an daily life  Excellent  Good  Needs Improvement

Will you tell others about things that you learned?  Yes  No  Maybe  
 If yes, how many do you think you might tell? \_\_\_\_\_

Do you know of another group who would appreciate this presentation?  
 If yes, who? \_\_\_\_\_

Are you a driver?  Yes  No Do you own a car?  Yes  No  
 After today's workshop, do you plan to reduce your idling time?  
 Yes  No  Maybe If yes, by how much? \_\_\_\_\_ minutes/day

After today's workshop, do you plan to reduce your speed on the highway?  
 Yes  No  Maybe If yes, by how much? \_\_\_\_\_ km/h

Comments: \_\_\_\_\_

(OVER)

## Exit Surveys

- End of session
- 1836 collected (55%)
- \$25 Draw prize

Subject: EcoDriver follow-up - Answer and Win!

A while ago, you attended an EcoDriver presentation that offered tips on fuel efficient driving. Filling out this four minute feedback survey will help us to improve that program to make it as effective as possible, and will mean you can also enter your name in a draw to win one of six \$75 gift cards for Canada. Thank you so much for your participation. Thank you.

1. Where did you attend your EcoDriver presentation? (Please choose the closest city or region from this list)

- ( ) Hamilton and Halton Region (Grove Vantage)
- ( ) York Region (Woodhill Ecology Centre)
- ( ) Collingwood (Environment Network)

## Follow up Surveys

- 8-12 weeks later
- 277 collected (10%)
- \$75 gift card draw prize



# Fleet training



Ontario Ski Resorts - 2010



City of Calgary - 2011



# Measurable Outcomes



## Car Chip Data

- Calgary only
- 15 of 404 trained drivers
- idling, hard starts, hard stops
- Baseline and post-training



# 2008-2010 Results

**ecoDriver Workshop Survey**

How would you rate today's workshop?

Interesting and Engaging  Excellent  Good  Needs Improvement

Well organized  Excellent  Good  Needs Improvement

Useful for my daily life  Excellent  Good  Needs Improvement

Will you tell others about things that you learned?  Yes  No  Maybe

If yes, how many do you think you might tell? \_\_\_\_\_

Do you know of another group who would appreciate this presentation?

If yes, who? \_\_\_\_\_

Are you a driver?  Yes  No Do you own a car?  Yes  No

After today's workshop, do you plan to reduce your idling time?

Yes  No  Maybe If yes, by how much? \_\_\_\_\_ minutes/day

After today's workshop, do you plan to reduce your speed on the highway?

Yes  No  Maybe If yes, by how much? \_\_\_\_\_ km/h

Comments: \_\_\_\_\_

(OVER)

## Exit and Follow up



## Telling others

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**Exit**  
**Will you tell others?**  
Yes + Maybe: 91%  
**If yes, how many?**  
Average: 5.0

**Follow up**  
**Have you told others?**  
Yes: 90%  
**If yes, how many?**  
Average: 4.7



## Idling

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**Exit**  
**Try to reduce idling?**  
Yes + Maybe 64%  
**If yes, by how much?**  
min/day: 3.65

**Follow up**  
**Idling has gone down**  
86%  
**If yes, by how much?**  
min/day: 4.03



# Speed



## Exit

**Try to reduce speed?**

Yes + Maybe 62%

**If yes, by how much?**

Avg km/hr: 10.85

## Follow up

**Speed reduced?**

Yes 69%

**If yes, by how much?**

Avg km/hr: 10.15



# Other Commitments

Other Commitments	exit	follow-up
Combine Errands	75%	52%
Reduce Jackrabbit	73%	61%
No Start Up Idling	72%	62%
Check Tire Pressure	72%	52%
Regular Tune Ups	71%	17%
Oil Change	70%	32%
Air Filter	68%	20%
Ride or Walk/Short Errands	63%	28%
Telecommute	48%	3%
Drive Thrus	41%	39%
Transit	29.2%	6%
Carpool	28.8%	9%



## Total GHG Saved 2008-2010



- Total survey respondents 277
- Avg CO2 saved annually 178 kg
- Total # of attendees 3571
- Total CO2 saved 635 tonnes\*

\*Phase 1-2. Based only on idling, speed, tire pressure.



## Self reporting bias?



Calgary data suggest ***under reporting***,  
not over reporting:

<b>Follow up surveys:</b>	<b>Car Chip data:</b>
65% reduced idling	75% reduced idling
projected reduction	actual reduction
9 minutes per day	20 minutes/day



## Cost effectiveness?

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IEA: 5% at less than \$1/barrel

Netherlands: 0.9Mt at €4.5- €7/tonne

EcoDriver Phases 1-3 \$464  
(per calculable tonne)

Savings/ tonne (@1.25/L) \$543



## Final Key Points:

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- EcoDriver starts where people are at – as drivers
  - High acceptance of “driving less” messaging
  - Need for prompts and norms
  - Modal shift and increases in vehicle efficiencies are unlikely to meet GHG targets alone
  - To meet targets ecodriving will be needed
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# Thank you!

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## Cost effectiveness?

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### Smart Commute only

- Total CO2 saved 114 tonnes
- Total Cost \$15,722
- \$ per tonne \$138

### City of Calgary

- Car chip data for idling alone: pay back estimated at just over a year.



## Follow-up respondents keeners?

**Snow Resorts: Comparison of their exit surveys to the rest of the group suggest not so much:**

Idling	slightly higher commitments	
Speed	comparable levels of commitment	
Other commitments	full group	follow up respondents
at work	5.9/person	6.0/person
at home	7.1/person	7.9/person



## Other Commitments

Other Commitments	exit	follow-up	difference
Combine Errands	75%	52%	-23%
Reduce Jackrabbit	73%	61%	-12%
No Start Up Idling	72%	62%	-10%
Check Tire Pressure	72%	52%	-19%
Regular Tune Ups	71%	17%	-54%
Oil Change	70%	32%	-38%
Air Filter	68%	20%	-48%
Ride or Walk/Short Errands	63%	28%	-35%
Telecommute	48%	3%	-44%
Drive Thrus	41%	39%	-2%
Transit	29.2%	6%	-23%
Carpool	28.8%	9%	-19%



## Take it easy.

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Driving with hard starts & hard braking:

- uses 37% more fuel
- saves only 2.5 minutes/hour

*Drive as if there's an egg under your foot.*

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