



CARBON OFFSETS

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Carbon

- Canadian emissions grew 26.2% from 1990 to 2005 by 758 Mt overall
- 23.5 tonnes per capita
- Return flight to Toronto: 1.4 tons
- 20,000km in a Civic: 3.2 tons
- Standing still: 350kg



Drivers of green agenda

- High uncertainty about climate change causes and impacts: choose 'no regrets'
- Consumer perceptions: 26-31% in Canada
- The decline of cheap oil = costs to consumers
- Health and exposure
- Geo-politics
- Diversification of the economic base



British Columbia

- Global trading in carbon at \$100m in 2006 and \$30bn overall
- \$1bn over 4 years for climate
- Significant investment in transport, bioenergy, LiveSmartBC and Green Building Code
- Carbon tax at \$10 per tonne rising to \$30
- Carbon Neutral government; air travel and scope 1 emissions
- Innovative Clean Energy fund



Business Case For A Carbon Neutral Company

1. Preparing for the future.
 - Mandatory GHG reporting - for you and/or your clients - is coming.
2. Reduced emissions may reduce expenses.
3. Recoverable expense.
 - Offset cost often <1% of product value.
4. Carbon Neutrality as marketing platform.
5. Increased brand equity and market share.



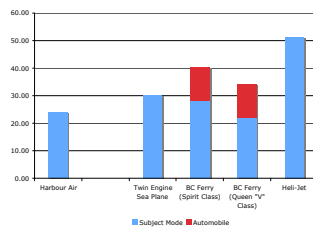
Case Study –



Harbour Air is:

- The largest all seaplane airline in the world; and
- The only completely carbon neutral airline in the world.

Downtown Vancouver to Downtown Victoria
GHG emissions (kg) by Transportation Mode
(1 passenger)



- Business Challenge: communicating relative sustainability.

Case Study –



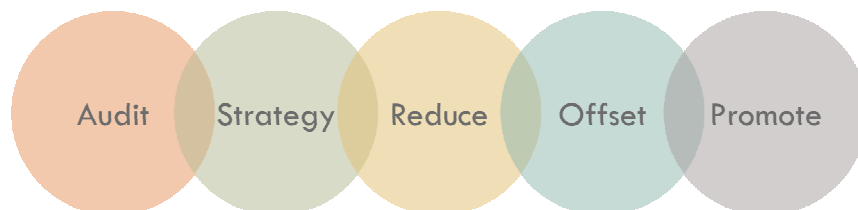
- GHG Inventory & Reduction Strategy
- Establishment of carbon offset levy (\$0.50/leg).
- Corporate emissions offset directly.



- Outcomes:
- Very high marketing benefit;
 - Increased employee morale/price
 - 12% increase in revenues.

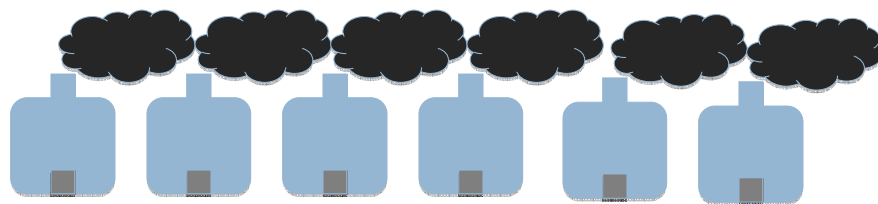
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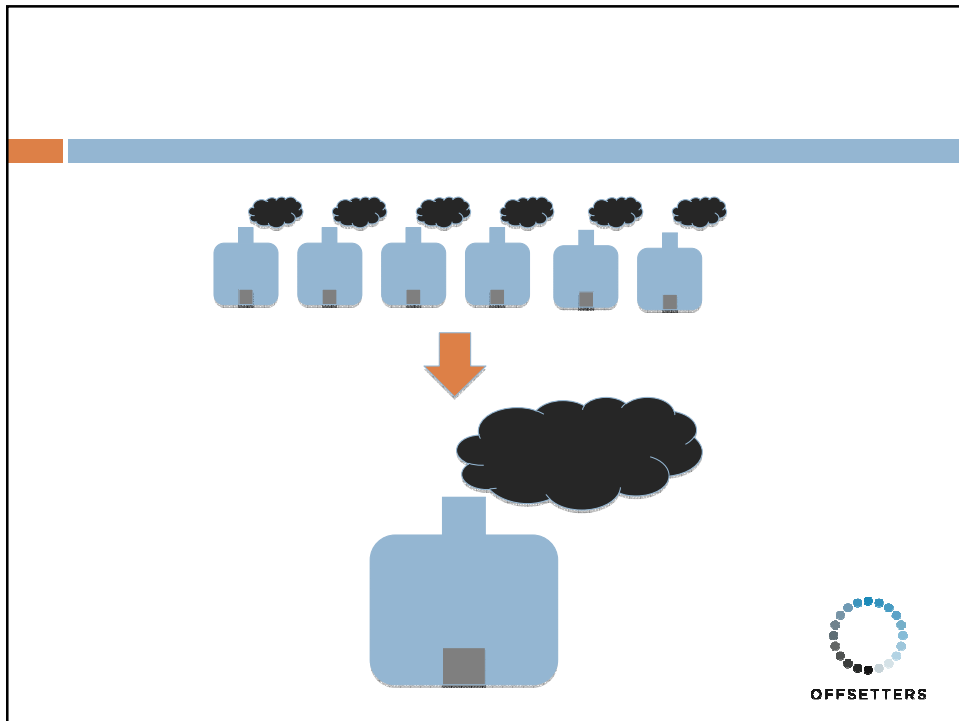
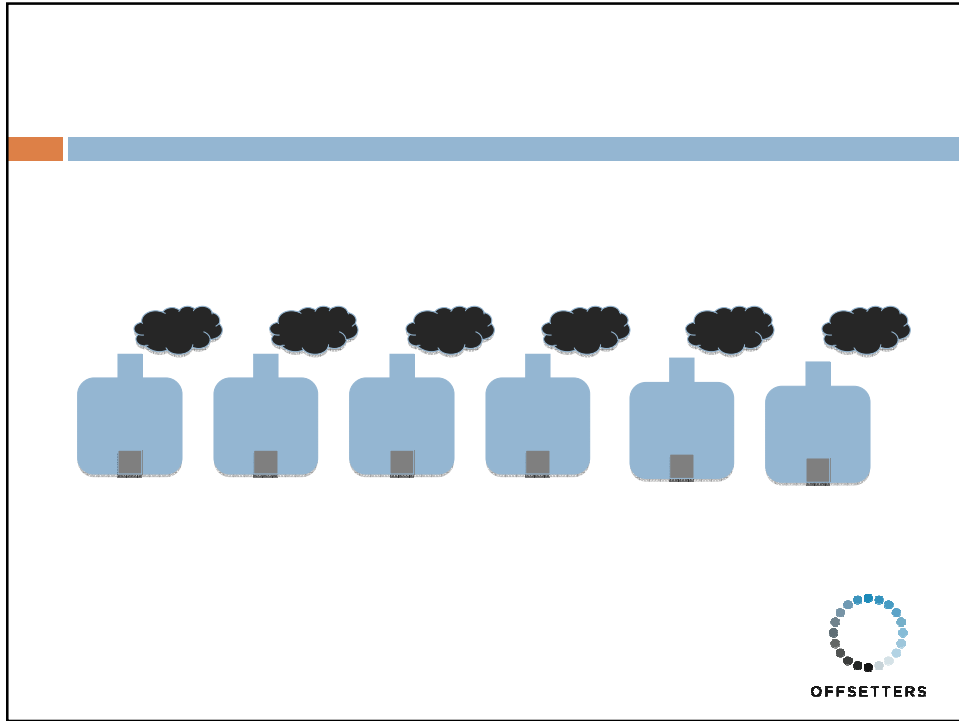
The climate imperative

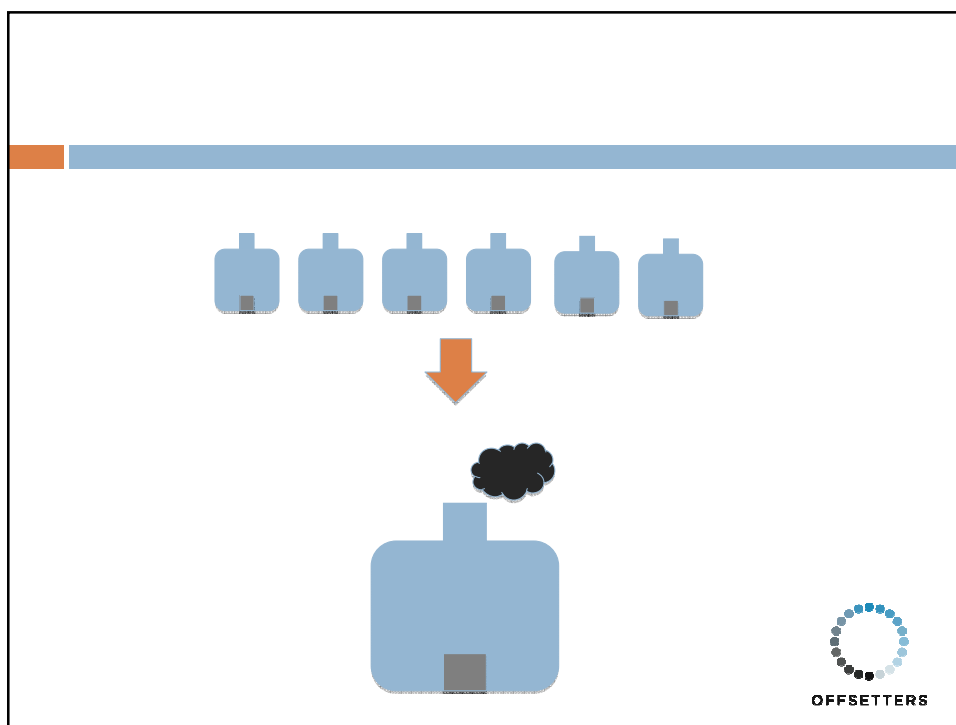
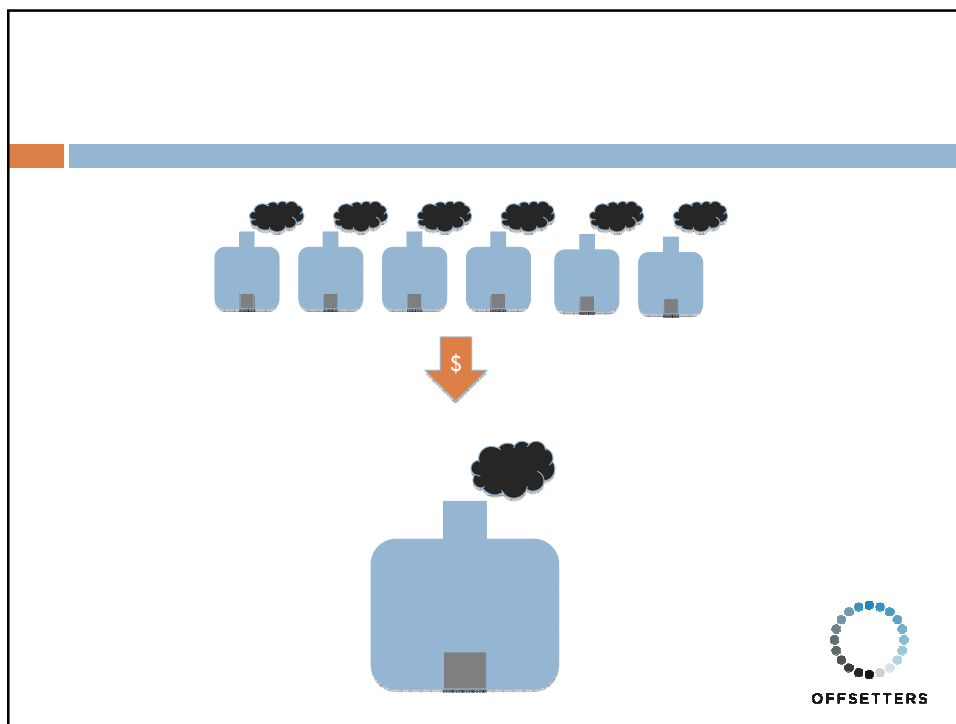


Voluntary offsets

- Individuals and organisations locked into emissions for short term
- Pooling investment creates economies of scale
- Costly to reduce emissions
- Economy holds many opportunities overall
- At \$20 per tonne = GST cut







Sample Offsetters Projects



PROFILE: Sun Select Produce Greenhouse
LOCATION: Aldergrove, BC
TYPE: Fuel Switching / Energy Efficiency
CREDITS: ~7,500 tCO₂e / per year

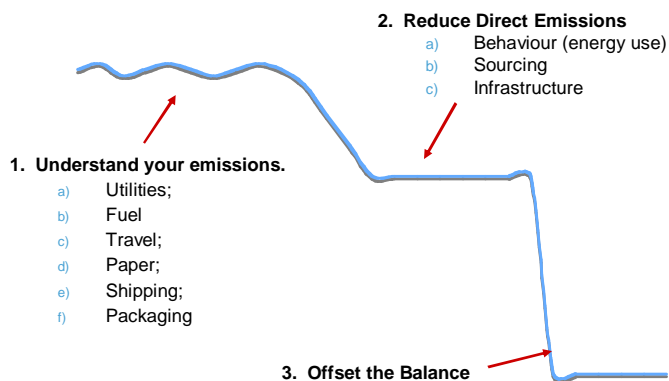
Status quo: Natural gas boiler
Innovation: Biomass boilers and heat curtains

- Result:**
- model for energy innovation (sectoral expansion)
 - decreased fuel intensity; increased food security
 - reduced light pollution

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The Carbon Neutral Process



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Ranked Top Offset Provider in Canada by
PricewaterhouseCoopers and Pembina Institute

▣ Clients include...



... and thousands more



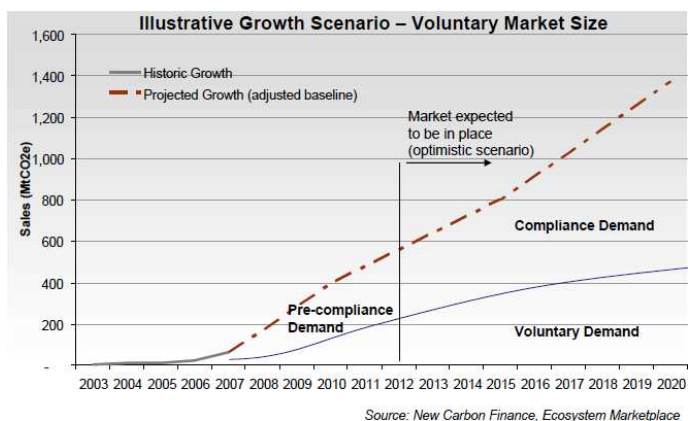


Local Projects

- Groundsource heat pumps in municipal buildings
- Biofuels for major fuel users
- Energy efficiency upgrades in agricultural sector
- Solar thermal
- Greywater heat recovery
- Third party verification important



Market Growth



Strategy in commercial real estate

- Competitors looking at CSR
- CBRE announced 2010 neutrality goal
- Climate as a 'wedge' to build brand equity in CSR
- Phase 1: get your own house in order
- Phase 2: co-brand consulting services for clients
- Offset heat and power for 10-20c/sf/year
- Joint venture foundations: expertise combined with presence in international markets

