

A man in a dark suit and tie is sitting at a white desk in a vast, open field. He is looking down at a laptop on the desk. The background is a bright blue sky with large, white, fluffy clouds. The overall scene suggests a remote or outdoor office environment.

# **LESSONS LEARNED: Climate Change, Carbon Pricing, and Ontario's Cap-and-Trade Announcement**

**June 18, 2015**

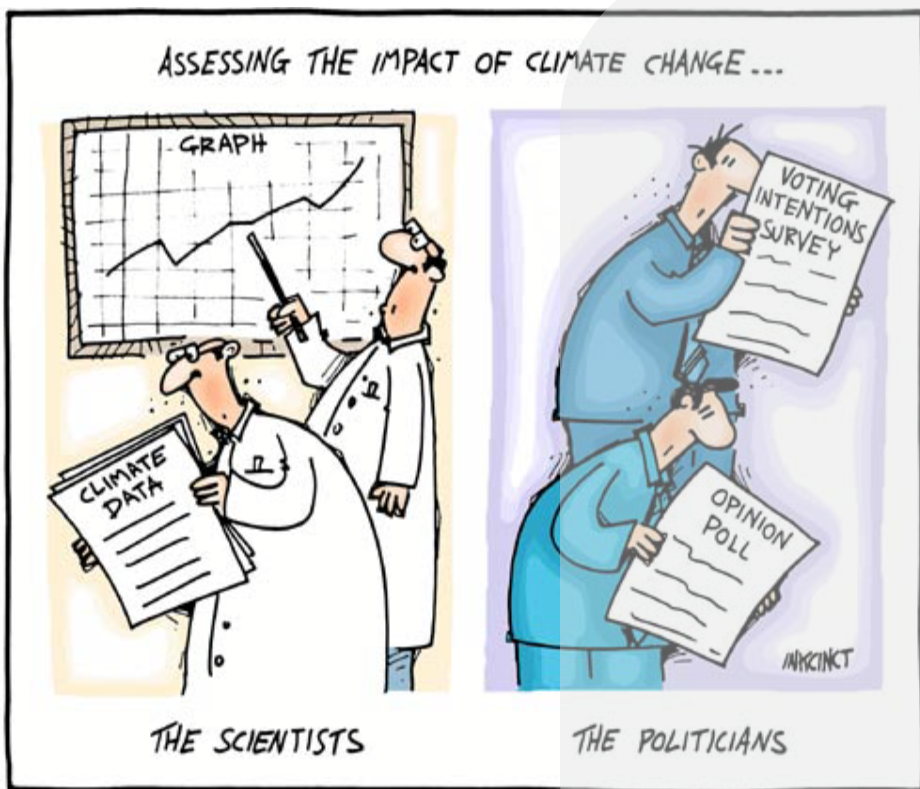
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# Agenda



- Cap and Trade Basics
  - Setting the cap
  - Making the trade
- Existing Emission Trading Systems
  - Status: Alive or Dead?
  - Pricing
- Lessons Learned
  - Hot Air, Windfall Profits
  - Trust, but verify

# Cap and Trade Basics



- Setting the cap
  - Baseline
  - Target/budget (cap)
    - Science-based
    - Negotiated
    - Absolute vs. intensity
- Making the trade
  - Allocations (trade)
  - Offsets (trade)

See [IETA.org](http://IETA.org) Cap & Trade 101 for more information

# Existing Emission Trading Systems



## Emissions Trading Targets and Timetables

	Timetable	Target	Coverage		Timetable	Target	Coverage
EU	2005 - 2020	20% below 1990 levels by 2020	11,500 Installations 40% of Total Emissions	Australia	2013 - 2020	5% below 2000 levels by 2020 <small>(Higher targets conditional on global agreement)</small>	Energy, Industrial Process, Commercial Transport. 60% of Total Emissions
Alberta	2007-Present	Annual intensity reduction of 12% below baseline	All industrial facilities	China	2013 - 2020 <small>(National from 2015)</small>	Intensity reduction of 40-45% below by 2020	Differs between pilots; National coverage unclear
New Zealand	2008 - 2020	10-20% below 1990 levels by 2020	Forestry (2008). Energy Fuels and industrial (2010). Waste and Synthetic GHGs (2013)	Kazakhstan	2013-2020	7% below 1990 levels by 2020	Oil and gas; power; Mining and Metals; Chemicals; others being considered
RGGI	2009 - 2018	10% below 2014 levels by 2018	Power Sector	Switzerland	2013-2020	20% below 1990 levels by 2020 <small>(Higher targets conditional)</small>	950 companies across multiple sectors
India	PAT Scheme: 2012-2015	20-25% intensity reduction below 2005 levels by 2020	Power, thermal, iron and steel, fertilizers, textiles, aluminum, pulp and paper, chlor-alkali	Tokyo	2013-2019	25% below 2000 levels by 2020	1400 Facilities, 20% of Total Emissions
California	2013 - 2020	Reach 1990 levels by 2020	Energy, Industrial Sources (2013). Oil and gas (2015). Reaches 85% of Total Emissions	Korea	2015 - 2026	30% below BAU by 2020	490 Emitters, 60% of Total Emissions
Québec	2013 - 2020	20% below 1990 levels by 2020	Energy, Industrial Sources (2013). Oil and gas (2015). Reaches 85% of Total Emissions				

**The World's Carbon Markets**

A CASE STUDY GUIDE TO EMISSIONS TRADING

[www.ieta.org/worldscarbonmarkets](http://www.ieta.org/worldscarbonmarkets)



# Status of GHG Emissions Trading

- By 2017, over 50% of North American population will be under some form of cap and trade
- Same for the rest of the world

## Current Emission Trading Systems\*



\* Australia repealed carbon tax and trading July 2014

# Cost of Carbon: Tax and ETS



- Regulatory systems
  - India \$0.85 to Sweden \$160/tCO<sub>2</sub>e
  - BC \$30 to Calif./Quebec \$12.29/t
  - CERs Futures (UN): \$0.38/t
- Voluntary markets
  - 2013: Ave \$4.90/tCO<sub>2</sub>e down 16%
  - 2014: Low \$3.80/tCO<sub>2</sub>e down 22%\*
- Internal pricing

\* EcoSystems Marketplace – Forest credits only

# Lessons Learned – Challenges



**Pip & Run**

*"Why Buy and Hold when you can Pip & Run?"*

- “Hot Air”: Kyoto - Assigned Amount Units (Allocations) given to Russia based on pre-collapse baseline
- “Windfall Profits”: selling of the over supply of free allocations
- Value-add tax fraud
- Trade site phishing/jacking

# Lessons Learned - Solutions



- Defensible and 3<sup>rd</sup> party verified baselines and offsets
- Rely more on science-based budgets and less on free allocations
- Establish rigorous “on-boarding” for participants
- Implement financial-quality cyber security



# Summary

Cap and trade is alive and well

There has been major challenges in the past, but...

Lessons learned can offer some potential solutions

# For More Information

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