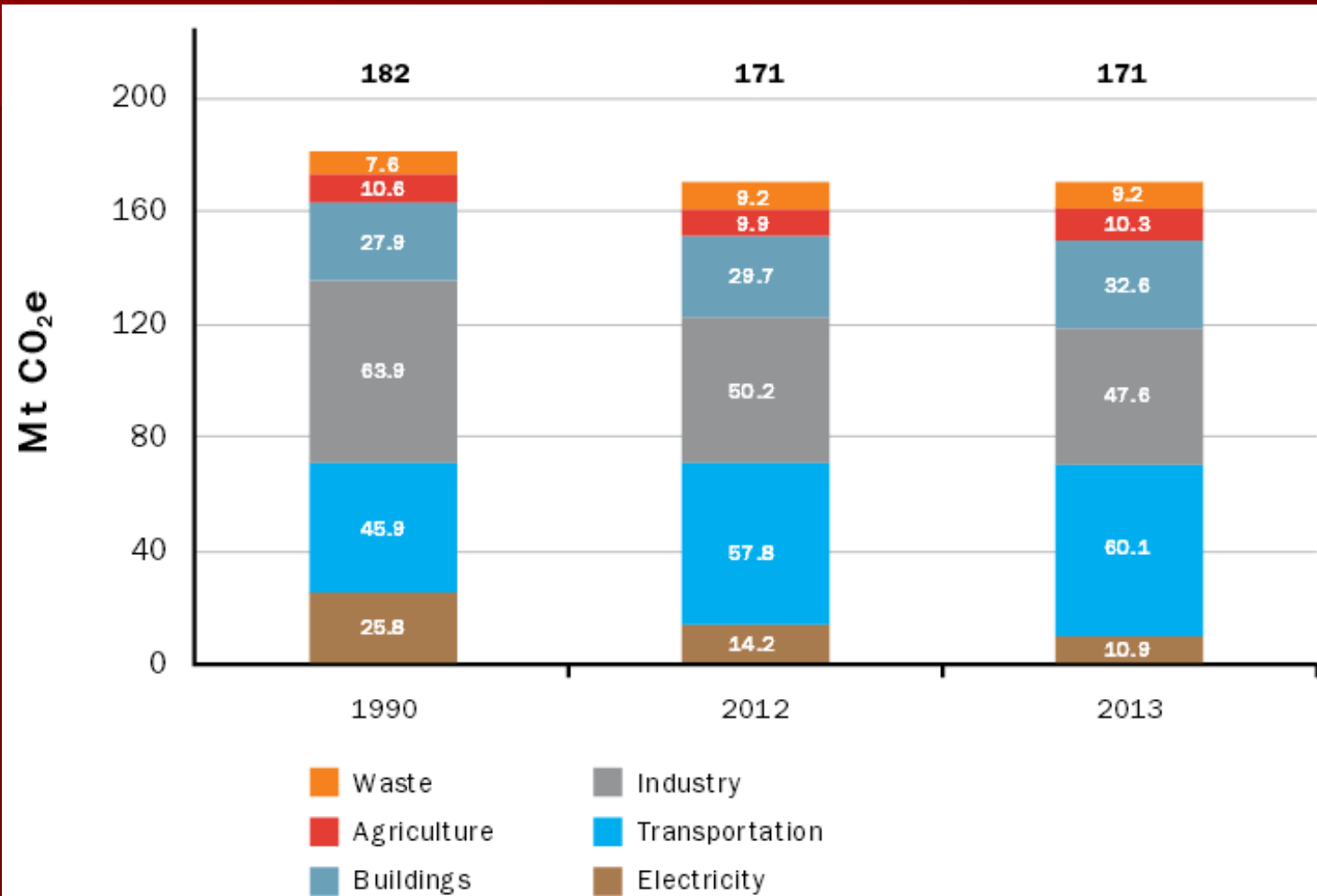


# Climate Change Policy Options for Ontario

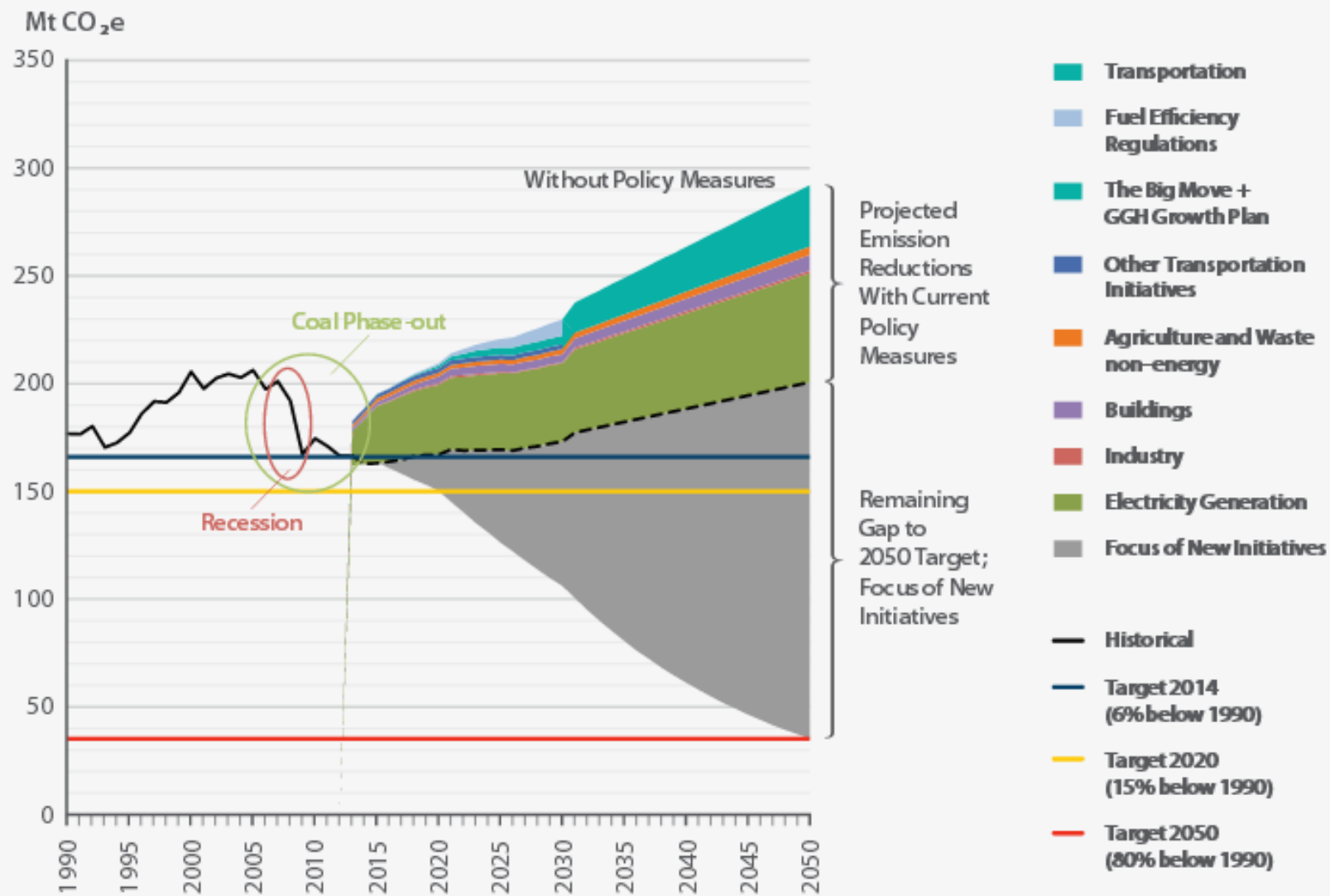
Mark Winfield  
York University

March 2016

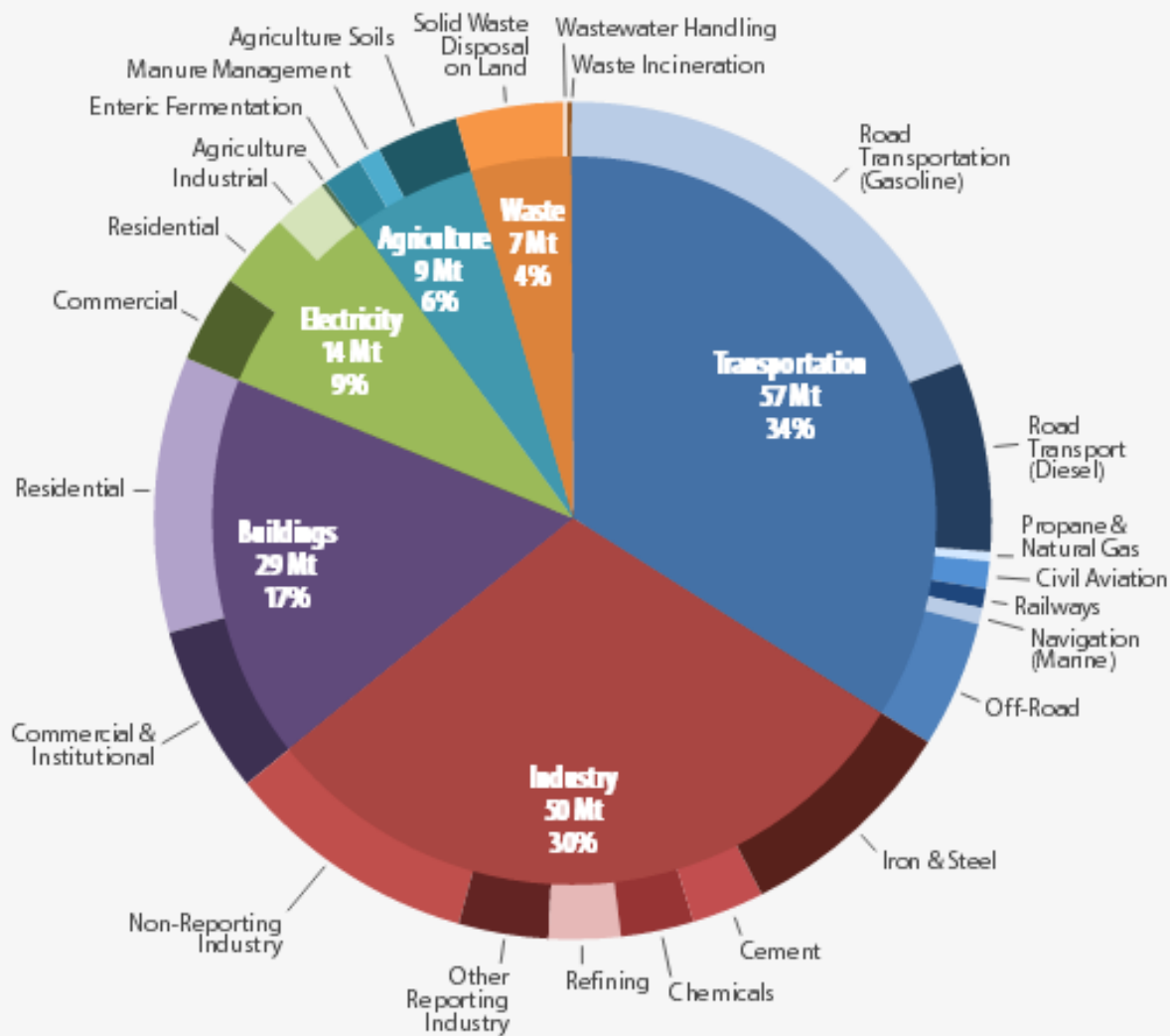
# Ontario GHG Emissions



**FIGURE 1 Ontario's GHG emissions trajectory "wedges" #28**



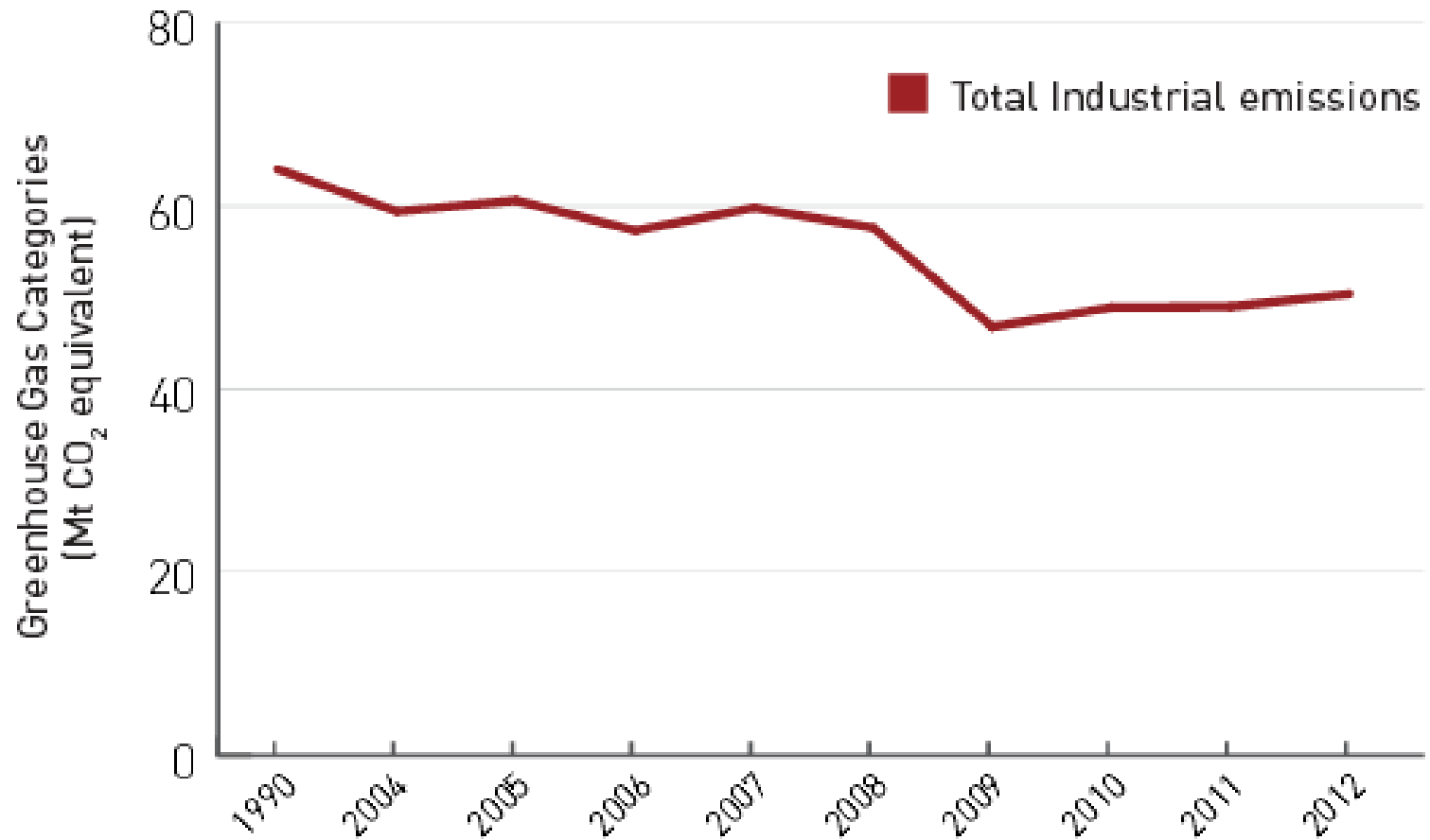
**FIGURE 3 Ontario's 2012 Greenhouse Gas Emissions by Sector**



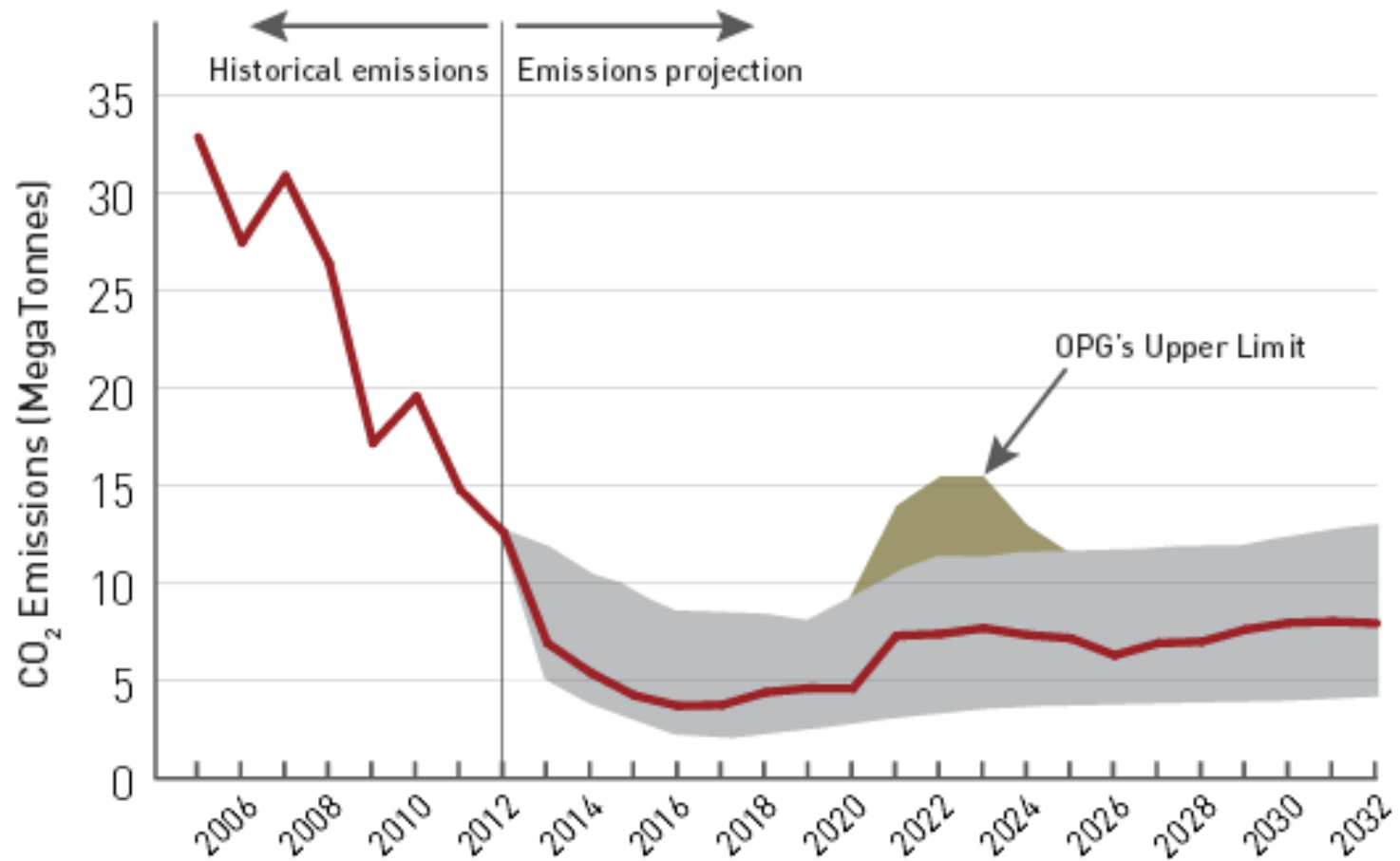
Source: National Inventory Report 2014 (2012 data), Ontario's Long-Term Energy Plan and Greenhouse Gas Emission Report regulation (O. Reg. 452/09) data

# Industry

## -25.5% 1990-2013



# Electricity -58% 1990-2013

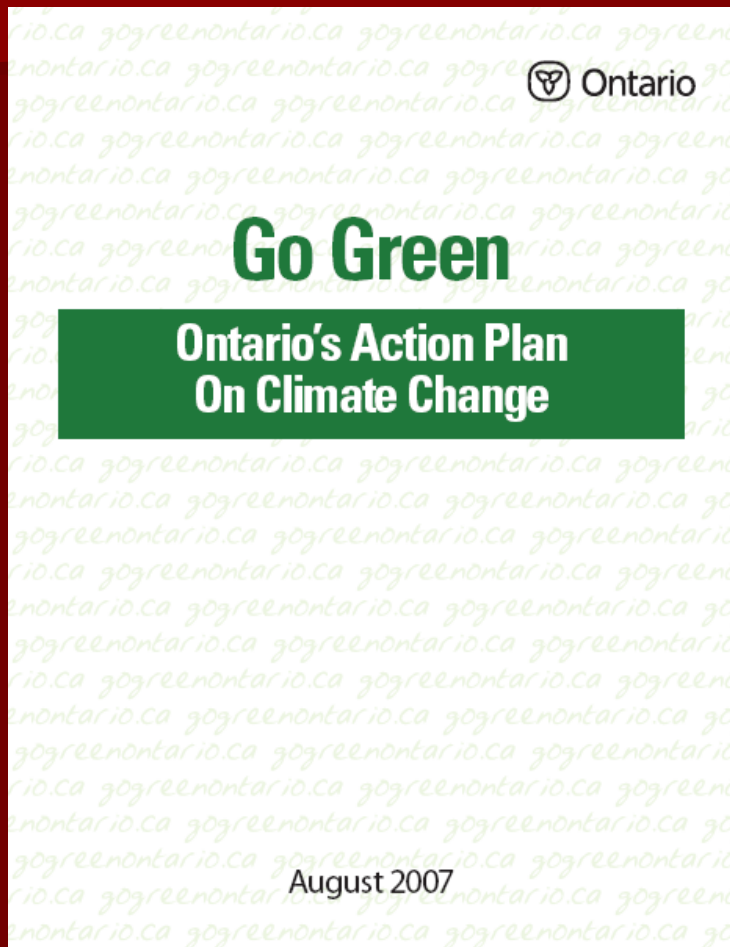


# Transportation

## +31% 1990-2013

Sources	Emissions (Mt CO <sub>2</sub> e)		Change from 1990 - 2013		Percentage each sector contributes to 2013 total
	1990	2013	Mt CO <sub>2</sub> e	%Δ	
Electricity	25.8	10.9	-14.9	-58	6
<b>Transportation</b>	<b>45.9</b>	<b>60.1</b>	<b>+14.2</b>	<b>+31</b>	<b>35</b>
Road (passenger)	27.3	32.7	+5.4	+19.8	
Road (freight)	8	13.4	+5.4	+67.5	
Off-road (gasoline and diesel)	5.6	9.2	+3.6	+64.3	
Domestic Aviation	2.2	2.3	+0.1	+4.5	
Domestic Marine	1.0	1.2	+0.2	+20	
Rail	1.8	1.3	-0.5	-27.8	

# 2007 - Going Green



## ■ Targets

– 6% < 1990 by 2014

– 15% < 1990 by 2020

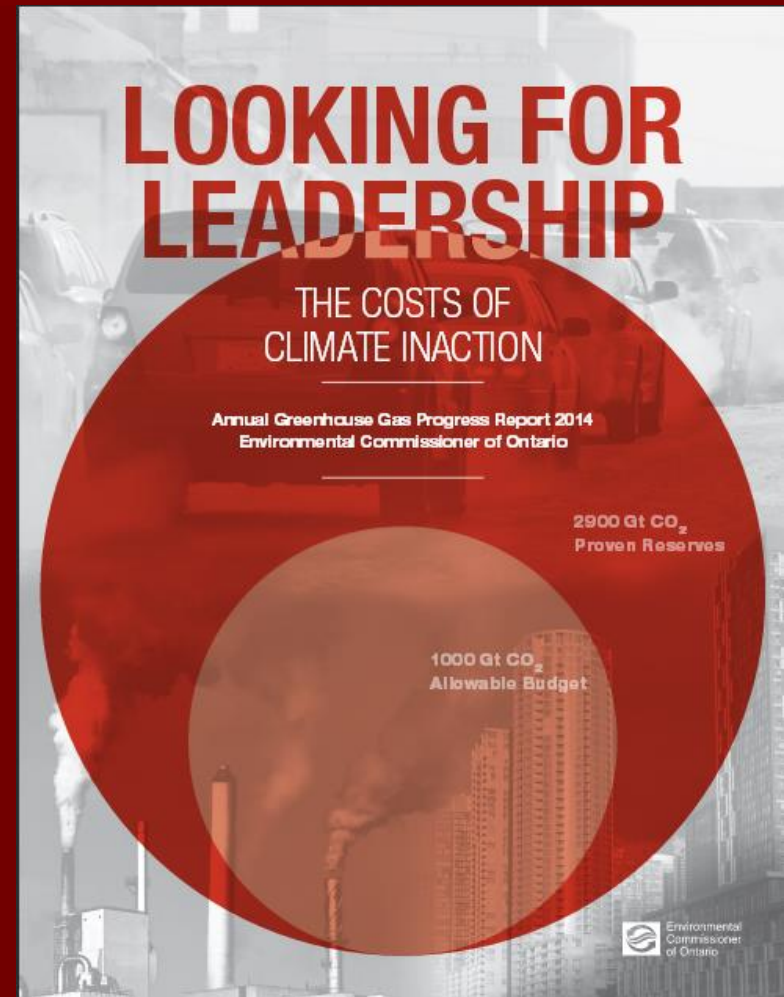
– -80% < 1990 by 2050

## ■ WCI Participation



# The Decline of Ontario's Climate Change Strategy

- Declining threat of federal action
  - Kyoto Withdrawal
- Decline of possibility of US federal action with trade measures
- Partial disintegration of WCI
  - Only Quebec and California implement Cap and Trade



# 2015 - Reengagement



MINISTRY OF THE ENVIRONMENT AND CLIMATE CHANGE

## ONTARIO'S CLIMATE CHANGE

DISCUSSION  
PAPER 2015



Patrick Lachance

 Ontario

# February 2016

- Cap and Trade
  - Cap declines 4.17 per cent/yr
  - Industrial emitters over 25,000 tonnes/yr
    - Free allowances for carbon-intense/trade exposed facilities/sectors
  - Transportation and heating fuels covered via distributors



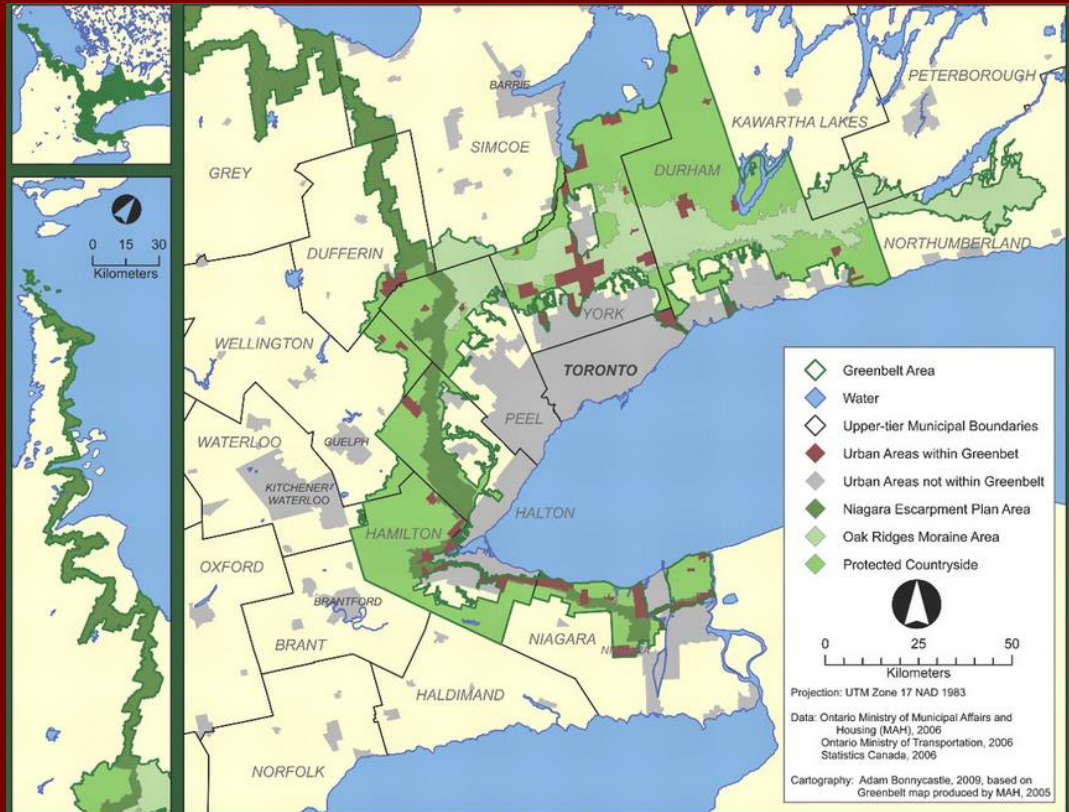
# Ontario Cap and Trade

- Effective carbon price \$18/tonne
- \$1.9 billion/yr revenue allocated to “green” initiatives



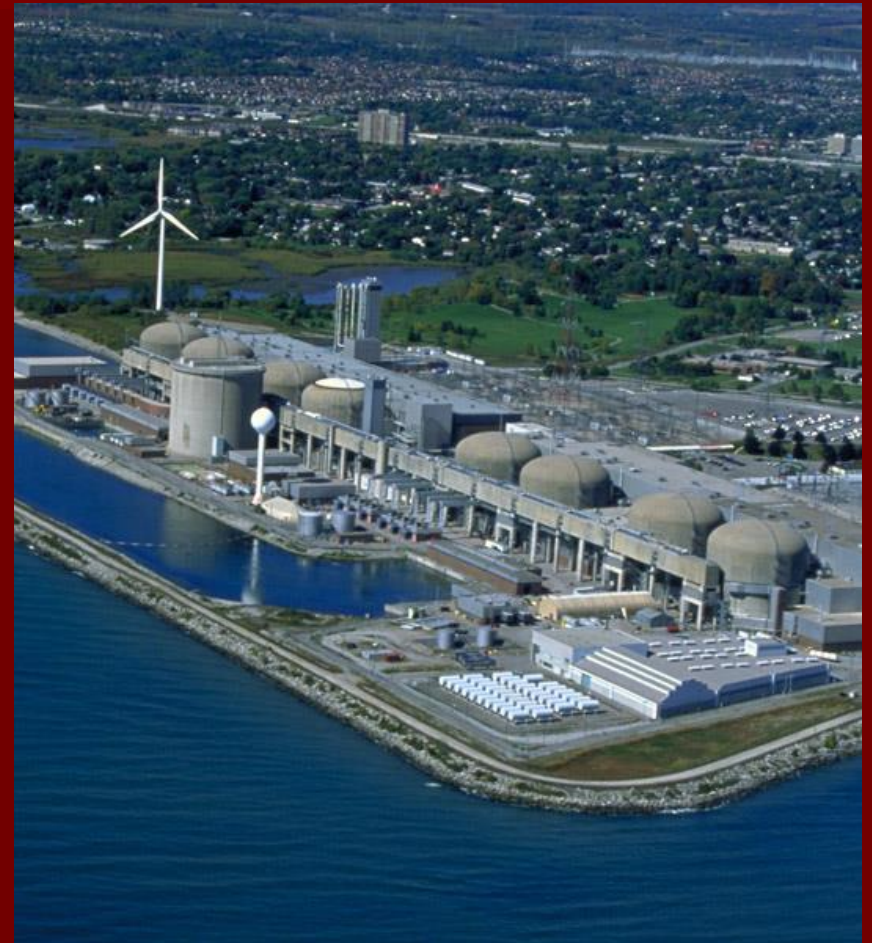
# Transportation and Land-Use

- Transit
- Land-use/  
transportation  
linkages
  - 2014 PPS
  - Sprawl beyond  
the Greenbelt
- Goods movement



# Electricity and Buildings

- Conservation first?
- Renewables, smart grids and storage?
- Carbon risks re:  
Nuclear  
refurbishments



# Agriculture and Waste

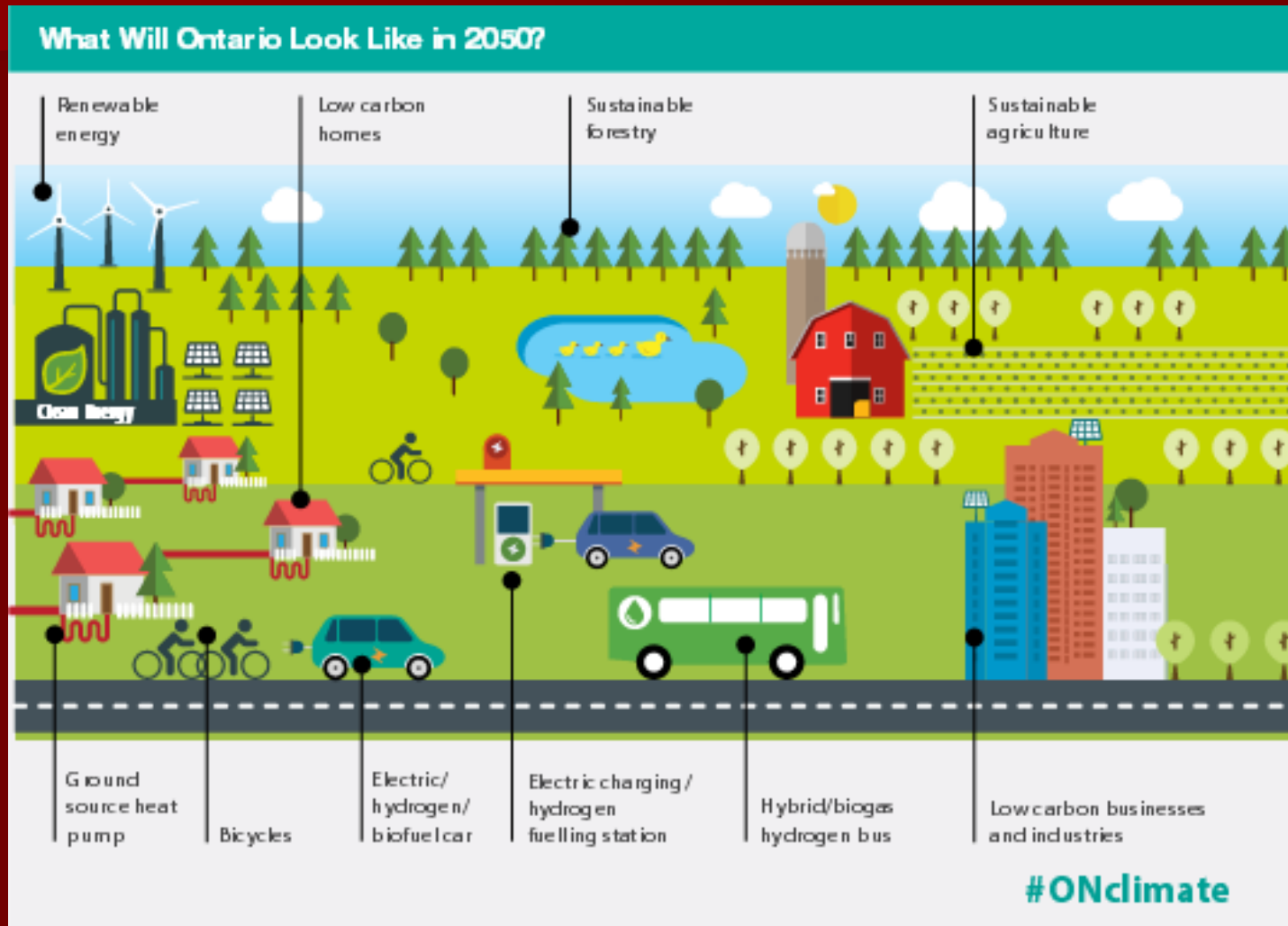


# Boreal Conservation





# Low Carbon Economy Transition



# Adaptation



Toronto Star



# What Next?

