



MANN ENGINEERING
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“ENERGY EFFICIENCY: GOVERNMENT POLICY, INCENTIVES AND MUCH MUCH MORE”

GTAA EDUCATIONAL SEMINAR 2016



PRESENTATION BY:
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MANN ENGINEERING

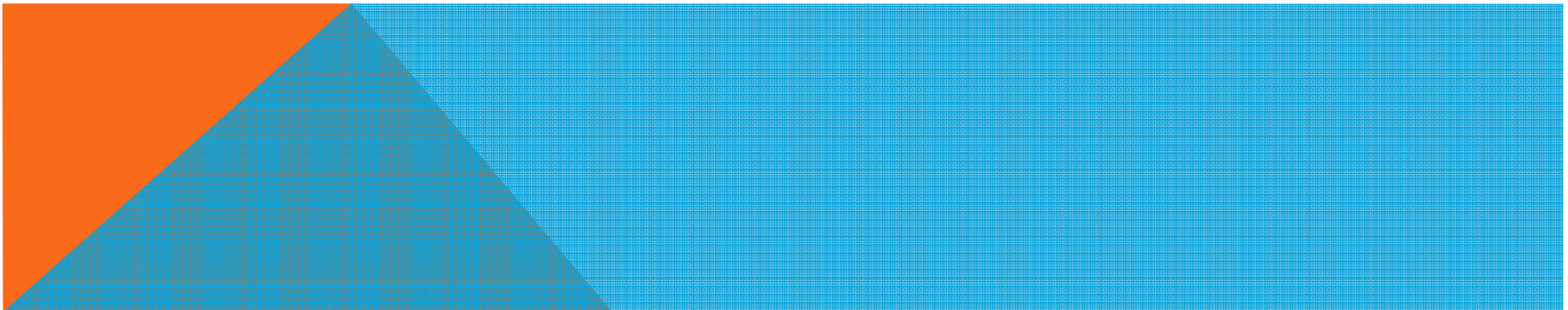
APRIL 19TH, 2016





AGENDA

- ❖ Introduction to Mann Engineering
- ❖ Federal Policies
- ❖ Provincial Policies
- ❖ Cap and Trade
- ❖ Mandatory Benchmarking
- ❖ Electricity Incentives
- ❖ Gas Incentives
- ❖ Water Incentives





INTRODUCTION TO MANN ENGINEERING

Licensed consulting engineering company (electrical, mechanical, structural, building envelope)

Specialized in HVAC, Automation, Energy Management and Design/Build Projects

Monitoring, Service and Construction Division

Since 1988, Mann Engineering has completed hundreds of successful Design/Build projects with multi-residential customers in the past which included:

- ❖ Boiler and Primary Secondary System Retrofits
- ❖ Lighting / Water retrofits
- ❖ HVAC unit replacements
- ❖ Building Automation Systems
- ❖ Chiller and Cooling Tower Replacement
- ❖ Other Energy Management Retrofits



FEDERAL POLICIES

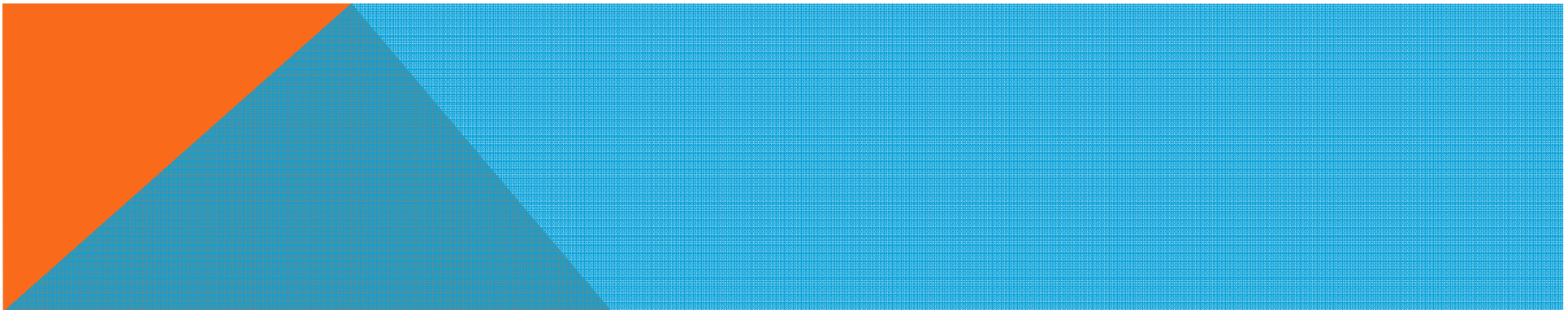
- ❖ In December 2015, 195 countries, including Canada, adopted the Paris Agreement under the United Nations Framework Convention on Climate Change
- ❖ WHAT and WHEN: Relative to 2005 emission levels, reduce Canada's total GHG emissions 17% by 2020 and 30% by 2030.
- ❖ WHO: A Pan-Canadian framework for climate change which will include national GHG emissions reduction targets (Minister of Environment and Climate Change)
- ❖ Consultations underway regarding the HOW, more info to come within 6 months (supporting cap and trade, investing in green infrastructure, providing assistance to vulnerable areas/countries, fossil fuel subsidy phase outs, research, regulations).
- ❖ WHY: To get re-elected, duh!

Save our environment and make Canada competitive in this changing market



PROVINCIAL POLICIES

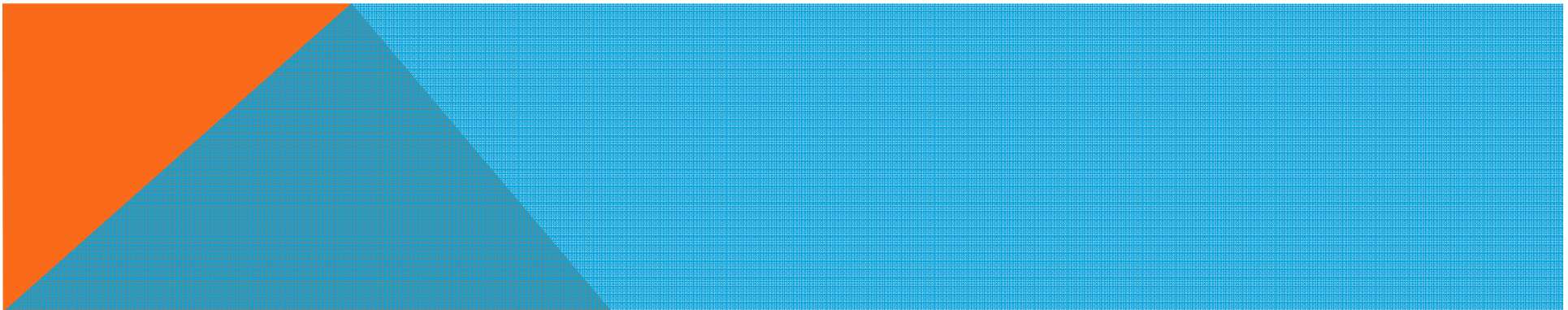
- ❖ Already phased out coal power plants (equivalent of taking 7 Million cars off the road)
- ❖ IESO / Conservation First Framework
- ❖ Incentives
- ❖ Cap and Trade
- ❖ Mandatory Benchmarking





CAP AND TRADE

- ❖ On November 16, 2015 the Ministry of the Environment and Climate Change posted a policy paper to the Environmental Registry (012-5666) for 30 days to gather comments on the design options under consideration for Ontario's greenhouse gas cap and trade program.
- ❖ In addition, since May 2015, Ontario has met with more than 700 stakeholders on cap and trade, including industries, associations, environmental organizations, and labour groups.
- ❖ "Climate Change Mitigation and Low-carbon Economy Act, 2016"
- ❖ Fully Linking with Quebec and California ("Western Climate Initiative")



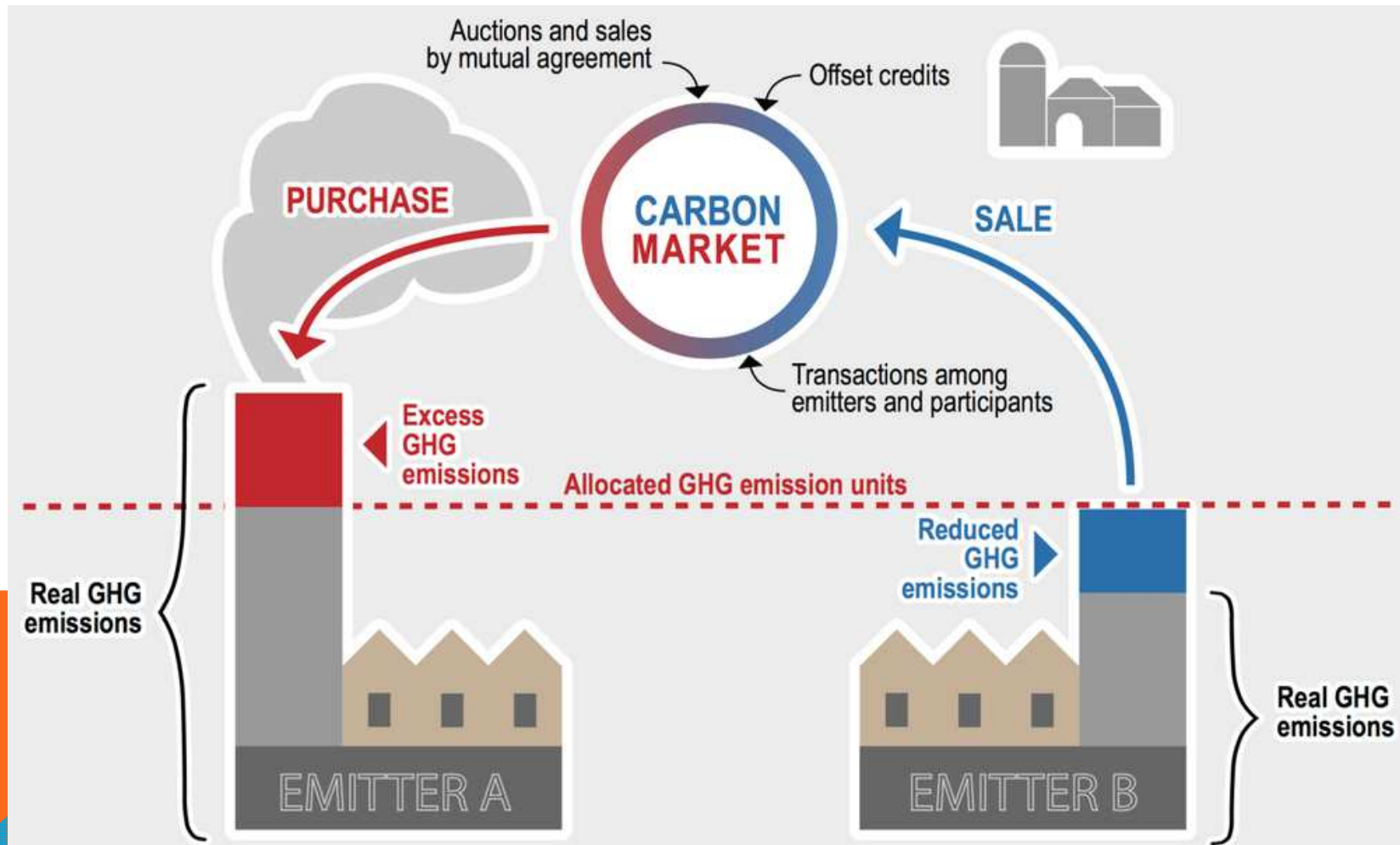


CAP AND TRADE

- ❖ Electricity is already “carbon free “so... “Households will not see increases in their electricity rates as a result of the cap and trade program.” – Really???
- ❖ Based on the current carbon price forecast, the price of gasoline is estimated to increase 4.3 cents a litre in 2017 and \$5 for natural gas for households.
- ❖ The "cap" sets a maximum limit on the amount of greenhouse gas pollution industry can produce. Over time, the cap is lowered, reducing greenhouse gas pollution.
- ❖ The "trade" creates a market for pollution credits where industries that do not use all their credits can sell or trade with those that are over.



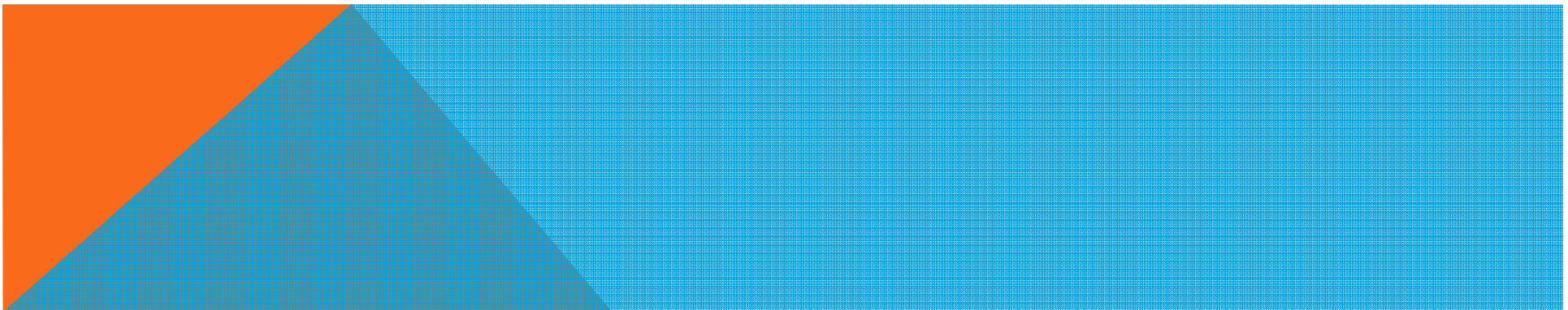
CAP AND TRADE





CAP AND TRADE

- ❖ A cap and trade program effectively reduces the amount of greenhouse gas pollution going into our atmosphere by setting a limit on emissions, rewarding innovative companies, providing certainty for industries, and creating more opportunities for investment.
- ❖ The proceeds from the program will be reinvested in a transparent way back into projects that reduce greenhouse gas pollution and help businesses remain competitive. (such as public transit, green tech subsidies, EV rebates, social housing retrofits, IESO incentive programs?)





MANDATORY BENCHMARKING

- ❖ The Ontario Ministry of Energy is proposing to implement an Energy and Water Reporting and Benchmarking (EWRB) regulatory requirement for large buildings (>50,000 sq.ft) through a phased implementation over 3 years.
- ❖ Key reporting criteria:
 - ❖ Address, year built, gross floor area, energy and water consumption, GHG emissions, and an efficiency rating or score.
- ❖ The proposed regulation would proceed pending passage of proposed legislative amendments to the Green Energy Act, 2009 (Bill 135) introduced by the government on October 28, 2015 to enable the implementation of an EWRB initiative.
- ❖ Timeline: 2017 (reporting 2016 data) for buildings > 250,000 sq.ft.
- ❖ Reporting tool: template report and Portfolio Manager



ELECTRICITY INCENTIVES

- ❖ Overseen by IESO
- ❖ Conservation First /SaveOnEnergy
- ❖ Notable incentives:
 - ❖ Energy Audits / Detailed Engineering Studies
 - ❖ HPNC
 - ❖ Co-generation
 - ❖ Solar / Wind / Bio-Mass
 - ❖ VFDs
 - ❖ Chillers
 - ❖ Energy Storage (batteries, thermal)

AND MANY MORE! TALK YOUR LDC REP!



GAS INCENTIVES

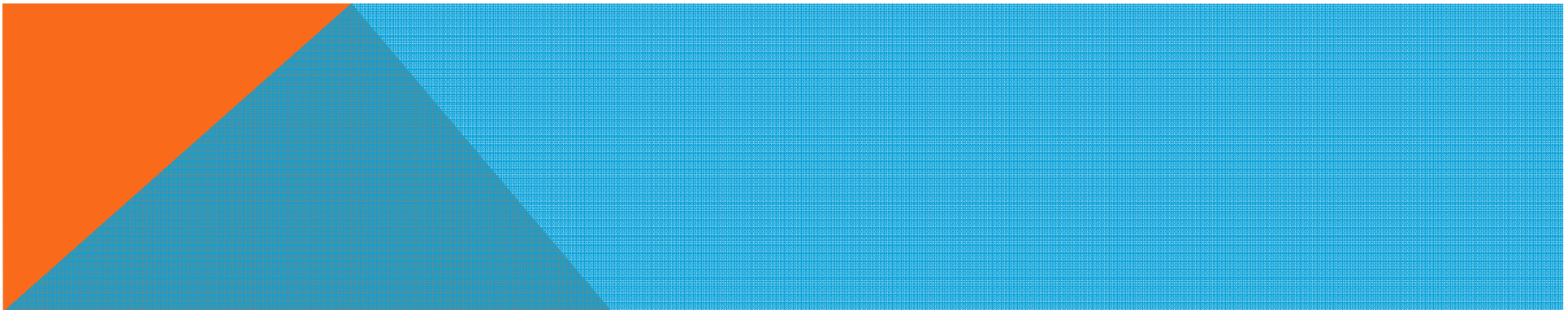
- ❖ New Enbridge 2016 Program Coming Out Now
- ❖ Enbridge's new incentive structure – the more you save, the more you earn, from \$0.10/m³ to \$0.30/m³ up to 50% of your project cost (not to exceed \$100,000).
- ❖ Eligible projects:
 - ❖ Heating / DHW Boiler Retrofits
 - ❖ Make-up air unit Retrofits
 - ❖ VFD installations
 - ❖ CO sensor installations (for heated garages)
 - ❖ Air Curtains
 - ❖ HRV / ERV

AND MANY MORE! TALK YOUR ENBRIDGE REP!



WATER INCENTIVES

- ❖ City of Toronto: Capacity Buyback Program (up to 30 cents per litre of water saved per average day)
- ❖ Enbridge: Showerhead Rebate Program





Thank You for Your Time

**Feel free to contact me at:
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