• 267 Mt CO2e – total provincial GHG emissions in 2013

• 14 percent or 33 Mt – emissions growth since 2005

• 37 percent – Alberta’s percentage of Canada’s emissions in 2013

World >43,000 Mt

Canada 726 Mt
Alberta 267 Mt
Timeline of Key Actions

2002 - Released Albertans & Climate Change: Taking Action (first provincial strategy in Canada)

2003 - *Climate Change and Emissions Management Act* passed (first legislation to establish economy-wide price on carbon in North America)

2004 - Specified Gas Reporting Regulation

2007 - Specified Gas Emitters Regulation (first economy-wide price in Canada)

2008 - Revised provincial Climate Change Strategy

2015 - Amended Specified Gas Emitters Regulation (reduction requirements and carbon price increased)

2015 – Climate Leadership Plan
Climate Leadership Plan

• Released in November 2015 in response to Climate Change Advisory Panel report

• The Climate Change Advisory Panel heard from a wide range of Albertans including the public, farmers, Indigenous communities, academia, think-tanks and industry representatives on a new climate change strategy for Albertans.
Climate Leadership Plan Highlights

4 key areas that the Alberta government is moving forward on:

• Phasing out coal-generated electricity and developing more renewable energy
  – Coal power emissions phase out by 2030
  – 30% of generation from renewables by 2030

• Implementing a new carbon price on greenhouse gas pollution
  – Extends price to all combustion
  – Industrial emitters transition to output based allocation

• A legislated oil sands emission limit
  – 100 Mt CO2e limit, with provision for cogen emissions and new upgrading

• Employing a new methane emission reduction plan to reduce oil and gas methane emissions by 45% by 2025.
Why Price Carbon?

- Climate Change is already happening and the cost will rise over time
  - Societal costs associated with GHG emissions are estimated to be $41 per tonne CO$_2$e on a global basis in 2016 by Environment and Climate Change Canada, rising to $55/t by 2030.
  - Could be as high as $167/t in 2016 (95th percentile)
  - Floods, droughts, fires, extreme storms, invasive species, crop loss, etc.
- Greenhouse gas emission are a negative externality
  - A **negative externality** occurs when an individual or firm making a decision does not have to pay the full cost of the decision.
- Carbon pricing provides a signal to all entities to reduce emissions
  - Behaviour change (change purchasing habits, drive less, turn down heat, etc.)
  - Technology change (energy efficiency, more efficient vehicles, etc.)
Carbon Pricing

- Alberta is aligned with the current highest price in Canada, $30/tonne, and our emissions coverage and stringency is also as good as or better than other Canadian provinces.
- Carbon Levy on heating and transport fuels
  - All revenue collected will be rebated to Albertans and reinvested in the economy to help fund provincial efforts to reduce greenhouse gas emissions
- Output Based Allocation
  - Build on the experience of the Specified Gas Emitters Regulation (2007)
  - Drive emissions reductions while protecting trade exposed industries
  - Includes large emissions and trade exposed industry: oil sands, electricity, refineries, petrochemicals, cement, mining, etc.
### Carbon levy impact on major fuels

<table>
<thead>
<tr>
<th>Type of Fuel</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
<td>5.35 ¢/L</td>
<td>2.68 ¢/L</td>
</tr>
<tr>
<td>Gasoline</td>
<td>4.49 ¢/L</td>
<td>2.24 ¢/L</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>1.011 $/GJ</td>
<td>0.506 $/GJ</td>
</tr>
<tr>
<td>Propane</td>
<td>3.08 ¢/L</td>
<td>1.54 ¢/L</td>
</tr>
</tbody>
</table>

- Starting January 1, 2017, the carbon levy will be applied to fuels at a rate of $20/tonne.
  - One year later, the levy will increase to $30/tonne.
- Six of 10 Alberta households will receive a rebate that covers the average cost of the carbon levy they pay.
- Electricity covered by output based allocation, not the levy
  - Alberta Energy analysis projects no significant rate increases over base case

Reinvesting in our economy

• Over the next 5 years, the levy is expected to raise $9.6 billion, all of which will be reinvested in the economy and rebated to Albertans.
• $3.4 billion will help households, businesses and communities adjust:
  – $2.3 billion for carbon rebates to help low- and middle-income families
  – $865 million to pay for a cut in the small business tax rate from 3% to 2%
  – $195 million to assist coal communities, Indigenous communities and others with adjustment
• $6.2 billion will help diversify our energy industry and support jobs:
  – $3.4 billion for large scale renewable energy, bioenergy and technology
  – $2.2 billion for green infrastructure like transit
  – $645 million for Energy Efficiency Alberta, a new provincial agency that will support energy efficiency programs and services for homes and businesses
Thank You

Ongoing updates: www.Alberta.ca/Climate