Leveraging Technology & Canadian Ingenuity
A Canadian Success Story

• Leading R&D investor
  – ~$3.4 billion invested since 2009*

• Benefits
  – Unlocking reserves
  – Becoming more effective and efficient
  – Increasing production
  – Reducing environmental footprint → GHG emission reductions are a priority

• Canadian Natural’s culture of leveraging technology, innovation and continuous improvement is everyone’s accountability and is key to driving sustainable operations and long-term value

*Based upon SRED capital invested from 2009-2018.

TECHNOLOGY, INNOVATION & CONTINUOUS IMPROVEMENT = SUSTAINABILITY
Canadian Natural
Delivering Climate Leadership at Horizon Oil Sands

GHG Emissions Intensity
(tonnes CO₂e/BOE)

- 37% Reduction at Horizon 2012 - 2018
- Total reduction ~3.1 million tonnes CO₂e, equivalent to ~665,000 cars*

*Relative to 2012 performance.
Note: Represents GHG emissions intensity at Horizon oil sands and upgrading.

Heavy Crude Oil
Continuous Improvement in GHG Emissions

- Continuous improvement initiatives have reduced environmental emissions
  - Heavy Oil Casing Gas vent reduction
    - Solution Gas Conservation has reduced GHG emissions
- Total reduction of ~4.4 million tonnes CO₂e, equivalent to ~930,000 cars*

*Relative to 2012 performance; includes reductions in Primary Heavy crude oil venting and Primrose CSS flaring.
Note: 2012 is the reference point for the Government of Canada’s methane reduction target.

STRENGTHENING ENVIRONMENTAL INITIATIVES
Canadian Natural Carbon Capture & Sequestration / Storage Technology

- Top tier CO₂ capturer and sequesterer in the world\(^1\)
- Reduced CO₂ footprint
- Reduced CO₂ charges

<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnes per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon</td>
<td>0.4 million</td>
</tr>
<tr>
<td>Quest(^2)</td>
<td>1.1 million</td>
</tr>
<tr>
<td>NWR(^3)</td>
<td>1.2 million</td>
</tr>
<tr>
<td>Total</td>
<td>2.7 million</td>
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</tbody>
</table>

Equivalent to ~576,000 cars off the road annually

\(^1\) Per the Global CCS Institute.
\(^2\) Canadian Natural is a 70% working interest owner in Quest.
\(^3\) On stream in 2019. Canadian Natural is a 50% owner in NWR.

Oil Sands Well-to-Combustion

Note: Total emissions intensity includes: production and upgrading, transportation, refining, transportation of refined product and combustion. CNQ Oil Sands includes: Oil Sands Mining and Upgrading and Thermal Crude Oil.

CLEAR DEFINED GOAL TO REDUCE GHG EMISSIONS
Capturing Technological Improvements in Oil Sands Operations Pathway to the Future

GHG Emissions Intensity (tonnes CO₂e/bbl)

- 2018
- Current Technology Execution
- Future Technology Execution
- Future Technology Development
- Intensity after Mitigation
- Aspiration Net Zero

US Refined Average

Note: Total emissions intensity includes: production and upgrading, transportation, refining, transportation of refined product and combustion. CNQ Oil Sands operations includes: Oil Sands Mining and Upgrading and Thermal Crude Oil.


PATHWAY TO CONTINUE TO REDUCE GHG EMISSIONS
Leveraging Technology & Canadian Ingenuity
A Canadian Success Story

May 2019

Canadian Oil Reduces GHG Emissions

23% reduction is equivalent to removing 110 million cars from the road

Global Average

Canadian Standard

Canada’s high standards make a difference

110 MILLION CARS (MORE THAN 3X CARS IN CANADA)

Note: Recognition and application of Canadian flaring standards to the world.

Canadian Natural Gas Reduces GHG Emissions

• 60 - 90 million tonnes/year
• 10% of Canada’s GHG emissions
• Greater than BC’s total emissions

40 Coal Fired Power Plants

One Canadian LNG Plant

Note: Based on LNG Canada. EIA.

BUILDING 5 LNG PLANTS EQUIVALENT TO REDUCING CANADA’S GHG EMISSIONS BY 50%
Canada’s Opportunity to Lead

Delivering Canada’s Crude Oil & Natural Gas to Global Markets Should be a Climate Change & Economic Priority for Canada