

Acting on Climate change



Catherine Potvin
McGill University
Sustainable Canada Dialogues

The Largest Emitters (2013)



- China
- United States
- EU28
- India
- Russian Federation
- Japan
- Korea, Republic of
- Canada
- Brazil
- Indonesia
- Saudi Arabia
- Mexico
- Iran, Islamic Republic of
- Australia

<http://edgar.jrc.ec.europa.eu/overview.php?v=CO2ts1990-2013>

U.S.-China Joint Announcement on Climate Change and Clean Energy Cooperation

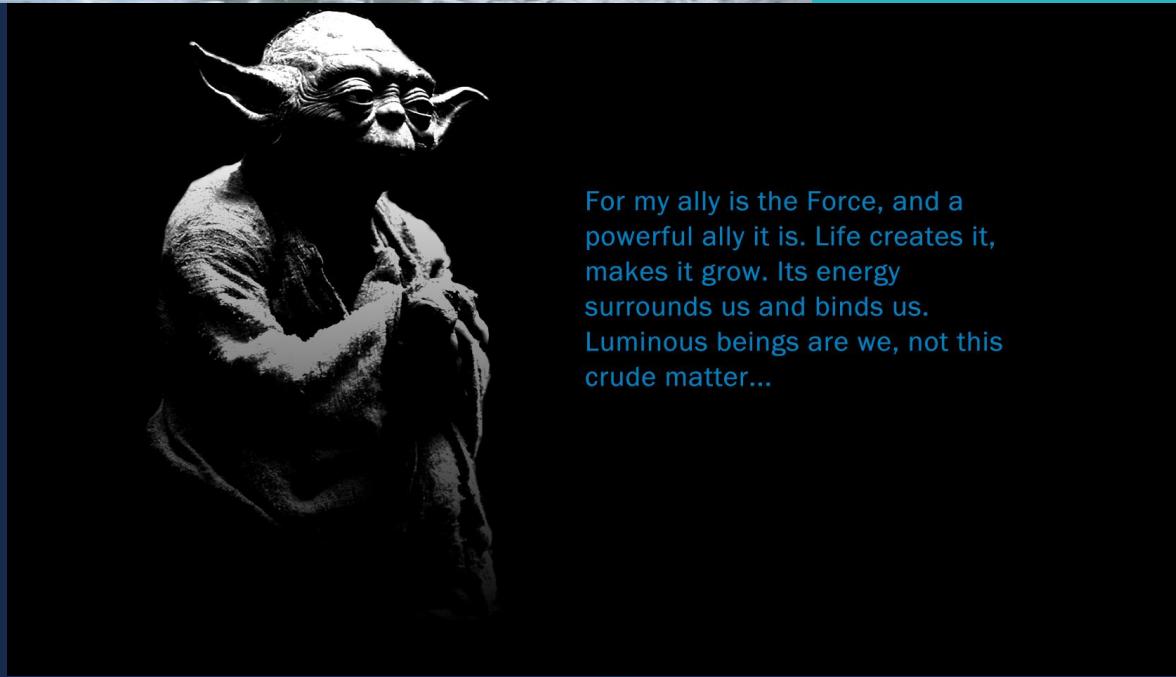


www.washingtontimes.com

- New target for the USA: **-26-28% of 2005 in 2025**
- **USA ratified the Paris agreement on September 6th 2016**
- China: Peak in CO₂ emissions ~2030 and increase in renewable energy use by 20% for 2030



Alliance of Small Island States

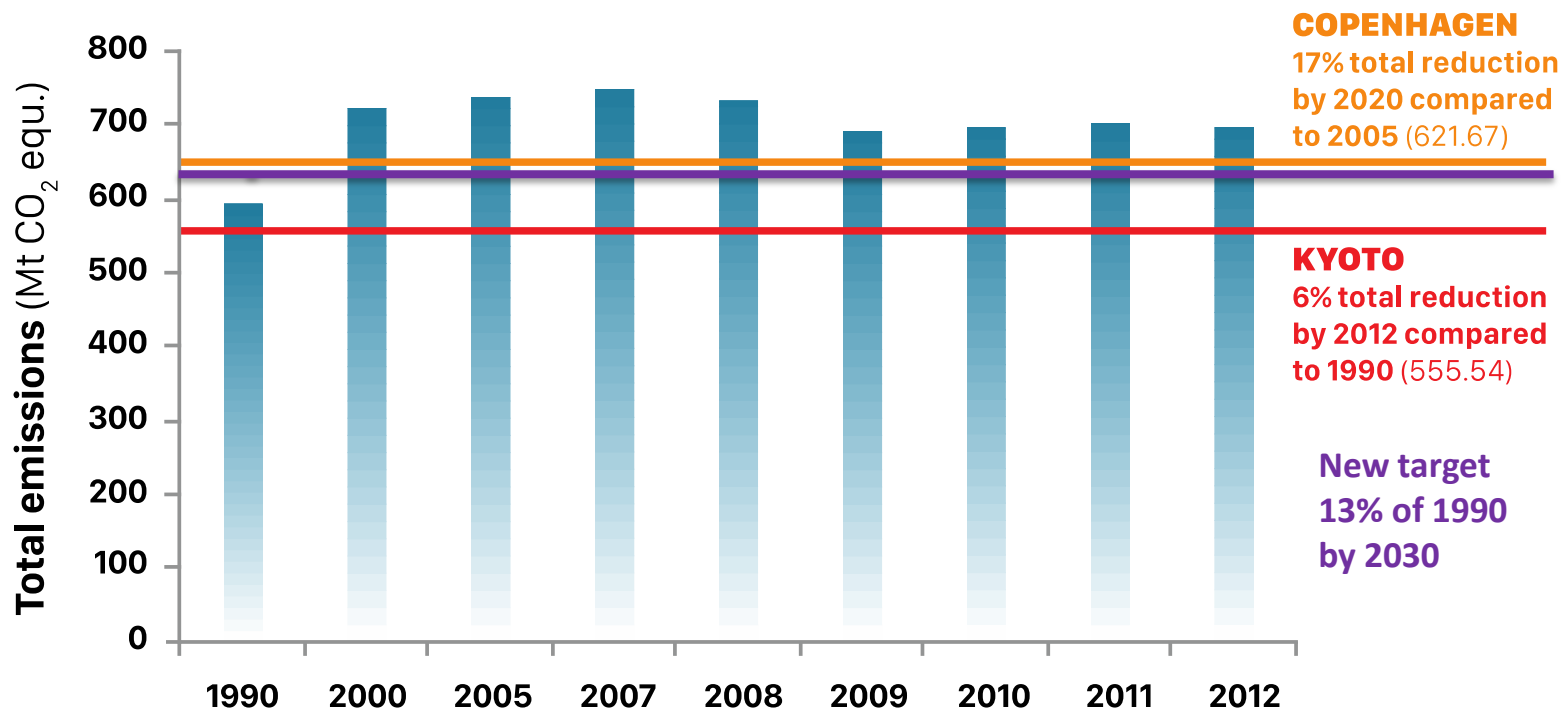
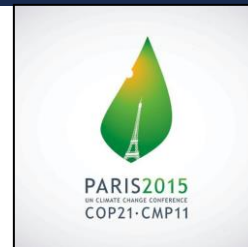


For my ally is the Force, and a powerful ally it is. Life creates it, makes it grow. Its energy surrounds us and binds us. Luminous beings are we, not this crude matter...

CONTEXT

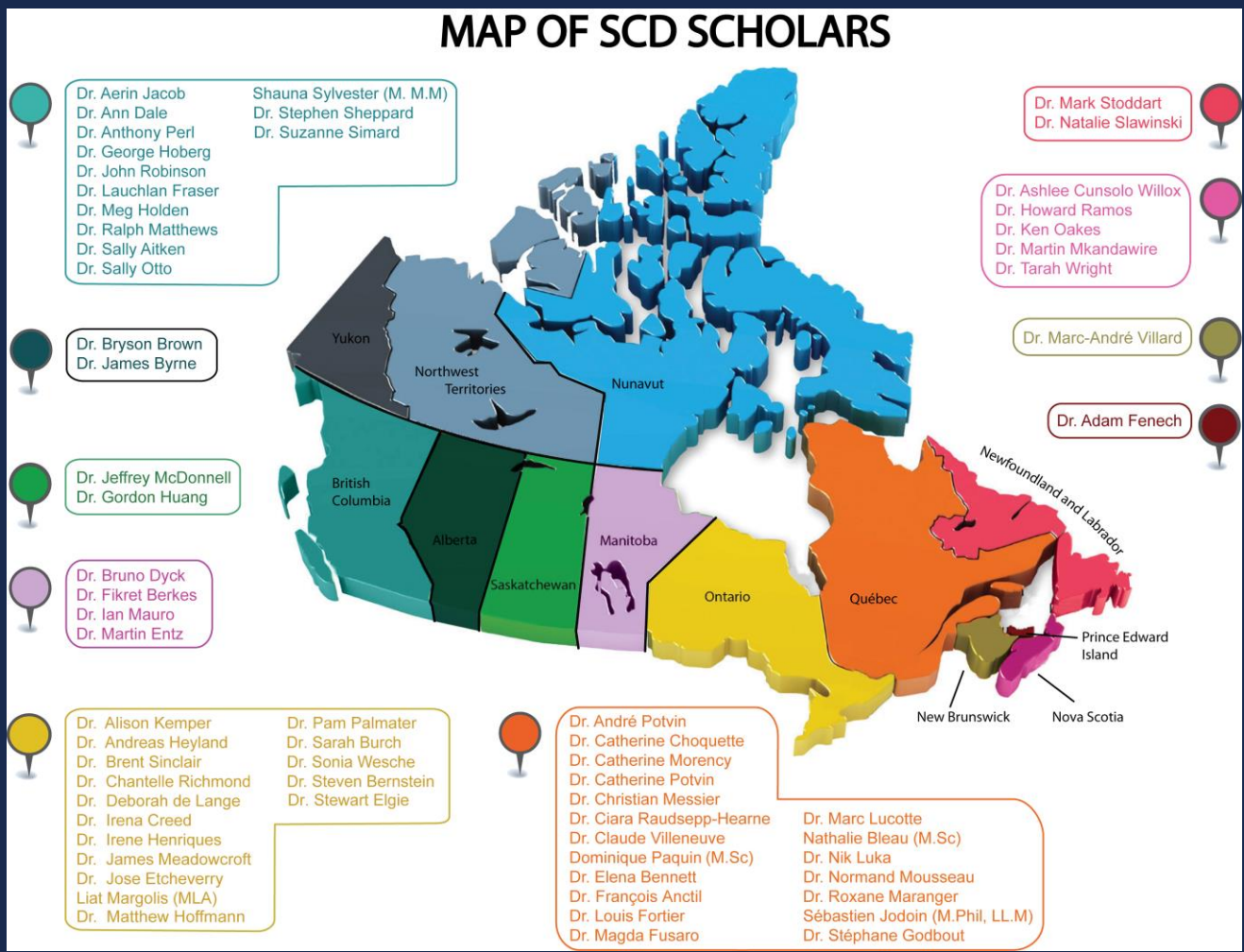
Paris Agreement: Signed 22 April 2016

Pan-Canadian framework for combatting climate change: Developing



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ACTING ON CLIMATE CHANGE

Solutions
from Canadian Scholars



McGill



TROTIER ISPP
INSTITUTE FOR SCIENCE AND PUBLIC POLICY
WITH LOCAL KNOWLEDGE AND PARTICIPATION



Réseau
Environnement

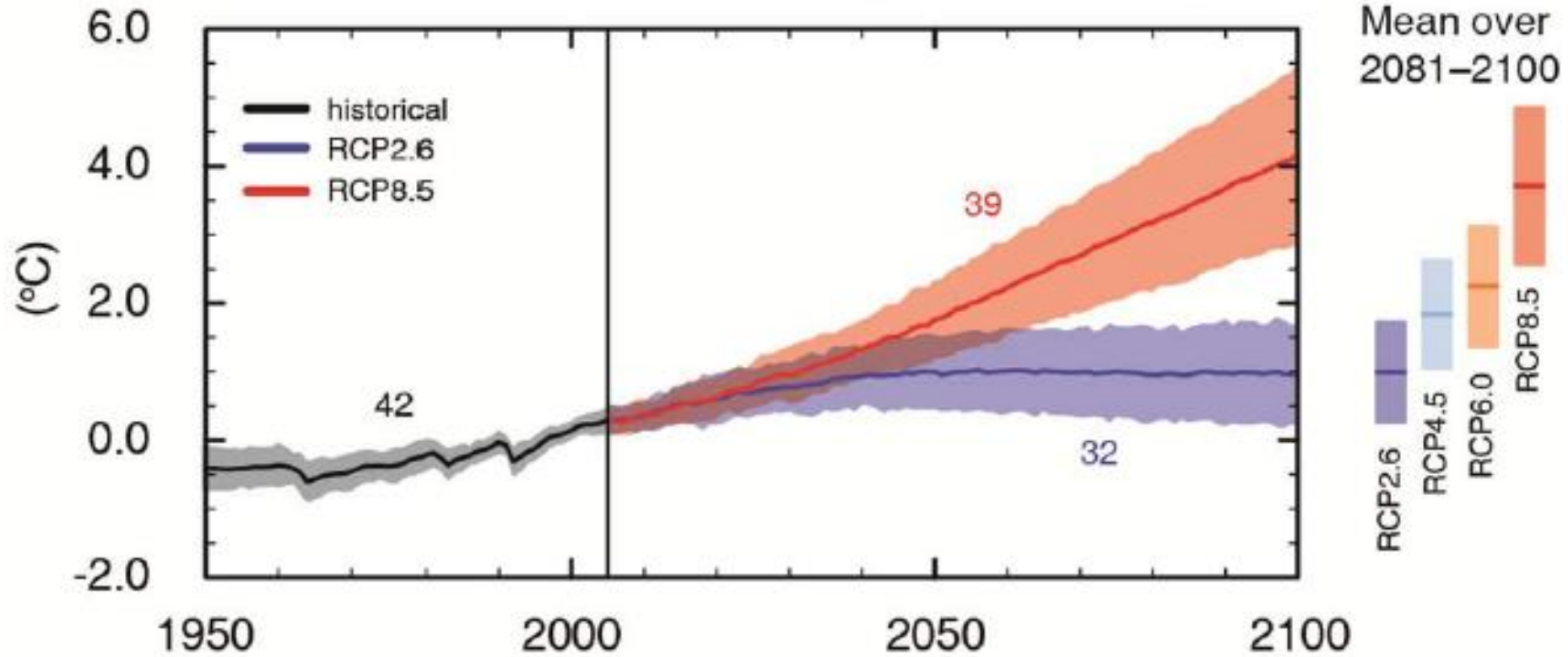


Association francophone
pour le savoir

Acfas

(a)

Global average surface temperature change



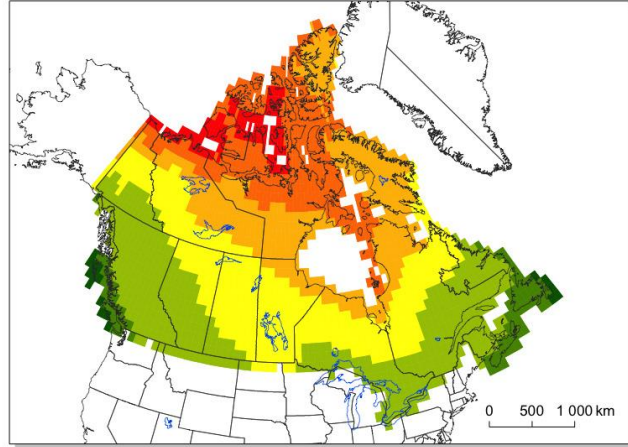
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Executive Summary Figure SPM7

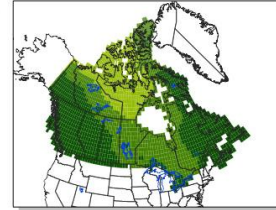
Climate change scenarios over the next 100 years according to 2 IPCC scenarios

2071-2100 : RCP 4.5

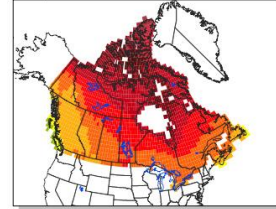
50th percentile



10th percentile



90th percentile

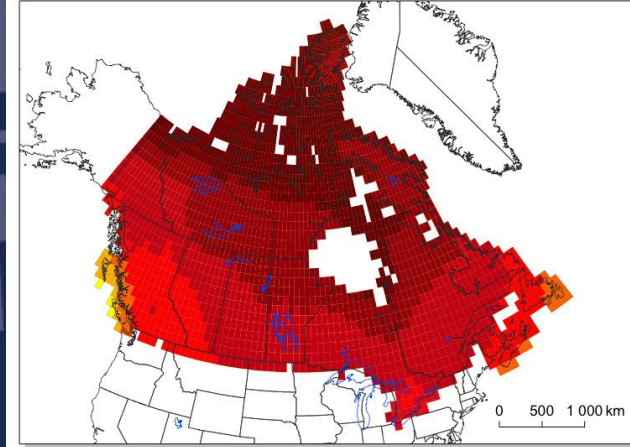


Δ 2m Temperature (°C) : ANN

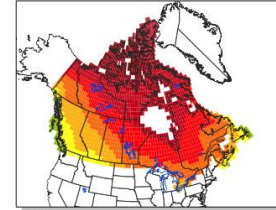


2071-2100 : RCP 8.5

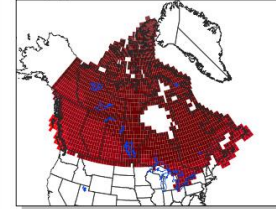
50th percentile



10th percentile



90th percentile



Δ 2m Temperature (°C) : ANN



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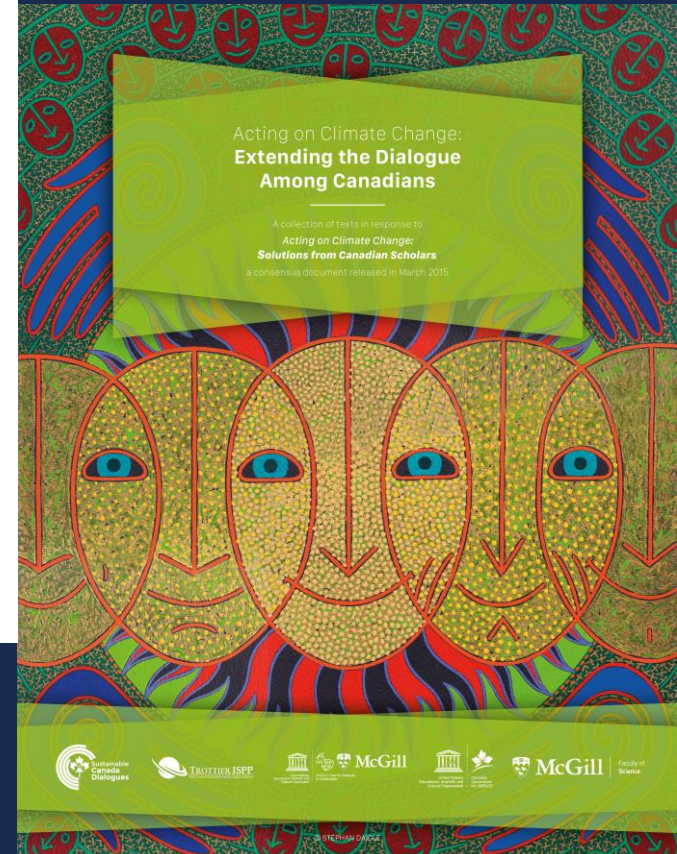
10 KEYS

TOWARD A LOW-CARBON SUSTAINABLE CANADA

- 1** Put a price on carbon
-28% EMISSIONS REDUCTION IN 2025
- 2** Include aggressive goals for low-carbon electricity production in the federal and provincial climate action plans
100% LOW-CARBON ELECTRICITY IN 2035
- 3** Integrate the oil and gas production sector in climate policies
-80% EMISSIONS REDUCTION IN 2050
- 4** Adopt a multi-level energy policy with energy efficiency and cooperation in electrification at its core
- 5** Throughout Canada, rapidly adopt low-carbon transportation strategies
- 6** Integrate landscape planning with land use, transportation and energy infrastructure planning policies at multiple scales (building, neighbourhood and region) to ensure climate change mitigation
- 7** Support evolution of the building sector toward a carbon neutral or carbon positive sector
- 8** Safeguard biodiversity and water quality during Canada's transition to a low-carbon society, while aiming for net positive approaches when possible
- 9** Support sustainable fisheries, forestry and agricultural practices that offer opportunities to not only limit GHG emissions but also, where possible, enhance carbon sequestration while protecting biological diversity and water quality
- 10** Facilitate the transition to a low-carbon sustainable society through the implementation of more participatory and open governance institutions



The Contributors

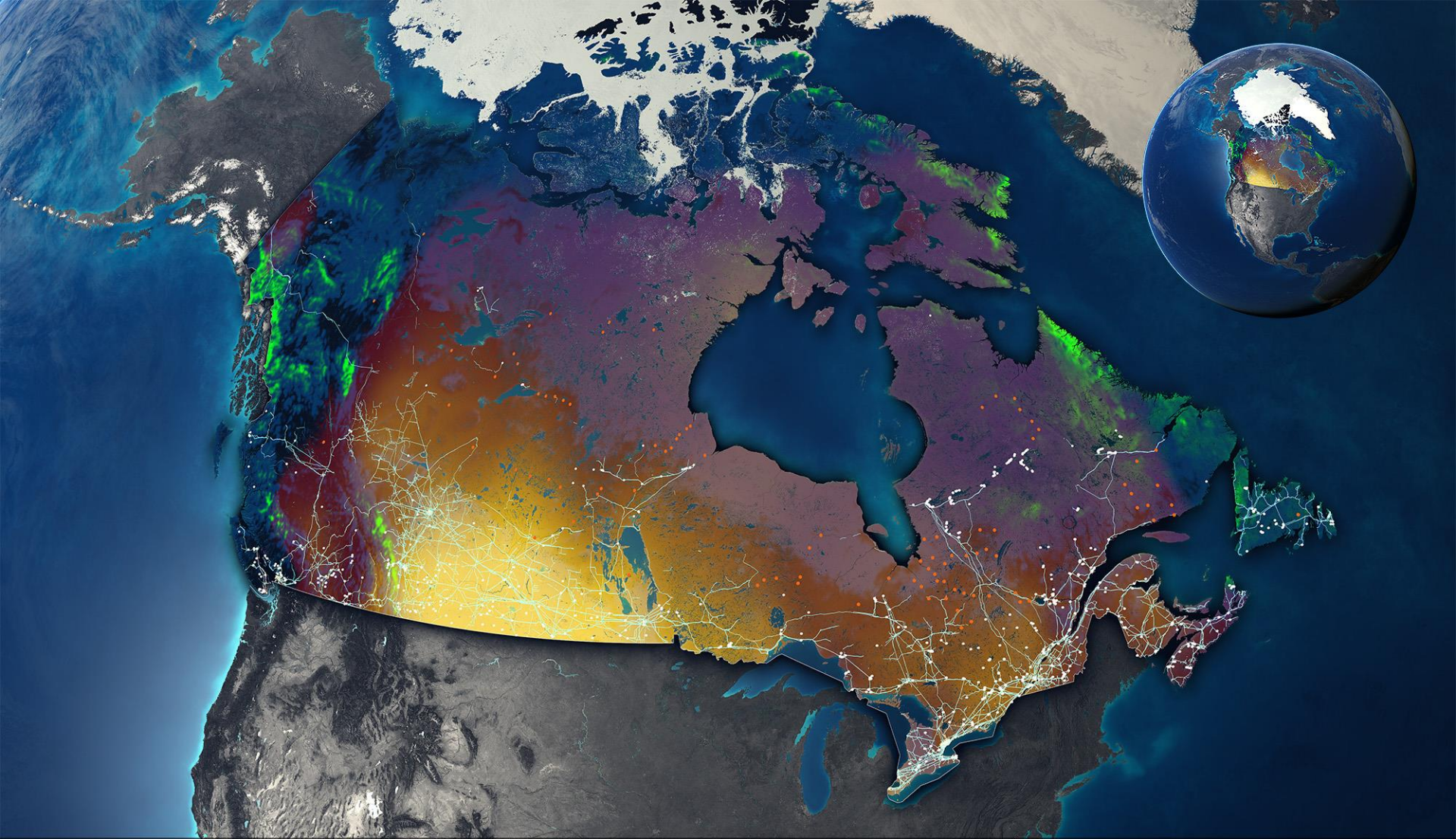


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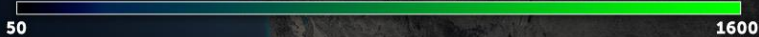
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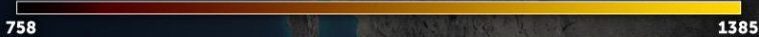


Canada's vast renewable energy potential

WIND ENERGY (W/m²) AT 50M



SOLAR ENERGY (kWh/kW)



Existing Dams

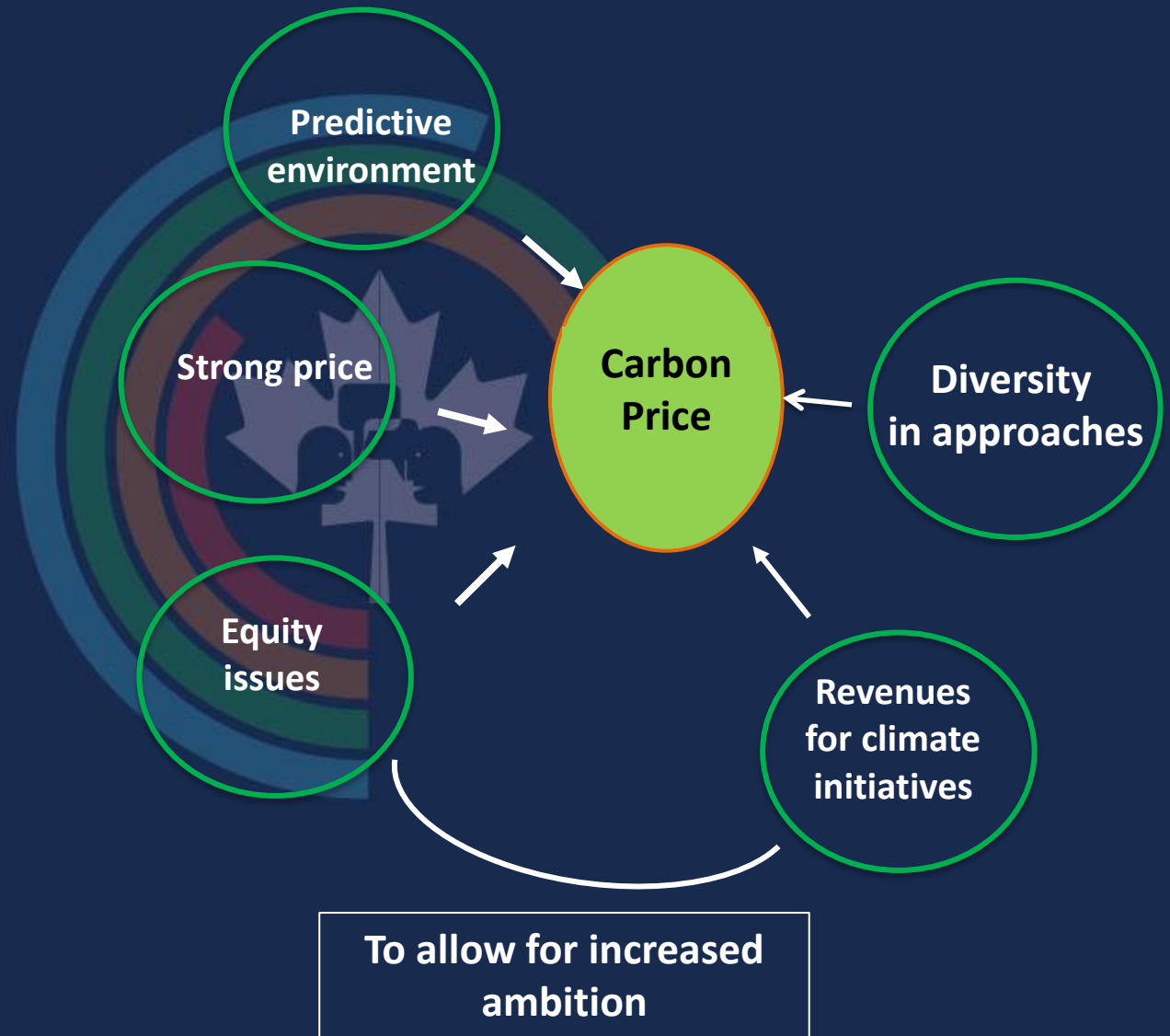
Potential Dams

Transmission Lines

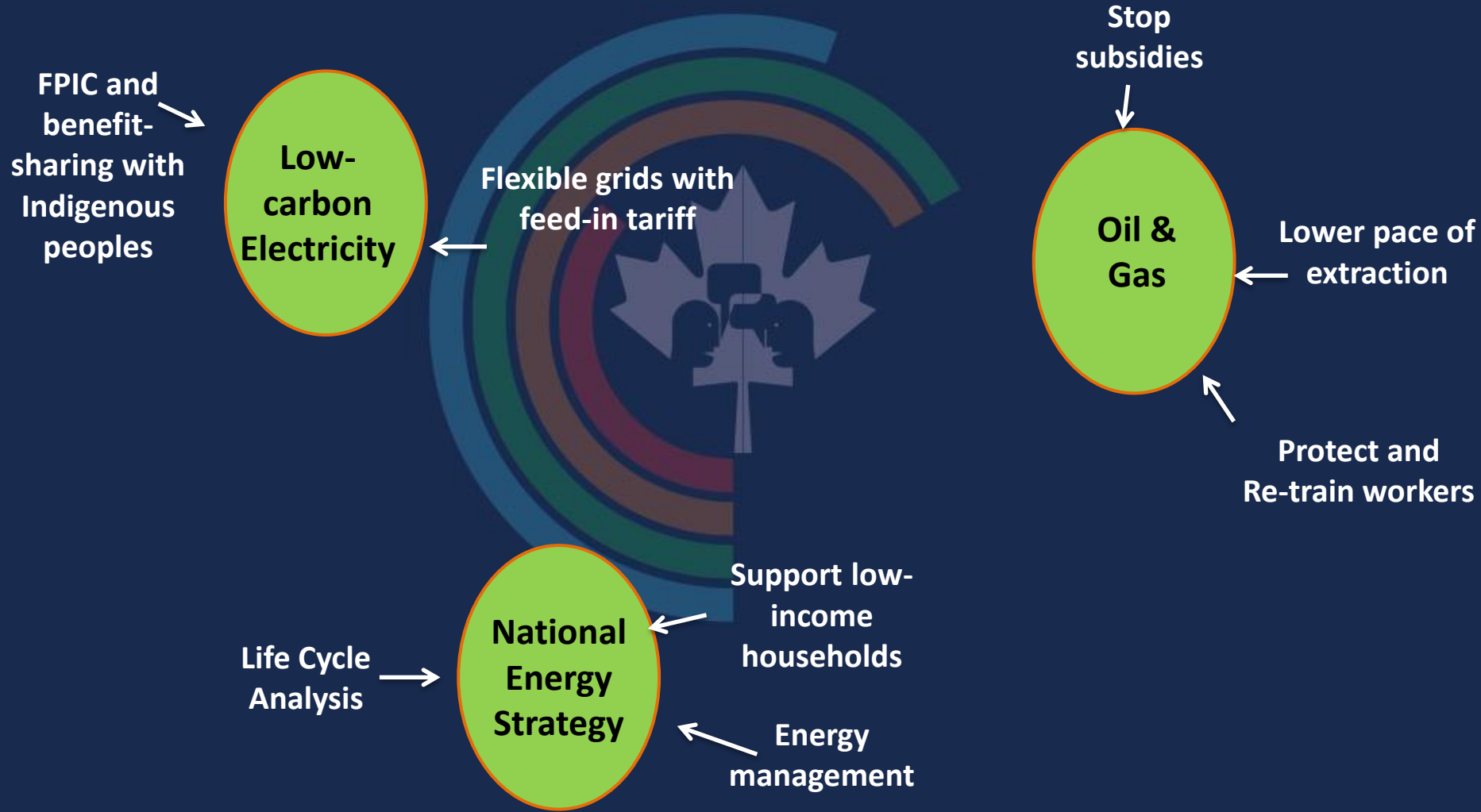


GLoBAIA

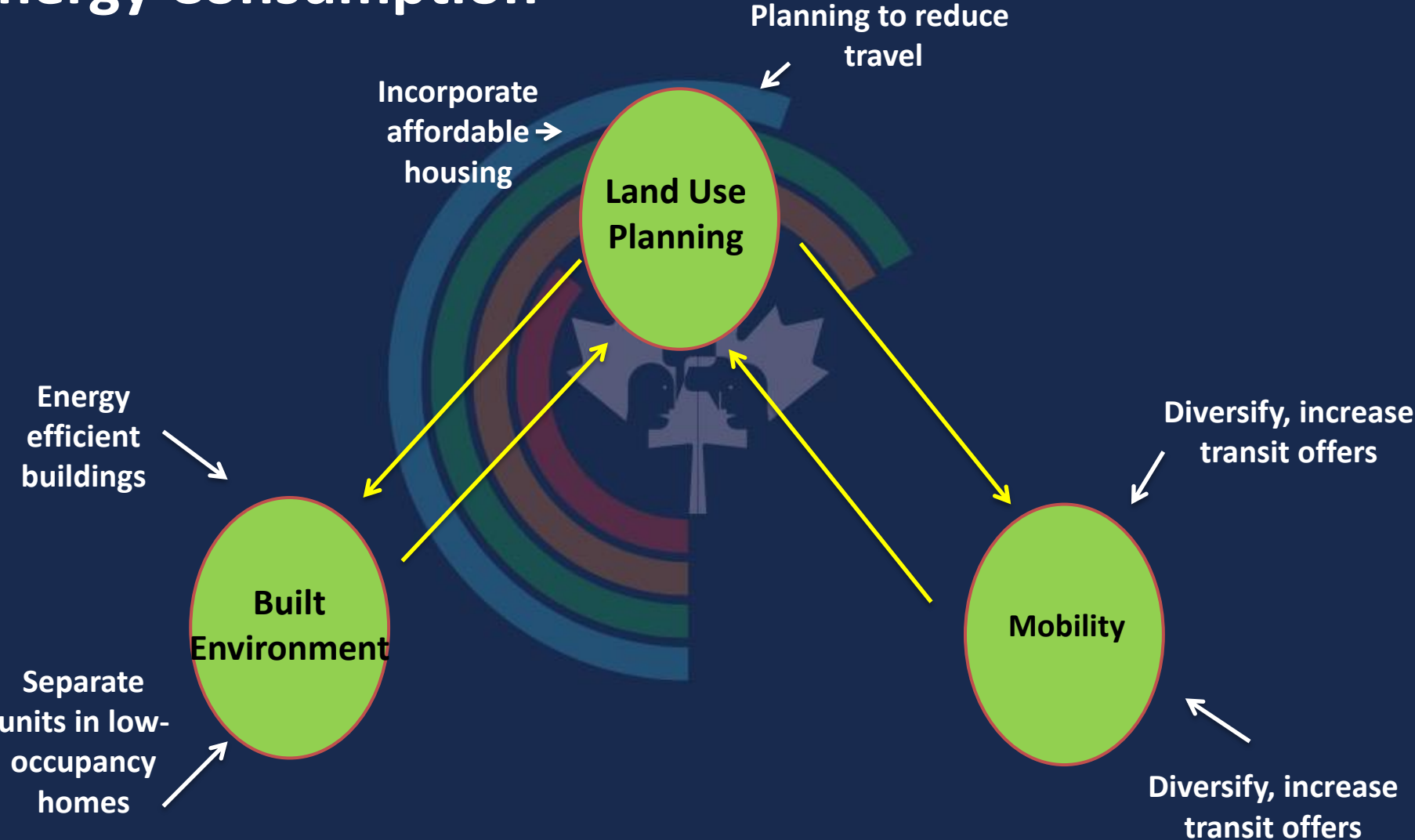
Climate policy



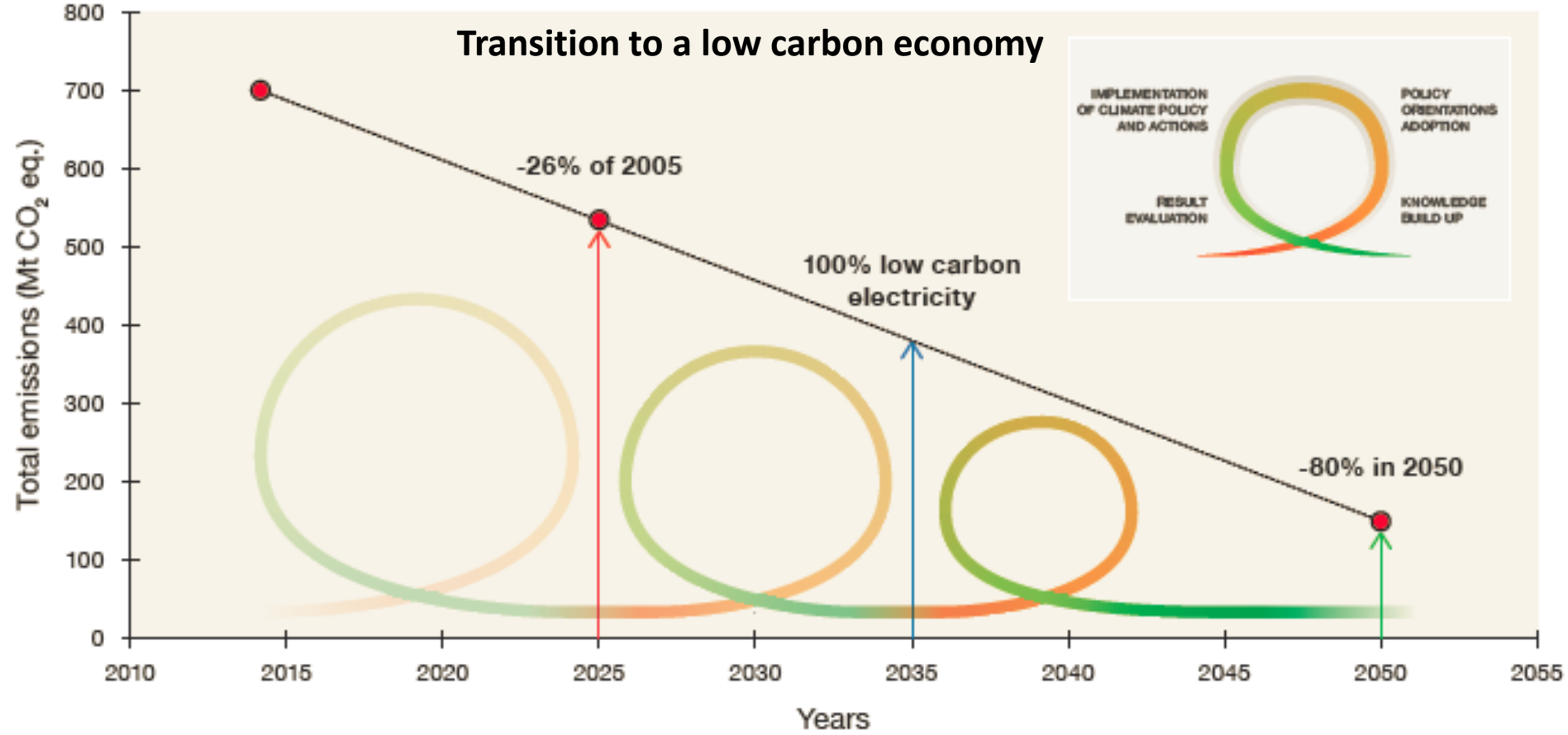
Energy Production



Energy Consumption



Transition to a low carbon economy



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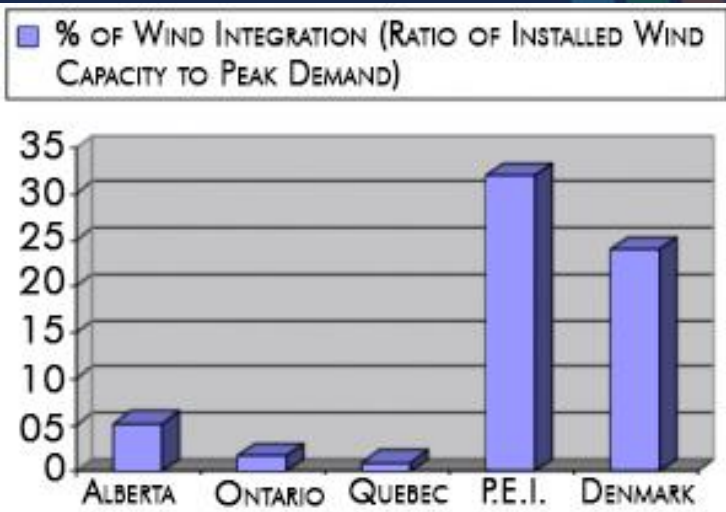
Canada's place in global cleantech markets



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Out of the box thinking

- Wind energy Institute of Canada
- PEI Hydrogen Village project



<http://www.innovationpei.com/renewableenergy>



Pour **Adèle** (2 mois), **Alice** (4 ans), **Arthur** (17 mois),
Avery (2 ans), **Brookelyn** (7 ans), **Camille** (3 ans),
Elias (5 ans), **Emma** (1 semaine), **Evan** (8 ans),
Gabriel (2 jours), **Hanah** (9 ans), **Isis** (3 ans), **Jai** (10 ans),
Josh (10 ans), **Jules** (2 semaines), **Keestin** (5 ans),
Louve (11 ans), **Maggie** (13 ans), **Megan** (13 ans),
Manami (2 ans), **Matthew** (6 ans), **Mireille** (13 ans),
Naomi (13 ans), **Penelope** (7 ans), **Samantha** (18 mois),
Tal (16 mois), **Wilson** (12 ans), **Wusko** (9 ans),
et tous les autres.

You future is our inspiration.



<http://www.sustainablecanadadialogues.ca>

Facebook: <https://www.facebook.com/mcgillatwork>

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Merci!!!!!!!!!!!!!!

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