Canadian Decarbonization Pathways

Economic and emission opportunities and outcomes

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Much subnational policy before the Pan-Canadian Framework on CG and CC

Provincial Policies

- BC Ctax, LCFS
- AB SGER > Climate Leadership Plan
  - $30 Ctax/OBA; methane, oil sands 100 Mt cap
- SK Boundary Dam CCS, SK 50% renewable power standard
- ON coal ELEC ban, WCI
- QC WCI
- NS RPS (and now C&T)
- Waste regs in provinces

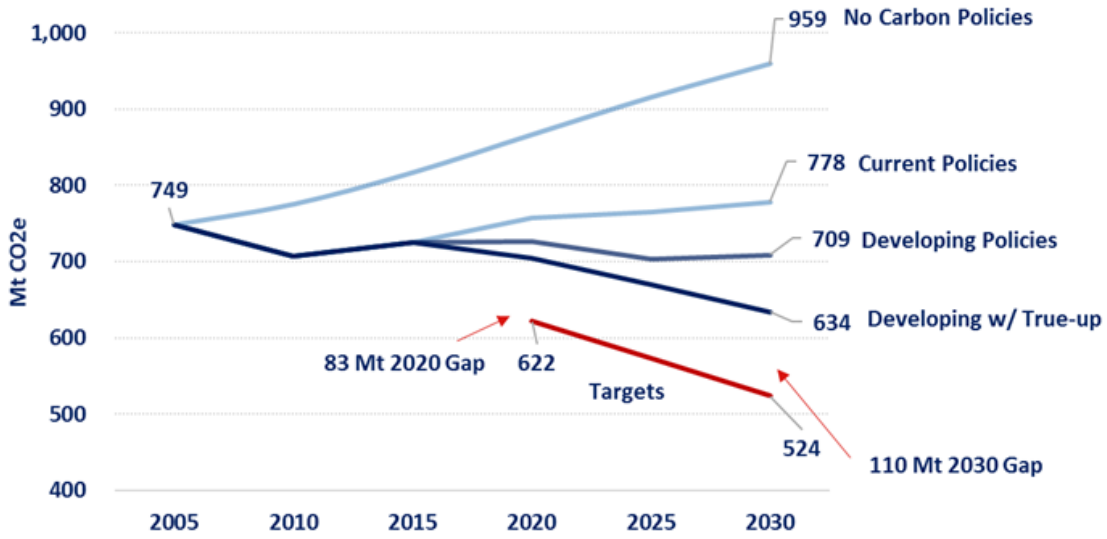
Federal

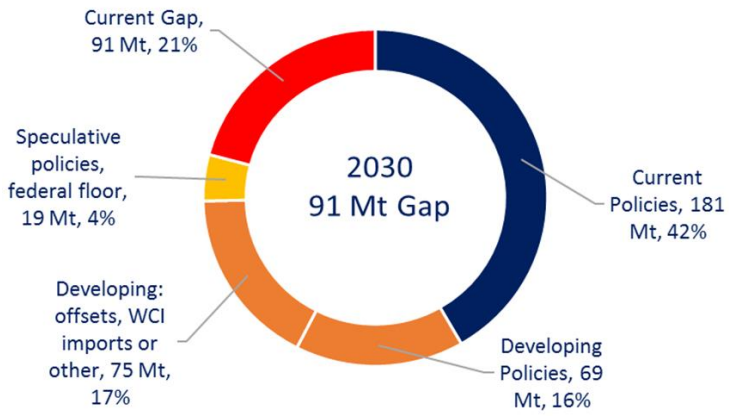
- Coal regs; vehicle & efficiency standards
- Methane oil & gas regs.

QC and ON true-up

22 to 25 Mt in 2020

<u>73 Mt in 2030</u>





The PCF: Fragmentation nation gets aligned

Bottom-up provincial architecture set with uneven policy coverage and stringency

Policies scalable to 2030 NDC target, on track really now.

Misalignment is ok when ambition and costs low

Regulatory burdens, cost misalignment worse with ambition

- Costs 25% to 50% higher with provincial silos, really bad for competitiveness

New Federal pan-Canadian Framework on Clean Growth and Climate Change (PCF)

Align regulatory burden, costs and equivalent policy outcomes

- **No federal pre-emption or dominance**
- **Pushes policy stringency:** A few laggards, fills GHG inventory gaps and increases ambition
- **Coordinates effort**: Aligning costs (as in federal floor) and cohesive climate governance.

The Pan-Canadian Framework on Clean Growth and Climate Change

Three common design features across policy patchwork helps with more ambition:

1. **Efficient and broad-based carbon pricing** now our **national baseline**.
   - NDC gap closed with 70 Mt ITMOs, federal floor to **$150 in 2030** (+$12 per year + inflation after 2022) from $220.
2. **Performance regulations act like carbon pricing, at least for transport and buildings.**
   - Current tightening rates for buildings, cars and methane close to high ambition scenario.
3. **Maintaining competitiveness and fairness embedded in design, increasing acceptability.**
   - With scale of the decarbonization challenge, costs rise fast even with efficient policy.
   - Household rebates, trade exposed industry get output based allocations
4. **Innovation and climate finance**
5. **Governance structures to work collaboratively across subnational jurisdictions**

PCF Policy – federal and provincial shared responsibility

Carbon Pricing

✓ Federal price sets price level in all but Ontario and Quebec, where WCI forecast price for tradable emissions allowances (a.k.a. “ITMOs”) sets effort.

Electricity

✓ Coal phase-out. Modeling lags federal schedule slightly.

✓ Natural gas performance standard modelled as intensity standard.

~ Northern diesel power phase-out

Built Environment

✓ Net-zero-energy ready model building code (new builds).

~ Retrofit building codes, financing. Indirectly modeled as net-zero building code

✓ Energy efficiency standards for equipment and appliances.

Transportation

~ Clean Fuel Standard.

✓ Heavy-duty vehicle regulations. Modeled as more stringent intensity standard.

✓ Light duty vehicle regulations. Modeled as more stringent intensity standard.

~ Zero emissions vehicle strategy. Modeled as stringent vehicle intensity standard

Fragmentation Nation gets aligned

Industry

~ Hydrofluorocarbon (HFC). 8 Mt.
✓ Oil and Gas Methane regulations.
✓ Industrial energy efficiency.
✓ Phase-out fossil fuel subsidies.

Forestry, agriculture, and waste

✓ Landfill gas.
✗ Land use accounting adjustments from UNFCCC accounting.

International Leadership.

✓ Western Climate Initiative Internationally Transferable Mitigation Outcomes (WCI-ITMOs).

Taking Stock

Canada's 2030 NDC and Deep Decarbonization