

*Regulating Carbon in Canada**Divergent Approaches:  
Greenhouse gas mitigation in  
Canada and Australia**Philip Gass and Dave Sawyer*

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*Abstract*

With the release of *Lessons for Canada: Implementation of Australia's Carbon Pricing Mechanism* (Beck, 2012), IISD has developed this companion piece to provide some additional Canadian context to Tony Beck's work analyzing the implementation of carbon pricing in Australia. This policy brief provides commentary on what the Australian experience with carbon pricing can provide to Canadian industry and policy-makers. As the Canadian government continues to move forward with sector-by-sector regulation of greenhouse gases (GHGs), and individual provinces continue to implement and strengthen subnational regulatory and pricing mitigation policies, the Australian experience can provide some valuable insight and offer a "parallel universe" to which Canada can compare its own approach to climate change.

## Carbon Policy in Canada and Australia

With Australia's move to address GHG emissions at about the same time that the Government of Canada has moved to regulate, it seems timely for IISD to make comparisons between the two approaches. The comparative size of the two countries' economies, the prominence of extractive industries and the ongoing political maturation make Australia an interesting case for Canada to observe. In this policy brief, we compare and contrast the issues in more detail.

On the surface, Australia's preference for national carbon pricing is an obvious point of departure from Environment Canada's preference for performance regulations. However, focusing on where we are today ignores some really interesting insights. Notably, in both countries, the "job-killing carbon tax" rings true for a series of failed politicians who lost their heads over their instrument choice maturations. This political bloodletting will continue to influence federal GHG policy in both countries.

While federal politicians in both countries were losing their heads, subnational governments took the lead and implemented policy. As subnational policies matured in Australia, the federal government stepped in to provide a unified approach, and states vacated the policy space. This differs from what we are witnessing in Canada, where the sector-by-sector regulations are now pivoting on provincial equivalency, which could entrench historical policy fragmentation, but allows provinces more direct control over mitigation. The result is that Australian industry is likely to see aligned carbon prices and regulatory requirements across emissions, while there will be no such outcome for their Canadian cousins. Whether this is good or bad remains to be seen.

Table 1 provides a comparison of the main elements of the two approaches.

**TABLE 1: COMPARING CANADIAN AND AUSTRALIAN EMISSIONS MITIGATION POLICY**

	CANADA	AUSTRALIA
National target	17% below 2005 levels by 2020 (607 Mt)	5% below 2000 levels by 2020 (530 Mt)
Abatement required to meet target	243 Mt	160 Mt
Compliance mechanism	Regulatory performance standard, with varied flexibility mechanisms	Carbon tax (2012-2015) Cap and trade (2015- )
Coverage	By sector: Electricity - New or modified coal-fired units Transport - Vehicle GHG regulations (new model years) Oil and Gas - Under development Other sectors - To be announced	Stationary sources - 500 largest emitters over 25,000 TPA (60% of national emissions) subject to carbon pricing Transport - Not covered at this point, potentially later
Stringency	Electricity - 420 t/GWh CO <sub>2</sub> e Transport - 250 g/mi CO <sub>2</sub> e (2016), 163 g/mi CO <sub>2</sub> e (2025) Oil and Gas - Intensity improvement expected between 20-50%	<ul style="list-style-type: none"> <li>2012-2015: Carbon tax of AUD\$23 per tonne</li> <li>After 2015: Carbon tax replaced with flexible cap and trade</li> </ul>

	CANADA	AUSTRALIA
Industry assistance/flexibility mechanisms	<p>Depends on sector</p> <ul style="list-style-type: none"> <li>Electricity: Performance standard obligation shifting, fleet transfers, carbon capture and storage provisions, emergency use provisions, long compliance timelines, equivalency</li> <li>Transport: Credit banking and trading</li> <li>Oil and Gas: To be announced; could include: low-cost domestic reductions, Specified Gas Emitters Regulation-style technology fund</li> </ul>	<ul style="list-style-type: none"> <li>Free allocation for trade-exposed industry: 94.5% (highly exposed), 66% (moderately exposed)</li> <li>Clean Energy Finance Corp: Investment in commercialization and deployment of renewables, efficiency, and low-emissions technology</li> <li>Renewable Energy Agency: Research and development for competitive grants</li> <li>Clean Technology Program: Matching grants for clean tech innovation</li> </ul>
Current expected reductions by 2020	-130 Mt (113 Mt short of target)	-160 MT (meets target)

Note: Mt = megatonnes; CO<sub>2</sub>e = carbon dioxide equivalent; t/GWh = tonnes per gigawatt hour; g/mi = grams per mile; TPA = tonnes per annum.

Source: Environment Canada (2012a)

## Subnational Leadership, Pre-emption and Equivalency

Historically, it has been the subnational governments in Australia and Canada that have taken the lead and implemented GHG mitigation policies. These historical paths are now set to diverge, as Australian states defer to the national government, while in Canada emerging federal-provincial equivalency agreements will likely cede federal jurisdiction to provinces, at least on some GHG policy architecture.

Australian states have had different levels of policy engagement in GHG mitigation, with some programs, like New South Wales' GHG Abatement Scheme, operating for years. Most of the state programs have ended or are winding down through agreement of the Council of Australian Governments (the primary intergovernmental body) to allow federal policy to pre-empt state GHG policy. With a painfully slow federal start in Canada, Canadian provinces have filled the policy space. Now, the federal government seems unwilling to pre-empt existing provincial policy, seeking instead equivalency on GHG reductions and not necessarily on policy architecture where provinces have been proactive and wish to retain policy control. A proliferation of equivalency agreements, with lineage in Nova Scotia's coal-fired power equivalency agreement (Environment Canada, 2012b), will likely emerge as provinces continue to tailor GHG policy to local circumstances. Each of these two paths—Australian pre-emption and Canadian equivalency—creates different challenges and risks for subnational governments.

The primary policy risk in Australia is if the carbon pricing mechanism is repealed with a change in federal government, which is entirely possible given the politicization of the issue. In the event of repeal, there will be no national strategy, creating a policy vacuum, as state-level strategies will have all been repealed or withdrawn. Assuming the current policy is not repealed, an Australian national approach will be administratively simpler relative to a mix of national and subnational policies, at least for the regulated community.

An emerging federal “equivalency approach” vests Canadian provinces with continued policy control. The trade-off is regulatory burden for emitters, but perhaps of greater concern are higher costs. Policy fragmentation could complicate the development of flexible compliance pathways designed to lower costs, such as a national system of low-cost domestic reductions (offsets). To the extent that equivalency limits the development of national flexibility mechanisms, compliance costs will be higher.

The presence of conservative governments in the major states of Australia points to it being unlikely that governments will be proactive if the national plan is repealed. Interestingly, in Canada the issue of left-right politics has not dictated emissions mitigation action. Motivation behind mitigation policy action in Canada may differ by government ideology (e.g., protecting competitiveness versus addressing global climate needs), but governments of all political stripes in Canada—conservative, liberal and NDP—have shown a willingness to address carbon emissions, and, in some cases, progressive action to do so. But this sword cuts both ways, and inaction can also be pinned on the full spectrum of political parties in Canada.

### **Job-Killing Carbon Price, at Least for Politicians**

Staking a political claim on carbon pricing was a significant contributing factor to the demise of several political careers in both countries. In Canada, Stéphane Dion’s failure to garner support for his Green Shift carbon tax proposal was credited as one of the central reasons for his resignation; in Australia, Kevin Rudd, the sitting prime minister, was removed by his own party and replaced by Julia Gillard after he was unable to get his Carbon Pollution Reduction Scheme (CPRS) through parliament.

Opposite ideologies are in power in both countries (centre-left Labour versus centre-right Conservatives), which likely contributes to the divergent outcomes. The parties in both countries with similar ideological outlooks adopted similar, if not identical, outlooks on climate change mitigation. Labour’s mix of tax and trading provides a partial composite of characteristics from the Liberal Green Shift and current NDP positions on cap and trade.

Similarly, in both countries, the right-of-centre party initially favoured cap-and-trade approaches, but later shifted to other approaches: direct regulation in Canada and an ambiguous mix of incentives and penalties (including what looks like a potential technology fund proposal) in Australia.

The left/right identification of the party in power could also be a contributing factor to the decision to favour a unified federal emissions approach in Australia and a more decentralized equivalency approach in Canada. Interestingly, the Canadian Conservatives and NDP are the only major parties not to lose a leader over their position on climate change policy since 2008, as the Australian Liberal-National coalition ousted Malcolm Turnbull over his support of the CPRS, replacing him with current leader Tony Abbott.

One lesson to take here is that no policy outcome is the presupposed “best” approach. In the end, it was as much the policy preference of the governing party and local circumstances that determined the outcome of the debate and final form of the mitigation scheme. A second, sharper lesson is that being on the wrong side of public opinion on climate change can lead to forced retirement for politicians.

As Beck (2012) points out, there are serious questions about the plans for the Liberal-National coalition to repeal pricing. Once those payments are in motion, having to address the funding shortfalls for industry compensation payments, tax cuts, investment incentives and other programming funded by carbon tax payments is extremely difficult. IISD addressed this same question in a Canadian context in its submission to the British Columbia Carbon Tax Review (Gass & Sawyer, 2012). Finding ways to address budget shortfalls created by repealing carbon taxes is inherently difficult, and not something to be taken lightly.

The overall lesson from both the British Columbian and Australian examples is that once a carbon pricing system is in place, it quite quickly becomes entrenched and is extremely difficult to remove. The most difficult battle (as Kevin Rudd, Stéphane Dion and Malcolm Turnbull would likely agree) is gathering enough legislative and public support to put the policy in place and initiate implementation; after that, the momentum of revenues coming in and compensation to the public and industry going out can become almost perpetual.

## Diverging Policy Choices and Regulatory Costs

In both countries, similar schemes for emissions mitigation have been debated at the subnational and federal levels, but the outcome of the debate has been distinctly different. Both countries debated carbon taxes, cap and trade and other mechanisms, but, while Canada settled on sector-by-sector regulation, Australia adopted a hybrid of carbon tax and emissions trading. Our quick analysis indicates that Australian regulatory costs are likely to be lower than those in Canada, with actual emission reductions uncertain under both schemes.

Australia's policy is designed to deliver 159 Mt by 2020, a 23 per cent reduction from the business-as-usual forecast. This is comparable to Canada's aspirations, where the 17 per cent below 2005 target translates into a 26 per cent reduction relative to the 2020 forecast. All Australian reductions are coming out of the largest emitters, although the upstream carbon price gets broadly distributed to downstream end-uses like liquid fuels. The specific elements of Australia's policy include:

- Coverage of the 500 largest emitters, with a threshold of 25,000 tonnes carbon dioxide equivalent annually.
- Two phases of tax and one phase of trade: an initial three-year fixed price period (i.e., carbon tax phase) transitioning to carbon trading with links to the European Union Emissions Trading System (EU ETS).
- Subject to limitations, international and domestic offsets will be allowed for compliance, with agriculture and waste seen as two key domestic offset sources.
- Significant free allocation for emission-intensive and trade-exposed sectors.

In the initial "tax" phase, Australia's price is AUD\$23 per tonne (AUD\$1 is roughly equal to CAD\$1). In the trading phase, prices will be tied to the EU ETS price, which is currently trading at roughly €7.70 per tonne (about CAD\$9.75). The Australian government expects that prices in the EU ETS will recover to negate the discrepancy by the time a trading link is activated, but if not, there could be a significant price drop. Additionally, the Australian government has indicated the possibility of easing restrictions on using Kyoto carbon permits (Australian Associated Press, 2012) or compliance, a move that would reduce compliance prices further.

Comparing Australia's system with Canada's emerging sector-by-sector regulations is no easy task, given that no clear federal plan has emerged from which to deduce stringency and coverage. But some of IISD's research into the Canadian regulations helps provide at least a preliminary way of examining pricing differences of the carbon policies imposed by the two countries. What we quickly find is that the compatibility of Australian prices to Canadian prices depends heavily on the sector in question and the degree of flexibility within the Canadian approach. Despite the high degree of uncertainty, Canadian regulatory costs are likely to be higher.

For instance, the IISD study of the draft electricity sector regulations (Sawyer & Stiebert, 2012) (which have since been amended) revealed marginal costs of roughly CAD\$50 per tonne (CAD\$26 average cost), with limited flexibility but the opportunity for provincial equivalency. IISD has not recalculated the cost of the final Gazette II Regulations (Government of Canada, 2012), but we expect the price to be somewhat lower.

IISD's study of potential oil and gas sector regulations (Sawyer & Beugin, 2012) found that the regulatory cost in this sector will be heavily dependent on the amount of intensity improvement desired and the level of compliance flexibility provided within the regulations. Modelling found costs for a 20 per cent intensity improvement ranged between CAD\$43 and \$56 per tonne, with costs for a 50 per cent improvement potentially reaching CAD\$80 per tonne with maximum flexibility (trading, low-cost domestic reductions and a price safety valve).

On the other side of the argument, Australia's regulatory costs will depend on factors like free allocation and other industry compensation. As Beck (2012) states, free allocation will be as high as 94.5 per cent for emission-intensive, trade-exposed industry. To the extent that allocations are not freely distributed, the average costs to emitters of the Australian policy could be much higher than in Canada. This is true if compliance includes costs to cover remaining emissions and costs to achieve emission reductions (i.e., emission intensity improvement).

## *We Shall See What Transpires*

The political debates in Canada and Australia have been similar, with blood spilled over instrument choice. But in the end, both countries are on divergent policy pathways, with unified and centrally directed carbon pricing in Australia and a more fragmented system of schemes in Canada. It seems elementary that the regulated community will be worse off in Canada, as they struggle to comprehend a range of sector-by-sector performance standards implemented differentially by multiple regulators with misaligned policy costs, but much will depend on flexibility mechanisms that emerge, and the extent to which low-cost reductions are enabled.

IISD will continue to track both approaches as implementation continues. The emerging prominence of subnational governments in Canada will be of interest, as will how equivalency will be implemented. In Australia, the emerging compliance costs and emission reductions will be good benchmarks from which to evaluate and monitor Canadian GHG policy performance.



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Head Office

161 Portage Avenue East, 6th Floor, Winnipeg, Manitoba, Canada R3B 0Y4

Tel: +1 (204) 958-7700 | Fax: +1 (204) 958-7710 | Web site: [www.iisd.org](http://www.iisd.org)

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