ENERGY REGULATION QUARTERLY

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MISSION STATEMENT

The mission of Energy Regulation Quarterly (ERQ) is to provide a forum for debate and discussion on issues surrounding the regulated energy industries in Canada, including decisions of regulatory tribunals, related legislative and policy actions and initiatives and actions by regulated companies and stakeholders. The role of the ERQ is to provide analysis and context that go beyond day-to-day developments. It strives to be balanced in its treatment of issues.

Authors are drawn from a roster of individuals with diverse backgrounds who are acknowledged leaders in the field of energy regulation. Other authors are invited by the managing editors to submit contributions from time to time.

EDITORIAL POLICY

The ERQ is published online by the Canadian Gas Association (CGA) to create a better understanding of energy regulatory issues and trends in Canada.

The managing editors will work with CGA in the identification of themes and topics for each issue. They will author editorial opinions, select contributors, and edit contributions to ensure consistency of style and quality. The managing editors have exclusive responsibility for selecting items for publication.

The ERQ will maintain a "roster" of contributors and supporters who have been invited by the managing editors to lend their names and their contributions to the publication. Individuals on the roster may be invited by the managing editors to author articles on particular topics or they may propose contributions at their own initiative. Other individuals may also be invited by the managing editors to author articles on particular topics.

The substantive content of individual articles is the sole responsibility of the respective contributors. Where contributors have represented or otherwise been associated with parties to a case that is the subject of their contribution to ERQ, notification to that effect will be included in a footnote.

In addition to the regular quarterly publication of Issues of ERQ, comments or links to current developments may be posted to the website from time to time, particularly where timeliness is a consideration.

The ERQ invites readers to offer commentary on published articles and invites contributors to offer rebuttals where appropriate. Commentaries and rebuttals will be posted on the ERQ website (www.energyregulationquarterly.ca).

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Managing Editor

Rowland Harrison K.C.

Controversy about the scope of the federal government's role in the environmental assessment of major projects, particularly resource and energy development projects, reached fever pitch with the introduction in 2018 of Bill C-69 for the *Impact Assessment Act* (*IAA*), labelled by several of its opponents as the "No More Pipelines Bill." Just five years later, the Supreme Court of Canada ruled that major sections of the *IAA* were unconstitutional, sending the government back to the redrafting board. The resulting measures to address the Supreme Court's ruling have now been enacted (coincidentally introduced in a Bill with the same number as the original *IAA*, C-69) and became law on June 24, 2024.

In the lead article in this issue of *Energy Regulation Quarterly*, Claire Seaborn et al. review the amendments and, notably, the accompanying "Cabinet Directive on Regulatory and Permitting Efficiency for Clean Growth Projects" published soon after the amendments were enacted. The authors observe that the public interest test appears to have been refocused on the federal *effects* of a project rather than the project itself. The practical effects of the amendments and the Cabinet Directive, however, remain to be seen: "…the actions of the federal government over the next 12 to 18 months, including the implementation of the *IAA* and Cabinet Directive, will materially influence public confidence in the regime."

"Electrification" and "net-zero" dominate the policy and public discourse on the challenge of responding to climate change. Two articles in this issue of *ERQ* step back and analyze some of the underlying challenges that these ubiquitous concepts present. The contributions are offered by two respected former chairs of provincial energy regulatory agencies and bring invaluable "in the trenches" experience to the discussion.

First, in "Regulatory Decision-Making in Evaluating Electrification Initiatives," Mark Kolesar, former Chair of the Alberta Utilities Commission, observes that regulators are increasingly confronted with the dilemma posed by proposals to advance electrification or, alternatively to undertake investments that may appear to oppose electrification — proposals that raise issues with respect to the assessment of benefits and costs and their effect, not only on utility rates, but on social welfare. Kolesar submits that a transformation in economic regulation is required to review proposals to encourage and facilitate the adoption of new technologies that support emission reductions. He argues that applicants for approval of electrification programs should include an analysis of the benefits and costs of projects, whether or not an analysis is required by the regulator.

In "Electricity Regulation of the Future Must Support System Reliability," Joe McKinnon and Channa S. Perera, from Electricity Canada, also argue that prudently incurred net-zero investments require alternative benefit-cost assessments. They note, however, that there is not yet a consensus regarding the application of such assessments. Furthermore, prioritizing electrification as a policy goal is not included in the mandates of many regulators which, they argue, need to be broadened to align with decarbonization and electrification policy objectives.

The Alberta electricity market is unique in Canada. In "Comments on Electric Industry Restructuring and the AUC Inquiry into Land Use," Rick Cowburn, one of the original designers of that market, observes that the model has been effective and durable for approximately 30 years, "but it has run its course." He focuses on the Government of Alberta's announced intention to advance policy, legislative and regulatory changes restricting land uses that will constrain future generation development, observing that under the generator-centric model, "landowners had no seat at the table." The government's land use resolutions "take a useful step in what appears to be the right direction."

The second of the pervasive concepts referred to above, "net-zero", is analyzed by David Morton, former Chair of the British Columbia Utilities Commission, who asks the foundational question: "What is Net-Zero – and How Do Offsets Help to Get Us There?" He makes the obvious point that, without offsets, if emissions were to be reduced to zero, all human-made GHG emitting processes must be eliminated or replaced with non-emitting processes: "Offsets put the "zero" in "net-zero"… However, the viability of offsets depends on many things, including their integrity, their economics, their public and political acceptance and the ingenuity of developers."

In "What Does *La Rose* Tell Us About Climate Change Litigation in Canada?," Nigel Bankes et al. comment on a significant recent decision of the Federal Court of Appeal (FCA), arising from a claim by the plaintiffs (15 children and youth residing in seven provinces and one territory) that the federal government's failure to address the problem of climate change constituted a breach of sections 7 and 15 of the *Canadian Charter of Rights and Freedoms*. The Federal Court had granted Canada's motion to strike, principally on the basis that the claims were not justiciable. The FCA affirmed the decision of the Federal Court to strike in relation to the section 15 claim, but allowed the appeal with respect to the plaintiffs section 7 claim by giving leave to amend their pleadings. ■

FEDERAL GOVERNMENT AMENDS THE *IAA*: SO WHAT?

*Claire Seaborn, Dennis Mahony, Michael Fortier, and Tyson Dyck**

INTRODUCTION

Canada's federal government has played a role in the environmental assessment of major projects since the early 1970s, rarely without controversy. Following a surge in public interest of environmental issues in the late 1960s and the introduction of environmental quality legislation in the U.S. in 1969, the Government of Canada under Prime Minister Pierre Trudeau adopted Canada's first Federal Environmental Assessment and Review Process in 1973.[1] However, it wasn't until 1990, under Prime Minister Brian Mulroney, that the first federal environmental assessment legislation — the *Canadian Environmental Assessment Act*[2] — was introduced into the House of Commons and became law two years later. The regime was reviewed and amended over the decades that followed, including most notably under Prime Minister Jean Chrétien in 2003 and Prime Minister Stephen J. Harper in 2012.[3]

Since his election in 2015, Prime Minister Justin Trudeau put his own stamp on the regime with a significant overhaul of what is now the *Impact Assessment Act*[4] (the ***IAA*** or the ***Act***), endured a Supreme Court of Canada opinion that the *IAA* is unconstitutional[5] and, most recently, passed amendments intended to address those concerns. Although environmental organizations and some representation from industry and Indigenous groups were initially supportive of the *IAA* during its development, that support has faded in recent years and become overwhelmed by frustrated and disheartened investors, project proponents and others with concerns of regulatory uncertainty and process delays, including impeding energy transition projects and plans.

This article summarizes the *IAA* amendments that became law on June 20, 2024 in an effort to restore the *Act*'s constitutionality, as well as the broader Cabinet Directive published on July 5, 2024 aimed at improving all federal regulatory and permitting processes. Finally, the article explores whether and, if so, how the updated *IAA* can deliver efficient and effective project reviews in a way that restores investor and proponent confidence in the process.

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[1] Government of Canada, "Milestones in the history of assessments" (last modified 18 December 2023), online: <www.canada.ca/en/impact-assessment-agency/corporate/mandate/milestones-history-assessments.html>.

[2] *Canadian Environment Assessment Act*, SC 1992, c 37.

[3] *Canadian Environment Assessment Act*, SC 2012, c 19, s 52 [*CEAA, 2012*].

[4] *Impact Assessment Act*, SC 2019, c 28, s 1 [*IAA* or *Act*].

[5] *Reference re Impact Assessment Act*, 2023 SCC 23 [*Reference re Impact Assessment Act*].

AMENDMENTS TO THE *IAA*

On June 20, 2024, a series of highly anticipated amendments to the *IAA* became law.[6] While the primary purpose and focus of the amendments was to address the constitutional concerns raised by the *Reference re Impact Assessment Act*, they included additional changes directed at improving federal-provincial and federal-Indigenous coordination as well as fostering Indigenous reconciliation. Taken together, the amendments represent incremental adjustments to the federal impact assessment regime.

Notably, the amendments do not modify the timelines of the impact assessment process; however, some of the amendments are intended to have the effect of accelerating timelines and the federal government has also announced policy measures aimed at accelerating timelines that are described in the next section of this article. In total, 32 amendments were made to *IAA*, and the most significant amendments can be grouped into three categories that are described in detail below.

A) NARROWING THE SCOPE OF "EFFECTS WITHIN FEDERAL JURISDICTION"

One of the Supreme Court of Canada's chief criticisms of the *IAA* was the overly broad nature of "effects within federal jurisdiction"[7] which appears 16 times in the *IAA* and interacts with consequential provisions throughout the Act. The amendments narrow this term to "adverse effects within federal jurisdiction," thereby tightening the scope of several decisions made in the course of an impact assessment, such as the Minister's power to designate a project, the discretion of the Impact Assessment Agency of Canada (the **Agency**) to compel a federal assessment, and the Minister or Cabinet's public interest determination.

This new definition of "adverse effects within federal jurisdiction" applies only to a list of "non-negligible" adverse changes to specifically listed components of the environment, such as fish and fish habitat, migratory birds, federal lands, marine environments, and environments with significance for Indigenous Peoples. Importantly, this definition now no longer applies to transboundary air pollution or greenhouse gas emissions, meaning that a project can no longer have conditions imposed or be rejected solely on that basis. However, the definition does maintain the use of a Schedule 3, where components of the environment or a health, social or economic matter may be added or removed by regulation.

If the Agency treats these changes as a substantial narrowing of the "effects within federal jurisdiction" in practice — rather than a clarification of the original intent — the result could be fewer assessments for projects with more distant ties to federal jurisdiction, as well as fewer project conditions or rejections made on the basis of factors that could be considered outside federal jurisdiction.

B) STRATEGIES TO PROMOTE "COOPERATION AMONG JURISDICTIONS"

The Supreme Court of Canada opinion referred to the government's commitment of achieving "one project, one assessment"[8] and the concerns raised by provinces, Indigenous groups and industry on the unnecessary duplication and lack of federal-provincial coordination created by the federal impact assessment regime.[9] This was addressed through several amendments, starting with modifying the "mandate" section of the *Act* to highlight that the Government of Canada, the Minister, the Agency and federal authorities, in the administration of the *Act*, "must exercise their powers in a manner that…promotes cooperation among jurisdictions."[10]

[6] The *IAA* amendments were introduced in the House of Commons on May 2, 2024, in a bill bearing the number Bill C-69. By apparent coincidence, this is the same number assigned to the bill that introduced the *IAA* in 2018, repealing and replacing the *CEAA*, 2012, and that was used extensively in lobbying and marketing campaigns by those who opposed the legislation.

[7] *Reference re Impact Assessment Act*, *supra* note 5 at paras 179, 183, 193.

[8] *Ibid* at para 107.

[9] *Ibid*.

[10] *IAA*, *supra* note 4, as amended, at s 6(2).

Next, under the *IAA*, the Agency is required to consider the factors listed in section 16 when determining whether or not a project should be subject to a federal assessment in the first place. The amendments introduced a new factor to section 16 that requires the Agency to consider "whether a means other than an impact assessment exists that would permit a jurisdiction to address the adverse effects within federal jurisdiction."[11] The *Act* defines "jurisdiction" broadly to include other federal authorities, provincial authorities and certain Indigenous governing bodies.

Thus, in certain circumstances, the Agency would, therefore, have the discretion to defer to alternative evaluative or impact management models administered by others. This could include existing federal or provincial regulatory or permitting processes that already incorporate impact evaluation and/or mitigation, or new, more streamlined processes that are less focused on advance evaluation and prioritize adaptive management instead. This amendment also has the potential to offer considerably more flexibility for deferring to Indigenous-led community review processes that fall outside the typical impact/environmental assessment paradigm.

Although this did not arise from the Supreme Court of Canada's decision, the amendments seek to align the *IAA* with the *United Nations Declaration on the Rights of Indigenous Peoples Act*,[12] which received Royal Assent in June 2021. This is done in a number of ways, including by moving up the commitment to implement the *United Nations Declaration on the rights of Indigenous Peoples*[13] in the shortened preamble (to give it greater emphasis), as well as changes to the mandate section of the *Act* to refer to Indigenous rights under section 35 of Canada's *Constitution Act*[14] and the need to account for Indigenous knowledge.

Finally, the amendments also modify sections 31 to 35 of the *IAA* to create more opportunities for the responsible Minister to substitute the assessment of another jurisdiction, such as a province, Indigenous group or international organization, in place of a federal assessment by softening the requirements around what factors need to be considered before substitution is possible. This change should, in theory, make it simpler for the federal government to enter into cooperation agreements with provincial governments on a regional or project basis, as the federal government has already done with British Columbia.

C) REFORMULATION OF THE PUBLIC INTEREST TEST DURING FINAL DECISION-MAKING

The amendments reformulate the public interest test, which applies when either the Minister (in the case of an Agency review) or Cabinet (in case of a panel review or referral from the Minister) is making a final decision as to whether the effects within a federal jurisdiction are in the public interest. In recent years, the public interest test has attracted significant controversy for being highly politicized and providing too much leeway for elected officials to insert political judgements into their determination.

The amendments divide the public interest test into two parts. First, the Minister or Cabinet must determine, after taking into account mitigation measures, whether the adverse effects within a federal jurisdiction are "likely to be, to some extent, significant"[15] and "if so, the extent to which those effects are significant."[16] Second, the Minister or Cabinet must determine if those significant effects are "justified in the public interest" in light of the factors that must be considered pursuant to section 63.

The factors in section 63 have been reduced from five to three, now limited to (a) effects related to Indigenous groups and their rights, (b) the federal government's environmental obligations and climate change commitments, and (c) project's contributions to sustainability. Factors that were reintegrated into an earlier

[11] *Ibid,* as amended, at s 16.

[12] *United Nations Declaration on the Rights of Indigenous Peoples Act*, SC 2021, c 14.

[13] *United Nations Declaration on the Rights of Indigenous Peoples*, UNDRIP, 33rd Sess, UN Doc A/RES/61/295 (2007).

[14] *Constitution Act, 1982*, s 35, being Schedule B to the Canada Act 1982 (UK), 1982, c 11.

[15] *IAA*, *supra* note 4, as amended, at s 8(b)(i).

[16] *Ibid*, as amended, at s 28(3).

part of the public interest test at section 60 relate to any adverse direct or incidental effect in the impact assessment report, and the implementation of mitigation measures. Therefore, while the relevant factors did not change dramatically, they appear to be refocusing the public interest test on the federal *effects* of a project under review, rather than the merits of the project itself.

The practical impact of the changes to the public interest will certainly be dependent on how it is interpreted and implemented by the Minister or Cabinet, and how those decisions are communicated to the public.

NEW CABINET DIRECTIVE

On July 5, 2024, the Government of Canada published a new Cabinet Directive on *Regulatory and Permitting Efficiency for Clean Growth Projects*[17] (the **Cabinet Directive**), replacing the last cabinet directive designed to get major projects built faster, which was published more than 15 years ago. While a Cabinet Directive does not carry the same legal weight as a law or regulation, a cabinet directive is generally seen as a federal policy instrument that is more substantial than a policy guideline issued by a single department because the directive is endorsed by all of Cabinet. This Cabinet Directive is designed to respond to criticisms often directed at the *IAA* process that may be better resolved through policy measures as opposed to legislative ones.

The federal government initially stated its intention to develop the Cabinet Directive earlier this year when new measures were announced in Budget 2024 to improve federal regulatory and permitting processes. On the same day that the *IAA* amendments became law, the government published an action plan entitled *Building Canada's Clean Future*[18] (the **Action Plan**). The Action Plan elaborates on new measures announced in Budget 2024, including new target timelines for impact assessment and permitting processes, a commitment to create a Federal Permitting Dashboard that reports on the status of clean growth projects, and the establishment of a Federal Permitting Coordinator and a Crown Consultation Coordinator.

Notably, the Cabinet Directive takes three new steps.

A) DEFINES "KEY SECTORS" CONSIDERED TO BE ALIGNED WITH A NET-ZERO FUTURE

In recent years, the Government of Canada shifted focus from building "major projects" to building "clean growth projects" a term that had not previously been explicitly defined in law or policy. In fact, the bulk of the Government of Canada's industrial policies and new regulatory actions are now focused on combating climate change and supporting sectors aligned with a net-zero emissions global economy. This is often described as "clean growth" a term that is generally not well defined and has been evolving alongside the development of technologies and global economic trends.

This new Cabinet Directive prioritizes the following six "key sectors that are aligned with a net-zero future": 1) greening manufacturing, industry and hard-to-abate sectors; 2) critical minerals; 3) power/electricity; 4) nuclear; 5) enabling infrastructure (such as ports, roads, pipelines and transmission lines); and 6) clean fuels. This development brings a new perspective to the *IAA* process, which has historically been focused on evaluating the environmental impacts of projects, as opposed to placing a stronger emphasis on the importance of advancing projects that have the potential to support environmental and climate change outcomes.[19]

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[17] Government of Canada, PC, "Cabinet Directive on Regulatory and Permitting Efficiency for Clean Growth Projects" (last modified 5 July 2024), online: <www.canada.ca/en/privy-council/services/clean-growth-getting-major-projects-done/cabinet-directive.html>.

[18] Ministerial Working Group on Regulatory Efficiency for Clean Growth Projects, *Building Canada's Clean Future: A plan to modernize federal assessment and permitting processes to get clean growth projects built faster* (Ottawa: Privy Council Office, 2024), online (pdf): <www.canada.ca/content/dam/pco-bcp/images/pco2/clean-growth/plan-eng.pdf>.

[19] See, for example, Anna Johnston et al, *Is Canada's Impact Assessment Act working?* (West Coast Environmental Law et al, 2021) online (pdf): <www.wcel.org/sites/default/files/publications/2021-impact-assessment-act-report-en-web.pdf >; Calvin Trottier-Chi, "Canadian Climate Institute: Streamlining clean growth project approvals with strategic assessments" (30 November 2023), online: <www.climateinstitute.ca/publications/streamlining-clean-growth-project-approvals>.

B) ESTABLISHES NEW FEDERAL GOVERNANCE STRUCTURES

Between the new measures announced in Budget 2024, the Action Plan and the Cabinet Directive, there will be no shortage of internal governance mechanisms to facilitate a focus on clean growth projects. These changes are in response to calls primarily from the business community for better coordination between the 14 relevant federal departments and agencies responding for regulatory and permitting.[20] Specifically, the Cabinet Directive outlines and assigns responsibilities for the following internal governance structures:

- A new Deputy Ministers' Regulatory Efficiency Action Council (**Action Council**) that will include deputy heads of federal entities with a role in issuing key federal permits, licenses or authorizations for clean growth projects to get to construction.[21] This Action Council involves a similar structure to and is very likely modelled off the United States Permitting Council, which is comprised of representatives from the permitting departments across the United States federal government, such as the Environmental Protection Agency, the Department of Energy, the Federal Energy Regulatory Commission and the Nuclear Regulatory Commission.

- The previously announced Clean Growth Office, within the Privy Council Office, will act as the secretariat to the Action Council. This office will provide strategic advice on the implementation of the Cabinet Directive, work closely with federal entities to track projects with upcoming federal decisions and report to the Action Council.

- Two new coordinator positions are outlined in detail in the Action Plan: the Federal Permitting Coordinator and the Crown Consultation Coordinator. While the description of these positions is high-level and subject to engagement with Indigenous partners, we expect that both these roles will ultimately be housed within the Clean Growth Office and reside with the Deputy Secretary of Clean Growth.

With the new governance mechanisms, the Cabinet Directive clarifies that regulatory entities such as the Canadian Energy Regulator and the Canadian Nuclear Safety Commission will continue to operate at arm's length to preserve their regulatory independence and to ensure that their autonomy is "not affected" by the Directive.

C) DIRECTS ALL FEDERAL ENTITIES TO "DRIVE CULTURE CHANGE" AND MEET TARGET TIMELINES

Think tanks, such as the Canada West Foundation,[22] have repeatedly pointed out the importance of a "cultural shift" within the federal departments and agencies responsible for regulatory processes. Similar to the 2007 Cabinet Directive on Improving the Performance of the Regulatory System for Major Projects[23], this Cabinet Directive is intended to accelerate the Government of Canada's decision-making and set out clear federal roles and responsibilities within the public service. It is intended to "give confidence" to Canadians, and presumably

[20] See generally Dylan Kelso et al, *Future Unbuilt: Transforming Canada's Regulatory Systems to Achieve Environmental, Economic, and Indigenous Partnership Goals*, (Business Council of Alberta, 2023), online (pdf): <futureunbuilt.com/wp-content/uploads/2023/06/Future-Unbuilt-Task-Force-Paper-FINAL.pdf>; Heather Exner-Pirot and Micheal Gullo, *Reforming Canada's regulatory approval and permitting process* (C.D. Howe Institute, 2023), online (pdf): <www.cdhowe.org/sites/default/files/2023-07/IM-Pirot%20and%20Gullo_2023_0720.pdf>.

[21] The federal entities that will be regular members of the Council are identified at Annex A and include: Canadian Energy Regulator, Canadian Northern Economic Development Agency, Canadian Nuclear Safety Commission, Crown-Indigenous Relations and Northern Affairs Canada, Department of Fisheries and Oceans, Environment and Climate Change Canada, Finance Canada, Health Canada, Impact Assessment Agency of Canada, Indigenous Services Canada, Natural Resources Canada, Privy Council Office, Transport Canada and Treasury Board Secretariat.

[22] Marta Orenstein, "Competitive Canada: Recommendations to Improve Federal Assessment for Major Projects" (Canada West Foundation, 2023), online (pdf): <www.cwf.ca/wp-content/uploads/2023/08/2023-08-31-CWF_Competitive-Canada-*IAA*-Report-WEB.pdf>.

[23] Government of Canada, PC, "Cabinet on Improving the Performance of the Regulatory System for Major Resource Projects" (2011), online (pdf): <www.ceaa-acee.gc.ca/050/documents_staticpost/cearref_21799/83452/Vol1_-_Part03.pdf>.

also investors in projects in Canada, in the integrity and efficiency of federal regulatory and permitting systems.

As initially announced in Budget 2024 and now specified in the Cabinet Directive, federal entities are expected to:

- complete impact assessments and federal permitting processes for designated projects under the *IAA* within five years; and
- complete federal permitting processes for projects that do not require impact assessments within two years.

Additionally, the Agency and the Canadian Nuclear Safety Commission are expected to work together to ensure a three-year review process for nuclear projects.

This new Cabinet Directive also devotes an entire section to "culture change" within the 14 relevant federal departments and agencies aimed at creating a sense of urgency without compromising the objectives of the statues and regulations they are implementing. It lists ten specific actions the public service can take, including working to "respond quickly" to proponent applications, providing "risk-informed" guidance, and increasing early engagement with Indigenous peoples.

One significant change to the status quo will be the transparency of the promised new public permitting dashboard. Currently, the Agency updates its Canadian Impact Assessment Registry (the **Registry**) with the status of projects in their system,[24] however, for projects seeking a federal permit, such as under the *Fisheries Act*[25], the *Canadian Navigable Waters Act*[26], the *Species at Risk Act*[27], or the *Explosives Act*[28], there are no transparency mechanisms to determine the status of the federal permit. The Cabinet Directive stipulates that the Action Council will be responsible for identifying projects to include on the public dashboard and other internal tracking mechanisms designed to ensure transparency and increase accountability around timeline targets.

PRACTICAL IMPACTS

This spring, the federal government responded to significant concerns about the federal impact assessment process from the Supreme Court of Canada and the Canadian public. With the *IAA* now amended and the new Cabinet Directive in place, can the federal government deliver more efficient and effective project reviews? Can the federal government strike the appropriate balance between achieving the *IAA*'s stated purpose of fostering sustainability, while getting clean growth projects built?

The evidence available to evaluate the *IAA* process is limited. Since the *IAA* came into force in 2019, ten projects entered the impact assessment process, with the Agency determining during the planning phase that a federal assessment was ultimately not required.[29] Only one project has undergone an impact assessment from start to finish: the Cedar LNG project, which proceeded by way of substitution. The review process, from planning to approval, took a little more than three years, typical for such projects in the past. Cedar LNG's official application was received in late 2021, with British Columbia approving the project 15 months later and the Government of Canada endorsing that approval the next day.[30] According to available data on the Registry, no projects have been rejected under the *IAA* to date.

As of the drafting of this article, 42 projects are listed as "in progress" on the Canadian

[24] Government of Canada, "Canadian Impact Assessment Registry" (last modified 21 March 2024), online: <www.iaac-aeic.gc.ca/050/evaluations/Index?culture=en-CA> [*Canadian Impact Assessment Registry*].

[25] *Fisheries Act*, RSC 1985, c F-14 [*Fisheries Act*].

[26] *Canadian Navigable Waters Act*, RSC 1985, c N-22 [*Canadian Navigable Waters Act*].

[27] *Species at Risk Act*, SC 2002, c 29 [*Species at Risk Act*].

[28] *Explosives Act*, RSC 1985, c E-17 [*Explosives Act*].

[29] See *Canadian Impact Assessment Registry, supra* note 24.

[30] Government of Canada, "Cedar LNG Project" (last modified 26 June 2024), online: <www.iaac-aeic.gc.ca/050/evaluations/proj/80208>.

Impact Assessment Registry.[31] Of those 42 projects, 19 are under the *CEAA, 2012* process and the remaining 23 are under the *IAA*. Of those 23 projects under the *IAA*, four are regional assessments and therefore will not result in a project decision, and three projects are following the substitution process with the British Columbia government. That leaves 16 project decisions to be decided exclusively by the federal government under the *IAA*. Of those 16 projects, six are in the planning phase and all of those proponents submitted their initial project descriptions to the Agency as recently as October 2023, meaning that project decisions will not be imminent. That leaves just ten projects which could expect to receive a decision under the *IAA* in the near-term; however, all of these projects are listed as "in progress" meaning none are currently close to the final decision-making phases.

Assuming this will be the system in place for some time yet, here are ways that project proponents can work with the tools on hand:

- Encourage provincial and Indigenous governments to adopt cooperation agreements with the federal government. These agreements can take a variety of forms: for example, a cooperation agreement can be negotiated province-wide (such as in British Columbia), regionally or on a project-by-project basis. With the *IAA* amendments, a cooperation agreement can result in not only full substitution, but also partial substitution for certain aspects of the assessment.

- Evaluate whether a provincial or Indigenous assessment may be appropriate under the circumstances, recognizing the new language in the *IAA* related to promoting cooperation among jurisdictions.

- Seek out Indigenous partnerships where appropriate and consider opportunities for Indigenous-led assessments.

- Carefully evaluate the utility of regional assessments. While they may produce novel information, they are proving to be time-consuming and should not come at the expense of moving forward on the individual assessment of a well-developed project.

- Hold the federal government to the timelines set out in the Cabinet Directive and encourage the public service to continue driving culture change. Although these are target timelines not found in legislation or regulation, they have been endorsed by cabinet and achieving them should be a government priority.

Of course, the practical effects of the *IAA* amendments and complementary Cabinet Directive remain to be seen. In the months and years to come, significantly more evidence and case studies will be available on which to evaluate the *IAA*. What is certain is that the actions of the federal government over the next 12 to 18 months, including the implementation of the *IAA* and Cabinet Directive, will materially influence public confidence in the regime. ■

[31] Government of Canada, "Canadian Impact Assessment Registry: Search Registry" (last modified 12 August 2024), online: <www.iaac-aeic.gc.ca/050/evaluations/exploration?active=true&showMap=false&document_type=project#371165586>.

REGULATORY DECISION-MAKING IN EVALUATING ELECTRIFICATION INITIATIVES

*Mark Kolesar**

THE REGULATOR'S DILEMMA

Regulators are increasingly confronted with the dilemma posed by proposals to advance electrification or, alternatively, to undertake investments that may appear to oppose electrification. For the regulator, these proposals raise issues with respect to the assessment of benefits and costs and their effect not only on utility rates, but on social welfare. A recent decision of the British Columbia Utilities Commission exemplifies this dilemma.

On December 23, 2023, in Decision and Order G-361-23[1], the British Columbia Utilities Commission (BCUC) considered an application from FortisBC Energy Inc. (FortisBC) to increase its pipeline capacity to meet a forecast increase in peak demand throughout the central and north Okanagan regions over the next 20 years due to population growth. The project entailed the construction of approximately 30 kilometres of new gas pipeline along with a new pressure control station and related facilities, and the decommissioning of a segment of an existing pipeline, at an estimated total cost $327.4 million.

FortisBC provided a forecast of peak demand relative to annual capacity demonstrating that the system would no longer be able to provide the pressures required to adequately supply gas to the region in an extreme cold weather event by the winter of 2026/2027.[2] The utility also identified a number of short-term mitigation measures that could be used to manage the peak load while the applied-for longer-term solution was being implemented.

The BCUC expressed concerns that the FortisBC forecast did not consider the potential for a flattening or reversal of the demand curve due to commitments in the province's CleanBC Roadmap and the changes to the BC Energy Step Code, the Zero Carbon Step Code and other planning guidelines and zoning bylaws.

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[1] *FortisBC Energy Inc* (22 December 2023), G-316-23, online (pdf): *BCUB* <www.ordersdecisions.bcuc.com/bcuc/decisions/en/522057/1/document.do>.

[2] See letter from Diane Roy to Sara Hardgrave (23 August 2022) *Application for Acceptance of Demand-Side Management (DSM) Expenditures Plan for the period covering from 2023 to 2027*, online (pdf): <www.cdn.fortisbc.com/libraries/docs/default-source/about-us-documents/regulatory-affairs-documents/electric-utility/220823-fbc-2023-27-dsm-expenditures-bcuc-ir1-response-ff.pdf?sfvrsn=b8bf00ec_2>.

FortisBC argued that its Revised Renewable Gas Comprehensive Review application to the BCUC, if approved, would enable all new residential connections to receive 100 per cent renewable gas, thereby satisfying the requirements of the Zero Carbon Step Code. The Commission found that although approval of the renewable gas application would "do much to offset some of the concerns regarding the likelihood of continued growth in natural gas peak demand, its approval does not bind the BC Building Code to incorporate renewable natural gas."[3]

In a separate parallel proceeding, *2022 Long Term Gas Resource Plan* (*LTGRP*)[4] FortisBC filed with the BCUC the *Kelowna Electrification Case Study – Electrification and the Impacts of Cold Temperature on Peak Demand and System Upgrade Costs*. As both the electricity and distribution company serving the City of Kelowna, FortisBC estimated the effects that various levels of electrification of gas demand would have on peak electricity demand, as well as the estimated costs to upgrade and develop the required electricity infrastructure to meet the forecast electricity demand. The study illustrated the factors to be considered in the clean energy transition assuming electrification is the pathway to achieve the province's decarbonization goals.

The study concluded that:

> …at 100 percent electrification of gas load and a mean daily temperature of -26 Celsius, peak demand in 2040 would more than triple, from 472 megawatts (MW) to 1,429 MW, resulting in a high-level estimate of between approximately $2.6 and $3.4 billion in capital expenditures on the electric distribution and transmission system which would be needed in less than 20 years. Even at 25 percent electrification of gas load, peak demand would increase to 711 MW and result in an estimated range of $1.3 to $1.7 billion in capital expenditures over this same timeframe.[5]

The Kelowna Electrification Case Study was not included in the record of the proceeding leading to Decision and Order G-361-23 and was not considered by the BCUC. In its decision, the Commission noted that:

> If the [Okanagan Capacity Upgrade] Project were a minor expenditure the Panel might be inclined to move forward with a favorable Decision at this time. But at last estimate, the total OCU Project cost is $327.4 million with a delivery rate impact of 2.37 percent. This is a very significant expenditure and, for it to be approved, there needs to be greater certainty that the proposed scope of the project is fully required.[6]

The Commission concluded that "there is a significant risk that the forecast growth flattens or potentially begins to decline due to [FortisBC's] inability to serve new customers' space and water heating needs resulting from the Province's commitments in the CleanBC Roadmap, the changes to the BC Energy Step Code and the [Zero Carbon Step Code]."[7] The Commission determined that the project was not necessary and denied the application.

In light of the Kelowna Electrification Case Study[8], the decision brings into question the potential for fuel switching, including renewable natural gas, and the role to be played by electrification on the path to achieving the province's long-term decarbonization commitments. More importantly, it highlights the challenges regulators face when evaluating programs and proposals that contemplate fuel switching, particularly in the absence of all the information required to undertake a robust

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[3] *Supra* note 1 at 4.

[4] See letter from FortisBC Energy Inc to British Columbia Utilities Commission (24 February 2023) *2022 Long Term Gas Resource Plan (LTGRP) - Project No. 1599324 FEI Evidentiary Update*, online (pdf): <www.docs.bcuc.com/documents/proceedings/2023/doc_70278_b-20-fei-evidentiary-update.pdf>.

[5] *Ibid* at 1.

[6] *Supra* note 1 at 4.

[7] *Ibid*.

[8] *Supra* note 4.

analysis of the benefits and costs of energy efficiency alternatives.

The Kelowna Electrification Case Study also brings into focus the potential costs of electrification as an alternative to natural gas for space and water heating. A 2022 Natural Resources Canada discussion paper estimates that retrofitting all homes, including electrification of space and water heating, and all commercial and public buildings by 2050 would cost $20 billion to $32 billion a year.[9] Studies such as these raise questions as to when and in what circumstances electrification is beneficial. The challenge is to determine whether the adoption of electric powered end-use technology as a substitute for direct-use fossil-fuelled technologies for applications such as space heating, transportation, and industrial processes results in a net economic benefit to the customer and net environmental benefits to society.

A transformation in economic regulation is required to review, in a timely manner, the proposals to encourage and facilitate the adoption of new technologies that support emission reductions. The reviews must consider the effect on utility rates and the net benefits to society. This requires regulators to undertake a whole-system analysis to determine whether decarbonization alternatives are indeed both economically advantageous and adequately effective in reducing carbon emissions. To date, evaluating the benefits and costs of utility investments in energy efficiency, load shifting, and fuel switching initiatives, when undertaken by regulators, has generally employed tests originally developed in California's Standard Practice Manual[10].

THE EVALUATION CHALLENGE

The California Public Utilities Commission issued its first Standard Practice Manual in 1983. The Manual prescribes cost effectiveness tests to evaluate demand-side energy efficiency programs. The most recent version of the Manual, published in 2001, includes four test criteria to assess the viability of conservation and load management programs.[11] However, the Manual also contemplated the tests being applied to evaluate proposals for "fuel switching" which was an early reference to what would now be called electrification. These tests have been broadly adopted and applied individually and collectively across North America to determine the economic viability of demand-side management investments. The tests are now being further adapted to evaluate a variety of electrification proposals such as the deployment of electric vehicle (EV) chargers, EV charging demand management programs, and residential heat pump programs.

The fours tests set out in the Manual are:

- The **Participant test** – assesses the degree to which customers who participate in a program enjoy positive net benefits measured as the net present value of customer benefits and costs over an assumed participation lifetime.

- The **Ratepayer Impact Measure (RIM) test** – assesses whether utility customers in general will experience a rate increase or decrease from the implementation of a program. Rate changes are calculated based on changes in the total costs of the service provider and changes in the levels of electricity consumption resulting from the program.

- The **Total Resource Cost (TRC) test** – combines the results of the Participant and RIM tests to assess the combined impact on program participants and the utility.

- The **Program Administrator Cost (PAC) test** – Considers utility/program administrator costs, as an input to the RIM test.

These tests have been extensively critiqued in academic literature and numerous shortcomings have been identified. For example, the TRC test has been criticized for its simplifying

[9] Natural Resources Canada, *The Canada Green Buildings Strategy*, discussion paper (July 2022) at 5, online (pdf): <www.natural-resources.canada.ca/sites/nrcan/files/engagements/green-building-strategy/CGBS%20Discussion%20Paper%20-%20EN.pdf>.

[10] California Public Utilities Commission, *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects* (California: Governor's Office of Planning and Research, 2021).

[11] *Ibid*.

assumptions about consumer behaviour which are exacerbated with a program that includes fuel switching. The RIM test has been criticized for not providing enough detail to address issues related to cross-subsidies between program participants and non-participants and does not account for whether rate increases will be allocated across all customers classes.

The tests have also been generally criticized for excluding non-energy benefits and costs. The calculated net economic benefits of energy efficiency and electrification programs using these four tests have been incomplete because the evaluation criteria in the standard tests rely on an analysis of utility avoided costs and ignore societal benefits such as air quality improvements and non-energy related consumer benefits beyond utility rate impacts. In addition, often the Total Resource Cost test concluded that a program was viable, while the Ratepayer Impact Measure test concluded that rates would rise, suggesting non-viability. The core problem for the regulator, then, was that no test was comprehensive.

The Manual also discusses the **Societal test**, an expansion of the Total Resource Cost test that proposes to account for externalities, including non-energy benefits, and utilizes a societal discount rate to assess net societal benefits. The Societal test is intended to determine the overall benefits and costs to society of energy efficiency and electrification programs. However, the Manual does not fully define the boundaries of the proposed test, and it has been criticized for being "too open ended." Efforts are now being made to expand the scope and define the boundaries of the assessment tools, in part to make them more applicable to the type of complex analysis that would be required to assess the societal benefits and costs of significant electrification programs.

EVALUATING ELECTRIFICATION INITIATIVES: CURRENT PRACTICE

A study by The Brattle Group in 2019, commissioned by the Electric Power Research Institute, assessed the California Standard Practice Manual and proposed a framework for evaluating electrification projects called the **Total Value Test**. The test is intended for "regulators who view their role as implementing social policy."[12]

The Total Value Test has, as its objectives, to take the broadest possible perspective on the benefits and costs of electrification programs, to include non-energy benefits and costs, and to account for policy goals and provide for greater flexibility to account for externalities. The test also allows for an evaluation of the cost-effectiveness of electrification programs over a longer study period to account for elements such as stranded costs or technology costs, the full effects of which may only be truly assessed over a longer study horizon. The test authors propose that the traditional Standard Practice Manual tests are either subsumed by the Total Value Test or become irrelevant. They still see value in retaining the Ratepayer Impact Measure test, but also propose that the test be modified to analyze the effects on specific relevant classes of customers or customer sub-classes, to identify implications for low-income consumers and other affected customer segments.

The Total Value Test sets out a robust list of elements to include in the analysis:

Program costs

- Administration costs, Incentive payments
- Participant contribution to costs
- Third-party contribution to costs

System impacts

- Production capacity costs
- Production energy costs
- Cost of environmental regulations
- Fuel transmission capacity costs
- Fuel distribution capacity costs
- Line losses

[12] The Brattle Group, "The Total Value Test: A Framework for Evaluating the Cost Effectiveness of Efficient Electrification" (August 2019), Electric Power Research Institute, Document No 3002017017, at 4, online (pdf): <www.evtransportationalliance.org/wp-content/uploads/2021/11/2019-EPRI-TVT-paper.pdf>.

- Ancillary services
- Risk to the utility
- Renewable resource obligation
- Energy market price effect

Participant impacts

- Other resource costs
- O&M costs
- Health impacts
- Productivity
- Asset value
- Economic well-being
- Comfort

Societal impacts

- Air quality
- Employment
- Economic development
- Energy security
- Public health

The study authors recognize that while there are well established methodologies for the analysis of some of the elements in the test (for example direct program costs), methodologies will need to be developed for some of the more obscure elements, such as economic well-being, energy security or public health. Many of the more speculative elements have no well-established methodology for quantifying their impact. There are also issues with some of the test elements related to data collection.

The study provides three case studies to demonstrate practical applications of the test, applying the Total Value Test to a City Bus Electrification program, an Indoor Agriculture program and a Water Heater Electrification program. The case studies account for the effect of the program on CO_2 emissions, based on assumptions about the CO_2 emissions for alternative fuels, including the CO_2 emissions emanating from the assumed fuel mix in electricity generation under the electrification alternative.

Proper carbon accounting is an important element of any test that seeks to determine the benefits and costs of electrification programs, given that one of the principal objectives is to achieve decarbonization policy targets preferably at the lowest societal cost. The Total Value Test facilitates carbon accounting as an element of the analysis. The authors state that the test is "objective and not predisposed to favor any particular type of technology based on how it is powered or fueled."[13] It is noteworthy that the water heating example concluded that, under different circumstances, either the electric or non-electric technology was most favourable.

One of the challenges when applying the Total Value Test is estimating the benefits and costs associated with changes in the consumption of energy that are not fully captured directly in retail electricity prices, referred to as non-energy impacts. Non-energy impacts associated with electrification may include noise reduction, improved home air quality, improved comfort and productivity, aesthetics, reduced maintenance effort, and perhaps more importantly the value ascribed by consumers to the related mitigation of climate change. These elements in a Total Value Test are in the nature of product attributes; direct and indirect benefits that an electrification program, for example a heat pump conversion, may provide. The challenge in adequately accounting for the value of these attributes in the test is to estimate the extent to which consumers value them in their preferences among competing energy alternatives.

In 2020, Electric Power Research Institute engaged Christensen Associates Energy Consulting to explore methods for estimating non-energy impacts.[14] The Christensen report identified survey and statistical techniques to assist in estimating the value consumers impute to non-energy benefits. Two categories

[13] *Ibid* at 38.

[14] Christensen Associates Energy Consulting, "Estimating Non-Energy Impacts for Utility Load Shaping Programs", (30 November 2020), Electric Power Research Institute, Document No 3002018534.

of analytical methods are used to assess consumer preferences for the non-energy attributes associated with electrification programs. **Revealed preference analysis** observes customer product purchasing behaviour to reveal preferences for underlying attributes. **Stated preference analysis** surveys customers directly to gather information about customer preferences. The information is then used in statistical analyses to estimate customer valuations.

The Christensen study references a couple of home electrification studies that employed these methods to account for non-energy impacts. One study evaluating home energy management systems assessed the extent to which consumers valued personal benefits such as home comfort and altruistic impacts such as the mitigation of climate change. Another study determined that home comfort was statistically significant in consumer preferences among residential heating system alternatives. The study points out that this type of analysis has not been widely applied in residential electrification programs to date and that methodological problems remain, suggesting that further research is required.

BARRIERS TO ADOPTION

Although the Total Value Test is intended for regulators, the complexity of the test and the methodological challenges that remain may make the test unattractive to many regulators. The difficulty of determining on a case-by-case basis what impacts should be measured presents an initial challenge. The absence of agreed-upon methodologies and available data sets for many of the impacts adds an additional challenge that may be a further deterrent. Even in the best of circumstances, the regulator may be concerned with whether the results of the analysis will be sufficiently determinative.

An alternative approach may be to return to the widely accepted methodology in the Standard Practice Manual for calculating fuel switching impacts and applying publicly available estimates of avoided costs that include an estimate of the marginal cost of carbon.[15] Marginal avoided costs for the alternatives under study would include production services costs (energy, reserves, capacity) and delivery services costs (transmission, distribution, billing etc.) for both electricity and the fuel being supplanted.

There is a broad range of available estimates of the marginal cost of CO_2. Where a carbon tax that approximates the market price for CO_2 is present, the carbon tax provides a convenient proxy for the marginal cost of CO_2. Otherwise, a marginal cost of carbon based on the range of publicly available estimates would suffice, provided that the value chosen is beyond the control of any of the stakeholders in the evaluation process.

While objective estimates of the marginal cost of CO_2 may be readily available and may be used in evaluating the viability of a project from the perspective of net benefits, the marginal cost of CO_2 cannot necessarily be used for computing the compensation of parties who reduce their carbon footprint by switching to electric power. For example, in a program to assist in electrifying commercial transportation, the avoided CO_2 cost of reduced diesel fuel consumption factors into the benefits of the program, however the fleet owner who converts to electricity does not necessarily receive the value of the reduction in CO_2 that the conversion generates, but merely the savings in diesel fuel cost, in the absence of an avoided carbon tax. In this circumstance, a discount could be conferred on the fleet owner by way of a government subsidy and accounted for in the analysis. Ideally, the government would be collecting a carbon tax from the diesel-using customer and the electric conversion would create the appropriate reduction in cost to the fleet owner. Moving prices of non-renewable fuels toward an agreed-upon estimate of marginal cost that includes a carbon tax that reflects the marginal cost of CO_2 would facilitate the evaluation of the net benefits of electrification alternatives.[16]

Since the marginal costs in the proposed analysis are usually comprehensive and often the result of years of study, publicly available, and beyond the influence of parties to an evaluation, they avoid lengthy debates over

[15] This alternative approach arose in discussions with colleagues at Christensen Associates Energy Consulting.

[16] Including the marginal cost of carbon in a carbon tax would require a reasonable estimate of the market price, which changes daily, over the term of the carbon tax.

alternative methodologies. Nonetheless, there may be criticism that the marginal costs included in the study are not appropriate or sufficient for the project to be evaluated. Critics may rightly complain that significant elements of cost or benefit are absent, as the approach eliminates or simplifies the review of a long list of impacts. However, the regulator faces the challenge of evaluating proposals in a finite amount of time and at a finite cost. Balancing the benefits of reduced time and cost against the benefits of a more thorough methodology suggests that it should be incumbent upon a stakeholder to justify a departure from the simplified methodology. However, where the results of the simplified analysis overwhelmingly favour one alternative, it is unlikely that the addition of additional elements to the analysis will alter the result sufficiently to favour the other alternative.

More work is required to fine tune this simplified approach, including exploring the range of avoided CO_2 cost values and their applicability and objectivity, and comparing the benefits of the simplified approach with more detailed analyses provided by a Total Value Test evaluation.

WHERE TO NEXT?

Strategies to assist regulators, policy makers and industry stakeholders in the analysis of electrification projects continue to be developed and assessed. However, many regulators lack the experience with or expertise in these emerging analytical models, and their adoption for the purposes of assessing electrification programs appears to be sporadic at best. Parties filing regulatory applications for approval of electrification programs can and should include an analysis of the benefits and costs of electrification projects using the available models, whether or not an analysis is required by the regulator. Although an analysis is unlikely to be determinative in and of itself, and will necessarily be debated, it provides a framework for assessment by the regulator who must consider potentially competing objectives such as affordability and decarbonization policies when making a public interest determination. Regulators would be well served to require that applications for electrification proposals include an appropriate analysis of the relevant benefits and costs that considers the effect on utility rates and the net costs or benefits to society. In addition, the ensuing regulatory proceedings will assist in further fine-tuning these analytical methodologies. ■

ELECTRICITY REGULATION OF THE FUTURE MUST SUPPORT SYSTEM RELIABILITY

*Joe McKinnon and Channa S. Perera**

A net zero economy[1] by 2050 would require Canada's electricity demand to grow by more than double. For rapid grid expansion to meet our energy goals, we face a trilemma in managing key priorities within a finite resource base. Ensuring reliability, affordability, and sustainability is a balancing act as policy perspectives, market trends, and consumer preferences stress these factors in different ways.

The energy transition is in large part policy-driven; thus, current policy preferences are uniquely impactful on the way utilities can manage the energy trilemma. Current governments have focused substantially on sustainability as the core tenet for their funding and regulatory pressure on the electricity sector, in the process subordinating what should be considered the fundamental consideration for future energy planning — reliability. Electricity Canada's 2024 regulatory report Always On[2] outlines this challenge, taking a critical look at investment barriers for reliability assets and the essential role reliability plays in grid modernization and expansion.

Electricity providers have not forgotten the importance of reliability. It is an ever-pressing issue that is consistently integrated into modelling and investment planning, but diverging priorities between utilities and policymakers, as well as a rapidly shifting energy landscape, have led to suboptimal and stagnated relationships between those utilities and their economic regulators.

To facilitate the energy transition, provincial energy regulators and federal policymakers must establish greater coordination between themselves and utilities, as early industry engagement is essential for investment at the required rate. While the electricity sector is under provincial jurisdiction, federal net zero policy has looked to shape the sector, creating conflicting priorities. Early and good-faith engagement in the design of these federal climate policies can reduce some of the inadvertent effects and prepare the sector to coordinate between provincial energy regulators and utilities for necessary investment strategies to maintain system reliability.

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[1] Canada Energy Regulator, "Executive Summary: In our net-zero scenarios, the types of energy Canadians use changes dramatically, including using a lot more electricity" (last modified 22 March 2019), online: <www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2023/executive-summary>.

[2] Brattle, *Electricity in Canada: Always On*, (Issuu: Electricity Canada, 2024), online: <issuu.com/canadianelectricityassociation/docs/electricity_in_canada_alwayson_4-24-2024_2_1_>.

The Canada Electricity Advisory Council's recent report[3] also outlines the need for cross jurisdictional coordination. It states that provinces and territories should "include a carbon-neutrality or net-zero objective in the mandates and priorities of their…relevant agencies"[4] to align with policy at the "federal level [and] to coordinate efforts toward a common goal."[5] But, as a lot of top-down policy drives this transition, there must also be sufficient positive federal incentives. Some of these incentives have taken the form of investment tax credits (ITCs), but at this point, there remains a great degree of misalignment between federal mandates, provincial regulatory priorities, and the utilities capacity to manage a changing electricity landscape. These organizations must be coordinated at all levels to support the effective implementation of net zero goals, which will require substantial reliability investments to support associated demand growth.

An Electricity Canada report in 2023, *Back to Bonbright,*[6] assessed the fundamental principles behind rate designs for a changing and ever-electrified economy. Economic regulation principles in Canada are based on the work of Dr. James C. Bonbright, who outlined the importance of establishing a revenue requirement, fair apportionment of costs among customers, and optimal efficiency through rate design. The findings of this report not only demonstrate the relevance of these principles today but also the need for regulators to interpret the concept of "used and useful" in a broader way that best interacts with current policy pressures. For the cost of an investment to be integrated into the rate base, the investment must prove to be actively used and useful to the ratepayer, which in some cases undermines necessary reliability investments for future grid hardening. However, this framework can be adapted and consistently applied to include relevant reliability investments for forecasted load burdens. Without this support for investment, current standards of reliability cannot keep up with grid expansion.

Prudently incurred net zero investments require alternative Benefit-Cost Assessments (BCAs). Non-traditional utility investments can be supported through the establishment of a framework that allows varied BCAs to be used across different project circumstances. Though some regulators are exploring alternative forms of BCAs, there is not yet a consensus regarding their application. Utilities face severe capital constraints when it comes to reliability investments, as rigid interpretations of the "used and useful" principle undermine holistic investment for grid expansion. These tailored assessment approaches can reduce the capital burden utilities are facing in trying to maintain system reliability.

The energy transition requires a significant amount of investment, part of this can be achieved by modifying rate design to better allocate investments in decarbonization, reliability, and grid expansion among the customer base, but further public and private capital is also needed. Public support can come in the form of targeted subsidies, but also as a broader shift in the regulatory framework to incentivize net zero investment. Utilities are generally risk-averse in investment, due to the nature of their business model, so regulatory clarity is essential for keeping the cost of capital as low as possible. A policy structure that ensures returns, through contracts for difference or targeted earning opportunities for critical initiatives, increases return certainty and creates a preferred investment environment. Ensuring consistent returns on investment is essential for attracting public capital as well as bridging traditional equity gaps through policies like the Indigenous Loan Guarantee Program.[7]

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[3] Canada Electricity Advisory Council: Final Report, *Powering Canada: A blueprint for success*, (Natural Resources Canada, 2024), online: <natural-resources.canada.ca/our-natural-resources/energy-sources-distribution/electricity-infrastructure/the-canada-electricity-advisory-council/powering-canada-blueprint-for-success/25863>.

[4] *Ibid*.

[5] *Ibid*.

[6] Electricity Canada, *Back to Bonbright: Economic regulation fundamentals can enable net zero,* (Issuu: Electricity Canada, 2023), online: <issuu.com/canadianelectricityassociation/docs/ec_sel_frame_-_2023_21_> [*Back to Bonbright*].

[7] Department of Finance Canada, News Release, "A Fair Future for Indigenous Peoples: Indigenous Loan Guarantee Program" (last modified 16 April 2024), online: <www.canada.ca/en/department-finance/news/2024/04/a-fair-future-for-indigenous-peoples.html>.

To facilitate greater flexibility and clarity, regulators need to be empowered through broader mandates that align with decarbonization and electrification policy objectives. Prioritizing electrification as a policy goal is absent from the mandates of many regulators, creating misalignments between the objectives which feed into the utility business model. This has been targeted by policy makers[8] as a key step in enabling better coordination in achieving net zero targets. To ensure reliability is maintained through an expanding grid, regulators must be flexible when engaging with a changing energy system. Establishing regulatory frameworks that allow for the proactive submission of utility investment or service proposals, not bound by prescriptive timing requirements, would make for a more adaptive system. Allowing for multi-year investment plans or mid-rate-term requests is more responsive and embraces the momentum created through policy windows.

Utilities are facing policy pressure to enable rapid grid expansion and decarbonization to achieve net zero objectives, but reliability investments, while necessary for supporting these objectives, are not being enabled effectively. Ultimately, utilities require a regulatory environment that facilitates a progressive understanding of rate-setting principles and value assessments for necessary reliability investments. Greater coordination between policymakers, regulators, and utilities can promote regulatory frameworks that better address the rapidly evolving energy landscape that utilities are dealing with. ■

[8] Electrification and Energy Transition Panel (EETP), *Ontario's Clean Energy Opportunity: Report of the Electrification and Energy Transition Panel*, (Electrification and Energy Transition Panel, 2023), online (pdf): <www.ontario.ca/files/2024-02/energy-eetp-ontarios-clean-energy-opportunity-en-2024-02-02.pdf>.

COMMENTS ON ELECTRIC INDUSTRY RESTRUCTURING AND THE AUC INQUIRY INTO LAND USE

*Rick Cowburn**

After nearly three decades of stability, Alberta's electric industry framework is entering an era of radical and unknown change, primarily driven by the need to mitigate climate change.

The Government of Alberta (GOA) directed the Alberta Utilities Commission (AUC) to initiate an open, public proceeding to address four land-related issues with respect to the development of power plants: land use, viewscapes, reclamation costs, and use of Crown lands.[1] Based on the AUC's report, the GOA advised the AUC of its intention to advance policy, legislative and regulatory changes that affect future generation development.[2]

One might ask why land-related issues have not been more directly addressed until now, and why generators were given such an extraordinary degree of freedom.

Having been one of the current market's designers,[3] the author was reminded of a line in G.B. Shaw's "Anthony and Cleopatra":

> "Pardon him, Theodotus: he is a barbarian, and thinks that the customs of his tribe and island are the laws of nature."[4]

I freely admit that we designed this system like barbarians, tossing the sophisticated machinery of load forecasting, generation system modelling and rigorous generation reliability standards into the scrap heap, replacing it all with an elegantly clean and simple market design that has lasted nearly three decades.[5]

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[1] See Albert Utilities Commission, *AUC inquiry into the ongoing economic, orderly and efficient development of electricity generation in Alberta*, Module A Report, Proceeding 28501, (Calgary: Alberta Utilities Commission, 2024), AUC 28501, online (pdf): Alberta Utilities Commission <media.auc.ab.ca/prd-wp-uploads/regulatory_documents/Reference/28501_Inquiry-ModuleA-Report.pdf> [*Alberta Utilities Commission*].

[2] Letter from Minister Nathan Neudorf to Chief executive officer of Alberta Utilities Commission Bob Heggie (28 February 2024) regarding Policy Guidance to the Alberta Utilities Commission, online (pdf): <www.alberta.ca/system/files/au-minister-neudorf-letter-to-auc-20240228.pdf> [*Letter from Minister Nathan Neudorf*].

[3] See Alberta Department of Energy, *Enhancing the Alberta Advantage: A Comprehensive Approach to the Electric Industry*, (Edmonton: Steering Committee, 1994), at 26, online (pdf): <open.alberta.ca/dataset/f8024ee2-e18e-405d-89da-83f55c335e05/resource/a6667b6a-ba01-436f-9b2b-e698ab974dca/download/energy-enhancing-the-alberta-advantage-a-comprehensive-approach-to-the-electric-industry.pdf>.

[4] George Bernard Shaw, "Caesar and Cleopatra", (last modified 10 December 2012), at Act II, online: <www.gutenberg.org/files/3329/3329-h/3329-h.htm>.

[5] In practice, the Alberta Electric System Operator (AESO) has maintained technical strength in these areas of planning and operations, but their ability to truly optimize the system is limited by existing policies and legislation.

The policy "deal" with generators was radical in the extreme. Generators compete to supply electricity to the grid; the lowest priced offers that satisfy the market's demand will be accepted by the power pool and paid the market price for their output. Generators only get paid for the energy they produce; if you don't run, you don't get paid — the "energy-only" model.[6]

The model worked well in large part due to Alberta's fortunate circumstances. While other jurisdictions were experiencing little load growth, Alberta was forecast to continue to grow at 2.5 per cent a year for decades to come.[7] No matter how overbuilt the Alberta system might become, in a few years load growth would catch up with supply. And no matter what the price of oil may be, the massive capital investments in heavy oil extraction ensured that electricity consumption would continue, so the risk of load loss appeared minimal.

To make this 'deal' work, Alberta had to adopt certain 'tribal' customs that by now have come to seem like the laws of nature.

- First and foremost, there shall be no generation planning, no official assessment of the need for new capacity that could be used to mandate system additions.[8] Generators can build whatever they want, wherever they want, and whenever it pleases them to do so. There is to be no customer or government agency input to these commercial decisions.
- Transmission shall be pre-built, so that "actual [transmission] construction must then be staged to mesh with generator start-up and commissioning…"[9]

The Alberta Electric System Operator (AESO) was given the difficult task of planning and operating a transmission system which can connect unpredictable generation resources — and "the transmission system must be relatively congestion free or the underlying market model will not function effectively."[10]

When Alberta's generation fleet consisted of a dozen large coal units, a congestion free grid was quite feasible; but as the system dissolves into hundreds of small renewable generators, the market model breaks. If many generators choose to concentrate in a resource-rich area, the AESO has no choice but to plan and propose projects to alleviate generator-caused congestion, costing consumers hundreds of millions of dollars.[11] As the AESO has stated, "the current zero-congestion policy is unsustainable and must change."[12]

Land-related issues are just one aspect of the broader industry evolution, which is moving away from a generator-centric, 'relatively streamlined market design' and towards a more balanced future design that optimizes the system as a whole and explicitly recognizes that there is more to a power system than just energy generation.

[6] Texas is the only other North American jurisdiction which is said to use this model; Alberta has largely gone its own unique way in structuring the electricity market.

[7] Alberta Electric System Operator, *AESO 2014: Long-Term Outlook*, (Calgary: Alberta Electric System Operator, 2024). "Over the next 20 years, Alberta Internal Load (AIL) is expected to grow at an average annual rate of 2.5 per cent" at 3.

[8] The AESO carries out diligent system capacity assessments, which would only trigger mandatory additions in exceptional circumstances (which have never occurred); see AESO, *Appendix A: Overview of AESO Supply Adequacy Measures*, online (pdf): <www.aeso.ca/assets/LARA-Rules-and-ARS/Appendix-A-Overview-of-AESO-Supply-Adequacy-Measuress.pdf>.

[9] Alberta Energy: Electricity Business Unit "Transmission Development: The Right Path for Alberta: A Policy Paper" (November 2003), at 7, online (pdf): <www.open.alberta.ca/publications/3103222>.

[10] *Ibid* at 8.

[11] See for example Central East Transfer-out Transmission Development Project (10 August 2021), 25469-D01-2021, at paras 7, 43, online: Alberta Utilities Commission <electric.atco.com/content/dam/web/projects/projects-overview/electricity-ceto-decision25469-d01-2021.pdf>.

[12] Ministry of Affordability and Utilities, Transmission Policy Review: Delivering the Electricity of Tomorrow, (Government of Alberta, 2023), online (pdf): <www.ablawg.ca/wp-content/uploads/2023/11/Transmission-Policy-Green-Paper-2023.pdf>. "To verify that the benefits of maintaining the zero-congestion policy still outweigh the costs, the Ministry of Affordability and Utilities is examining alternative transmission planning frameworks…" at 14.

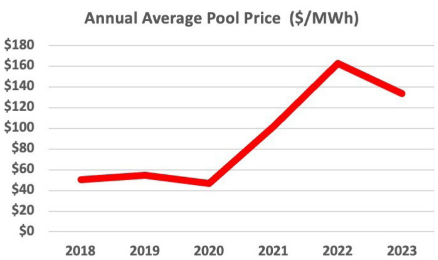
CONSTRAINING GENERATORS' MARKET FREEDOMS

It may appear to some that legislative changes are happening too rapidly, without extensive consultation and consideration. In fact, the market dynamics changed several years ago, and rapid response is now essential.

A particularly compelling issue is the recent massive increases in the price of power in the power pool. In recent years, average pool prices have more than doubled, creating a serious affordability issues for customers while greatly increasing generator margins. The urgency of electric industry restructuring is pervasive, and Alberta does not have the luxury of leisurely, thorough rumination on each issue.

The need for speed is particularly acute since these high pool prices are not driven by fundamentals like gas price increases but are a product of the 'generator freedom' policy combined with the reduction in competition created by the advent of major renewable generation resources which cannot respond to market price signals.

Annual Average Pool Price ($/MWh)[13]

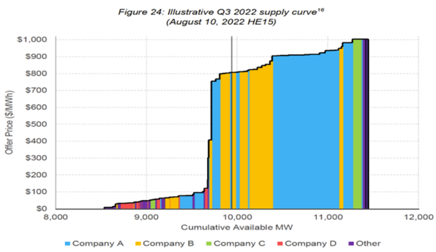


Economic withholding occurs when a generator prices its output above its Short-Run Marginal Cost (SRMC). A dramatic example of economic withholding is provided in the Market Surveillance Administrator's quarterly report for Q3 2022. The MSA found that "[h]igh pool prices in Q3 [2022] were primarily driven by the exercise of market power by two generation companies."[14]

To illustrate this point, the MSA provided a graph of the supply curve for August 10, 2022, Hour Ending 1500 (3 PM). This curve determines the hourly pool price of power, based on the level of system load.

If the system load is less than about 9,700 MW, prices will be $100 / MWh or less. But if load is even few per cent over that level, the price will jump up to the $800 range with almost no intermediate steps.

Illustrative Q3 2022 supply curve (August 10, 2022 HE15)[15]



How can this be? The answer is: market power. Two generation companies own almost all of the generation capacity over 9,700 MW, and they can ask whatever price they wish for their output.

In the original market design this was not a problem. Some level of economic withholding was necessary for Alberta's market to function: "Generators may choose to invest in the Alberta market if they believe they will be able to recover their capital costs. The Alberta electricity market allows economic withholding to encourage such investment, enabling generators to price their assets above marginal cost."[16]

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[13] See Alberta Electric System Operator, *AESO 2023: Annual Market Statistics*, (2024) "TABLE 1: Annual market price statistics" (table) at 2, online (pdf): <www.aeso.ca/assets/Uploads/market-and-system-reporting/Annual-Market-Stats-2023_Final.pdf>.

[14] Market Surveillance Administrator, *Quarterly Report for Q3 2022*, (2022) at 15, online (pdf): <www.albertamsa.ca/assets/Documents/Q3-2022-Quarterly-Report.pdf>. See also Market Surveillance Administrator, Quarterly Report for Q2 2022, (2022) at s 1(6)(3), online (pdf): <www.albertamsa.ca/assets/Documents/Q2-2022-Quarterly-Report.pdf>.

[15] Market Surveillance Administrator, *Quarterly Report for Q3 2022*, (2022) « Illustrative Q3 2022 supply curve » (graph) at 29, online (pdf): <www.albertamsa.ca/assets/Documents/Q3-2022-Quarterly-Report.pdf>.

[16] Market Surveillance Administrator, *Quarterly Report for Q2 2022,* (2022) at 33, online (pdf): <www.albertamsa.ca/assets/Documents/Q2-2022-Quarterly-Report.pdf>.

When almost all generation could turn on in response to high prices, economic withholding was constrained by competition — if you price your output too high, someone else will outbid you, you will not be dispatched, and you will sit idle.

But unlike natural gas fired units, renewables cannot increase their output in response to high prices. They are limited by their wind and solar energy inputs, and if it's calm and cloudy the remaining natural gas generators can often charge whatever they wish.

At the government's direction, the AESO is now considering long-term solutions to this market problem.[17] In the interim, two stopgap regulations constraining dispatchable generators were put in place:

- Supply Cushion Regulation [AR 42-2024] sets a target supply cushion of 932 MW, and if this is not met then the regulation directs the Alberta Electric System Operator to issue unit commitment directives to specific generation assets that are offline, telling them when and for how long they are to be online and synchronized with the system. This mechanism can be used to ensure that there is adequate thermal generation in the market to mitigate the impact of economic withholding.

- Market Power Mitigation Regulation [AR 43-2024] imposes a lower price cap of $125/MWh on non-renewable generators, in any month in which their profits equal twice their monthly capital costs.[18] This sets a limit on the benefits of economic withholding.

These financial and operating constraints are an example of the necessarily rapid evolution away from the current generator-centric model, to give recognition to other stakeholder interests such as those of landholders.[19]

THE AUC INQUIRY INTO LAND ISSUES

By Order in Council, the GOA directed the AUC to look in to four matters:

- The development of power plants on specific types or classes of agricultural or environmental land.

- The impact of power plant development on pristine viewscapes.

- The implementation of mandatory reclamation security requirements for power plants.

- The development of power plants on lands held by the Crown in the Right of Alberta.[20]

Following its long-established processes:

> The Commission received hundreds of written submissions from stakeholders, First Nations and Métis communities. Stakeholders include Albertans across the province, municipalities, power plant proponents, and various organizations such as landowner, municipal, environmental and industry associations. Several stakeholders filed expert reports along with their written submissions.[21]

[17] See Alberta Electric System Operator, "Market Pathways" (last modified 15 July 2024), online: <www.aesoengage.aeso.ca/market-pathways>.

[18] The Regulation (4) does not apply to smaller entities (<5% of total Alberta capacity), renewables or certain energy storage resources. The daily cap also makes provision for changes in natural gas prices, that being the default generator energy input.

[19] See Alberta Electric System Operator, *AESO 2023: Reliability Requirements Roadmap*, (2023), (renewable resources also impact a range of operating requirements, which the AESO has summarized under the headings of **frequency stability** "the ability of the electric system to maintain an acceptable frequency level and to recover from supply-demand imbalance due to contingencies in a timely manner." at 14); **system strength** ("a measure of the power system's ability to preserve its stability under all reasonably credible and possible operating conditions" at 34); and **flexibility capability** ("the ability of the electric system to adapt to dynamic and changing conditions while maintaining balance between supply and demand."at 46). Alberta's policy of radical generator freedom is being modified in response to these challenges, see also Alberta Electric System Operator, *Alberta's Restructured Energy Market: AESO Recommendation to the Minister of Affordability and Utilities* (Calgary: Alberta Electric System Operator, 2024), online (pdf): <https://www.aesoengage.aeso.ca/37884/widgets/156642/documents/125518>.

[20] *Alberta Utilities Commission, supra* note 1 at 52.

[21] *Ibid* at 5.

This is an arguably ideal way to gather broad input on a complex issue — to make use of existing expertise, in an open public forum, and develop fact-based options based on that input.

On February 28, 2024, the GOA issued a letter providing "Policy Guidance to the Alberta Utilities Commission."[22] This Policy Guidance will be referred to in discussing the four matters dealt with by the Commission.

1. Agricultural and environmental land

There are currently no specific legislative or regulatory constraints on the classes of agricultural lands dedicated to renewable generation projects. The Minister's Policy Guidance letter sets out an "Agriculture First" approach, under which "Alberta will no longer permit renewable generation developments on Class 1 and 2 lands, unless a proponent can demonstrate the ability for both crops and/or livestock and renewable generation to co-exist."[23]

Land use is already a Commission consideration in transmission siting decisions. The restrictions on generation land use can be seen as part of a necessary movement towards a more balanced policy, compared to the current extreme 'generation first' approach. Land is a fundamental non-renewable resource, and there is merit in the position that agricultural use should have a high social priority.

Renewables are forecast to consume only a small fraction of Alberta's total agricultural land, perhaps 0.4 to 0.6 per cent of the existing class 2 agricultural land.[24] But in practice, "less than 5 per cent of projects have been installed on class 2 land," and "high-value crop land can generate revenue that exceeds the current market price of solar land leases."[25] These statistics suggest that a land-use restriction would not impose unreasonable new constraints on renewables developers, who are already economically incented to locate on less valuable classes of land.

Other users such as pipelines, industrial sites, urban and residential development consume far more land than renewables.[26] In the interests of a fair, level playing field, one would hope that the restrictions imposed on renewable projects will not be more onerous than the restrictions imposed on other types of projects.

From an implementation perspective, the Commission noted: "Currently there is no single multi-criteria evaluation tool that integrates environmental, vegetation, soils and agricultural information on a province-wide basis that can be used to inform the siting of renewable projects in Alberta."[27]

To bridge this gap, the AUC committed to "explore requirements for proponents to provide soil field verification earlier in the application process," and noted the option to "assess the value of creating a province-wide integrated multi-criteria evaluation tool to identify and evaluate agricultural land."[28]

After reviewing the numerous existing controls on "high value environmental land such as native prairie, mountains and wetlands,"[29] the Commission observed: "The existing regulatory framework is generally sufficient for the protection of environmental land."[30]

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[22] *Alberta Public Agencies Governance Act*, SA 2009, c A-31.5 ("Subject to subsection (2), a Minister who is responsible for a public agency may set policies that must be followed by the public agency in carrying out its powers, duties and functions." at s 10(1)). This legislation is not known to have been used in the past in electric industry matters. See also *Letter from Minister Nathan Nuedorf, supra* note 2.

[23] *Letter from Minister Nathan Nuedorf, supra* note 2 at 3.

[24] *Alberta Utilities Commission, supra* note 1 at para 93.

[25] *Ibid* at paras 84, 91.

[26] *Ibid* at para 82.

[27] *Ibid* at para 103.

[28] *Ibid* at paras 75, 102. Soil field verification was strongly supported in the Minister's Guidance Letter.

[29] OC 2023/171, online (pdf): <kings-printer.alberta.ca/documents/Orders/Orders_in_Council/2023/2023_171.pdf>.

[30] *Alberta Utilities Commission, supra* note 1 at para 68.

2. Pristine Viewscapes

The effect of power plant development on viewscapes is a socially important issue that cannot be readily quantified or assessed.

> "The Commission received substantial feedback that the personal value of a viewscape would vary depending on an individual viewer's perception, and that attempting to define or delineate commonly held criteria of a pristine viewscape would be challenging."[31]

In response to this concern, the Commission committed to "enhance the existing visual impact assessment requirements within Rule 007 to include a more structured visual impact assessment methodology within the AUC application review process."[32]

As to 'No-Go' zones where power plant development would be completely restricted, the Commission indicated that "the identification and delineation of these areas, if any, should be by the government."[33] These are not narrowly technical decisions, but rather represent a balancing of considerations at the general public level, the community level and the individual level.

The Minister's Policy Guidance indicated that "Government of Alberta will develop and implement the necessary policy and legislative tools to establish buffer zones, of a minimum of 35 km, around protected areas or other "pristine viewscapes" designated by the province where new wind projects will no longer be permitted."[34]

Other developments within that zone could trigger the need for a visual impact assessment. This policy implicitly recognizes that wind turbines are the most visible industrial structures, while other developments are less imposing, and can be managed by the local regulating party (preferably on an industry-agnostic basis as suggested by the AUC).[35]

3. Crown Land

Crown land use has historically been authorized for a range of energy developments such as transmission lines and oil and gas facilities. Historically, renewable power plants have seldom been developed on Crown land. On this issue there is a void: "There is currently no government policy specifically authorizing or setting parameters for the development of wind and solar projects on provincial Crown land, and there is no form of Crown land disposition specifically intended to facilitate this type of development."[36]

There are a broad range of existing users of Crown land, including "disposition holders (e.g., those holding grazing leases or timber permits), as well as recreational users of Crown land and First Nations and Métis communities exercising their constitutionally protected rights." [37]

The Minister's Guidance Letter recognized that an immediate policy decision would be inappropriate.

> Given the many competing interests surround our Crown Land resource, meaningful engagement is required before any changes to Crown Land access, which will result in future legislative changes coming into force in late 2025.[38]

This leaves the use of crown land for power plant development in an explicitly undetermined state, but with a stated deadline for resolution in late 2025.

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[31] *Ibid* at para 195.

[32] *Ibid* at 49. See *Letter from Minister Nathan Nuedorf, supra* note 2. See also Alberta Utilities Commission, "Rule 007: Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines" (last visited 21 August 2024), online: <www.auc.ab.ca/Rule-007>.

[33] *Alberta Utilities Commission, supra* note 1 at para 212.

[34] *Letter from Minister Nathan Nuedorf, supra* note 2 at 3.

[35] *Alberta Utilities Commission, supra* note 1 at para 212.

[36] *Ibid* at para 127.

[37] *Ibid* at para 129.

[38] *Letter from Minister Nathan Nuedorf, supra* note 2 at 4.

4. Reclamation

As the Alberta Energy Regulator has observed with respect to abandoned oil and gas wells: “Historically, liability management has been largely reactive and not focused on the full life cycle of energy development.”[39]

As the Commission stated, “there is no reclamation security regime that applies to all power plants,” and:

> There is currently no mandatory financial security requirement for a proponent to guarantee its reclamation obligations. Most power plants are located on privately owned land and are hosted voluntarily by landowners who can negotiate the terms of entry and as such, may negotiate some form of financial security for future reclamation obligations.[40]

Accordingly, it is gratifying to see this issue positively addressed in the Minister’s Policy Guidance: “Government of Alberta will develop and implement the necessary policy and legislative tools to ensure developers are responsible for reclamation costs via bond or security, with appropriate security amounts and timing to be determined by Environment and Protected Areas in consultation with Affordability and Utilities.”[41]

The Commission observed that

> A reclamation security regime should successfully balance three main outcomes:
>
> - Ensure that the reclamation of the site satisfies all mandatory reclamation requirements.
> - Ensure that the proponent pays for the total reclamation cost.
> - Ensure that the regime is risk-based, commensurate with the reclamation and abandonment risk, and cost-effectively manages the risk without being unnecessarily onerous on the proponent.[42]

The process of defining a reclamation security regime will presumably proceed in due course.

CONCLUDING OBSERVATIONS

For over a quarter of a century, Alberta’s electric industry has been broken up into generation, transmission, distribution, retail segments. The boundaries between these segments are quite artificial, being creations of historical accident and administrative convenience.

The boundaries of these industry segments are not helpful in rethinking Alberta’s electric industry structure. Both at a policy and at a physical level, changes in one area often have unexpected impacts in far distant areas, as this article has demonstrated.

The advent of large amounts of renewable generation can profoundly modify market operations. In addition to the heightened impacts of economic withholding discussed

[39] Alberta Energy Regulator, “Liability Management: Moving away from the liability management rating (LMR)” (last visited 21 August 2024), online: <www.aer.ca/providing-information/by-topic/liability-management>. See Auditor General of Alberta, *Liability Management of (Non-Oil Sands) Oil and Gas Infrastructure: Alberta Energy Regulator* (Alberta: Auditor General of Alberta, 2023), online (pdf): <www.oag.ab.ca/wp-content/uploads/2023/03/Liability-management-oil-gas-mar2023.pdf>.

[40] *Alberta Utilities Commission, supra* note 1 at para 152.

[41] *Letter from Minister Nathan Nuedorf, supra* note 2 at 3.

[42] *Alberta Utilities Commission, supra* note 1 at para 184.

above, the level of system strength, stability and flexibility is profoundly impacted by generation resources which cannot be directed to increase output when the system needs it.

The ever-increasing cost of transmission is another outcome of the out-going policies.[43] This too would impact land use if more inefficiently used transmission lines were built solely to cater to generators' location preferences.

Land use should be seen as but one single component of this entire integrated whole. Under the generator-centric model, landowners had no seat at the table; this is now changing, and a more balanced regime will doubtless emerge over time. In the interim:

- Though its impact on all parties will be small, it is reassuring to know that there will be restrictions on the development of renewables on agricultural land.

- It is also reassuring to know that there will be constraints on the visual impacts that wind turbines and other generation facilities can have on the viewscape — even though precisely defining this requirement will be challenging.

- Although Crown land locations for generators have not been particularly attractive, the opportunity for meaningful engagement across stakeholder groups will be valuable in defining the rules for all users to follow.

- Although wind and solar projects do not present large reclamation costs compared to oil and gas operations,[44] now is the time to set the rules of future engagement for all power plants.

The overall industry trend is towards a more centrally managed and controlled power system, in keeping with the inflexible laws of physics.

One of the learnings from the last round of electric industry restructuring in the late 1990's was that no one is wise enough to be able to foresee all of a major decision's consequences. As well, many of the concerns and customs inherited from the past structure will prove to be irrelevant in the future structure.

The present process of broad public inquiry followed by public release of policy guidance provides clarity for all stakeholders, and allows a policy's consequences to be more fully considered by the industry as a whole. But time is of the essence — Alberta's electric industry is like an airplane in flight, and we do not have the option of taking it out of service while we restructure it.[45] Changes have to be made quickly on the fly, which will surely be uncomfortable and poses unavoidable risks.

In dealing with these land issues, the Commission has been given a positive and constructive role in receiving, analyzing and summarizing broad industry perspectives, based on open public submissions. As new legislation is developed, it will doubtless be found appropriate to provide the AUC with new powers and clearer guidance in these and other mandate areas, taking advantage of its respected expertise in assessing social, economic and environmental issues in its decisions.

For the last three decades, Alberta's fortunate circumstances almost inadvertently provided the resources needed to maintain the system's

[43] In 1996 at the time of competitive generation market opening, transmission costs were $557M; in 2023, costs were $2,729M, an increase of 390%. During that period of time, peak load grew from 7,818 MW to 12,384 MW, an increase of 58%. See Alberta Electric System Operator, *2023 Year in Review: Management's Discussion and Analysis*, (2024), online (pdf): <www.aeso.ca/assets/2023-AESO-Financial-Results_WEB.pdf>. See also Alberta Electric System Operator, *2023 Year in Review: Acting now to create the power system of the future*, (2024), online (pdf): <www.aeso.ca/assets/2023-AESO-Year-in-Review_WEB.pdf>. See also *Re Gridco*, (1990), Proceeding 7051, Disposition ED95124, Applications 162369-1-6, at 85, online: Alberta Utilities Commission <www2.auc.ab.ca/Proceeding26911/ProceedingDocuments/26911_X0583_26911%20VIDYA%20Evidence%20-%20Transmission%20in%20Context_000806.pdf#search=162369>.

[44] *Alberta Utilities Commission, supra* note 1. "The reclamation risk profile for renewable power plants is relatively lower than other industries' reclamation risks as there is no fuel depletion risk and a lower contamination risk" at 37.

[45] Recall that in the five years between open generation competition (1996) and open retail competition (2001) no major generation was built, and in 2000-2001 market prices grew so high that deferral accounts were imposed by the government to mitigate the rate shock.

adequacy, stability, and strength.[46] It is to be hoped that the many benefits of competition can be harnessed in a new industry structure; but above all, the lights must stay on and the rates must be reasonable. The current land issue resolutions take a useful step in what appears to be the right direction. ■

[46] See Alberta Electric System Operator, *AESO 2023: Reliability Requirements Roadmap*, (2023), online (pdf): <www.aeso.ca/assets/Uploads/future-of-electricity/AESO-2023-Reliability-Requirements-Roadmap.pdf>.

WHAT IS NET-ZERO – AND HOW DO OFFSETS HELP TO GET US THERE?

*David Morton**

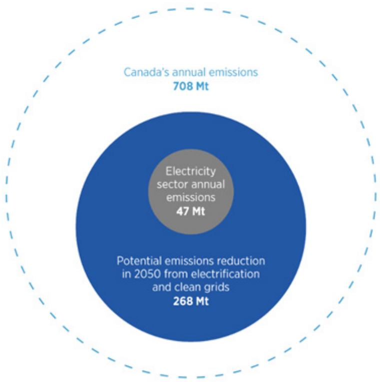
INTRODUCTION

On June 10, 2024, the Canada Electricity Advisory Council issued its final report: Powering Canada: A blueprint for success (Advisory Council Report).[1] The report stated:

> For Canada to reach its net-zero goal, multiple studies have concluded that in addition to largely eliminating the remaining [greenhouse gas] emissions from current electricity production, the share of overall energy supplied by electricity will need to roughly triple, increasing from 17% to between 40 and 70%. In a single generation, then, clean electricity will need to become the dominant source of energy in Canada.[2]

However, the report also stated that even this level of electrification will only contribute up to 38 per cent of required reductions.[3]

The remaining 62 per cent of total greenhouse gas greenhouse gas emissions (GHGe) reductions needed consist of some combination of remaining fossil fuel supplied energy that cannot be electrified and from processes not used for energy production. While the report acknowledges the challenges of the "potential emissions reduction in 2050 from electrification and clean grids"[4] it is silent on how the remaining GHGe can be abated.



How will Canada reduce the remaining 62 per cent of total emissions? Can these emissions be eliminated? If not, is there a strategy to mitigate these emissions through a net-zero strategy?

This gives rise to questions not addressed in the report, such as: What is net-zero and how

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[1] Canada Electricity Advisory Council, *Powering Canada: A blueprint for success*, Final report (2024), online: <natural-resources.canada.ca/our-natural-resources/energy-sources-distribution/electricity-infrastructure/the-canada-electricity-advisory-council/powering-canada-blueprint-for-success/25863#a11> [*CEAC*].

[2] *Ibid* at 37.

[3] Potential reductions from electrification of 268 MT / Total annual emissions of 708 Mt = 28% (*ibid* at 10).

[4] *CEAC, supra* note 1 at 10, 49.

does it relate to electrification? How will the remainder of the GHGe be eliminated? Who decides on net-zero policies?

This article reviews the international framework for reporting on and reducing GHGe and examines the role of offsets in that framework. Then it considers how offsets are managed in Canada and its provinces — the policy driving investments in offset projects and the role of offsets in meeting net-zero targets.

WHAT ARE GHGS?

The *Paris Agreement*[5] sets emission limits for GHGe, which the International Panel on Climate Change (IPCC) defines as:

> those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds… Water vapour (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and ozone (O_3) are the primary greenhouse gases in the Earth's atmosphere. Moreover, there are a number of entirely human-made greenhouse gases in the atmosphere, such as the halocarbons and other chlorine- and bromine-containing substances, dealt with under the Montreal Protocol. Beside CO_2, N_2O and CH_4, the Kyoto Protocol deals with the greenhouse gases sulphur hexafluoride (SF_6), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).[6]

This article refers to these gasses collectively as GHGs, unless the context requires otherwise. Further, GHGs are often counted and reported in t CO_2e, metric tonnes of CO_2 equivalent.

The *Paris Agreement* was adopted by 196 Parties, including Canada, at the UN Climate Change Conference (COP21) in Paris, France, in 2015. It entered into force in 2016.[7] Canada ratified the *Paris Agreement* in the same year.[8]

GHG SOURCES AND SINKS

Article 13 of the *Paris Agreement*[9] commits all signatories to develop, periodically update, publish and make available their national inventories of anthropogenic emissions by sources and removals by sinks of GHGs. As a signatory to the *Paris Agreement*, Canada has committed to reporting its GHGe, the most recent of which is the National Inventory Report 1990–2021: Greenhouse Gas Sources and Sinks in Canada on 2023.[10]

Significant natural sinks are the ocean and vegetation. The *Paris Agreement* requires parties to take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems.[11]

However, GHGs, in particular CO_2 can also be removed from the atmosphere by deliberate

[5] *Paris Agreement*, being an Annex to the *Report of the Conference of the parties on its twenty-first session, held in parties from 30 November to 13 December 2015—Addendum Part two: Action taken by the Conference of the parties at its twenty-first session*, 12 December 2015, UN Doc FCCC/CP/2015/10/Add.1, 55 ILM 740 (entered into force 5 October 2016, accession by Canada 4 November 2016) [*Paris Agreement*].

[6] Intergovernmental Panel on Climate Change: Data Distribution Centre, "Definition of Terms Used Within the DCC Pages: Greenhouse Gas (GHG)" (last visited 1 August 2024), online: <ipcc-data.org/guidelines/pages/glossary/glossary_fg.html>.

[7] See United Nations Climate Change, "Process and meetings: The Paris Agreement" (last visited 1 August 2024), online: <unfccc.int/process-and-meetings/the-paris-agreement>.

[8] See Government of Canada: Environment and Natural Resources "UN climate change conference: The Paris Agreement" (last visited 1 August 2024), online: <www.canada.ca/en/environment-climate-change/services/climate-change/paris-agreement.html>.

[9] *Paris Agreement*, *supra* note 5 art 13.

[10] Environment and Climate Change Canada, *National Inventory Report 1990–2021: Greenhouse Gas Sources and Sinks in Canada*, Canada's submission to the United Nations Framework Convention on Climate Change (2023 edition, part 3), online (pdf): <publications.gc.ca/collections/collection_2023/eccc/En81-4-2021-3-eng.pdf>.

[11] See *Paris Agreement*, *supra* note 5 art 5.1; See also United Nations Framework Convention on Climate Change, 9 May 1992, 1771 UNTS 107, art 4.1(d).

human activities and durably stored in geological, terrestrial, or ocean reservoirs, or in products. The IPCC does not distinguish natural sinks from sinks created by human activities, defining a sink as "any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere."[12]

WHAT IS NET-ZERO

Net-zero refers to a state where the amount of GHGs added to the atmosphere from sources equals the amounts removed by sinks, measured over some agreed upon time period, preferably as short as possible.[13] Achieving net-zero doesn't intrinsically require any emission reductions — theoretically net-zero could be achieved with no emission reductions if there were sufficient sinks to absorb all emitted GHGs, although there are significant practical impediments to that approach.

The idea of net-zero came out of research in the late 2000s which concluded that global warming will only stop if net CO_2 emissions are reduced to zero.[14] Net-zero was basic to the goals of the *Paris Agreement* as reflected in Section 4.1 of the agreement:

> In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as <u>to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases</u> in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty. [emphasis added][15]

The term net-zero gained popularity after the IPCC published its Special Report on Global Warming of 1.5°C (SR15) in 2018.[16]

GHG OFFSETS

A "carbon offset," or "offset," broadly refers to a reduction in GHGe or an increase in GHGs that are captured and stored in order to compensate for GHGe that occur elsewhere. An offset project, once completed, accomplishes these reductions.

Offset credits are generated by offset projects and can be purchased by GHG emitters, thereby helping them meet their statutory emission reduction requirements. They may also be purchased by organizations that have no statutory requirement to report or reduce emissions but do so voluntarily, or to meet Environmental Social and Governance (ESG) expectations of their shareholders or customers. Some of those organizations may also fund offset projects. In addition to providing a benefit to the purchaser, offset credits can provide offset project developers the ability to monetize the output of their project.

However, a market for associated offset credits is not necessary for an offset project to be viable. For example, it could be considered to be in the public interest to publicly fund an offset project in order to help abate emissions that are considered a societal responsibility. Funding of this nature could be provided by governments, Non-Government Organizations (NGOs) or private sector organizations.

OFFSETS IN CANADA

There are a number of offset projects generating offset credits in Canada. The Federal Government, British Columbia (BC), and

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[12] Intergovernmental Panel on climate change, *Climate Change 2021: The Physical Science Basis: Annex VII: Glossary*, Working Group 1, J.B. Robin Matthews et al, Cambridge University Press, 2022 at 2249.

[13] Having half of the desired concentration of CO_2 for 50 years followed by twice as much for the next 50 years would result in net-zero over the 100 year time span, but that is not the intent of the *Paris Agreement*.

[14] Myles R. Allen et al, "Net Zero: Science, Origins, and Implications" (2022) 47, Annual Rev of Envt and Resources 849, online: <annualreviews.org/docserver/fulltext/energy/47/1/annurev-environ-112320-105050.pdf?expires=1723048008&id=id&accname=guest&checksum=FD05D4E10A6512A68A1E9E1EF6B93E72>.

[15] *Paris Agreement*, *supra* note 5 art 4.1.

[16] Hans-Otto Pörtner et al, *Global Warming of 1.5°C* (Intergovernmental Panel on climate change: 2019), online (pdf): <www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Full_Report_HR.pdf>.

Alberta all maintain registries of projects. Offset projects in the registries include instances of all the categories discussed above. Not surprisingly, BC has a significant number of forest-based sequestration projects and Alberta has a number of projects that utilize depleted oil and gas wells for the same purpose. Both provinces have a significant number of fuel-switching projects, some to biofuels and many to support electrification.

The Output Based Pricing System (OBPS), in place both federally and in most provinces, provides a market for offset credits generated by these projects described in the previous paragraph. While each province differs somewhat in implementation details, the description of BC's program outlines the general approach.

The BC OBPS imposes a reporting requirement on companies that emit more than 10,000 tCO_2e per year. These "reporting companies" can claim an exemption from paying carbon tax on their facility-use fuel and combustibles but have a compliance obligation to emit less than their annual emissions limit. Operations that emit under their annual emissions limit earn credits. Operations that emit over their emissions limit have compliance obligations which can be met with earned credits, offset units, or direct penalty payments.

Sales of offset credits are managed by the BC Government according to a pricing schedule. The BC OBPS also imposes a limit on the amount of offsets that can be applied to a company's compliance obligations.[17] Offset credits are purchased by both reporting and non-reporting companies.

QUEBEC-CALIFORNIA CAP AND TRADE OFFSET SYSTEM

The province of Quebec participates in a Cap and Trade system, which includes an offset credit trading program, with the state of California.

The shared emissions trading market between the American state of California and the Canadian province of Quebec is administered by the Western Climate Initiative Inc. (WCI). The WCI also administers the individual emissions trading systems in Nova Scotia and Washington state. It also provides administrative, technical and infrastructure services to support the implementation of cap-and-trade programs in other North American jurisdictions.[18]

The WCI defines an offset certificate as:

> a type of compliance instrument that is awarded by the program authority in a participating partner jurisdiction under the Partner jurisdiction's cap-and-trade program to the sponsor of a GHGe offset project… An offset certificate represents a reduction or removal of one metric ton of carbon dioxide equivalent (tCO_2e). The reduction or removal must meet the recommended essential criteria for reductions and removals to be real, additional, permanent, and verifiable. Reductions and removals must also be clearly owned, adhere to recommended protocols, and result from a project located in a qualifying geographic area.[19]

WCI offset protocols require that "the environmental, social, economic and health benefits that may arise from an offset project and the offset system will focus on those benefits directly related to mitigating climate change. A WCI offset project is required only to result in a greenhouse gas emission reduction or removal."[20]

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[17] Government of British Columbia, "Getting started with the B.C. output-based pricing system" (February 2024), online (pdf): <www2.gov.bc.ca/assets/gov/environment/climate-change/action/carbon-tax/obps-technical-backgrounder.pdf> [*Government of British Columbia*].

[18] Western Climate Initiative, Inc., "Greenhouse gas emissions trading: a cost-effective solution to climate change", online: <wci-inc.org>.

[19] Western Climate Initiative, "Offset System Essential Elements Final Recommendations Paper" (July 2010), online (pdf): <www.environnement.gouv.qc.ca/changements/carbone/documents-WCI/recommandations-finales-elements-essentiels-WCI-en.pdf>.

[20] *Ibid* at 7.

At the outset of the program, offsets were governed as follows: [21]

Comparing California and Quebec's Cap-and-Trade Systems as of May 28, 2015		
	California	**Quebec**
Offset Limit	Can account for 8% of a regulated entity's compliance obligation	Can account for 8% of a regulated entity's compliance obligation
2013 Offset Use Limit (Millions of Offset Credits)	13	2.1
Types of Offset Categories	• U.S. forest and urban forest project resources; • Livestock projects; • Ozone depleting substances projects; • Urban forest projects	• Covered manure storage facilities – CH_4 destruction; • Landfill sites – CH_4 destruction; • Destruction of ozone depleting substances (ODS) contained in insulating foam recovered from appliances

Under the terms of the cap and trade agreement between Quebec and California, offset credits can be exchanged between participants in the two jurisdictions' programs.

California's offset use is currently limited to 4 per cent of an entity's compliance obligation for the current period 2021–2025 (decreasing from 8 per cent during 2013–2020), but this usage limit will rise to 6 per cent for 2026–2030. As of mid-July 2022, nearly 240 million ARB offsets have been issued in California, with almost 50 million still in circulation.[22]

OFFSET USE INTERNATIONALLY – THE INTERNATIONAL CARBON ACTION PARTNERSHIP

How does Canada — and its provinces — measure up internationally? In January 2023, the International Carbon Partnership published Offset Use Across Emissions Trading Systems. The 2023 report stated:

> Many ETSs [Emission Trading Systems] worldwide…have at some point included offset provisions in their system design. Systems being developed, such as in Colombia and Vietnam, are considering how they could integrate offsets. Over time, systems have tended both towards an increased use of domestically- over internationally-sourced offsets and towards the development of self-established rather than independently administered crediting mechanisms. Approaches to offsets differ in other ways, including the geographical and sectoral scope, the level of reliance on offsets, and methodologies (or 'protocols') for offset generation. Several systems have chosen, either from the outset or subsequently, not to include offset provisions — these include Germany, Austria, the UK ETS, Switzerland,

[21] See Jonathan Drance, "Examining California and Quebec's cap-and-trade systems" (28 May 2015), online: <www.stikeman.com/en-ca/kh/canadian-energy-law/examining-california-and-quebec-cap-and-trade-systems>.

[22] Legislative Analyst's Office, "California's Cap-and-Trade Program: Frequently Asked Questions: How Do Offsets Work?" (24 October 2023), online: <lao.ca.gov/Publications/Report/4811>.

> the EU ETS, Nova Scotia, and Massachusetts.[23]

The figure below provides an overview of offset use in current ETSs.[24]

The EU ETS experience is summarized in the report. During the first phase (2005–2007), regulated entities were allowed unlimited use of credits, except for those from large hydropower projects and land use, land-use change, and forestry projects.

However, in practice no offsets were used due to the allowance price crash at the end of phase one. "In phase two (2008–2012), after the EU ETS cap was tightened, offsets became an attractive option, but concerns circulated about the additionality and environmental integrity of some project types. The EU consequently restricted offsets of certain types by introducing qualitative criteria and banned credits from industrial gas projects."[25]

The EU experience illustrates the importance of a market with prices that support the development of offset projects and of a robust set of criteria for project development to ensure continued public support.

THE ROLE OF OFFSETS IN NET-ZERO – AND THE CONTROVERSIES SURROUNDING THEM

There is a growing consensus concerning the role of offsets in a net-zero world. For example, Bloomberg states:

> "Few organizations can reach their net-zero goals solely via emission-reduction initiatives. Most are left with some residual emissions, which they can neutralize with carbon offsets."[26]

However, despite this growing consensus, the use of offsets continues to be criticized for a number of reasons, including:

- Offsets may delay active emissions reductions — they should only be considered after all means of GHGe reduction and elimination have been exhausted.
- Offsets may lead to inappropriate quantification of emission reductions of projects.
- Offsets may result in potential double-counting of emission reductions.
- Using offsets creates a disincentive to take mitigation action.

The criticism of offsets in part can sometimes result from the different role that offsets play in reporting GHG reductions and providing incentives and financing to GHGe entities to reduce their GHGe. The following example illustrates these different roles.

Consider the following categories of offset projects:

1. Projects that conserve and enhance natural sinks and reservoirs of greenhouse gases. Examples include reforestation and restoration of wetlands.

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[23] Stephanie La Hoz Theuer et al, *Offset Use Across Emissions Trading Systems*, , (Berlin: Secretariat of the International Carbon Action Partnership, 2023) at 11, online (pdf): <icapcarbonaction.com/system/files/document/ICAP%20offsets%20paper_vfin.pdf>.

[24] *Ibid.*

[25] *Ibid* at 13.

[26] Bloomberg Professional Services, "Why net-zero targets require carbon offsets to succeed" (25 April 2022), online: <www.bloomberg.com/professional/insights/commodities/why-net-zero-targets-require-carbon-offsets-to-succeed>.

2. Human constructed processes to remove GHGs that are in the atmosphere and transport them to a storage facility where they can be sequestered and stored them there for an indefinite time. This is commonly known as Direct Carbon Capture (DCC).

3. Capturing GHGe directly from an emitting source and transporting them to a storage facility where they can be sequestered and stored for an indefinite time. This is commonly known as Carbon Capture and Storage (CCS).

4. Replacing a GHG emitting process with a different process that generates less or zero GHGs — for example, replacing a compressor fuelled by natural gas with an electrically driven compressor. This is commonly known as "fuel switching."

Offset Projects in the third and fourth categories remove emissions that are being simultaneously emitted from an identified process or remove emissions that would occur were it not for the offset project. While that in itself results in "net-zero," selling the resulting offset credit enables an equivalent amount of GHG to continue to be emitted by the purchaser.

Further, a "fuel switching" offset project fully or partially eliminates the GHGe associated with an emitting process. As a result, with respect to those eliminated GHGe, there is no real "offset".

However, many jurisdictions allow trading in offset credits generated from fuel switching and from CCS, with sound policy reasons for doing so. In essence, all offsets provide a financial incentive for the offset project developer to reduce or eliminate GHGe and provides a pathway for subsidization from an owner of a GHGe process. Overall, emissions are reduced.

That said, there can still exist the potential for double counting if both the seller and the purchaser of an offset credit claim the same GHGe reduction.

With the exception of offsets in category 4 above, which incent permanent GHGe elimination, all categories of offsets are considered by many critics to enable continued GHG emissions.

A 2021 Nature article summarized the criticisms:

> Net-zero commitments are not an alternative to urgent and comprehensive emissions cuts. Indeed, net zero demands greater focus on eliminating difficult emissions sources than has so far been the case. The 'net' in net zero is essential, but the need for social and environmental integrity imposes firm constraints on the scope, timing and governance of both carbon dioxide removal and carbon offsets.[27]

Are these criticisms valid? Notwithstanding these criticisms, achieving net-zero has become the main framework for GHG reduction strategies, with many countries and organizations setting net-zero targets and venturing into the realm of offsets as a pathway to meeting those targets.[28]

OFFSET PROGRAM DESIGN

Given the criticism of offsets, how can they form part of an accepted and successful net-zero strategy? The International Carbon Action Partnership (ICAP) is an international forum for governments and public authorities that have implemented or are planning to implement emissions trading systems (ETS). In its work with cap and trade ETS, ICAP has considered the role of offsets in those systems and manages offset credit trading markets. According to the ICAP, offsets should:

- be additional, meaning that the reduction would not have occurred without the incentive created by offset revenues;

[27] Sam Fankhauser et al, "The meaning of net zero and how to get it right" (2022) 12 Nature Climate Change 15 at 19, online (pdf) : <www.nature.com/articles/s41558-021-01245-w.pdf>.

[28] John Lang, "Energy & Climate Intelligence Unit: Net Zero: A short history" (8 January 2021), online: <eciu.net/analysis/infographics/net-zero-history>. See also Jorei Rogelj et al, "Net-zero emissions targets are vague: three ways to fix" (16 March 2021), online: <www.nature.com/articles/d41586-021-00662-3>.

- be appropriately quantified, such that emission reductions are not overestimated;
- be permanent or come accompanied with a way to mitigate the environmental damage of reversals;
- be appropriately accounted for (such that emission reductions have an exclusive claimant and are not double-claimed); and
- not create disincentives for mitigation action by the jurisdiction hosting the offset project[29]

Perhaps in response to the criticism of offsets, many jurisdictions have imposed limits on the amount and nature of offsets that can be used. While this may be a reasonable approach to mitigate the risk of an offset program that is unpopular, can the limit itself pose a risk to a net-zero strategy? Achieving net-zero is viewed by many as challenging and expensive, therefore limiting the use of offsets could potentially compromise efforts to reach it.

CONCLUSION

Offsets put the "zero" in "net-zero." Without them, all human-made GHG emitting processes must be eliminated or replaced with non-emitting processes. Without offsets, we will have to learn to live without those GHG emitting processes that cannot be replaced with a non-emitting process.

Given this stark choice, clearly there is a role for offsets. However, the viability of offsets depends on many things, including their integrity, their economics, their public and political acceptance and the ingenuity of developers. How can Public Policy support?

The Advisory Council Report states that to achieve the country's goals in the most cost-efficient way, electricity's market share will need to grow roughly threefold within a single generation, to become the country's primary form of energy supply. Further, current forecasts show that more than 10 gigawatts (GW) of new, emissions-free electricity will need to be added to Canadian power systems every single year from now until 2050. This means that electricity generation capacity must grow at least 3 times as fast as it has in recent decades.[30]

Tripling, in 25 years, the amount of electricity generated and delivered is an ambitious goal that will, as the report points out, require considerable regulatory reform and an estimated investment of between $1.1 and $2 trillion. To put 10 GW into perspective, it is roughly equivalent to 9 new Site C dams each year from now to 2050!

In addition, while some modelling shows an overall reduction in total energy costs for 70 per cent of people, 30 per cent of people — the most economically vulnerable among us — will face higher energy bills.[31]

Even if this electrification goal is achievable, this only accounts for less than half of Canada's 2050 emissions. Offset projects bridge the gap — in addition to backstopping the electrification effort, should that be needed.

It is essential to maintain public confidence in any offset policy. Is current public offset policy transparent and understandable? To be successful, it must be. Policy considerations include:

- Should there be a limit on the use of offsets to balance the need for mitigation action with the cost efficiencies that offsets offer?
- Should there be restrictions placed on the nature of offset projects?
- How should an offset credit market be managed?
- What, if any, public subsidies should be available for offset project development?
- Are verification and audit standards and practices sufficient to ensure: there is an exclusive claimant; emission reductions are not over-reported; the reductions are permanent and not double claimed?

[29] *Supra* note 23 at 10.

[30] This presents a dual challenge.

[31] *CEAC, supra* note 1 at 34.

The Advisory Council Report's blue-ribbon panel recommended that government "[c]learly articulate a 2050 net-zero or carbon-neutral objective in the energy roadmap."[32] Section 4.1 of the *Paris Agreement*[33] provides guidance here: we need an equitable, economically sustainable pathway to meet our net-zero goals. One that doesn't disadvantage our citizens that are least able to afford it.

Open discussion and a thoughtful approach to offsets are needed. Let's keep an open mind to how offsets can help Canada reach its net-zero targets and meet its international obligations. ■

[32] *Ibid* at 158.

[33] *Government of British Columbia, supra* note 17.

WHAT DOES *LA ROSE* TELL US ABOUT CLIMATE CHANGE LITIGATION IN CANADA?

*Nigel Bankes, Jennifer Koshan, Jonnette Watson Hamilton, and Martin Olszynski**

The last decade has seen an explosion of domestic climate change litigation around the world and an equally rich body of academic literature examining the case law from a variety of disciplinary perspectives. The Sabin Center for Climate Change Law maintains an excellent data base[1] covering these developments. Important cases in other jurisdictions include the *Urgenda* decision[2] and *Shell*[3] decision in the Netherlands, and the 2021 decision of the German constitutional court[4]. Australian environmental non-governmental organizations (ENGOs) have been particularly active in bringing climate change issues before the courts, especially in the context of proposed natural gas and coal projects, most famously in the *Sharma* case[5].

These cases have different doctrinal and theoretical bases. Some are based on domestic constitutional law; some on the domestic implementation of international human rights treaties; and some, like *Sharma*, on principles of tort law. And while ENGOs have been met with significant successes, there have also been significant setbacks — perhaps most surprisingly in Norway.[6]

Within this broader global context, climate change litigation in Canada, especially rights-based litigation, has been slow to emerge,

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[1] Sabin Center for Climate Change Law, "Climate Change Litigation Databases", online: <climatecasechart.com>.

[2] Civiel recht, Hoge Raad [Supreme court of the Netherlands, Civil Division], 20 December 2019, *Urgenda v Netherlands*, No 19-00135 (Netherlands) [*Urgenda*].

[3] Civiel recht, Rechtbank Den Haag [District Court of The Hague, Civil Division], 26 May 2021, *Milieudefensie et al v Royal Dutch Shell plc*, No C/09/571932 / HA ZA 19-379 (Netherlands) [*Shell*].

[4] Bundesverfassungsgericht [Federal Constitutional Court], 24 March 2021, *Neubauer et al v Germany*, No 2656/18 (Germany) [*Neubauer et al v Germany*].

[5] *Sharma by her litigation representative Sister Marie Brigid Arthur v Minister for the Environment* (2021), FCA 560 (FC Australia), appeal allowed, [2022] FCAFC 35 (FCFC Australia) [*Sharma*].

[6] Supreme Court of Norway, 22 December 2022, *Nature and Youth Norway and Greenpeace Nordic Friends of the Earth Norway et al v The State*, No 20-0510525IV-HRET (Norway).

but with the *La Rose*[7] decision of the Federal Court of Appeal (the subject of this article) and the *Mathur*[8] case in the Ontario courts, we are starting to see some engagement. In *Mathur v Ontario*,[9] and *Mathur v His Majesty the King in Right of Ontario*,[10] the applicants challenged Ontario's greenhouse gas emissions reduction target as contrary to section 7 (the right to security of the person) and section 15 (the right to equality) of the *Canadian Charter of Rights and Freedoms*.[11] The application was permitted to proceed to a hearing on the merits after surviving the Ontario government's motion to strike, but was unsuccessful at trial. Justice Marie-Andrée Vermette of the Ontario Superior Court of Justice ultimately concluded that there was no violation of section 7 since the "[a]pplicants have not demonstrated that any deprivation of their rights under section 7 of the Charter was contrary [to] the principles of fundamental justice…"[12] Neither was there a breach of section 15, principally because any disproportionate impact that would be experienced by the applicants as youth would be caused by climate change itself and not by Ontario's greenhouse gas reduction target.[13] The applicants' appeal was heard by the Ontario Court of Appeal in January 2024 and judgment was reserved.

The *La Rose* plaintiffs are 15 children and youth residing in seven provinces and one territory. In this case, the target is the federal government. The plaintiffs allege that the government's failure to address the problem of climate change constitutes a breach of sections 7 and 15 of the *Charter*. The *La Rose* plaintiffs also allege that Canada is in breach of its public trust duties, in particular its duty "to preserve and protect inherently public resources — bodies of water, the air, and the permafrost — so that current and future generations may access, use, and enjoy these resources."[14] The plaintiffs' requests for relief — discussed in the Federal Court decision considering the government's motion to strike — included "an order requiring the Defendants to develop and implement an enforceable climate recovery plan that is consistent with Canada's fair share of the global carbon budget plan to achieve GHG emissions reductions compatible with the maintenance of a Stable Climate System".[15] The plaintiffs referred to a Stable Climate System as a climate "capable of sustaining human life and liberties."[16] Justice Michael Manson of the Federal Court granted Canada's motion to strike principally on the basis that the claims were not justiciable. On appeal, in a unanimous judgment written by Justice Donald Rennie, the Federal Court of Appeal affirmed the motion to strike in relation to the section 15 claim but allowed the appeal in respect of the plaintiffs' section 7 claim — at least to the extent that the Court gave the parties leave to amend their pleadings.[17]

Justice Rennie's judgment also provides the Court's reasons for the appeal in the companion case of *Misdzi Yikh v Canada*.[18] This was a case brought by two Wet'suwet'en House groups represented by their Dini Ze' (Head Chiefs) alleging that the federal government's actions in relation to climate change amounted to a breach of sections 7 and 15 of the *Charter* and a failure by Canada to make laws in relation to peace, order and good government. Justice Glennys McVeigh of the Federal Court had struck the *Misdzi Yikh* claim in its entirety.[19]

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[7] *La Rose v Canada*, 2023 CanLII 241 (FCA) [*La Rose*].

[8] *Mathur v Ontario*, 2020 CanLII 6918 (ONSC) and *Mathur v His Majesty the King in Right of Ontario*, 2023 CanLII 2316 (ONSC).

[9] *Mathur v Ontario*, 2020 CanLII 6918 (ONSC).

[10] *Mathur v His Majesty the King in Right of Ontario*, 2023 CanLII 2316 (ONSC) [*Mathur*].

[11] *Canadian Charter of Rights and Freedoms*, Part I of the *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (UK), 1982, c 11 [*Charter*].

[12] *Mathur*, *supra* note 10 at para 171.

[13] *Ibid* at 177–83.

[14] *La Rose*, *supra* note 7 at para 53.

[15] *La Rose v Canada*, 2020 CanLII 1008 (FC) at para 12f).

[16] *Ibid* at para 6.

[17] *Ibid* at paras 21–22.

[18] *Misdzi Yikh v Canada*, 2020 CanLII 1059 (FC) [*Misdzi Yikh*].

[19] *Ibid*.

Justice Rennie found that the section 7 *Charter* claim could proceed with amended pleadings here too.

This article begins with, and focuses on, Justice Rennie's reasons for decision in the *La Rose* case but we also offer some comments on the *Misdzi Yikh* case.

THE TEST FOR A MOTION TO STRIKE

A claim should be struck if it is plain and obvious that the claim has no reasonable prospect of success. In applying this standard, "the facts are to be taken as proven unless they are manifestly incapable of proof…the pleading must be read generously and, recognizing that the law is not static and evolves to address new and emerging situations, the court must err on the side of permitting novel but arguable claims to proceed to trial…"[20]

JUSTICIABILITY

Justice Rennie noted several possible bases for striking the claims: non-justiciability, failure to disclose a reasonable cause of action, or a failure of the pleadings.[21] A claim is justiciable if a court has both the institutional capacity (what a court can do) and legitimacy to adjudicate the matter (what a court ought to do). A question is justiciable in a constitutional case if it concerns the validity of government (in)actions rather than the wisdom of the choices made by Parliament. Questions as to the wisdom of actions or inactions are issues to be determined by the legislative or executive branches of government within a Westminster parliamentary system rather than the judicial branch.[22] A claim is not rendered non-justiciable just because it concerns matters that are politically sensitive or controversial so long as the claim has a sufficient legal component.[23]

In applying these tests in the *La Rose* case, Justice Rennie concluded that the plaintiffs' claims were justiciable. He noted that the question of climate change was not simply a matter of political choice since it had been crystallized into law. Here, Justice Rennie referenced[24] the preamble of the *Greenhouse Gas Pollution Pricing Act*,[25] which in turn references Canada's commitment to achieve its Nationally Determined Contribution under the *Paris Agreement*.[26] Furthermore, "[i]t must not be forgotten that the target of the appellants' claims is legislation — existing laws, regulatory instruments and Orders in Council."[27] It followed that there is, "therefore, a sufficient legal component to their claims, and the claims satisfy the legitimacy portion of a justiciability analysis."[28]

In reaching this conclusion, Justice Rennie was able to distinguish the decision in *Friends of the Earth v Canada (Governor in Council)*.[29] As Justice Rennie noted,[30] *Friends of the Earth* was a case in which the conclusion as to non-justiciability largely turned on the determination that Parliament allocated the accountability mechanisms in the *Kyoto Protocol Implementation Act*,[31] to Parliament itself and not to the courts. We agree with this assessment and also agree that *Friends of the Earth* cannot "stand for the proposition that all

[20] *La Rose*, *supra* note 7 at para 19.

[21] *Ibid* at para 20.

[22] *Ibid* at para 26.

[23] *Ibid* at paras 33–36, drawing in particular on the concurring reasons of Justice Bertha Wilson in *Operation Dismantle v The Queen*, 1985 SCC 441.

[24] *La Rose*, *supra* note 7 at para 32.

[25] *Greenhouse Gas Pollution Pricing Act*, SC 2018, c 12, s 186.

[26] *Paris Agreement*, being an Annex to the *Report of the Conference of the parties on its twenty-first session, held in parties from 30 November to 13 December 2015 – Addendum Part two: Action taken by the Conference of the parties at its twenty-first session*, 12 December 2015, UN Doc FCCC/CP/2015/10/Add.1, 55 ILM 740 (entered into force 5 October 2016, accession by Canada 4 November 2016) [*Paris Agreement*].

[27] *La Rose*, *supra* note 7 at para 33.

[28] *Ibid* at para 45.

[29] *Friends of the Earth v Canada (Governor in Council)*, 2008 FC 1183 [*Friends of the Earth*], aff'd 2009 FCA 297 application for leave to appeal dismissed 2010 SCC 33469.

[30] *La Rose*, *supra* note 7 at para 40.

[31] *Kyoto Protocol Implementation Act*, SC 2007, c 30.

claims addressing climate change are inherently non-justiciable."[32]

While this analysis revealed a sufficient legal target, it was also necessary to assess whether that target was too diffuse and whether a court had the institutional competence to tailor "effective, enforceable remedies to meaningfully address the asserted harms."[33] Here, Justice Rennie cautioned that a court should be slow to conclude that the remedies sought might render a claim non-justiciable. After all, the courts have the capacity to issue a suspended declaration as a response to unconstitutional behaviour so as to afford the legislative branch the opportunity to respond.[34] In addition, climate change science has been evolving so as to allow "a science-based GHG reduction target," meaning that "a stable climate system could be established through expert evidence" at trial.[35] This is an important acknowledgement of the concept of a Stable Climate System even though Justice Rennie does not expressly refer to the idea of a carbon budget. Justice Rennie went on to note that requests for remedies are often amended in the course of litigation and while some of the plaintiffs' requests for remedies might be overly prescriptive or overly general, there would still be the opportunity to tailor remedies appropriately should a breach be found.[36]

In sum, the claims in *La Rose* were found to be justiciable and the same conclusion must presumably apply to the claims in *Misdzi Yikh*. This is a significant conclusion, fully in line with the case law in other jurisdictions and with *Mathur*. In our view, it would be a very strange and unfortunate outcome if rights-based climate change cases were justiciable in other jurisdictions but not here in Canada.

PLAIN AND OBVIOUS AND THE SUBSTANTIVE LAW

With the threshold issue of justiciability disposed of, Justice Rennie could turn to the substantive law underlying the specific claims of the plaintiffs to see if they would falter under the plain and obvious test for failing to disclose a reasonable cause of action. First up was the non-*Charter* public trust argument of the youth plaintiffs.

THE PUBLIC TRUST CLAIM

The public trust doctrine does not have the salience in Canadian law generally, or in Canadian constitutional law specifically, that it does in the United States. For this reason alone, it is hardly surprising that Justice Rennie declined to interfere with Justice Manson's conclusion that the plaintiffs' claim did not disclose a reasonable cause of action.[37] Justice Rennie found that the government's standing (or power) to act in the public interest did not translate into a general obligation for it to do so.[38] This does not mean that all public trust claims are doomed to failure, but any effort to apply such a doctrine across the whole of the federal government was a leap too far. Better to build this doctrine incrementally — the methodology of the common law — rather than proclaiming a brave new world.

THE POGG CLAIM OF THE *MISDZI YIKH* PLAINTIFFS

The next issue Justice Rennie addressed was the claim of the *Misdzi Yikh* plaintiffs in relation to the federal government's peace, order and good government (POGG) power. Similar to the public trust doctrine, the plaintiffs faced the challenge of converting a federal power to make certain types of laws into a duty to make a law co-extensive with the power (and a correlative right of the plaintiffs to see that such a law would be enacted). That is no small undertaking, and much like our comments above with respect to the public trust doctrine, this is not the case in which to try to use POGG to convert a legislative power into a justiciable duty to act. If there is such a duty, it must arise from the rights-conferring terms

[32] *La Rose*, *supra* note 7 at para 42.

[33] *Ibid* at para 47.

[34] *Ibid* at para 48.

[35] *Ibid* at para 49, following the 2023 decision in *Mathur v His Majesty the King in Right of Ontario* at para 123.

[36] *La Rose*, *supra* note 7 at paras 51–52.

[37] *Ibid* at para 59.

[38] *Ibid* at para 60.

of the *Charter*, not from the language of the power to make laws, or from principles of federalism. In other words, POGG does not supply a free-standing cause of action, but if the plaintiffs can establish a *Charter* basis for protective measures, then it does seem possible that a court might be able to order federal action, even if that requires the federal government to rely on its POGG power. After all, insofar as it is provincial inability that feeds the POGG power,[39] the federal government might be the only government with the power to take the necessary protective action. But in this case, the *Misdzi Yikh* plaintiffs do not seem to have expressly combined their POGG and *Charter* arguments.

Hence, we agree with Justice Rennie's conclusions striking the POGG claim,[40] but we do caution that his comments with respect to reliance on comparative and international jurisprudence need to be interpreted in context, as we elaborate in the next paragraph.

The *Misdzi Yikh* plaintiffs based their case on the *Bancoult* or *Chagos Islands* decisions of the UK courts,[41] which considered whether the British government's POGG powers extended to the executive's politically motivated removal of the inhabitants of the British Indian Ocean Territory. Justice Rennie dismissed any reliance on these cases in terms of the merits of the arguments but also more broadly reasoned as follows:

> In any event, constitutional analysis is principally informed by Canadian jurisprudence, which is in turn shaped by our political and social history and only draws upon decisions of foreign courts or principles of international or comparative law in exceptional circumstances (*Quebec (Attorney General) v. 9147-0732 Québec inc.,* 2020 SCC 32, [2020] 3 S.C.R. 426 at paras. 43–47). This practice is driven by the obvious reality that measures adopted in other contexts may be of scant relevance, a point particularly apposite in respect of the *Bancoult* decisions.[42]

While we generally agree with this sentiment when it comes to questions of division of powers, and specifically the interpretation of POGG in the context of principles of Canadian federalism, we fundamentally disagree with this sentiment as applied to rights-based litigation (and the *Charter*) in the context of climate change litigation. Insofar as much of this litigation is rooted in an internationally shared set of human rights norms, we think that both international and comparative jurisprudence (as outlined in our introductory paragraphs) should be of considerable interest and value to Canadian courts. We note that both the Supreme Court of Canada in the *GGPPA Reference*,[43] and Justice Vermette in the *Mathur* case[44] seem to be much more open to engaging with this jurisprudence.

There is also one more specific reason for engaging with international law in the context of Indigenous plaintiffs and climate law, and that is because of the jurisprudence of the UN Human Rights Committee on article 27 (the minority rights provision) of the *International Covenant on Civil and Political Rights*.[45] This jurisprudence is important because of the Committee's insistence that article 27 (even though framed negatively) may in some circumstances require a state party to take positive measures to ensure that Indigenous minorities continue to have access to the

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[39] *References re Greenhouse Gas Pollution Pricing Act*, 2021 SCC 11 at para 152 [*GGPPA Reference*].

[40] *La Rose*, *supra* note 7 at para 69.

[41] See *R (Bancoult) v Secretary of State for Foreign and Commonwealth Affairs*, [2001] QB 1067 [*Bancoult (No 1)*] and *R (Bancoult) v Secretary of State for Foreign and Commonwealth Affairs,* [2008] UKHL 61 [*Bancoult (No 2)*]) [*Bancoult* or *Chagos Islands*].

[42] *La Rose*, *supra* note 7 at para 74.

[43] *GGPPA Reference*, *supra* note 39 at paras 2, 7–13, 24, 167, 171, 187–90, 206.

[44] See *Mathur*, *supra* note 10 especially at paras 17, 146.

[45] *International Covenant on Civil and Political Rights*, 19 December 1966, 999 UNTS 171 art 27 (entered into force 23 March 1976, accession by Canada 19 May 1976).

material elements of their culture.[46] Given the judicial reluctance to interpret *Charter* rights as imposing a government duty to take positive protective measure to ensure the enjoyment of the right (see the discussion below), this jurisprudence supports a more generous reading of rights as more than just protections against the state.

CHARTER CLAIMS

This brings us to the plaintiffs' *Charter* claims. Justice Rennie began with the equality guarantee in section 15 and the youth plaintiffs' argument that climate change affects them disproportionately, with the lack of a robust legislative response amounting to adverse effects discrimination based on age. As noted by the Court, a violation of section 15 is assessed via a two-step test: (1) "whether the law or state action creates a distinction [or has a disproportionate impact] based on an enumerated or analogous ground,"[47] and (2) "whether the law or state action imposes burdens or denies a benefit in a manner that perpetuates, reinforces, or exacerbates some disadvantage experienced by the group, either systemically or historically."[48]

At the outset of his analysis, Justice Rennie recognized that "[c]limate change is having a dramatic, rapidly unfolding effect on all Canadians and on northern and Indigenous communities in particular"[49] and that it is "beyond doubt that the burden of addressing the consequences will disproportionately affect Canadian youth."[50] While accepting the principle that where the government has conferred a benefit or imposed a burden, it must do so without discrimination, Justice Rennie also noted that governments are "free to address inequality incrementally"[51] and do not have a "freestanding positive obligation…to enact benefit schemes to redress social inequalities."[52] He characterized the plaintiffs' claim as one related to future inequalities and intergenerational inequity, and found that it was not the proper role of the courts to address such harms.[53] Justice Rennie noted that age discrimination claims are unique in that age is experienced universally and it is accepted that government actions "will, of necessity, affect different generations differently."[54] Although the international community is beginning to recognize youth climate rights and intergenerational equity, obligations such as those flowing from the Convention on the Rights of the Child[55] did not factor into the section 15 framework in a manner that would support the plaintiffs' argument.[56] Justice Rennie upheld the decision to strike the plaintiffs' section 15 claims without any leave to amend.

This left the section 7 claims, which were to be assessed on the basis of: (1) whether the law or state action deprived the plaintiffs of their life, liberty or security of the person, and (2) whether this deprivation was contrary to the principles of fundamental justice.[57] Justice Rennie also noted the need for the pleadings to draw a sufficient causal connection between

[46] See especially UNHRC, Communication No 3634/2019, *Daniel Billy and others v Australia (Torres Strait Islanders Petiton)*, UN Doc CCPR/C/135/D/3624/2019, online: <climatecasechart.com/wp-content/uploads/non-us-case-documents/2022/20220923_CCPRC135D36242019_decision.docx>. See also the Committee's General Comment No. 23 on Article 27 adopted April 26, 1994, online: <tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CCPR%2FC%2F21%2FRev.1%2FAdd.5&Lang=en>.

[47] *La Rose*, *supra* note 7 at para 79.

[48] *Ibid*.

[49] *Ibid* at para 76.

[50] *Ibid*.

[51] *Ibid* at para 81.

[52] *Ibid*.

[53] *Ibid* at paras 82–83. See also paras 123–24. *Cf* the comparison to the intergenerational cycle of imprisonment discussed in *R v Sharma*, 2022 SCC 39.

[54] *La Rose*, *supra* note 7 at para 86.

[55] *Convention on the Rights of the Child*, 20 November 1989, 1577 UNTS 3 (entered into force 2 September 1990, accession by Canada 2 September 1990).

[56] *La Rose*, *supra* note 7 at para 87.

[57] *Ibid* at para 89.

the impugned state action and the prejudice suffered by the plaintiffs.[58]

Justice Rennie's analysis of positive versus negative rights, focused on the idea that section 7 protects against the deprivation of life, liberty, and security of the person by the state, rather than providing a right to a legislative regime or state action that furthers these interests.[59] That said, he acknowledged that the Supreme Court and lower courts have left the door open on the argument that section 7 might encompass positive rights claims in special circumstances, an approach that is particularly important for recognizing Canada's international human rights obligations.[60] Justice Rennie also noted that it is well accepted that the dividing line between positive and negative rights can be difficult to draw[61] and that the positive/negative orientation of a right might simply depend on the perspective taken.[62] He used an excellent example to illustrate this point, referring to the right to accessibility for persons with disabilities who require assistive devices, "but only because the state has constructed inaccessible programs and infrastructure."[63]

In the environmental law context, it is useful to recall that, prior to the expansion of the modern environmental state, the common law's position was that "[p]ollution is always unlawful and, in itself, constitutes a nuisance."[64] Subsequently, modern environmental laws were passed to broadly prohibit environmental harms in one breath, but also to open the door to regulatory (i.e., statutory) authorization of such harms in the next. In other words, like the disability example where Justice Rennie noted the state's construction of inaccessible programs and infrastructure, so too has the state authorized climate-destabilizing industries and activity that now threaten the plainitffs' *Charter* rights.

Justice Rennie also found that the requirement that the state expend funds to redress a breach is not fatal to section 7 claims.[65]

With this background established, Justice Rennie held that the courts below had erred in striking the section 7 claims on the basis that they were claims for the recognition of positive rights. The *Misdzi Yikh* claim alleged a direct and ongoing deprivation of security of the person related to specific state actions that affected the plaintiffs' food security, culture, and economies.[66] While the youth plaintiffs' claim in *La Rose* was more prospective in nature, it could be read to allege deprivations of "the fruits of Canada's legislated commitments"[67] towards climate change, causing psychological distress.[68] Although in *Mathur* the Ontario Superior Court of Justice (ONSC) found that any deprivation of life, liberty, or security of the person in Ontario's response to climate change was not shown to be contrary to the principles of fundamental justice, this ruling followed a full trial on the merits.[69] Citing the Supreme Court's *GGPPA Reference*,[70] Justice Rennie noted that climate change constitutes "an existential challenge, a threat of the highest order to the country, and to the future of humanity which cannot be ignored."[71] This amounted to the type of "special circumstance" that should allow a section 7 claim to proceed,[72] albeit with amendments to the pleadings required.[73]

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[58] *Ibid* at paras 90–91.

[59] *Ibid* at para 92.

[60] *Ibid* at paras 96–99.

[61] *Ibid* at para 101.

[62] *Ibid* at para 103.

[63] *Ibid* at para 102.

[64] *Groat v Edmonton (City)*, [1928] SCR 522 at 532, 1928 CanLII 49 (SCC).

[65] *La Rose*, *supra* note 7 at para 104.

[66] *Ibid* at para 105.

[67] *Ibid* at para 106.

[68] *Ibid* at para 125.

[69] *Mathur*, *supra* note 10 at paras 111–12.

[70] *GGPPA Reference*, *supra* note 39 at para 67.

[71] *La Rose*, *supra* note 7 at para 116.

[72] *Ibid*.

[73] *Ibid*, see discussion at paras 128–34.

Justice Rennie also disagreed with the government's argument that "a causal relationship between the legislation and the deprivation of a section 7 interest is "manifestly incapable of being proven.""[74] The task is not to prove that "the challenged law or government action"[75] is "the sole or dominant course [*sic*] of the alleged deprivation," but more simply that there is "a real as opposed to speculative link."[76] This is important bearing in mind the proliferation of *Charter*-based climate litigation in several provinces, including most recently in Saskatchewan.[77] No single government's legislation and related GHG emissions — whether federal or provincial — will be the sole or even dominant cause of climate change. But as noted by the Supreme Court in the *GGPPA Reference*, each "province's emissions are clearly measurable and contribute to climate change."[78]

Justice Rennie's handling of section 7 is commendable, but we are disappointed in his reasons on section 15, and indeed the two sets of reasons are difficult to reconcile. Under section 7, it is the current and ongoing impact of climate change in the form of psychological distress that allows the claim to proceed,[79] and this perspective could also have been applied to section 15. If we accept that it is at least arguable that serious anxiety about government (in)action on climate change is experienced disproportionately by youth, or that youth experience qualitatively different distress than the rest of the population, this should have been sufficient to allow the section 15 claim to proceed.[80]

Justice Rennie stated that the question before him was "whether it is reasonably arguable that this reality [*viz* the adverse impact of climate change on the plaintiffs] falls within the scope of section 15."[81] He did not apply the two-part test for assessing section 15 claims that he had set out to determine if the claim was within the scope of section 15.[82] Instead, he held that the adverse impact of climate change on the plaintiffs "is not the kind of adverse effect that section 15 is to address"[83] and that "intergenerational equity is not within the scope of section 15, as the law currently stands."[84] These are conclusions rather than reasons. Justice Rennie did provide a reason, but it was an "underlying rationale" for excluding this claim from section 15's scope rather than a failure to meet the test for assessing section 15 claims: namely, the separation of powers.[85] This is an underlying rationale that sounds a lot like justiciability, which Justice Rennie had already dealt with.[86] He had already decided that the claim was justiciable, which means he had decided that the court did have the institutional capacity and legitimacy to adjudicate the claim. His conclusion on the justiciability issue is difficult to reconcile with his stated reason for finding that it was not reasonable to argue that this claim fell within the scope of section 15.

In addition, his reliance on the judiciary's inability to participate "in the policy choices around resource allocation"[87] depended on the discrimination being caused solely by future inequalities. It is disconcerting to see Justice Rennie accept that the claimants might have suffered current harm for the purpose of a

[74] *Ibid* at para 113.

[75] *Ibid*.

[76] *Ibid*, citing *Canada (Attorney General) v Bedford*, 2013 SCC 72 at para 76.

[77] Will McLernon, "Saskatchewan residents taking province to court to try to force climate action", *CBC* (24 April 2023), online: <www.cbc.ca/news/canada/saskatchewan/saskatchewan-residents-taking-province-to-court-over-climate-inaction-1.6820631>.

[78] *GGPPA Reference*, *supra* note 39 at para 188.

[79] *La Rose*, *supra* note 7 at para 125.

[80] For a discussion of quantitative versus qualitative harms under section 15 see Jennifer Koshan & Jonnette Watson Hamilton, "'Clarifications' or 'Wholesale Revisions'? The Last Five Years of Equality Jurisprudence at the Supreme Court of Canada" (Presented at the Asper Centre's Litigating Equality Symposium at the University of Toronto, May 2023) (30 August 2023) Supreme Court L Rev, online: <papers.ssrn.com/sol3/papers.cfm?abstract_id=4557136>.

[81] *La Rose*, *supra* note 7 at para 77.

[82] *Ibid* at para 79.

[83] *Ibid* at para 82.

[84] *Ibid*.

[85] *Ibid* at para 83.

[86] *Ibid* at paras 23–52.

[87] *Ibid* at para 83.

section 7 claim[88] while characterizing the same harm as anticipated future harm in the section 15 analysis. In particular, the pleadings in *Misdzi Yikh* described "a direct deprivation of their security of the person"[89] happening today and not simply concerns about how the legislation would affect them when they are older, which was how Justice Rennie framed the section 15 claim.[90]

In the same vein, it is troubling to see the government's obligations downplayed under section 15 while being accepted as arguable under section 7, which is unfortunately a result of recent jurisprudence on positive obligations under section 15.[91] At the same time, the Supreme Court of Canada recently recognized that section 15 claims have often taken a backseat when multiple *Charter* sections are raised, and directed courts that "[t]he *Charter* should not be treated as if it establishes a hierarchy of rights in which s. 15 occupies a lower tier."[92] This principle should have allowed the section 15 claim to proceed to trial. To the extent that Justice Rennie found "there are often solid grounds"[93] for the government to treat different age groups differently, these are considerations for section 1 of the *Charter*. A trial would have been the appropriate forum for the government to justify its climate-related (in)actions.

Finally, Justice Rennie seems to have been unduly dismissive of the principle of intergenerational equity, suggesting that it need not be taken seriously, apparently because of his perception of the limited recognition of the principle.[94] This is misleading. The principle is referenced in numerous international instruments, including the *Framework Convention on Climate Change*.[95] Thus it is far from clear how he so readily reaches the conclusion that this acceptance "does not yet create a place in the framework under section 15 that would allow the youth appellants' claim to proceed."[96]

CONCLUSION

We end by repeating the Supreme Court of Canada's observation in the *GGPPA Reference* that climate change presents "an existential challenge…a threat of the highest order to the country, and…to the future of humanity [which] cannot be ignored."[97] And yet, given short-term election cycles, governments are often reluctant to take stringent measures where the burden falls on the current generation of voters. It is far easier to punt the issue to future generations of voters.[98] The question at the heart of climate change litigation is the question of whether it is lawful for governments to sit on their hands or to prescribe half-hearted measures. Or, as Justice Vermette put it in *Mathur*, "[t]he issue [is] whether Ontario has a constitutional obligation to take steps to reduce GHG in the province at a rate higher than the [current statutory target]."[99] We applaud the Federal Court of Appeal for recognizing that this issue engages section 7 of the *Charter*, and only wish it had gone further to recognize the equality rights engaged by the claims in *La Rose* and *Misdzi Yikh*. ■

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[88] *Ibid* at para 90.

[89] *Ibid* at para 105.

[90] *Ibid* at para 86.

[91] For a critique of that line of cases see Jennifer Koshan & Jonnette Watson Hamilton, "'Clarifications' or 'Wholesale Revisions'? The Last Five Years of Equality Jurisprudence at the Supreme Court of Canada" (Presented at the Asper Centre's Litigating Equality Symposium at the University of Toronto, May 2023), (30 August 2023) Supreme Court L Rev, online: <papers.ssrn.com/sol3/papers.cfm?abstract_id=4557136>. *La Rose*, *supra* note 81.

[92] See *Canadian Council for Refugees v Canada (Citizenship and Immigration)*, 2023 SCC 17 at para 180.

[93] *La Rose*, *supra* note 7 at para 85.

[94] *Ibid* at paras 82, 87.

[95] See *United Nations Framework Convention on Climate Change*, 9 May 1992, 1771 UNTS 107, art 3(1) [*UNFCCC*]; See also *Canadian Environmental Protection Act*, SC 1999, c 33, s 2(1)(a.3).

[96] *La Rose*, *supra* note 7 at para 87.

[97] *GGPPA Reference, supra* note 39 at para 167; See also *La Rose, supra* note 7 at para 116.

[98] See the reflections of the German Federal Constitutional Court in *Neubauer et al v Germany*, *supra* note 4 at para 206.

[99] *Mathur*, *supra* note 10 at para 117.