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MISSION STATEMENT

The mission of the Energy Regulation Quarterly 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 Quarterly is intended to be balanced in its treatment of the issues. Authors are drawn principally from a roster of individuals with diverse backgrounds who are acknowledged leaders in the field of the regulated energy industries and whose contributions to the Quarterly will express their independent views on the issues.

EDITORIAL POLICY

The Quarterly is published by the Canadian Gas Association 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 Quarterly will maintain a "roster" of contributors 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. From time to time other individuals may also be invited to author articles. Some contributors may have been representing or otherwise associated with parties to a case on which they are providing comment. Where that is the case, notification to that effect will be provided by the editors in a footnote to the comment. The managing editors reserve to themselves responsibility for selecting items for publication.

The substantive content of individual articles is the sole responsibility of the contributors.

In the spirit of the intention to provide a forum for debate and discussion the Quarterly invites readers to offer commentary on published articles and invites contributors to offer rebuttals where appropriate. Commentaries and rebuttals will be posted on the Energy Regulation Quarterly website.

ENERGY REGULATION QUARTERLY

TABLE OF CONTENTS

EDITORIAL
Editorial
ARTICLES
System Under Stress: Energy Decision-Making in Canada and the Need for Informed Reform 11 Michael Cleland and Monica Gattinger
Changing Duty to Consult Expectations for Energy Regulators: Broader Implications from the Supreme Court of Canada's Decisions in <i>Chippewas of the Thames</i> and <i>Clyde River</i>
Ontario's Cap and Trade Agreement with Québec and California
Legislative and Regulatory Changes Governing Hydrocarbons and Pipelines
Moving Forward with Tariff Reform
CASE COMMENTS
Ontario Court of Appeal Clarifies Privacy Obligations for Utilities
Energy Regulators and Cost Overruns: The Nova Scotia Maritime Link Decision
BOOK REVIEW
Arbitration Law of Canada: Practice and Procedure

EDITORIAL

Rowland J. Harrison, Q.C. and Gordon E. Kaiser Managing Editors

The challenges that continue to confront Canadian energy regulation are multi-dimensional and complex. It is convenient, however, to address these challenges under three general, interrelated headings: public acceptance (or "social licence"); aboriginal consultation; and climate change. Articles in this issue of *Energy Regulation Quarterly* offer valuable contributions to the ongoing dialogue in each of these areas.

The approval process for major pipeline projects in particular has become highly politicized, leading some to conclude that the regulatory system is "broken" or, in the preferred terminology of the federal government, must at least be "modernized". In this environment, there could hardly be a clearer need for evidence-based research and analysis to underpin any reform exercise. Strengthening public confidence in Canadian energy policy, regulation and decision-making through such research and analysis, engagement and recommendations is the mandate of the Positive Energy project at the University of Ottawa, begun in 2015.

ERQ will publish a series of articles based on the research and analysis of the Positive Energy project, beginning in this issue with an overview of the project's activities and research findings over the last three years. The title of the article by Michael Cleland and Monica Gattinger in this issue, "System Under Stress: Energy Decision-Making in Canada and the Need for Informed Reform", captures well both the current condition of the energy regulation framework in Canada ("System Under Stress") and the challenge ahead ("the Need for Informed Reform").

Further challenges for energy regulators and project proponents arise from the continually emerging law with respect to aboriginal consultation. The implications of two recent significant decisions of the Supreme Court

of Canada are discussed by Dwight Newman in his article on "Changing Duty to Consult Expectations for Energy Regulators: Broader Implications from the Supreme Court of Canada's Decisions in *Chippewas of the Thames and Clyde River*."

Policy and regulatory measures to address climate change also continue to dominate the Canadian energy debate. The most recent developments in Ontario are reviewed by Tyson Dyck, Dennis Mahony, Henry Ren and Caitlin Milne in "Ontario's Cap and Trade Agreement with Québec and California", which will take effect on January 1, 2018.

Other contributions to this issue of *ERQ* cover a range of topics. In "Legislative and Regulatory Changes Governing Hydrocarbons and Pipelines", Ludovic Fraser reviews recent developments in Québec.

In "Moving Forward with Tariff Reform", Ahmad Faruqui and Mariko Geronimo Aydin review the four "waves" of electricity tariff reform that they identify as having evolved in the U.S. since the 1980s. The authors suggest that the "next wave of tariff reform is soon to come and it will empower customers with better tools and more information, enabling customers to contribute to efficiency improvements in power supply, and giving customers more control over the type and cost of power they consume."

This issue of *ERQ* includes two case comments. Molly Reynolds, Caitlin Morin and Amir Eftekharpour comment on the recent decision of the Ontario Court of Appeal in *Orlandis*, holding that a utility sharing residents' energy consumption data with police, which led to a search and criminal charges, violated the residents' reasonable expectation of privacy. In "Energy Regulators and Cost Overruns: The Nova Scotia Maritime Link Decision", Our co-editor Gordon Kaiser comments on the

most recent decision of the Nova Scotia Utility and Review Board arising from the troubled Muskrat Falls project and the Maritime Link.

The issue closes with a review by our co-editor Gordon Kaiser of the third edition of the standard reference *Arbitration Law of Canada: Practice and Procedure* by J. Brian Casey. ■

SYSTEM UNDER STRESS: ENERGY DECISION-MAKING IN CANADA AND THE NEED FOR INFORMED REFORM

Michael Cleland and Monica Gattinger*

Introduction: Canada's Energy Future

Many factors will determine Canada's energy future over the next few decades. Carbon pricing and climate commitments; the constantly shifting state of international energy markets; potentially radical technological advances from electric power to vehicles to hydrocarbon production; and the restructuring of the electricity system all stand out. Close to the top of the list is yet another issue – one that is intertwined with all the others – the question of public confidence in the energy decision system.

The public confidence issue is hardly new but it has evolved substantially over the course of several decades, notably from the dismissive and pejorative "NIMBY" to the approving but oddly anti-democratic (or at least anti-representative democracy) "social license". The term public confidence is used here deliberately to avoid the unhelpful notions implied by both of the earlier terms. Just as importantly the focus has shifted from the notion that the primary responsibility to respond to public concerns rests with project proponents to the idea that much more of the responsibility rests with public authorities.

In 2015, the University of Ottawa initiated the project "Positive Energy" (PE) with a mandate to strengthen public confidence in Canadian energy policy, regulation and decision-making through evidence-based research and analysis, engagement and recommendations for action. What follows below is an overview of key Positive Energy activities and research findings over the last three years. It draws on a vast stable of research papers, studies and engagement processes, as referenced throughout the text, and sets the stage for a series of articles on public confidence in energy decisionmaking that Energy Regulation Quarterly will publish in coming issues. This first article is a necessarily high-level summary. Readers wishing further detail are invited to consult the source documents and to stay tuned for forthcoming articles that will delve more deeply into many of the issues discussed below.

Positive Energy's approach is marked by several attributes. It is solution-focused, empirically based, pragmatic and applied. The work has been undertaken by leading researchers (including both established scholars and researchers and a growing list of post-graduate, graduate and undergraduate students¹) in Canada and the United States

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These include the following senior practitioners, researchers and scholars: Loleen Berdahl (Professor, University of Saskatchewan), Stephen Bird (Professor, Clarkson University), Michael Cleland (Senior Fellow, uOttawa), Shawn Denstedt (Partner, Osler, Hoskin & Harcourt), Stewart Fast (Senior Research Associate, uOttawa), Monica Gattinger (Chair, Positive Energy, uOttawa), Guy Holburn (Professor, University of Western Ontario), Lawrence Keyte (research associate, uOttawa), Dan McFadyen (Executive Fellow, University of Calgary), Trevor McLeod (Canada West Foundation), David Mullen (Emeritus Professor, Queen's University), Nik Nanos (Chair and CEO, Nanos Research), Shafak Sajid (Canada West Foundation), Kim Scott (former energy and climate advisor to the National Chief of the Assembly of First Nations), Louis Simard (Professor, uOttawa) and Adonis Yatchew (Professor, University of Toronto). The team also includes the following postgraduate, graduate and undergraduate students: Rafael Aguirre (doctoral candidate, uOttawa), Marisa Beck (postdoctoral

working in close collaboration with energy practitioners – leaders from energy corporations, non-government organizations (from ENGOs to trade associations to think tanks), Indigenous organizations, municipalities and both government policy and regulatory agencies.

PE's guiding philosophy has been that the simplistic thinking and polarization behind terms such as NIMBY and social license can be overcome by a commitment to evidence and collaboration across all interests. The work is marked by extensive engagement of outside critics and reviewers from all sectors complemented by practically oriented workshops and outreach efforts aimed at deepening collective understanding of the source and nature of public confidence challenges, and, most importantly, how to address them and ultimately contributing to efforts to find a broadbased consensus on desirable reforms to Canada's energy decision-making systems. This is a tall order to be sure. Identifying solutions that can be practically applied in the real world of politics, administrative realities, investor concerns, and the often overlooked perceptions of communities and citizens is something else again.

With that in mind the project proceeded from the ground up, aiming initially at advancing understanding of Canadian communities' responses to energy project proposals of various sorts. This work, undertaken in partnership with the Canada West Foundation and organized as a series of case studies, is both qualitative and - where population numbers permitted statistically valid survey work - quantitative. Based on the insights flowing from that work combined with a deep familiarity with the literature in this area (much of which is focused on proponent practices rather than those of policy and regulatory authorities) a number of streams of thought have emerged. These are guided by several overarching themes or principles, all leading toward a growing body of practical ideas.

Among the principal themes, several stand out. The most important, to restate, is that the role of public authorities in securing both public confidence and investor confidence has been given too little attention and yet will be the linchpin of future success or failure in energy

development in Canada, including development of renewable energy. Second, this is not just about regulators but rather the whole energy decision system from policy through planning to regulation; it is a system and tinkering with one part while ignoring others may simply reinforce the problems. Third, the community case studies revealed that the system is not "broken" but in need of reform, albeit sometimes extensive reform. There are many examples throughout Canada of agencies and approaches whose shortcomings need urgent attention, but effective and successful approaches are largely hidden from public view because they do not occasion controversy. Finally, to be successful, reform must be undertaken with an adequate base of understanding, recognition of the needs of diverse actors, of limits as well as possibilities and the realities of the physical and market energy systems. Positive Energy refers to this as "informed reform".

The World Around the Energy Decision System

The public confidence issue centres on the energy decision system or at least those parts of it under the responsibility of (mainly federal, provincial and territorial) public authorities. Much of recent debates has centered on regulators, notably the National Energy Board, while paying little attention to what might be termed the upstream system, the parts whose decisions precede projects and their proponents. These are policy writ large and planning, which is an element of policy but distinct in its focus and its mechanisms, underdeveloped in Canada, and in all likelihood one of the most important and challenging parts of the puzzle.

This system and its parts are situated in a much larger political, economic and social culture most of which is well beyond the reach of any effort at energy decision system reform but of critical importance if the objective is for reform to be informed. This culture might best be understood through an extended zoological metaphor of horses (social and value change), elephants (policy gaps affecting public confidence in regulators and energy development) and sitting ducks (energy decision processes, notably regulators)².

Start with the horses that have left the barn. The

researcher, uOttawa), Josh Giesbrecht (undergraduate student, uOttawa), Erik Koskela (undergraduate student, uOttawa), Kyae Lim Kwon (undergraduate student, uOttawa), Laura Nourallah (doctoral candidate, uOttawa), Acacia Paton Young (master's student, uOttawa), Chris Robillard (master's student, uOttawa), Melanie Vien-Walker (undergraduate student, uOttawa) and Caroline Woodward (undergraduate student, uOttawa).

2 For a full description of the elephants, horses and sitting ducks metaphor, see Michael Cleland & Monica Gattinger, System Under Stress: Energy Decision-Making in Canada and the Need for Informed Reform, (Ottawa: University of Ottawa (Positive Energy), 2017) at 11-17.

public confidence challenge reflects widespread social and value changes that have taken place in the post Second World War period that are affecting all realms of the economy and society. They are part of energy decision-makers' reality and outside of anyone's control. The decline of deference to authority is a decades old phenomenon that makes individual citizens and communities far less willing to be told what to do. This phenomenon has been accompanied by a corresponding decline in trust in authorities and experts of all sorts. Social fragmentation is perhaps a newer phenomenon, certainly one that has ballooned in importance in a world of populism and "localism" (at various scales from nationalism to the level of individual neighbourhoods) and which makes notions of large scale public interest ever more difficult to sustain. Correspondingly, citizens and communities have taken to insisting that they be part of public decisions that affect them. At the same time, there has been a marked decline in individual tolerance for risk, perhaps reflecting shifting values (for example traditional community cultures versus modern economic development) but combined with a growing tendency for people to perceive risks in ways that differ - sometimes substantially - from the views of experts. All of this is overlain by the new world of social media with its capacity both to empower the disenfranchised and provide access to information, but also to misinform and to exaggerate risks.

Much of this is obvious but it is not always well understood. One thing for certain: these horses have left the barn. There is no turning back the clock on social and value change.

Meanwhile, touching more specifically on energy, there are several elephants in the room: large scale policy challenges where policy makers have come up short. The first and most obvious is climate change and carbon. The vast gulf between aspirations and government pronouncements on carbon management and the application of practical policy and follow-through leaves energy project decisions subject to opposition on policy - rather than project - grounds, citizens confused and ever more distrustful and investors ever more wary. An equally large issue and perhaps even further short of resolution is reconciliation with Indigenous citizens, where history casts a long shadow of mistrust, broken promises and systemic discrimination and abuse. Canada's energy relations with its Indigenous citizens are about far more than individual energy projects, but projects and their associated decision processes get caught

in the middle of these much broader debates and issues. Indigenous communities' desires for social and economic advancement combine with a wish to take charge of or at least shape decisions that affect them, all in a legal context which is at one and the same time empowering and ambiguous in its implications. Finally, more diffuse but no less important is the complex question of how best to manage the combined effects of all sorts of diverse projects in any given region or community. This issue is one that emerges from several of the case studies examined in the communities research noted above and detailed below, and, no less than policy gaps on climate and Indigenous reconciliation, something which individual project proponents and regulatory approval processes cannot by themselves resolve.

In the context of horses that have left the barn and elephants in the room, energy decision-making processes, and energy regulators in particular, are sitting ducks, the target of substantial opposition, critique and polarization. On this not much more needs to be said, but much needs to be done as laid out below.

To conclude this brief discussion of the world that surrounds energy decision-making it is worth touching briefly on a related matter that is constantly passed over in much of the public discussion. This is the inconvenient truth that complex societies embody myriad contradictions and tensions. These tensions, all part of modern life in democratic societies in particular clearly affect all manner of decisions including those pertaining to energy and energy projects.

It is a cliché to characterize energy as a long game but so it is and yet decisions with long term implications are a growing challenge in a world increasingly dominated by pressures for short term thinking and the demands of electoral politics. The problems of coping with great complexity are not easily reconciled with a twitter world where simple is the touchstone and claims of complexity are taken to suggest elite obfuscation. Another inherent tension is the fact that large scale societal interests are as often as not contradictory to the interests and values of local communities. We live in a world in which democratic accountability has taken on the character of an absolute value and yet that value must be reconciled with the need for objective, evidence-based decision-making. Correspondingly, the institutions that we rely on for carrying out such decision-making rely fundamentally on procedural integrity to offset

the lack of direct democratic accountability but for many citizens and communities, procedure sounds and often feels like a way of silencing citizen voices. And, finally, while many of the potential avenues for reform point to the need for planning: long term in orientation, complex, and evidence based, planning is hard to reconcile with the real-time decisions of market actors, project regulators and politicians.

All the above risks sounding like counsel of despair. And yet life has to go on, decisions have to get made one way or the other and if reform efforts fail to address themselves to these tensions they risk foundering on the shoals of practical reality. Informed reform has to come to grips with all of them. The evidence from the six case studies points to many possible ways of doing just that.

Six Case Studies on the Role of Communities in Energy Decision-Making

The case study project, undertaken in partnership with the Canada West Foundation, was carried out between spring 2015 and November 2016. Following a preliminary literature review³ and two dozen interviews with energy leaders across the country⁴, the study turned its focus to seven projects in seven communities (one of the case studies was a comparative look at two similar projects in Ontario). The choice of communities was determined by a desire to have broad and diverse coverage - across Canada; involving Indigenous, non-Indigenous, urban and rural communities; dealing with projects that were both successfully sited and not; and covering linear, non-linear and fossil and non-fossil (hydro, wind) energy. The table below provides a brief summary of the six case studies.

Six Case Studies on the Role of Communities in Energy Decision-Making Summary

Project and Community	Approved or not, built or not (if built, when)	Primary jurisdiction responsible	Linear / regional / local	Power / fuel; fossil / renewable
Northern Gateway Energy Pipeline – Kitimat and Haisla Nation, British Columbia	Approved by regulator but overturned by Supreme Court and federal government	Federal government	Linear	Fuel transport; fossil
Western Alberta Transmission Line (WATL) – Eckville- Rimbey, Alberta	Approved, built and in service December 2015	Alberta provincial government	Linear	Power transmission; fossil and renewable
Wuskwatim hydro-electric facility – Nisichawayasihk Cree Nation (NCN), Manitoba	Approved, built and in service June 2012	Manitoba provincial government	Local	Power; renewable
Urban natural gas power stations – Oakville and King Township, Ontario	Oakville – not approved. King – approved, and in service May 2012	Ontario provincial government	Local	Power; fossil
Wind farm – St-Valentin, Québec	Not approved	Québec provincial government	Local / regional	Power; renewable
Shale gas exploration – Kent County and Elsipogtog Nation, New Brunswick	Not approved	New Brunswick provincial government	Regional	Fuel; fossil

⁴ See Michael Cleland, Laura Nourallah & Stewart Fast, Fair Enough: Assessing Community Confidence in Energy Authorities, (Calgary and Ottawa: Canada West Foundation and University of Ottawa (Positive Energy), 2016).

³ See Laura Nourallah, Communities in Perspective: Literature Review of the Dimensions of Social Acceptance for Energy Development and the Role of Trust, (Ottawa: University of Ottawa (Positive Energy), 2016).

The approach taken for each case study was as follows:

- Initial reconnaissance including an extensive review of the public record;
- Interviews with between 6 and 20 informants carried out between March and June 2016;
- Quantitative surveys carried out between July and September 2016 in the five communities of sufficient size to permit a statistically valid sample (Kitimat/Haisla Nation, Eckville/Rimbey, Oakville, King Township, Kent County/ Elispogtog First Nation), and;
- A synthesis and analysis of the results reflected in a report entitled A Matter of Trust: The Role of Communities in Energy Decision-Making published in November 2016⁵. Detailed reports for each case study were also prepared⁶.

The brief summary of this study that follows below unavoidably misses many of the nuances to be found both in the final report and even more so in the case studies themselves, but several high-level observations stand out.

More often than not, policy failures played an important role. Policy failures of various sorts lay behind both projects that were successfully sited and those that were not. In the earlier section, we cited three big policy challenges – climate change, reconciliation with Indigenous citizens, and effective regional planning and cumulative effects management. Strikingly, in none of the cases was climate change a dominant factor one way or the other. Far more important were local environmental and health impacts (whether real or possibly only perceived and only in some cases instances of what might actually be termed policy "failure"). Three of

the cases concerned historical experience with treaties and land claims and much of that probably can be fairly termed policy failure.

More important still were what might be termed process failures: the inability to translate government intent through a coherent, stable process of engagement with affected communities and from there through a regulatory process that was perceived as legitimate, stable and comprehensible. These failures had different sorts of effects. Some were overcome by creative adaptation (Nisichawayasihk First Nation) or by dogged persistence (Eckville/Rimbey, King Township). One left a formally approved project (Kitimat/ Haisla Nation) lacking in underlying political and, as it turned out, legal legitimacy. Three led to projects not being approved (Oakville, St-Valentin, Kent County/Elsipogtog First Nation).

Context matters. This obviously includes the internal context of the affected communities - sometimes based on traditional economies dependent on local renewable resources, in other instances urban communities objecting to intrusions that were perceived to have important potential health impacts. External context was equally important although not as sometimes charged – connected to externally derived celebrity communications on climate change but more often due to the community in question being unconvinced that the project was justified in the larger scheme of things. The legacy of past events may have had a direct impact on the community (seen most notably with Indigenous communities) or were seen as implying risks (for example, of pipeline spills) that the community was not prepared to tolerate. What seems important here for policy makers, regulators (and project proponents) is that all the various dimensions of context need to be carefully considered and addressed early

⁵ See Michael Cleland et al, A Matter of Trust: The Role of Communities in Energy Decision-Making, (Calgary and Ottawa: Canada West Foundation and University of Ottawa (Positive Energy), 2016).

of See Stephen Bird, A Matter of Trust: The Role of Communities in Energy Decision-Making, Case Study: Gas-fired Power Facilities, Oakville and King Township, Ontario, (Calgary and Ottawa: Canada West Foundation and University of Ottawa (Positive Energy), 2016); Cleland, Fast & Nourallah, supra note 4; Shafak Sajid, A Matter of Trust: The Role of Communities in Energy Decision-Making, Case Study: Northern Gateway Energy Pipeline, Kitimat and Haisla Nation, British Columbia, (Calgary and Ottawa: Canada West Foundation and University of Ottawa (Positive Energy), 2016); Shafak Sajid, A Matter of Trust: The Role of Communities in Energy Decision-Making, Case Study: Western Alberta Transmission Line, Eckville and Rimbey, Alberta, (Calgary and Ottawa: Canada West Foundation and University of Ottawa (Positive Energy), 2016); Shafak Sajid, A Matter of Trust: The Role of Communities in Energy Decision-Making, Case Study: Wuskwatim Hydroelectric project, Nisichawayasihk Cree Nation, Manitoba, (Calgary and Ottawa: Canada West Foundation and University of Ottawa (Positive Energy), 2016); Louis Simard, A Matter of Trust: The Role of Communities in Energy Decision-Making, Case Study: Wind Farm, St-Valentin, Québec, (Calgary and Ottawa: Canada West Foundation and University of Ottawa (Positive Energy), 2016).

on in the process and as often as not well before a project arrives at the formal project decisionmaking stage.

No community is monolithic. Based on the quantitative surveys, a notable divergence of opinion emerged across the cases (this was in mid-2016, what a survey undertaken at the time of each of the project controversies might have revealed is another matter). In only two of the five surveyed communities did a majority express opposition to the project and in only one (Kent County/Elsipogtog First Nation) was that opposition overwhelming (70 per cent). But even where the 2016 results showed majority support, the projects ultimately did not go ahead (Northern Gateway) or produced significant and politically costly controversy (Eckville/Rimbey, King Township). Interestingly there was somewhat less divergence in response to the question "do you trust public authorities making decisions about energy projects?" In four of the surveyed communities levels of distrust were in the range of 60 and 70 per cent. Somewhat surprisingly, given the ultimate outcome, Kitimat/Haisla Nation showed the lowest level of distrust of public authorities at around 50 per cent. How exactly to unearth and understand the attitudes of the "community" and so better manage the process will be an enduring challenge.

Interests, while important, appeared to play a secondary role relative to values. Throughout the case studies, negotiable factors such as jobs, community investment and resource revenues played at most secondary roles. In comparison, deeply held values, both substantive (such as attachment to the natural environment or to traditional lifestyles) and procedural (being treated openly and fairly) were prominent and powerful sources of controversy. It seems clear that economic interests alone will not shake people from these values and attempts to do so are more than likely to prove counterproductive.

Information matters but energy literacy is not necessarily the issue. For the most part, the case study communities acted to inform themselves and approached the issues with at least some measure of objectivity, but the timing, channels, sources and the nature and quality of information affected community confidence in the decision-making process. Most notably, when the process was accompanied by institutional instability (Eckville/Rimbey) or seeming incoherence between political and

regulatory responsibilities (Oakville, King Township); was characterized by official reluctance to share information (Oakville, King Township); or revealed that public authorities were simply unprepared to deal with the issues (Kent County/Elsipogtog First Nation), the result, somewhat predictably, was high levels of distrust.

Engagement has to be real and early in the process. Across the six cases engagement took many forms but came up short in several respects. The most familiar case was in Kitimat/Haisla Nation where, in the view of the Supreme Court of Canada, the engagement process with First Nations fell short. Where a project was seen to be a result of some externally derived need (Eckville/Rimbey, Oakville, King Township, St-Valentin, Kent County/Elsipogtog First Nation) of which the local community was unconvinced, the result was controversy, delay and often failure. Pace is important. When it appeared to the community that a project was being rushed to meet some political or other governmental need (Eckville/Rimbey, Oakville, King Township, St-Valentin, Kent County/Elsipogtog First Nation) controversy seemed sure to follow. The Wuskwatim project (Nisichawayasihk First Nation) stands in contrast to most of the others. Here the community and the proponent (a Crown corporation) engaged early and significantly redesigned the project both to reduce its environmental impacts and to improve the flow of benefits to the community.

Planning matters and it most often needs to be done in a regional context. Many of the issues described above can, in principle, be better addressed through regional planning processes (which would normally precede an actual project) than through formal regulatory processes at the individual project level. Needless to say, planning brings its own challenges, but when a community first encounters the possibility of a project through formal regulatory mechanisms that project and the regulatory process may well be on the road to great controversy and possible failure.

To sum up, the case studies offer a wealth of potential insight into the way communities respond to energy projects, many of which provide potentially useful guidance to processes aimed at reform of decision systems. These underlie the next section of this article. Perhaps most important of these for governments

contemplating a quick transition to a very low carbon economy, it needs repeating that in none of the cases was climate or carbon a dominant consideration for the community. Public confidence in the decision system is founded on many factors and a decision process that fails to account for these (with the inevitable slowing of the process and ultimate increases in costs) faces an uphill battle.

System under Stress: The need for informed reform⁷

As earlier noted our focus here is on public authorities – the public energy decision system as a whole. The need to address the whole public decision system is critical. The case studies clearly revealed that problems arise not only due to lapses on the part of project proponents or formal regulatory agencies but at least as much due to lapses upstream in the realms of policy and planning. This points to the need to better map the system and its component parts.

Broadly speaking, the "system" consists of two sets of institutional actors and three principal steps in decision-making processes.

The first set of actors is policy makers – government authorities made up of legislative bodies, elected executive bodies (cabinets) and appointed officials under the day to day authority of the executive. This element is marked by direct democratic accountability as well as almost inevitable but less positive attributes such as a fixation on the short term driven by electoral politics, a high degree of secrecy and risk-aversion and a tendency to what often appears from the outside as incoherence and inconsistency.

In this world, clear stable policy — what may be the sine qua non of effective reform — is challenging to say the least. More challenging still and possibly even more important for public confidence in future project siting is planning, a distinct aspect of policy through its extension into physical spaces which may take the form of individual communities or, more often, regions and the corridors that accommodate linear infrastructure such as pipelines and power lines. Planning inherently involves much more direct engagement of affected communities than any normal policy process.

Project siting controversies most often centre on the second set of institutional actors – independent regulators and their formal processes. This is not to downplay the role of policymakers but simply to underscore the point that regulatory processes – which typically start only when a proposed project appears – are often the most visible part of the process from the perspective of communities and, thereby, inevitably the most likely target for controversy. How these sorts of agencies work with other government authorities and processes as well as with local communities are questions which beg urgent and thoughtful attention.

Although the focus of this article is on public decision processes it is vital to remember that these operate within not only the sociological and cultural realities sketched in the previous section but also the physical and market systems which make up the actual business of energy delivery. Physical systems and their technologies impose numerous constraints, whether it is the physical location of relevant resources (e.g., hydrocarbons, hydrologic regimes, wind regimes); the unavoidable need to link resources to sometimes distant markets; the fact that most energy infrastructure has lives measured in decades; or the numerous requirements for maintaining safety, reliability and real-time functioning where supplydemand balance is essential. The physical reality is not only a source of challenges, however. Emerging technologies and business models can also create opportunities to make the system much less environmentally intrusive or to open avenues for locally-based facilities. These may be more efficient and less environmentally intrusive and may create potential to place much more control in the hands of both communities and customers.

How all of this evolves in the future and the speed with which it is able to evolve pose great uncertainty with which all actors will need to learn to cope. This uncertainty will necessarily colour decision processes no matter how well they are designed. Much of what actually takes place will be determined not by public policy or the wishes of communities but by technological change well outside of Canada's control and by markets and the decisions of investors. This will be true especially if more of the energy

⁷ This section summarizes Cleland & Gattinger, supra note 2.

production and delivery business is placed in private hands or if its day to day functioning is determined less by government regulation of monopolies and more by freely functioning markets.

As obvious as the above may appear, it is less obvious that either public decision makers or communities fully grasp the extent to which outcomes are not in their hands and that trust and confidence in the regulatory system is as important to investors and energy business leaders as it is to communities. The design of effective public decision systems is unavoidably shaped by these realities

Out of all of this, Positive Energy's analysis leads to the conclusion that there are three distinctive points of stress on the system:

The policy/regulatory nexus: the two energy solitudes?

The relationship between policymakers and regulators may be the most fundamental conundrum facing those who design decisionmaking systems: the need to ensure appropriate democratic accountability when decisions go to the heart of large scale and entirely legitimate political choices set against the need for more technical matters to be dealt with based on objective evidence and procedure that is open, fair, and stable. As to who does what and when, political actors have a natural tendency to wish to keep their options open, which tends to engender a distinct lack of clarity and stability. And yet it seems likely that any system in which citizens, communities and investors have confidence will need in future to be founded on clarity and stability in respect to which roles rest with which bodies.

The obverse side of the coin with respect to the policymaker-regulator relationship concerns the roles that regulators of various sorts should play with respect to upstream process of policy design and planning. Regulators stand in a unique place in the system. They often command important sources of information as well as having analytical resources to make sense of that information. They have a distinctive perspective based on being close to the ground and able to see and understand the regions and local communities in which projects get built in their many physical, economic and sociological dimensions. They also have long experience in the process of "hearing", organizing enquiry

and assembling and synthesizing views from multiple sources, both local and otherwise. These resources, all of which are essential to the formal project decision process, can also be deployed as direct aids to policy and planning processes. Done transparently and with clear bounds, there is no reason in principle why regulatory agencies could not have greater roles upstream without compromising their legitimacy in more formal stages of the process.

Who decides? The balance between local and higher-level decision authorities

The role of local authorities is a question that seems certain to grow and impose further conundrums on energy decision-making. This question is distinct from those that surround community consultation more broadly. The term "authorities" is of vital significance here. Local authorities have established legal authority of various sorts which may well grow in importance as more decentralized energy solutions evolve and unlike civil society they are subject to democratic accountability. This clearly pertains to municipal authorities but is most obvious with Indigenous authorities due to their unique legal position, something which is fast evolving in the direction of more local control. The challenge for the future is how the role of local authorities can grow as legitimate parts of the decision system, able to reflect and defend local needs but, in turn, how this can be balanced against the larger societal interest.

How to decide: engagement, information and capacity

Apart from the formal role of local authorities, there remain the many challenges entailed in informing and engaging local communities more broadly. This involves a long-standing set of questions and a source of much experience, both positive and negative from which much can be learned, a great deal of which is reflected in the case studies discussed above. A few points stand out.

One concerns the question of engaging early, building relationships and mutual understanding, something that almost always needs to precede the formal processes surrounding individual projects, although also continuing once more formal processes are launched. This point underscores the importance of there being much more attention to the possibilities of regional planning or

mechanisms such as strategic environmental assessment and those mechanisms being able to build on clear expressions of government policy.

Processes of early engagement also have to be open to the possibility of the local community contributing to the design of decision-making mechanisms. These can extend from how local communities contribute to more strategic issues such as regional planning through to how to design consultation mechanisms and how to establish monitoring systems that allow communities a direct window into follow up once projects are built and in operation.

All of this has to be built on much improved information systems. Information sources need to be reliable, accessible, adequate and trusted. This is a challenge for many reasons including cost, whether the need for information impinges on questions of commercial or personal confidentiality, or because information is simply not available or may be subject to various sources of uncertainty. Regardless, the process of reform across Canada will rest on a foundation of much more sophisticated information systems or it will be set up for failure

Finally, there is the challenge of capacity, one that affects both the broad engagement question and the role of local authorities. Time and other priorities, whether for individuals or local authorities, is the most important limitation. A related limitation is resources: to what extent is it practical for local communities to have analytical and engagement resources in their own hands? At some point it will come down to the practical fact that decisions may need to be vested in the hands of more fully informed and expert authorities. This brings us full circle back to the roles and responsibilities of policy makers and regulators and how their actions are reflective of a broad-based, long term vision of Canada's energy future which is founded on a solid political consensus.

Conclusion – Future Directions

It seems clear that energy decision systems will face no less daunting challenges in future and possibly more. Hydrocarbon based systems will continue to be needed for many years to come but will work under a growing cloud of concerns about greenhouse gasses. Renewable systems and power lines, as desirable as they are

in the eyes of those primarily concerned with climate change, will bring their own challenges set against a range of priority concerns in local communities much more diverse and complex than the sole desire to reduce carbon emissions. These challenges will be mitigated by innovations largely outside the control of either governments or local communities. New science, new technologies, new business models, and project proponents whose actions are much better tuned to the complexities of ensuring public confidence should for the most part make the job easier.

That said, the challenge of public confidence in public decision-making systems will remain. This challenge will centre on two core questions: How can local communities, whether informally or formally through local authorities, be constructive contributors to decision processes that need to maintain procedural integrity, cost-effectiveness and timeliness? Ultimately, how can confidence and trust be restored in the full system of decision-making mechanisms – from policy through planning to projects – to act fairly and in the interests of all members of society?

These questions stand the list of three stresses in the previous section somewhat on its head. The question: "how to decide" would begin the discussion from the perspective of local communities, which is probably the right place to begin. A considerable body of ideas for reform is fast evolving and this body of thinking will need further realistic reflection and dialogue among all implicated parties and, ideally, a great deal of experimentation from which lessons can be drawn. The question "who decides" addresses the roles of communities in their legally constituted functions as local authorities and is in many ways an even more challenging issue, especially given the growing role of Indigenous authorities and the constant challenge of reaching conclusions which best serve the public interest as a whole. This question too is subject to a growing body of thought which will also need more reflection, dialogue and experimentation. And finally the policy maker-regulator nexus and questions surrounding the appropriate configuration of responsibilities for policy, planning and formal regulation need to be addressed based in some measure on the answers which emerge to the first two.

Trust and public confidence will, in the

end, need to be placed in final decision mechanisms which for the most part stand above any individual community. Trust and confidence will only flow from a broad based vision and sense of direction for Canada's energy systems combined with some measure of societal consensus around all three of the above questions with the various measures and methods interacting in complex and sometimes contradictory ways. It is, as said above, a system and if reform is truly to be informed it must take a systems perspective.

Forthcoming articles in Energy Regulation Quarterly will delve more deeply into Positive Energy's research on the issues raised here and will point more explicitly to avenues and recommendations for reform.

CHANGING DUTY TO CONSULT EXPECTATIONS FOR ENERGY REGULATORS: BROADER IMPLICATIONS FROM THE SUPREME COURT OF CANADA'S DECISIONS IN CHIPPEWAS OF THE THAMES AND CLYDE RIVER

Dwight Newman*

1. Introduction

The July 2017 decisions of the Supreme Court of Canada in two duty to consult cases involving the National Energy Board, Chippewas of the Thames and Hamlet of Clyde River, 1 marked in some ways a restatement of a maturing jurisprudence on the duty to consult Indigenous communities developed by Canadian courts over the last dozen years. 2 In others, they have complex implications for Canadian energy regulators in various sectors, reaffirming aspects of the operations of some and calling for meaningful changes in others. This article endeavours to unpack these two decisions and some of these widerranging implications.

In terms of their specific determinations, although restating many aspects of the duty to consult doctrine, the decisions reshape aspects of the role of the National Energy Board (NEB) in relation to consultation, notably in overturning certain prior precedents on the application of the duty to consult doctrine to a situation where there is no Crown party to a decision by an administrative tribunal and, more broadly, in affirming the significant roles that administrative boards and tribunals may play in relation to the duty to consult.

In doing so, the decisions have broader implications for administrative boards and tribunals other than the National Energy Board. This article will use two energy regulatory bodies to show some of the range of implications, which vary significantly depending on the prior approach in that context. Notably, the article will suggest significant implications for bodies like the Alberta Utilities Commission (AUC)—whose required role on consultation would appear to be altered significantly from

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¹ Chippewas of the Thames First Nation v Enbridge Pipelines Inc, 2017 SCC 41[Chippewas of the Thames]; Clyde River (Hamlet) v Petroleum Geo-Services Inc, 2017 SCC 40 [Clyde River].

2 This commenced in Haida Nation v British Columbia (Minister of Forests), 2004 SCC 73, [2004] 3 SCR 511

² This commenced in *Haida Nation v British Columbia (Minister of Forests)*, 2004 SCC 73, [2004] 3 SCR 511 [Haida Nation]. For discussion, see Dwight G Newman, The Duty to Consult: New Relationships with Aboriginal Peoples (Saskatoon: Purich, 2009); Dwight G Newman, Revisiting the Duty to Consult Aboriginal Peoples (Saskatoon: Purich, 2014; Dwight Newman, "The Section 35 Duty to Consult", in Patrick Macklem, Peter Oliver & Nathalie des Rosiers, The Oxford Handbook of Canadian Constitutional Law (Oxford: Oxford University Press, 2017).

that discussed recently in this journal³—and much lesser implications for bodies like the Canadian Nuclear Safety Commission (CNSC), which had already adapted its practices in relation to consultation.

In some respects, the decisions are practically oriented. They more explicitly permit Crown reliance on a regulatory process to meet the requirements of the duty to consult doctrine. They also carry a general tone of approaching issues on the duty to consult reasonably. A later section of the article will raise the possibility that these two decisions express a position on the law inconsistent with the 2014 Federal Court of Appeal decision quashing the Northern Gateway project, thus highlighting the degree to which case law based on the duty to consult has sometimes resulted in random results that may not be grounded in the broader jurisprudence.

The wide array of varying implications flowing from the Chippewas of the Thames and Clyde River decisions is nowhere explicitly contemplated in the decisions themselves. Though they are in many respects sound decisions, their soundness in legal terms may have generated practically sound results by accident as much as anything else. The last section of the article will thus suggest that they may well ultimately be just part of an ongoing phenomenon of judicial actors implementing the duty to consult intervening into the energy sector without any particular understanding of the broader consequences of their decisions. Judicial decisions that bear on the energy sector often have extraordinarily polycentric implications, and that reality may raise broader questions about the appropriate sectoral engagement with the related cases.

2. Background and the Decisions

By way of background, it is essential to understand the specialized context in which both of the *Chippewas of the Thames* and *Clyde River* decisions arose and how they have reformulated the legal requirements coming

from the duty to consult in a certain type of context. To understand the particular issues on duty to consult in that type of context, it is important to commence with the duty to consult in more general terms and then to turn to the application of the duty in the specialized sort of context involved in *Chippewas of the Thames* and *Clyde River*.

In general terms, the duty to consult has a particular meaning under Canadian domestic law, where this duty is rooted in the honour of the Crown and the constitutional purposes of section 35 of the Constitution Act, 1982 in terms of reconciliation between Indigenous and non-Indigenous Canadians.⁴ It is a proactive duty owed by the federal or provincial Crown when a government administrative decision is under contemplation that has the potential to have an adverse impact on an asserted Aboriginal or treaty right of which the government has actual or constructive knowledge.⁵ As specifically decided by the Supreme Court of Canada in the 2004 Haida Nation decision that inaugurated the modern, proactive form of this duty, the duty to consult does not apply to third parties, such as industry proponents—it is a duty owed by the Crown as a result of potential impacts of a contemplated government decision.6

From the early years in the application of the duty to consult doctrine, the implications of such a duty for administrative boards and tribunals generated a variety of questions. The Supreme Court of Canada engaged with these questions in 2010 in its Rio Tinto v Carrier *Ŝekani* decision.⁷ There, the Court effectively established that the role of a particular administrative board or tribunal in relation to the duty to consult would be that set out in its enabling statute. Some tribunals could be set up to carry out consultation, others to assess consultation carried out by others, and others to have no role in respect of consultation at all. In the latter case, of course, the duty to consult would not disappear but would simply need to be carried out in other ways. Thus, the way in which the duty to consult was to be fulfilled

³ See Martin Ignasiak, Jessica Kennedy & Justin Fontaine, "Alberta Utilities Commission Confirms It Has No Jurisdiction to Assess Crown Consultation" (2016) 4:4 Energy Regulation Quarterly 71, discussing Fort McMurray West 500-kV Transmission Project, Ruling on jurisdiction to determine the questions stated in the Notices of Questions of Constitutional Law, AUC Proceeding 21030.

⁴ See Haida Nation, supra note 2 at paras 16, 26.

⁵ Haida Nation, ibid at para 35; Rio Tinto Alcan Inc v Carrier Sekani Tribal Council, 2010 SCC 43, [2010] 2 SCR 650, at para 31 [Rio Tinto].

⁶ Haida Nation, supra note 2 at para 53.

⁷ Rio Tinto, supra note 5 at para 55.

was left to a determination by government as to in what ways it would organize itself to meet the duty.⁸

Prior to the Supreme Court of Canada's *Rio Tinto* decision, the Federal Court of Appeal ruled in 2009 on how to handle a particular sort of situation where the Crown was not a party to proceedings before the National Energy Board. In *Standing Buffalo*, that Court held that the duty to consult is not triggered in the context of those applications where the Crown is not a party because the National Energy Board is the final decision-maker.⁹

There are such situations under a different provision of the *National Energy Board Act*,¹⁰ separate from those provisions where the Board makes a recommendation to the Governor-in-Council—for, in practical terms, a decision by the federal Cabinet—as has been more prominent in the media in the context of larger pipeline applications. These different provisions situate the National Energy Board differently, which had been behind the very different conclusion that resulted for this specialized situation.

That 2009 decision in Standing Buffalo, it bears noting, was known to the Supreme Court of Canada at the time of the Rio Tinto case. A particular timeline is worth noting: an application for leave in Standing Buffalo was filed on 23 October 2009, Rio Tinto was decided on 28 October 2010 without any reference to Standing Buffalo, and leave to appeal was denied in Standing Buffalo on 2 December 2010.11 The thirteen-month time for the leave determination in Standing Buffalo thus ran through the period when the Court was deciding Rio Tinto. Nonetheless, the relationship of Standing Buffalo to Rio Tinto was not clarified, and the Supreme Court of Canada left everyone to guess at the legal effect of its decision on the Federal Court of Appeal precedent until the recent cases.

Both of the recent cases relate to specialized circumstances analogous to those in Standing Buffalo. Both pertain principally to treaty rights issues potentially impacted by a National Energy Board decision.¹² In both, the National Energy Board was the final decision-maker, and the doctrine embodied in Standing Buffalo would imply that there was no separate duty to consult by the federal executive required outside of the National Energy Board process. This was precisely the case in *Chippewas of the* Thames under section 58 of the National Energy Board Act. 13 It was also arguably the case in Clyde River due to the special rules under the Canada Oil and Gas Operations Act (COGOA), 14 although the National Energy Board's position in that context accepted by the Federal Court of Appeal was that the NEB provided a process that the Crown could rely upon for purposes of the duty to consult rather than that the duty to consult was not triggered. 15

Given the Supreme Court of Canada's failure to be clear in 2010 on the ongoing status of the *Standing Buffalo* rule, there was a plausible doctrinal position that it continued to apply so as to suggest that the duty to consult is not triggered when the Crown is not a party to an application. However, the *Chippewas of the Thames* case saw the Federal Court of Appeal panel split, with Rennie J.A. writing a dissent suggesting that *Standing Buffalo* had been overturned by the 2010 *Rio Tinto* decision.

At the Supreme Court of Canada, there was a position taken by all parties that the *Standing Buffalo* rule no longer applied, with the respondents themselves arguing for an approach to the cases based on the duty to consult being fulfilled through the National Energy Board regulatory process. This was the position that

⁸ See discussion in Newman, Revisiting the Duty to Consult, supra note 2 at 19-21.

⁹ Standing Buffalo Dakota First Nation v Enbridge Pipelines Înc, 2009 FCA 308, leave to appeal to SCC denied (2 December 2010, SCC File No 33480) [Standing Buffalo].

¹⁰ National Energy Board Act, RSC 1985, c N-7. See sections 51-58 for the sections bearing on the present discussion.

¹¹ SCC File No 33480 (2 December 2010).

¹² Clyde River pertained to modern treaty rights in relation to harvesting of marine mammals potentially impacted by permission for marine seismic testing. Chippewas of the Thames pertained mainly to historic treaty rights potentially impacted in the course of a pipeline reversal, although the community also asserted Aboriginal title claims to "the bed of the Thames River, its airspace, and other lands throughout their traditional territories" (Chippewas of the Thames, supra note 1 at para 7)—parts of this statement raise profound issues concerning the scope of Aboriginal title, but the present paper cannot deal with every issue that arises.

¹³ National Energy Board Act, supra note 10, s 58.

¹⁴ Canada Oil and Gas Operations Act, RSC 1985, c O-7.

¹⁵ The Federal Court of Appeal decision was 2015 FCA 179.

the Court adopted. It stated clearly that the *Standing Buffalo* rule no longer applies. ¹⁶ And it ultimately articulated a complex role for the National Energy Board. Because the NEB is making a final decision on behalf of the Crown, its decision-making triggers the duty to consult; at the same time, the NEB's regulatory process can fulfill the duty to consult, and it can and must make a decision on whether the duty to consult has been fulfilled. ¹⁷

There is thus an important conclusion from these cases that Crown consultation can be fulfilled entirely through the regulatory process where a regulatory body is appropriately empowered.¹⁸ The making of a final decision in the public interest seems apt to mark out a significant role in relation to the duty to consult. As the Court states, "[a] decision to authorize a project cannot be in the public interest if the Crown's duty to consult has not been met."19 That statement does not turn the duty to consult into a trump over other elements of the public interest. The Court adds that "[n]evertheless, this does not mean that the interests of Indigenous groups cannot be balanced with other interests at the accommodation stage. Indeed, it is for this reason that the duty to consult does not provide Indigenous groups with a 'veto' over final Crown decisions."20 The Court thus integrates the duty to consult into the regulatory process in circumstances where it can.

The specific facts of the two cases led to different results, albeit consistently with the same underlying principles. In *Clyde River*, the Court identified several problems with the way in which consultation had occurred, some of them distinctive issues arising from the Nunavut context. The circumstances required deep consultation because of an agreed significant impact on marine mammals over which there were harvesting rights under a modern treaty.²¹ However, there were relatively limited opportunities to participate,

no oral hearings, and no participant funding. There was also evidence of information that needed to be presented to communities not being available in the local language and being practically unavailable altogether because it was delivered in electronic files of a size that it was effectively impossible to download at the bandwidth available in Nunavut. Between a number of flaws, the Court concluded that the duty to consult had not been met.²²

In *Chippewas of the Thames*, the duty to consult was met. The process would have met the requirements of even relatively deep consultation, even if that was not required in the circumstances of the case. There were hearings held, with clarity to Indigenous communities that these fulfilled consultation and would lead to a decision, and there were good opportunities to participate. Ultimately, there was accommodation in so far as conditions imposed on the pipeline reversal responded to issues raised. Based on different circumstances and different facts, the Court said consultation requirements were met.²³

Even if some tried to comment on the alleged inconsistency of the Court rendering two different results, the reality that different factual circumstances could lead to different results should be no surprise. At a principled level, both cases reaffirm and nuance duty to consult elements in parallel ways. Both affirm that a regulatory process can fulfill the duty to consult.24 Both emphasize that a legal duty to consult process must be attentive to impacts on Aboriginal and treaty rights.²⁵ Both develop the idea of the provision of written reasons being an important element of consultation, with significant discussion of such reasons showing respect to the Aboriginal participants in consultation and establishing attentiveness to the rights issues raised.26 Both emphasize the need for adequate opportunities to participate consultation, including through the availability of participant funding, when deeper

¹⁶ Clyde River, supra note 1 at paras 27, 38-39; Chippewas of the Thames, supra note 1 at paras 35-37.

¹⁷ Chippewas of the Thames, supra note 1 at para 34; Clyde River, supra note 1 at paras 27-37.

¹⁸ Chippewas of the Thames, supra note 1 at paras 32ff.

¹⁹ *Ibid* at para 59.

²⁰ Ibid.

²¹ Clyde River, supra note 1 at 43-44.

²² Clyde River, ibid.

²³ Chippewas of the Thames, supra note 1.

²⁴ Chippewas of the Thames, supra note 1 at paras 44-48; Clyde River, supra note 1 at 46.

²⁵ Clyde River, supra note 1 at 45; Chippewas of the Thames, supra note 1 at 64.

²⁶ Chippewas of the Thames, supra note 1 at 62-63; Clyde River, supra note 1 at 41.

consultation is at issue.²⁷

While the requirements of the duty to consult in a particular case continue to depend on the spectrum analysis for the required depth of consultation, there is the option available simply of meeting the requirements of deep consultation where that is what a regulatory process provides. That said, project proponents may need to be ready to take action to ensure that certain aspects are met. Both cases evidence the National Energy Board's practices having developed to take significant account of Aboriginal and treaty rights even in cases where it might legally have shirked that element in light of past case law. Without being under direct legal instructions to do so, the NEB itself effectively developed an approach that largely met the duty to consult, although it had to operate within its statutory mandate. In the COGOA context in Clyde River, its statutory mandate did not empower it to take some of the steps that now led to the determination that it had not met the duty to consult. It may be that the presently contemplated adjustments to the NEB will ensure that it has the necessary mandate in future, but it may also remain the case that project proponents need to be ready to step into some roles. For example, a project proponent that wants to get its project done may need to factor in the cost of itself providing participant fundingeven if that ought in principle to be something provided by the Crown—where providing it is the difference in the requirements of the duty to consult being met.

There is more that one might say about these specific decisions. They are obviously packed with much important content. But they mark a reaffirmation and nuancing of duty to consult elements more than any transformation of the doctrine. They do, though, have significant novel elements in how the duty to consult bears on energy regulatory bodies in casting them in potentially complex roles where they bear a fulsome responsibility for all aspects of the duty to consult. How that plays out in contexts going beyond the NEB warrants further attention.

3. Implications for Other Energy Regulators: Examples of the Alberta Utilities Commission and the Canadian Nuclear Safety Commission

The National Energy Board, although probably

not anticipating over the years the role ultimately identified for it in these decisions, had nonetheless been developing a significant role for consideration of Aboriginal issues as part of its decision-making. The Chippewas of the Thames decision, in particular, affirms that the right NEB processes have already been meeting the requirements of the duty to consult. However, other energy regulators must now contemplate how their processes line up with the new realities ushered in by these decisions. For some, these decisions will imply changes and may imply some temporary challenges. For others, their proactive developments of a role for Aboriginal issues may situate them well. Two brief examples serve to flesh out this contrast.

First, the Alberta Utilities Commission (AUC) stands as an example of an energy regulator that may face some issues as a result of these decisions. Notably, an October 2016 AUC decision had relied upon the Standing Buffalo rule in holding that the AUC had no role in considering or assessing consultation with an Aboriginal community in the context of a decision on an application where the Crown is not present—with this case being the subject of recent discussion in this journal.²⁸ That conclusion can simply no longer stand. The Standing Buffalo rule has now been rejected, so it cannot serve as the basis for such a decision. And to the extent that the AUC makes a decision in the public interest, the present cases now suggest that its consideration must actually extend to whether the duty to consult was met, in so far as a decision cannot be in the public interest if the duty to consult has been violated.

The recent commentary in this journal on the October 2016 AUC decision had highlighted the practical advantages resulting from it. The authors of that commentary wrote as follows:

For the AUC, issues regarding Crown consultation and impacts on Aboriginal groups are most likely to arise in the context of facilities applications, such as transmission lines and power (including wind, hydro and gas) plants. The ruling provides some assurance to proponents of these

²⁷ Chippewas of the Thames, supra note 1 at 51; Clyde River, supra note 1 at 47-49.

²⁸ See Ignasiak, Kennedy & Fontaine, supra note 3.

projects that, going forward, the Commisison [sic] will no longer need to postpone regulatory proceedings to consider this question. It also confirms that the AUC's focus will continue to be on the proponent's consultation with stakeholders, including Aboriginal groups, pursuant to AUC requirements and guidelines. This may help to limit the scope of matters addressed within AUC proceedings where Aboriginal groups are intervening. ²⁹

Each of these practical advantages in the AUC context is now arguably put into question. There is no longer an assurance to proponents that regulatory proceedings will not be slowed by consideration of consultation issues. On the contrary, there is an argument that consultation issues must now become part of proceedings. AUC requirements and guidelines may well need to be adapted in light of the reality of a final determination based on the public interest needing to take account of duty to consult. And the scope of matters at issue may well be expanded.

There was no intervention at the Supreme Court of Canada in *Chippewas of the Thames* and *Clyde* River by the AUC, or even by the Attorney General of Alberta—only the Attorneys General for Ontario and Saskatchewan sought to inject perspectives into the proceedings. There may thus have been no particular attention by the Court to the potential impacts for Alberta's particular system of energy regulatory bodies. But there likely now are some significant results for some of these bodies. That presents meaningful issues for a province where the energy sector and energy regulation play profound roles. There will need to be attention now to analyzing all of the specific impacts of the Supreme Court's decisions, what adjustments may be necessary in response, and how to deal with various temporary issues that may arise in terms of changes to process that may be immediately mandated in light of the Supreme Court of Canada undermining precedents that bodies like the AUC relied upon as recently as late 2016.

Second, by contrast, some energy regulatory contexts may face less dramatic issues arising from the decisions. One example might be the Canadian Nuclear Safety Commission (CNSC) context. While engaging proponents significantly in the process, the CNSC has nonetheless proactively developed its role in relation to duty to consult such that it has effectively sought to make duty to consult determinations part of its normal course of operations for a number of years now.³⁰ Licensees have very specific requirements on them in terms of Aboriginal engagement, developed through specific regulation by the CNSC,³¹ and the record of that engagement specifically becomes part of the consultation record.³² Although there may be particular details to review, the processed embodied in the CNSC approach would appear to be compliant with the various aspects of the duty to consult reaffirmed in the present decisions. Careful past work to implement relatively fully the deeper duty to consult elements unfolded in past cases would seem now to position the CNSC to face relatively fewer implications arising from the new decisions.

The point that arises is that there may well be a range of different consequences from the present decision in different energy regulatory contexts. There is no single straightforward statement to be made. Those energy regulators that continued to rely on the Standing Buffalo rule, even if it was an entirely plausible doctrinal position, may have thereby missed implementing some of the purposive dimensions of the duty to consult in a way that now renders their regulatory processes subject to more implications and more vulnerabilities in light of the present decisions. Those energy regulators that took more proactive steps in relation to deeper duty to consult initiatives may face fewer immediate consequences.

These various effects may well be relatively random. There is little in the record in the cases to suggest that the Court had awareness of the practical consequences of its decisions for the range of specific scenarios that they do affect. Indeed, the entire way the law is developing in this area has some relatively unpredictable dimensions, a point that can be reinforced

²⁹ Ignasiak, Kennedy & Fontaine, ibid.

³⁰ See Canadian Nuclear Safety Commission, Codification of Current Practice: Canadian Nuclear Safety Commission (CNSC) Commitment to Aboriginal Consultation (August 2011).

³¹ See Canadian Nuclear Safety Commission (CNSC), REGDOC-3.2.2, Aboriginal Engagement.

³² See Canadian Nuclear Safety Commission, *supra* note 30.

by considering how the present decisions fit with a prominent recent decision of great consequence.

4. An Alternative Northern Gateway History

In the context of the \$8 billion Northern Gateway pipeline project pursued by Enbridge from early in this century up to last year, the Federal Court of Appeal decision in *Gitxaala Nation v Canada* casts a long shadow in terms of the potential unexpected implications of the duty to consult.³³ The present decisions may highlight just how much of a random shock the decision was.

After massive efforts by the proponent, the Northern Gateway Project saw a successful recommendation of the project by a National Energy Board Joint Review Panel in December 2013 and approval of the project by the Governor in Council in June 2014. However, after argument in early October 2015, in a decision of June 2016, a majority of a divided panel in the Federal Court of Appeal in Gitxaala held that there had been imperfections in the last phase of consultation—that occurring between the Joint Review Panel recommendation and the Governor in Council decision. The result was that the Court would quash the approval of the project while sending it back for further consultation and reconsideration by the Governor in Council. In September 2016, both the Attorney General of Canada and the proponent announced that they would not appeal from that decision. Presumably, more consultations were to follow, but in November 2016 there was an announcement simply that the government would not proceed with further steps on the project and was thus effectively rejecting the pipeline, having been permitted to do so by the June 2016 decision.

In the *Gitxaala* decision, the majority had reasoned as if sending the matter back for consultation and further consideration by the Governor in Council was a simple remedy that had no inherent effect against the project.³⁴ The unreality of that approach in light of the time lags involved, though, came to fruition. The Cabinet deliberations would be led not by Prime Minister Harper but by Prime Minister Trudeau, with the latter having had a track record of

statements against the specific project. The remedy had definitive effects against the project in light of the late October 2015 election and change in government.

That decision possibly highlights more than any other some of the ongoing potential unpredictability of the duty to consult doctrine, its requirements, and its consequences. The Gitxaala decision affirmed the appropriateness of all phases of consultation leading up to the recommendation of the Joint Review Panel, which recommended approval of the project subject to over two hundred conditions. The panel split two-to-one over imperfections in the phase of consultation after that recommendation and preceding the final decision of the Governor in Council. Given that the Harper government was generally supportive of the project, one logically has to assume that the efforts made during that stage were what the government thought was legally necessary—it would not have deliberately done less consultation than necessary so as to sink the project. So, making the best possible legal determinations on what was needed, the Government of Canada was not able to determine that in light of the jurisprudence and its uncertainties, and the result was the quashing of the decision by a majority decision in the Federal Court of Appeal. The split decision there simply emphasizes that not even a judicial panel could agree on what was required.

The Chippewas of the Thames and Clyde River decisions now show the Supreme Court of Canada taking a relatively practical approach to the duty to consult doctrine and affirming that a regulatory process may fully meet the requirements of the duty to consult. Although these decisions are from the specialized context in which the National Energy Board is the final decision-maker, one might reasonably ask if a different context in which the Governor in Council is the final decision-maker might nonetheless fully rely on the regulatory process in relation to consultation. Where extensive efforts at consultation precede a National Energy Board recommendation, there may frankly be little to be gained by additional, decontextualized consultation between that recommendation and a final Governor in Council decision.

³³ Gitxaala Nation v Canada, 2016 FCA 187 [Gitxaala].

³⁴ *Ibid* at paras 333-341 (partly commenting at para 335 on how the further process "need not take long", thus suggesting that the majority judges thought the remedy of no particular long-term consequence against the project).

In a context like the Northern Gateway decision, there would be an argument to be made that consultation leading up to the recommendation might be all that is needed. The present Supreme Court of Canada decisions might well imply that the *Gitxaala* case was wrongly decided in fundamental ways when it resulted in the quashing of a massive energy infrastructure project by two judges focusing on certain imperfections in consultation at a stage that may not have been necessary anyway. The present decisions may well imply that there was actually a legal entitlement to build Northern Gateway that was effectively snatched away in acts of what was effectively lawlessness.

Frankly, many uncertainties remain in the duty to consult, and that represents a massive problem in terms of resource development projects that depend upon a predictable legal environment. The present decisions, without saying so, arguably undermine a leading case that epitomizes uncertainty in this context. But they do not solve all issues of uncertainty. Far from it. And there are steps that a variety of stakeholders ought to be considering in response.

5. The Supreme Court of Canada and the Energy Sector: Tackling Polycentricity

Earlier parts of this paper have highlighted that the *Chippewas of the Thames* and *Clyde River* decisions have implications not just for the National Energy Board but for a range of other energy regulatory bodies. They have also highlighted that although in some ways these decisions seek simply to reaffirm many dimensions of the duty to consult, they have a more profound significance in stating where the duty to consult doctrine stands. What is apparent in all of this is that these decisions had effects that would be well described by the concept of polycentricity.

To say that is to say in a pricey word that these decisions involved many interacting considerations and had many interacting effects. At the same time, one wonders if the Court was actually aware of the extent of these potential considerations and effects. As highlighted earlier, there was no intervention at the Court concerning the potential impacts on energy regulation bodies in Alberta, which of

course always stands to be significantly affected by decisions bearing on energy regulation in Canada.

Many Indigenous rights cases share this characteristic of polycentricity. At the same time, many are receiving far fewer intervenors than one might expect in light of this characteristic, at least in terms of interventions from the energy sector. When the Supreme Court of Canada hears the appeal in the Mikisew Cree First Nation decision in early 2018 concerning whether legislative action triggers the duty to consult, for instance, there are a number of Indigenous groups and organizations that have sought and gained intervenor status, but only one non-government group (Advocates for the Rule of Law) sought and obtained intervenor status to defend the parliamentary process from the imposition of new duty to consult requirements.

The duty to consult, and other Indigenous rights issues, are continuing to develop in case law that may have profound effects for energy regulation. Those involved in the sector obviously watch these developments, but there may well be good reason to do something other than merely watch judges potentially continue away at rendering economic activity in Canada more challenging. Every case in this context deserves more attention than it is receiving.

ONTARIO'S CAP AND TRADE AGREEMENT WITH QUÉBEC AND CALIFORNIA*

Linkage will take effect on January 1, 2018

Tyson Dyck, Dennis Mahony, Henry Ren and Caitlin Milne**

Ontario plans to join the Québec-California carbon market as of January 1, 2018, under a harmonization and integration agreement (linkage agreement) announced on September 22. The Ontario Ministry of the Environment and Climate Change (MOECC) has also proposed changes to its cap and trade regulations, which are open for public comment until November 6, 2017.

What You Need To Know

- The linkage agreement will facilitate joint auctions of Ontario, Québec and California greenhouse gas (GHG) emissions allowances; harmonization of each party's cap and trade and GHG reporting regulations; mutual recognition and trading of compliance instruments; and a common accounting mechanism to determine each party's share of GHG emission reductions.
- The proposed amendments to the Cap and Trade Program Regulation (O. Reg. 144/16) and the Methodology for Distribution of Ontario Emission Allowances Free of Charge (Free Allowance Methodology) would lay the groundwork for linkage with Québec

- and California; modify the rules for free allowance allocation; and establish the methodology for determining 2021-2030 GHG emissions caps.
- The MOECC also proposed a new regulation regarding administrative monetary penalties for certain offenses under the *Climate Change Mitigation and Low-carbon Economy Act, 2016* (CCMLEA), and proposed changes to the Quantification, Reporting and Verification of Greenhouse Gas Emissions Regulation (O. Reg. 143/16) and the Guideline for the Quantification, Reporting and Verification of Greenhouse Gas Emissions (Reporting Guideline).

Linkage with the Québec-California Carbon Market

Ontario's cap and trade system for GHG emissions was developed under the Western Climate Initiative (WCI), a regional framework under which both California and Québec have implemented their own cap and trade systems. In 2014, the California and Québec systems were linked, allowing them to host joint auctions of carbon allowances. Throughout the development of its cap and trade system,

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ı See: https://news.ontario.ca/opo/en/2017/09/quebec-ontario-and-california-join-forces-to-fight-climate-change. html?utm_source=ondemand&utm_medium=email&utm_campaign=p

the Ontario government stated its goal of participating in this joint market.

The anticipated benefits of linkage include increased liquidity of carbon allowances realized through access to a larger market, administrative efficiencies achieved through sharing in the administration of joint auctions, and lower overall costs of emissions reductions.

Summary of the Linkage Agreement

The linkage agreement is a high-level framework for achieving integrated carbon markets. Ontario, California and Québec will follow this framework as they complete the steps necessary to implement linkage as of January 1, 2018.

Under the linkage agreement, the three jurisdictions will hold joint auctions of emissions allowances, similar to those currently held by California and Québec. Allowances generated in each system, including those sold at joint auctions, may be used by capped participants in any of the three jurisdictions toward their compliance obligations.

Table 1 illustrates the recent activity at Ontario and Québec-California auctions of carbon allowances, prior to Ontario linkage.

Table 1: Qualified Bid Summary Statistics Comparison²

As of linkage, all three jurisdictions will have common auction reserve and settlement prices; the auction reserve price is expected to be the highest reserve price in any of the three jurisdictions.

Integration of regional cap and trade programs

will require harmonization of the respective parties' regulations and reporting requirements. Under the linkage agreement, the parties will examine their respective regulations, determine whether any differing elements require alignment and consult each other regarding a harmonized approach. The linkage agreement also contemplates the development and implementation of an accounting mechanism to attribute to each party its portion of the total GHG emission reductions achieved by the linked cap and trade programs. The intent is to provide transparent and data-driven calculations for how GHG reductions from the cap and trade programs are counted toward each party's emission reduction target.

As the integration process unfolds, Ontario may require additional amendments to its cap and trade program. For example, California enacted legislation (AB 398) in July 2017 to extend its cap and trade program—which was set to expire at the end of 2020—until the end of 2030, and to adjust certain program requirements in a way that departs from the standard WCI model. Changes included reducing the limit for offset credits usage (from 8% of a regulated entity's compliance obligations to 4% for 2021–2025 and 6% for 2026-2030), and requiring the establishment of a price ceiling and price containment points to control allowance prices.

Proposed Amendments to the Cap and Trade Program

Changes to O. Reg. 144/16 and Free Allowance Methodology

The MOECC is proposing certain amendments to O. Reg. 144/16 and the Free Allowance

Table 1 illustrates the recent activity at Ontario and Québec-California auctions of carbon allowances, prior to Ontario linkage.

	Current 2017 Vintage		Future 2020 Vintage	
Qualified Bid Summary	Ontario	Québec-California	Ontario	Québec-California
Statistics	September 2017	August 2017	September 2017	August 2017
	Auction	Auction	Auction	Auction
Auction Reserve Price (CAD)	\$16.79	\$17.24	\$16.79	\$17.24
Settlement Price (CAD)	\$18.56	\$18.74	\$18.03	\$18.49

 $_2$ See: http://files.ontario.ca/summary_results_report_english_2017-09-13.pdf; and: http://www.mddelcc.gouv.qc.ca/changements/carbone/ventes-encheres/2017-08-22/Vente_22-08-en.pdf.

Methodology, as follows:

- To support the linkage agreement, the amendments would recognize compliance instruments from California and Québec, facilitate joint auctions of emissions allowances, adjust holding and purchase limits for allowances to account for the emissions cap of all three jurisdictions, require related persons in Ontario to share their holding and purchase limits with related persons in California and Québec, and allow registration in multiple jurisdictions for capped participants and offsets sponsors.
- The MOECC also proposes to develop an approach to provide allowances free of charge to voluntary participants on account of GHG emissions that do not result from combustion (e.g., process emissions that result from chemical reactions). These emissions are not eligible for free allowances under the energy use-based allocation method currently applicable to voluntary participants.
- The amendments would also establish a methodology for determining emissions caps for the years 2021 to 2030. The plan is to set the 2030 cap using a method similar to that used for the first compliance period. More specifically, the 2030 cap will be set at a level to support Ontario's 2030 GHG reduction target under the CCMLEA (37% below 1990 levels) once emissions not covered by cap and trade and emissions from electricity import have been taken into account.³ The final regulatory amendments will set declining annual caps to 2030 based on the 2020 cap, amounting to approximately a 26% reduction in the 10 year period.

Changes to O. Reg. 143/16 and Reporting Guideline

The MOECC is proposing certain amendments to O. Reg. 143/16 and the Reporting Guideline, which will require reporters to

submit verification reports. This amendment is intended to improve program efficiency by reducing the administrative burden for the MOECC in reviewing emissions reports.

Proposed Administrative Penalties Regulation

The MOECC also proposes a new regulation under the CCMLEA to provide a framework for issuing administrative penalties for contraventions of the CCMLEA. The proposed regulation includes: (1) a framework and process for issuing administrative penalties under the CCMLEA; (2) ranges and maximum amounts of penalties; (3) considerations taken into account in determining penalty values; and (4) potential reductions for actions taken to prevent and mitigate a contravention.

Comments on the proposed amendments and new regulations can be submitted online to the MOECC through the Environmental Registry by November 6, 2017. 4

³ Emissions from generation of imported electricity (which are covered under Ontario's cap-and-trade program) are not included for the purposes of Ontario's emission reduction targets.

⁴ See: http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTMzNTQx&statusId=MjAzMDcx.

LEGISLATIVE AND REGULATORY CHANGES GOVERNING HYDROCARBONS AND PIPELINES

Ludovic Fraser*

1. Background

The development of Quebec's oil and gas industry in the last decade has been quite a saga. First, a good portion of its hydrocarbon reserves must be obtained through controversial methods like hydraulic fracturing and horizontal drilling. Second, Quebec adheres to the principle of eminent domain under which, regardless of who holds the land, the State has ownership of mining resources¹ and can approve mining activities in an area. The mining sector and its regulatory framework have been roundly criticized on many fronts (e.g., private property rights, public awareness and participation, environmental protection [water sources in particular], corporate responsibility, royalties, and the pre-eminence of mining over these other concerns).

In February 2011 the Bureau d'audiences publiques sur l'environnement (hereinafter called BAPE), an arm's-length body tasked with advising the government, issued a draft report² that cited a lack of scientific data on which to base a reasoned conclusion. BAPE proposed to carry out "a strategic environmental assessment in which hydraulic fracturing would be authorized only for assessment-related activity. Exploration could continue but without the

use of hydraulic fracturing."3 The government endorsed the report by passing the Act to limit oil and gas activities,4 which prohibits hydraulic fracturing during a strategic environmental

After winning a minority in the September 2012 provincial election, Quebec's new Parti Québécois government imposed a de facto moratorium on shale gas exploration and development. In December 2013 in response to public criticism, it amended the Mining Act⁵ that defined oil and gas as "mineral substances." A few months after the Liberals returned to power in April 2014, a second BAPE report found there were major risks to communities from air, water, and noise pollution, as well as insufficient royalties "to offset costs and externalities for society and the environment or to keep the industry profitable. [...] Shale gas exploration [...] was also a long way from becoming socially acceptable."6 The Liberals responded to the report by agreeing to uphold the suspension until a new regulatory framework was adopted.7

2. Energy Policy and Petroleum Resources Act

In December 2016, the National Assembly passed the Act to implement the 2030 Energy

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¹ Mining Act, CQLR c M-13.1, art 3.

² Environment Quality Act, CQLR c Q-2, art 6.3.

³ Bureau d'audiences publiques sur l'environnement, Sustainable Development in Quebec's Shale Gas Industry: Report on Inquiry and Public Hearings, Report 273, 2011, p 245.

⁴ Act to limit oil and gas activities, SQ 2011, c 13.

⁶ Bureau d'audiences publiques sur l'environnement, Issues Involved in Exploring and Developing Utica Shale in the St. Lawrence Lowlands: Report on Inquiry and Public Hearings, Report 307, 2014, p 396. 7 An Act to amend the Act to limit oil and gas activities and other legislative provisions, SQ 2014, c 6.

Policy and to amend various legislative provisions.8 The Act had two framework statutes: the Act respecting Transition énergétique Québec, and the Petroleum Resources Act.

The key aim of the Petroleum Resources Act (hereinafter called "the Act") is to remove gas and oil from the purview of the Mining Act, which now applies only to solid minerals.9 The regulatory framework is maintained, but with some necessary changes. The Mining Act's prospecting licence will be deemed an exploration licence¹⁰ that gives holders the right to extract and dispose of oil and gas or use an underground reservoir for a trial period." The exploration licence is valid for a renewable five-year term. Production and storage licences are valid for renewable 20-year terms. The new Act continues to apply to other licences (geophysical and geochemical surveying, stratigraphic survey, drilling, completion, reconditioning, temporary or permanent closure, etc.). 11 Compared with the Mining Act, the legislative changes are largely adaptable to consistently reflect the new legal framework.

The aim and intent of the Petroleum Resources Act suggests that the government has listened to people's concerns. The Act's preamble states that its "purpose is to govern the development of petroleum resources while ensuring the safety of persons and property, environmental protection, and optimal recovery of the resource [...]," a purpose evident in certain measures worth highlighting.

First, the Act requires anyone who discovers an uninterrupted flow of gas on their land to notify the Minister.¹² Citizens and farmers who fail to comply may face fines ranging from \$10,000 to \$100,000 (\$30,000 to \$600,000 for municipalities).¹³ The Act incorporates the 2013 Mining Act amendment, granting exploration licences by auction.¹⁴ The Régie de l'énergie (hereinafter called the Régie) must make a favourable ruling before a production or storage licence is issued.15 Lastly, the Act creates a no-fault liability system for holders of exploration, production or storage licences or pipeline authorizations, which expressly includes damage "caused by an emanation or migration of gas or a spill of petroleum or other liquid." Coverage is limited to a certain amount (determined by regulation) and determined for each event, and holders may not be relieved of liability by proving an injury resulted from force majeure.16 Earlier mining rights were unclear about an operator's responsibility for the land, consisting of a simple summary of landowner rights and obligations. 17 The transitional provisions do not clarify whether current operators will be bound by the no-fault system.

However, these legislative changes have not effectively addressed issues and objections, and have drawn criticism for leaving the mining system largely the same whether for solid, liquid or gas extraction.

Community Involvement

Despite the need for a licence for any mining activity, 18 the principle of eminent domain still applies.19 Citizens oppose the industry's right of access to the territory subject to the licence.20 They also object to the right of expropriation (failing an agreement),21 which takes away most of their negotiating power. Citizens and municipalities will be informed but not consulted when exploration and operating licences are granted.²² Mining rights also still take precedence over urban planning and development decisions.²³ Lastly, the licence holder must form a follow-up committee that includes "at least one member representing the

⁸ An Act to implement the 2030 Energy Policy and to amend various legislative provisions, SQ 2016, c 35.

⁹ Petroleum Resources Act, art 207, para 3. Also see art 5, "mineral substances.

¹⁰ Ibid, art 252.
11 Ibid, section VI, c III.

¹² *Ibid*, art 6.

¹³ Ibid, art 189.

¹⁴ Ibid, art 14.

¹⁵ Ibid, art 38. The Régie de l'énergie also rules on pipeline construction or use applications, ibid, art 110.

¹⁷ Supra note 1, art 105.

¹⁸ Supra note 9, art 8.

¹⁹ Ibid, arts 2, 13(2), 27. 20 Ibid, arts 27, 55.

²¹ Ibid, art 55; supra note 1, art 235.

²² Supra note 9, arts 26, 55.

²³ Ibid, art 203.

municipal sector." This is not an additional requirement, however,²⁴ and committee members are selected by the licence holder.²⁵

Environmental Concerns

Though the Petroleum Resources Act requires a restoration plan prior to authorization, 26 it has no specific framework for hydraulic fracturing. For water protection, it states that "Any part of a watercourse with a natural force equal to or greater than 225 kilowatts together with a strip of land 20 metres in width is excluded from the territory subject to a licence."27 The Minister has discretion to suspend or halt mining activity (including drinking water production) if doing so is deemed to be in the public interest. The Mining Act also provides this discretion.²⁸ Section 250 of the Petroleum Resources Act specifically provides for the exemption of oil and gas activity from the Water Withdrawal and *Protection Regulation* (as under the old system).

The main criticism was the number (more than 100) of provisions still to be determined by regulation (or order), many of which concern the most controversial aspects of the oil and gas sector.

3. Draft Regulations

On September 20, 2017, the Minister will issue four draft regulations. The first three will maintain the terms of the *Regulation respecting petroleum*, *natural gas and underground reservoirs*, ²⁹ which will soon be revoked by the fourth. ³⁰ The regulations serve first to determine licence granting conditions and then to define their conditions of use.

The Regulation respecting petroleum exploration, production and storage licences, and the pipeline

construction or use authorization³¹ gives an initial response by listing a series of criteria to gauge the independence of arm's-length committee members. Among other things, these members cannot have direct or indirect "financial or business interests or dealings with the licence holder" or be employed by affected departments or the Régie.³² The Regulation also sets out the exploration licence auction mechanism, where one criteria for inclusion on the list is proof of financial solvency for a specified amount (between \$10 million and \$1 billion based on activity location).³³

As noted, to get a production or storage licence, an exploration licence holder needs a favourable ruling from the Régie.³⁴ To this end, the holder must provide a series of documents (assessment of reserves and contingent resources, emergency response plan, economic assessment, local and regional benefits plan, report on initial public consultations, description of proposed mitigative measures to ensure balanced land use and minimal disturbance to local communities and the environment, etc.).35 The "Régie's review must consider: 1) cost-effectiveness; 2) job creation; 3) estimated government revenues; 4) negative economic impact; and 5) likelihood of completion."36 When submitting an application to the ministry, the licence holder must include proof of solvency for the same amounts as for the exploration licence.³⁷

This process raises a number of issues. First, how do we ensure the public consultation report is objective if it is written by the licence applicant? Why haven't we assigned this task to the BAPE or directly to the Régie? Does the Régie have investigative powers to assess the accuracy of the documents? It would be surprising to see citizens or municipalities dispute them, since they don't seem to have access rights.

²⁴ Ibid, art 25 relative to the Mining Act, art 101.0.3.

²⁵ Supra note 9, art 25.

²⁶ Ibid, art 75 relative to the Mining Act, arts 101, 232.1ff.

²⁷ Supra note 9, art 11.

²⁸ Ibid, art 131 relative to the Mining Act, art 304.

²⁹ Regulation respecting petroleum, natural gas and underground reservoirs, RSQ c M-13.1, r 1.

³⁰ Regulation to revoke the Regulation respecting petroleum, natural gas and underground reservoirs.
31 Draft regulation, Regulation respecting petroleum exploration, production and storage licences, and the p.

³¹ Draft regulation, Regulation respecting petroleum exploration, production and storage licences, and the pipeline construction or use authorization (2017) GOQ II, 4449.

³² *Ibid*, art 7.

³³ *Ibid*, arts 19(4), 161.

³⁴ Supra note 9, art 48. Some production licences are granted by auction. See Regulation respecting licences, supra note 31, arts 53ff (for production), 80ff (for storage); supra note 9, art 38.

³⁵ Regulation respecting licences, supra note 31, arts 62 (forproduction), 89 (for storage).

³⁶ Ibid, arts 64 (for production), 91 (for storage).

³⁷ Ibid, arts 51(1), 161, 166.

Requirement to notify provisions are not very detailed³⁸ as notice is given after the licence is granted. Similarly, how are Régie assessment criteria weighted? How do we compare a farmer's (financial) losses with an oil company's profits? As for cost-effectiveness, does the Régie need to include damages awarded under the nofault system? Lastly, is an industry-developed emergency response plan (CSA-Z731 standard) stringent enough to meet its objectives? Oil and gas industry self-regulation does little to ease citizen concerns. We ask these questions not to criticize the industry but to make the process more transparent from a social acceptability standpoint.

The Regulation clarifies elements that are missing from the Act, such as the formula for volume-based monthly oil and gas royalties,³⁹ production reports, 40 and licence surrender and renewal criteria⁴¹ (as well as the equivalent for storage licences).⁴² It also determines the process and requirements for pipeline construction and use authorisations. These are similar to those for obtaining a production licence in terms of Régie involvement, 43 except that the Minister's approval must be based on the financial sureties cited earlier and on proof of compliance with industry standards. 44 The applicant must inform the Minister of any incident by providing a "detailed report that outlines corrective measures already completed or planned measures and their time frame for completion."45

Once licences are granted, the Regulation respecting oil and gas exploration, production and storage activities on land⁸⁶ (hereinafter called the Regulation respecting activities on land) and the Regulation respecting oil and gas exploration, production and storage activities in a body of water⁴⁷ (hereinafter called the Regulation respecting activities in a body of water) set out conditions for performing a range of activities. These regulations have the same structure, and

most of their provisions are similar except those specific to land or water environments.

The most anticipated provisions concerned minimum protective distances, stating that stratigraphic surveys (coring), drilling, completion (acid cleaning) and fracturing cannot occur within:

- 40 m of the St. Lawrence Seaway (was 400 m away)
- 40 m of a public road or railway (was 100 m away)
- 100 m of power lines, telecom infrastructure, wind turbines, pipelines, or any similar facility or infrastructure (was 100 m away)
- 100 m of a cemetery or of surface improvement projects for sport or recreational purposes (was 100 m away)
- 175 m of concentrated residential, commercial, industrial or service activities (was 100 m away)
- 150 m of any building less than three storeys high or with an area of 10,000 m² or less
- 180 m of a high-capacity dam
- 275 m of a health and social services centre, learning institution, daycare, heritage site, or building three stories or higher with an area of more than 10,000 m²
- 1,000 m of an airport or airstrip (was 1,000 m away)⁴⁸
- 60 m of a national park or protected area⁴⁹

³⁸ Supra note 9, arts 27, 54, 55; Regulation respecting licences, supra note 31, arts 5, 6, 129.

³⁹ *Ibid*, art 68.

⁴⁰ *Ibid*, arts 72ff. 41 *Ibid*, arts 75ff.

⁴² *Ibid*, arts 114,108.

¹³ *Ibid*, arts 120-122.

⁴⁴ Ibid, art 127. The National Energy Board uses the same standards for pipelines under its jurisdiction. See National Energy Board Onshore Pipeline Regulations (SOR/99-294).

⁴⁵ Regulation respecting licences, supra note 31, art 140.

⁴⁶ Regulation respecting oil and gas exploration, production and storage activities on land (2017) GOQ II, 4326.

⁴⁷ Regulation respecting oil and gas exploration, production and storage activities in a body of water (2017) GOQ II, 4212.
48 Supra note 46, arts 81 (stratigraphic surveys), 133 (drilling), 201 (fracturing); supra note 47, arts 64 (stratigraphic surveys), 120 (drilling), 169 (completion), 194 (fracturing); supra note 29, art 22.

⁴⁹ Supra note 46, art 135.

Conditions of use for an exploration licence are not the same as those for a geophysical survey licence. For example, when a survey uses an explosive charge of less than 12 kg, the distance is 32 m from a pipeline, 180 m from a building with a concrete foundation, and 200 m from a drinking water intake site.⁵⁰ If the survey uses no explosives, this distance is just 50 m. There are no provisions regarding underwater environments.⁵¹

The Regulation respecting activities in a body of water affirms the government's willingness to approve oil and gas activities in Quebec lakes and rivers even when fracking is involved. With regard to privacy rights, it defines the "concentrated residential, commercial, industrial or service activities" in question as "a group of five or more lots that are home to one or more residential (permanent or seasonal), commercial, industrial or service activities, as well as a lot containing five or more residential buildings."52 This excludes cities, suburbs and other densely populated areas, though not residents of remoter areas in the "building less than three storeys high" category. The distance is 25 m shorter but is measured from the building rather than the lot line. Lastly, "the Minister may approve smaller distances if the licence holder shows that risks have been reduced through effective protection measures."53

4. Conclusion

The Premier of Quebec said there would be no oil and gas development that wasn't accepted by the community. Despite numerous updates and an increase in protective measures, concerns about residential private property and the protection of water bodies have gone unanswered. It's a safe bet that municipalities will oppose the new regulatory framework. The ministers of energy⁵⁴ and the environment⁵⁵ both say they are open to amendments after the consultation period. ■

⁵⁰ Ibid, art 40.

⁵¹ Ibid, except for the St. Lawrence Seaway.

⁵² *Ibid*, art 2.

⁵³ Supra note 47, arts 120, 169, 194; supra note 46, arts 40, 81, 133, 201.

⁵⁴ Minister of Energy and Natural Resources.

⁵⁵ Minister of Sustainable Development, the Environment and the Fight against Climate Change.

MOVING FORWARD WITH TARIFF REFORM

Ahmad Faruqui and Mariko Geronimo Aydin¹

I. Introduction

For the better part of the past century, residential customers in the U.S. and many other countries have paid for electricity through a two-part tariff that has collected most of the revenue through a flat volumetric charge. In contrast, a large share of the cost of producing and delivering electricity do not vary with the volume of electricity consumed. By not being cost-reflective, such tariffs have neither promoted economic efficiency nor equity in customer bills. Although these limitations have been recognized by the industry, tariff reform in the industry has been desultory, characterized by fits and starts mostly driven by energy crises and technology advancements. Since the 1980s, there have been four waves of tariff reform. In the fourth wave, there is an opportunity to move ahead with efficient cost-reflective tariffs because of the widespread deployment of smart meters. The need for cost-reflective tariffs has now become pressing due to major shifts in the industry, including slowdown in utility sales growth and trends towards more distributed generation. We are on the cusp of a fifth wave of tariff reform that will see residential customers engaging in a "transactive energy" marketplace, akin to how larger entities engage in wholesale energy and capacity markets today. But we cannot reach the full potential of that future without first implementing efficient and cost-reflective tariffs. In this paper we discuss ways in which the industry can make the most of our smart grid investments thus far, move forward with tariff reform, and set the stage for a successful transactive energy future.

Advancements in today's electricity industry have led many to question the sustainability of the traditional utility business model. Individual consumers can install rooftop solar panels or other distributed generation that reduce the quantity of energy incumbent utilities provide. These so-called "prosumers" can even send surplus power "backwards" through the distribution grid and into wholesale markets. In some states, retail choice and community choice aggregations give consumers the opportunity to bypass their incumbent utility to better customize electricity services and supply, based on preferences for cost, environmental attributes, and local community development. Even some of the smallest electricity customers are developing an appetite for customizing electricity usage and production to best suit their needs, and they are supporting and investing in novel tools and methods to do so.

Our paper focuses on retail tariffs that are charged by vertically-integrated utilities or regulated transmission and distribution utilities providing default supply service to customers.² Expansion in consumer options for power supply has clashed with the traditional volumetric (¢/kWh) method of recovering costs

¹ The authors are economists with The Brattle Group based in San Francisco. The views represented in the paper are the authors' and not those of The Brattle Group. We are grateful to the following individuals for reading the paper and providing comments on it: Janice Beecher, James Bennett, Cara Lee Mahany Braithwait, Tim Brennan, Lynne Gallagher, Léa Grausz, Ryan Hledik, William Hogan, Gordon Kaiser, Valérie Lesgards, Neil Lessem, Stephen Littlechild, Robert Metcalfe, Michael Picker, Pedro Pizarro, Jim Taylor, Burcin Unel, Peter VanDoren, and Jürgen Weiss. Any errors that remain are the authors' responsibility.

² Most customers in the U.S. purchase power from vertically-integrated utilities or through the default supplier in the presence of retail competition. This is also true for many countries around the globe.

that essentially assumes no customer choice. A volumetric charge does not faithfully convey to the customer the actual cost structure of power supply, which is a combination mostly of fixed costs, costs dependent on peak electricity demand (kW), and costs dependent on system conditions at the time and location of energy consumption (kWh).

Historically, the traditional volumetric charge was a sufficient cost recovery vehicle for utilities in a world with limited customerside technology, limited customer options for power supply beyond the incumbent utility, and steady load growth. Today, that volumetric charge inadvertently creates a mechanism for prosumers and departing loads to bypass the fixed and demand-based (peak use-based) costs of being connected to a larger system. The volumetric charge also creates a barrier to taking advantage of new technologies that can help utilities allocate costs to consumers more efficiently and fairly based on their consumption patterns.

The energy shocks of the 1970s led to a renewed interest in time-of-use rates, which would trigger four waves of tariff reform in the decades that followed. Today, we are at the cusp of a fifth wave, as show in Figure 1.

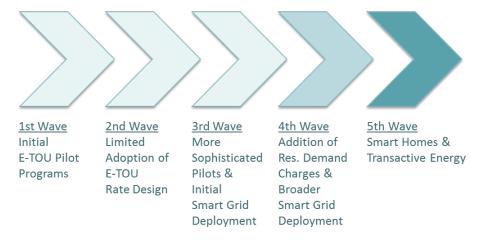
II. What We Learned in the First Four Waves of Tariff Reform

Since the late 1970s the industry has

experimented with alternative rate structures to not only allocate costs to customers more efficiently, but also to empower customers to adjust usage patterns to avoid highest-cost electricity production. The industry's primary focus has been on developing time-varying energy charges (energy-only time-of-use, or E-TOU, charges). In recent years utilities have also experimented with raising fixed charges so they reflect the costs of metering, billing, and customer care.

A third rate component—peak-based demand charges—have been in place for small and large commercial customers throughout the globe for the better part of the past century. In recent years utilities have experimented more with introducing demand-based charges to residential customers. Demand charges are based on peak kW consumption, and they reflect the costs of building electricity infrastructure to sufficient capacity to meet maximum consumption levels. One defining factor of a demand charge is whether peak demand is being measured at the time of systemwide peak (all customers combined reach peak consumption), within a designated "peak" time period, or as the individual customer's maximum demand. Another defining factor is whether demand charges are recovering (a) distribution capacity costs, (b) transmission capacity costs, (c) generation capacity costs, or (d) various combinations of these costs. Finally, the time period over which kW peak demand is measured is another variable. It could be a span

Figure 1: The Five Waves of Tariff Reform



of 15 minutes, 30 minutes, or an hour.3

This 3-part tariff structure—composed of fixed charges, demand charges, and time-based energy charges—better reflects the actual cost structure of power supply. A 3-part tariff structure can encourage better use of grid capacity, minimize cross-subsidies between customers, and foster adoption of advanced technologies.4

Historical barriers to developing implementing 3-part tariffs have been mostly driven by lack of data and technology for utilities to observe and understand individual customer usage patterns. Over the course of several decades the industry developed and improved methodologies for understanding customer behavior and preferences through experiments, or pilot programs. Regardless of customer reactions, an improved 3-part tariff structure has helped utilities address some cross-subsidization issues. Additionally, the industry has found that E-TOU charges give customers the power to avoid high-cost electricity consumption and lower monthly bills, which may also be an essential ingredient to avoiding escalating emergency situations like the 2000-2001 California energy crisis. These societal benefits can more than offset the cost of investing in new pricing tools and technologies, if only the advanced rate design can incentivize customers to respond to price signals efficiently. Over the last few decades the industry has amassed considerable experience in testing, designing, and implementing E-TOU charges that maximize customer responsiveness.



A. The 1st wave of tariff reforms in the 1970s: experimentation with timevarying energy charges

Energy-only time-of-use tariffs were tested

in the late 1970s in twelve pilots funded by the Federal Energy Administration (FEA), an organization which later became part of the U.S. Department of Energy. FEA's experimental designs were the first of their kind and they were of uneven quality. The results for short-run impacts of E-TOU on customer electricity usage were encouraging but not consistent.⁵ In most cases customers materially reduced peak consumption in response to the E-TOU rates, with very little (if any) demand-shifting to shoulder or off-peak periods. But some of the experiments resulted in statistically-insignificant reductions in peak consumption. The FEA found that higher peak-to-off-peak price ratios and shorter onpeak periods generally led to stronger customer response. What remained to be tested were: customer responses in the long-run, response to multi-part tariffs (e.g., including a demandbased charge and a fixed charge), and customer welfare impacts. Most state commissions chose to continue with a flat ¢/kWh tariff but under the Public Utility Regulatory Policies Act of 1978 (PURPA) they were required to periodically consider TOU rates. The industry mostly put the idea of E-TOUs implementation on hold until benefits and customer behavior could be better understood.



B. The 2nd wave in the 1980s and 1990s: evidence of consumer responsiveness to dynamic energy pricing but limited technology

In the mid-1980s, EPRI took the results from the top five pilots and found consistent evidence of consumer behavior.6 Unfortunately, not much happened in the late 1980s and most of the 1990s in the U.S. because of the lack of smart metering infrastructure, and because of the industry's focus on retail restructuring and the expansion of wholesale electricity markets.⁷

³ For more discussion of demand charges please see: Ryan Hledik & Ahmad Faruqui, "Competing Perspectives on Demand Charges" (2016) Public Utilities Fortnightly 20.

⁴ Ahmad Faruqui et al, "Curating the Future of Rate Design for Residential Customers" (2016) Electricity Daily.
5 Ahmad Faruqui & J Robert Malko, "Residential Demand for Electricity by Time-of-Use: A Survey of Twelve Experiments with Peak Load Pricing" (1983) 8:10 Energy 781.

⁶ Douglas W Caves et al, "Consistency of Residential Customer Response in Time-of-Use Electricity Pricing Experiments" (1984) 26:1-2 J of Econometrics 179.

⁷ Worldwide, some forms of E-TOU tariffs were in use, such as the peak/off-peak "Economy 7" tariff in the United Kingdom. But, the metering and data handling technology was very limited compared to today.

However, a few utilities did move ahead with mandatory E-TOU rates for large residential customers. Virtually all utilities moved ahead with opt-in E-TOU rates but only a handful of customers were actually on those rates.



C. The 3rd wave in the 2000s: California's energy crisis and investments in dynamic energy pricing

The 2000–2001 California energy crisis gave impetus to the next wave of pilots featuring dynamic pricing. Compared to E-TOU pricing, dynamic pricing is more of a general term for time-varying energy charges. Unlike time of use rates, where the time periods and the prices for each time period are known in advance, dynamic prices may or may not be known in advance, and the time period over which the prices are invoked may or may not be fixed in advance. In the third wave, dynamic pricing pilots included studies of E-TOU pricing as well as other types of dynamic pricing.

Some of these pilots featured enabling technologies such as in-home displays and smart thermostats. By 2013, more than 30 pilots featuring more than 160 energy-only pricing treatments were carried out around the globe. 10 Through those pilots utilities and regulators learned more about the efficiency benefits time-varying rates could offer, and about factors that improve customer responsiveness during peak demand periods. We learned that load-shifting increases as the strength of the price signal increases, but at a decreasing rate. In California specifically, a major statewide pricing pilot conducted in 2003-2004 provided a conclusive demonstration that customers reduce peak-period energy use in response to timevarying prices.11

Momentum from the third wave's scientific experimentation to understand customer behavior continues even to today. Since 2013, many more pilots were carried out around the globe, bringing the total worldwide experience to 60 pilots featuring more than 300 energy-only pricing treatments. That number continues to grow. Figure 2 summarizes peak reduction impacts from these pilots conducted through 2017, with each data point representing one study. As customers' peak-to-off peak price

TOU Impacts

Dynamic Pricing Impacts

60%

Rate Design
With Enabling Technology
Price Only

40%

20%

20%

Peak to Off-Peak Price Ratio

Dynamic Pricing Impacts

60%

40%

Peak to Off-Peak Price Ratio

Figure 2: Customer Peak Reductions in Response to TOU and Dynamic Pricing

Source: Ahmad Faruqui et al, «Arcturus 2.0.» [forthcoming].

8 Ahmad Faruqui et al, "Analyzing California's Power Crisis" (2001) 22:4 The Energy Journal 29.

⁹ For more discussion of dynamic pricing please see: Ahmad Faruqui, Ryan Hledik & Jennifer Palmer, *Time-Varying and Dynamic Rate Design, Global Power Best Practice Series* (The Regulatory Assistance Project, 2012).

¹⁰ Ahmad Faruqui & Sanem Sergici, "Arcturus: International Evidence on Dynamic Pricing" (2013) 26:7 The Electricity Journal 55.

11 Ahmad Faruqui & Stephen George, "Quantifying Customer Response to Dynamic Pricing" (2005) 18:4 The Electricity Journal 53.

ratio increases, customers reduce their peak consumption more, although at a declining rate. The dark blue markers show impacts in response to prices only and without enabling technologies. Enabling technologies, such as smart thermostats, were shown to enhance customer responsiveness, as demonstrated by the light blue markers in Figure 2. These results reinforce previous findings that customers do respond to price signals and that enabling technologies significantly enhance that responsiveness. A survey and study of results of these pilots through 2017 is forthcoming. ¹²

It was also found in the third wave that lowincome customers can be price-responsive, although not to the same degree as the average residential customer.¹³ We learned more about the impacts of other factors such as weather and end-use saturation. There was some experience with full-scale deployment of time-varying rates, such as in California, France, China, and Vietnam. A 2012 study summarized these experiences and lessons learned on actual customer behavior:¹⁴

- In 2010 PG&E called 13 events under its critical peak pricing program. Although there were no observable conservation impacts, average peak reduction was 14 per cent (with load shifting to subsequent hours) and customers saved an average of 8.2 per cent on their bills. Low income customers provided about the same per cent peak demand reduction as other customers.
- In France, EdF's critical peak pricing program had been in place in some form since 1996. In 2012 the program demonstrated a high level of price responsiveness compared to other parts of the world. Customers reportedly saved 10 per cent on average compared to other rate options.
- China transitioned from governmentmandated load shedding to some time-of-use pricing and inclining block rates. In several provinces customers responded with several hundred MW in peak reductions, the equivalent of one or

two large central generating stations.

 In Vietnam rapid growth in electricity use in the 1990s was an impetus for introducing time-of-use pricing in 1998.
 The national utility initially experienced major hurdles with customer marketing and information campaigns.

We also learned valuable lessons on how to design effective pilots, subject to available budget, time, resources, and other practical considerations. We learned how to better choose the appropriate type of pilot (demonstration, quasi-experiment, or controlled experiment), as well as how to define exactly the pilot motivation, what will be tested, and how it will be measured. We learned how to better establish control groups, recruit customers, and collect and analyze the pilot data.

Overall, the 3rd wave of tariff reform brought the industry rich information on customer responsiveness to time-varying pricing. Pilots in the 3rd wave provided the impetus and scientific evidence for widespread investments advanced metering infrastructure in the U.S. But our understanding of some aspects of customer behavior—like customer responsiveness in certain areas of the U.S., customer preferences for different rate types, and risks and challenges with full-scale deployment of mandatory time-varying rates—is still incomplete. These remaining information gaps contribute to the barriers that prevent us from realizing the full potential of 3-part tariffs today.



D. The 4th wave is upon us now: rate reform on fixed cost recovery and continued challenges with E-TOU implementation

Growth in energy efficiency, distributed solar, and other demand-side resources has raised the specter of a longer-term trend of declining electricity sales for utilities. Traditional

¹² Ahmad Faruqui et al, «Arcturus 2.0.» [forthcoming].

¹³ Lisa Wood & Ahmad Faruqui, "Dynamic Pricing and Low-Income Customers" (2010) Public Utilities Fortnightly 60.

¹⁴ Supra note 9.

¹⁵ *Ibid*.

two-part retail tariffs that charge residential customers on a mostly volumetric (¢/kWh) basis will not sustainably provide the revenues needed for utilities to cover their fixed and capital costs. This has led to a growing interest in demand charges and adjustments to fixed portions of retail rates, in order to better reflect the true investment costs of maintaining a reliable system and meeting peak demand.

Demand charges can better align prices and costs, incentivize smarter load management, improve utility cost recovery, and reduce intraclass cross-subsidies. These charges are already well-established for commercial and industrial customers.

A survey of existing residential demand charges in 2014 found nine utilities offering demand charges with a range of 1.5–18.1¢/kW-month.¹6 Our own research suggest that this figure has grown to at least 32 utilities offering demand charges today, sometimes with energy-based dynamic pricing rates, to mitigate cross-subsidies caused by prosumers and by the slowdown in sales growth. However, there is very limited empirical evidence on customer response to demand charges. Figure 3 shows

the results of three older pilots on residential demand charges. ¹⁷ These pilots were carried out in Norway, North Carolina, and Wisconsin. Estimated average peak reductions in these pilots ranged from 5 per cent to 29 per cent, brought on by demand charges that ranged from \$10.13 to \$10.80 per kW.

In the fourth wave, implementation of timevarying rates in most of the U.S. has not kept pace with the installation of advanced metering infrastructure. The Federal Energy Regulatory Commission estimates that 41per cent of all customer meters were advanced meters but only 5 per cent were enrolled in any kind of time-varying rate program in the year 2014.¹⁸

Barriers to deployment of smart rates regulators and utilities are mostly driven by some remaining uncertainties in how customers will react to a new paradigm in retail tariff structure, and hence, what degree of societal benefits can be expected. Significant concerns remain that customers will somehow be harmed or fail to integrate into the new paradigm. Some common barriers to mandatory time-varying rate implementation include:

Figure 3: Three Pilot Programs on Residential Demand Charges

Study	Location	Utility	Year(s)	# of participants	Monthly demand charge (\$/kW)	Energy charge (cents/kWh)	Fixed charge (\$/month)	Timing of demand measurement	Interval of demand measurement	Peak period	Estimated avg reduction in peak period consumption
1	Norway	Istad Nett AS	2006	443	10.28	3.4	12.10	Peak coincident	60 mins	7 am to 4 pm	5%
2	North Carolina	Duke Power	1978 - 1983	178	10.80	6.4	35.49	Peak coincident	30 mins	1 pm to 7 pm	17%
3	Wisconsin	Wisconsin Public Service	1977-1978	40	10.13	5.8	0.00	Peak coincident	15 mins	8 am to 5 pm	29%

Notes:

All prices shown have been inflated to 2014 dollars

In the Norwegian pilot, demand is determined in winter months (the utility is winter peaking) and then applied on a monthly basis throughout the year.

The Norwegian demand rate has been offered since 2000 and roughly 5 percent of customers have chosen to enroll in the rate.

In the Duke pilot, roughly 10% of those invited to participate in the pilot agreed to enroll in the demand rate.

The Duke rate was not revenue neutral - it included an additional cost for demand metering

The Wisconsin demand charge is seasonal; the summer charge is presented here because the utility is summer peaking.

Source: Ryan Hledik, "Rediscovering Residential Demand Charges" (2014) 27:7 The Electricity Journal 82.

¹⁶ Ryan Hledik, "Rediscovering Residential Demand Charges" (2014) 27:7 The Electricity Journal 82.

¹⁷ *Ibid*.

Is US, Federal Energy Regulatory Commission, Assessment of Demand Response and Advanced Metering, Staff Report, (Washington: FERC, 2016).

- Insufficient evidence of benefits:

 Stakeholders may have a perception that pilots or other evidence to date is not indicative of benefits that could be realized through full-scale deployment. This could be due to insufficient testing or due to lack of awareness of existing evidence. Unless evidence of benefits is compelling, regulators, utilities, and customers will fear that a broader group of customers will not respond to the new rates, and that the rates will fail to promote economic efficiency or equity.
- Customer dissatisfaction and backlash: The move from flat rates to timevarying rates will more efficiently and fairly allocate costs among individual customers. Bills will rise for some customers who were previously crosssubsidized by other customers. may take time for those customers experiencing bill increases to understand how to manage their electricity consumption relative to the new rate structure.19 Additional investment in customer education and outreach will be needed to help customers fully understand the new rates, how to choose among their rate options, and how to adjust their usage patterns to lower their bills.
- Impacts on sensitive or disadvantaged customers: There may still be uncertainties on how the new rates will impact low-income customers, small users, and customers with physical or technological challenges that prevent them from either fully understanding or reacting to the new rates.

There is no one-size-fits-all solution to addressing these concerns. The best approach can vary greatly due to service territory-specific factors; it also greatly depends on (a) the degree to which customer behavior has already been studied in an area, and (b) which parties (regulator, utility, customers) are hesitant to change the status quo and why. Arizona, for example, already has extensive experience with time-of-use rates, and a relatively large share of utility customers is enrolled in those programs. In contrast, many other service areas

in the U.S. have little or no experience with the actual E-TOU implementation, and these service areas would benefit from pilot programs or other types of testing for customer impacts and responsiveness. The highly politicized nature of energy and energy costs to customers has a significant impact on how and when these concerns are raised, and to what degree the public is willing to address and overcome perceived barriers to tariff reform.

But before considering solutions to overcoming barriers to time-varying rates, it helps to take a step back and consider where we are trying to go. In the next section we offer one vision of the future of tariff reform, which relies on technology and efficient tariff design to empower customers to control their bills, respond to electricity market and system conditions, and contribute to efficient electricity use in a nimble and dynamic fashion.



III. The Fifth Wave of Tariff Reform: Into a Future of Transactive Energy and Smart Homes

Understanding and enabling residential customer responsiveness under advanced tariffs will likely be an ongoing effort and challenge, even into the fifth wave. Once cost-reflective tariffs are in place there will still be some technological barriers to full customer engagement, including limited data to the customer from a complex wholesale marketplace, and limited tools for customers to respond to and participate in those markets. We expect the next and fifth wave of technology innovation to bring these data and tools to customers in the so-called future transactive energy market.

New technology is already beginning to reveal to customers the extent to which electricity cost can vary depending on usage patterns over time. Public policies and initiatives are opening the door for households to have more control over the source of their electricity—beyond retail choice—through distributed generation. Smart appliances, thermostats, and apps are giving residential customers more tools to control

¹⁹ Ahmad Faruqui, "An Economist's Dilemma: To PV or Not to PV, That Is the Question" (2016) Electricity Daily.

and customize usage patterns. Customers will still have the right to access reliable power supply. But these changes will continue to give households more power to optimize their individual electricity use, their cost of electricity, and their environmental footprint. Continued technology improvements and innovations will give rise to smart houses that better coordinate energy usage with customer preferences, and with electricity system and market conditions.

We also expect continued improvements in data exchanges from and to smart houses to give residential customers opportunities to capture value directly from wholesale electricity markets. This means that customers will not only react to wholesale market and system conditions, but they will actively participate in wholesale markets, through agents or technologies that allow customers to communicate and coordinate directly with market administrators and system operators. Not all customers will have the appetite for engaging in power supply decisions to this degree, but the newer generations of customers who are used to social media, fastpaced and complex communications, and a suite of apps to manage their lives will not find this so strange. Some customers will provide distributed generation and load reduction services to the grid and compete directly with more traditional forms of electricity supply to help reduce electricity production costs, contribute to the reliability of the system, and possibly reduce longer-term capital investment

In one vision of how this could evolve for a customer, customers would subscribe to a "baseline" load shape based on their typical usage patterns.²⁰ Customers could buy or sell deviations from the baseline on the wholesale sophisticated market, through energy management systems or agents. This was originally called demand subscription, but the idea has morphed into "transactive energy." This vision has gained some traction with millennials through wi-fi thermostats, digital appliances, and first-generation home energy management systems. Regardless of the specific method, we believe that in the future, the gaps among customers, retail markets,

and wholesale markets will be significantly reduced.

But this future cannot be realized if customers do not have even the basic information on how their usage patterns relate to the real cost structure of electricity. Customers cannot react to the high production and investment costs of electricity during peak demand periods if they are shielded from observing those costs at the point of consumption. Customers who are charged the traditional and mostly flat volumetric rate for electricity will be immobilized in the transactive energy future. They will not have the incentives or information necessary to lower their bills in an efficient manner, participate as valuable demand-side services in wholesale markets, or actively contribute to more efficient electricity production and investments in the future.

IV. Making the Transition to Advanced Tariffs

The challenge facing the utility industry is how to take the final steps in implementing mandatory (failing which, default) 3-part tariffs that more accurately reflect the cost structure of providing reliable electricity to individual residential customers. Some in the industry are prepared to take this step. But others are not. Even though advanced tariffs are already widely used for medium and large commercial and industrial customers across the country, there is debate whether they are well suited for residential customers. That is the case even though almost half of all customer meters have been replaced with advanced meters, which provide the necessary technology for offering advanced residential tariffs.

As discussed in this paper, the industry has acquired significant knowledge about customer response to smart tariffs, including E-TOU tariffs and to some extent three-part rates featuring demand charges. Some questions and uncertainties remain about how customers will react with full-scale deployment, but the industry's studies and experiences to date have shown that advanced tariffs do yield real and quantifiable efficiency benefits to customers. Despite this evidence,

²⁰ Stephen Barrager & Edward Cazalet, *Transactive Energy: A Sustainable Business and Regulatory Model for Electricity*, 1st ed, (Baker Street Publishing, 2014).

progress has been stymied because of persistent fears about a customer backlash or a failure to realize expected benefits. There are ways to overcome these fears, including:

- Customer bill impact studies. Utilities and regulators can conduct studies to understand how customer bills will change if the new rates are implemented and there is no change in customer behavior, i.e., the load profiles stay unchanged. These studies can help to identify how much bills will rise for small users. Then, utilities and regulators can find ways to mitigate these bill impacts. Some of these are discussed further below.
- Customer behavior studies. There are models available today for carrying out simulations on the impact of the rates to study the likely customer response. These models draw from findings in prior pilot studies.
- Customer outreach and education. Utilities can engage in a customer outreach programs to explain why tariffs are being changed and how the new tariffs will work. It will be important to ensure the new rates use clear and understandable language. Utilities can enlist neutral parties to endorse the change and they can use modern social media to spread the word. Tapping into the newer generations of technology-savvy customers will be crucial. Utilities can develop new and more efficient ways to communicate with their customers, help to develop apps and smart energy tools, and otherwise explore methods to enhance the customer experience with technology.

Here are some options for easing the transition:

- **Transition rates.** Utilities and regulators can design transition rates that change the rates gradually over a three-to-five year period.
- Bill protection. Alternatively, bill protections can be provided to customers that are gradually phased out over time.
- Add protections for sensitive customers.
 For the first five years, rates could be

optional for sensitive or disadvantaged customers, such as low income customers, small users, and disabled customers. Or, these customers could be provided financial assistance to them for a limited period of time.

- Provide additional information and options to customers. There may be ways to provide additional options for customer participation. For example, consider a subscription concept in which customers "buy" their historical usage and the historical price and buy or sell deviations from that usage at the new tariffs. This option would also help to transition into the fifth wave of tariff reform involving transactive energy which was discussed earlier.
- Empirical tests for customer response. Utilities can conduct additional pilots to test customer acceptance and load response to the new rates. The pilots should follow some basic precepts the industry has developed in the years prior. They should be carried out as scientific experiments, expected to yield valid inferences about energy conservation and demand response. The pilots should be designed to yield price elasticity estimates which would allow the results to be extrapolated to other prices than the ones being tested in the pilot. Customer samples should be of sufficient size to yield valid inferences about the population. Ideally, pilots should be designed to yield glean granular information by customer segment. Also, they should test the effectiveness of different marketing, education, and communication technologies.

Household electricity historically has been mostly a uniform commodity for consumers, indistinguishable by source or time of use. Traditionally, utilities could mostly price electricity as if it were a uniform commodity without harming their bottom line. A number of industry shocks and changes have made it clear that this status quo is not always best for customers or utilities, and that the status quo is not sustainable going into the future.

The first four waves of tariff reform have honed customer experimentation and enabled utilities to price electricity more efficiently as the diverse product it is. At the same time, customers are awakening to the diversity of electricity supply depending on location, time of day, and environmental attributes. There is still much work to be done to implement three-part rates for residential customers more broadly and get the best use out of smart grid investments we have made across the country.

The next wave of tariff reform is soon to come and it will empower customers with better tools and more information, enabling customers to contribute to efficiency improvements in power supply, and giving customers more control over the type and cost of power they consume. To address concerns over how customers might behave in this world, we can draw from significant experience in customer pilot programs.

ONTARIO COURT OF APPEAL CLARIFIES PRIVACY OBLIGATIONS FOR UTILITIES

Molly Reynolds*, Caitlin Morin** and Amir Eftekharpour***

Introduction

On August 10, the Ontario Court of Appeal released its decision in *R v Orlandis-Habsburgo (Orlandis).*¹ The Court held that a utility sharing residents' energy consumption data with police, which led to a search and criminal charges, violated the residents' reasonable expectation of privacy.

While *Orlandis* arose in a criminal context, the Court's decision will have two major implications for utilities. First, *Orlandis* contributes to a trend of increasing judicial recognition of the privacy concerns that arise from the collection, use, and disclosure of energy consumption data. While consumption data is seemingly of low sensitivity, courts have begun to recognize that sensitive inferences can be made from the otherwise potentially non-sensitive information. Second, *Orlandis* establishes new and additional obligations for private sector and public sector organizations that disclose energy consumption data to police or other third parties.

The Facts and the Decision

In *Orlandis*, the tenants of a home in Ontario operated a marijuana grow-op. Their energy provider, noting a pattern of electricity use consistent with the operation of a grow-op, forwarded information about the electricity

consumption to police. Using the information provided by the utility, the police obtained a search warrant for the residence, found marijuana plants and charged the residents with various criminal offences. At trial, the defendants argued that the police violated their right under section 8 of the Charter to be free from unreasonable search and seizure when they acquired energy consumption data from the energy provider without their consent or prior judicial authorization.

The trial judge rejected the defendants' argument that they had a reasonable expectation of privacy in their energy consumption data, holding that the data "did not go to the biographical core of personal, intimate details of the lifestyle and personal choices of the Applicants."

On appeal, the Court held that the defendants did have a reasonable expectation of privacy, and that the examination and use of the data by the police was not authorized by law. However, the Court ultimately refused to exclude the evidence obtained in the search, based on the state of the law at the time of the search.

Discussion

The *Orlandis* decision is notable for two reasons: the explicit recognition of a privacy interest in energy consumption data; and the

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¹ R v Orlandis-Habsburgo, 2017 ONCA 649 [Orlandis].

Court's comments on acceptable informationsharing relationships with authorities.

A Reasonable Expectation of Privacy

The Court of Appeal held that there is a reasonable expectation of privacy in energy consumption data for two reasons. First, energy consumption data is information capable of supporting inferences that certain activities are occurring inside a home. Second, the contractual relationship between the utility and the consumer was not inconsistent with a reasonable expectation of privacy.

Energy consumption data can yield sensitive personal information

The Court's conclusion that energy consumption data supports a privacy expectation is not a significant departure from the reasoning of previous courts.² However, the *Orlandis* Court's unequivocal acknowledgement of a privacy interest is a sign of the increasing jurisprudential recognition of the privacy implications of collecting, using, and disclosing energy consumption data.

While the trial judge in *Orlandis* found that electricity consumption information does not yield any meaningful biographical data, the Court of Appeal found that "the energy consumption data had a sufficient capacity to reveal personal activities within the home, particularly the existence of a marijuana growup, to potentially support the existence of a reasonable expectation of privacy." Ultimately, since the information disclosed included both the raw usage data and the inferences that can be drawn from that data, the Court held that the accused had a reasonable expectation of privacy in the energy consumption information.

Contractual relationships may support an expectation of privacy

In *R v Gomboc*, the Supreme Court held that the nature of the relationship between customer and utility did not support a reasonable expectation of privacy. In that case, the regulation governing the utility put the

onus on the customer to prohibit the energy provider from sharing information with police. Accordingly, the Supreme Court held that the customer could not have had a reasonable expectation of privacy.

In contrast, the Court of Appeal in *Orlandis* noted that the documents governing the relationship between the utility and the customer did not point away from a reasonable expectation of privacy. While the Court did not conclude that an expectation of privacy existed on the strength of the documents alone, utilities should take note of the Court's reasoning that the contractual relationship between the customer and the provider and the regulatory framework governing the services will aid in determining the conditions of collection, use, and disclosure.

In *Orlandis*, the utility's privacy policy referred to the use and disclosure of personal information only "for the purpose of providing the services,"4 with six exceptions for disclosure to third parties. Further, the utility's distribution license stated that the "Licensee shall not use information regarding a consumer...obtained for one purpose for any other purpose without the written consent of the consumer."5 The Court also found that Paragraph 4.3.1 of the Ontario Energy Board's Distribution System Code allowed disclosure of "possible unauthorized energy use" to Measurement Canada, the Electrical Safety Authority, police officials, and "retailers that service consumers affected by the unauthorized energy use, or other entities."6

Appropriate Information-Sharing Relationships with Police

The *Orlandis* Court focused in detail on the relationship between the utility and the police, and commented on the acceptable forms of information-sharing relationships between utilities and third parties.

In *Orlandis*, a revenue protection specialist employed by the utility monitored consumption data for patterns of "high" and "low" usage, and routinely shared that data with police

² R v Gomboc, 2010 SCC 55.

³ Orlandis, supra note 2 at paras 66-68.

⁴ Orlandis, ibid, fn 3.

⁵ Orlandis, ibid, para 87.

⁶ Ontario Energy Board, Distribution System Code, s 4.3.1.

when he became suspicious that the patterns indicated the presence of a marijuana growop. The utility and police ultimately developed a "usual practice" whereby the police would sometimes request information (often without a production order), and the utility would at other times volunteer the information without an initial request from police. These initial communications often led to more detailed requests for information, with which the utility always complied.

The Court assessed this information-sharing relationship in light of the utility's obligations under the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA),7 and the federal Personal Information Protection and Electronic Documents Act (PIPEDA).8 Both acts prohibit disclosure of personal information without consent, but contain exceptions permitting disclosure of personal information to the police in prescribed circumstances. While assessing the utility's information-sharing regime, the Court made comments that may restrict the scope of such statutory exceptions going forward. Those comments concern disclosure in response to a law enforcement request, and disclosure on the utility's own

Law Enforcement Requests

First, the Court considered the exception in section 7(3)(c.1)(ii) of *PIPEDA*, which permits disclosure without consent to a government institution that discloses its "lawful authority" to obtain the information. Section 7(3)(c.1) (ii) of *PIPEDA* requires the police request to be made "for the purpose of enforcing any law in Canada...carrying out an investigation relating to the enforcement of any such law or gathering intelligence for the purpose of enforcing any such law."

The Court recognized that *PIPEDA* requires the utility to maintain the confidentiality of its customers' information, absent a lawful demand by the police. The Court held that the informal practice developed by the utility and the police was inconsistent with the "lawful authority" requirements of *PIPEDA*.

Second, the Court assessed the informationsharing relationship in light of the law enforcement disclosure exception in MFIPPA section 32(g). The Court noted that the MFIPPA exception appeared broader than the exception in PIPEDA in that it did not require the police to identify a source of "lawful authority" to obtain the information. Rather, section 32(g) of MFIPPA permits disclosure by a public institution to police "to aid an investigation undertaken with a view to a law enforcement proceeding or from which a law enforcement proceeding is likely to result." There is no statutory requirement that the organization has reasonable grounds to believe the information relates to a crime, or that the information has been formally demanded by police.

However, the Court of Appeal narrowed the interpretation of MFIPPA to align with PIPEDA. The Court emphasized that the purpose of both statutes is to protect privacy, and that purpose would be negated by an overly broad reading of the exceptions to the requirement for consent to disclose personal information. Accordingly, the Court held that section 32(g) does not contemplate an ongoing arrangement for sharing of personal information with police. Indeed, the Court was explicit that section 32(g) does not contemplate the informal "usual practice" that had developed between the utility and police, where information was provided on the belief that the "police may have some interest in the information." Rather, MFIPPA calls for the public institution to make an independent and informed judgment - after receiving a specific request in the context of a particular criminal investigation - on whether to exercise its discretion to release the information.

Disclosure on the Organization's Own Initiative

Section 7(3)(d) of *PIPEDA* allows an organization, on its own initiative, to disclose personal information to a government institution on "reasonable grounds to believe that the information relates to a contravention of the laws of Canada."

The Court held that this provision did not permit the utility's informal information sharing arrangement with police. The utility had developed a practice of simply passing on the information if it thought the data

⁷ Municipal Freedom of Information and Protection of Privacy Act, RSO 1990, c M.56.

⁸ Personal Information Protection and Electronic Documents Act, SC 2000, c 5.

could interest the police. Section 7(3)(d), the Court stated, requires an organization to "make... independent decision[s] to disclose information, based on its conclusion that reasonable grounds existed to believe that the appellants were engaged in criminal activity." The Court noted that organizations could disclose information if they develop a formal policy permitting disclosure of energy consumption data or other information in the circumstances prescribed by *PIPEDA*, but did not weigh in on the elements of such a policy or the level of certainty required to establish "reasonable grounds" for the belief.

Consequences of the Decision

Organizations should take notice that the courts are increasingly willing to recognize that consumers have an expectation of privacy over their energy consumption data, which may outweigh the utility's or the public interest in reporting potential criminal activity to the police. Because of this expectation of privacy, utilities should carefully review their internal policies and procedures related to the disclosure of customer information to third parties.

Establishing Procedures for Disclosure to Third Parties

Law Enforcement

Orlandis suggests that utilities cannot simply pass on suspicious information or tips. The Court's decision suggests there is a heavy burden on both private sector organizations and public institutions to make independent factual and legal decisions that personal information of any level of sensitivity is evidence of criminal activity before providing such data to police.

Further, while the Court recognized that an organization may disclose information to police on its own initiative, it made clear that such voluntary disclosure must occur on the basis of reasonable grounds to believe the information relates to a crime.

Accordingly, organizations should develop clear and consistent policies for disclosing personal information that comply with the narrowly interpreted legislative disclosure exceptions. Employees should be specifically trained on what constitutes reasonable grounds to believe the information relates to a crime. Further, to best comply with the Court's comments on *PIPEDA* and *MFIPPA*, utilities should designate a dedicated privacy representative to manage any information-sharing regimes with authorities. The Office of the Privacy Commissioner of Canada has published guidelines on choosing a dedicated representative, identifying that they should be a "senior decision-maker" able to "intervene on privacy issues across the organization" and dedicate resources to implementation of privacy obligations.9

Other Third Parties

Utilities may be particularly concerned about their ability to disclose customer information to non-law enforcement third parties, such as landlords, given the risks that activities requiring significant energy consumption can pose to people and property. The trial judge in Orlandis noted that excessive energy use may pose fire and electrical hazards to neighboring dwellings, or cause significant damage to property. Accordingly, utilities may wish to disclose the unauthorized use to third parties such as landlord owners of tenant-occupied dwellings. As is clear from the Court's reasoning, the utility's contractual relationship with tenants and their individual distribution licenses with the energy regulator must outline the scope of disclosure in order to permit sharing with third parties. Utilities should review their privacy policies and licenses in order to give effect to these disclosure plans, while remaining cognizant of their obligations under applicable privacy legislation.

⁹ Office of the Privacy Commissioner of Canada, PIPEDA Self-Assessment Tool, (Ottawa, Office of the Privacy Commissioner
of Canada, 2008), online: .

ENERGY REGULATORS AND COST OVERRUNS: THE NOVA SCOTIA MARITIME LINK DECISION

Gordon E. Kaiser*

It is no secret that building energy infrastructure in Canada is difficult. Recently, TransCanada threw in the towel on the Energy East project after years of delay and opposition. The final straw was the National Energy Board decision to consider the cost of carbon emissions in determining whether to allow the project to proceed. A brand new unexpected criteria was too much for TransCanada.

The TransCanada decision on October 5 came only a few days after the decision of the Federal Court of Appeal ordering the Federal government to reconsider aspects of its approval of the Trans Mountain pipeline. That project has also faced years of delay.

It turns out that regulatory challenges are not over once the construction permit is granted. On both sides of the country major energy projects now face serious delays and cost overruns.

On the Atlantic, the Nova Scotia Utility and Review Board is dealing with the problems at the Muskrat Falls Generating station and the implications for the Maritime Link transmission line. On the Pacific, the British Columbia Utilities Commission is grappling with the Site C dam being built by BC Hydro. This Case Comment deals with the Nova Scotia decision. The BC inquiry is still before the Commission.

On 11 September 2017, the Nova Scotia Utility and Review Board issued its latest Decision in *Maritime Link*¹. This considered an application to approve an interim cost assessment starting January 1, 2018. The Nova Scotia Board first approved the Maritime Link project in 2013.² Later in 2016 the Board approved certain costs to be recovered in 2018 and 2019 rates.³ However the latest Maritime Link application faces a new challenge. There are serious cost overruns and delays at the Muskrat Falls generating station in Newfoundland.⁴

The Nova Scotia customers were not responsible for the cost overruns⁵ but the delay in constructing the generating station means that the Maritime Link transmission line will not become operational for another two years. That raises the question of whether the Maritime Link assets will be "used and useful"

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1. In the Matter of an Application by NSP Maritime Link Incorporated for Approval of an Interim Cost Assessment (11 September 2017), 2017 NSUARB 149.

² In the Matter of the Maritime Link Act and in the Matter of an Application by NSP Maritime Link Incorporated for Approval of the Maritime Link Project (22 July 2013), 2013 NSUARB 154.

³ In the Matter of a Hearing into Nova Scotia Power Incorporated's 2017-2019 Fuel Stability Plan and Base Cost of Fuel Reset under the Fuel Adjustment Mechanism ("FAM") as Required under the Electricity Plan Implementation (2015) Act (19 July 2016), 2016 NSUARB 129. The amounts including depreciation were \$162 million for 2018 and \$164 million for 2019

⁴ The cost overruns experienced by NALCOR on the Lower Churchill as of June 2016 had increased from \$7.4 billion to \$11.4 billion. *Supra* note 1 at 12, para 31.

⁵ The NALCOR cost overruns did not impacted Nova Scotia ratepayers because the agreement capped the NSPML exposure at \$1.5554 billion, *supra* note 1 at 13, para 33.

on January 1, 2018, when the new costs come into rates.

The Parties

By way of background it is useful to describe the parties and the contracts between them. The Maritime Link project involves the delivery of power from the Muskrat Falls hydroelectricity project in Labrador to Nova Scotia through to New Brunswick and northeastern US markets. The Maritime Link is being constructed by NSP Maritime Link Inc. (NSPML), a subsidiary of Emera Inc. The Muskrat Falls project is being developed by NALCOR, a Newfoundland and Labrador Crown Corporation.

Muskrat Falls

Muskrat Falls has a generating capacity of 824 MW. It is the first phase of the Lower Churchill project in Labrador which ultimately will have a capacity of 3000 MW capable of providing 16.7 TWh of electricity a year.

The Muskrat Falls project also includes the Labrador — Island link which will transmit power from Labrador to mainland Newfoundland and the ML project from Newfoundland to Nova Scotia. When both links are in place Newfoundland will become part of an interconnected North American transmission system through the Nova Scotia-New Brunswick intertie and New Brunswick interconnections with the US.

The Maritime Link

The physical Maritime Link covers 360 km including 170 km across the Cabot Strait interconnecting with existing transmission lines at the Bottom Brook substation in Newfoundland and the Woodbine substation in Nova Scotia.

The Nova Scotia Board was required to approve the Maritime Link project if it was satisfied that the project would provide lowest-cost alternative for Nova Scotia ratepayers and was consistent with its obligations under the specified legislation. As indicated that approval was granted by the Nova Scotia Board in 2013.

The Contracts

Under the contractual arrangements NSP Maritime Link Inc. (NSPML) will pay 20 per

cent of the cost of the Muskrat Falls project and in return will receive 20 per cent of the output of Muskrat Falls for 35 years. This commercial arrangement between NSPML and NALCOR has been described as the 20-20 principal.

In the first years of the operation of Maritime Link, NSPML will receive an additional block of electricity. This additional block and NSPML's 20 per cent share of the output from Muskrat Falls are together defined as the NS block to be delivered to Nova Scotia Power for distribution to Nova Scotia Powers customers The NSPML costs of the Maritime Link project will be recovered from Nova Scotia consumers in the rates charged by Nova Scotia Power.

The Maritime Link facilities will have an expected service life of 50 years. NSPML would own the facilities during the first 35-year period at the end of which ownership will be transferred to NALCOR. To compensate for the 15-year differential for the first stage of the operation of the Maritime Link, NALCOR would supply NSPML with an additional 240 GW per year referred to as Supplemental Energy.

The Delays at Muskrat Falls

At the time of the 2013 application it was assumed that the NS block of energy including Supplementary Energy as well as the NALCOR market price energy would start flowing over the Maritime Link in the autumn of 2017. It was on the basis of this representation that the Board determined that the Maritime Link project would be the lowest long-term cost alternative for the ratepayers of Nova Scotia.

In the latest application NSPML seeks to start recovering all of its costs by way of an interim assessment as though the Maritime Link would be fully operational as planned.

The difficulty with that claim is the new delay in completion of the Muskrat Falls generation station until 2020. Originally the construction of the Muskrat Falls generation station was to be concurrent with the Maritime Link.

The real issue before the Board in the latest application is that given the delay at Muskrat Falls and the resulting delay in Maritime Link operations, the Maritime Link assets may not be "used and useful "as originally contemplated. Put differently, should there be a reduction in

the interim assessment as a result of the delay in the delivery of the power and/or should the Board approve different costs relating to Maritime Link? Or should there be reduction in the interim costs initially approved and should the ratepayers of Nova Scotia receive a refund?

The Board set out the following issues in this proceeding:

- Will the Maritime Link deliver energy to Nova Scotia ratepayers as originally contemplated? If the answer is no, is the Maritime Link used and useful?
- Should there be a reduction in the interim assessment as a consequence of delayed delivery of the NS Block?
- Should the Board approve the deferral of certain costs related to the Maritime Link Project?
- What interim assessment should the Board set against NSPI respecting the amounts requested by NSPML for 2018 and 2019?
- Should the Board approve the accounting policy amendments requested by NSPML?
- When should the Final Assessment hearing be held, and what should the scope of that hearing be?

The Decision

The legal arguments turned on the used and useful principle and the prudence principle. Those claiming that there should be no reduction in the interim assessment argued that the investment was prudent at the time it was made and no reduction was called for. The consumer groups argued that the two-year delay meant that the Maritime Link was not used and useful.

The Board in its findings at page 23 of the Decision noted that in traditional rulemaking cost recovery is only available when it meets two conditions. First, the costs must be prudently incurred and second, the assets invested in must

be used and useful.

None of the interveners argued that investment decision was imprudent. Nor was it imprudent to continue with the construction of Maritime Link in the face of the now announced delay in the completion of the Muskrat Falls generating station. The Board agreed the cost of halting construction of the Maritime Link would clearly exceed the benefits.

The "used and useful" question was however more complicated. The Applicant claimed that the investment was prudent and the assets were therefore used and useful. The Intervenors disagreed. The Board carefully reviewed the jurisprudence and concluded it had "considerable discretion" in deciding the issue stating:

[67] Kaiser and Heggie⁶, supra, at p 202, state that boards and other regulatory authorities have been given "considerable latitude" in determining whether assets are "used and useful" with respect to a utility's ability to recover its costs for the construction of assets. As an example, they refer to the judgment of the Alberta Court of Appeal in Alberta Power Limited v. Alberta Public Utilities Board, 1990 ABCA 33 (CanLII), leave to appeal refused (1990), 110 A.R. 399 (note), 110 A.R. 400 (note) (S.C.C.). In Alberta Power, that Board considered whether certain transmission assets were "used and useful" and could be included in rate base, applying the rate base methodology set out in s.82 of the Public Utility Board Act, R.S.A. 1980, c. P-37, which provided: 82(1) In fixing just and reasonable rates, tolls or charges or schedules of them, to be imposed, observed and followed thereafter by an owner of a public utility, the Board shall determine a rate base for the property of the owner of a public utility used or required to be used to provide service to the public within Alberta and on determining a rate base it shall fix a fair return on the rate base.

[68] The Alberta Public Utilities Board denied the inclusion of certain assets into rate base because it found that the assets were not required, including a tie-line between Saskatchewan and Alberta. The Board concluded that the tie-line was being used to provide additional reserve capacity to Saskatchewan, applying the "used and useful" test:

⁶ Gordon Kaiser & Bob Heggie, Energy Law and Policy (Toronto: Carswell, 2011) at 202.

[45] The phrase "used or required to be used" is well known in the field of utility regulation.

[46] Much of the argument before us was directed to a consideration of whether that expression is conjunctive or disjunctive. More significantly, it was directed to the proposition that if an asset is in fact "used"

[47] The case law, and common sense, dictate that there may be assets included in a rate base which are not in actual use such as standby equipment, and the phrase is often used disjunctively to recognize that situation. On the other hand, mere use is not sufficient to burden consumers with the cost. Clearly the consumer need not bear all the costs of an asset which is used if, for example, it reflects an imprudent expenditure. Assets unnecessarily used are not, simply by use, put into the rate base. Without putting too fine a point on interpretation we conclude that even if an object is used it must also be required. If it is not in actual use, it must nonetheless be required. The expression may be construed both disjunctively and conjunctively. We are supported in that view by American case law as well as by a consideration of the object of utility rate regulation.

[48] There are many decisions in the United States dealing with this terminology and a similar expression "used and useful".

[49] The phrase "used and useful" has come to import a measure of flexibility in determining when assets may be brought into the rate base. "Used and useful" may be viewed as both conjunctive and disjunctive: Used and Useful: Autopsy of a Ratemaking Policy, (1987), 8 Energy Law Journal 303.

[50] The object of these kinds

of provisions is to recognize the need of utility operators to acguire property in advance of actual need while, at the same time, recognizing that ratepayers need only pay a return on that property from which they have a reasonable guarantee of receiving service: Central Maine Power Company v. The Public Utilities Commission et al. (1981) 433 Atl. R. (2nd) 331 (Supreme Court of Maine).

[51] Once the interpretation is determined, whether a particular item is to be brought within the rate basis is essentially a question for the judgement of the board which does not involve a question of jurisdiction or law: *B.C. Hydro and Power Authority v. The West Coast Transmission Co. Ltd., et al.* (1981), 36 N.R. 33 at 56. [Bolding in original, underlined emphasis added] [Alberta Power, paras. 45-51]

[69] With respect to the specific issue of the tieline between Alberta and Saskatchewan in that case, the Appeal Court found:

[53] This is a line which supplies the Saskatchewan Power Corporation with power generated in Alberta. It connects the Alberta Interconnected System (A.I.S.) with the Saskatchewan Power Corporation (S.P.C.) facilities. S.P.C. is to pay the carrying costs of this line until the end of 1994. The line may be used to generate revenue for the Alberta system as a whole, to provide an alternative inter-provincial connection to that with B.C. Hydro and to give flexibility.

[54] Alberta Power Limited claims that it comes within the concept in s. 82 because the tie provides benefits and is used or required to be used to obtain those benefits.

[55] The board did not err in deciding that the property was neither used or required to be used to provide service to the

public within Alberta. There may be some benefit to the public within Alberta but that does not, on itself, justify the bringing of the asset into the rate base at this time.

[56] This is a classic example of the need for the regulatory agency to balance interests between utility investors and the consumers. No question of law therefore arises on this point.

[Alberta Power, paras. 53-56]

[70] Another decision noted by Kaiser and Heggie, supra, is British Columbia Hydro & Power Authority v. Westcoast Transmission Co. (1981), 36 N.R. 33 (Fed. C.A.); leave to appeal refused (1981), 37 N.R. 540n (S.C.C.). In that case, B.C. Hydro, a customer of Westcoast Transmission, opposed tolls before the National Energy Board (NEB), in part because it asserted certain assets that were included in rate base were not "used and useful". Again, the authors note that the Court provided "considerable discretion" to the NEB. In confirming the NEB's decision, the Court stated:

The question of what items should be included in a rate base is one for the judgment of the Board. In reaching that judgment, the Board is without doubt entitled to use as a guide, if it sees fit, the test of the present use or usefulness of the items sought to be included in providing utility service. But there is no rule of law that such a test must be used or followed or that it is the only principle that can be applied. Nor does it follow that the use of other principles in determining a rate base will result in tolls that are not just and reasonable. There is accordingly, in my opinion, no basis for regarding these objections as raising questions of law or jurisdiction on which the Court should or might

properly intervene.

In the end the Board found that the assets were used and useful at least in part.

However, the Board noted that this was not the end of the matter. There was still the question of whether the rates were "just and reasonable". Part of the interim costs were already in rates as a result of the 2016 decision.

In the end the Board made a number of adjustments, some of which were proposed by the Applicant. The Board in the final Decision ruled that:

The Board approves the interim assessment, subject to deferral and refunding to customers of depreciation and deferred financing amortization costs;

NSPI must holdback \$10 million in both 2018 and 2019, subject to proof satisfactory to the Board that a minimum of \$10 million per year in Maritime Link benefits are realized for NSPI ratepayers;

The Board is not prepared to approve final assessment until it is confident ratepayers will get NS Block, Supplemental Energy, and Nalcor Market-priced Energy.

Reductions in the Interim Assessment

The Nova Scotia Board in this case came to the conclusion that given the lack of any finding of imprudence it was not appropriate to arbitrarily reduce the interim assessment.

The Board did however deal with two concerns. The first was whether the delays deprived the Nova Scotia ratepayers of the benefit they had been promised. The Applicant took the position that the delays did not impose any burden on ratepayers. The Board rejected that submission and concluded at paragraph 121 that a conservative estimate suggests that there was at a minimum an annual benefit of \$10 million for the ratepayers of NSPI. Accordingly the Board developed the holdback mechanism set out in paragraph 121:

[121] A conservative estimate of the benefit of the Maritime

Link based on all of the evidence, without any accounting for the deferrals, is a minimum annual benefit of \$10 million for the ratepayers of NSPI. The benefits to be achieved from the use of the Maritime Link are those outlined in paragraph 114 above. In order to incent the achievement of those conservatively estimated benefits and to, in a modest way, take account of the risks outlined in paragraph 336 of the 2013 Board ML Decision, NSPI is directed to hold back \$10 million from the assessment in each of 2018 and 2019. At the end of each year, NSPML and NSPI are directed to provide proof satisfactory to the Board that a minimum of \$10 million per year in benefits has been achieved. If the \$10 million in benefits is achieved, the Board will direct NSPI to pay the \$10 million to NSPML. If the \$10 million in benefits is not achieved, then NSPI is to pay, on the direction of the Board, only that portion of the \$10 million that is achieved and the balance will be refunded to ratepayers through the FAM. NSPI and NSPML have suggested the benefits could be significantly more than \$10 million. Of course, NSPML and NSPI are obliged to realize any and all benefits over \$10 million per year that are prudently achieved in the interests of ratepayers.

The other adjustment related to depreciation expense and involved concessions by the Applicant.

The original application had included depreciation expenses in the interim assessment amount of \$51 million for each of 2018 and 2019. The Board had a concern about intergenerational equity as a result of the two-year delay given that there would be a delay in the benefits to certain classes of ratepayers.

In response NSPML agreed to defer \$51 million depreciation expense from each of 2018 and 2019 and to defer approximately \$1.5 million in deferred financing amortization expense in each of those two years.

Accordingly NSPML agreed to defer collection of Maritime Link depreciation expense to 2020 when the NS block was scheduled to start delivery. NSPML reduced its proposed Maritime Link interim assessment by \$52.5 million for each of 2018 and 2019 resulting in a revised assessment amount of \$109.5 million for 2018 and \$111.5 million for 2019. NSPI proposed to return these deferred collections including interest to ratepayers. The proposed on bill credit would return 2018 and 2019 Maritime Link depreciation and deferred financing amortization amounts being collected from NSPI to ratepayers through the RSP.

Conclusion

This was a difficult case requiring a careful balancing of the interests between all parties. The holdback scheme developed by the Board was an interesting and novel approach that successfully addressed the concerns going forward without prejudging the result. This was after all a case where the delays were not the result of any actions by NSPML and Maritime Link.

The deferral of depreciation is explained by the fact that the 35-year term of NSPML ownership only commenced upon delivery of the Nova Scotia Block. The delay does not affect the term. Nova Scotians get the Nova Scotia Block for the contracted 35 years. The 35 years will just commence later.

It was also fortunate that the cost to the ratepayers was limited to the cost of the delay and did not involve bearing any part of the cost of the cost overruns experienced at Muskrat Falls. Those cost as indicated above were capped in the original contracts.

ARBITRATION LAW OF CANADA: PRACTICE AND PROCEDURE

(THIRD EDITION)

by J. Brian Casey Juris Publishing Inc.

Reviewed by Gordon E. Kaiser*

Most disputes in the energy sector are ultimately resolved by either a regulatory agency or an arbitration panel. The courts are generally a distant third. Regulators have the primary jurisdiction but the majority of the contract disputes end up in the hands of the arbitrators.

Arbitration has grown tremendously over the last 20 years particularly domestic energy arbitration. That is why the latest book by Brian Casey will be of particular interest to Canadian energy lawyers.

September 10, 2016, was an important day in Canadian arbitration circles. On that day Brian Casey sent the third edition of *Arbitration Law of Canada, Practice and Procedure* to the publishers in New York. The Red Book, as we know it, has become a staple in Canadian arbitration. It is the Bible for both arbitrators and counsel alike.

The book has grown a bit since the first edition in 2004 and the second edition in 2011. The first edition was only 358 pages. The second was 459 pages. Now it is 578 pages.

Those pages do not include the appendices which are very useful despite the additional size

and weight. Those appendices were crucial to the initial success of this book and they remain crucial. This book is one stop shopping. The appendices include all the necessary references to the relevant statutes and rules.

One of the features that is unique to this book and likely one of its most important features are the Practice Notes. This is not something you see in every book. The Practice Notes are invaluable whether you are a young counsel starting out or a senior arbitrator hobbling into the hearing room. The number of Practice Notes has grown over the years but they remain concise and up to date.

The frequent updating is important and rare. Few arbitrators as busy as Brian Casey could write three editions of a book this size in such a short time. In every edition Brian thanks Eva for putting up with countless lost evenings and weekends without complaint. We should be the ones thanking Eva.

The third edition has the same 10 chapters as the first edition. They were the basics in 2004 and they remain the basics. Casey has avoided the temptation to wander into the esoteric.

More international content has however crept

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into the book. That may be because there are more international arbitrations today. Or Canadians are getting more international cases. It really does not matter. The increase in international content is also important.

There are differences in domestic and international arbitration. This stands out in Chapter 10 which deals with the recognition and enforcement of awards. The Casey chapter on this subject is as good as any on this subject.

If you cannot enforce the award there is no point having the arbitration. Here there are real differences between international and domestic arbitration and a growing army of lawyers and investigators with novel set aside claims.

Both counsel and arbitrators should buy this book. As quickly they can. In fact they should buy two. Somebody will borrow one and never give it back.