

A multi-channel stakeholder consultation process for transmission deregulation

Robin Gregory^{a,*}, Baruch Fischhoff^b, Sarah Thorne^c, Gordon Butte^c

^a Decision Research, 1160 Devina Drive, Galiaro, B.C., Canada V0N 1P0

^b Carnegie Mellon University, Pittsburgh, USA

^c Decision Partners, Inc., Pittsburgh, USA

Abstract

Deregulating Ontario's energy market required designing a rate structure for transmission costs that previously had been bundled with other electricity services. The Ontario Hydro Networks Company (now called Hydro One Networks, or "Hydro One") owns and operates the transmission lines. It sought input from a full spectrum of stakeholders in preparing a proposed rate structure for submission to the regulator, the Ontario Energy Board (OEB). Securing that input meant accommodating great differences in stakeholders' familiarity with the (often highly technical) issues of rate setting. Hydro One drew on recent developments in stakeholder processes, integrated assessment, and risk communication to create a multi-channel process for eliciting and responding to stakeholder input. That process included (a) detailed background documents, (b) dedicated briefings and workshops, (c) *mental models* interviews, (d) focused meetings, and (e) mail (and email) boxes. The process was coordinated with a formal *expert model*, summarizing the factors determining the multiple impacts of the rate structure and the regulatory process producing it. The model analyzed these impacts, structured communications, and organized inputs, in a comprehensive and coherent way. This process facilitated developing proposals that were both technically sound and widely accepted by stakeholders, including the OEB. The case study provides a model for addressing other problems requiring stakeholder input on complex technical issues. It contrasts with other consultative processes with a less formal structure for eliciting concerns, less ability to encourage learning, and greater emphasis on achieving consensus.

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1. Introduction

Increasingly, government and industry bodies are being asked, or required, to involve a broad range of stakeholders in their decision-making processes. Endorsements of such involvement include the US [National Research Council \(1996\)](#), [Institute of Medicine \(1998a, b\)](#), and [Presidential/Congressional Commission on Risk \(1998\)](#); [Health Canada \(2000\)](#); the Canadian Standards Association (1997); the [UK Health and Safety Executive \(1999\)](#), [UK Royal Commission on Environmental Protection, 1998](#), and [UK Parliamentary Office of Science and Technology \(2001\)](#). Each report calls for consulting with stakeholders early and often, beginning with the formative stages of project development.

Expanded participation necessarily brings some stakeholders into unfamiliar situations, often highly complex ones (e.g., siting decisions, healthcare policies). As a result, making participation informed and meaningful poses a significant challenge. Unless that challenge is met, there is the short-term risk of ineffective choices and the long-term risk of disillusioning stakeholders. "Participation" may be seen as a charade, representing the sort of pseudo-democratic management long known to undermine morale ([Katz and Kahn, 1966](#)). As a result, significant stakes ride on the technical execution of stakeholder involvement.

This article considers the design of such processes, focusing on a case study of a pivotal point in deregulating Ontario's energy market: determining the rate structure for transmission services. The next section (Section 2) describes the policy context. It is followed by a discussion of the principles guiding the design of the participation process (Section 3) and a description of its specific elements (Section 4). The concluding sections

*Corresponding author. Tel.: +1-250-539-5701.

E-mail address: rgregory@interchange.ubc.ca (R. Gregory).

consider the recommended rate structure (Section 5), as the process is reflected in them, and (Section 6) the approach's generalizability.

2. Problem context

Ontario, like many other jurisdictions in North America and Europe, has been dramatically deregulating its electricity market. In November 1997, the provincial government issued a White Paper, establishing a Market Design Committee (MDC) composed of stakeholder representatives entrusted with creating the rules for allowing a competitive electricity market to develop. It was followed, in October 1998, by the *Electricity Act* outlining goals for that market, including: (a) protecting consumer interests regarding the price, reliability, and quality of electricity service; (b) promoting economic efficiency in transmitting and distributing electricity; (c) providing non-discriminatory access to transmission and distribution systems in Ontario, and (d) facilitating energy efficiency and the use of environmentally benign sources.

The transmission and distribution assets of Ontario Hydro, the provincial utility, were assigned to Hydro One (then called Ontario Hydro Networks Company), with Ontario Power Generation taking over the production assets. On March 31, 1999, the Ontario Energy Board (OEB) issued a Transitional Rate Order, giving Hydro One 6 months to produce a comprehensive tariff for its services, which previously had been bundled with overall electricity charges. In a cover letter, the OEB stipulated both process and substantive requirements. It required the process to be "cognizant of the diverse stakeholder views on many elements of the tariff" and to ensure "appropriate commercial incentives in the evolving market".

Meeting these requirements meant demonstrating that all those interested in electricity transmission rate design had both access to relevant information and opportunities to express their views. That meant consulting diverse constituencies regarding complex, novel, technical topics that raised complex economic, health, environmental, and social equity issues. Hydro One hired Thorne Butte: Decision Partners Inc. to help design and implement a suitable process. The resulting approach embodied two fundamental criteria:

- (1) *Technical competence*: In order to ensure that the proposed transmission tariff made technological, social, and economic sense, the process began by creating a decision analytic representation of the potential impacts of alternative rate structures. It was used both to create explanatory communications and to encode stakeholder submissions in a

transparent, consistent, and coherent way, compatible with regulatory law.

- (2) *Stakeholder accessibility*: Given stakeholders' diverse circumstances (e.g., technical background, geographical location, resources for participation), a *multi-channel* consultation process was created. It allowed stakeholders to choose the intensity and knowledge level at which they wanted to participate. The process included workshops, tutorials, mail (and email) boxes, and *mental models* interviews (explained below) with representative stakeholders.

The overall goal was to provide a structured, transparent approach for eliciting input from public and technical participants that fostered informed perspectives and encouraged dialogue.

3. Consultation process

3.1. Design philosophies

The design of a consultation process can begin with an issue or a method. Method-driven processes are often rooted in the "alternative dispute resolution" movement, which promotes negotiation as an alternative to litigation (and other forms of overt conflict). Success means achieving broadly accepted, socially "legitimate" conclusions (e.g., Peelle, 1988). Fiorino (1990) offers a comprehensive review; Canada National Round Table on the Environment and the Economy (1993) offers typical summary principles. These include having a "self-designed process" and involving "all parties with a significant interest" in the matter.

Although appealing, such openness can be difficult to achieve, even when stakeholders are deeply committed to making it work. One common problem arises when stakeholders have unequal expertise. Meaningful dialogue requires a shared body of essential facts. That is hard to achieve in the context of decisions with multiple consequences and significant uncertainties. Even when participants understand the subject matter, they may have limited expertise in policy making. Inexperienced participants may, in good faith, advance proposals that violate principles of good decision making. For example, they may insist on including overlapping objectives and double counting benefits or costs. Or, they may focus on concerns (e.g., environmental impacts, economic costs) that vary little across the policy alternatives and hence fail to distinguish among them.

A blanket commitment to openness can mean including more people than can productively interact. Rossi (1997) describes the tradeoff between breadth and depth, with broader participation making it harder to get to the bottom of issues. He worries that "more participation may lead to information overload,

encouraging poor analysis, superficial examination of alternatives”, and, in the extreme, having “bad information drive out the good” (p. 216). Finally, consensus-driven processes cannot accommodate stakeholders with significant differences or deep-seated conflicts (Gregory et al., 2001).

We have adopted an alternative design philosophy. It begins by analyzing the technical issues, then creates a structured process for involving stakeholders with them. That means identifying their key concerns, providing relevant information, ensuring equivalent access, and focusing deliberations on critical tradeoffs. Structured processes risk sins of commission, in the sense of potentially manipulating the results, rather than sins of omission, created when unstructured processes leave participants to fend for themselves on uneven ground. The philosophy adopted here seeks a balance, by encouraging maximum participation consistent with fidelity to the issues. To these ends, it combines formal analysis and behavioral research. We believe this to be the preferred compromise for responsibly accommodating diverse stakeholders with technically demanding issues.

3.2. Design criteria for the Ontario transmission rate design process

Strategic principles for the Hydro One stakeholder consultations were established in conjunction with the OEB and the Ontario Ministry of Energy, Science, and Technology. They included *process* objectives, such as “establish clear consultation objectives” and “support dialogue with accessible information”, and the focal *outcome* objective of producing a broadly acceptable transmission rate design. These principles were widely disseminated, along with a description of the process, which reflected them in three specific ways:

- (1) *Demonstrated attention to stakeholder concerns.* All stakeholder inputs were translated into a common analytical framework, the *expert model* described in Section 4.1. Initially derived from technical specialists’ concerns, the model was expanded to include issues raised by other stakeholders. Coding all inputs into the expert model demonstrated that stakeholders’ concerns had been understood and could be accessed systematically when Hydro One considered each issue. The coding said, however, nothing about the accuracy or importance of stakeholders’ concerns, leaving the issues to be resolved when the rate design was developed. Having a common framework also facilitated comparing stakeholders’ proposals with Hydro One’s proposed rate design, showing that Hydro One is also a stakeholder.
- (2) *Equal access.* Multiple communication channels were created, allowing stakeholders to tailor participation to their interests and needs. These sought to serve the diverse needs of veteran stakeholders, accustomed to privileged access, and new ones, wary from past experiences and sensitive to imperfections. We aggressively recruited participants who would raise the full range of views¹ and encouraged them to express themselves freely, while discouraging premature pressure for consensus. Providing meaningful access required concerted efforts to ensure technical understanding of the issues. To these ends, Hydro One’s professional staff provided important guidance on the implications of alternative positions.
- (3) *Learning.* The process acknowledged the parties’ need to learn from experience, and from one another, as this social and regulatory experiment proceeded. Hydro One consulted iteratively with stakeholders, often multiple times, as rate proposals evolved. Stakeholders, in turn, heard diverse views, which were often unfamiliar and sometimes inconsistent. The rate proposal itself included explicit learning mechanisms, recognizing the likelihood of surprises with a novel pricing system—as did Hydro One’s organizational goals and practices in its new, deregulated world (e.g., Argyris and Schon, 1978; Leeuw and Sonnichsen, 1988). In such circumstances, participants may need help articulating the implications of their general values for necessarily unfamiliar specific questions (Fischhoff, in press). To this end, we used decision-analytic techniques such as value trees, influence diagrams, and means-ends networks (Fischhoff, 2000; Keeney, 1992; Schacter, 1986).

4. Key consultation design features

4.1. The expert model

As a coordinating device for the consultation process, we created an *expert model* of the factors determining the impacts of alternative transmission rate designs. Shown in Fig. 1, the expert model loosely adopts the form of an influence diagram (Schacter, 1986), connecting two variables with an arrow whenever knowing the value of the variable at the tail would influence estimates of the variable at the head. The values of the variables, and predictions of the model, vary with the rate design being analyzed and one’s beliefs about it. The formal structure of the model is compatible with quantitative

¹ Involving a wide spectrum of participants and viewpoints is one way in which this process differs from consensus-based approaches, which typically avoid less tractable issues and work with participants selected (at least in part) for their ability to work well with others and accept a common recommendation. We thank John Kadvanly for clarifying this point.

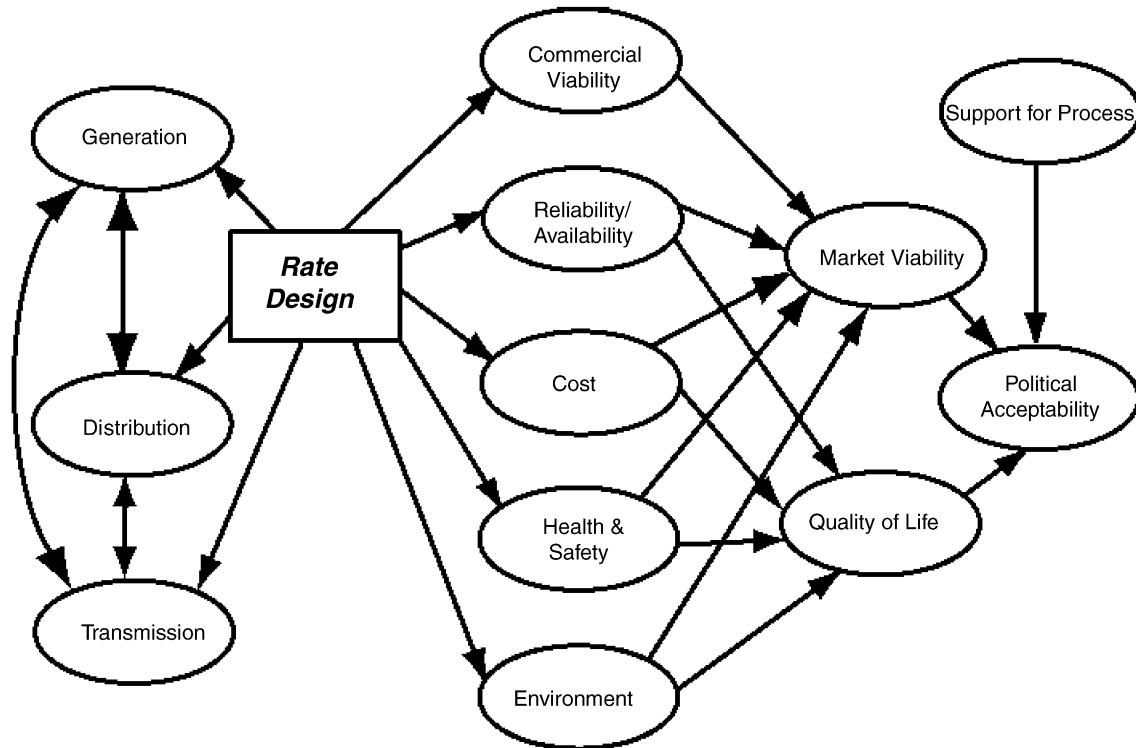


Fig. 1. Expert model for consultation process.

analyses. However, the data demands of that step are very large—and unwarranted in a context with the primary goal of getting diverse parties “on the same page” regarding a complex problem. To that end, the present model served to coordinate technical experts’ beliefs, focused on the impacts that matter to stakeholders. As the consultation continued, the model was elaborated to incorporate new issues, as those arose.

As shown in the expert model (Fig. 1), rate design has both direct effects and indirect ones, through changes to Ontario’s power system. These effects include changes in (a) cost, health, safety, and environmental conditions; (b) the cost, reliability and availability of electric power; and (c) the viability of commercial enterprises in Ontario. They will have aggregate effects on the quality of life in the province, hence on support for the rate-design process and product. Estimating these effects for a particular rate design requires pooling the best-available scientific research and expert judgment. Evaluating the attractiveness of that set of effects requires applying stakeholder values to them.

Similar models (not shown here) were developed for the indirect effects of transmission rate design and the consultation process itself. In each case, the study team had to make tradeoffs between accuracy and comprehensibility (i.e., the more detail in the model, the greater stakeholders’ interpretive effort; Payne et al., 1993).

4.2. Mental models interviews

In order to hear stakeholder views in depth, we conducted 79 intensive, one-on-one, confidential interviews. We used a semi-structured interview protocol, designed to elicit beliefs in a form that allowed comparison with the expert model, while preserving respondents’ intuitive formulations. After very general questions (e.g., “tell me what you’ve heard about changes in Ontario’s electricity situation”), the interviewer asked gently probing questions about each major topic in the expert model. Respondents were asked to elaborate on each issue that they addressed, so that as much as possible would come from them. Each interview concluded with structured questions on topics of particular interest to Hydro One or the OEB. Placing these questions at the end avoided having them shape respondents’ views or train of thought.

This protocol sought to reveal participants’ individual “mental models”, while allowing analysis in terms of a common set of issues (Bostrom et al., 1992; Fischhoff, 1998; Morgan et al., 2001). It was chosen over a survey as better able to frame an emerging and controversial issue and more likely to build trust, as part of the multiple stakeholder consultation process.

Sample sizes followed conventional criteria for qualitative research designed to capture views held by any significant portion of the population (e.g., 50 interviews have about a 50% chance of eliciting at least

once any view held by 2% of the population). More accurate estimates of belief prevalence are better estimated with structured surveys, informed by semi-structured interviews identifying relevant issues and familiar language. Given the multiple channels available to stakeholders, a larger survey was not conducted.

The first 49 interviews involved stakeholders already central to the process. Participants were randomly chosen from a stratified list of more than 500 individuals or organizations, provided by Hydro One. The sample was 26% non-governmental organizations (NGOs), including industry associations, small commercial end users, First Nations, consumer groups, and marketers; 32% Municipal Electrical Utilities (MEUs); 36% users connected directly to transmission lines; and 6% directly connected generators.² The remaining interviews involved 20 randomly selected citizens in two Ontario towns, Barrie and Thessalon, and 10 MEU commissioners. Interviews ranged from half an hour to two hours, depending on how much respondents had to say.

The interview transcripts were coded into the nodes of the expert model. In order to ensure reliability, an initial set of interviews was coded independently by two individuals; differences were reconciled, and the resolution rules incorporated in the coding instructions. Periodic checks were designed to reduce drift in coding. Although complete reliability statistics were not compiled, in similar studies they are typically high (in the 0.8–0.9 range) owing to the clarity of the coding scheme (i.e., the expert model) (Morgan et al., 2001). The coding included all statements referring to rate factors (e.g., time of usage as related to peak electricity demand), possible consequences (e.g., economic, social, environmental, political), objectives (e.g., reliability, quality of service, competitiveness), and stakeholder groups. The precision of these concerns varied widely. Some were general principles (e.g., advocating “user pays” for benefits or “postage stamp” equality of rates), others were specific concerns (e.g., “I want to receive my bill once a month”), and still others expressed vague fears (e.g., “I want to know that my rates won’t be going up over the next five years”). The coding involved no interpretation (beyond clarification) and no evaluation for accuracy.

All results were reported in aggregate, keeping respondents’ identities confidential (beyond revealing the initial list of 500). These summaries were sufficiently detailed for Hydro One staff to understand the issues being raised. The coding structure allowed retrieving comments on any topic, demonstrating attention to

stakeholder input, and organizing often chaotic input. A measure of its success is being referred to throughout the consultation process and the OEB’s review.

4.3. Stakeholder workshops

Two workshops provided forums for direct dialogue with Hydro One and other parties. The first workshop (with 158 registered participants) focused on rate design priorities, taking advantage of the initial 49 interviews. The second workshop (with about 125 participants) focused on a few rate design options, incorporating input from the first workshop.

Workshop 1: Rate design priorities. The first workshop sought stakeholders’ orientation toward rate design in general and eight design issues (see Section 5.2) in particular. Prior to the workshop, Hydro One sent each participant *Transmission 2000*, a widely distributed report describing the regulatory context and the eight design issues. The workshop began with an overview of the multi-channel consultation process, a discussion of stakeholder inputs to date, including the mental models research (citing areas of agreement and disagreement), and an open session for stakeholders to hear one another. Participants then broke into six self-selected breakout groups, focused on different rate-design issues. Their conclusions (both agreements and disagreements) provided a common frame of reference for the final plenary session. Throughout, Hydro One staff listened to stakeholders, answered questions, and solicited needed clarification.

A facilitator led each breakout group, using a “consequence” matrix showing alternative rate design options as columns and stakeholder concerns (as identified in the mental models interviews as rows) (Hammond et al., 1999). Participants first discussed the options, in order to ensure a common definition. They then considered how well each option addressed each concern and, finally, evaluated the relative importance of the concerns. This cognitively demanding exercise appeared to help participants clarify their positions, while providing Hydro One with a reading of those emerging views. It was, however, frustrating for some stakeholders, who preferred to express their views directly, with less analysis and structured elicitation.

Workshop 2: Review of rate design proposals. The second workshop considered a narrowed set of rate options, whose development reflected stakeholder input. Participants received estimates of the options’ anticipated impacts, produced by Hydro One staff, in consultation with a technical Advisory Committee, comprised of representatives from key stakeholder groups. After reviewing these estimates, the meeting considered ten principal issues (described below), focusing on two: (a) *net vs. gross load billing* (which concerns

² Connection facilities include the lines and transformer facilities that deliver power from the transmission system to specific “wholesale” customers. Those are either Directly Connected Customers (DCCs), or large industrial users, or Local Distribution Companies (LDCs), or distribution service providers.

the responsibility of existing customers who install self-generation for maintaining the transmission system), and (b) *specific charge determinants* (e.g., the treatment of coincident and non-coincident peak demands). Eight users groups made formal presentations (after signing up in advance).

There were also six roundtable sessions with members of First Nation groups, conducted in their parts of the province.

4.4. Process learning and adjustments

Stakeholder input affected Hydro One in several ways that demonstrated its commitment to the process.

1. *Definition of issues.* Stakeholders objected to Hydro One's framing of several issues. For example, it described a policy that it opposed (for resolving the net vs. gross load billing issue) as "bypass". Proponents of the policy saw this term as self-serving, implying that they were trying to get away with something. Stakeholders also complained that Hydro One's proposed options ignored important distinctions (e.g., between connection and network facilities). Hydro One subsequently changed the term and refined the options.
2. *Advisory Committee.* Following stakeholder pressure for speedy resolution of the gross vs. net load billing issue, Hydro One created a 17-person multi-stakeholder Advisory Committee. Reporting to the second workshop, this committee developed a framework for evaluating seven rate-design options dealing with contentious aspects of the issue. It also reached agreement on several key elements. The second workshop decided to have the committee evaluate Hydro One's draft proposal, prior to its submission to the OEB.
3. *Focal issues.* The initial mental models interviews elicited detailed comments on six issues that had arisen early in the process. They also identified two additional issues. *Transmission 2000*, Hydro One's background document, reflected respondents' input on all eight issues. Subsequent stakeholder input added two issues (the definition of transmission customers, the treatment of the wholesale meter pool), in time for the second workshop. It also sharpened Hydro One's technical analyses, particularly regarding connections among issues.
4. *Design of stakeholder workshops.* Stakeholder responses to the first workshop shaped the second workshop, focusing it on proposals (rather than objectives) and creating time for formal presentations.
5. *Development and timing of communication.* Early inputs revealed the stakeholders widely varying understanding of the issues. That prompted extra

efforts to ensure that Hydro One's information was easy to understand and distributed.

6. *Technical tutorials.* In response to stakeholder requests, two technical question-and-answer sessions (with concurrent telecasts) were held prior to the second workshop. These requests showed that *Transmission 2000* alone did not clarify the issues for many stakeholders, despite the effort invested in it. Although tutorial attendance was low, holding them demonstrated Hydro One's commitment to making technical information accessible in order to facilitate meaningful, informed participation.

5. Consultation results

The multi-channel consultation process accommodated very heterogeneous inputs. They were organized in the terms of the expert model, whose conceptual clarity allowed reliable, transparent coding. Ready access to these inputs helped Hydro One's staff to address the full suite of stakeholders' views, when working on each aspect of rate design. Although some issues are specific to electricity deregulation, others apply to energy policy more broadly, or to general processes of eliciting and accommodating stakeholder concerns.

5.1. Stakeholder inputs to the principles underlying rate design

Through the various input channels, stakeholders expressed widespread agreement on the importance of Hydro One identifying, and honoring, a set of explicit underlying principles. Moreover, they agreed on many of those principles, even without explicit attempts to build consensus. These principles included *fairness, efficiency, transparency, open access, ensuring a reliable electricity supply, supporting Ontario's economic competitiveness, and protecting health, safety, and the environment*. Some of these concerns (e.g., health and safety, environmental protection, quality of life, and fairness) are clearly affected by transmission rates, yet lie outside conventional regulatory economics (Zajac, 1995). The consultation process allowed these (sometimes conflicting) perspectives to be expressed and summarized (through the expert model), helping the OEB to integrate them with economic concerns.

Stakeholders were helped to understand these issues through (a) the probing of the mental models interviews, (b) the value-clarification exercise of the first workshop, and (c) Hydro One's evaluations of focal proposals' impacts on stakeholders' focal outcomes (presented at the second workshop). These activities sometimes challenged stakeholders' thinking by revealing inconsistencies in their values. For example, some people who

supported the “user pays” principle also supported subsidizing customers in northern Ontario and rural areas (for whom providing service is especially expensive).

The open-ended, probing nature of the process sometimes revealed disagreements lurking under apparent agreement on ambiguous principles. For example, “fairness” varyingly meant (a) a strict “user-pays” policy, (b) “postage-stamp” rates (equal throughout the province, for similar users), or (c) incentives for environmentally benign practices. Other key terms found to have a variety of implicit meanings include “efficiency” (strict marginal cost pricing or adjusted to include incentives for competition), “public interest”, and “smooth transition” (to a competitive rate structure). By clarifying such semantic disagreements, the consultation process focused discussion on the remaining substantive ones.

5.2. Stakeholder inputs to rate-design issues

Stakeholders addressed many specific rate-design issues. For example, in the initial mental models interviews, 68% of respondents expressed views on the reliability and availability of power, 50% discussed health and safety, and 36% each considered electricity cost, environmental impacts, and the commercial viability of Ontario’s energy sector. The interviews concluded with a request to identify the most important single issue among a list of candidates. Stakeholders most frequently chose Transmission Prices (27%), Billing for New Generation (as part of net/gross load billing) (25%), and Reliability (20%). Fewer than 10% chose the Environment, the Fairness of Charges, the treatment of Low-Voltage Facilities, or the Rate-Design Process itself. As mentioned, these opinions helped to shape the workshops and the eventual rate-design proposals. They may also have evolved with the process. As the goal was a satisfactory synthetic rate structure, there was no practical point in surveying individual values at the end (although tracking changes might have had scientific interest).

The ten key issues of the second workshop reflect the process’s ability to focus discussion:

Issue 1: New investment in connection facilities. Stakeholders agreed that the rate structure needed to treat network and connection facilities separately. Most preferred a “user-pays” principle, in the sense of having beneficiaries pay for new connection facilities. Some advocated this principle on fairness grounds; others thought that it would encourage a harder look at the economic justification for new transmission investments.

Issue 2: Allocation of transmission assets and service costs to categories. Industry Associations and TX (high voltage) Connected Direct customers strongly supported applying a “user pays” principle to each category of service. Initial discussions focused on “three pools” of

service: network, transformer, and line connections. Over time, a fourth pool was added, for wholesale metering.

Issue 3: Point of billing: wholesale vs. retail. Despite the general agreement on “user pays”, most stakeholders favored assessing transmission service charges at the wholesale level, rather than on retail (end-use) customers. Their primary reason was simplicity. Nonetheless, some larger users (Connected Utilities and Connected Direct customers) worried that wholesale billing would impose a disproportionate burden on them.

Issue 4: Payment by generators for regulated transmission charges. There was considerable disagreement about whether generators who use existing connection facilities should pay for them, rather than just consumers of the power. Most TX Connected Utilities thought that such generators should pay at least a connection fee. However, many other stakeholders advocated rates that encouraged generators to connect to the grid. There was general agreement that generators should pay for new investments in transmission capacity.

Issue 5: Transmission system charge determinants. Most stakeholders supported demand-based charges, and opposed fixed charges (as falling disproportionately on smaller customers, violating a form of fairness). They also preferred network charges based on coincident peak demand (as an incentive for off-peak usage). Whatever their positions on such specific charge determinants, most stakeholders wanted a simple, predictable, and consistent system, with monthly (rather than annual) billing.

Issue 6: Transmission charges for low-voltage shared lines. Most stakeholders had little to say on this issue. Those who did typically preferred the current system, which allocates the costs of these lines among the direct customers using them and the MEUs. Participants in the mental models interviews emphasized arrangements that sent clear price signals, helping consumers to control costs.

Issue 7: Wheeling-through and export charges. Many stakeholders favored imposing some charges on those using Ontario’s transmission system to export power generated in the province or to “wheel through” power generated elsewhere (e.g., in Quebec for use in the US). The Market Design Committee had recommended against such charges, in order to encourage exports benefiting the provincial economy. The stakeholders, however, viewed that practice as violating fairness, in the sense of having Ontario residents subsidize the export market. Some worried about providing equal access for Ontario producers, in order to ensure their competitiveness.

Issue 8: Gross and/or net load billing options. This contentious issue generated a wide range of views. Proposals included pure net-load billing, mixed billing

(i.e., net load for network charges and gross load for connection charges), net-load billing just for co-generation, rate-class neutrality, a 5-year phased change from gross- to net-load billing, and pure gross-load billing. The stakeholder Advisory Committee, formed between the two workshops, generally agreed on several points: (a) gross-load billing made more sense with existing connection assets, (b) users should pay for new connections (or substantial upgrades), and (c) the rate design needed to consider other issues, such as backup power. Many stakeholders also supported pricing structures that encouraged new power generation.

Issue 9: Definition of transmission customers. This issue, which emerged at the first workshop, produced a consensus: only wholesale and direct industrial customers of the former Ontario Hydro would be considered transmission customers, pending further review.

Issue 10: Treatment of wholesale meter pool. Several stakeholders at the first workshop suggested charging existing customers with regulated, wholesale meters, while charging less (or nothing) to customers who provided their own meters. This proposal raised equity concerns for smaller customers, who would be less likely to take advantage of this option.

5.3. Stakeholder inputs to the consultation process

Stakeholders were frequently asked to evaluate the multi-channel stakeholder process and to suggest improvements, often leading to significant adjustments. Respondents typically reported feeling engaged in the process, and happy for such direct involvement. At the end of the mental models interviews, participants were asked what aspects of the consultation process were most important. The most frequently raised topics were the accessibility of OHNC staff (noted by 73%), the responsiveness of the outcome (61%), and the legitimacy (59%) and transparency (50%) of the process.

6. Discussion

Understanding the novel conditions of a deregulated energy market presents a significant intellectual challenge, of the sort that should benefit from multiple, informed perspectives and that requires learning from experience. The multi-channel process was designed to provide such inputs. We believe that it is consistent with the mandates for many stakeholder processes, such as the [Canadian Standards Association's \(1998\) Q850 risk management process](#), which was cited often during these consultations.³

Hydro One's responsiveness to stakeholders' concerns and insights was reflected in its proposed transmission rate design, for example:

- (1) Separating the connection charge into line connection and transformer connection.
- (2) Analyzing coincident and non-coincident peak-pricing options.
- (3) Considering prices, as well as marginal costs, in determining transmission rates for exporters and through-wheelers.
- (4) Reconsidering the gross/net-load billing issue, first by dropping the term "bypass" and then by evaluating hybrid billing options.
- (5) Analyzing the new issue of the wholesale meter pool.

Thus, the consultation process not only addressed stakeholders' need to be heard, but also improved the analysis, producing a sounder proposal. Those improvements came from identifying issues that might otherwise have been neglected and enlisting stakeholders in the review of emerging alternative rate designs.

As the process unfolded, stakeholders consistently supported several of its features. These included the explanatory materials, the outreach mental models interviews, the workshops, and the multiple input channels. However, several of the larger industrial users and interest group representatives were dismayed by the measured pace of the process's early stages. That pace was designed to broaden the set of active participants and identify the impacts meriting detailed technical analysis. However, it meant delaying attention to issues critical to these traditional stakeholders, while diluting their former privileged access.

By the second workshop, these traditional stakeholders concerns seem to have been addressed, as reflected in both formal statements and informal comments. Their increased satisfaction reflected several factors. One was accommodation to their concerns (e.g., redefinition of issues, creation of the Advisory Team, additional analyses addressing their issues). A second was successfully including the new stakeholders, so that the process worked with them in it. A third was the emerging value of the process's commitment to learning and flexibility, compensating for its reduced speed and predictability. Finally, there may have been some acceptance of the need to level the playing field, both as a public good and an OEB requirement.

The post-consultation experience has supported the investment in the multi-channel process. After approximately 6 months review, the OEB delivered an overwhelmingly positive ruling on Hydro One's transmission rate proposals. OEB's written opinion emphasized Hydro One's ability to demonstrate that its consultation process had permitted a diverse set of stakeholders to discuss a wide range of rate-design options and to derive its proposals in a way that clearly linked analysis and

³Many of these same features are summarized in the *Q850 Risk Management Guideline for Decision Makers* (1997), developed during the mid-1990s by the Canadian Standards Association.

deliberation. OEB's review further endorsed Hydro One's process by relying heavily on its submission. This convergence allowed moving ahead more confidently in deregulating Ontario's energy market.

These experiences provide a model for other consultations, involving issues with complex technical details and multiple stakeholders. They suggest ways to incorporate diverse perspectives, without succumbing to undue pressure for consensus or for accommodating ill-considered inputs from uninformed stakeholders. Central to the process is the coordinating expert model (Fig. 1). That model aids stakeholders by structuring both the information provided to them and the inputs obtained from them. It aids policy makers both in characterizing stakeholder concerns and in evaluating how well policy options meet them. It bridges stakeholder concerns and technical analyses. It clarifies areas of agreement and disagreement—recognizing that some of the latter will remain, in a process that seeks mutually acceptable solutions, rather than consensual ones.

Nonetheless, the process could not completely erase stakeholder fears regarding transmission deregulation. Increased satisfaction with this important first stage did not, in itself, convince all stakeholders that deregulation would, in fact, decrease consumers' costs by increasing competitiveness. Many remained fearful that costs would still rise, reflecting the expense of maintaining and expanding the transmission infrastructure. This skepticism regarding experts' promises was heard well before California's electricity deregulation crisis (or the Enron revelations). Similar fears may arise in other newly deregulated domains. Their existence underscores the need for processes that build trust by sharing beliefs and concerns, while candidly showing the responsiveness of the resulting policies and the soundness of the analyses underlying them.

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