

STRATEGIC BLUEPRINT:

Keeping Pace with an
Evolving Energy Sector

2017-2022



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Message From the Chair



This Strategic Blueprint sets out our commitment to modernize the OEB's approach to regulation in order to keep pace with an evolving energy sector. We announced our undertaking to develop this Blueprint in our 2017-2020 Business Plan that was approved by the Minister of Energy earlier this year.

The Blueprint reflects the OEB's recognition of the significant changes underway in the energy sector, not only in Ontario but around the globe. These changes are being driven by rapid technological innovation, the emergence of new business models, heightened customer expectations about service and affordability, and new public policy initiatives, particularly regarding carbon emissions and climate change.

The Blueprint includes a fresh statement of our Vision, Mission and Values and of the Goals and Objectives that will guide our work over the next five years. We have set a strategic direction that is centred on the OEB's role in supporting and guiding the continuing evolution of the Ontario energy sector in a way that delivers value for all Ontario energy consumers.

We have chosen to call our new strategic direction a Blueprint because the term denotes the expectation that it will be used to build new regulatory frameworks that are both robust enough and flexible enough to adapt to changing circumstances.

I wish to acknowledge the role that Board Members and the OEB's leadership team have played in the development of the new Strategic Blueprint. Their readiness to bring a fresh perspective to the work of the OEB has been key to the completion of the Blueprint. I also want to thank the members of the Chair's Advisory Roundtable for their constructive comments on a preliminary draft.

My colleagues and I look forward to continuing the engagement and collaboration that has been so important in the completion of this Blueprint.


Rosemarie T. Leclair
 Chair and CEO

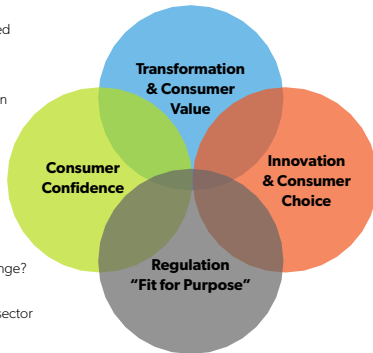
Introduction & Our Strategic Challenges

At the outset of the work to develop our new Strategic Blueprint, we posed the question: "Where do we want the OEB and the sector it regulates to be in five years?" As we formulated our answer to that question, we assessed developments in the energy sector and the ways in which other regulators were addressing those changes.

We ultimately concluded that, during a period that will be characterized by accelerating change and transformation, the OEB should maintain and sharpen its focus on efficiency, cost-effectiveness, innovation, value for consumers, and our own effectiveness as a regulator. In this regard, the fresh strategic direction combines the OEB's current approach to consumer-centric regulation with a stronger emphasis on the new and different challenges posed by sector transformation.

Our answer is organized around four interconnected Strategic Challenges:

- **Transformation & Consumer Value:** How can the OEB help ensure that the evolution of the sector brings a stronger focus on demonstrable value for consumers?
- **Innovation & Consumer Choice:** How can the OEB incent and enable innovation that enhances consumer choice and control?
- **Consumer Confidence:** How can the OEB strengthen and sustain the confidence of consumers during a period of accelerating change?
- **Regulation "Fit for Purpose":** How should the OEB equip itself to meet the challenges of sector transformation?



Four Interconnected Strategic Challenges

Our new Strategic Blueprint is designed to address these Strategic Challenges. In doing so, it builds on the important work that the OEB has already undertaken over the past five years, including:

- The implementation of a Renewed Regulatory Framework (RRF) that emphasizes the need for robust customer engagement, utility system planning that paces and prioritizes investment, and demonstrable improvements in utility performance, while allowing utilities to select a rate-setting method that suits their circumstances
- The redesign of electricity distribution rates to give residential customers a better signal regarding the cost and value of the delivery service they receive
- The adoption of a framework to govern the compliance by natural gas distributors with their requirements under the new provincial cap and trade regime
- The introduction of new ways to give consumers a better understanding of the work of the OEB and, in turn, to provide the OEB with deeper insight into the perspectives of energy consumers
- The implementation of measures to inform and empower consumers, including stronger rules regarding the conduct of energy retailers and a Consumer Charter setting out the rights and responsibilities of residential energy consumers
- Ongoing improvements to the OEB's own adjudicative and decision-making processes

These achievements provide a solid foundation for the significant work that lies ahead. Indeed, our new Strategic Blueprint reflects the continuation of the direction already reflected in these earlier initiatives.

Background & Environmental Scan

The formulation of our new Strategic Blueprint was informed by an assessment of key developments in the energy sector – both in Ontario and in other jurisdictions.

These developments include technological innovation, the emergence of new business models, changing consumer expectations, the trend towards utility consolidation, the market outlook underlying the new Long-Term Energy Plan, our own experience with the Renewed Regulatory Framework (RRF), and new public policy initiatives, particularly regarding carbon emissions and climate change.

Our observations and conclusions about key trends in the sector and about the implication of these trends for the OEB's strategic direction are set out below.

Our Observations About Trends in the Energy Sector:

Technological Innovation Is Accelerating, but the Pace of Deployment Is Uncertain

- The electricity sector is experiencing rapid innovation – both in information technologies that offer enhanced capabilities for managing networks and in distributed energy and storage resources that create new opportunities for on-site generation and micro grids
- Ontario already has considerable experience with advanced metering technologies and the systems to integrate intermittent resources
- New and expanded uses for electricity, including in the transportation sector, will place fresh demands on the power system
- Innovation in the electricity sector is paralleled by innovation in the natural gas sector, such as hydraulic fracturing that has opened up new supply basins, the use of natural gas as a transportation fuel and the use of renewable natural gas as a source of supply
- While some of these new technologies support “traditional” utility functions and customer relationships, others may impact the utilization of existing infrastructure and challenge or “disrupt” existing business models
- The pace and pattern of deployment of these technologies will likely vary from jurisdiction to jurisdiction – it will be strongly influenced by the supply outlook, the cost of competing technologies, the way in which network services are priced, and the way in which network operators are remunerated

The Impacts of Climate Change Policies Will Be Significant & Complex

- Much of the technological innovation in the electricity and natural gas sectors has been driven by the growing focus on reducing carbon emissions
- Ontario is now committed to significant Greenhouse Gas (GHG) emission reductions over the next 30 years under the new Climate Change Action Plan (CCAP) and its centrepiece, the new cap-and-trade system
- Obligations under that system will fall most heavily on fossil fuel distributors, including the natural gas distributors we regulate

- However, over the longer term, the impact of the CCAP and the shift away from fossil fuels will be felt throughout the broader energy sector, including the electricity distributors and transmitters we regulate
- For instance, the accelerated deployment of distributed energy technologies, electric vehicles (EV) and electric-powered mass transit, together with increased investments in energy efficiency, will impact all aspects of utility operations and planning and will create new risks to be assessed and managed
- In addition, the advent of extreme weather events associated with climate change has increased focus on the resiliency of energy systems
- Although the pace of these developments is uncertain, the potential significance and complexity of their impact is clear – both we and the entities we regulate must be equipped to anticipate and address these trends

The Structure of the Sector Is Changing, but Will Remain Diverse

- The reports of both the *Distribution Sector Review Panel* (2012) and the *Premier's Advisory Panel on Government Assets* (2015) concluded that consolidation could facilitate efficiencies and cost savings for the electricity distribution sector and better equip distributors to address the changes underway in the energy sector
- In the past several years, we have seen the Hydro One IPO, the creation of a new mega-utility in the GTHA, and other mergers and acquisitions that have extended the footprint of a growing number of Local Distribution Companies (LDCs) outside and beyond the territory of their municipal owners
- However, other electricity LDCs and their municipal shareholders have made the decision not to sell or merge. As an alternative to formal consolidation, some distributors have formed alliances or associations to share services and resources
- Ontario is also seeing mergers and acquisitions activity in the natural gas distribution sector and the emergence of real rivalry for the expansion of gas distribution facilities to service new communities and territories
- The Ontario electricity distribution sector will likely continue to be characterized over the next five years by considerable diversity among LDCs as to size, density, geographic footprint and investment requirements

Ontario's Bulk Power System Is Well Positioned to Meet Future Needs but Faces Significant Change

- The IESO's 2016 *Ontario Planning Outlook*, prepared to support the new Long-Term Energy Plan, outlined a range of “low,” “flat” and “high” provincial electricity demand outlooks for the next 20 years, largely reflecting different assumptions regarding the shift from fossil fuels and the level of electrification arising from the province's climate change policies
- The *Ontario Planning Outlook*, together with the accompanying *Technical Fuels Report*, highlighted the strong interrelationship between the electricity and natural gas sectors
- The *Ontario Planning Outlook* concluded by emphasizing the need to remain flexible, to understand the drivers of change and risk in the sector, and to address regulatory frameworks that may not meet the needs of an evolving sector – observations that are particularly pertinent to the OEB's own strategic planning

Understanding Consumer Expectations & Impacts Is Critical

- Large commercial and industrial customers have been engaged in managing their energy consumption for many years – incented in some cases by programs such as the recently expanded Industrial Conservation Initiative
- New technologies – including smart appliances, home energy systems, distributed generation, and small energy storage units – are bringing the same opportunities to smaller customers as well
- However, in Ontario, smaller consumers seem focused less on the promise of technology and much more on the “basics” of service and price
- Concern about the impact of electricity prices is reflected in the implementation of the Ontario Electricity Support Program and the recent Fair Hydro Plan that has reduced electricity bills for small volume and other qualifying consumers and keeps bill increases for such consumers to the rate of inflation over the next four years
- The concern about electricity prices is a reminder of the need for acute sensitivity regarding the economic impact on consumers of new infrastructure investment, including investments to support the deployment of new technologies

After Five Years, the Renewed Regulatory Framework Warrants a Relook

- The Renewed Regulatory Framework (RRF) was first introduced in late 2012 for electricity distributors and, since then, has been extended to natural gas distributors, Ontario Power Generation, and electricity transmitters
- Our expectation has been that the RRF would drive:
 - Stronger customer engagement by utilities
 - More robust system planning and regional planning
 - A stronger focus by utilities on long-term value for consumers
- To date, we have considered more than 275 applications under the RRF
- We are confident that we are achieving the first two objectives: we are seeing utilities engage more effectively with their customers and undertake more robust system planning
- But we are less confident that we are yet seeing the stronger focus on longer-term value for consumers that we had expected
- Regulators in other jurisdictions are considering new approaches to the remuneration of utilities, including ways of treating traditional capital investments versus non-capital expenditures, that might better encourage the adoption of innovative and least-cost solutions by utilities
- Given the changes underway in the sector, we should assess whether similar regulatory reforms are warranted in Ontario and how they might further enhance efficiency and innovation in the energy sector

The Work of Other Energy Regulators Is Instructive

- Other energy regulators are addressing the issue of how to use their regulatory powers to address sector evolution
- Some regulators are adopting a “proactive” approach and seeking to lead utilities to a particular model sanctioned by the regulator, while others are adopting a “wait-and-see” approach and reacting to the challenges of sector evolution as they arise
- Although no regulatory model has yet emerged as the preferred “industry standard,” some of the key questions that other regulators are grappling with are instructive•
- Those questions include the following:
 - How should utilities be remunerated in order to encourage them to be more efficient and to innovate?
 - Does sector transformation create new utility services that need to be assessed and remunerated appropriately?
 - How should utility rates and commodity prices be designed to provide appropriate signals to consumers to guide their own consumption and investment decisions?
 - How can regulators identify and address regulatory barriers to innovation and new business models that benefit consumers?
 - What measures are needed to protect consumers or particular subsets of consumers from some of the impacts of sector transformation (such as cost shifting, the protection of privacy, and concerns about sales practices regarding new products and services)?
 - What role should incumbent utilities play in the emerging market for distributed energy resources and related services?
 - How should the risk regarding underutilized or stranded assets be allocated between utilities and their customers, and are there any steps that can or should be taken to mitigate that risk?

Our Conclusions About the Implications of These Trends for Our Strategic Direction:

Our consideration of these key trends and developments has helped to shape the approach we propose to adopt regarding sector evolution. In particular, we noted and concluded as follows:

- The ways in which other utility regulators are addressing sector evolution reflect the particular institutional arrangements, market structure and broader policy framework prevailing in their jurisdictions – similarly, the OEB’s own approach must be grounded in an appreciation of the circumstances in Ontario and of its own mandate
- Our approach should focus on how we can best address sector evolution through the use of our existing regulatory powers and tools, including rate making, infrastructure approvals, licensing, codes and rules, and the issuance of policy guidance
- It is premature to sanction or mandate, as some regulators have, a particular new business model for utilities or a specific new “platform” to accelerate the deployment of distributed resources – picking a particular model or platform at this point would impede innovation
- However, the complexity of the changes afoot in the Ontario energy sector suggest that a “wait-and-see” approach is not sufficient for Ontario – it would simply prolong uncertainty for both incumbents and new service providers
- The OEB has the opportunity – and the responsibility – to *support and guide* the sector it regulates through the evolution underway:
 - *Support* – by helping prepare utilities, other market participants and consumers for the change that lies ahead
 - *Guide* – by working to secure the benefits and mitigate any adverse consequences of that change and uncertainty

Our Vision, Mission & Values

The OEB has regulated the natural gas sector since 1960 and the electricity sector since 1999. Our objectives, responsibilities and powers are set out in legislation, regulation and directives.

For industry, we:

- Set the rates and prices that electricity and natural gas utilities can charge
- Monitor the financial and operational performance of utilities
- Approve major new electricity transmission lines and natural gas pipelines that serve the public interest
- Approve qualifying mergers, acquisitions and dispositions by electricity and natural gas transmitters and distributors
- Set the payments to be received by Ontario Power Generation in respect of its regulated nuclear and hydroelectric generation facilities
- Establish and enforce codes and rules to govern the conduct of utilities and other industry participants

For consumers, we:

- Protect their interests with respect to the rates and performance of their utilities
- Provide them with the information they need to better understand their rights and responsibilities
- Protect their interests in retail electricity and natural gas markets
- Address the particular needs of low-income consumers, especially in the context of utility customer service rules

In addition, we play an important role as an independent and expert advisor to government regarding energy policy matters.

These broad responsibilities and powers, together with the observations and conclusions from the environmental scan, underlie our Vision and Mission for the next five years.

Our Vision answers the question with which we started – “Where do we want the OEB and the sector it regulates to be in five years?”

Our Mission sets out how we aim to achieve our Vision.

Our Values express our commitment about how we will conduct ourselves both within our own organization and in our engagement with others.

In this way, our Vision, Mission and Values complement our statutory objectives and other enduring regulatory principles.

Vision

The OEB supports and guides the continuing evolution of the Ontario energy sector by promoting outcomes and innovation that deliver value for all Ontario energy consumers.

Mission

We will pursue this Vision by:

- Strengthening the focus on demonstrable consumer value during a period of sector evolution
- Incenting and enabling innovation in a way that enhances consumer choice, control and value
- Strengthening and sustaining the confidence of consumers during a period of accelerating change
- Equipping our own organization to meet the challenges presented by sector evolution

Values

Effective: We hold ourselves to a high standard regarding the quality and efficiency of our work.

Independent: We are objective and bring an open mind to all we do.

Engaged: We learn from our dialogue with consumers, utilities and other industry participants.

Expert: We are experts in our field and share our knowledge with others.

Forward-looking: We support innovative solutions both within our own organization and by those we regulate.

Respectful: We serve the public interest and treat everyone with respect.

Our Strategic Goals & Objectives: 2017-2022

Our Strategic Goals and Objectives for 2017-2022 reflect our assessment of the key issues emerging from the environmental scan. They address the four Strategic Challenges, namely: Sector Transformation & Consumer Value, Innovation & Consumer Choice, Consumer Confidence, and Regulation "Fit for Purpose."

We have set out a Strategic Goal and a number of Strategic Objectives for each of the four Strategic Challenges. The Strategic Goals represent the specific outcomes we aim to achieve with respect to each of the corresponding Strategic Challenges. The Strategic Objectives describe the particular areas on which we will focus in order to attain each of the Strategic Goals. Each are summarized in the table below.

Strategic Challenges	Transformation & Consumer Value	Innovation & Consumer Choice	Consumer Confidence	Regulation "Fit for Purpose"
Strategic Goals	• Utilities are delivering value to consumers in a changing environment	• Utilities and other market participants are embracing innovation in their operations and the products they offer consumers	• Consumers have confidence in the oversight of the sector and in their ability to make choices about products and services	• The OEB has the resources and processes appropriate for the changing environment
Strategic Objectives	• The regulatory framework incentivizes utilities to focus on long-term value for money and least-cost solutions • Regional and utility system planning reflect the continuing evolution of the sector • Utility infrastructure is optimized during the shift to a low carbon economy	• The regulatory framework incentivizes and enables utilities to adopt innovative solutions • The design of network rates and commodity prices support the efficient use of infrastructure and enable greater customer choice and control • Our codes and rules reflect the needs of an evolving sector	• Consumers understand their rights and choices • Consumers are treated fairly by utilities and other service providers • Consumer perspectives are welcomed, respected and addressed in all regulatory processes • The benefits of innovation and sector transformation are realized by all types of consumers	• We have the expertise needed to address sector evolution • Our own organization and processes remain flexible and are adapted to changing needs • Our work is supported by effective engagement and collaboration

Strategic Objectives:

1 Utilities are delivering value to consumers in a changing environment:

- The regulatory framework incentivizes utilities to focus on long-term value for money and least-cost solutions
- Regional and utility system planning reflect the continuing evolution of the sector
- Utility infrastructure is optimized during the shift to a low carbon economy

A focus on consumer value lies at the very centre of the OEB's approach to utility regulation. Given the broad changes underway in the sector, the OEB has both the need and opportunity to sharpen that focus – particularly with respect to network investments associated with sector transformation. On the one hand, "smart grid" and distributed technologies, together with conservation initiatives, present utilities with opportunities to serve customers in ways that may be less expensive and more flexible than traditional infrastructure investment. On the other hand, the anticipated trend towards a low carbon economy may affect the way in which both natural gas and electricity networks are used. That trend, together with measures to increase the resilience of energy infrastructure, may call for new investment in networks or the redeployment of infrastructure. The OEB's regulatory framework should encourage utilities to undertake such investments and expenditures in a co-ordinated and cost-effective manner.

The ways in which the OEB aims to achieve this Goal include:

- Maintaining a high level of understanding of the changes underway in the sector and their implications for the investment needs, operations and financial position of regulated entities
- Remunerating utilities in ways that strengthen their focus on long-term value and least-cost solutions
- Supporting regional planning and cost-sharing arrangements among utilities, particularly electricity distributors, that offer long-term value for consumers
- Requiring utilities to reflect the impact of sector evolution, including cyber security, system resilience, and opportunities to "right size" their networks, in their system planning and operations
- Monitoring the impact of sector evolution on the utilization of natural gas and electricity networks and assessing any operational and financial impacts and risks

2 Utilities and other market participants are embracing innovation in their operations and the products they offer consumers:

- The regulatory framework incentivizes and enables utilities to adopt innovative solutions
- The design of network rates and commodity prices support the efficient use of infrastructure and enable greater customer choice and control
- Our codes and rules reflect the needs of an evolving sector

This goal is strongly connected to the prior one. The way the OEB remunerates utilities can influence the degree of innovation achieved by utilities in their operations and services arrangements with consumers. As noted in the *Ontario Planning Outlook*, the adoption of innovative solutions can also be affected by the rules and requirements that govern utilities and other market participants.

The OEB has already taken a number of steps to accommodate and support innovative solutions. Those initiatives include the creation of a new licence to meet the needs of energy storage facilities, the transition towards a new design for electricity distribution rates for residential customers that will ensure that distributors can facilitate the adoption of new technologies, such as net metering, by such customers, the issuance of guidance regarding the regulatory status of EV charging stations, and the proposed adoption of a new approach to the funding of the "optimal" distribution and transmission investments identified through the regional planning process. Despite these diverse initiatives, the broad changes underway in the sector suggest that a more comprehensive review and "modernization" of the OEB's codes, rules, guidelines and approach to utility remuneration is warranted.

From a consumer perspective, the structure of network rates and commodity prices will influence decisions about consumption and investment. Indeed, the design of such rates and prices is a key factor influencing the deployment of distributed resources and the way in which networks are used. Changes in the way consumers and other market participants use networks may yield new services and "value streams" that will need to be assessed and priced appropriately. With respect to commodity rates, the OEB's *RPP Roadmap* has already set out the OEB's phased approach to providing consumers greater choice and control under the Regulated Price Plan.

The ways in which the OEB aims to achieve this Goal include:

- Remunerating utilities in ways that encourage utilities to pursue cost-effective innovation in their operations and services
- Modernizing the OEB's rules, codes and other regulatory instruments to reflect the needs of an evolving sector
- Addressing any unwarranted regulatory barriers to innovation and new business models that benefit consumers
- Continuing the redesign of electricity distribution rates to give all customers a better signal regarding the cost of delivery service
- Continuing the implementation of improvements to the structure of RPP rates in accordance with the *RPP Roadmap*
- Working with LDCs and other agencies and market participants to identify and understand emerging new energy-related "value streams" and service models

3 Consumers have confidence in the oversight of the sector and in their ability to make choices about products and services:

- Consumers understand their rights and choices
- Consumers are treated fairly by utilities and other service providers
- Consumer perspectives are welcomed, respected and addressed in all regulatory processes
- The benefits of innovation and sector transformation are realized by all types of consumers

Over the past five years, the OEB has used a number of approaches designed to give consumers a better understanding of the work of the OEB and, in turn, to provide the OEB with deeper insight into the perspectives of energy consumers. We will need to redouble those efforts during a period of change and uncertainty in Ontario's energy sector. Consumers will need confidence that their utilities, service providers and the broader sector are evolving in a way that respects and reflects their interests, particularly regarding price and service. For this reason, the participation of consumers in adjudicative proceedings, particularly those regarding utility rates, has become increasingly important. They will need to understand the new products and services that may become available and be assured that the providers of such products or services will treat them fairly. Moreover, during the process of market evolution, utilities and other market participants should be encouraged – and expected – to look for innovative ways of serving diverse consumer groups, including low-income consumers and remote indigenous communities.

The ways in which the OEB aims to achieve this Goal include:

- Helping consumers understand the changes underway in the sector, particularly regarding any new service options they may have
- Continuing the reform of our adjudicative and other decision-making processes to enhance opportunities for consumer participation and to ensure consumer perspectives are considered and addressed
- Working with LDCs to pilot and test consumer reaction to new services and pricing models
- Modernizing utility customer service rules in a way that meets the reasonable expectations of consumers
- Encouraging utilities and other industry participants to develop innovative approaches to the needs of low-income and indigenous communities
- Continuing our strong focus on compliance by regulated entities, including utilities and retail suppliers, and addressing any fresh challenges associated the development of new products and services

4 The OEB has resources and processes appropriate for the changing environment:

- We have the expertise needed to address the evolution of the sector
- Our own organization and processes remain flexible and are adapted to changing needs
- Our work is supported by effective engagement and collaboration

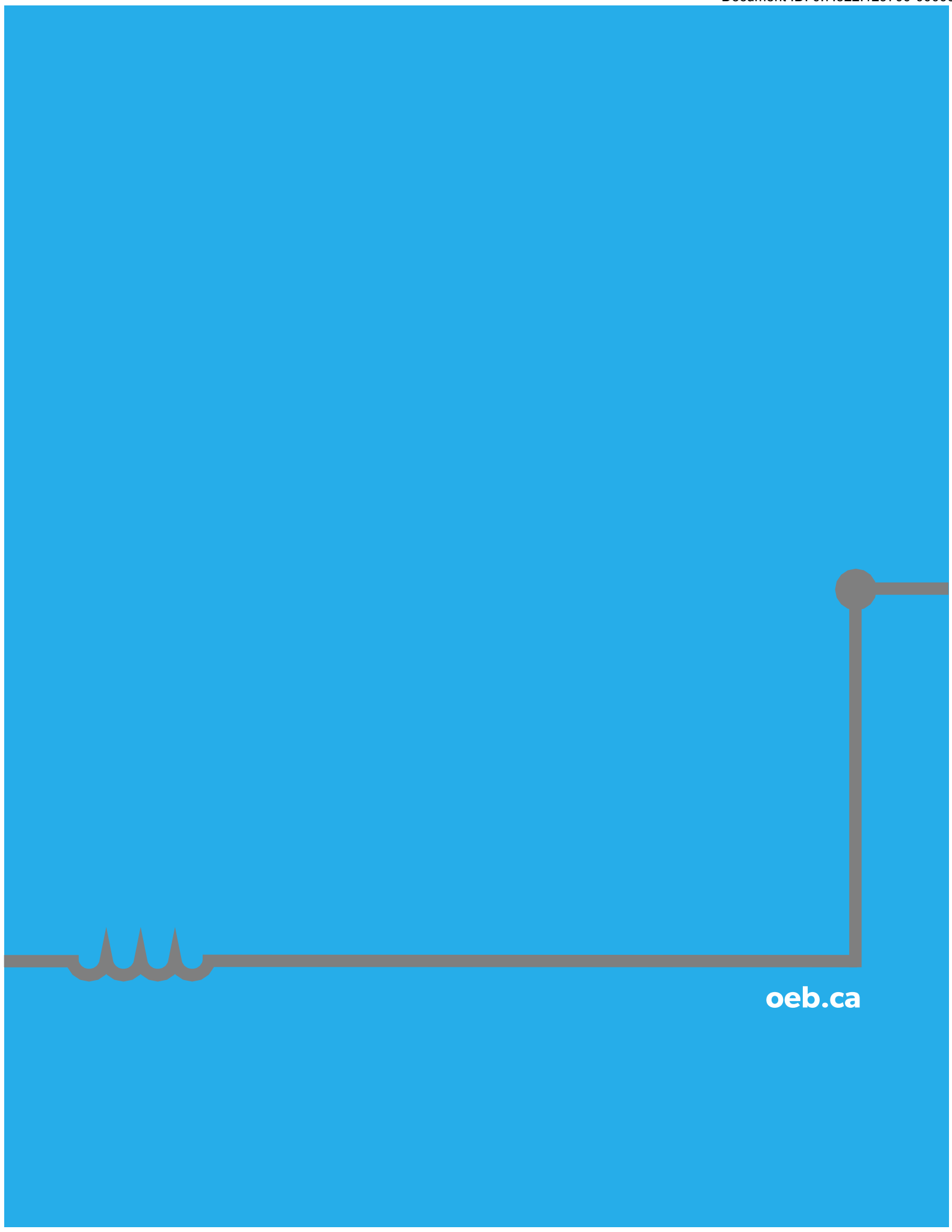
The success of our new strategy will depend very much on the commitment and engagement of those who work at the OEB. Our employees and Board Members are known for their expertise, professionalism and commitment to public service. These qualities will serve us well as the OEB adapts its organization and processes to the needs of an evolving sector. Given the uncertainties that lie ahead, maintaining flexibility in both our organization and processes will be critical. Engagement and collaboration will also be important. As we seek to understand and address the changes underway in the sector, we will need to listen to consumers and our stakeholders and to work closely with the government and other agencies.

The ways in which the OEB aims to achieve this Goal include:

- Promoting a workplace culture that values expertise, professionalism, flexibility, and innovation
- Providing opportunities for staff to enhance their understanding of the changes underway in the sector
- Building our “bench-strength” in areas such as empirical analysis, utility finance and system modeling
- Ensuring we have access to “best-in-class” expertise as needed
- Continuing our dialogue with other utility regulators, particularly through similar bodies beyond our provincial and national borders
- Improving our decision-making and other processes by deploying our resources towards major proceedings and adopting simpler and more “proportionate” reviews as appropriate
- Engaging with regulated entities and other stakeholders through a broad range of consultation processes and techniques
- Continuing to serve as an expert and independent advisor to government on energy policy issues

Looking Forward

Our Strategic Blueprint sets ambitious goals for both the OEB and the sector we regulate. It was born of our recognition that changes underway in the sector required us to rethink our approach to regulation and the way we carry out our statutory responsibilities. The preparation of this Strategic Blueprint was the easiest part. We now face the hard work of reflecting our fresh strategic vision in our business and operating plans and, ultimately, in our decision making and in the guidance we provide to the sector. Everyone at the OEB recognizes that doing this work well will demand continued and constructive engagement with consumers, regulated entities and all our stakeholders.



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