

— 2026 – 2030

Strategic Plan





Contents

Message from the Chair & CEO	4
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About Kingston Hydro	6
-----------------------------	----------

Environmental Scan	7
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Trends At a Glance	7
--------------------	---

Policy & Regulatory Transformation	9
------------------------------------	---

2026-2030 Strategic Plan	10
---------------------------------	-----------

Integrated Grid Resilience	11
----------------------------	----

Vision & Mission	12
------------------	----

Values	13
--------	----

Strategic Imperatives & Initiatives	14
-------------------------------------	----

Modernize the Grid	16
--------------------	----

Enable Innovative Energy Solutions	17
------------------------------------	----

Evolve the Business	18
---------------------	----

Strengthen Our Partnerships	19
-----------------------------	----

Delivering Government Priorities	20
---	-----------

Strategic Measures	22
---------------------------	-----------

Appendix A: Environmental Scan	24
---------------------------------------	-----------

Policy & Regulatory Context	29
-----------------------------	----

Appendix B: Glossary	32
-----------------------------	-----------

Message from the Chair & CEO

Reliable electricity is essential to the strength and stability of our community. Every day, it powers our homes, supports local businesses, and enables the institutions that care for and connect us. The trust placed in us to deliver that reliability shapes how we plan, invest, and serve. It guides our decisions and drives our commitment to provide safe, dependable service today while preparing for the needs of tomorrow.

The environment in which we operate is rapidly evolving, bringing both new opportunities and greater complexity. Electrification is accelerating, technology is advancing, and distributed energy resources are reshaping how electricity is generated and delivered. At the same time, Kingston continues to grow, infrastructure demands are increasing, and climate considerations are influencing long-term planning. Together, these forces are creating a dynamic and interconnected energy landscape that calls for thoughtful planning and a clear path forward.

With a strong foundation in place, we are well positioned to navigate this evolving landscape with focus and care. We remain committed to delivering the reliable service our customers expect while preparing our system to support our community's future needs and maintaining our focus on affordability. By aligning investments with long-term priorities and taking a balanced, risk-informed approach to decision making, we are positioning Kingston Hydro to deliver lasting value for our customers, our community, and our Shareholder.

Over the next five years, we will modernize the grid, strengthen resilience, and ensure the capacity required to support growth across Kingston. Investments in automation, system upgrades, and advanced technologies will enable a more responsive network that adapts to changing patterns of supply and demand while maintaining the reliability our customers depend on. Through this work, we are preparing our community for continued opportunity with affordable, sustainable growth.

As the needs of our community continue to evolve, so too will our role. We will adapt thoughtfully while staying grounded in our responsibility to serve our customers and community every day. Working with municipal leaders, industry partners, regulators, and the community, we will support coordinated planning that advances housing, economic development, and sustainability objectives while helping position Kingston for long-term prosperity. Reliability will always be foundational to our work, supported by a disciplined focus on affordability and a customer-centered approach.



Looking toward 2030, we will remain a trusted, innovative, and community-focused utility supporting Ontario's energy transition while strengthening our system, supporting our community's growth, and ensuring the infrastructure people rely on remains resilient for years to come.

We thank our employees, partners, and stakeholders whose dedication strengthens Kingston Hydro, and we thank our Shareholder for their continued trust and support. Together, we are well positioned to support a strong, resilient future for the community we are proud to serve.

Bryan Paterson

Mayor, City of Kingston
Chair, Kingston Hydro

David Fell

President & CEO,
Utilities Kingston & Kingston Hydro

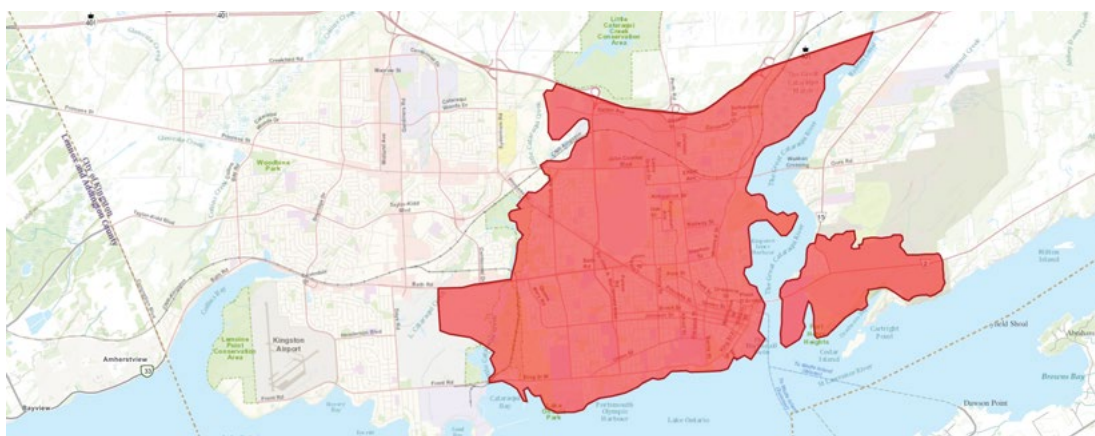
About Kingston Hydro

Kingston Hydro is a mid-sized, municipally owned electricity distribution company operating within Ontario's regulated energy market. The corporation distributes approximately **668 million kilowatt-hours of electricity annually** to nearly **29,000 customers** across the City of Kingston. With a proud legacy of reliability, safety, efficiency and customer service, Kingston Hydro continues to deliver affordable electricity while generating long-term value for its shareholder, the **City of Kingston**.

The organization operates in close alignment with **Utilities Kingston** through an integrated **multi-utility model**. While Kingston Hydro remains a distinct corporate entity, it is operated under a service agreement by Utilities Kingston, enabling coordinated planning and service delivery across multiple utility functions. This shared-services model delivers efficiencies and economies of scale, generating more than **\$1.8 million in annual savings** that are passed directly to customers through lower rates and enhanced service value.

Kingston Hydro is a registered market participant with the **Independent Electricity System Operator (IESO)**, which manages the province's wholesale electricity market and ensures the reliable operation of Ontario's power system. The company receives electricity through two **Hydro One transformer stations** – located at John Counter Boulevard and Division Street, and at Gardiners Road – with seven high-voltage 44kv feeders supplying the City's **16 distribution substations**. These substations deliver power to customers throughout **Central and East Kingston**, including major institutional and federal sites such as the Royal Military College of Canada, Canadian Forces Base Kingston, the Village of Barriefield, and Collins Bay Institution.

Electricity Distribution Area



The electricity sector uses specialized technical, regulatory, and policy-driven terminology to describe how energy is planned, delivered, and managed. Definitions of key terms used in this Strategic Plan are provided in Appendix B: Glossary. For more information or to request alternate formats, please contact Community@UtilitiesKingston.com.

Environmental Scan

Kingston Hydro operates within an electricity sector undergoing rapid and fundamental change. The forces shaping this transformation are broad and interconnected — from global efforts to decarbonize the energy system and the growing integration of distributed energy resources, to advances in digital technology, evolving public policy, and new expectations from customers and communities. At the same time, local factors such as population growth, electrification, and climate change are intensifying demand on the grid and reshaping how infrastructure is planned and managed.

Together, these trends define a new energy landscape — one that is cleaner, more complex, and more dynamic than ever before.

Trends At a Glance

The electricity sector is undergoing a fundamental transformation driven by decarbonization, electrification, and digitalization.

Policy, technology, and climate objectives are accelerating electrification and driving sustained growth in electricity demand, fundamentally altering system load profiles and planning assumptions across Ontario.

Distributed energy resources are at the centre of this shift, creating both opportunity and complexity for the electricity system.

The increasing adoption of customer-located generation, storage, and EVs is decentralizing the grid, enabling flexibility while requiring active management of two-way power flows.

The growing integration of distributed energy resources are accelerating the emergence of local energy markets and a Distribution System Operator model.

Local utilities are increasingly expected to coordinate and optimize distributed resources, improve system efficiency, and manage growth using enhanced intelligence and local solutions.

Digitalization and automation are enabling smarter, faster, and more adaptive grid operations.

Advanced metering, automation, data analytics, and artificial intelligence are transforming system planning, asset management, outage response, and decision-making.

Population growth, electrification, and urban intensification are driving new local demand pressures.

Ongoing growth and the electrification of transportation and heating are increasing the need for grid capacity and reinforcing the importance of integrated, long-term infrastructure planning.

Policy and regulation are evolving to promote innovation, integration, and accountability across the sector.

Regulatory expectations are shifting toward performance-based outcomes, DER integration, affordability, and increased transparency, raising the bar for governance and cost discipline.

Customer expectations are evolving in step with technology and social change.

Customers are becoming active participants in the energy system and expect reliable, affordable, sustainable, and digitally enabled services aligned with community values.

Climate change and extreme weather are redefining what reliability and resilience mean for utilities.

More frequent and severe weather events are increasing the focus on resilience, automation, redundancy, and localized solutions in system planning and investment.

Within this broader transformation, policy and regulation are playing an increasingly central role. Governments and regulators are actively reshaping the electricity framework to respond to rising demand, enable economic growth, and support the energy transition, directly influencing how local distribution companies (LDCs) plan, invest, and operate.

Policy & Regulatory Transformation

Ontario's electricity sector is undergoing its most significant policy and regulatory transformation in more than a decade. Rising electricity demand, electrification, and economic growth objectives are driving a more growth-focused and time-sensitive regulatory environment for LDCs. Bill 40 – Protect Ontario by Securing Affordable Energy for Generations Act (2025) is a central element of this shift. The legislation requires the Ontario Energy Board (OEB) and IESO to consider economic development in decision-making, introduces mandatory connection rules for large loads, enables provincial funding for infrastructure, streamlines approvals, and creates new procurement and compliance obligations for LDCs.

Bill 40 is complemented by a series of policy and market initiatives introduced in 2025. These include new rules enabling corporate virtual power purchase agreements, the IESO's Annual Planning Outlook forecasting sustained growth in peak demand, and Ontario's Integrated Energy Plan, which reinforces long-term investment in nuclear and hydro, continued use of natural gas, and expanded roles for energy efficiency and distributed energy resources.

At the same time, the OEB is advancing major initiatives affecting distribution planning and operations, including climate resilience and system-hardening requirements, streamlined and modernized regulatory processes, enhanced DER integration, and improved coordination between gas and electricity planning.

Together, these forces define a more growth-oriented, capacity-constrained, and performance-focused electricity system. Kingston Hydro must continue to strengthen planning and align investments to support reliability, growth, and evolving customer needs. Additional detail is provided in Appendix A.

2026–2030 Strategic Plan

By 2030, Kingston Hydro is striving to be recognized as a trusted, innovative, and community-centric utility at the forefront of Ontario’s energy transition. Building on our strong foundation as a reliable and efficient local distribution company, Kingston Hydro will continue to evolve as a forward-thinking and technologically advanced organization.

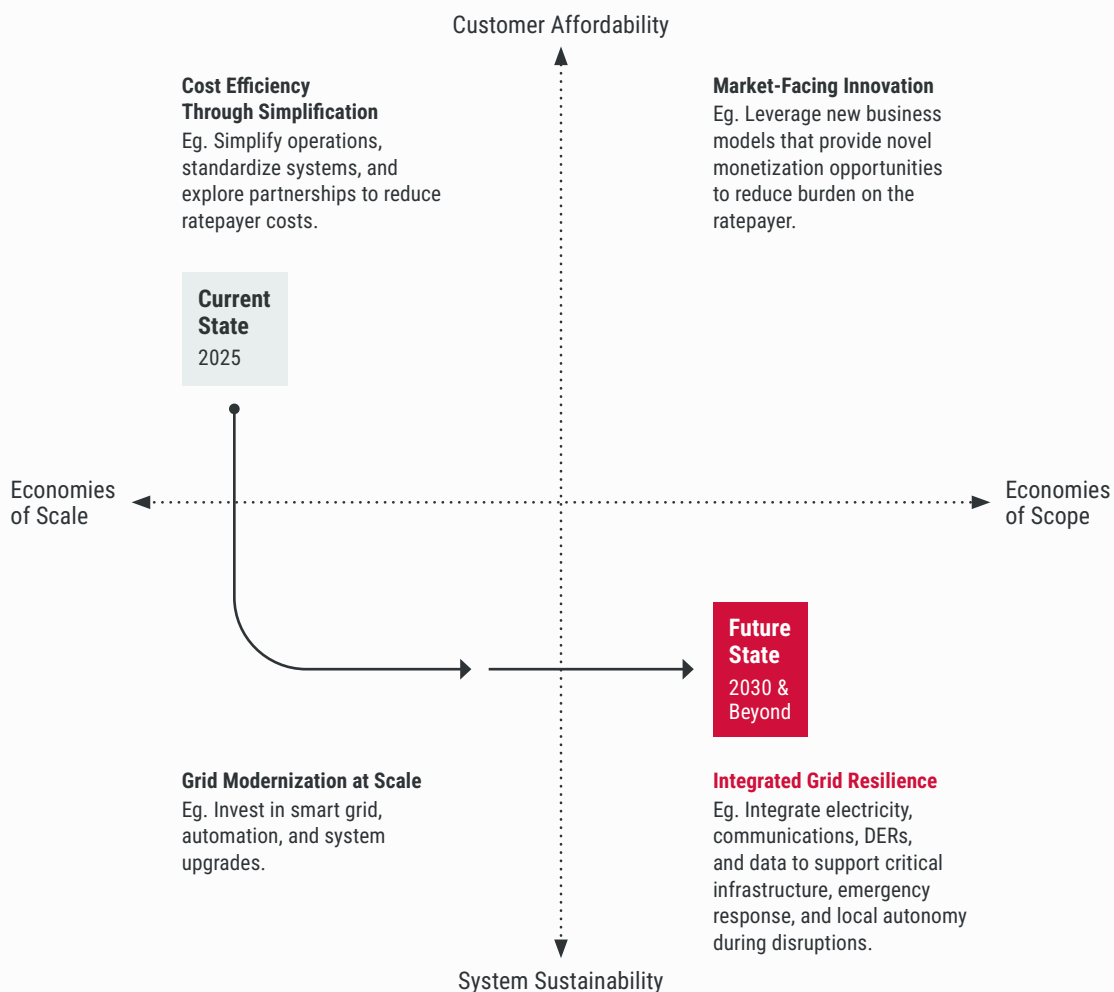
Our role as a strategic enabler of local economic development will continue to grow as we align infrastructure planning and investment with anticipated demand. As population, housing, and electricity demand increase across a range of scenarios, we will take an evidence-based approach that enables flexibility, supports timely investment, and positions us to respond effectively as conditions evolve.

Delivering on our commitment to affordability will remain central to our approach as we strengthen the resilience and adaptability of our system. Building on our history of cost efficiency and disciplined investment, we will make informed decisions that support long-term system performance, enhance grid resilience, and maintain a strong focus on customer outcomes.

Kingston Hydro's Journey Towards Integrated Grid Resilience

Kingston Hydro has always and will continue to maintain a sharp focus on cost-efficiency. Simplified operations, standardized systems, and strategic partnerships will manage costs and support ratepayer value. In the near term, the focus will shift to modernizing the grid through targeted investments in automation, smart technologies, and system upgrades. These upgrades will serve as the backbone to reach the ultimate vision: achieving Integrated Grid Resilience. By integrating electricity infrastructure, communications networks, DERs, and advanced analytics, Kingston Hydro will strengthen its capacity to support critical infrastructure, respond swiftly to emergencies, and enable greater local autonomy during disruptions.

Kingston Hydro's Ambition Journey



Our Vision

To be a forward-thinking energy partner powering Kingston's growth and prosperity.

Kingston Hydro aspires to be more than a utility that simply delivers electricity. The organization will continually look ahead — challenging the status quo by anticipating where the industry is headed and trying to understand how Kingston's needs will evolve. New innovations and technologies will be carefully explored and assessed, not for the sake of novelty, but through a balanced, risk-informed lens that ensures investments create meaningful, long-term impact.

As part of this approach, Kingston Hydro will work closely with government, industry players, and customers, positioning itself as both a leader and a trusted community partner. This role extends beyond service provision:

Kingston Hydro will engage directly with residents and businesses to co-develop solutions that respond to local priorities and opportunities.

In doing so, Kingston Hydro will support Kingston's broader ambitions — from housing growth and economic development to climate and sustainability goals. Kingston Hydro will continue to provide safe, reliable energy today while building a modern grid designed to enable future residential, commercial, and industrial growth. By aligning capacity with community needs, Kingston Hydro will play a defining role in the city's long-term prosperity and quality of life.

Our Mission

To provide advanced energy solutions and a resilient electricity system through focused partnerships and service excellence.

Kingston Hydro's mission is to go beyond the traditional role of connecting poles and wires, by developing innovative solutions that bring its long-term vision to life. The company will serve as a system partner, focusing on sustainable, efficient, and future-ready energy practices that deliver the best outcomes for the community.

Reliability will remain a baseline expectation, but investment decisions will shift toward smarter, cost-effective solutions guided by taking a balanced approach to risk that allows for pragmatic innovation. Kingston Hydro will leverage the advantages of the multi-utility model, operated through Utilities Kingston, to deliver electricity services in a cost-effective way. This integrated approach not only reduces costs but also provides customers with a more seamless service experience and ultimate value for Kingston's customers.

Through strong collaboration with municipal partners, businesses, regulatory bodies, technology providers, and the community, Kingston Hydro will combine external expertise with internal capability to shape the future of energy delivery, drive growth, and expand its impact.

Our Values

Kingston Hydro and Utilities Kingston share a common foundation of values that underpin the success of Kingston's unique multi-utility model. This shared approach reinforces a culture of collaboration, efficiency, and community service.

As Kingston Hydro continues to evolve, we have intentionally reframed these values to reflect its specific mandate as a regulated electricity distributor. This includes elevating affordability as a core principle to guide our decisions. As system demands grow and the energy landscape becomes more complex, maintaining customer affordability requires deliberate, evidence-based choices that strengthen grid resilience while supporting a flexible and adaptable system.

Together, these values reflect principles that ensure a safe, reliable, and sustainable grid for generations to come.

Safety

Create safe infrastructure and processes that limit potential risks to customers, residents and Utilities Kingston employees.

Integrity

Making risk-informed and transparent decisions that respect our service providers, future-proof our organization and enable a sustainable grid.

Innovation

Embracing creative, forward-thinking solutions to meet and anticipate the evolving needs of our community.

Reliability

Provide dependable energy solutions to ensure customers have electricity how and when they need it.

Affordability

Deliver on customer affordability by making evidence-based decisions to build integrated grid resilience and ensuring the flexibility and adaptability of our distribution system.

Strategic Imperatives & Initiatives

This five-year strategic plan sets out Kingston Hydro's direction in a period of rapid change for the electricity sector. It provides a framework to leverage the strengths of Kingston's multi-utility model, make informed investment and operating decisions, and continue delivering safe, reliable, and affordable service.

Guided by a commitment to innovation, efficiency, and community partnership, the plan positions Kingston Hydro to support the city's ongoing growth and economic development while preparing for an evolving energy future.

Kingston Hydro's 2026-2030 strategic plan focuses on four imperatives with corresponding business objectives and strategic initiatives.



Modernize the Grid

We will deliver a stronger, smarter, and more resilient grid that customers can depend on. By modernizing our infrastructure, Kingston Hydro will provide reliable power, faster restoration, and greater transparency – giving customers confidence that their energy needs will be met today and well into the future.

- 1

Asset management that supports near-term and long-term system requirements

We will continue to strengthen our asset management program to manage the upgrading of Kingston Hydro’s existing assets, and ultimately to strengthen our grid resilience. As we invest in upgrading aging infrastructure, this plan will allow us to better support capital project delivery and enhance customer confidence in Kingston Hydro’s ability to plan for their needs. Continuous updates of the Distribution System Plan will enable a rolling 5-year plan and more effective scenario modeling.
- 2

Grid automation and smart technology deployment

We will advance digital transformation through advanced metering, enhanced SCADA strategies, smart grid technologies – such as advanced meters, sensors, and system automation – and related initiatives that streamline restoration activities and enable faster, data-driven decision-making. These projects will enhance transparency for customers, address resource constraints, and improve forecasting. Grid automation will enable the two-way exchange of power and data that underpins a stronger, smarter grid.
- 3

Grid capacity enhancements and investments

We will invest in grid infrastructure to increase capacity and reliability, ensuring Kingston Hydro can meet future load requirements. These investments will strengthen the grid, improve resilience to extreme events, and provide a foundation for innovative energy solutions. This work will have a positive impact on the customer experience and confidence in Kingston Hydro’s long-term planning.

Business Objective	Key Performance Indicators
Maintain grid reliability while improving resilience	Average duration and frequency of outages
<i>Kingston Hydro will upgrade aging infrastructure to optimize grid operations.</i>	Distribution System Plan implementation
	Next-generation Advanced Metering Infrastructure installation

Enable Innovative Energy Solutions

We will lead our efforts in the energy transition by fostering the adoption of advanced, customer-focused energy solutions. Through investments in distributed energy resources and conservation efforts, our organization will enable greater choice, flexibility, and sustainability.

- 1

Develop the next generation energy solution approach

We will explore the development of our own Integrated Energy Plan that aligns with provincial objectives. This strategy will require sharing data across utilities (gas and electricity, where allowed) and regulatory changes to align with evolving Distribution System Operator roles. Kingston Hydro will create a clear path forward for the development and implementation of innovative energy solutions that can support Kingston's growth.
- 2

Identify and facilitate pilot program opportunities through partnerships

We will establish clear criteria for evaluating business cases and dedicate leads to ensure successful design and implementation of pilot projects. These pilots will de-risk innovation, reduce costs of exploring new ideas, and position Kingston Hydro as a leader in testing advanced solutions in collaboration with industry and community partners.
- 3

Promote advanced energy solutions

We will actively facilitate the adoption of distributed energy resources and the development of the two-way grid, including EV infrastructure and other advanced technologies that increase grid reliability and add capacity. These solutions support climate change goals, strengthen system performance, and provide customers with access to cleaner and more flexible energy options.
- 4

Develop and implement conservation programs

We will design and deliver conservation programs that promote efficient energy use and align with provincial conservation frameworks. These programs will help manage demand, lower customer costs, and demonstrate Kingston Hydro's leadership in supporting sustainability.

Business Objective	Key Performance Indicators
Set the foundation for a thriving local energy market	Installed capacity from dispatchable DERs and approved DER connections
<i>Kingston Hydro will facilitate the adoption of new energy solutions that support Kingston's growth.</i>	Participation in electricity Demand Side Management and the Home Renovation Savings Program
	Delivered capacity from NonWires Alternatives

Evolve the Business

We will strengthen and build upon a utility that is financially sustainable, increasing our adaptability to evolving regulation, and being ready for the future. By continuously improving how we operate, Kingston Hydro will remain efficient, responsive, and innovative - ensuring long-term value for customers and the City of Kingston.

- 1

Foster an innovative mindset

In collaboration with Utilities Kingston, we will support a culture that embraces appropriate risk-taking, innovation, and continuous improvement. We will create opportunities for innovative work, celebrate calculated risk-taking and emphasize the need for Kingston Hydro to operate differently to reach our goals. This cultural shift aims to support Utilities Kingston employee recruitment and retention, enhance customer satisfaction, and increase organizational agility.
- 2

Invest in shared technology through the Utilities Kingston multi-utility model

We will increasingly leverage the multi-utility model to implement shared systems such as a new Customer Information System, AI applications, asset management platforms, and Advanced Metering Infrastructure that provide benefits across Kingston Hydro and Utilities Kingston. These shared investments will improve customer transparency, streamline operations and ensure technology investments deliver value across both organizations.
- 3

Redesign business process to enable the 'future LDC'

We will transform manual processes into automated, data-driven systems. Incorporate project management, change management, and business analysis capabilities to improve efficiency and effectiveness. Redesigning core business processes will position Kingston Hydro as a future-ready LDC, better able to meet customer expectations and adapt to sector changes.

Business Objective	Key Performance Indicators
Optimize our financial and operating performance while navigating evolving regulation	Cost efficiency based on total cost per customer
<i>Kingston Hydro will navigate the sector's growing complexity while delivering high performance.</i>	OEB efficiency model classification
	Regulatory return on equity (ROE) performance

Strengthen our Partnerships

We will strengthen our trusted relationships that unlock community and industry-wide benefits. By working collaboratively with government, regulators, industry peers, and customers, Kingston Hydro will enable coordinated growth, reduce costs, and amplify Kingston’s voice in shaping Ontario’s energy future.

- 1

Create a robust government relations strategy

We will develop and execute a comprehensive government relations strategy to build trust with municipal, provincial, and federal partners. This will help Kingston Hydro support municipal economic development objectives, strengthen alignment with community priorities, and advocate for favourable regulatory direction.
- 2

Leverage community and customer engagement through partnerships

We will deepen relationships with customers and community stakeholders to create a more customer-centric organization. Engagement will improve customer satisfaction, transparency, and ensure Kingston Hydro is responsive to local needs and priorities.
- 3

Cultivate strategic industry relationships

We will build and maintain strong partnerships with industry associations and peers to collaborate on innovation and shared services. These relationships will create efficiencies, amplify Kingston Hydro’s voice in the sector, and ensure Kingston Hydro is contributing to broader energy transition initiatives.
- 4

Enhance regulatory and market relationships

We will proactively engage with regulators and market operators to demonstrate Kingston Hydro’s leadership and alignment with evolving sector expectations. Strong regulatory and market relationships will reinforce Kingston Hydro’s credibility, create efficiencies in compliance, and support shared service models that benefit customers and the community.

Business Objective	Key Performance Indicators
Enhance stakeholder trust	Customer experience strategy implementation
<i>Kingston Hydro will engage with partners to understand evolving needs and co-create solutions that directly support Kingston's future.</i>	Customer satisfaction results
	Shareholder and partner sentiment
	Participation in industry initiatives and community engagement activities

Delivering Government Priorities

This strategic plan was thoughtfully developed to ensure that Kingston Hydro's strategic efforts are directly aligned with the priorities set out by the Ontario Government. Ontario's Bill 40 and a series of other government actions establish a new provincial framework focused on economic growth, grid readiness, and strategic energy infrastructure development.

Kingston Hydro's 2026–2030 Strategic Plan is purpose-built to align with this direction — positioning the utility as an enabling partner in provincial and municipal growth, a proactive steward of grid modernization, and a ready collaborator in implementing Ontario's evolving energy policies.

Bill 40 At a Glance

Within Bill 40 the Government is focusing on:

A focus on driving economic development

New connection rules for high demand loads

Supporting electricity infrastructure investment through Government funding

Focus on buying Canadian along with foreign participation restrictions

Faster and more predictable regulatory approvals



How Kingston Hydro's Imperatives Support Government Priorities

1. Modernize the Grid

Bill 40 sharpens provincial focus on infrastructure investment, reliability, and capacity to support economic growth. Kingston Hydro's modernization agenda — including grid automation, smart technologies, and strengthened asset management — directly advances these objectives by ensuring the grid is resilient, future-ready, and capable of supporting Kingston's long-term development.

2. Enable Innovative Energy Solutions

Bill 40 anticipates a more complex and dynamic energy system. Kingston Hydro's strategic commitment to distributed energy resources, EV readiness, pilot programs, and next-generation energy solutions aligns with the province's priorities for innovation, decarbonization, and capacity optimization.

3. Evolve the Business

Bill 40's modernization of regulatory processes demands utilities that are adaptive, data-driven, and operationally efficient. Kingston Hydro's intent to transform internal processes, leverage shared systems, and strengthen analytical and operational capabilities positions the organization to excel under a faster, more outcomes-focused regulatory environment.

4. Strengthen Our Partnerships

Bill 40 reinforces the importance of collaboration across government, regulators, industry, and communities. Kingston Hydro's strategic emphasis on government relations, stakeholder trust, and sector partnerships creates the foundation for attracting cofunding, influencing policy, and ensuring Kingston's voice is represented in shaping Ontario's energy future.

Kingston Hydro's 2026–2030 Strategic Plan is fully aligned with the objectives of the provincial government. By modernizing the grid, enabling advanced energy solutions, evolving the business, and strengthening partnerships, Kingston Hydro is prepared to execute its mandate as a forward-thinking energy partner powering Kingston's growth and prosperity.

Strategic Measures

The following table outlines the approach to measuring success of the strategic plan.

Pillar	Intent	Measure
Modernize the Grid	Measure reliability and outage performance to ensure progress is made toward a more resilient grid.	System reliability outcomes, measured by System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) performance that meets or exceeds OEB scorecard benchmarks. Maintain year-over-year progress toward full implementation of the Distribution System Plan, targeting at least 95% completion of approved projects and investment milestones.
	Evaluate the implementation of advanced monitoring technologies across Kingston Hydro assets.	Progress in smart metering and advanced monitoring deployment.
Enable Innovative Energy Solutions	Measure the implementation of innovative energy solutions that are online within Kingston Hydro's network, such as solar, storage, combined heat and power.	Number and installed capacity (MW) of in-service distributed energy resource projects connected to the distribution system.
	Ensure the effectiveness of conservation programs in addressing Kingston's future energy needs through demand reduction initiatives.	Customer participation and demand and energy reductions achieved through electricity Demand Side Management and the Home Renovation Savings Program.

Pillar	Intent	Measure
Evolve the Business	Evaluate Kingston Hydro's operational efficiency compared with industry peers.	Total cost per customer relative to OEB scorecard peers.
	Track financial performance relative to OEB-approved ROE, indicating financial health and regulatory performance.	Regulatory return on equity (ROE) relative to the OEB-approved ROE (basis points).
Strengthen our Partnerships	Measures customer experience and trust, both residential and commercial.	Maintain or improve customer satisfaction results year over year, relative to sector comparators.
	Gauge perceptions among key stakeholders (City, large customers, IESO, local institutions, community groups). This can be done either qualitatively or quantitatively.	Establish a benchmark and monitor stakeholder and shareholder sentiment, with the objective of maintaining or improving results.
	Capture the degree to which partnerships are leveraged (e.g., with IESO, City of Kingston, etc.) to achieve shared objectives and attract investment.	Effectiveness of strategic partnerships, measured through jointly delivered initiatives and documented outcomes.
	Indicate Kingston Hydro's leadership and collaboration within the energy sector and community.	Leadership and collaboration within the sector and community, measured through participation in priority industry initiatives, working groups, and community engagements.

Appendix A: Environmental Scan

Kingston Hydro operates within an electricity sector undergoing rapid and fundamental change. The forces shaping this transformation are broad and interconnected – from global efforts to decarbonize the energy system and the growing integration of distributed energy resources, to advances in digital technology, evolving public policy, and new expectations from customers and communities. At the same time, local factors such as population growth, electrification, and climate change are intensifying demand on the grid and reshaping how infrastructure is planned and managed. Together, these trends define a new energy landscape – one that is cleaner, more complex, and more dynamic than ever before.

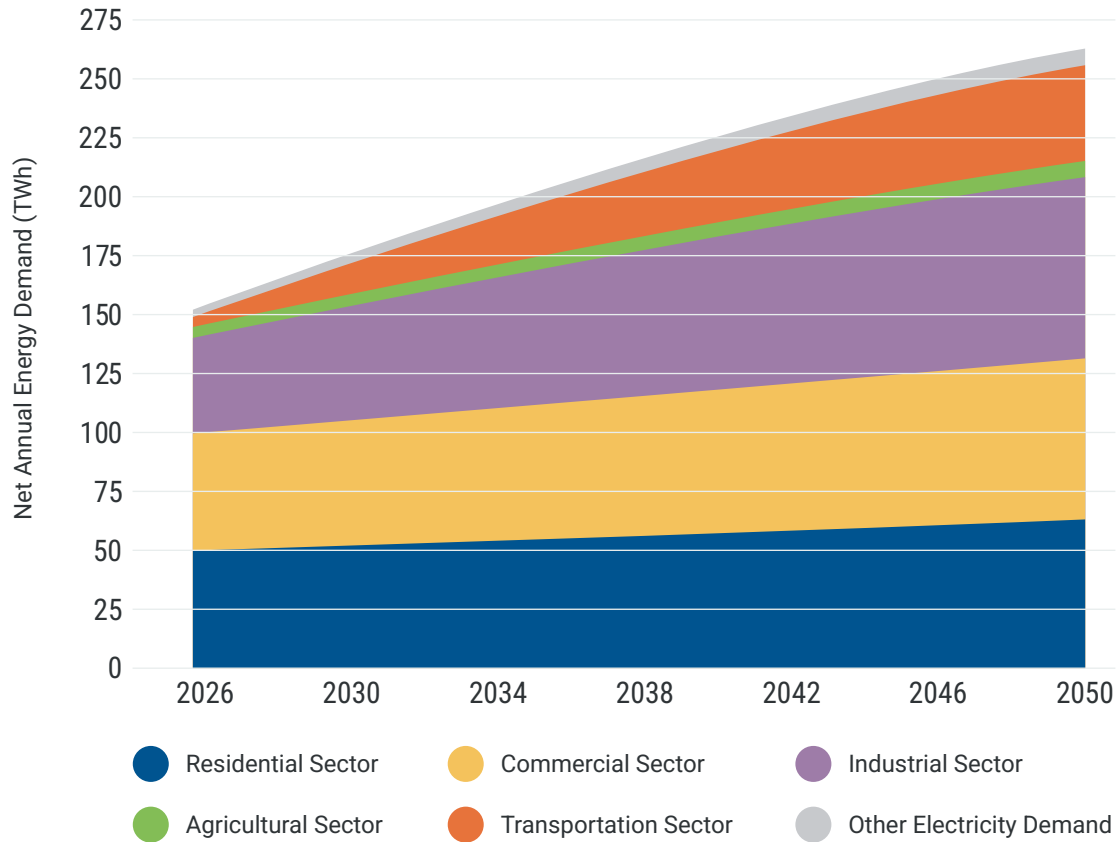
At the time of publishing this strategic plan, there remains uncertainty around Canada-U.S. trade policy and potential economic impacts. Kingston Hydro continues to monitor developments and will reflect any impacts in its business plan.

The electricity sector is undergoing a fundamental transformation driven by decarbonization, electrification, and digitalization.

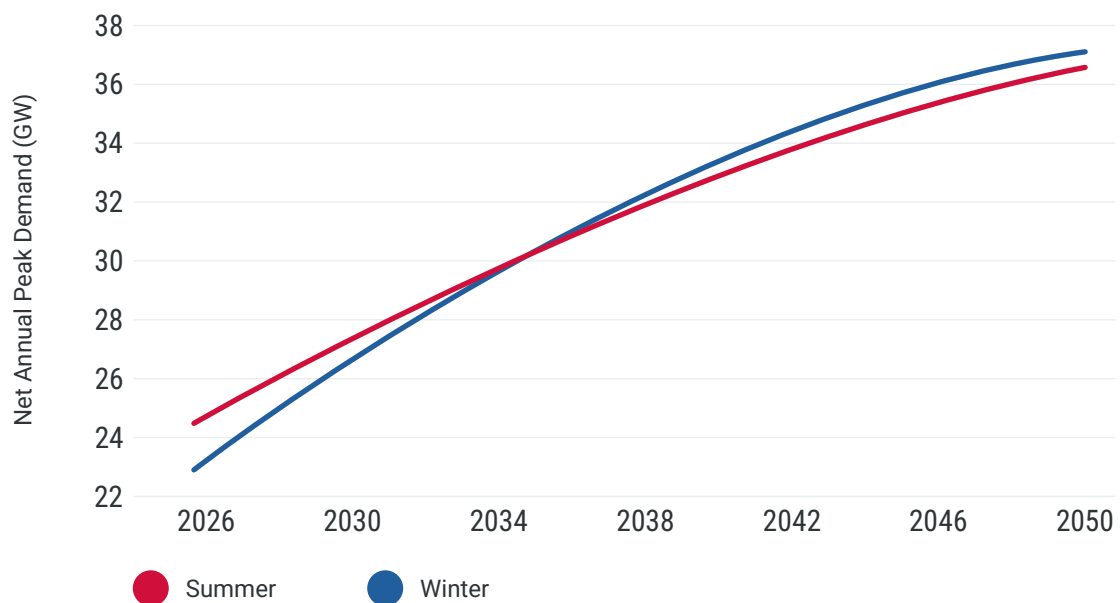
Across Ontario and beyond, the energy system is shifting rapidly toward cleaner and smarter forms of energy, primarily through electrification. Federal and provincial policies are accelerating this change by promoting renewable generation, electric vehicles, and the electrification of buildings and industries – trends that are also driving higher demand for electricity. This energy transition is not only changing what fuels our economy, but how energy flows through the grid itself. The traditional one-way delivery model is giving way to a system of interconnected networks, where local grids must manage multiple sources of supply, storage, distribution and demand in real time.

In response to these trends, the IESO's 2025 Annual Planning Outlook forecasts Ontario's compound annual growth rate for system-level net annual energy demand of 2.2%, summer peak demand of 1.7%, and winter peak demand of 1.9%. This trend will mean Ontario is forecasted to become winter peaking in or around 2038. This growth is a step change from the nearly flat grid-level demand over the 2015-2024 period.

Annual Energy Demand



Season Peak Demand



Distributed energy resources (DERs) are at the centre of this shift, creating both opportunity and complexity for the electricity system.

As rooftop solar panels, battery storage, and electric vehicle (EV) chargers become more common, energy generation and storage are moving closer to the customer.

These distributed energy resources allow consumers to produce, use, and store electricity, contributing to a more decentralized and flexible grid.

New opportunities within the energy grid also bring new challenges – requiring utilities to monitor and balance two-way energy flows and coordinate resources across increasingly dynamic networks to maintain grid reliability. The rise of DERs is reshaping the role of the local hydro company from energy distributor to becoming a more active system operator.

The growing integration of DERs is accelerating the emergence of local energy markets and potentially a Distribution System Operator (DSO) model.

As the number of localized energy assets increases, utilities are beginning to play a more active role in coordinating and optimizing them. The DSO model supports this evolution – where local utilities manage distributed generation, storage, and flexible loads to support system efficiency and reliability. This requires new tools for data analytics, automation, and system visibility, as well as closer collaboration between utilities, municipalities, and provincial agencies.

Across Ontario, this marks a shift toward a more intelligent and decentralized grid. Through increased intelligence it becomes increasingly possible for utilities to use local DERs to better manage loading on its existing system, creating the opportunity to defer or avoid costly new infrastructure.

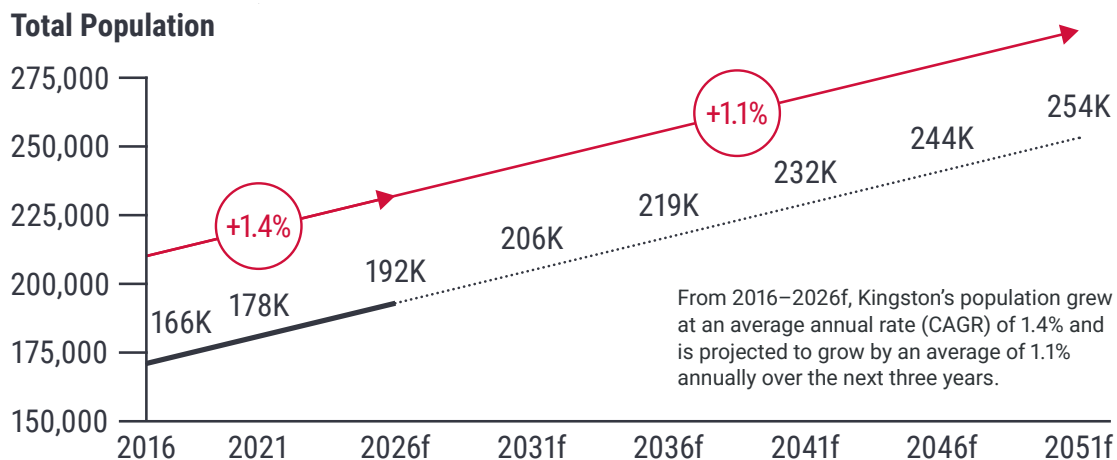
Digitalization and automation are enabling smarter, faster, and more adaptive grid operations.

Advancements in grid technology – from smart meters and sensors to real-time monitoring and automation systems – are transforming how utilities plan and operate. The “smart grid” makes it possible to detect and resolve outages more quickly, anticipate equipment failures, and manage assets more effectively. Artificial intelligence is further amplifying these capabilities, using pattern recognition and predictive insights to optimize grid performance, forecast demand, and enhance decision-making across the system. Data analytics are now at the heart of system planning and reliability management, allowing utilities to make better, faster decisions about where and how to invest. This digital transformation also lays the foundation for greater customer engagement and innovation in energy use.

Population growth, electrification, and urban intensification are driving new local demand pressures.

Even under a low growth scenario, Kingston's population is growing steadily, supported by new housing, commercial investment, and institutional expansion.

As more residents and businesses adopt electric vehicles and low-carbon heating systems, overall electricity consumption – and the need for grid capacity – is rising. These trends are increasing the importance of long-term planning and coordinated investment in local infrastructure. Integrating electricity system planning with broader municipal growth and development priorities will be essential to ensure that energy supply keeps pace with community needs.



Population Growth Projections (City of Kingston 2023 Growth Study)

Policy and regulation are evolving to promote innovation, integration, and accountability across the sector.

The Ontario Energy Board (OEB) and Independent Electricity System Operator (IESO) are reshaping the provincial framework to encourage modernization and efficiency. Local distribution companies are now expected to deliver DER participation, integrate with regional planning processes, and deliver measurable outcomes for customers and communities. At the same time, policymakers are balancing innovation with affordability, requiring utilities to demonstrate sound governance, cost discipline, and performance. This policy evolution is creating a more dynamic, competitive, and outcomes-focused environment for electricity distributors across Ontario.

Customer expectations are evolving in step with technology and social change.

Consumers are no longer passive recipients of electricity – they are becoming active participants in the energy system. Customers expect their utilities to provide transparency, digital access, and sustainable solutions that align with climate and community goals. The growth of smart home technologies, EVs, and real-time data platforms is deepening this engagement. Today's customers want energy services that are reliable, affordable, and environmentally responsible – and they expect utilities to help them make informed choices about their consumption and production.

Climate change and extreme weather are redefining what reliability and resilience mean for utilities.

Across Ontario, more frequent and extreme storms, heatwaves, and floods are testing the limits of existing infrastructure. The need to adapt to these conditions has become a defining feature of the energy landscape.

Modern grid designs now emphasize resilience – through redundancy, automation, and, increasingly, localized systems such as microgrids and distributed storage. The intersection of climate adaptation and technological innovation is shaping how utilities plan and invest for the long-term.

Together, these forces mark a historic turning point in the evolution of the electricity system.

The convergence of electrification, distributed generation, digital innovation, regulatory change, and climate pressure is redefining how electricity is produced, managed, and used. Local utilities now operate in a more complex, interconnected environment – one that demands agility, collaboration, and technical sophistication. The energy transition underway is not a single shift but a continuous transformation, one that will shape how Ontario's communities are powered for decades to come.

As Kingston Hydro looks to the future, all of these complex trends must be actively accounted for and managed.

Policy & Regulatory Context

Ontario's electricity sector is undergoing its most significant policy and regulatory transformation in more than a decade. While Bill 40 – Protect Ontario by Securing Affordable Energy for Generations Act, 2025 represents the most visible legislative reform, its impact must be considered alongside a broader suite of regulatory, market, and policy directions that collectively redefine how LDCs plan, invest, and operate. Together, these developments create a more growth-oriented, innovation-focused, and capacity-constrained environment—one in which Kingston Hydro must be agile, strategic, and proactive.

Within the broader context of Ontario's energy transition, the Government of Ontario has advanced Bill 40 as a major evolution in electricity sector policy. The Act is intended to support rising electricity demand and enable economic growth by introducing new expectations and tools for LDCs, particularly with respect to system planning, customer connections, and infrastructure development.

In 2025, this legislative change was accompanied by complementary regulatory and policy measures that further reinforce the government's growth-oriented and system-expansion objectives. Together, these measures provide additional clarity on long-term system needs, procurement priorities, and evolving expectations for electricity distributors.

Key accompanying measures introduced or advanced in 2025 include:

- ☒ New regulatory tools that expand options for large electricity consumers to support off-site renewable supply.
- ☒ Long-term system planning outputs confirming sustained and accelerating growth in summer and winter peak demand.
- ☒ An integrated energy policy framework aligning electricity planning with economic growth, electrification, and emissions reduction objectives.
- ☒ Ministerial and agency directions translating these objectives into procurement, planning, and regulatory priorities.

The following table summarizes the principal legislative, regulatory, and policy developments shaping this environment.

Legislative & Regulatory Developments	Description
Bill 40 Protect Ontario by Securing Affordable Energy for Generations Act (2025)	☒ Establishes a growth-focused regulatory framework requiring the OEB and IESO to consider economic development in decision-making ☒ Introduces mandatory connection rules for high-demand loads ☒ Enables provincial funding for infrastructure ☒ Streamlines regulatory approvals ☒ Adds procurement rules for LDCs and allows LDCs to record associated compliance costs ☒ Signals a more capacity-constrained and accelerated infrastructure delivery environment for electricity distributors
Ontario Regulation 101/25 Virtual Power Purchase Agreements	☒ Creates a regulatory pathway for corporate power purchase agreements (PPAs) that function as Virtual PPAs by treating off-site renewable output as behind-the-meter ☒ Allows eligible customers to reduce Global Adjustment charges and secure long-term pricing while supporting renewable development ☒ Applies across multiple renewable technologies and requires careful contract and compliance management
Government of Ontario Integrated Energy Plan	☒ Establishes a coordinated, economy-wide framework for meeting rising electricity demand and supporting Ontario's energy transition ☒ Confirms long-term investment priorities in nuclear and hydroelectric resources ☒ Affirms the continued role of natural gas within Ontario's energy mix ☒ Prioritizes energy efficiency and DERs as core system tools ☒ Aligns electricity system planning with provincial economic growth and investment attraction objectives ☒ Introduces cross-fuel planning expectations, including enhanced gas-electric coordination

Legislative & Regulatory Developments

Description

Ministerial Policy Direction **IESO & OEB**

June 12, 2025

- ☒ IESO directive mandates 11 implementation workstreams under the Integrated Energy Plan, along with additional 2025 directives in the second long-term procurement (LT2) “Buy Canadian” requirements, the Hydrogen Innovation Fund and IESP enhancements
- ☒ OEB directive (O.C. 802/2025) requires streamlined approvals, alignment with electrification and economic development priorities, and improved regulatory efficiency

December 18, 2025

- ☒ Letter of Direction sets expectations for 2026–2027, including affordability, digital modernization, electrification support, and updated rate design frameworks

IESO Initiatives **APO, LT2, Capacity Auction**

- ☒ APO forecasts sustained peak demand growth requiring LDC investment in capacity, resilience, and flexibility tools
- ☒ LT2 procurement targets new clean and flexible resources connecting at transmission and distribution levels, affecting interconnections and planning
- ☒ Capacity Auction expands DER participation in reliability services, increasing operational and integration responsibilities for LDCs

OEB Initiatives **VASH, Rate Modernization, DER Integration**

- ☒ The OEB’s Vulnerability Assessment and System Hardening project aims to strengthen climate resilience and system hardening expectations within LDC asset planning
- ☒ Rate modernization seeks simpler rate structures, enhanced benchmarking, and reduced regulatory burden
- ☒ DER integration reforms update connection codes, improve hosting capacity transparency, and clarifies treatment of technologies including storage
- ☒ Advances a comprehensive review of regional and bulk electricity system planning processes to improve efficiency and responsiveness to evolving demand conditions
- ☒ Undertakes a province-wide examination of how distributed energy resources are valued and compensated within distribution rate frameworks

Appendix B:

Glossary

The electricity sector relies on specialized technical, regulatory, and policy-driven terminology to describe how energy is planned, delivered, and managed.

As a local utility, Kingston Hydro works closely with provincial agencies, regulators, municipal partners, and customers. As a result, this Strategic Plan uses terminology related to system planning, grid modernization, emerging technologies, performance measurement, and government programs.

The definitions below are included to support consistency and clarity across the Strategic Plan.

Acronym	Full Term	Definition
AI	Artificial Intelligence	Used to analyze data, identify patterns, and support forecasting, planning, and operational decision-making.
AMI	Advanced Metering Infrastructure	Enables two-way communication between meters and the utility, improving billing accuracy and system visibility.
AMI 2.0	Next-generation Advanced Metering Infrastructure	Next-generation AMI. Adds enhanced data, automation, and analytics capabilities to support smart grid functions.
APO	Annual Planning Outlook	Provides long-term forecasts of electricity demand, supply, and system requirements in Ontario.
CHP	Combined Heat and Power	Produces electricity and useful heat from a single fuel source, increasing efficiency.
CIS	Customer Information System	Supports customer accounts, billing, service requests, and communications.
City	City of Kingston	Acts as the sole shareholder of Kingston Hydro.

Acronym	Full Term	Definition
DER	Distributed Energy Resource(s)	Customer or locally located assets such as solar, storage, or flexible loads connected to the distribution system.
DSO	Distribution System Operator	Refers to the emerging role of utilities in actively coordinating and optimizing distributed resources.
DSP	Distribution System Plan	Identifies planned investments to maintain system reliability, capacity, and resilience.
eDSM	Electricity Demand-Side Management	Includes programs that reduce, shift, or manage electricity use.
EV	Electric Vehicle	Refers to vehicles powered by electricity, including charging infrastructure.
HRSP	Home Renovation Savings Program	A provincial program supporting customer energy efficiency improvements.
IEP	Integrated Energy Plan (Ontario)	Aligns electricity, gas, and broader energy planning across Ontario.
IESO	Independent Electricity System Operator	Manages Ontario's wholesale electricity market and overall system reliability.
IESP	Indigenous Energy Support Program	Supports Indigenous participation in energy projects and initiatives.
KHS	Kingston Hydro Services	Provides operational and support services to Kingston Hydro.
kV	Kilovolt	A unit used to describe electrical voltage levels.
LDC	Local Distribution Company	Responsible for distributing electricity to customers within a defined service area.
LT2	Long-Term 2 Procurement (IESO)	A program to secure new electricity supply and capacity resources.
MW	Megawatt	A unit used to measure electrical power capacity or demand.
MWh	Megawatt-hour	A unit used to measure electrical energy consumption or production.

Acronym	Full Term	Definition
NWA	Non-Wires Alternative(s)	Uses local solutions, such as distributed energy resources, demand response, or energy efficiency, to defer or replace traditional electricity infrastructure investments while maintaining system reliability.
O. Reg.	Ontario Regulation	Refers to regulations made under provincial legislation.
OEB	Ontario Energy Board	Regulates Ontario's electricity and natural gas utilities.
PPA	Power Purchase Agreement	A contract to purchase electricity from a generator over a defined term.
ROE	Return on Equity	Measures financial performance against the regulatory allowance.
SAIDI	System Average Interruption Duration Index	Tracks the average length of power outages experienced by customers.
SAIFI	System Average Interruption Frequency Index	Tracks how often customers experience power outages.
SCADA	Supervisory Control & Data Acquisition	Enables real-time monitoring and control of the distribution system.
VASH	Vulnerability Assessment & System Hardening	Focuses on climate resilience, system protection, and support for vulnerable customers.
VPPA	Virtual Power Purchase Agreement	Enables off-site renewable electricity procurement through financial contracts.



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