



Annual Report 2022





Our vision

To advance the unique multi-utility model to benefit our customers and build better communities.

Our mission

To manage, operate and maintain community infrastructure to deliver safe, reliable services and a personal customer experience.

Our values

Safety, integrity, innovation and reliability.



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Land acknowledgment

We have prepared this annual report in the ancestral and continuing unceded territory of the Huron-Wendat, Anishinaabe and Haudenosaunee Peoples. We thank these Peoples for their stewardship of the land. As we preserve and protect the land and water, we commit to delivering our services with care for the Earth.

Message from the Chair of the Board, and the President and Chief Executive Officer

On behalf of the Board of Directors, our leadership team and employees, we are pleased to provide this 2022 Annual Report to our Shareholder. This marks our first progress report under the leadership of our new president and CEO, and the second year of our 2021-2025 strategic plan.

The year 2022 was one of transition. We continued to manage long-term impacts of the COVID-19 pandemic, with the primary goal of keeping our employees and customers safe. Towards the end of the year, we marked a major milestone as we safely reopened our headquarters to the public, offering a self-service model that ensures the continued safety of our employees and community through physical distancing.

While transitioning a new president and CEO into the organization, we reviewed the commitments of our strategic plan and identified key organizational changes that will position us to deliver on the goals outlined in the plan. These changes included restructuring the company to create a customer care branch, as well as a new sustainability and climate action department.

Meanwhile, safety continues to be our highest value. To maintain our high standards in health and safety, in 2022 we doubled staffing of the department from one full-time employee to two.

This evolution will position us to address increasing expectations in environmental, social and governance (ESG) reporting.

We are operating in a connected world in which society is increasingly committed to the values of responsible business, sustainable economic development and long-term value creation. By fostering a diverse, inclusive workplace and offering employees the opportunity to thrive and grow, we are ensuring the success of our organization and community.

From supporting the United Way Workplace Campaign, to assisting local organizations and agencies, helping our industry partners in their time of need, and participating in inclusivity events like Pride Month and International Women's Day, the activities of our employees help further these societal goals for the greater good.

Meanwhile, environmental protection is at the forefront of everything we do. As stewards of our planet, we do our utmost to mitigate the environmental impact of delivering energy, treating source water and managing wastewater.

To protect the natural environment and the health and safety of recreational water users, we have strengthened our commitment to reducing sewer overflows. In partnership with the City of Kingston we set a 20-year goal to separate 100 per cent of the combined sewers in the municipal sewer system by 2043.

On the governance front, enterprise risk management is an integral part of Utilities Kingston's culture and day-to-day operations. In 2022, we identified and managed critical

risks and opportunities related to changing regulatory and policy requirements, volatility in the financial market, cyber security threats, supply chain interruption and sustained COVID-19-related public health threats. Enterprise risk management helps ensure we can achieve our long-term strategic priorities, increase value for stakeholders and meet governance and compliance requirements.

With this increasing focus on and transparency in ESG, we're transitioning towards improved and cascading reporting to our stakeholders. From corporate strategy to our annual work plan, we're excited to enhance organizational alignment and strengthen our purpose. As the world evolves, these changes position our organization so that we can successfully continue our core work to manage, operate and maintain multiple utility services and build better communities.

Kingston is one of Ontario's fastest-growing municipalities. Our system investments help ensure the growth and development of our city, while modernizing equipment to meet the challenges provided by climate change and increase the efficiency of our operations.

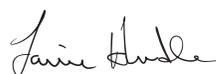
In 2022, our employees renewed end-of-life water infrastructure, continued the significant upgrades to the Days Road Pumping Station and Cataraqui Bay Wastewater Treatment Plant, ensured the safety and integrity of the natural gas distribution system and upgraded electricity distribution facilities to ensure the reliability of power to our customers for generations to come.

Meanwhile, the operational activities of our employees improved company effectiveness, ensured compliance with all applicable regulations and governing agencies, and provided quality drinking water and safe, reliable energy services to our community, while ensuring environmental protection for our planet.

Throughout this, we remain dedicated in our relationship with our Shareholder. We support the City of Kingston in its commitment to become carbon neutral by 2040 and in fostering local growth and development.

Our strength comes from our dedicated, expert employees, who our community counts on each and every day. We thank our employees for their commitment to ensuring the safety and reliability of multiple utility services.

We'd also like to thank our Shareholder and Board of Directors for their support in furthering our vision to advance the unique multi-utility model to benefit our customers and, with the help of our tremendous workforce, build better communities.



Lanie Hurdle,
Chair, Board of Directors



David Fell,
President and Chief Executive Officer

Corporate governance

Overview

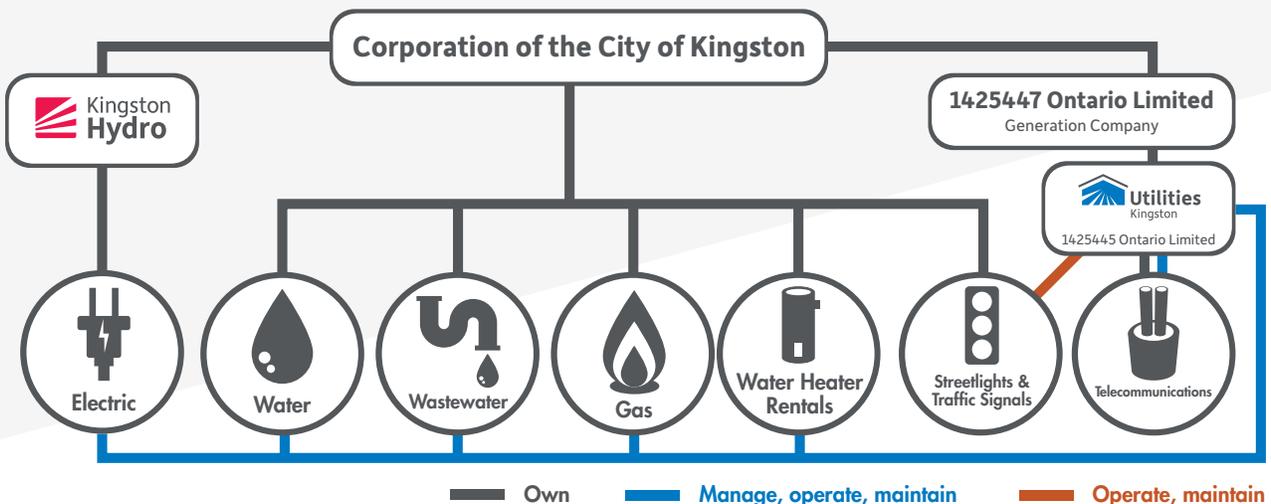
The company 1425445 Ontario Limited (operating as Utilities Kingston) is 100 per cent owned by 1425447 Ontario Limited, a wholly owned subsidiary of the Corporation of the City of Kingston.

The Corporation is governed by a Board of Directors, which consists of three independent directors and two directors appointed by position. The independent directors are appointed by the Shareholder of 1425447 Ontario Limited, the Corporation of the City of Kingston, represented by the elected municipal councillors.

Mission

Utilities Kingston’s mission is to manage, operate and maintain community infrastructure to deliver safe, reliable services and a personal customer experience. Its unique multi-utility model, which combines water, wastewater, natural gas, electricity and telecommunications services all under one company, allows Utilities Kingston to achieve its mission in a customer-focused and cost effective way.

The multi-utility structure enables the complex choreography of multiple work programs leading to the timely and cost-effective completion of the work. Along with helping to ensure that infrastructure repairs are less disruptive to residents and businesses, one of the most obvious benefits of a multi-utility structure that has all services under one roof, is cost savings from economies of scope. The Company benefits from a shared services model for activities, equipment and systems, ranging from customer care, billing, locates, metering and some operational functions such as a common operations centre.



Board of directors

Utilities Kingston is incorporated under the *Business Corporations Act* (Ontario) and as such is governed by the provisions of that Act, as well as a Shareholders' Declaration, approved by the Corporation of the City of Kingston.

The Board of Directors are responsible for overseeing the management of the Company and assessing the overall direction and strategy of the business, as well as ensuring enterprise risk management and regulatory compliance.

Directors



Lanie Hurdle
Chair,
Chief Administrative Officer,
City of Kingston



David Fell
President and Chief
Executive Officer



Nancy Taylor
Independent Director



William Leggett
Independent Director

Officers



Robert Little
Independent Director



David Fell
President and Chief
Executive Officer



Randy Murphy
Chief Financial
Officer and Treasurer,
Corporate Secretary

Corporate governance

Governing committees

The Board of Directors has created two committees of the Board to assist with its work. The members of the committees are comprised of the three independent directors.

Governance and Nominations Committee

The Governance and Nominations Committee oversees succession planning for Board members and senior executives. It develops the Company's approach to corporate governance and to discharge the Board's responsibilities related to compensation and benefits of the President and CEO, including reviewing for approval to the Board the adoption of any material change in the Company's executive and/or non-union compensation plans.

Audit and Risk Management Committee

The Audit and Risk Management Committee is responsible for assisting the board in fulfilling its oversight responsibilities in relation to financial and non-financial risks to the Company. This includes the integrity of the Company's financial statements and the Enterprise Risk Management program.

Active participation

Active participation of board members is a critical component of good governance, with all Directors demonstrating commitment to the Corporation in their attendance at Board and Committee meetings in 2022.

Board member	Board meetings	Governance, Nominations and Compensation Committee meetings	Audit and Risk Management Committee meetings
Lanie Hurdle, Chair	9/10	N/A	N/A
David Fell	10/10	N/A	N/A
William Leggett	9/10	2/2	4/4
Robert Little	9/10	1/2	4/4
Nancy Taylor	10/10	2/2	4/4

Senior leadership

Utilities Kingston's senior leadership is responsible for executing the overall strategic direction of the organization. The team ensures that the company achieves the mission of the organization, while striving towards its vision.



David Fell
President and Chief
Executive Officer



Randy Murphy
Chief Financial
Officer and Treasurer,
Corporate Secretary



Remi Adedapo
Director, Utilities Engineering



Kevin McCauley
Director, Telecommunications
and Customer Care



James Miller
Chief Operating Officer



Heather Roberts
Director, Water and
Wastewater Operations

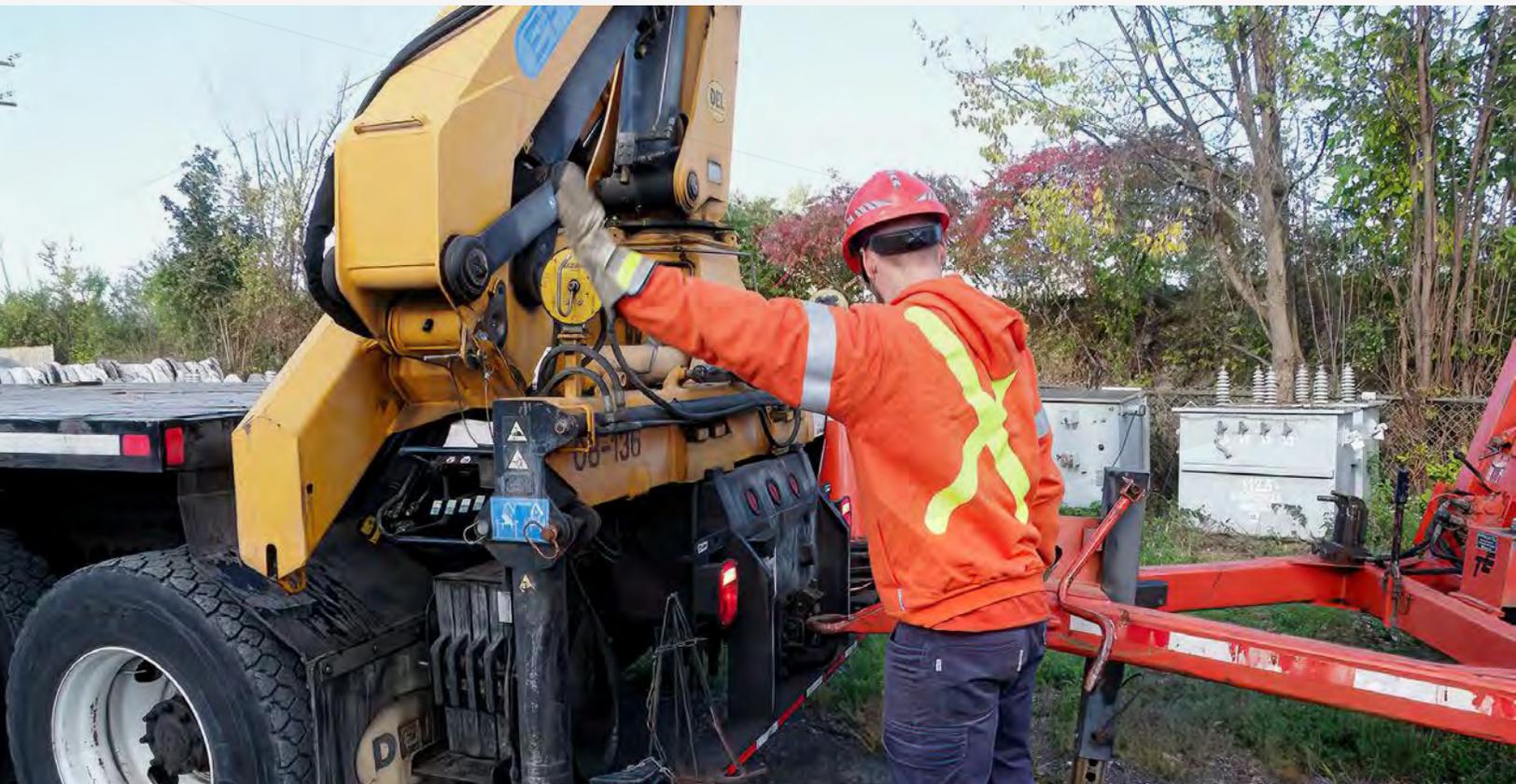
Corporate governance

Enterprise risk management

The Utilities Kingston Board of Directors oversees the effective identification and management of strategic risks and opportunities, with the goal of ensuring the company can achieve its long-term strategic priorities, increase value for stakeholders and meet governance and compliance requirements. It is an integral part of Utilities Kingston's culture and day-to-day operations, at all levels of the organization.

Enterprise risk management (ERM) at Utilities Kingston is the continuous, coordinated process used to identify, quantify, manage and monitor risk that could have potential for significant positive or negative outcomes and may affect the organization's strategic, operational and financial objectives. Utilities Kingston manages these risks across four broad risk categories—hazard, operational, financial and strategic.

A strategic goal for the organization since 2014, the company developed an ERM program that aligns with the International Organization for Standardization (ISO) 31000 Risk Management Guidelines framework.



Important issues

In 2022, important issues that represented critical external risks and opportunities for Utilities Kingston included the following:



Changing regulatory and policy requirements related to the climate emergency and energy transition planning, affecting long-term value creation for all companies.



Rising inflation, higher interest rates and volatility in the financial market, impacting the cost of borrowing and the cost of materials and services.



Cyber security threats, as the consequences of data loss or system failure can be material, even existential.



Supply chains experiencing unprecedented interruption.



Sustained COVID-19-related public health threats.



Disruptions to the labour market related to the pandemic and as Canada faces a wave of retirements and baby boomers leave the labour market.

In 2022, the annual ERM report was submitted to the Audit and Risk Committee of the Board, giving assurance to the committee that Utilities Kingston has properly identified risks and mitigations where practical.



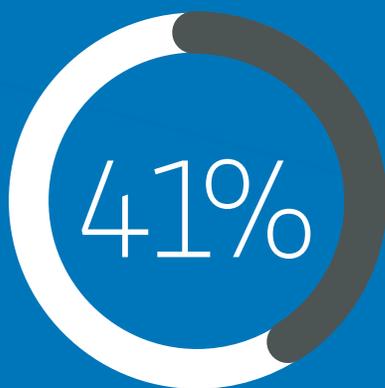
Progress towards strategic plan

In 2021, Utilities Kingston developed a new strategic plan, outlining the company's business strategy for the period 2021-2025.

Responding to significant shifts in its business environment and placing a new emphasis on the relationship with the Shareholder and taking climate action through sound asset management practices, the strategic plan ensures the satisfaction of customer expectations.

The essence of Utilities Kingston's strategy is to advance the unique multi-utility model to benefit its customers and build better communities. The following describes progress in 2022 towards 11 of 13 goals outlined in the plan.

At the end of year two,
the company measured



completion towards



five-year
strategic goals



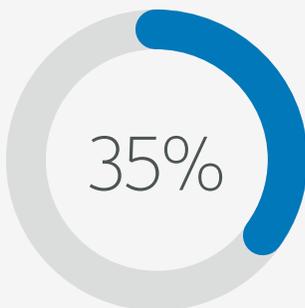
Key updates in 2022

Theme 1: Impact of COVID-19 over the next five years



Supporting employees in navigating the pandemic:

- Provided mental health support to all employees, for example through the Employee and Family Assistance Program and by providing staff-developed monthly mental health posters.
- Where operationally feasible, offered flexible and remote working arrangements.
- Where operationally feasible, offered modified lunch arrangements, supporting physical distancing.



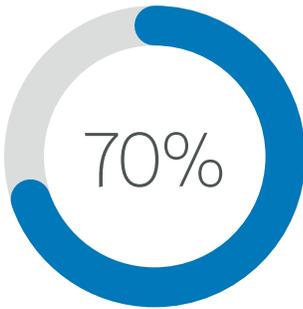
Assessing opportunities in a post-pandemic world:

- Externally, established regular meetings with Kingston Economic Development Corporation and City of Kingston business development staff to support land development.
- Internally, restructured the organization to build capacity and develop new partnerships and opportunities within the company.



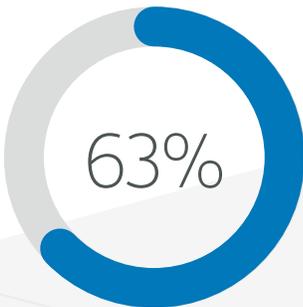
Progress towards strategic plan

Theme 2: The pivotal relationship with the City of Kingston



Increasing and enhancing reporting to the Boards and Shareholder:

- To provide transparency and accountability, held the annual general meeting with the Shareholder in June 2022.
- Implemented Cascade strategy execution software, for improved reporting of key success metrics.

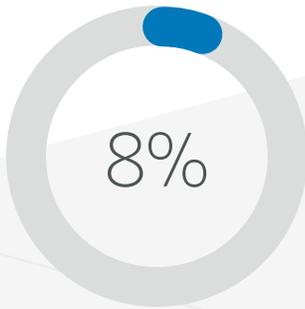


Fostering working relationships with City of Kingston staff and improving mutual accountability:

- Increased partnerships with the City of Kingston, to identify, communicate and act on strategic priorities of both corporations.
- Established regular communications and actions regarding joint issues and initiatives, between customer service, development, fleet, finance and the executive offices.
- Increased representation at City leadership events, to better understand and support critical municipal initiatives.



Theme 3: Networking business



Developing a five-year business plan:

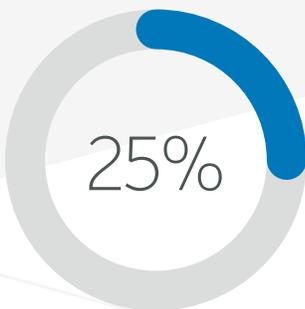
The development of a five-year business plan is progressing towards completion by the end of 2024.

Developing a connected community plan:

On July 29, 2021, the governments of Canada and Ontario announced a Canada-Ontario broadband partnership. Following this, and in light of government funding being made available, the Board of Directors updated the goals for this theme in 2022, to reflect the changing broadband environment.

Given that government funding is expected to result in all Ontarians having access to broadband internet by the end of 2025, the company's focus will shift to maintaining broadband services to carriers and commercial and institutional customers, while upholding excellence.

Theme 4: Meeting customer expectations



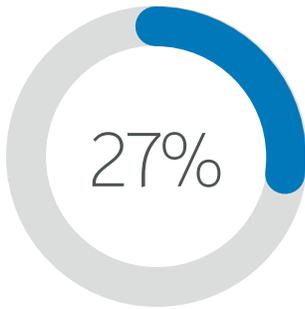
Developing a customer experience strategy:

To help improve customer experience over five years, a high level project layout has been developed, with the project anticipated to start in 2024.

In 2022, to position the company to deliver on the goals outlined in this theme of the strategic plan, Utilities Kingston established a customer care team. This team brings together the services advisors, credit and collections group, and responsibility for the customer service and after-hours call centres.

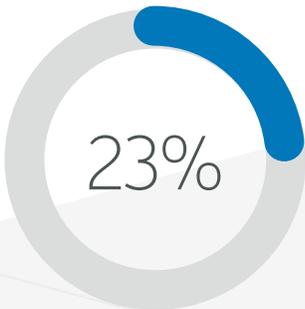
Progress towards strategic plan

Theme 5: Asset management



Managing assets for sustainability:

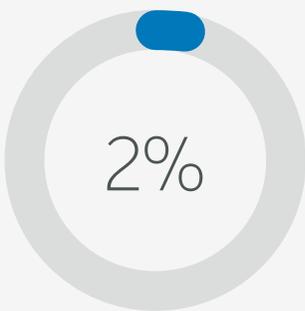
- In continuing with a long-term capital infrastructure plan, completed a two-year capital budget for 2023-2024.



Managing assets for climate action:

To ensure that clean energy benchmarks and standards form part of the strategy for facility renewal or replacement and that all projects consider the goal of reducing the total energy footprint of the facility:

- Developed an internal process for selecting equipment that meets the company's goal to reduce its energy footprint.
- Established plans to undertake deep carbon audits of the King Street and the Point Pleasant water treatment plants, with an investigation into the King Street boiler system and the potential electrification of the King Street pumping station.

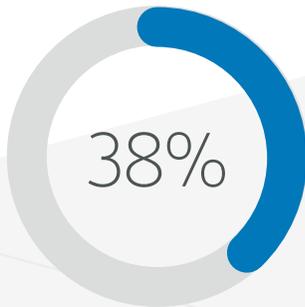


Managing assets for a smart utility:

To improve real-time data collection:

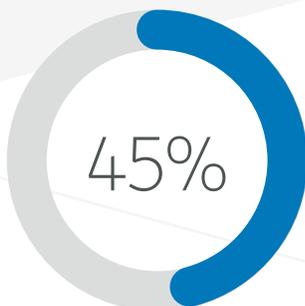
- Initiated a project for faster drive-by meter readings to improve operating efficiency and billing accuracy.

Theme 6: Climate action leadership



Demonstrating and embedding climate actions into operations:

- Continued to support the City of Kingston's climate action strategies:
 - Provided support to the City of Kingston Better Homes Kingston program to help homeowners reduce greenhouse gas (GHG) emissions.
 - Supported City of Kingston in assessing the viability of solar installations at water and wastewater treatment facilities.
 - Gained knowledge on carbon management to support carbon neutral policies and developments.
- Participated in the City of Kingston transit electrification working group.
- 35 per cent complete, towards the development of a Climate Action Leadership Plan, which will subsequently determine the affordability of a Climate Action Reserve Fund.
- Restructured the organization to create a Sustainability and Climate Action branch of Utilities Kingston.



Investigating an integrated biosolids and source-separated organics processing facility:

45 per cent complete, towards the balance of the Municipal Class Environmental Assessment that considers the preferred system as part of the Master Plan for Enhanced Biosolids Management & Biogas Utilization.

Impact on people

Overview

Utilities Kingston operates in a connected world in which society is increasingly committed to the values of responsible business, sustainable economic development and long-term value creation.

The company embraces human rights, by fostering a diverse, inclusive workplace with equal pay for work of equal value and by offering employees the opportunity to thrive and grow.

People are crucial to every facet of the organization, representing workers, customers, suppliers, contractors and its Shareholder. Their growth – in knowledge, prosperity and well-being – is central to the success of the organization and society.

From reducing hardship and inequalities, to ensuring safety, good health and well-being of both the public and employees, and offering quality training and skills development for employees, Utilities Kingston is committed to and welcomes all people.

“I immigrated to Canada a few years ago. However, this is the first time I have worked for a Canadian company. I’m so lucky that my first job was at Utilities Kingston where, besides welcoming and including me, the people in our workplace are interested in my culture.” – **Laura Segura Serrano, GIS Technician**

234 employees

11 years average length of employment

43 average age

As Canada faces a wave of retirements and baby boomers leave the labour market, the tenure of employees has been impacted over the last five-to-six years. Encouragingly, many new employees are choosing to spend their careers at Utilities Kingston, also impacting the average length of employment.

67% of employees are licensed tradespeople, licensed water/wastewater operators, or hold a professional designation.

Utilities Kingston recognizes that access to skilled workers is a key factor in a successful company and equipping people with the skills they need to innovate helps to create jobs and prosperity.

Diversity, equity and inclusion

Utilities Kingston is committed to providing equitable opportunities to all employees in recruitment and selection, training, development and promotion.

The company recognizes that these opportunities should remain unaffected by gender, race, age, ethnicity, ability and sexual orientation, in a workplace where all employees feel valued and respected and receive fair treatment with appropriate compensation and benefits.

By embracing diversity and equal opportunities, Utilities Kingston can help integrate under-represented groups and minorities into the labour market, so it becomes a better reflection of society and deepens the pool of talent that a more diverse workforce can bring.

To adapt its inclusive hiring practices, the company focused on the following in 2022:



Constructing diverse interview panels of varied genders and representation from cross-functional departments.



Promoting inclusivity through diverse community outreach programs celebrating Pride Month, Indigenous Peoples and International Women's Day, adding pronouns to email signatures and more.



In support of the above, designed a special recognition calendar to select, prioritize and plan inclusivity and other significant events.

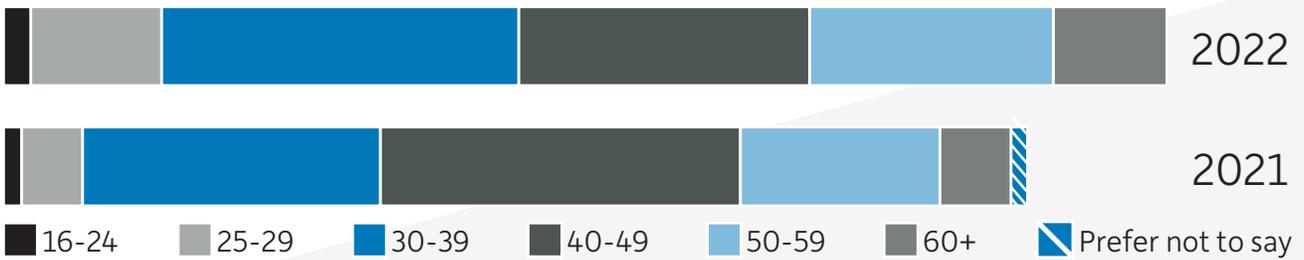


Impact on people

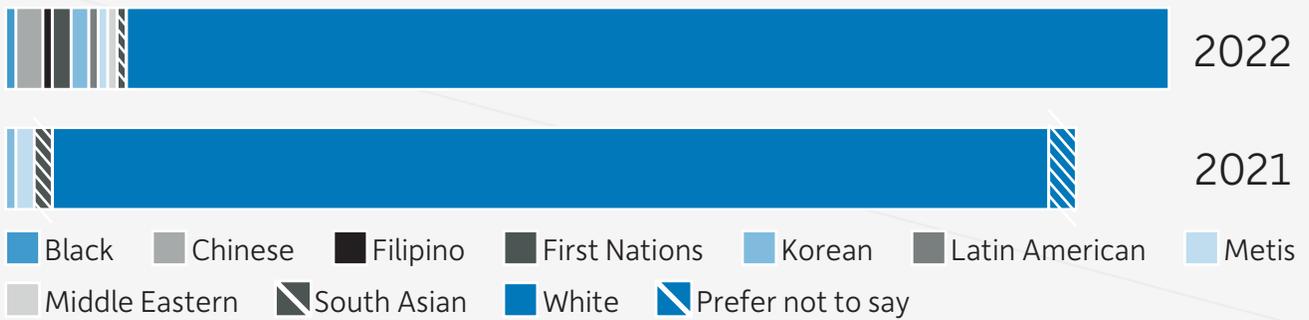
Representation matters

Utilities Kingston’s diversity report highlights year-over-year progress for race/ethnicity and gender diversity, from a baseline established in 2021. The below graphic summarizes responses of the **133 employees who self-identified in 2022**, compared to **116 in 2021**.

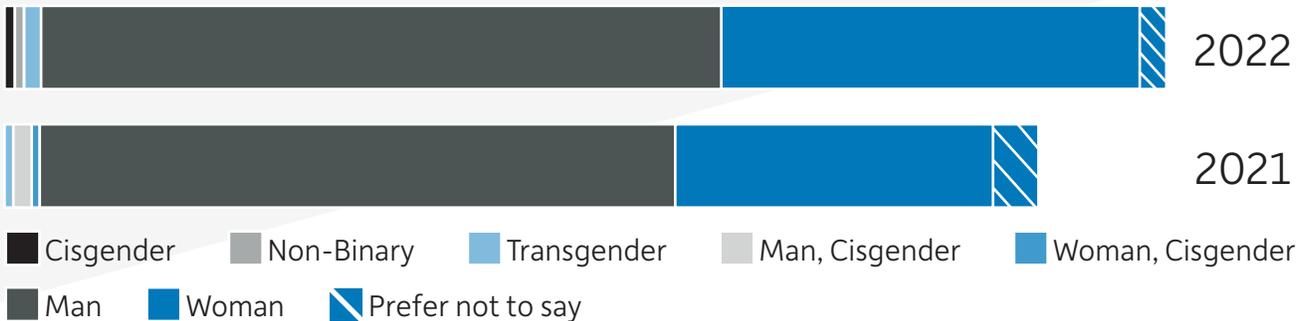
Age



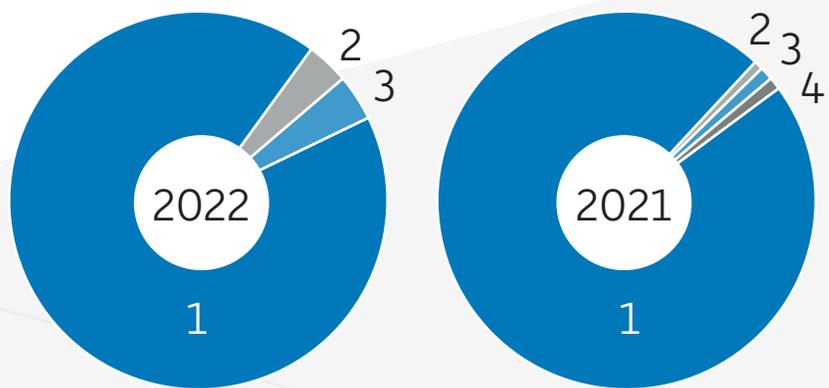
Race



Gender

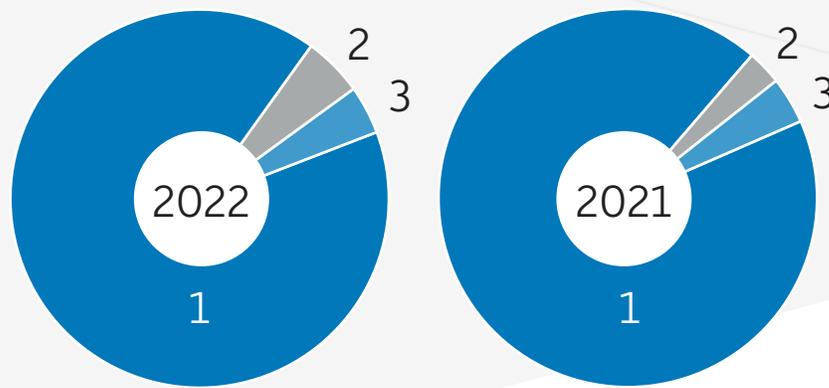


Newcomer or refugee?



- 1. No
- 2. Unsure
- 3. Yes
- 4. Prefer not to say

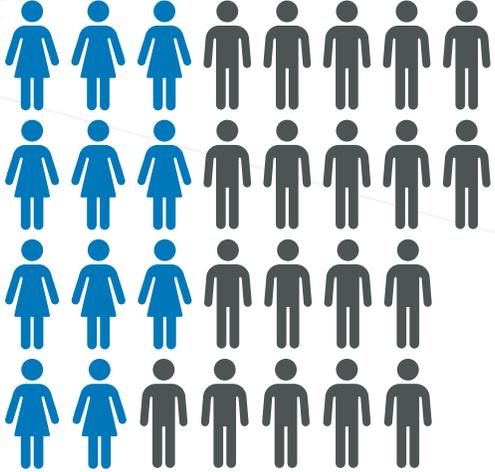
Disability identified



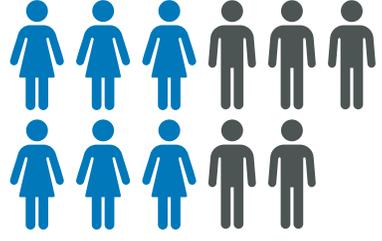
- 1. No
- 2. Unsure
- 3. Yes

Women in leadership

All leadership



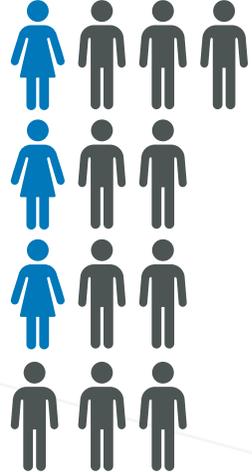
Managers



Senior leadership



Supervisors



Impact on people

Recruitment and retention

The global coronavirus pandemic has been a significant driver of rapid change for all businesses. One area that has quickly evolved is how companies hire new workers.

Candidates are more engaged in the recruitment process, choosing their job opportunities carefully to suit their career aspirations, as well as their personal needs and wants.

This ‘job seekers market’ has provided Utilities Kingston with the opportunity to engage candidates in new ways. Highlights in 2022:



Introducing paid internships in both professional and trades positions.



Increasing outreach through social media campaigns and networks.



Increasing brand awareness of the company and utility industry with job seekers, for example through in-person job fairs.



Advertising jobs differently, for example by providing salary transparency and advertising hybrid work opportunities.



Introducing new intern and co-op placements, providing opportunities for post-secondary students to immerse themselves in their area of study, gaining critical skills and knowledge through the experience.

Meanwhile, industries around the world are impacted by the *Great Resignation* and *Quiet Quitting*. Employees across Canada are changing jobs at an alarming rate, while others are deciding to complete their minimum work requirements without going above and beyond.

Employee engagement and inclusive hiring practices at Utilities Kingston are evolving to create a work environment where employees can bring their whole selves to work, and where they can share their perspectives without fear of reprisal.

The company promotes work-life balance through generous time-away-from-work entitlements and through its *Remote and Flexible Working Policy*. Employee recognition is woven into the cultural fabric, whereby employee milestones and contributions are regularly recognized.

The employee engagement survey results confirm that employees at Utilities Kingston are connected to their work, their teams and their organization. By putting people first, Utilities Kingston continues to build a culture where everyone is welcome and can be their best self.

“When I was considering Utilities Kingston as an employer, I saw their social media celebration of women in the workplace. I knew this was a place I’d want to work and where I would be included.” - **Lisa Hill, Wastewater Treatment Operator**

Changing human resources landscape

In its commitment to the human rights of people and in effectively managing the workforce, Utilities Kingston complies with all relevant labour laws. The company communicates openly with employees about their protection in the workplace.

In 2022, Utilities Kingston continued to implement legislative amendments to the *Employment Standards Act, 2000*, introduced under the umbrella of the government's policy on Protecting Workers. Two new policies were implemented:

1. *Disconnect from Work Policy*, which promotes employee wellness by drawing effective boundaries around their workday. As part of this initiative, all employees were invited to add a notice to their email signature, advising that replies were not expected outside of normal working hours.
2. *Electronic Monitoring Policy*, which protects employee privacy through effective information sharing. It informs employees which technologies are monitored electronically.

100%

of managers and supervisors completed competent person training per the *Occupational Health and Safety Act*

Health and safety leadership

Utilities Kingston cares for the health, wellness and safety of its employees and contractors, as well as the health and safety of the public; upholding their rights to physical and mental well-being.

From strengthening relationships to sharing information with customers and suppliers, Utilities Kingston has developed a strong culture of health and safety excellence.

The company employs both field workers—who work in a construction setting with more inherent risks to physical health and safety—and office workers, whose mental health and ergonomics may be a greater concern.

Thus, the company maintains high standards in health and safety, and works proactively to help employees maintain and improve mental health.

During 2022, 120 employees participated in *Diffusing Anger Training*, while all managers and supervisors completed competent person training as required by the *Occupational Health and Safety Act*. In addition, 100 per cent of all required Joint Health and Safety Committee meetings were held.

100%

of required Joint Health and Safety Committee meetings held

Demonstrating a commitment to health and safety

Impact on people

Health and Safety Excellence program

To help ensure the safety of its workplace and the well-being of all people, Utilities Kingston joined the Workplace Safety and Insurance Board Health and Safety Excellence program.

In 2022, the company completed and passed the audits for 5/32 topics of the program:



First aid



Health and safety communication



Participation



Responsibilities and leadership



Commitment

Progressing through the program will help ensure continuous improvement to all parts of the company's Health and Safety Management System.

Community safety leadership

The annual Safety Days event is jointly hosted by the City of Kingston and Utilities Kingston to promote best safety practices amongst employees – and local contractors and suppliers in the industry. Due to the COVID-19 pandemic, the in-person event was replaced by an eLearning opportunity in 2022. This training ensures that all contractors

150+ **contracting firms submitted health and safety programs and participated in eLearning, ensuring a high standard of safety at worksites across Kingston.**

who conduct work on the company's behalf understand the required health and safety expectations, so that everyone goes home safely at the end of the day. Over 150 contracting firms submitted their health and safety programs and participated in the eLearning course.

Investing in health and safety

To maintain its high standards in health and safety, in 2022 Utilities Kingston doubled staffing of the health and safety department from one full-time employee to two.

By increasing health and safety leadership, the company is growing its support to every area of the organization, moving health and safety programs forward to ensure the safety and well-being of all people.

Psychological safety and wellness

Employee health and well-being is an extension of a company's safety culture. Utilities Kingston's Guarding Minds @ Work Committee supports mental health and wellness of all employees. Addressing topics like resolving interpersonal conflict or taking care of oneself, the committee meets monthly to review ideas and initiatives to promote wellness throughout the organization.

Scott Robinson, Health and Safety Supervisor, received an OHS Canada's *Top 25 Under 40* award. This award celebrates young and skilled professionals who are driving the Canadian occupational health and safety (OHS) profession forward. It acknowledges strong work ethics, leadership by example and dedication to health and safety.



Assistance for customers

The Utilities Kingston team is committed to excellence in customer care. From offering flexible payment plans to supporting government programs and priorities, and ensuring accurate and timely billing, employees work hard to reduce surprise, disruption and hardship for customers.

In 2022, to position the company to deliver on the customer-focused goals outlined its strategic plan, Utilities Kingston established a customer care team. This team brings together the customer service, credit and collection, and services advisors groups.

For utility customers who are having difficulties paying their bills, Utilities Kingston has several ways to help reduce hardship. For example, customers behind on their electricity, water, sewer, or natural gas bill, who are faced with having their service disconnected, may qualify for emergency financial help through the Low-income Energy Assistance Program (LEAP).

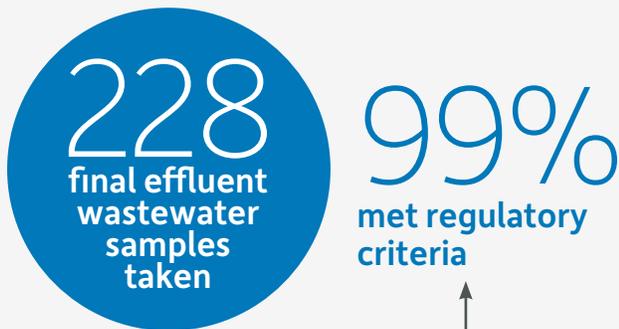
Impact on planet

Overview

Companies depend on and impact the natural environment in many ways, through their operations and supply chains and through the ways their products and services are used. To that end, utility companies manage the environmental impact of delivering energy—treating source water and managing wastewater—simultaneously relying on the natural environment for clean water and energy sources.

Environmental protection and compliance with Ontario legislation governing water quantity and quality, wastewater system effluent, energy conservation and greenhouse gas emissions is a mainstay of Utilities Kingston’s business.

Thus, the company takes steps to reduce the environmental impact of delivering multiple utility services and demonstrates a good understanding of and response to these effects.



Three exceedances were reported in 2022, compared to two in 2021. Exceedances are when the monthly average for a given parameter (e.g., total phosphorus) exceeds the Environmental Compliance Approvals limit. Once reported, the company follows all direction received by the Ministry of Environment, Conservation and Parks.

Reducing waste and pollution

Ensuring freshwater availability

Access to water for drinking and sanitation is a basic human right. Utilities Kingston understands that keeping nitrogen, phosphorus and potassium cycles in balance is critical to the effective functioning of ecosystems, including Kingston’s drinking water source – Lake Ontario.

Thus, Utilities Kingston manages, operates and maintains a collection system for wastewater and, through the treatment process, converts it into a natural resource quality effluent that avoids harming the receiving environment.



Protecting the natural environment from sewer overflows

To protect the natural environment—including the flora and fauna that inhabit local waterways—and the health and safety of recreational water users, Utilities Kingston is concerned with reducing sewer overflows. In partnership with the City of Kingston, the company has set a 20-year target to separate 100 per cent of the combined sewers in the municipal sewer system, by 2043.

From system improvements to overflow monitoring and regular plant maintenance, the company takes action to prevent these sewer overflows from occurring. When overflows do occur, the company responds quickly to reduce the impacts to the environment and properties. By completing shoreline inspections, making the appropriate notifications to governing bodies and coordinating pump station shut-downs and environmental clean-ups, wastewater system operators help mitigate the impact of sewer spills into the environment. Meanwhile, real-time sewer overflow monitoring and notification helps recreational water users make better informed decisions.

Goal: separate
100%
of combined sewers in
the municipal sewer
system, by 2043

Sustainable consumption of resources

In the long run, sustainability requires companies around the world to achieve great levels of re-use (circularity) of non-renewable resources and sustainable consumption of renewable resources throughout our economies.

In 2022, Utilities Kingston:



Progressed on investigating the feasibility of an integrated biosolids and source-separated organics processing facility. Managing sludge and other organic wastes to produce renewable end products will reduce the overall greenhouse gas emissions from operations, helping Utilities Kingston and the City of Kingston to become carbon neutral by 2040.



Offset 50 per cent of natural gas needs at Ravensview Wastewater Treatment Plant using biogas from digested sludge, a by-product of wastewater treatment.



Offset 55 per cent of natural gas needs at Cataraqui Bay Wastewater Treatment Plant using biogas from digested sludge, a by-product of wastewater treatment.

Impact on planet

Water and energy efficiency

Conservation programs, such as those highlighted below, help utility customers with water and energy efficiency, while preserving and protecting the environment.

For instance, water conservation extends the life of municipal infrastructure, accommodates for population growth, and reduces the cost of treating and pumping water and sewage.

Meanwhile, conservation is a clean and cost-effective way to increase electricity system capacity, while empowering customers to manage their electricity use and save money. It can extend the useful life of existing infrastructure and reduce the environmental impact of energy distribution.



33,000 kWh
saved annually, from operational changes at wastewater treatment plants



27,000 kWh
saved annually, from lighting retrofits at water treatment plants



316 gardeners
educated on growing a garden that uses less treated water and supports pollinators



60 customers
received rebates on a smart thermostat, helping them save energy and money



800 rain barrels
sold, reducing treated water use and saving energy to pump and treat water

176,000 litres
of water potentially conserved annually



\$22,000
provided for customer retrofit upgrades that help manage water costs and improve water efficiency



29
residential toilet upgrades funded to help residential customers manage water consumption and sewer use

Taking climate action

Utilities Kingston shares the City of Kingston's goal to reduce greenhouse gas emissions and remains its committed partner in being a climate action leader.

Conversely, energy and water systems are increasingly affected by extreme weather events due to climate change. Hence, utility companies around the globe must increase the pace, scale and scope of efforts to ensure safe and reliable water and energy delivery for the future.

Utilities Kingston's strategic plan for 2021-2025 details how the company is managing assets for sustainability and climate action. The company is also developing a Climate Action Leadership Plan by 2025, to identify the financial resources required to achieve carbon neutral operations by 2040.

The company has taken steps to begin reducing GHG emissions from its operations. For example, electricity savings from various projects undertaken at water and wastewater treatment plants are predicted to offset GHG emissions by 1,680 kg¹ annually.

Meanwhile, federal, provincial and municipal agencies have shared their net zero targets for the 2030-2050 timeframe and suggested that the most likely way of achieving these targets is through electrification of heating and transportation. That's because Ontario has a clean electricity grid with a range of diverse resources, including hydro, nuclear, natural gas and renewables.

To better understand the potential impact of electrification on the local Kingston Hydro distribution system, the provincial transmission system and the provincial electricity market managed by the Independent Electricity System Operator (IESO), Utilities Kingston developed a preliminary electrification plan with the help of larger customers and shared it with its industry partners as part of the regional planning process. The Regional Infrastructure Planning report (second cycle) was completed in May 2022.

1 - Based on 2020 GHG consumption intensity of 28 gCO₂eq/kWh (Canada's National Inventory Report 1990-2020: Greenhouse Gas Sources and Sinks in Canada, Part 3, Table A13-2 to Table A13-14, 2020 values)

Corporate social responsibility

Through active participation in its community, Utilities Kingston helps maintain and enhance the City of Kingston for the benefit of all residents and businesses.

Public involvement engages the community in meaningful conversations as the company better serves its customers and supports Kingston as a leading, livable and inclusive city.

Giving back through local sponsorship and community participation

Through local sponsorship and community involvement, Utilities Kingston gives back to the community it serves. The company was proud to sponsor the following in 2022:

Love Kingston
Marketplace,
City of Kingston

Spring Into
Summer,
City of Kingston

“On the Move”
exhibit, Pump
House Museum

CIRQUE 2023,
Queen’s University

Global
Summer Program,
Queen’s University

Student
community
welcome initiative,
Queen’s University

Kingston Hydro Award for Sustainable
Energy Leadership, St. Lawrence College
(presented to Chris Lyman in 2022)

Water
Environment
Conference,
Queen’s University

Orange Shirt
Society

Pitch-In Kingston,
Sustainable
Kingston

Rain garden
webinar,
Sustainable
Kingston

Banner campaign,
United Way

Day of Caring,
United Way

Tampon Tuesday
Campaign,
United Way

Women of
Powerline
Technicians



Utilities Kingston is part of the fabric of its community and proud to serve on these boards and memberships:

- Ontario Water Consortium Net Zero Working Group
- Sensus Partner and Advisor Network
- Ontario Regional Common Ground Alliance – Gas/Oil Distribution Stakeholder Group
- Canadian Gas Association
- Ontario Energy Board Cyber Security Advisory Committee
- Utilities Standards Forum
- Electricity Distributors Association
- GridSmartCity
- Ontario Water Works Association
- Canadian Water and Wastewater Association
- Canadian Water Network - Municipal Consortium
- Ontario Municipal Water Association
- Workplace Safety and Insurance Board Health and Safety Excellence program
- Association of Electrical Utility Safety Professionals
- Kingston Regional Labour Management Health and Safety Committee
- Ontario Municipal Health and Safety Professionals Association

Corporate social responsibility



Utilities Kingston was proud to bring quality, mobile tap water to 32 events in the local community.



When a member of the community engages with Utilities Kingston, regardless of their background, it's important that they feel a sense of belonging. Through celebrating diverse special awareness events, the company recognizes that individual differences promote open dialogue and inclusivity. For example, Kingston has officially been ranked the most gender-diverse city in Ontario (2021 Census) and it was important for the company to recognize Pride Month in 2022.

#LocalLove in Kingston



Utilities Kingston supports the United Way of Kingston, Frontenac, Lennox and Addington in their mission to build and strengthen its community by bringing people and resources together to facilitate change. In 2022, employees raised over \$30,000 for United Way KFL&A, achieving the Cornerstone Achievement Award and Sapphire Britton Smith Foundation Leadership Award and proudly participated in several United Way led events.

Protecting the safety of young workers



Hosted by the Kingston Regional Labour Management Health and Safety Committee, Trades Day connects local high school students with skilled trades people. Utilities Kingston employees provided demonstrations about natural gas and electricity operations. With approximately 400 students participating in the event, the company delivered a strong safety message to these future young workers.

Delivering on mission

All your utility needs under one roof

For more than 150 years, Utilities Kingston and its predecessors have delivered safe and reliable utility services to build the Kingston community and foster prosperity. Dedicated to the responsible management of integrated services, the company provides the following:



High-quality drinking water supply to **40,235** customers.



Collection and treatment of wastewater for **39,113** customers, to ensure environmental protection.



Safe and reliable gas services to **15,732** customers.



Asset management, billing and operational services to Kingston Hydro, which in turn provides electricity services to **27,992** customers in central Kingston.



Reliable maintenance of over **10,000** streetlights and traffic signals at **200** intersections, as a partner to the City of Kingston.



Specialized fibre optic broadband networking services, providing highly available and affordable connectivity up to 10 Gbps. A major benefit is the cost-effective and highly-reliable monitoring of municipal utility infrastructure.



An appliance rental business, of which proceeds are re-invested locally to support climate actions and reduce Kingston's carbon footprint.



This shared services delivery model is unique in Ontario and gives Utilities Kingston clear advantages in cost savings and customer service over other utility providers in the province.

Cost savings come from efficiencies through the scope of services provided. One example of this is the savings from printing and mailing just one bill for all services received by the customer. Meanwhile, customers benefit from one call to arrange for service changes when moving, one call and one appointment for underground locates and the efficient coordination of joint construction projects that reduces disruption to their neighbourhood.

From electricians to GIS technicians, journeypersons, certified operators and technicians, millwrights, professional engineers, and certified human resources and accounting professionals, this cross-functional team shares internal knowledge and expertise across systems for more efficient completion of community investment initiatives. The multi-utility company benefits from internal resources not available to stand-alone utilities, such as in-house locating services and its own Supervisory Control and Data Acquisition (SCADA) team, as well as the cross-departmental sharing of resources and expertise.

Sound asset management practices

Utilities Kingston is an asset management company, managing over 100 facilities, providing over 120,000 utility services across its multiple utilities. The company monitors 25,000 components that operate effectively and efficiently across more than 1,000 kilometres of linear assets.

In 2022, in accordance with *O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure*, Utilities Kingston posted its asset management plan to [UtilitiesKingston.com](https://www.utilitieskingston.com). The document addresses infrastructure needs to collect, convey and treat sewage, and to treat and distribute safe, quality drinking water over the next ten years, while meeting the needs of the company's customers and community.

This plan inventories, values and assesses the linear assets, plants and facilities maintained by Utilities Kingston in the water and wastewater utilities. It outlines the expected level of service, as well as the asset management and financial strategy for each utility.

These plans help support new local economic development opportunities and provide enhanced services for residential, industrial and business customers. Meanwhile, the utility company is adapting plans to help meet the threshold of modern infrastructure, for example as the electricity grid is modernized, including for climate action.



Delivering on mission

Taking climate action

Utilities Kingston shares the City of Kingston's goal to reduce greenhouse gas emissions and remains its committed partner in being a climate action leader. Conversely, energy and water systems are increasingly affected by extreme weather events due to climate change. Hence, the company is increasing the pace, scale and scope of efforts to ensure safe and reliable water and energy delivery for the future.

Supporting community growth and development

Kingston is one of Ontario's fastest-growing municipalities. Utilities Kingston recognizes its significant role in economic growth of the city, as it relates to the management of utility infrastructure. In support of community growth and development goals, in 2022 the company:



Reviewed 100 per cent of development applications through Planning & Development at the City of Kingston, to understand system capacity.



Partnered with Planning & Development to support new capacity requirements, for example through computer system modeling to understand constraints.



Provided oversight for the inspection of water and wastewater services for new development.



Connected gas and electricity services for new development.



Upgraded, renewed or expanded community infrastructure across water, wastewater and electricity utilities.

In addition:



The company's ten-year asset management plan considers the anticipated growth in community servicing needs, for water and wastewater.



Updates to water and sewer master plans, and electricity distribution system plans are completed on a five-year rotation, in consultation with Planning & Development.

Investing in technology and process

Utilities Kingston has made significant investments in technology systems and processes to enhance the company's effectiveness.

Examples of initiatives in 2022:



Completed customer information system (CIS) improvements for efficiently processing customer applications when they move in or out.



Further refined the revamped capital cost recovery financial process for improvements in customer service and transparency.



Initiated a project for faster drive-by meter readings to improve operating efficiency and billing accuracy.



Delivering on mission - water utility

Providing safe, quality drinking water

The employees of Utilities Kingston proudly provide high-quality drinking water to **40,235 homes and businesses** that are served by the municipal water treatment and distribution systems. These systems include the following:



3 water treatment plants



5 booster stations



8 water storage facilities



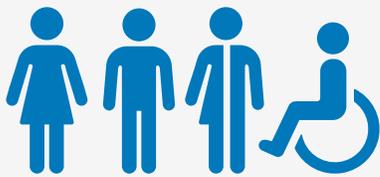
752 km of linear assets



5,420 water valves



3,563 fire hydrants



40,235
customers



+1.3
billion over
2021

23.8 billion m³
of quality water pumped

Multiple barriers under one roof: protecting Kingston's tap water

From source water protection to the tap, the company's unique multi-utility model is critical to protecting water through a multi-barrier management approach.

Lake Ontario provides an abundant source of clean, raw water to the municipality of the City of Kingston. Protecting source water involves routine water intake inspections and daily sampling and testing by certified water treatment operators. Each year, they perform thousands of in-house laboratory tests and collect thousands of samples that are sent to an accredited third-party laboratory for testing.

In this way, Utilities Kingston meets or exceeds Ontario's strict drinking water quality regulations and standards, maintaining the Municipal Drinking Water License.

Kingston's King Street water treatment plant is staffed 24 hours per day, 365 days per year, to ensure there is always someone monitoring all water system facilities. Meanwhile, system operators are available 24/7 to respond to emergencies, responding to 400 after-hours calls in 2022.

Proactive asset renewal strategies support community goals

Utilities Kingston's engineering department manages water treatment facility upgrades, as well as the renewal of the linear water assets in the water distribution systems.

In correlation, the company has demonstrated a measured reduction in water main repairs over the past five years, contributing to the reliable and efficient operation of the system. The company actively surveys 100 per cent of the water distribution system (by way of completing hydrant inspections) for leaks annually, repairing the leaks to conserve water and reduce the energy used to pump and treat it.

Proactive leak detection program



of system surveyed for leaks (752 km)



89 leaks repaired



721,000 m² of water saved in 2022

That's like providing water to



2,268 homes annually

Delivering on mission - water utility

The engineering department undertakes upgrades in accordance with asset management and master plans that consider infrastructure needs to treat and distribute safe, quality drinking water, and meet the community's growth and development needs. Significant achievements in 2022 included the following:

 Replaced end-of-life infrastructure, coordinated jointly with the wastewater utility and City of Kingston, to ensure the continued safety and reliability of water services and support economic development. Work was completed on St. Lawrence Avenue, Stephen Street and Stanley Street.

 Lined end-of-life water mains in the Collins Bay area.

Meanwhile, upgrades to water treatment infrastructure ensures the company can continue to provide the high level of reliable service and quality drinking water that the community counts on. Highlights in 2022:

 Replaced granular activated carbon for two large filters.

 Assessed and upgraded intake pipes at King Street and Point Pleasant Water Treatment Plants.

 Replaced and repaired process and supply pumps, valves and actuators.

 Replaced chlorine gas system feed lines at the Point Pleasant Water Treatment Plant.

System monitoring with state-of-the-art tools

The tools used by water treatment operators are state of the art and developed in house by the company's supervisory control and data acquisition (SCADA) team. Modern SCADA systems allow treatment operators to monitor and control the water plants from across the City of Kingston.

Cross-functional support contributes to high-quality, reliable treated water

Employees from various departments regularly contribute to the drinking water testing program. This includes Utilities Kingston's engineering department, ensuring that a watermain has been properly disinfected before being put in service and its water system operators confirming distribution system integrity after a watermain break. In 2022, system operators responded to 58 such breaks to repair the leaks safely and effectively, while minimizing impact to customers and ensuring a continued high level of water quality.

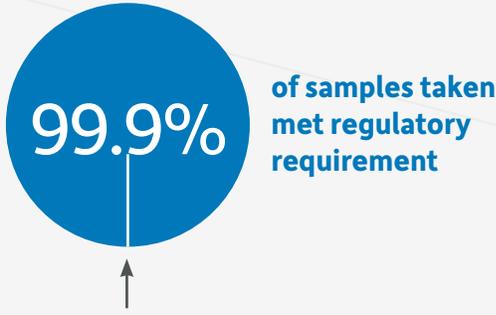
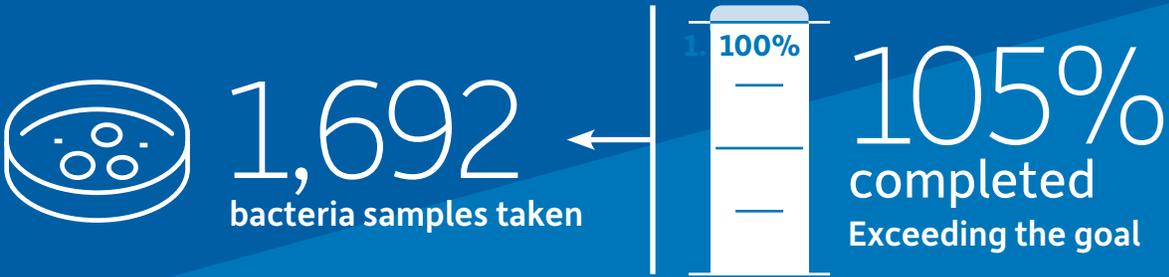
The company's highly trained water system operators perform inspections and maintenance on several critical components throughout the distribution system. Valve maintenance helps reduce the impact of service disruptions, while activities to inspect and flow hydrants help support fire protection. In 2022, system operators exceeded the annual goal of inspecting 100 per cent of all 3,563 hydrants in the municipal system.



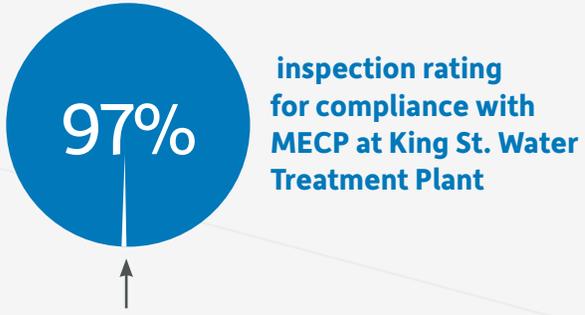
Delivering on mission - water utility

Ensuring regulatory compliance

Compliance with Ontario's rules for municipal drinking water systems helps ensure the company meets or exceeds water quality standards, staff training and licensing requirements, laboratory testing requirements and that adverse test results are reported to the Ministry of Environment, Conservation and Parks (MECP) and the local medical officer of health.



Ontario has strict water quality standards, which Utilities Kingston continually meets and exceeds. The practically one hundred per cent of samples meeting requirements demonstrates a very low percentage of adverse results and conversely a high level of commitment to drinking water quality.



Annual drinking water system reports detail how the systems operate and can be viewed at [UtilitiesKingston.com](https://www.utilitieskingston.com). A 97 per cent inspection rating for 2022 was provided due to a reporting issue, which was corrected as soon as it was discovered. Subsequently, training improvements were made to help prevent this from occurring in the future.



Under Ontario's Municipal Drinking Water Licencing Program, the company ensures compliance through:



Maintaining a current drinking water works permit and permits to take water.



Ensuring the Operational Plan is endorsed by the Council of the City of Kingston.



Maintaining accreditation as the Operating Authority, through third-party audits of the Quality Management System, to assess conformity with the Drinking Water Quality Management System.



Completing and obtaining approval of a Financial Plan per O.Reg. 453/07.

Specifically in 2022, Utilities Kingston:



Renewed the permit to take water for the King Street Water Treatment Plant.



Completed a third-party external audit and annual internal audit.



Obtained re-endorsement of the Operational Plan for the Kingston and Cana drinking water systems.

After undergoing treatment, rigorous testing and pumping, what began as lake water is now proven safe to drink.



Significant capital investments

\$8.8 million in capital investments, to ensure the safety and reliability of the municipal water treatment and distribution systems. For example:

Front Road watermain interconnection

Water reconstruction on St. Lawrence, Stanley and Stephen Streets

End-of-life water main lining in the Collins Bay area

End-of-life water meter replacement

Renewal of 1.17 km water distribution linear assets



Compliance with all applicable regulations and governing agencies

Safe Drinking Water Act, 2002 and associated regulations and standards under the Act.

Delivering on mission - wastewater utility

Treating wastewater for environmental protection

The employees of Utilities Kingston provide safe and reliable wastewater services to **39,113 homes and businesses** that are served by the municipal wastewater collection and treatment systems. These systems include the following:



681 km of linear sewer assets



31 sewage pumping stations



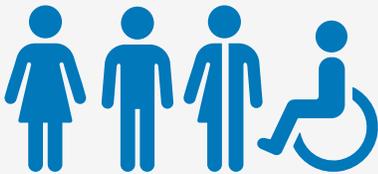
6,822 maintenance holes



9 combined sewer overflow tanks



3 wastewater treatment plants



39,113
customers



+16%
increase over
2021

35.8 million m³
of wastewater managed

Protecting health, safety and environment

At the forefront of the company's mandate is the protection of both human health and the natural environment.

Utilities Kingston's operators collect wastewater and, through the treatment process, convert it into a natural resource quality effluent that avoids harming the receiving environment – Lake Ontario. Producing high-quality wastewater effluent also protects downstream users.

To that end, treatment operators take regular wastewater samples and report exceedances to the MECP, ensuring treatment facilities comply with the conditions of the three Environmental Compliance Approvals (ECA) issued by the MECP.

Three exceedances were reported in 2022, compared to two in 2021. Exceedances are when the monthly average for a given parameter (e.g., total phosphorus) exceeds the ECA limit. Once reported, the company follows all direction received by the MECP in response.



35.8 million m³
of wastewater managed

0.1% of sewage released from
overflows and bypasses

Protecting our planet

 228 final effluent
wastewater
samples taken

99% met regulatory
criteria

Proud to support public health

 834 sewer samples provided for the
KFL&A Public Health COVID-19
sewer surveillance program

100% of requirement

Equipping employees with the skills they need

 219 average training hours per certified water and wastewater system
operator, over three years, exceeding regulatory requirement of
150 hours over the three-year certification period

 178 average training hours per certified wastewater treatment operator,
over three years, exceeding regulatory requirement of 120 hours
over the three-year certification period

Delivering on mission - wastewater utility

Pre-emptive programs protect system integrity

With an average daily wastewater flow of 97,922 m³ in 2022, regular system maintenance is critical. From dead-end maintenance hole cleaning, to removing roots and sewer blockages, the activities of the company's skilled wastewater system operators help protect properties and the environment from sewer back-ups and overflows.

Meanwhile, Utilities Kingston's sewer safety inspections, proactive CCTV sanitary sewer system inspection program and preventative plumbing program are managed by its engineering department to help protect public safety, the environment and the integrity of the sanitary sewer system. Significant achievements in 2022:



Cleaned and inspected sanitary sewers in Reddendale, Henderson Place and Auden Park, to ensure continued service reliability.



Provided the Preventative Plumbing Program to 250 additional homes, helping homeowners reduce the risk of basement flooding.

To protect public health and safety, program promotion was suspended in 2020, during the height of the COVID-19 pandemic. The company was pleased to promote the program again in 2022, providing over \$500,000 in funding to homeowners, up 13 per cent from 2021.

Proactive asset renewal strategies support community goals

Linear asset and facility renewals help ensure the effective operation of the wastewater utility, while meeting the needs for growth and development and reducing the risks associated with end-of-life infrastructure.

The engineering department undertakes these upgrades in accordance with asset management and master plans that consider infrastructure needs to collect, convey and treat sewage, and meet the community's growth and development needs. Significant achievements in 2022 included the following:

Replaced end-of-life infrastructure, coordinated jointly with the water utility and City of Kingston, to ensure the continued safety and reliability of wastewater services and support economic development. Work was completed on St. Lawrence Avenue, Stephen Street and Stanley Street, and on Palace Road, Garrett Street and Dunkirk Street.



Progressed on twinning sections of the North End Trunk Sewer (Greenview Drive to Parkway), to increase capacity for development and alleviate surcharging in the trunk sewer.



Extended the sewer forcemain in Westbrook (Collins Bay at Woodbine), to support growth and development in the area.





Continued with upgrades at two significant wastewater treatment facilities: the Days Road Pumping Station and Cataraqui Bay Wastewater Treatment Plant. These upgrades will increase capacity and improve the quality of treated wastewater.

Meanwhile, upgrades to wastewater treatment infrastructure ensure the company can continue to provide the high level of reliable service and health, safety and environmental protection that the community counts on. Highlights in 2022:



Re-built or replaced four large wastewater conveyance pumps.



Upgraded odour control facilities at Ravensview Septage Receiving Facility, Emma Martin combined sewer overflow tank and Collingwood combined sewer overflow tank. Installed odour control at Cataraqui Bay Wastewater Treatment Plant as part of the upgrade project.



Replaced and repaired mechanical equipment including process pumps, valves, blowers, actuators and electrical control panels.



Delivering on mission - wastewater utility

Responding to sewer overflows for environmental and public health protection

When sewage from the collection systems overflows to the environment, it is often a result of the sewers being too full—typically because of excessive groundwater and stormwater entering the sewer system during heavy rains or rapid snowmelt. Similarly, when sewage from a treatment facility by-passes into the environment, it can be due to weather or equipment failure.

From system improvements to overflow monitoring and regular plant maintenance, the company takes action to prevent these sewer overflows from occurring. In 2022, 99.9 per cent of the effluent was fully treated and returned to Lake Ontario in the form of natural resource quality water. Meanwhile, 0.1 per cent of the effluent bypassed or overflowed into the environment.

To protect the natural environment and the health and safety of recreational water users, in partnership with the City of Kingston, Utilities Kingston has set a 20-year target to separate 100 per cent of the combined sewers in the municipal sewer system, by 2043.

When overflows do occur, the company responds quickly to reduce the impacts to the environment and properties. By completing shoreline inspections, making the appropriate notifications to governing bodies and coordinating pump station shut-downs and environmental clean-ups, wastewater system operators help mitigate the impact of sewer spills into the environment.

Meanwhile, real-time sewer overflow monitoring and notification helps recreational water users make better informed decisions.





Significant capital investments

\$26.9 million in capital investments, to ensure the safety and integrity of the municipal wastewater collection and treatment systems. For example:

Days Road Pumping Station upgrades

Cataraqui Bay Wastewater Treatment Plant expansion

Sewer reconstruction on St. Lawrence, Stanley and Stephen Streets

Redirecting sewage flows from Portsmouth Pumping Station to the west

Renewal of 1.42 km sewer collection linear assets



Compliance with all applicable regulations and governing agencies

Ministry of the Environment, Conservation and Parks

Also in 2022, Utilities Kingston made significant progress on developing the Wastewater Quality Management System (QMS), on a path to improve the QMS and its use, demonstrating the company's commitment to effectively treat wastewater and protect the environment. While the QMS is not required by regulation, Utilities Kingston is proud to be leading in this best practice.

Delivering on mission - gas utility

Protecting the safety and integrity of the natural gas distribution system

The employees of Utilities Kingston maintain the safety and integrity of Kingston's municipal natural gas distribution system. This includes:

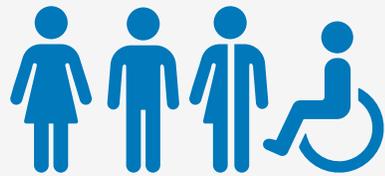
 **259 km gas mains**

 **231 km gas services**

 **1,444 gas valves**

 **9 pressure regulating stations**

 **15,739 gas meters**



15,732
customers



+5 million m³
over 2021

93.4 million m³
of natural gas delivered

Ensuring public and pipeline safety

The company's top priority is that operating and maintenance procedures are followed to ensure public and pipeline safety. In 2022, Utilities Kingston demonstrated this commitment through gas meter changes and inspections, ensuring the safety of customer-owned natural gas equipment and piping, and through its response to public complaints of natural gas odours, for example.

The utility provides a proactive public information campaign to educate customers how to identify and respond to a suspected natural gas leak, by sight, smell and sound. In 2022, employees responded to 244 complaints of natural gas smells. Certified natural gas technicians investigate every complaint, meeting 100 per cent of regulated requirements to ensure public safety. Of the complaints received in 2022, 133 required corrective action to be taken to address the leak. For the balance, no gas leak was found.

Compliance with regulation is an important part of ensuring a high standard of safety in the delivery of natural gas.



Delivering on mission - gas utility

Proactive annual gas leaks survey



of the system inspected for leaks



of target



48 leaks identified

0 were Type A / creates a hazardous situation

2 were Type B / could create a hazardous situation

46 were Type C / does not create a hazardous situation

100% addressed in a timeframe that exceeds regulatory requirements





Responsive sewer safety inspections

 **111** sewer safety inspections completed

 **0** cross bore occurrences found

100% completed within goal to respond within two hours

Ensuring public safety

 **1,136** inspections of customer-owned equipment and piping completed

 **670** private-side hazards identified, improving public safety

100% of regulatory requirement met

 **50** site inspections completed (gas meters and regulators located inside)

100% of regulatory requirement met

Delivering on mission - gas utility

Accurate, reliable gas metering equipment

It's important for customers to receive accurate bills for gas consumed by their household or business. Reliable metering equipment is a critical part of this. This activity also ensures compliance with Measurement Canada and the *Gas and Electricity Inspection Act*, to verify accuracy and that the meters conform to legal requirements. Highlights:



In 2022, Utilities Kingston replaced 1,642 end-of-life gas meters, up from 721 in 2021 and 449 in 2020.



The increase in 2022 is attributed to the loosening of COVID-19 restrictions, which previously impacted the company's ability to access customer premises as it took steps to provide physical distancing and protect public safety.



Utility companies are experiencing delays in receiving materials and equipment, including for gas meters. Utilities Kingston is putting plans in place to manage global supply-chain issues anticipated in future years.





Ensuring public and pipelines safety

Cathodic protection systems to prevent pipeline corrosion and gas leaks

Integrity management, including testing of high-pressure gas main for early detection of pipeline corrosion

Preventative maintenance at natural gas regulating stations, to protect safety and integrity

Provisioning for system redundancies, in case of power or regulator failures

A 35-check-point form to assist with gas leak detection

24-hour response to natural gas issues:

- **367 after-hours calls**
- **Response to 94 gas leaks/strikes, helping to ensure public safety**



Significant capital investments

\$3.8 million in capital investments, to ensure the safety and integrity of the natural gas distribution system. For example:

End-of-life gas main replacements

End-of-life gas meter replacements

Renewal of 1 km of linear gas assets

32 new gas service installations, in response to reducing customer demand (compared to 65 in 2021).



Compliance with all applicable regulations and governing agencies

Measurement Canada requirements

Electricity and Gas Inspection Act

Technical Standards and Safety Act

Ontario Regulation 210/01, Oil And Gas Pipeline Systems

Ontario Regulation 212/01: Gaseous Fuels

Delivering on mission - electricity utility

Powering community

The employees of Utilities Kingston provide asset management, billing and operational services to Kingston Hydro, which in turn is the Ontario Energy Board licensed distributor of electricity for **27,992 customers in central Kingston**. These systems include:



691 km of overhead wire and underground conductors



16 distribution substations



34 substation transformers



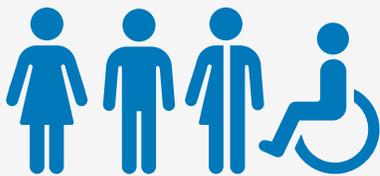
2,306 in-line transformers



5,184 poles



1,655 underground structures



27,992
customers



+24
million over
2021

706 million kWh
of electricity delivered

A next generation energy company

Utilities Kingston is committed to distributing safe and reliable power to its customers, while preparing the distribution system for the energy needs of the future. From its award-winning safety programs to high customer satisfaction scores, the company maintains a strong reputation in meeting or exceeding regulatory requirements, being responsive to community needs, and providing safe, reliable service and cost-saving efficiencies.

100% compliance with Electrical Safety Authority audit

Reliable electricity services

The reliability of electricity services is a key focus for Utilities Kingston. The company tracks all outages and strives to reduce the length of time that they affect customers, as indicated by strong reliability results for 2022.

An important factor is the company's tree trimming program, as demonstrated in the downward five-year trend of outages caused by tree contacts. To ensure worker and public health and safety, and to meet regulatory requirements, Utilities Kingston contracts trained arborists to trim the trees in the entire Kingston Hydro distribution area over a three-year period. To help protect the natural environment, for every publicly-owned tree removed, the company funds replacement with two trees within the city.

The company's activities to operate, maintain and upgrade electricity distribution equipment help ensure power reliability for its customers. Preventative maintenance helps identify and address problems before they occur. The annual infrared detection program is an efficient method to address problems before equipment fails and leads to unplanned outages. In 2022, infrared scanning led to the proactive repair of 20 critical and major defects on the overhead 5 kV system, two major defects on the overhead 44 kV system and one major defect at substations.

Ensuring power reliability

Average number of hours that power to a customer was interrupted:

1.12 better than distributor target of **1.33**

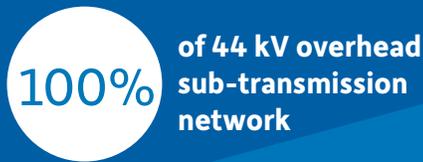
Average number of times that power to a customer was interrupted:

0.55 better than distributor target of **0.85**

Delivering on mission - electricity utility

While employees take every measure to reduce power interruptions to customers, sometimes unforeseen issues arise. As Canada's climate changes, higher temperatures, shifting rainfall patterns and extreme weather events are expected to persist, and even intensify. Utilities Kingston's 24-hour response helps ensure that power is restored safely and efficiently. In 2022, electricity crews responded to 662 after-hours calls, including for severe weather events.

Infrared scanning to proactively detect faulting electrical equipment



The company is ready to offer resources and support to neighbouring hydro utilities, whenever assistance is needed to restore wide area power outages, for example when natural disasters strike. In May 2022, crews assisted Hydro Ottawa after a devastating storm impacted 180,000 customers.

Meeting regulatory requirements

In 2022, Utilities Kingston, on behalf of Kingston Hydro, applied to the Ontario Energy Board for a full cost of service review and application for 2023 electricity distribution rates.

This application and review, which occurs every five years, involves documenting Kingston Hydro's operating expenses, projected debt, load forecast and ensuring proper allocation of costs to different classes of ratepayers.

The application also includes an update to, and submission of, Kingston Hydro's five-year Distribution System Plan. This plan considers current and future system needs, as well as the needs of customers.

The paced investment strategy brought forward in the plan will renew or replace critical infrastructure, ensure the continued reliability and resiliency of electricity services, prepare for the impacts of climate change and support economic growth and intensification for Kingston.

Investing in community infrastructure

Utilities Kingston is building capacity for electrical load growth, supporting new development and electrification. Significant achievements in 2022 included:



Preliminary planning for a new distribution station, which will add 44 kV circuits to the distribution area. To assess capacity, Utilities Kingston continues to monitor electric load growth within the Kingston Hydro distribution area and regionally.



In its work to add a new 13.8 kV system, extended the infrastructure from Municipal Substation No. 16 to Municipal Substation No. 13.



To support locally-owned facilities for electricity generation, Utilities Kingston commissioned 44 kV line protection settings and a transfer trip communication channel between Municipal Substation No. 9 and a major customer.

Another key focus for Utilities Kingston is to support the City of Kingston in its growth and development goals. Through proactive asset renewal strategies, the company is supporting the intensification of Kingston's vibrant city centre.

Progress in 2022 included civil work to improve Municipal Substation No. 2 and Municipal Substation No. 6, the extension of the 44 kV overhead distribution lines to support development on Princess Street, and the replacement of three end-of-line transformers with two new transformers to increase capacity at Municipal Substation No. 5.

Delivering on mission - electricity utility

Connecting new technologies

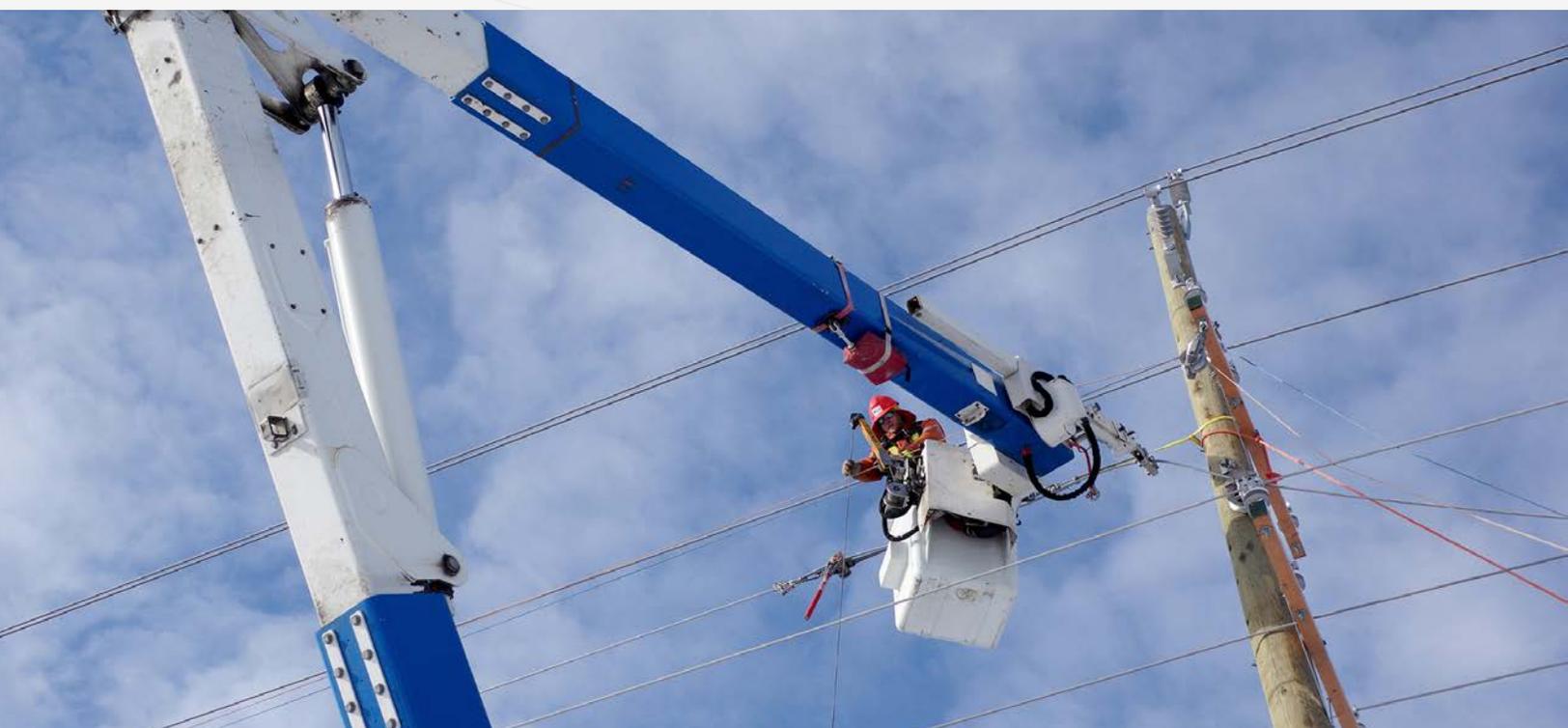
One way Utilities Kingston is helping to build clean energy infrastructure is by connecting new technologies that can support locally-owned facilities for electricity generation.

In 2022, the company connected seven of these Distributed Energy Resources (DERs). Most of the electricity generated in Ontario produces low levels of greenhouse gas emissions, and these locally-owned facilities also generate clean energy.

Efficient operations

Throughout it all, a key focus for Utilities Kingston is to operate efficiently for the benefit of all customers. Cost reduction measures in 2022 included repurposing equipment and eliminating redundancies. Ratepayers also benefit from the cost-saving efficiencies of the multi-utility model, for example through the scope of services provided and the in-house sharing of cross-functional expertise and equipment.

Utilities Kingston is committed to continually improve service to its customers and community, monitoring performance with a focus on safe, reliable and efficient services.





Significant capital investments

\$3.6 million in capital investments, to ensure the safety and reliability of the Kingston Hydro electricity distribution system. For example:

Municipal Substation No. 5 upgrades

Municipal Substation No. 2 and 6, wall and roof rebuilds

Transformer Vault No. 18 upgrades

End-of-life pole replacement



Compliance with all applicable regulations and governing agencies

Ministry of Energy laws and regulations

Ontario Energy Board regulations, licenses, rules and rates

Independent Electricity Systems Operator standards and processes

Electrical Safety Authority regulations

Electricity and Gas Inspection Act

Measurement Canada requirements

Delivering on mission - streetlights and traffic signals

Providing safe and reliable streetlights and traffic signals services

As a partner to the City of Kingston, Utilities Kingston provides reliable maintenance and operation of traffic signals at 200 intersections and over 10,000 streetlights in Kingston.

Through a consistent approach to meeting the standards provided in the *Municipal Act*, by providing cost efficiencies and applying knowledge and expertise of the local system, this partnership builds value for the municipality and its citizens.

Utilities Kingston's technicians build and upgrade traffic signal intersections, install streetlight poles, and quickly respond to traffic signal problems and streetlight outages. The company strives to make this infrastructure as reliable and efficient as possible, while meeting the growth and development goals of the City of Kingston. Employees help ensure that traffic – pedestrians, motorists and cyclists – can move safely and efficiently around Kingston.

 **312** after hours traffic signal or streetlight issue calls responded to exceeding regulatory requirement for response time by 100%

100%
met the requirements minimum maintenance standards



Inspected all signal displays, once annually



Tested all traffic signal control monitoring, twice annually



Inspected all traffic cabinets, once annually

O. Reg. 239/02: Minimum maintenance standards for municipal highways



Delivering on mission - streetlights and traffic signals

Community satisfaction and safety

The work of the streetlights and traffic signals group helps ensure a high level of public safety and is responsive to community goals. 2022 highlights:



Installed red light camera systems at seven locations, to enhance public safety at intersections.



Installed 13 driver feedback speed signs for traffic calming, to improve safety for all road users.



Supported the City of Kingston overall active transportation network, by commissioning three intersections and the streetlights for the Waaban Crossing.

Ensuring the reliability and efficiency of 10,000 street lights

Following a successful pilot project in 2011, Utilities Kingston replaced approximately 10,000 high wattage streetlight fixtures with energy-saving light emitting diode (LED) fixtures. LED fixtures are associated with reduced maintenance, as they don't use light bulbs and the components are more reliable. A decade later, the project benefits remain evident. Crews are responding to fewer trouble calls—responding to 278 calls in 2022.

In 2022, crews repaired 18 underground cable faults, while ensuring the reliability of all streetlights. By making temporary overhead repairs, technicians respond immediately to make each streetlight operational. Utilities Kingston then tracks and prioritizes all known underground cable faults, of which 30 were recorded in 2022, and undertakes repair.



89 failed streetlights repaired



0.9% of the entire system

Hardening the system against extreme weather

With extreme weather events on the rise, hardening the system is a key company priority.

For all newly built intersections, of which there were three in 2022, Utilities Kingston installs centre-mount traffic signal heads, which are more resilient to extreme winds than the top mounted heads used historically.

The company maintains uninterruptible power supplies (UPS) at 82 critical intersections. In the event of a power outage, the signals draw automatically from the UPS, allowing for safe and efficient traffic flow. In 2022, technicians completed battery maintenance at 82 intersection, or 100 per cent of its annual maintenance target.

Ensuring a reliable equipment supply for emergency response

The traffic industry is responding to global supply shortages for metals, resins and electronic components, which are resulting in equipment shortages, including traffic signal heads.

Utilities Kingston has responded to this challenge by building positive vendor relationships to diversify its supplier base. This ensures the company has critical components on hand that allow it to restore intersections quickly in an emergency, like the major winter storm in December 2022.

During the December 2022 major wind storm event, 78 intersections were damaged by strong winds, snow and ice build up. Of this, 34 traffic signal heads were missing at 33 intersections, while heads at 16 intersections needed alignment. Technicians prioritized major intersections and traffic signals that were on flash, ensuring that 100 per cent of the 195 intersections were operational within two days.



Financial highlights

The company's primary goal is the efficient operation and capital improvement of the assets it manages.

Operating expenses include the maintenance and administration costs incurred annually to manage the utilities. Meanwhile, capital expenditures fluctuate year-over-year, depending on the capital plan approved by the Council of the City of Kingston for water, wastewater and natural gas utilities, and the Kingston Hydro Board of directors for the electricity utility.

Revenues are recorded in the financial statements of the Corporation of the City of Kingston for water, wastewater and natural gas utilities, and Kingston Hydro for the electricity utility.

In addition to the information provided below, Utilities Kingston is responsible for managing the purchase of gas and electricity commodities as well as transportation of these commodities to its service areas. These costs are also shown in the financial statements of the Corporation of the City of Kingston and Kingston Hydro.

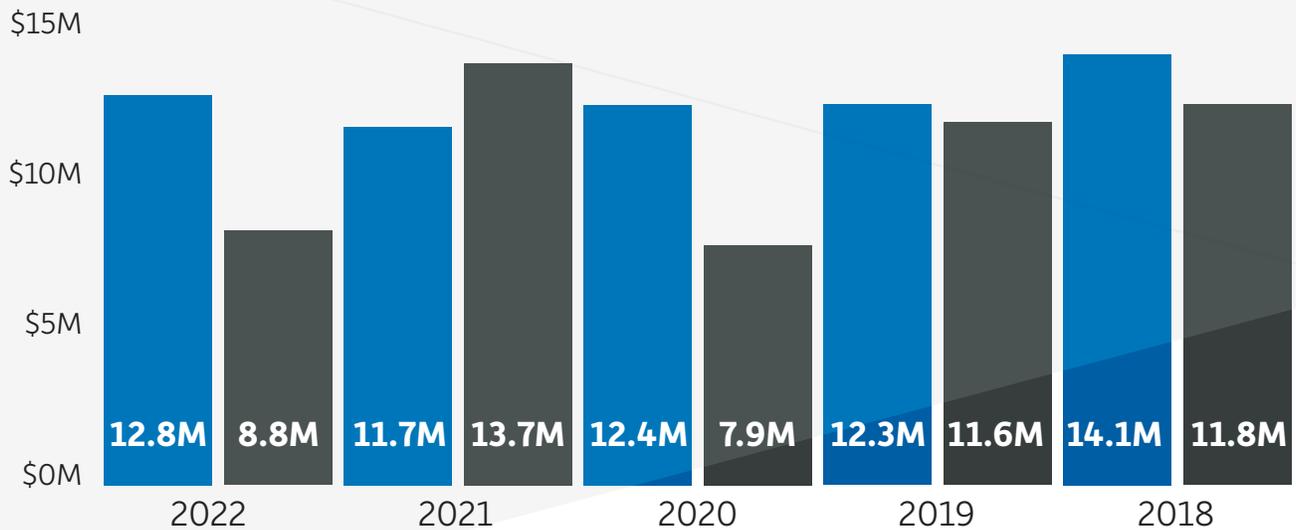




Water

Operating expenditures incurred were \$12.8 million, an increase of nine per cent over 2021 and 90 per cent of budget. The year-over-year increase is primarily due to water main break and service leak repairs.

A total of \$8.8 million in capital improvements was invested in the water utility in 2022, with the major expenditures being the Front Road watermain interconnection, end-of-life water main lining in the Collins Bay area, and end-of-life water meter replacement.



Legend:

Operating expenses 

Capital investment 

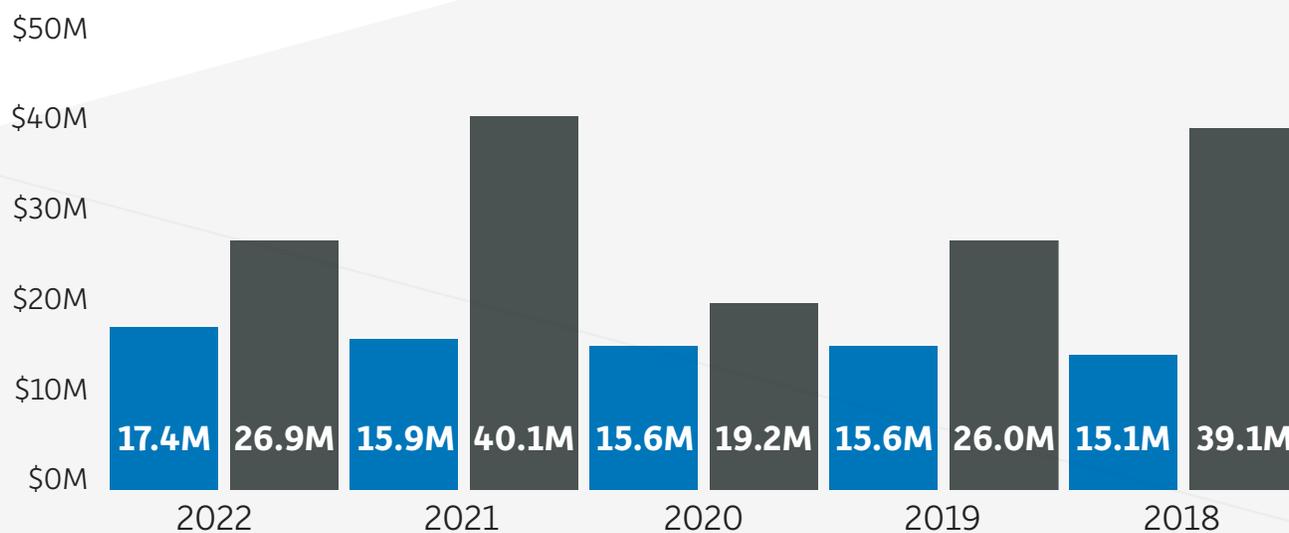
Financial highlights



Wastewater

Operating expenditures incurred were \$17.4 million, a nine percent increase over 2021 and 95 per cent of budget. The year-over-year increase is mainly due to chemical cost increases at the wastewater treatment plants.

In 2022, \$26.9 million was spent on capital projects for the wastewater utility with the major expenditures being the expansion of the Cataraqui Bay Wastewater Treatment Plant and the Days Road Pumping Station upgrades.



Legend:

Operating expenses 

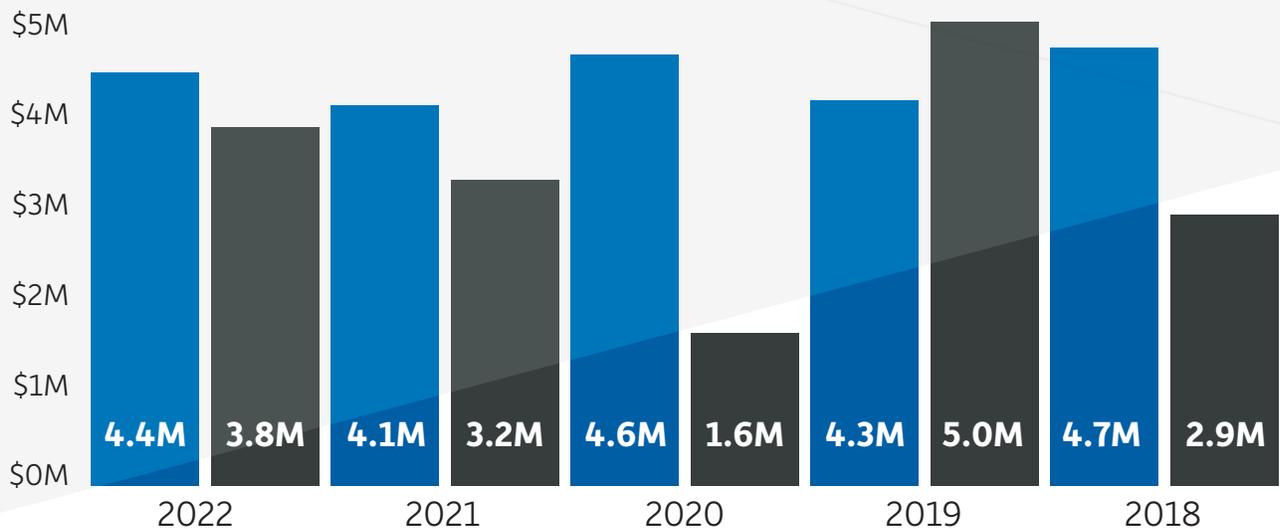
Capital investment 



Natural gas

Operating expenditures incurred were \$4.4 million, an eight per cent increase over 2021 and ninety per cent of budget. The year-over-year increase is primarily due to expenditures in general gas maintenance.

In 2022, \$3.8 million was spent on general capital reinvestment in the gas utility, to ensure the safety and integrity of the natural gas distribution system.



Legend:

Operating expenses

Capital investment

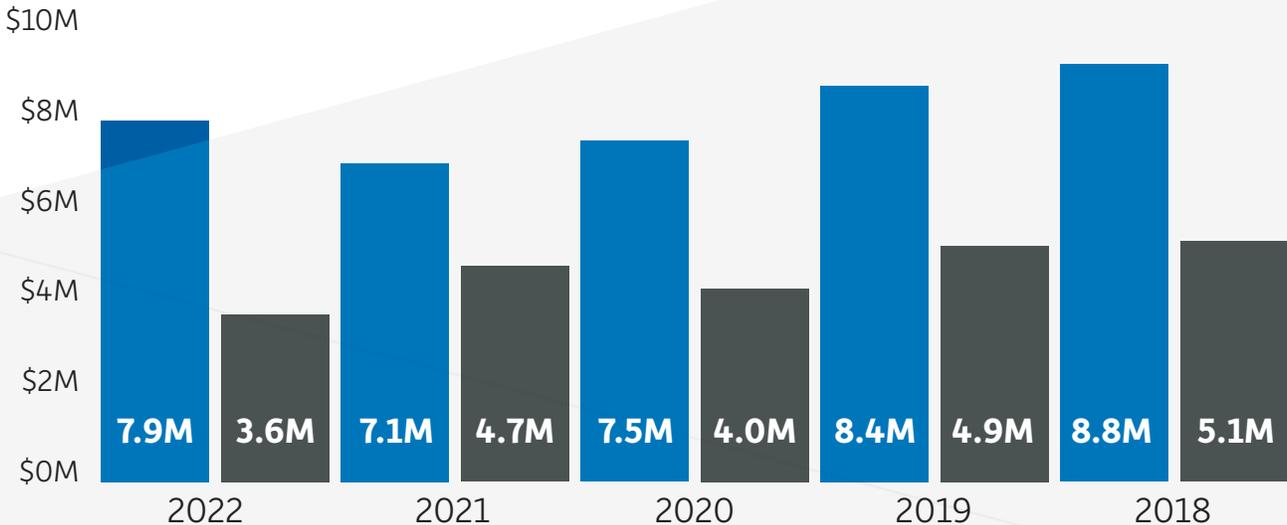
Financial highlights



Electricity

Operating expenditures of \$7.9 million were 12 per cent higher than 2021 due to an increase in distribution operation and maintenance expenses.

In 2022, \$3.6 million was invested in capital improvement to the system, including transformer vault and municipal substation upgrades, and end-of-life pole replacement.



Legend:

- Operating expenses ■
- Capital investment ■





UtilitiesKingston.com

85 Lappan's Lane
PO Box 790
Kingston ON K7L 4X7
Tel.: 613-546-0000

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