FRESH COAST ECONOMIC CORRIDOR

ECONOMIC TRANSFORMATION ACTION PLAN

A Blueprint for Economic Growth and Freshwater Stewardship in the Great Lakes & St. Lawrence River Region

Sept 2025

GREAT LAKES AND ST. LAWRENCE CITIES INITIATIVE
L'ALLIANCE DES VILLES DES GRANDS LACS ET DU SAINT-LAURENT

ABOUT THE GREAT LAKES AND ST. LAWRENCE CITIES INITIATIVE

The Great Lakes and St. Lawrence Cities Initiative is a multinational coalition of municipal and Indigenous government executives representing communities in the Great Lakes and St. Lawrence River Region who are working to promote economic prosperity and protect our fresh water for the benefit of current and future generations. With more than 350 communities represented by our members, the Cities Initiative is leading the way in advancing the environmental, economic and social health of the region by addressing issues impacting its residents.

With membership spanning from Duluth, MN, to Gaspé, QC, the Cities Initiative is the premier voice for local governments in the region. Our work is focused on a series of strategic pillars – Healthy Lakes and Rivers, Climate and Coastal Resilience, Safe and Affordable Water and Economic Transformation – that are advanced by programs, advocacy, collaboration and education.

GREAT LAKES AND ST. LAWRENCE CITIES INITIATIVE
L'ALLIANCE DES VILLES DES GRANDS LACS ET DU SAINT-LAURENT

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Jonathan Altenberg, President and CEO of the Cities Initiative

The Economic Transformation Action Plan was formally adopted by the Great Lakes and St. Lawrence Cities Initiative Board of Directors on August 14, 2025 and published on September 24, 2025.

ACKNOWLEDGMENTS

The Great Lakes and St. Lawrence Cities Initiative would like to thank the many members and partners who share our vision for transforming the Great Lakes and St. Lawrence River Region into a world-renowned Fresh Coast Economic Corridor and contributed their time and expertise to the creation of the ***Economic Transformation Action Plan***:

Mayors Commission on Economic Transformation

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Councillor Alvin Tedjo of Mississauga, ON
Deputy Mayor Catherine Vallières-Roland of Québec City, QC

Working Group Partners:

Alliance for the Great Lakes
AquaAction
Centre de transfer technologique en écologie industrielle
Chamber of Marine Commerce
Charbone Hydrogen Corporation
Climate Mayors
Conservation Ontario
Council of the Great Lakes Region
Current
Great Lakes-St. Lawrence Legislative Caucus
Great Lakes Commission
HOPA Ports
Huron Pines
OPTERRA Energy Services
U.S. Water Alliance
The Water Council
Waterfront Alliance

Please Note: For Working Group partners, recognition in the Acknowledgments does not constitute a formal endorsement of the Action Plan or the recommended strategies and actions included throughout.

The Cities Initiative also wishes to recognize these staff members – Travis Wheeler, Erin Keleske, Max Hayet, Bridget Brown, Zoë Kuntze, Matt Doss, interns Joseph Roarty and Isaac McCready – and consultant Kelly Rowe for their significant contributions to the Action Plan's development.

LETTER FROM THE LEADERS OF THE MAYORS COMMISSION ON ECONOMIC TRANSFORMATION

As mayors representing thriving communities on the shores of Lake Michigan and the St. Lawrence River, we share a common vision: ensuring that the Great Lakes and St. Lawrence River Region remains a vibrant place to live, work, invest and play while preserving the precious freshwater resources that are the very foundation of our economic prosperity and environmental health.

Our region is home to the largest freshwater ecosystem in the world, providing drinking water to more than 40 million people and underpinning a US$6 trillion / C$8 trillion economy, the 3rd largest in the world. For generations, our communities have been the heart of North America's industrial and economic success. Today, as global trends shift, we have the opportunity – indeed, the responsibility – to leverage our unique strengths to build a globally recognized Fresh Coast Economic Corridor that protects our fresh water, futureproofs our businesses and communities and ensures economic benefits are broadly shared.

In May 2024, the Great Lakes and St. Lawrence Cities Initiative launched the Mayors Commission on Economic Transformation to accomplish this vital goal. The ***Economic Transformation Action Plan: A Blueprint for Economic Growth and Freshwater Stewardship in the Great Lakes & St. Lawrence River Region*** is the fruit of the Commission's labor. The Action Plan is more than a vision. Indeed, it sets out practical, concrete steps for municipalities and other stakeholders to attract and retain industries committed to sustainability, strengthen waterborne commerce and tourism, revitalize our waterfronts and expand the use of clean energy.

We could not be prouder of the collaboration that brought us here – and we invite leaders from the government, business and nonprofit sectors to continue working with us to transform our region into a dynamic Fresh Coast Economic Corridor. At a time when our integrated regional economy is at risk, let us move forward with a cohesive, Great Lakes-St. Lawrence Strong response that safeguards our economic prosperity and freshwater resources for generations to come.

Mayor Brandon Johnson, Chicago, IL

Co-Chair, Mayors Commission on Economic Transformation

Mayor Valérie Plante, Montréal, QC

Co-Chair, Mayors Commission on Economic Transformation

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ECONOMIC TRANSFORMATION:

BUILDING A WORLD-RENOWNED FRESH COAST ECONOMIC CORRIDOR

The global supply of fresh water is dwindling rapidly, exacerbated by rising temperatures, excessive groundwater extraction and other trends.[1] Over 75 percent of the world's population currently faces water insecurity, yet many of North America's most water-stressed regions continue to grow at breakneck speeds due to expanding populations and an unprecedented spike in new water-intensive industries. These dynamics are unsustainable. In the face of an increasingly water-scarce world, businesses and people may have no choice but to seek more resilient, resource-rich communitie prepared to innovate for the future

The Great Lakes and St. Lawrence River Region is poised for a new era of economic growth.[2] With 84 percent of North America's surface fresh water, the region offers industries a stable new home and other comparative advantages like a highly integrated regional economy that is the third largest in the world; strong governance frameworks like the Great Lakes Compact; access to global markets via the Great Lakes-St. Lawrence Seaway; superior quality of life; prime sites for relocation and a highly skilled workforce with a proud history of manufacturing.

However, meeting this moment will require a new transformative model of economic development that balances economic goals with freshwater protection.
The Great Lakes and St. Lawrence Cities Initiative created the ***Economic Transformation Action Plan: A Blueprint for Economic Growth and Freshwater Stewardship in the Great Lakes & St. Lawrence River Region*** to address this critical need. The Action Plan provides a 10-year blueprint to build a world-renowned Fresh Coast Economic Corridor that safeguards the region's precious freshwater resources even as it leverages them for economic gains, futureproofs its businesses and communities and ensures economic benefits are broadly shared.

Developed by the Cities Initiative's Mayors Commission on Economic Transformation, the Action Plan previews 12 Cities Initiative-led program concepts to support local governments, identifies collaboration opportunities and highlights communities already leading by example on Economic Transformation. Most importantly, the Action Plan recommends 17 strategies and 76 actions to be implemented by local governments and other actors to achieve Economic Transformation, organized under the following pillars:

INDUSTRY

Strengthening and expanding the region's economic base and creating jobs by attracting and retaining industries that are committed to sustainability through water stewardship, emissions reductions or waste minimization.

TRANSPORTATION

Supporting the modernization of the Great Lakes-St. Lawrence Seaway to encourage regional economic growth by enabling faster, safer, more cost effective and more sustainable movement of goods through an integrated intermodal network while expanding cruise tourism and waterborne mobility.

WATERFRONTS

Creating world-class, mixed-use waterfronts to generate job opportunities, strengthen community resilience, improve quality of life, boost recreation and tourism and drive long-term economic growth.

ENERGY

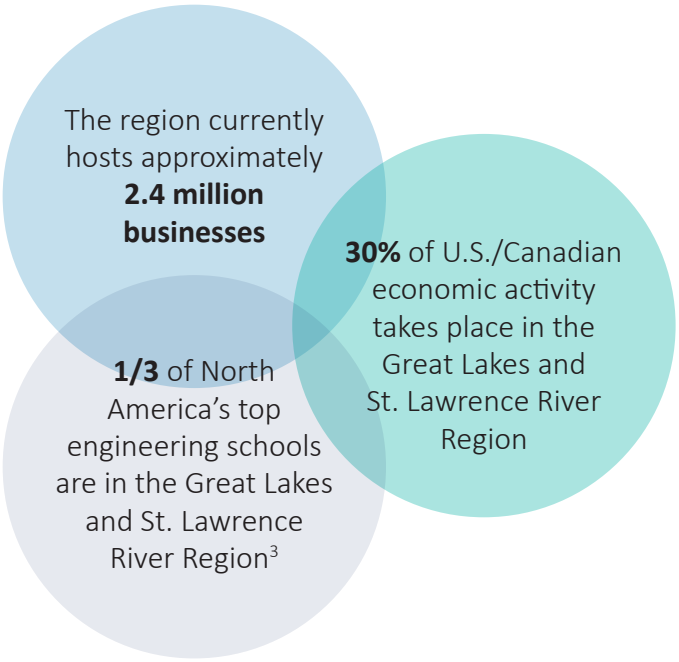
Building a sustainable, independent and North American-produced clean-energy grid to meet the growing energy needs of the region's businesses and communities.

REGIONAL GOALS

Through the *Economic Transformation Action Plan*'s implementation, the Cities Initiative, in collaboration with key partners and regional stakeholders, seeks to contribute to achieving the following regional goals by 2035:

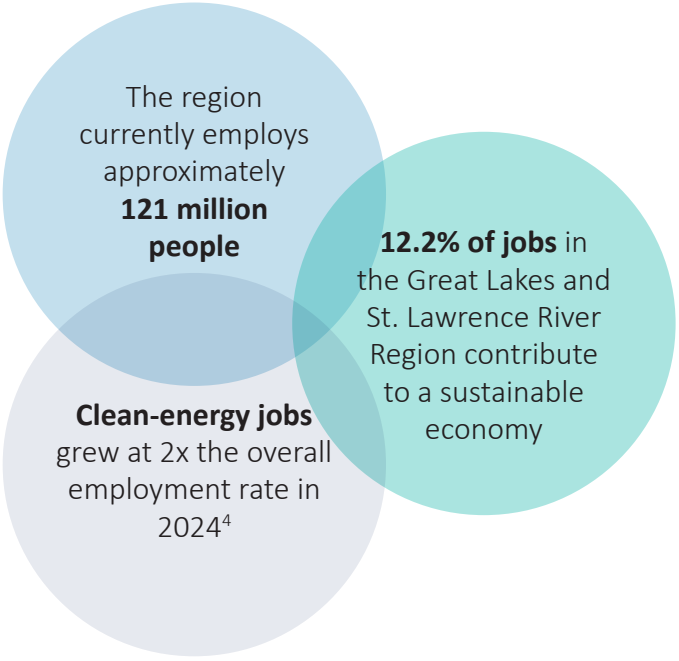
1 ATTRACT HALF A MILLION BUSINESSES

The Great Lakes and St. Lawrence River Region's comparative advantage as an integrated, resource-rich economic system can be leveraged to attract companies seeking stability in the face of an increasingly water-scarce world.



2 CREATE OVER 18 MILLION NEW JOBS

The region's long history of manufacturing has left communities equipped with a highly skilled workforce ready to meet the needs of the future. Economic Transformation provides an opportunity to train and reorient this talent towards new, family-supporting jobs.



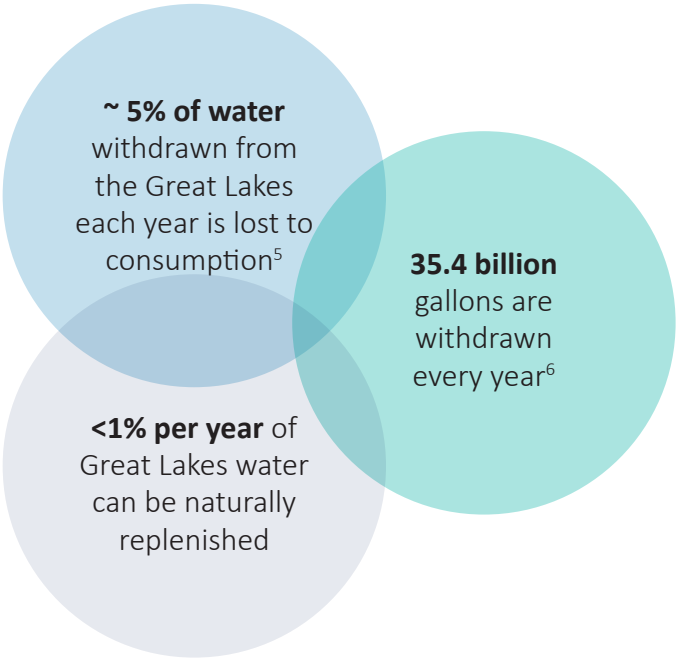
***All benchmark metrics calculated as of 2022. See Appendix for full methodology.*

REGIONAL GOALS

(continued)

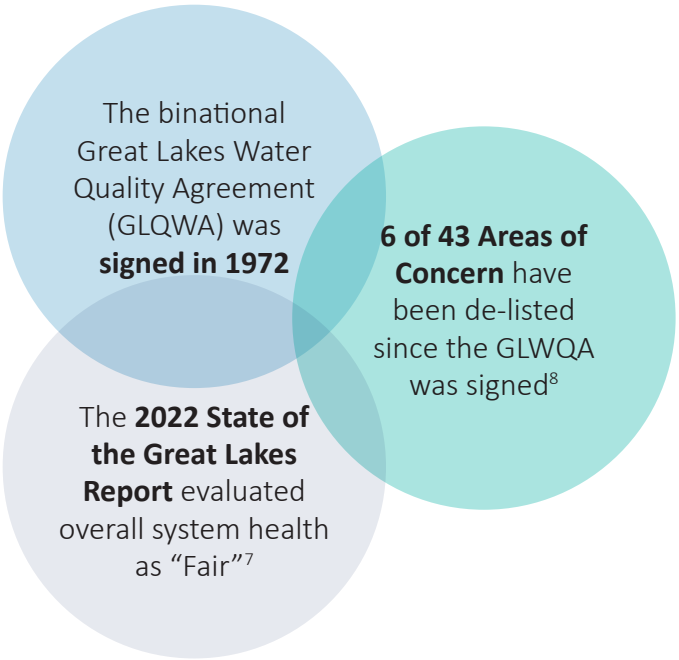
3 AVOID ANY INCREASE IN % CONSUMPTIVE WATER LOSS

While economic growth and new water-intensive industries will increase the total number of water users, innovative practices and technologies can reduce the amount of water withdrawn per user and helps ensure water withdrawn from the basin returns to the basin.



4 IMPROVE WATER QUALITY FROM "FAIR" TO "GOOD"

Fresh water is only an asset if it is clean. By working towards Economic Transformation, communities can protect and restore ecosystem health, prevent future degradation and improve quality of life for businesses and communities.



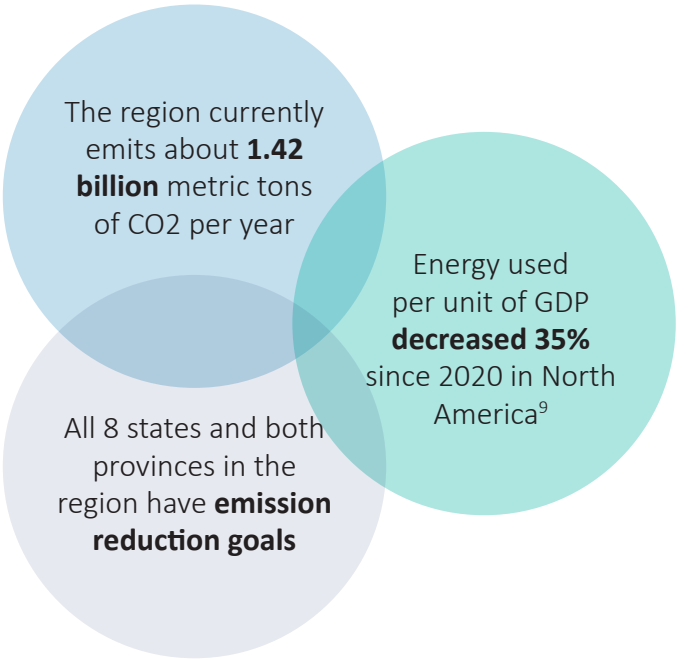
***All benchmark metrics calculated as of 2022. See Appendix for full methodology.*

REGIONAL GOALS

(continued)

5 REDUCE EMISSIONS BY 300 MILLION METRIC TONS

Economic growth has traditionally brought declines in air quality and community health, but Economic Transformation encourages government and industry leaders to work together towards a cleaner, more efficient economy for all.



***All benchmark metrics calculated as of 2022. See Appendix for full methodology.*

PLAN DEVELOPMENT

The *Economic Transformation Action Plan* was developed through a collaborative process combining the direct, community-level experience of municipal leaders with the expertise of regional stakeholders.

THE MAYORS COMMISSION ON ECONOMIC TRANSFORMATION provided strategic guidance to ensure all recommendations reflect municipal priorities and realities.

WORKING GROUPS for each pillar – Industry, Waterfront, Energy and Transportation Transformation – brought together more than 60 experts from industry, government and non-profits to conduct evidence-based analysis and shape practical recommendations.

MEMBERS AND EXPERTS provided additional feedback through in-person and virtual consultations, and Cities Initiative staff conducted extensive desk research, interviewed key actors and researched best practices.

In recognition of their vital contributions to both economic growth and freshwater stewardship, the Cities Initiative will continue to work closely with its First Nation and Tribal members to identify opportunities for collaboration on Economic Transformation.

The Cities Initiative recently created a member-led Committee on First Nation and Tribal Engagement that will help it accomplish this task and provide comprehensive recommendations on engaging and reconciling with First Nations and Tribes to the Cities Initiative Board of Directors at the organization's 2026 Annual Conference in Hamilton, ON.

FOUNDATIONAL PRINCIPLES

The following foundational principles underpin all aspects of the *Economic Transformation Action Plan*, ensuring that economic growth protects the assets that make the Great Lakes and St. Lawrence River Region exceptional, that the emerging economy is built to endure and that all who call the region home benefit.

MUNICIPAL LEADERSHIP:

Local governments enjoy local legitimacy and have key levers to guide economic development, making them effective advocates for their communities' needs. The Action Plan positions local governments as leaders in region-wide Economic Transformation in collaboration with other levels of government and key stakeholders.

FRESHWATER PROTECTION:

Industries and communities both depend on the region's unparalleled freshwater resources. Embedding responsible water management into every component of the Action Plan protects environmental and community health while ensuring long-term economic security.

FUTUREPROOFING:

Economic Transformation must be built to withstand changing weather patterns, growing water demand, market fluctuations and more. By prioritizing risk reduction and anticipating future needs, this Action Plan helps maximize benefits for generations to come.

SHARED BENEFITS:

The benefits of Economic Transformation should be broadly shared by communities of all sizes and socioeconomic characteristics. The Action Plan prioritizes equal access to economic opportunities while safeguarding residents from the negative impacts of industrial activity.

PLAN IMPLEMENTATION

PLAN IMPLEMENTATION

WHY CITIES INITIATIVE-LED PROGRAMS?

With its reach of over 350 communities across the Great Lakes and St. Lawrence River Region and demonstrated expertise in delivering high-impact results, the Cities Initiative is positioned to develop and execute support tailored to members' needs for widespread local implementation of Economic Transformation.

To contribute to region-wide Economic Transformation, the Cities Initiative will develop a suite of programs that directly support its members in implementing the strategies and actions contained in the *Economic Transformation Action Plan*. Through partner dialogues, working group meetings and member consultations – and building on its existing strengths in program delivery – the Cities Initiative has developed several initial program concepts that are highlighted in this section.

These initial concepts are illustrative and will be further refined in the coming months through additional member and partner input. Implementation will be tailored to align with varying local contexts, regulations and authorities across the region's eight states and two provinces.

Strategic collaboration with like-minded partners will be critical to the Action Plan's effective implementation and the Cities Initiative's ability to deliver value to its members, including through existing initiatives that leverage partners' strengths. The Cities Initiative continues to foster partnerships with government agencies, nonprofits, foundations, community-based organizations and universities. The Cities Initiative also works with engineering and planning firms, water-technology companies and other businesses.

Most concepts will require external funding to deliver; thus, fundraising will be a major emphasis in the implementation phase. The Cities Initiative will socialize the program concepts with an array of funders to identify areas of alignment. Funding availability will influence the sequence in which new programs are rolled out and ultimately the scale at which the Cities Initiative can deliver them. Target funding sources include federal, state and provincial government grants, foundations (United States only), corporate sponsorships and private sector in-kind services.

Building on its prior program delivery experience and leveraging key partnerships, the Cities Initiative will develop and deliver programs that fall into one or more of the following four categories:

1. Training and Information Exchange – Programs in this area seek to broaden local knowledge on key issues and build capacity at the municipal level for taking on new projects and initiatives.
2. Shared Services and Collaboratives – Programs in this area provide members with access to trusted partners at a discounted rate or through a commitment to data and knowledge sharing.
3. Direct Funding – Programs in this area provide grants directly to municipalities to catalyze local best practices with seed funding, which can reduce risks to communities looking to innovate or implement larger-scale solutions.
4. Technical Assistance – Programs in this area provide tailored support needed to advance a particular local project or initiative. The Cities Initiative is currently partnering with government agencies, engineering firms and community-based organizations to provide technical support for nearly 100 coastal resilience projects across the United States through its U.S. Coastal Programs, including the Resilient Coastal Projects Initiative.

CITIES INITIATIVE PROGRAM CONCEPTS

	KEY PARTNERS
Fresh Coast Economic Corridor Marketing – The Cities Initiative would convene partners and marketing experts to develop a Fresh Coast Economic Corridor marketing campaign. The program will develop a branding strategy and executional elements to attract development, tourism and a younger workforce to the region's communities. The strategy should emphasize the region's assets and strengths and establish the region as a prime destination for target industries and populations. The initial strategy may be adapted to local contexts, with the Cities Initiative providing training, technical assistance and tools and templates to individual municipalities.	State/Provincial Governments, Regional Governments, Economic Development Authorities, Private Sector, NGOs and Interstate Agencies
Fresh Coast Industry Incubator – The Cities Initiative would provide technical assistance to municipalities to prepare for and recruit new sustainability-oriented industries to grow local economies, including supporting the development of incubator sites, the identification of target industries and the preparation of pitch materials and requests for proposals. Alongside this, the Cities Initiative should support municipalities in retaining existing industries with an eye toward water- and energy-efficiency and circular-economy practices.	State/Provincial Governments, Regional Governments, Economic Development Authorities, Private Sector and Utilities
Water Infrastructure Modernization – The Cities Initiative would provide technical assistance and direct funding to small- and medium-sized members to modernize their drinking water, wastewater and stormwater infrastructure – including green infrastructure – to support sustainable economic growth.	State/Provincial Governments, Conservation Authorities and Private Sector
Municipal Innovation Exchange – The Cities Initiative would develop a water technology and security fund and learning exchange that matches municipal needs with private industry solutions to accelerate local innovation, growth and water and energy efficiencies and protect vulnerable freshwater resources. The program should facilitate cross-sector dialogues, match start-ups with willing cities, distribute stimulus direct funding, conduct evaluation and learning, and disseminate best practices through cross-jurisdictional information exchanges.	NGOs and Water-Tech Startups
Great Lakes and St. Lawrence Brownfield Revitalization – The Cities Initiative would provide technical assistance for brownfield remediation to revitalize blighted waterfronts and other community properties by working with technical consultants to assist members in identifying, assessing and prioritizing viable sites for remediation and redevelopment and selecting and remediating priority sites that advance community economic development goals. These processes should include heavy community participatory planning to ensure maximum benefits and minimal harm to communities.	Federal Governments, State/Provincial Governments, NGOs and Private Sector
Implementation Coaching – The Cities Initiative would develop and deploy a suite of resources and support mechanisms for member communities as they implement the Action Plan. Resources may include training, a web-based resource portal with downloadable tools and guides along with "office hours" for one-on-one advisory services or technical assistance to advance more complex initiatives such as brownfield redevelopment, marketing and policy changes.	Economic Development Authorities, Industries, Academic and Research Institutions and NGOs
Freshwater Champions – The Cities Initiative would provide training to municipalities and information exchanges among municipalities and NGO/academic partners to build local capacity for improving water stewardship practices of established industries through third-party certifications (e.g., WAVE: Water Stewardship Verified), incentives and regulatory measures.	NGOs and Academic and Research Institutions

CITIES INITIATIVE PROGRAM CONCEPTS

	KEY PARTNERS
Future-Ready Cities – The Cities Initiative would partner with legal experts to facilitate research and a series of information exchanges between local communities receiving data centers and private industries expanding their data center footprints to 1) understand data centers' water, energy and infrastructure needs; and 2) identify immediate and long-term local environmental and utility impacts. The Cities Initiative and partners would develop and disseminate a guide for local communities to prepare them for negotiations with incoming data centers.	Private Sector, Academic and Research Institutions, NGOs, Economic Development Authorities and Utilities
Policy Audits – The Cities Initiative would develop a suite of recommendations for updating municipal processes and codes for clean energy, public access, waterfront pathways and green infrastructure for any commercial, residential or industrial development to streamline implementation, offer training on best practices and provide technical assistance for local audits.	NGOs and Private Sector
Dredging Collaboration – The Cities Initiative would facilitate information exchanges between technical experts and municipalities to develop a comprehensive plan for identifying dredging and other sediment management solutions – including opportunities for beneficial reuse of dredged materials – that serve maritime needs to handle larger vessels, increase capacity for larger loads (especially at the entrance of the Great Lakes-St. Lawrence Seaway), maintain capacity on the network despite increased variation of water levels and protect ecosystems.	Federal Governments, State/ Provincial Governments, Conservation Authorities, Academic and Research Institutions and Maritime Sector
Coastal Programs – The Cities Initiative would provide technical assistance to help communities understand potential extreme weather impacts such as anticipated water level variations and flooding risks and undertake shoreline management planning to support coastal resilience projects to protect waterfront access, infrastructure and new development.	Federal Governments, State/ Provincial Governments, Conservation Authorities, Landowners, Private Sector and NGOs
Resilient Infrastructure Exchange – The Cities Initiative would facilitate peer-to-peer information exchange opportunities focused on creative financing solutions (e.g., shared municipal financing for Conservation Authorities), successful partnerships (e.g., Land Conservancies and TIF districts), guidance on key challenges (e.g. permitting and community engagement) and a repository of regional projects for municipalities to expedite implementation of resilient infrastructure.	NGOs and Academic and Research Institutions

PARTNERS AND COLLABORATION

GREAT LAKES-ST. LAWRENCE LEGISLATIVE CAUCUS (GLLC) – GLLC is a binational, nonpartisan organization of state and provincial legislators passionate about policies to protect and restore the Great Lakes-St. Lawrence River Basin. Building on a cooperative agreement with the Cities Initiative, GLLC will serve as one of the Action Plan's Implementing Partners, supporting both the implementation of policy reforms at the state and provincial levels and Cities Initiative programs. The Cities Initiative and GLLC will also continue working to together to advance the U.S. Great Lakes Waterfront Trail, which would expand public access to the region's beautiful waterfronts and generate significant additional economic activity, reinforcing the Waterfront Transformation pillar.

COUNCIL OF THE GREAT LAKES REGION (CGLR) – CGLR is a binational organization seeking to make the Great Lakes and St. Lawrence River Region the first sustainable region in the world. Building on a cooperative agreement with the Cities Initiative, CGLR will serve as one of the Action Plan's Implementing Partners, helping to ensure the business community continues to contribute its perspectives to potential policy solutions and supports Cities Initiative programs. The Cities Initiative and CGLR will also seek to utilize local knowledge and relationships to refer industrial water users to CGLR's Water Innovation and Stewardship Exchange program and ensure local participation in the Circular Great Lakes Program, bolstering the water stewardship and circular economy components of the Industry Transformation pillar.

AQUAACTION – AquaAction is a binational organization dedicated to building a water secure future by addressing the global freshwater crisis. AquaAction and the Cities Initiative have formed a partnership to accelerate the development and deployment of water technology solutions in communities across the Great Lakes and St. Lawrence River Region that improve water use efficiency, protect water quality and enhance the resilience of water infrastructure. In collaboration with universities and other innovation hubs, the newly launched AquaHacking Binational program invites innovators with new water technology ideas to apply to this ten-month experience with expert guidance and seed funding to help launch successful and impactful start-ups. The AquaEntrepreneur program is the next step for emerging water tech start-ups: a six-to-ten-month program to help them scale-up, pivot and accelerate their growth and impact through mentorship and exclusive business opportunities; finally, AquaNation is the alumni community of innovators from AquaAction's flagship programs where they can be connected with a network of water tech leaders, innovators and industry experts, all dedicated to advancing water solutions across North America.

PARTNERS AND COLLABORATION

CURRENT AND GREAT LAKES RENEW – Current is a nonprofit organization working to grow the blue economy, accelerate innovation and solve pressing water challenges in the Great Lakes Region. As the anchor of Great Lakes RENEW, a U.S. National Science Foundation-supported Regional Innovation Engine, Current leads a coalition accelerating the transition to a circular blue economy and turning waste into wealth for the communities of the Great Lakes Region and beyond. The Cities Initiative, Current and Great Lakes RENEW partners will collaborate to support local governments, industry and utilities in strengthening the region's blue economy workforce, identifying opportunities for local governments, industry and water tech startups to partner on testing and piloting innovative water technologies and developing economic development strategies across the region that advance water stewardship, reuse, resource recovery and circularity.

THE WATER COUNCIL (TWC) – TWC is a global hub dedicated to solving critical water challenges by driving innovation in freshwater technology and advancing water stewardship. The Cities Initiative and TWC will partner to educate Great Lakes businesses on the importance of water stewardship and advocate for industrial water users to improve local water quality and quantity outcomes by their own assessment of their water uses, impacts and risks. The Cities Initiative and TWC will work with participating communities to utilize local knowledge and relationships to refer industrial water users to TWC's WAVE suite of programs. The WAVE programs are third-party verified and help organizations assess water use, impact and risk across the enterprise, and then implement mitigating actions as well as set targets to improve water stewardship.

NATIONAL ASSOCIATION OF COUNTIES (NACo) – NACo represents the interests of America's counties, serving as a powerful voice in federal policymaking and a vital part of our nation's intergovernmental system. NACo's newly established Great Lakes Regional Forum seeks to promote a clearer understanding of mutual opportunities and challenges for Great Lakes counties and their residents, establish a reliable source of information for county governments in the Great Lakes region and foster collaboration and information sharing with intergovernmental and other partners. The Cities Initiative and NACo will continue to explore opportunities for municipalities and counties to band together to advance region-wide Economic Transformation.

CONSERVATION ONTARIO – Conservation Ontario is the member organization of Ontario's 36 Conservation Authorities, working with all levels of government to advocate for policies and funding to enhance watershed and coastal programs and services. Conservation Authorities are local watershed-based, natural resource management agencies governed by Boards of Directors appointed by our watershed municipalities. Conservation Authorities protect people and property from natural hazards, protect drinking water sources, conserve and enhance nature through stewardship and restoration, provide outdoor recreation opportunities at more than 300 Conservation Areas, and education programs. Building on its Memorandum of Collaboration with the Cities Initiative's Commission on Community Resilience, Conservation Ontario is an Implementing Partner for the Cities Initiative's Action Plan, sharing our resources to extend its reach and impact. Ontario's Conservation Authorities will continue to partner with our local municipalities on actions to support the Waterfront Transformation pillar and to support actions on resilience, sustainability and extreme weather risks across all the Economic Transformation pillars.

INDUSTRY TRANSFORMATION

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The Great Lakes and St. Lawrence River Region's history as North America's industrial heartland was driven by both the abundance of water for industrial production processes and the presence of lakes and rivers to facilitate the movement of raw materials and goods to market.

These freshwater resources brought a range of industries to the region's shoreline communities, contributing to economic growth and providing jobs to residents. Many of these industries left behind contaminated sediment and other pollutants that are hazardous to public health and the freshwater ecosystem. This toxic legacy led to the designation of 43 Areas of Concern (AOCs) in Canada and the United States under the Great Lakes Water Quality Agreement (GLWQA)[10] and a plethora of federal programs in both countries to remediate and restore them, with cleanup ongoing in several AOCs.

The region is poised for another era of exponential economic growth as rising temperatures and water scarcity in other parts of North America are likely to prompt water-intensive industries to relocate their operations to more temperate locales with reliable water access. In addition to an abundance of fresh water, the region has many comparative advantages. It already has a strong industrial base, with many of the top U.S. states and Canadian provinces for manufacturing located here.[11] It is an emerging leader in innovative, sustainability-oriented industries, with the region's water cluster[12] actively pioneering solutions to looming water challenges and poised to remain a growth industry as demand for such products and technologies is expected to rise in North America and beyond. And the region has one of the most educated and innovation-ready workforces in the world, supported by an exceptional network of higher education institutions capable of maintaining this talent pipeline.[13]

However, the region must more effectively balance economic growth and freshwater protection. The risks of once again degrading the region's water quality and depleting its supply are real, especially as large-scale water users become entrenched and threaten to increase consumptive water use beyond a sustainable threshold.[14] Yet, these risks are manageable if the region pivots to sustainable economic development through Industry Transformation: attracting and retaining industries committed to sustainability through water stewardship, emissions reductions or circular economy practices.

WHY INDUSTRY TRANSFORMATION?

Local governments must seek to strengthen and expand the region's economic base and create jobs by attracting and retaining industries that are committed to sustainability through water stewardship, emissions reductions or waste minimization.

WHY THE GREAT LAKES AND ST. LAWRENCE RIVER REGION?

For industries seeking a stable, long-term home amid rising water scarcity, the region offers abundant fresh water, a highly skilled workforce, high quality of life and prime sites for relocation – ensuring sustainable operations and continued growth.

INDUSTRY TRANSFORMATION

The Action Plan includes four strategies and multiple actions to achieve Industry Transformation:

1. Attract and Retain Industries Committed to Sustainability – By attracting and retaining industries committed to protecting the region's most vital resource, local governments can encourage economic growth and job creation without sacrificing the region's precious fresh water.

2. Reduce Industrial Water Use and Pollution – By reducing water use and pollution across all industries, local governments can protect water quality and supply, modeling proper water stewardship.

3. Expand Clean Energy in the Industrial Sector – By expanding clean energy across all industries, local governments can reduce emissions, improving air quality and public health.

4. Promote Circular Economy – By promoting circular economy practices across all industries, local governments can reduce waste in industrial production processes and improve consumption patterns, limiting pollution in the region's lakes and rivers.

STRATEGY 1

ATTRACT AND RETAIN INDUSTRIES COMMITTED TO SUSTAINABILITY

ACTIONS

ACTIONS	KEY PARTNERS
Action 1.1 – Local governments should develop and implement a comprehensive Sustainable Industry Attraction and Retention Program to provide direct assistance to businesses that are committed to sustainability and seeking to maintain or expand existing operations or relocate to the area. Such a program should: • Target specific industries for attraction and retention based on their commitment to sustainability; • Identify optimal sites, including in clean development zones; • Provide incentives and services, such as infrastructure upgrades and • Be supported by a sustainable workforce development plan and a cutting-edge marketing campaign connecting the community to the Fresh Coast Economic Corridor and touting its competitive advantages.	State/Provincial Governments, Economic Development Authorities
Action 1.2 – Local governments should establish clean development zones with sustainable industrial parks to promote business attraction and retention, especially in areas that have experienced chronic disinvestment and toxic pollution from legacy industries. Local governments may offer a mixture of financial and tax incentives and services – including site identification and infrastructure expansion – to support the growth of such zones.	Economic Development Authorities, Industries
Action 1.3 – Local governments should create or invest in and engage with existing water innovation hubs to nurture water-centric businesses and startups in the development, commercialization, access to private and public capital and deployment of innovative water technologies and circular economic practices, encouraging sector- and cluster-based growth in the water sector and affiliated industries.	Economic Development Authorities, Industries and NGOs
Action 1.4 – Local governments should support the creation and implementation of energy and water workforce development plans, backed by investments in workforce training, specifically for sustainable industries to foster the talent pipeline, support business attraction and retention and encourage local hiring and contracting. Local governments should also align their plans with those of state and provincial governments when possible, collaborate regionally with other local governments and leverage workforce investments to address public-sector workforce gaps, like those required to manage supporting energy and water infrastructure.	State/Provincial Governments, Economic Development Authorities, Educational Institutions/Great Lakes Higher Education Consortium, NGOs and Unions
Action 1.5 – Local governments and First Nations and Tribes should encourage the use of community benefits policies and agreements or impact or Tribal benefit agreements, utilizing ongoing monitoring and enforcement provisions to ensure that new industries provide jobs and other economic opportunities to residents in alignment with workforce development plans. Such policies and agreements should also require new industries to adhere to enhanced plans and standards – including reductions in emissions, as well as conservation and efficiency measures to address energy and water consumption – to mitigate environmental impact and deliver lasting value for the community.	Industries, NGOs and Unions
Action 1.6 – Local governments should ensure business attraction and retention strategies are supported by robust energy- and water-infrastructure investment plans to balance economic-growth imperatives with protecting residents from adverse impacts, especially around energy and water affordability and quality of utility service. System development fees for new large-scale energy or water users may be appropriate and necessary in many cases to prevent cost-of-living impacts for residents.	Industries, Utilities

STRATEGY 2

REDUCE INDUSTRIAL WATER USE AND POLLUTION

ACTIONS	KEY PARTNERS
Action 2.1 – Local governments should intentionally integrate planning for economic development and land use with resilience planning and water supply and treatment capacity planning, recognizing that energy- and water-intensive industries situated in certain locations will have larger environmental and resource footprints, with implications for both infrastructure needs and sustainability goals. Such integrated planning should be leveraged to guide economic growth and development plans, strategies for attracting and retaining industries and siting decisions. Adjacent local governments within a region would benefit from coordinating such planning and from receiving funding from their respective state or provincial government to carry out such activities.	State/Provincial Governments, Regional Planning Agencies and Economic Development Authorities
Action 2.2 – State and provincial governments should institute stronger water-use reporting requirements for large-scale water users and require them to be met in order to obtain tax breaks and other benefits in order to protect the long-term health of the water supply – both surface water and groundwater – and ensure it can support the full range of necessary economic development. Specifically, large-scale water users should be required to register with the appropriate agency and report on their water use regardless of whether they are connected to the municipal water supply.	Industries
Action 2.3 – Local governments should educate new and existing industries on the business and environmental benefits of on-site treatment of industrial wastewater and resource recovery practices and support their implementation. In some cases, it may be possible to co-locate large-scale water users with wastewater treatment facilities, reducing the impact on municipal water supplies, lowering energy costs and utilizing scarce urban land judiciously.	Industries, NGOs
Action 2.4 – Local governments should take measures to lower barriers for water-tech companies to test innovative technologies in real-world conditions in municipal water systems, streamlining access to innovation and commercialization for companies while providing municipalities early access to water solutions. Such public-private collaboration may be further incentivized by: • Federal and/or state/provincial grants; • Tax incentives; • Public-private partnerships; • NGO support and • Pilot programs/testing sites.	Industries, NGOs
Action 2.5 – Local governments should encourage new and existing industries to adhere to sustainability benchmarks for energy and water usage, rewarding industries that meet these benchmarks with tax breaks, fee reductions, and other incentives. For new industries, local governments may request the public disclosure of anticipated energy and water requirements prior to construction, helping communities more effectively weigh the costs and benefits of the planned investment.	Industries
Action 2.6 – Local governments should support the development and implementation of action plans for specific local industries – including those relying on a public-water system that draws from groundwater – to reduce water consumption and pollution, contributing to the sustainability of the water supply and improving water quality. Such action plans should: • Establish benchmarks for water quality, supply and reuse; • Foster integration of water supply and pollution detection systems (e.g., remote sensing); • Incorporate both energy and water conservation and efficiency measures and • Include regular monitoring and testing in partnership with local government entities.	Industries, NGOs

STRATEGY 3

EXPAND CLEAN ENERGY IN THE INDUSTRIAL SECTOR

ACTIONS

	KEY PARTNERS
Action 3.1 – Federal governments should provide incentives to retrofit existing equipment to improve energy efficiency and expand on-site, distributed clean-energy generation and storage across the industrial sector, thereby reducing electricity costs, reliance on energy imports, emissions and overall strain on the grid while enabling grid-based growth in other areas of the economy. Incentives including grants and tax credits may be considered to reduce the cost of clean-energy sources and scale deployment of off-grid clean-energy consumption.	Industries
Action 3.2 – Federal, state, provincial and local governments should encourage coordination among green banks across the Great Lakes and St. Lawrence River Region to develop a region-wide strategy for increasing public and private financing for transitioning the industrial sector to clean energy. Such a strategy could also identify and finance the clean-energy transition in specific industries that are regionally significant in terms of economic and environmental impact.	Green Banks
Action 3.3 – Federal, state, provincial and local governments should fund workforce development strategies and associated training programs to develop skilled workers capable of installing, operating and maintaining clean, electrified heating technologies in industrial settings. Such strategies and training programs should upskill existing workers whenever feasible and, in partnership with companies, match strategies and programs to anticipated needs to facilitate the recruitment of new workers.	Industries, Unions and Educational Institutions

STRATEGY 4

PROMOTE CIRCULAR ECONOMY PRACTICES

ACTIONS	KEY PARTNERS
Action 4.1 – Local governments should enhance inter-business awareness and communication in order to identify synergies for waste reduction and reuse, making existing businesses more sustainable and profitable, as well as generating new economic-development opportunities for the community and increasing social acceptability. Tactics could include: • Appointing a senior advisor for a circular economy in the environment or economic-development department to liaise with industries and advise the mayor; • Conducting regular surveys of industries to understand inputs, waste and other potential synergies and • Facilitating matchmaking between industries to enhance sustainability and profitability of existing industries and contribute to business attraction and retention strategies.	Industries, NGOs
Action 4.2 – Local governments should design industrial parks to include designated spaces for waste collection and otherwise promote a circular economy. Local governments should also design industrial parks to incorporate tree coverage and green stormwater infrastructure, recognizing that such areas can contribute to heat-island effects and urban flooding that impact the entire community if not designed with such considerations in mind.	Industries, NGOs
Action 4.3 – Local governments should enact an audit program to advance water reuse – including greywater and rainwater – in municipal and industrial settings, utilizing the large surface area of such facilities to contribute to community-wide water conservation and stormwater management efforts. Such a program should: • Audit policy and planning barriers; • Propose reforms to local and state and provincial codes and regulations; • Identify opportunities to install water-efficient appliances and fixtures in municipal and industrial buildings and • Conduct voluntary industry audits and connect to incentives and/or certifications for circular practices.	Industries, State/Provincial Governments and NGOs
Action 4.4 – Local governments should adopt environmentally preferential procurement standards for the goods and services they procure, incentivizing businesses to enact policies to reduce plastic and other forms of waste and eliminate unnecessary packaging or single-use items. Such sustainable procurement efforts could also be instituted at the federal, state and provincial levels or even at the regional level among a collection of local governments acting in concert to increase their purchasing power and impact.	Industries
Action 4.5 – Local governments should support implementation of extended producer responsibility laws – whether curbside or deposit return – or use waste disposal surcharges to generate revenue for recycling programs and infrastructure improvements at local level. Relatedly, local governments should work together to review, modernize and streamline waste recovery systems across jurisdictions to reduce existing confusion on what can be recycled and build confidence in recycling systems.	State/Provincial Governments
Action 4.6 – Local governments should train the local restaurant/hospitality industry, chambers of commerce/tourism and other community stakeholders on how to reduce use of single-use plastics and other new wasteful inputs into the system. Local governments should also support research and projects to identify and eliminate the sources and pathways of plastic waste, which breaks down into microplastics and harms ecosystems and human health.	Industries, Chambers of Commerce and Tourism and NGOs

MILWAUKEE, WI

FROM RUST BELT TO WATER-TECH CAPITAL OF THE WORLD

Like many "Rust Belt" cities in the Great Lakes and St. Lawrence River Region, Milwaukee, WI was at an economic crossroads at the dawn of the 21st century. Many of the industries that had fueled Milwaukee's economic prosperity for decades had departed the city, leaving local leaders searching for new opportunities to transform their local economy and reemploy the talented workforce that had been acutely impacted by the decline in manufacturing.

The solution was in the very resource that had drawn industry to Milwaukee in the first place: its water. Milwaukee was already home to many legacy companies that created water pumps, valves, pipes and meters that served early water-intensive industries in Wisconsin. Instead of creating an economy from scratch, visionary industry leaders rebranded their innovative products and services as "water technology" and then sought the support of state and local government and other key stakeholders to nurture and grow this existing cluster.

The "Capital of Water" was born.[15] Today, Milwaukee is one of the most mature, high-density water-technology clusters in the world, home to about 250 water-related companies, comprising both legacy companies and new entrants and including five of the 11 largest firms in the world[16] d and 14 R&D operations. **Together, these businesses represent a $15-billion market and support around 20,000 jobs, accounting for a substantial percentage of the total water business worldwide**.[17]

How were these impressive economic feats achieved? There were a number of important steps along the way. First, water industry leaders united behind a common vision and created a nonprofit – The Water Council (TWC) – to implement it. Second, local elected leaders and the Milwaukee Department of City Development helped create the ideal ecosystem for industry innovation to flourish by removing barriers, lobbying the state government and securing millions of dollars in economic-development and infrastructure funding.[18] Third, TWC created a central hub for collaboration and entrepreneurship, with industry leaders from around the world gathering in Milwaukee to participate in TWC's award-winning programs and drive water-tech innovation globally. Fourth, water industry leaders helped advocate for the creation of the University of Wisconsin-Milwaukee School of Freshwater Sciences, the only graduate program in the country dedicated solely to the study of freshwater, serving as a valuable talent pipeline and water research asset. Finally, concurrent efforts to clean up the toxic legacy of Milwaukee's water-intensive industrial past have reinforced the city's ability to market itself as a leader in freshwater stewardship.

As the story of Milwaukee's water-tech hub illustrates, local governments seeking to foster renewed economic development should begin by identifying their unique value proposition as a community, assessing which existing clusters could benefit from enhanced support and working with business leaders to unite behind a common vision for the future economy.

TRANSPORTATION TRANSFORMATION

TRANSPORATION TRANSFORMATION

The Great Lakes and St. Lawrence River provide a vital link for the region and its economies. From First Nation and Tribal trade routes to the Lachine Canal, it has connected communities for thousands of years. The freshwater corridor was also the subject of a landmark project marking the strong cooperation between Canada and the United States with the opening of the Great Lakes–St. Lawrence Seaway – or "Highway H2O" – more than six decades ago, providing a direct connection between the core of the Great Lakes and St. Lawrence River Region and global markets. Most of the region's cities were born from this trade, and waterborne transport remains a defining asset that fuels local economies today.

Despite its strategic importance, the Seaway is currently underutilized. While it moves millions of tons of goods each year, much of the freight that could travel efficiently and cleanly by water is instead trucked across congested highways and rail corridors. This imbalance creates higher costs, more emissions and unnecessary wear on infrastructure.[19] At the same time, ports on North America's Eastern Seaboard are competing aggressively for trade flows, often drawing cargo away from the region's inland waterways.[20] Yet the Great Lakes–St. Lawrence Seaway retains unmatched potential: as a low-emissions, resilient and cost-effective transport system that can connect inland economies to global markets while reducing pressures on roads and communities.[21]

Maritime trade sustains local economies across the region and local governments play a crucial enabling role. As cities grow, many ports once on the urban edge now find themselves in the heart of communities. Ports and cities therefore depend on close collaboration with one another to manage impacts like traffic, noise and shoreline development. Cities also bring local stakeholders together, guide land use decisions, facilitate permitting and help ensure that new investments benefit residents as well as industry. By aligning city planning and community engagement with port operations, municipalities can help create conditions where maritime transport fuels the economy while maintaining public trust.

Beyond freight, the region's waterways hold enormous potential for moving people. Cruise tourism is already bringing new dynamism and economic activity to the region's cities, showcasing their pristine landscapes and cultural assets.[22] Waterborne transit could also reconnect residents with their waterways for daily commutes, offering reliable, fast and pleasant alternatives to congested roads. By leveraging its lakes and rivers, Transportation Transformation can make the region's greatest natural asset part of everyday mobility once again.

WHY TRANSPORTATION TRANSFORMATION?

Local governments must support the modernization of the Great Lakes-St. Lawrence Seaway System to encourage regional economic growth by enabling faster, safer, more cost effective and more sustainable movement of goods through an integrated intermodal network while expanding cruise tourism and waterborne mobility.

WHY THE GREAT LAKES AND ST. LAWRENCE RIVER REGION?

Industries depend on reliable transportation systems to get their products to market in a cost-effective manner. The Great Lakes-St. Lawrence Seaway System is uniquely positioned to meet these demands, supporting business growth while strengthening the region's economic and environmental resilience.

TRANSPORATION TRANSFORMATION

The Action Plan sets out four strategies and many actions to realize Transportation Transformation:

1. Boost Sustainable Waterborne Trade to Unlock Highway H2O's Full Potential – By modernizing port infrastructure, increasing multimodal transportation and addressing regulatory barriers, the region can catalyze significant growth in waterborne trade, expand access to global markets and improve supply-chain resiliency while reducing emissions, road congestion and wear on infrastructure.

2. Advance Sustainable Maritime Growth Through Enhanced Local Partnerships – By aligning maritime growth with urban planning and prioritizing strong local partnerships, ports and local governments can work together to share information, address local impacts and improve quality of life for the entire community.

3. Catalyze Maritime Development Through Local Action – By actively supporting maritime development, local governments can create a welcoming business and investment environment, advocate for infrastructure spending and help meet the needs of maritime workers.

4. Leverage Cruise Tourism and Waterborne Transit – By expanding the use of waterways for tourism and public transit, local governments can diversify economic opportunities and expand commuting options.

STRATEGY 1

BOOST SUSTAINABLE WATERBORNE TRADE TO UNLOCK HIGHWAY H2O'S FULL POTENTIAL

ACTIONS	KEY PARTNERS
Action 1.1 – Federal governments should aim to increase traffic on the Great Lakes-St. Lawrence Seaway by 30 percent within 10 years by improving opportunities for more sustainable, waterborne commerce with regional and international markets. Federal governments should support this goal by: • Investing in deep seaport capacity expansion in the St. Lawrence; • Developing or modernizing inland multimodal terminals, including rail; • Increasing short-sea shipping by upgrading dock infrastructure and warehousing to support new bulk and containers across the corridor, and transitioning away from legacy industries; • Investing in smart navigation technologies (e.g., real-time tracking, digital scheduling) to improve systemwide reliability and vessel turnaround times and • Exploring opportunities to extend the Seaway's open season by coordinating and preparing port infrastructure for year-round operations.	Maritime Sector, Local Governments and State/Provincial Governments
Action 1.2 – Federal governments should expand strategic customs clearance capacity to create more hubs capable of supporting out-of-region and short-sea shipping, thereby enhancing port capacity and overall maritime trade efficiency. To achieve this, they should launch publicly supported pilot projects to expand customs operations at key ports, reform customs staffing and service models to align with long-term growth objectives rather than short-term volume fluctuations and address chronic underinvestment and understaffing in customs clearance.	Maritime Sector, Local Governments
Action 1.3 – Federal governments should modernize port regulations to better align with regional and local needs. Local governments can encourage other levels of government to: • Leverage finance for sustainability, emissions, pollution and nuisance reduction and resilience projects; • Diversify investments and joint ventures and • Enable investments in intermodality, for example through port authority investments in dry ports outside their territory.	State/Provincial Governments
Action 1.4 – Federal governments should align their maritime, supply chain and trade strategies to ensure coherence in action and investments for greater impact. A similar exercise should be conducted and coordinated at the provincial/state level. This planning should include: • A centralized, regularly updated inventory and technical assessment of port infrastructure; • A vulnerability assessment of infrastructure to extreme weather and supply-chain disruptions with accompanying remediation measures; • An analysis of bottlenecks and redundancy needs to increase resilience; • Long-term funding allocation forecasts by region and • A construction and investment timeline to give local governments the foresight needed for urban planning and alignment with other infrastructure projects and funding streams.	Domestic Shipbuilders, Local Governments
Action 1.5 – Federal governments should support a naval and government shipbuilding capacity across the region by supporting a network of shipyards in both Canada and the United States, as well as local ship-repair capacities. Local governments can support these efforts by collaborating in the strategic planning for port-adjacent industrial zones that support shipbuilding supply chains.	Local Governments
Action 1.6 – Federal, state and provincial governments should provide local governments with the funding and technical assistance necessary to accompany and adapt to these changes in the maritime activities, due to increased needs for sustainable dredging, water management and other infrastructure needs impacting municipal systems.	Local Governments

STRATEGY 2

ADVANCE SUSTAINABILE MARITIME GROWTH THROUGH ENHANCED LOCAL PARTNERSHIPS

ACTIONS	KEY PARTNERS
Action 2.1 – Local governments should work closely with ports and use planning, zoning and design tools to ensure port development aligns with urban growth, economic development, environmental goals and community quality of life. Best practices include: • Joint planning for freight and traffic management to reduce impacts on residential areas; • Preserving public access to waterfronts and integrating safe walking, cycling and transit connections to and around the port; • Creating buffer zones between industrial and residential uses to reduce conflicts and improve resilience; • Requiring high-quality design, adaptive reuse of brownfields and beautification in project approvals for port and industrial developments and • Mandating on-site resilient infrastructure, stormwater management and the recycling of construction or dredged materials where applicable.	Maritime Sector
Action 2.2 – Ports and their tenants should increase transparency on community and environmental impacts by joining independent certification programs like Green Marine and making monitoring data publicly accessible. Collecting data with local governments, engaging directly with community groups and sharing impact information for port expansions or upgrades build credibility and trust. Incentives such as rebates or tax breaks for good actors can further encourage sustainable practices.	Maritime Sector, Local Governments
Action 2.3 – Ports should adopt and regularly update risk reduction and preparedness plans for extreme weather and support tenants in implementing them through grants, technical assistance and programs that reward reduced emissions or the adoption of environmentally beneficial technologies.	Maritime Sector
Action 2.4 – Governments and the maritime sector should continue their efforts to implement clean energy in industry by modernizing port infrastructure and adopting cleaner vessel technologies. Key actions could include: • Installing shore power and dockside electrification in ports; • Leveraging disused deep-sea port infrastructure in communities to build electric charging stations; • Promoting the adoption of clean fuels; • Expanding clean-energy procurement and energy efficiency at port facilities and • Supporting the construction of electric-powered vessels in the region and innovation in the field.	Ports, Federal Governments and State/Provincial Governments
Action 2.5 – Federal, state and provincial governments should close the maritime talent gap to support local communities with local well-paid jobs, and address the growing labor shortage in the maritime sector. This should be a core tenet of the maritime strategies. Specifically, governments should: • Fasttrack training by accrediting modular, competency-based programs and apprenticeships; • Provide funding for marine colleges across the region, including to expand operations to bigger cities; • Provide full scholarships to youth entering marine training programs and • Create “bridge” programs and certificates for veterans, tradespeople and logistics professionals to transition into deck, engine and shoreside roles.	Maritime Sector, Local Governments and Educational Institutions
Action 2.6 – Governments and the maritime sector should expand cooperative partnerships with First Nations and Tribes to ensure their support for expanding maritime transport in the corridor. This can include initiatives that deliver direct co-benefits in the communities, including infrastructure investments and job/education support.	First Nations and Tribes

STRATEGY 3

CATALYZE MARITIME DEVELOPMENT THROUGH LOCAL ACTION

ACTIONS

ACTIONS	KEY PARTNERS
Action 3.1 – Local governments should integrate maritime transport into a coherent local development vision and strategies, with attention to multimodality, logistics and regional competitiveness. By clearly stating its ambitions for the local maritime sector, how it plans to leverage it to achieve broader goals and the conditions it expects for development, local governments can create a positive business and investment environment and build public support for status as a port city.	Maritime Sector
Action 3.2 – Local governments should proactively plan to meet the housing, mobility and public service needs of a growing maritime workforce. To fully realize the economic benefits of port activity, municipalities must create conditions that help workers and their families thrive through coordinated land use, housing, transportation and social-services planning. This includes zoning for new housing near employment areas, providing active and public transit aligned with port schedules and upgrading services like schools, childcare and recreation to support community growth.	Maritime Sector, NGOs and Service Providers
Action 3.3 – Local governments should leverage their convening power and political leadership to attract investments and build support from other governments. Local governments can use their influence to seek funding, advance permitting reform and make infrastructure investments across all levels of government, as well as to reassure potential investors of their support.	Economic Development Authorities, Maritime Sector
Action 3.4 – Local governments should encourage local industries to use water transport capacity, as well as attract and retain industries that benefit from port proximity. Additionally, local governments should work directly with local importer and exporters and their third-party logistics planners to encourage to best leverage maritime transport to move their goods to market.	Ports, Economic Development Authorities
Action 3.5 – Local governments should work with local education institutions to grow a local maritime-ready workforce, as well as supporting career paths staying within the community. As part of their strategic planning work, local governments could collaborate with local colleges, vocational schools, and universities to encourage them to expand training programs aligned with maritime sector needs (e.g., logistics, ship repair, supply chain tech).	Educational Institutions
Action 3.6 – Local governments, the maritime sector and local economic stakeholders should leverage smaller waterways and waterfront landings beyond ports to create “blue highways” for urban freight within the community, expanding economic opportunity and reducing emissions, road congestion and infrastructure wear and tear. Initial steps could include developing a local “blue highway” strategy, as well as identifying potential landing and loading locations and industries that could benefit from moving goods via urban waterways.	Ports, Logistics Companies and Industries

STRATEGY 4

LEVERAGE CRUISE TOURISM AND WATERBORNE TRANSIT

ACTIONS

ACTIONS	KEY PARTNERS
Action 4.1 – Local governments should explore integrating cruise tourism into local and regional economic development efforts. Specifically, local governments can tout local businesses and unique attractions, improve connections between cruise terminals and downtown area and leverage marketing partnerships – such as Cruise the Great Lakes and Cruise the St. Lawrence – and public-private collaborations to ensure the economic benefits of cruise tourism are broadly shared by the community.	Cruise Tourism Sector, Economic Development Authorities
Action 4.2 – All levels of government should recognize and leverage the potential of waterborne transit options to reduce emissions and congestion on crowded roads for intercity- and same-city transit by: • Aligning regulations to facilitate permitting for vessels operations for passenger transit; • Aligning regional/city transport strategies with the waterborne transport services to offer multimodal links across the network; • Ensuring funding for operations that support frequency, reliability and multimodal integration; • Investing in infrastructure to support seamless transitions between ferries and the urban environment; • Including water transit in fare systems and digital trip-planning tools and • Reducing seasonality of service wherever feasible. Partnering with cruise or tourism operators for pilot programs of waterborne public transit has proven to be a cost-effective way to test waterborne transit services while limiting startup risks in Québec City.	Transit Agencies, Waterborne Transit Operators

QUÉBEC CITY, QC:
A PORT ANCHORED IN PARTNERSHIP

For centuries, Québec City and its port have been inseparable, their history and development shaped by the St. Lawrence River. The Port of Québec, with facilities spread across several shoreline sites, has long been an engine of the local economy. It has also been a close neighbor to residential districts, where in the past its activities created issues such as dust, noise and visual impacts. Being the closest deep-water port to the Great Lakes, the transshipment model at the Port of Québec plays a distinctive role in continental trade. Today, the Port and the City are working together in pursuit of sustainability and shared prosperity.

To be a good neighbor to nearby communities, the Port has been proactive in building relationships through a wide range of consultation platforms – neighborhood roundtables, youth workshops and an online hub – that have led to tangible commitments on traffic and noise reduction, air quality improvements and river access, helping reduce impacts while building recreational sites and other initiatives to improve quality of life for local residents and visitors. Reducing emissions has also become a strategic priority for the Port. Its transshipment model – moving bulk goods from one vessel to another for continued shipping to other ports – already helps reduce use of local road networks. Still, further investments are being made to electrify operations and berths and to support cleaner fuels for vessels.[23] Other initiatives include greening industrial zones, planting hundreds of trees in the community, and deploying a biodiversity plan to better balance economic activity with environmental responsibility.

At the same time, Québec City has become an active partner in this transformation. Through joint land-use planning, citizen committees, and regular bilateral meetings, the Port and City align their projects with urban priorities. For example, when the Port opened part of its shoreline, the City helped expand public access to the river, allowing residents to reconnect with the waterfront. The two also worked hand in hand to build a new cruise terminal out of the immediate city centre. With more than **150,000 cruise passengers welcomed in 2023**, the City and the Port further coordinated transit links to the port, making it easier for workers and passengers to commute while reducing road traffic and congestion. A pilot waterborne transit link to the city's eastern suburbs has also shown potential not only for commuting but for leisure travel.

Cultural and educational initiatives are also part of this renewed partnership. ***Espaces portuaires***,[24] developed with the ***Musée de la civilisation***, showcases the Port's heritage and activities while Flot[25] introduces young people to biodiversity and port operations. These projects strengthen public awareness of Québec's maritime identity and help build civic pride around the port sector, fostering stronger support for its projects.

These joint efforts reflect a broader shift: the recognition that port development and urban well-being need not be at odds and can even reinforce one another. Building on this momentum, the Port and the City are preparing a shared strategic vision to be launched in 2026 to guide development over the next decade.[26] The goal is to support one another, amplify collective action and advance economic growth and quality of life together. This collaboration also reinforces **Québec's international role, including hosting the North-American headquarters of the AIVP – the Global Alliance of Port Cities** – and ongoing work to explore container capacity as part of its long-term strategy.

WATERFRONT TRANSFORMATION

WATERFRONT TRANSFORMATION

Historically a major center of industry, commerce and natural resource extraction, the shorelines of the Great Lakes and St. Lawrence River Region provided access to water for industrial purposes and facilitated the transportation of goods. These activities, along with the subsequent deindustrialization of the region, led to significant environmental damage, tens of thousands of brownfields and vacant waterfront properties. Abandoned, degraded, underutilized and single-use waterfronts are not realizing their full potential.

Yet, the presence of abundant freshwater resources is causing demand for waterfront access to rise, meaning efforts to restore and revitalize these underutilized spaces can generate significant economic and community benefits. Waterfront property is typically valued at nearly double non-coastal property and the premiums paid for waterfront homes are highest along the Great Lakes.[27] Balancing residential development with a multitude of uses – including sustainable commercial activity, community access and environmental remediation – can amplify economic opportunity even further while also improving residential quality of life[28] and protecting coastal areas from extreme weather and floods.[29]

Waterfront Transformation aims to restore, protect and leverage waterfront spaces – and local governments have a critical role to play in this transformation. Around the region, local leaders are already working with partners to welcome their communities and businesses back to the water. By transforming waterfront spaces into dynamic, resilient and accessible hubs, communities can protect their freshwater resources and public safety while making their waterfronts more attractive places to live, work, play and invest.

WHY WATERFRONT TRANSFORMATION?

Local governments must create world-class, mixed-use waterfronts to generate job opportunities, strengthen community resilience, improve quality of life, boost recreation and tourism and drive long-term economic growth.

WHY THE GREAT LAKES AND ST. LAWRENCE RIVER REGION?

The region's abundant waterfronts present a unique opportunity for economic growth. By developing these assets and realizing their potential, we can expand our economy while ensuring public access to these shared resources and designing resilient infrastructure that can withstand extreme weather.

WATERFRONT TRANSFORMATION

The Action Plan puts forward five strategies and numerous actions for bringing about Waterfront Transformation:

1. Remediate and Develop Brownfields and Vacant Properties – By remediating and redeveloping brownfield sites, local governments can ensure that waterfront lands will provide tangible benefits for communities.

2. Attract Sustainable Commercial and Industrial Activity – By encouraging sustainable economic activity and placemaking, local governments can leverage waterfronts to create local employment opportunities and attract visitors.

3. Accommodate Accessible Housing and Vibrant Communities – By building mixed-use communities, local governments can add housing supply to the market, with new neighborhoods bringing activity and vibrancy to waterfronts.

4. Facilitate Public Access and Shape Waterfront Identity – By providing public access and a waterfront experience, local governments can better integrate waterfronts and communities.

5. Support Land Conservation and Resilience – By proactively planning for extreme-weather impacts, local governments can help futureproof businesses and communities from natural disasters.

STRATEGY 1

REMEDIATE AND DEVELOP BROWNFIELDS AND VACANT PROPERTIES

ACTIONS	KEY PARTNERS
Action 1.1 – Local governments should identify and inventory waterfront brownfields and vacant lots and conduct due diligence to plan for their redevelopment and future uses. Such efforts should include: • Determining ownership and value; • Conducting an environmental site assessment to identify remediation needs; • Evaluating resilience metrics (e.g., flood risk, erosion conditions); • Setting a vision for the property based on the unique context of the community, with input from residents and local stakeholders; and • Integrating land-use planning and prioritizing the development of parcels of land that enable .	Federal Governments, State/Provincial Governments, Private Landowners and Conservation Authorities
Action 1.2 – Local governments should create incentives (e.g., tax breaks or rebates) and multi-partner initiatives to help offset the costs of large-scale remediation efforts. In addition to seeking financial support from federal, state and provincial governments, local governments may solicit funding from other sources. For example, Tax Increment Financing can be used to direct incremental tax revenue – generated by increased economic activity and property values – to fund brownfield remediation and waterfront redevelopment. Additionally, the private sector can be enticed to contribute to these initiatives as part of their social responsibility mandates or via downstream benefits, such as park naming rights or development flexibility.	State/Provincial Governments, Private Sector Developers, NGOs and Conservation Authorities
Action 1.3 – Federal, state and provincial governments should create funding and financing programs to help local governments conduct environmental due diligence on and remediation of waterfront brownfields since local governments may lack the budgetary capacity to remediate large complex sites without external assistance. By coming to the table with financial support, federal, state and provincial governments can help accelerate redevelopment projects, which will result in economic activity and tax revenue that would not be realized if the land remained a brownfield.	Local Governments, NGOs and Conservation Authorities
Action 1.4 – Local governments should put in place the proper governance frameworks to leverage resources from multiple levels of government to manage everything from brownfield remediation to site development for complex waterfront redevelopment projects. A strong example of this is the establishment of the not-for-profit corporation Waterfront Toronto by all three levels of government in Canada, which aligned multi-government and departmental decision-making and resources to ensure a streamlined redevelopment process.	Federal Governments, State/Provincial Governments and Conservation Authorities

STRATEGY 2

ATTRACT SUSTAINABLE COMMERCIAL AND INDUSTRIAL ACTIVITY

ACTIONS	KEY PARTNERS
Action 2.1 – Local governments should develop an economic development vision, strategy and supporting policies for attracting sustainable commercial and industrial activity to resilient waterfronts to support their revitalization as multi-use spaces balancing commercial, industrial and other community needs. Specifically, local governments should make a clear business case for sustainable industries and tourism, as well as consider potential industry and commercial clusters, landmarks, anchor institutions and businesses.	State/Provincial Governments, BIAs, Private Sector, NGOs and Conservation Authorities
Action 2.2 – Local governments should develop comprehensive programming and year-round visitor experiences for the waterfront to increase community connection and foot traffic for local businesses and create a complete waterfront experience. Such programming could include a mix of recreational activities, cultural festivities and educational programs about the waterfront's industrial heritage and natural assets.	State/Provincial Governments, Private Sector, NGOs and Conservation Authorities
Action 2.3 – Local governments should partner with waterfront Business Improvement Districts (BIDs) / Business Improvement Areas (BIAs) to undertake specific economic and community development initiatives that increase foot traffic for local businesses, increase revenue and contribute to the overall vitality of the waterfront. Such initiatives could include wayfinding, marketing, farmers markets, art installations and other activities.	BIAs

STRATEGY 3

ACCOMMODATE AFFORDABLE HOUSING AND VIBRANT COMMUNITIES

ACTIONS	KEY PARTNERS
Action 3.1 – Local governments should support the mixed-use development of waterfronts to create complete, resilient and vibrant communities that provide space for residential, commercial, community and social facilities and services. By integrating a range of uses in waterfront developments, quality of life can be enhanced by ensuring convenient, walkable communities that meet business and resident needs.	Federal Governments, State/Provincial Governments, Private Sector, NGOs and Conservation Authorities
Action 3.2 – Local governments should support affordable housing in coastal neighborhoods to ensure all residents of the community benefit from waterfront revitalization. Specifically, local governments should consider: • Establishing and enforcing a minimum requirement for affordable housing for new housing developments; • Allocating portions of public waterfront land for affordable housing and • Requiring that residential developments align with resilience plans.	State/Provincial Governments, NGOs, Landowners and Conservation Authorities
Action 3.3 – Federal, state and provincial governments should develop supportive policy levers (e.g., tax incentives) and invest in infrastructure prerequisites for residential developments (e.g., stormwater systems and utilities) to increase housing supply and address the affordability crisis	Local Governments, Private Sector, NGOs and Conservation Authorities

STRATEGY 4

FACILITATE PUBLIC ACCESS AND SHAPE WATERFRONT IDENTITY

ACTIONS	KEY PARTNERS
Action 4.1 – Local governments should create waterfront design guidelines and master plans to ensure public access and other community priorities are reflected in waterfront redevelopment projects and spaces. Guidelines should include requirements for installing green infrastructure and maintaining/creating public access via waterfront pathways for any commercial, residential or industrial development.	NGOs, Private Sector and Conservation Authorities
Action 4.2 – Local governments should articulate and formalize a shared vision and identity for the future of their waterfronts that reflect the natural environment and local culture and heritage, as well as enhance the waterfront's value to the community and ensure long-term public support and engagement. To further facilitate public access and shape waterfront identity, local governments should partner with the Canada Great Lakes Waterfront Trail and support the creation of the U.S. Great Lakes Waterfront Trail and an equivalent for the St. Lawrence.	State/Provincial Governments, BIDs/BIAs, Chambers of Commerce, Community Groups, Local Businesses, Developers and Conservation Authorities
Action 4.3 – Local governments should zone for and design facilities that incorporate nautical, fishing, swimming and recreational activities to protect and deepen community connection to the water and generate increased foot traffic and opportunities for low-impact economic activities and sustainable tourism. Local governments may also consider incorporating real-time waterway monitoring when practical to increase public engagement with water quality, improve awareness of water conditions and support safer user engagement with waterways.	Private Sector, Landowners

STRATEGY 5

SUPPORT LAND CONSERVATION AND RESILIENCE

ACTIONS

	KEY PARTNERS
Action 5.1 – Local governments should undertake shoreline management planning to support coastal resilience and protect shoreline properties (residential, commercial, and industrial), infrastructure and assets. Planning efforts should be informed by impacts of extreme weather like varying lake levels, stormwater runoff and flooding risks and erosion.	State/Provincial Governments, Private Landowners and NGOs
Action 5.2 – Local governments should undertake initiatives to protect and restore coastal ecosystems such as: • Zoning for coastal ecosystem restoration and preservation areas; • Focusing on habitat restoration and clean water; • Leveraging opportunities for project features to bring additional benefits to the local economy and community; and • Developing strategic partnerships, sponsorships, fundraising, and financial incentives to support conservation and greening initiatives	State/Provincial Governments, NGOs and Private Sector
Action 5.3 – Federal, state and provincial governments should actively fund local shoreline management and restoration initiatives that are informed by resilience needs assessments through grant programming or direct financial transfers to help communities proactively address their large-scale resilience challenges and prevent negative consequences for waterfront assets.	Local Governments, NGOs and Conservation Authorities
Action 5.4 – Local governments should participate in peer-to-peer learning opportunities focused on creative financing solutions and successful partnerships for multi-use waterfront revitalization. For example, land conservancies, land trusts or conservation authorities can be established and/or utilized directly own or support the management and protection of delicate waterfront lands for a variety of recreational and conservation uses. These entities can draw on donations and raise revenue through land transactions to sustain themselves.	NGOs, Conservation Authorities
Action 5.3 – Local governments should zone for and design facilities that incorporate nautical, fishing, swimming and recreational activities to protect and deepen community connection to the water and generate increased foot traffic and opportunities for low-impact economic activities and sustainable tourism. Local governments may also consider incorporating real-time waterway monitoring when practical to increase public engagement with water quality, improve awareness of water conditions and support safer user engagement with waterways.	Private Sector, Landowners

TORONTO, ON

A MODEL TO THE WORLD FOR WATERFRONT REVITALIZATION

In 1999, the City of Toronto articulated an ambitious vision for revitalizing its underused waterfront lands: becoming a "model to the world of how economic development, environmental protection, and cultural and recreational growth can complement each other."[30] This vision emerged in response to several converging needs: the underutilization and contamination of waterfront lands, Toronto's bid to host the 2008 Olympic Games and the broader goal of driving economic and urban renewal. From the outset, the vision was holistic – encompassing affordable housing, public access, transit upgrades, parks and open space, environmental sustainability and long-term flood protection.

To realize this vision, a robust institutional framework was created. Waterfront Toronto (WT) was established in 2001 as a tri-government not-for-profit agency with a 25-year mandate to lead planning and implementation. An intergovernmental steering committee – including federal and provincial deputy ministers and City of Toronto division heads – supports coordination.

Waterfront renewal has generated and will continue to generate transformative economic, environmental and social benefits for Toronto. It has **contributed $7.1 billion in gross output to the Canadian economy**[31] and is projected to expand the local tax base, with annual property tax revenues increasing by $75 million with the full build-out of the waterfront.[32] It has contributed to enhanced community resilience, with every **$1 invested in flood protection expected to prevent $5 in future flood damages.**[33] And it is helping Toronto address its housing crisis, with **4,941 housing units so far with the next phase expected to deliver 14,000 additional homes.**[34]

There are a number of lessons learned that communities seeking to replicate Toronto's success should carefully consider. Governance and process were key strengths, with a clear vision and tri-government model contributing to effective execution and leadership and a construction management agreement enabling flexibility in managing risk, particularly for unknown social conditions and remediation complexities. Partnerships were essential to embrace a collaborative, no-conflict mindset throughout the construction process, engage First Nations when waterfront lands intersect with treaty or asserted rights and overcome initial resistance from utilities. Designing with mixed uses and local identity in mind was necessary to strengthen public access and community connection to the waterfront.

ENERGY TRANSFORMATION

ENERGY TRANSFORMATION

Economic Transformation is impossible without reliable, abundant and affordable access to clean energy, but much of the Great Lakes and St. Lawrence River Region is unprepared to meet skyrocketing demand. The rapid proliferation of the digital economy[35] is causing North American electricity consumption to grow significantly faster than previously projected[36] in the midst of the first truly global energy crisis that continues to destabilize overseas markets.[37] Regions that fail to keep pace with demand risk being left behind in the emerging economy, with more and more companies citing electric power capacity as a primary deciding factor in where they choose to do business.[38] Without significant efforts to increase energy production, nearly two thirds of North Americans will be of energy blackouts in the near future due to insufficient supply.[39]

This unprecedented spike in energy demand threatens to stretch existing energy infrastructure past its breaking point while compounding environmental pressures drive additional demand, slow production and transmission capacity[40] and increase costs. Over the last two decades, over 80 percent of power outages were caused by extreme weather, leaving critical municipal operations and public health in jeopardy. With more than a quarter of the grid being over fifty years old,[41] North American energy infrastructure was not designed for the modern economy or environment. Meeting the energy demands of the future will require efforts to modernize existing infrastructure and increase grid resilience.

Energy generation in the region is at a critical juncture. Both Canada and the United States will need to act fast to meet the energy demands of the future without compromising affordability for current residents and businesses. But utility-scale energy generation projects are often planned on multi-decade investment cycles. Clean-energy systems are typically the fastest and cheapest to deploy, but large-scale energy projects are facing significant bottlenecks at the local level, with local ordinances and zoning, grid interconnection and community opposition among the leading causes for renewable energy project cancellation.[42] Through Energy Transformation, local leaders can create an ecosystem to better support regional energy modernization and innovation goals while reducing municipal costs and building grid resilience through small-scale clean-energy generation and efficiency projects.

WHY ENERGY TRANSFORMATION?

Local governments must build a sustainable, independent and North American-produced clean-energy grid to meet the growing energy needs of the region's businesses and communities.

WHY THE GREAT LAKES AND ST. LAWRENCE RIVER REGION?

As the region gears up for rapid industry expansion, energy demand is set to soar. The region has the resources and expertise to meet this challenge by expanding a resilient energy grid powered by efficient, North American-produced clean energy, free from the influences of overseas markets.

ENERGY TRANSFORMATION

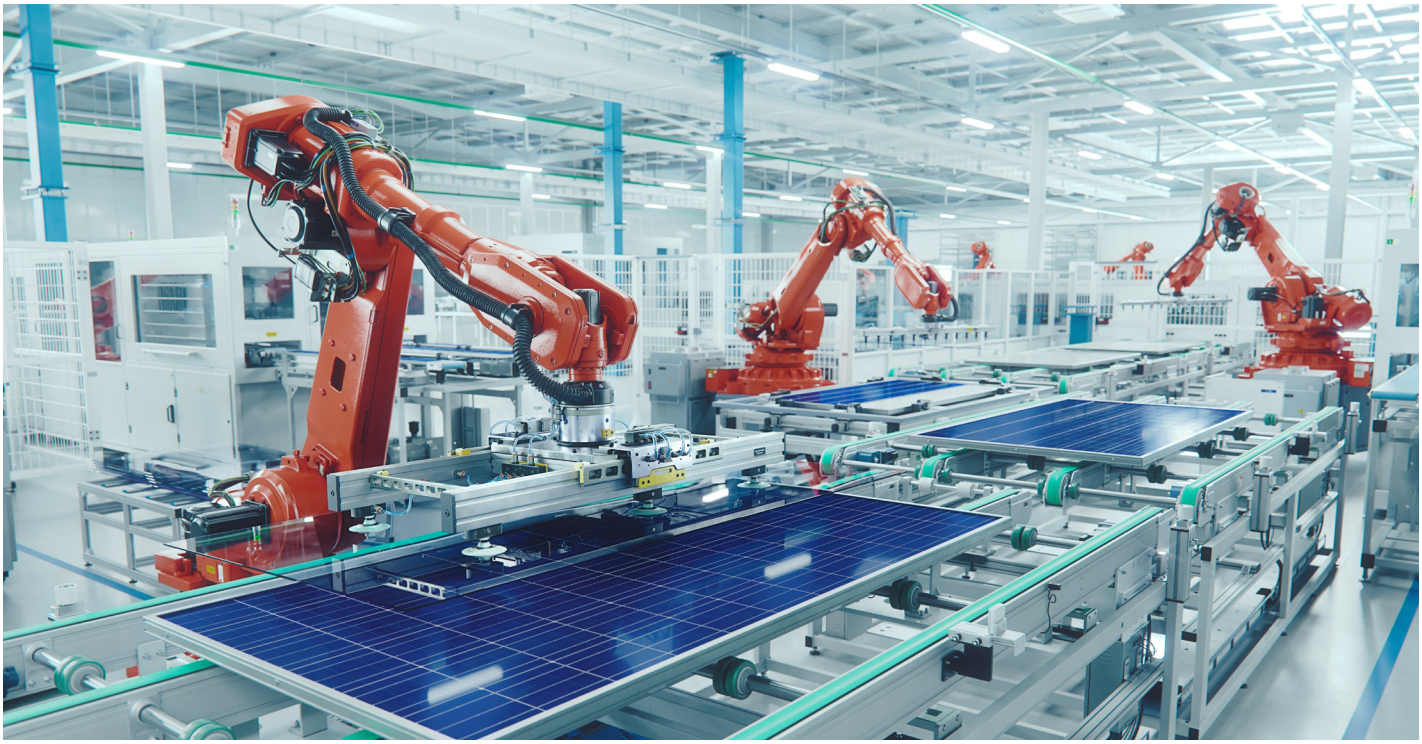
The Action Plan includes four strategies and several actions to advance Energy Transformation:

1. Implement Clean Energy and Promote Grid Resilience – By implementing local clean-energy projects while promoting utility-scale infrastructure modernization, local governments can expand grid capacity while building resilience to extreme weather.

2. Reform Permitting, Zoning and Siting – By removing permitting and other barriers to clean-energy implementation, local governments can have big impacts on the transition to clean energy, such as increasing community acceptance and adoption rates.

3. Address Municipal Operations, Buildings and Fleets – By prioritizing energy efficiency, electrification and clean-energy projects, local governments can lead through action while reducing operating costs for municipal operations.

4. Expand Energy Access and Affordability – By increasing grid resilience and transmission while promoting household efficiency programs, local governments can ensure all residents share the benefits of the clean-energy transition.



STRATEGY 1

IMPLEMENT CLEAN ENERGY AND PROMOTE GRID RESILIENCE

ACTIONS	KEY PARTNERS
Action 1.1 – Local governments should implement a diverse array of municipally-owned clean-energy projects as a supplement to existing utility-scale energy generation (i.e., become an energy "prosumer") to support the development of microgrids, smart grids or virtual power plants. Local governments should use creative funding mechanisms to pursue distributed-energy generation projects even in states or provinces already serviced by utility-scale renewable energy, as distributed-energy generation increases overall grid capacity and resilience to extreme weather.	Utilities, Energy Developers, State/Provincial Governments
Action 1.2 – Local governments should work with utilities to undertake resilience risk assessments of critical energy infrastructure, then develop adaptation plans to protect communities from the impacts of extreme weather events, reduce strain on the grid through demand response programs and coordinate more efficient emergency protocol in response to potential grid failures.	Utilities, State and Provincial Governments, Researchers
Action 1.3 – Local governments should publicly establish emission reduction goals to demonstrate local leadership on Energy Transformation, promote utility-scale investments in clean energy and justify future municipal spending on energy projects. Emission reduction goals should use available data to account for anticipated growth in energy demand from economic development and population growth and anticipated risk from extreme weather.	Economic Development Authorities, Municipal Environmental Staff
Action 1.4 – Local governments should audit local ordinances to better understand the barriers preventing residents and businesses from implementing renewable energy, then establish municipal programs to incentivize or reduce the cost of renewable energy generation on private property. Examples of these programs include rebates and tax credits, property tax exclusions or abatements, low-interest financing programs, green banks, financial incentives for early adopters, residential group buys, community solar or virtual power plants.	Residents, Utilities, State/Provincial Governments, Banks and Credit Unions
Action 1.5 – Federal, state and provincial governments should implement programs to incentivize or reduce the cost of renewable energy generation on municipal or private property. Efforts should be taken to ensure cohesion with similar programs facilitated by other levels of government/utilities to create a more efficient system for residents and businesses to implement energy projects and maximize financial benefits.	Utilities
Action 1.6 – Local governments should leverage their role as large energy-consumers to push for further investment in utility–scale clean energy and influence relevant energy planning decisions. Utilities should proactively seek robust and substantive engagement from local governments for these critical discussions, including grid resilience, capacity, anticipated demand and the just transition away from fossil fuels.	State/Provincial Governments, Utilities

STRATEGY 2

REFORM PERMITTING, ZONING AND SITING

ACTIONS	KEY PARTNERS
Action 2.1 – Local governments should streamline permitting for renewable energy and energy infrastructure projects to expedite implementation of local clean-energy projects. This could include local ordinance changes to eliminate or cap permitting fees, increased transparency for review/approval timelines or creating an online "one-stop-shop" to walk developers and residents through the energy permitting process.	NGOs
Action 2.2 – Local governments should harmonize permitting processes and regulations across neighboring jurisdictions and different levels of government to allow clean-energy producers to move more quickly through design, review and approval. This should include intergovernmental collaboration but also guidance from state and provincial governments clarifying requirements for municipal review of utility-scale, clean-energy development or large independent electricity system operators. Enhanced guidance is specifically needed on municipal support confirmations, land use assessments and community engagement processes.	State/Provincial Governments, Other Local Governments
Action 2.3 – Local and state or provincial governments should work together to create databases (or update existing databases) identifying available land for new clean-energy projects based on parcels' interconnection capacity, anticipated extreme-weather risks, future energy needs and community goals, with a special emphasis on opportunities to creatively repurpose vacant or contaminated lands (such as transforming brownfields into "brightfields"). Once ideal properties are identified, all levels of government should proactively amend zoning ordinances and land-use regulations to "pre-zone" the most suitable areas for clean-energy generation.	Utilities, State/ Provincial Governments
Action 2.4 – Local governments should organize educational programs and foster robust community engagement to help residents develop informed positions about proposed energy projects, reduce opposition to project siting and combat deliberate disinformation campaigns about clean energy. Public engagement programs should put a special emphasis on building relationships in rural and historically underserved communities and should seek Free, Prior, and Informed Consent when proposing energy projects impacting First Nation or Tribal lands, territories or resources.	CBOs, Energy Developers and First Nations and Tribes
Action 2.5 – Local governments should develop creative partnerships with energy developers and research institutions to better support energy innovation and build public acceptance for clean-energy projects through pilot programs of new technologies like circular regeneration, district energy systems, fuel cell electric vehicles, etc.	Energy Developers, Academic and Research Institutions

STRATEGY 3

ADDRESS MUNICIPAL OPERATIONS, BUILDINGS AND FLEETS

ACTIONS	KEY PARTNERS
Action 3.1 – Local governments should incorporate emission reduction goals into existing plans or processes (i.e., "mandate alignment") to reduce local emissions and demonstrate local leadership in preparedness for rising temperatures and extreme weather. Opportunities to integrate emission reduction goals include municipal procurement, contract bidding and city planning standards.	NGOs
Action 3.2 – Local governments should audit municipal energy usage – including municipal-owned utilities – to identify and prioritize opportunities for energy-efficiency projects and building retrofits, reducing overall energy consumption and fostering more efficient use of taxpayer dollars. Upgrades can be funded as part of existing capital or maintenance/repair budgets or through creative funding mechanisms like energy savings performance contracts, green revolving funds or energy retrofit aggregators. Energy audits should be conducted before energy generation projects are implemented to ensure projects are sized appropriately.	NGOs, State/Provincial Governments
Action 3.3 – Local governments should create a plan to transition municipal vehicle fleets to electric or hybrid alternatives to demonstrate local leadership on reducing emissions and create a stable market for electric vehicles. This can include both traditional procurement but also collaborative efforts like grou buys or encouraging vehicle manufacturers to increase the market availability, supply and affordability of large, heavy-duty electric vehicles.	Vehicle Manufacturers
Action 3.4 – Water and wastewater utilities should increase efficiency of drinking water and wastewater systems through infrastructure upgrades, stormwater management and innovative system monitoring technology to enhance operational performance and decrease system load while reducing energy and maintenance costs.	Water-Tech Companies

STRATEGY 4

EXPAND ENERGY ACCESS AND AFFORDABILITY

ACTIONS

	KEY PARTNERS
Action 4.1 – Local governments should conduct studies or advocate for studies at the state/provincial and utility level that identify communities with disproportionate energy burden or vulnerability. The resulting data can be used to more efficiently prioritize funding for energy resilience, clean-energy deployment and infrastructure upgrades or to implement utility-performance incentives based on customer affordability metrics.	Utilities, Local Governments and CBOs
Action 4.2 – Local governments should develop residential energy efficiency and weatherization programs that specifically target low-income or energy-vulnerable households and/or share information about similar programs at the federal, state/provincial and utility levels. All resident-facing municipal staff should be trained to share information about home weatherization to distribute information more efficiently and help residents stack benefits from other assistance programs (e.g., bundling weatherization resources with info about lead service line replacement or pairing energy efficiency with other home retrofitting assistance). Programs should proactively work to remove economic, social and health barriers such as: • High upfront costs or creditworthiness requirements; • Eligibility criteria requiring extensive or costly home retrofits prior to participation; • Coordination challenges between renters and property-owners; • Lack of trust between residents and government/utilities; • Language and literacy barriers and • Confusing or lengthy application processes.	Utilities, State/ Provincial Governments
Action 4.3 – Utilities should expand reliable energy access in rural and remote communities by increasing energy transmission and storage capacity, incentivizing distributed energy generation projects (including both costumer-owned and energy-as-a-service models), increasing energy rate confidence or establishing community benefit agreements to ensure rural communities that host utility-scale clean-energy systems have the infrastructure required to benefit from those energy projects. Special emphasis should be taken to increase affordable energy access and build trust with First Nations and Tribes that have less reliable access to the traditional energy grid.	Local Governments, First Nations and Tribes and CBOs

CLEVELAND, OH

LIGHTING THE WAY TOWARDS CLEAN ENERGY FOR ALL

The City of Cleveland, OH has always been an energy trailblazer. It became the first in North America to demonstrate electric light in 1879[43] and has continued to illuminate a path forward for their community and for others like it ever since. Today, Cleveland's efforts to make clean energy accessible and affordable for all are creating a blueprint for Energy Transformation in post-industrial cities, balancing economic development with community health and wellbeing.

While Cleveland has a long history of energy innovation, about **60 percent of the population currently faces a high or severe energy-cost burden**.[44] The Cleveland Low-to-Moderate Income (LMI) Solar Pilot Project was launched in 2022 as a partnership between the City of Cleveland, Cuyahoga County and other community organizations to help address this critical need. The program installed rooftop solar photovoltaic systems on seven houses at no cost to residents, helping reduce costs and ensure long-term energy security for some of the city's most energy-vulnerable households. The impacts of the small pilot program alone **equate to an aggregate of 28.37 kW of energy produced and 42.2 million lbs. of CO2-equivalent emissions saved.**[45] Most importantly, the average participant saved 60 percent on their energy bills, totaling a staggering $95,000 over 25 years divided amongst the households.

In addition to participants' direct benefits, the program also showed promising impacts on the broader economy. It is estimated that even these initial seven houses will generate about $90,000 in investments in the regional economy over the systems' lifespan.[46] And by prioritizing small and local solar developers in the competitive bid process, they also helped stimulate local energy innovation, promoted the development of new, family-supporting jobs and ensured that the benefits of Energy Transformation are distributed throughout the community.

Cleveland planned to provide assistance to more households through a new Cleveland Solar for All Program, but external funding is not currently available to advance the program. Despite the uncertain future for the program's expansion, there are emerging lessons learned about the barriers to implementing clean energy in low-to-moderate income communities. Even with the most significant cost barriers removed, many residents still faced ancillary financial barriers like aging roofs, inadequate electrical systems or even incompatibility with other energy assistance programs that prevented them from participating in the program. An innovative partnership with the Greater Cleveland Habitat for Humanity helped circumvent some of these concerns by pairing the LMI Solar Pilot with more holistic residential assistance programs. Project partners also identified lack of community trust as a major deterrent that prevented some households from pursuing energy assistance programs like this Pilot, demonstrating the importance of federal, state/provincial and local government collaboration to identify consistent funding for programs that help residents improve energy independence while building community trust.

CONCLUSION

With 84 percent of North America's surface fresh water, a highly integrated regional economy and other comparative advantages, the Great Lakes and St. Lawrence River Region can provide a stable home for companies and people fleeing water scarcity elsewhere, assuring the region's continued economic prosperity far into the future.

The ***Economic Transformation Action Plan*** a 10-year blueprint to seize this historic opportunity and advance a transformative model of economic development – one supported by hundreds of communities from Duluth, MN to Gaspé, QC – that effectively balances economic growth and freshwater stewardship. By attracting and retaining sustainability-oriented industries, strengthening waterborne commerce, revitalizing our waterfronts and expanding the use of clean energy, the region can become the envy of the world as the Fresh Coast Economic Corridor.

Looking ahead to the Action Plan's implementation, the Cities Initiative will continue to work with its members, key partners and regional stakeholders to safeguard the region's unparalleled freshwater resources, futureproof its businesses and communities and ensure economic benefits are broadly shared.

APPENDIX/ REFERENCES

APPENDIX

The following methodology was used to calculate Action Plan metrics, found on page 8-10. All analyses were conducted using R Statistical Software (Version 2025.1+513, http://www.r-project.org/).

1.0 Business Growth

The following methodology and results correspond with Action Plan Goal #1: Attract Half a Million Businesses

1.1 Baseline Data

The estimated baseline number of businesses for each state and province was obtained from the Canadian Business Counts Report 2022[47] and 2022 Statistics of U.S. Businesses Report,[48] which both contain records of every known business with at least one paid employee as identified by the country's tax identification system. Inclusion in this report is mandatory in both countries.

Both datasets exclude single-employee companies (i.e., businesses solely operated by the company's owner/founder). Both reports also exclude certain categories of businesses under the North American Industry Classification System (NAICS) due to government ownership of some or all companies within the given NAICS. A full list of exclusions can be found for Canada and for the United States.

Due to the geographic scale of the available data, baseline estimates and all calculations represent total number of businesses for the entire state or province, including counties not wholly or partially within the Great Lakes and St. Lawrence River Basin.

1.2 Businesses by State/Province

The total number of businesses was calculated across Great Lakes and St. Lawrence provinces, states and the entire region. Baseline estimates for 2022 are demonstrated below, grouped by number of employees. Due to the pre-determined intervals of the original dataset, large Canadian businesses (those exceeding 500 employees) cannot be further parsed to demonstrate the full distribution of employer sizes as demonstrated by the U.S. dataset.

LOCATION	<50	50-99	100-499	>500*	500–999	1000-2499	2500-4999	>5000	ALL EMPLOYER SIZES
CANADA									
Ontario	471,221	12,734	8,935	,1217	n/a	n/a	n/a	n/a	494,107
Québec	25,877	8,516	5,196	7,07	n/a	n/a	n/a	n/a	274,296
GLSL Provinces	**73,098**	**21,250**	**14,131**	**1,924**	**n/a**	**n/a**	**n/a**	**n/a**	**768,403**
UNITED STATES									
Illinois	241,235	6059	6,008	5,051	1,391	1,487	815	1,358	258,353
Indiana	104,457	3,096	3,197	3,559	872	950	546	1,191	114,309
Michigan	165,277	4,436	3,940	3,587	945	951	536	1,155	177,240
Minnesota	112,037	3,111	2,935	3,077	733	805	479	1,060	121,160
New York	439,463	8,264	7,752	5,035	1,627	1,409	745	1,254	460,514
Ohio	172,413	5,444	4,984	4,448	1,205	1,275	681	1,287	18,7289
Pennsylvania	21,445	61,75	5,624	4,608	,243	1,320	725	1,320	234,852
Wisconsin	10,718	30,43	2,833	3,019	703	793	4,64	1,059	110,613
GLSL States	**1,555,045**	**39,628**	**37,273**	**32,384**	**8719**	**8,990**	**4,991**	**9,684**	**,1664,330**
Total GLSL Region (Canada + U.S.)	**2,286,143**	**6,0878**	**51,404**	**34,308**	**n/a**	**n/a**	**n/a**	**n/a**	**2,432,733**

Figure 1. Number of businesses in 2022 by number of employees for states and provinces in the Great Lakes and St. Lawrence River Region.

APPENDIX

1.3 Business Projections, 2035

Goals for new business development were calculated assuming compound growth over a ten-year period. Growth rates were gradually increased to meet the 2024 growth rate of North America's fastest growing economies (approximately 4%).[49] The model assumes 1 percent growth for years one through four, 2 percent growth for years five through eight and 4 percent growth for years nine through ten.

LOCATION	NO. COMPANIES	2035 GOAL	CHANGE
CANADA			
Ontario	494,107	601,968.6	107,861.64
Quebec	274,296	334,173.8	59,877.75
GLSL Provinces	**768,403**	**936,142.4**	**167,739.39**
UNITED STATES			
Illinois	25,353	314,750.5	56,397.46
Indiana	114,309	139,262.2	24,953.21
Michigan	177,240	215,930.8	38,690.80
Minnesota	121,160	147,608.8	26,448.76
New York	460,514	56,1042.4	100,528.42
Ohio	187,289	228,173.5	40,884.46
Pennsylvania	23,852	286,119.3	51,267.28
Wisconsin	110,613	134,759.4	24,146.39
GLSL States	**,1664,330**	**2,027,646.8**	**363,316.78**
Total GLSL Region (Canada + U.S.)	**2,432,733**	**2,96,789.2**	**531,056.1**

Table 2. Total number of businesses in 2022 by state/province and 2035 projected goals.

2.0 Job Growth + % Sustainable Industries

The following methodology and results correspond with Action Plan Goal #2: Create Over 18 Million New Jobs.

2.1 Baseline Data

The estimated baseline number of jobs across all industries for each state and province was obtained from Statistics Canada's Labour Force Data from June 2022[50] and the 2022 Statistics of U.S. Businesses Report. This data represents jobs of all industries, regardless of their contribution towards traditional definitions of a "sustainable" economy.

APPENDIX

2.2 Job Growth Projections, 2035

Goals for new job development were calculated assuming compound growth over a ten-year period. Growth rates were gradually increased to meet the 2024 growth rate of North America's fastest growing economies (approximately 2 percent).[51] The model assumes 1 percent growth for years one through four, 1.5 percent growth for years five through eight and 2 percent growth for years nine through ten.

Location	Current Jobs	2035 Goal	Job Growth
CANADA			
Ontario	7,773,100	893,1908	1,158,808.4
Quebec	4,376,000	5,028,371	652,371.1
GLSL Provinces	**1,2149,100**	**13,960,280**	**1,811,179.5**
UNITED STATES			
Illinois	5,533,883	6,358,870	824,987.5
Indiana	2,875,908	3,304,646	428,738.4
Michigan	3,939,076	4,526,311	587,234.8
Minnesota	2,732,522	3,139,885	407,362.5
New York	8,429,776	9,686,481	1,256,705.3
Ohio	4,963,808	5,703,809	740,001.1
Pennsylvania	5,584,830	6,417,413	832,582.6
Wisconsin	2,600,303	2,987,954	387,651.4
GLSL States	**36,660,106**	**42,125,370**	**5,465,263.6**
Total GLSL Region (Canada + U.S.)	**121,573,812**	**139,697,953**	**18,124,140.9**

Figure 3. Total jobs by state/province in 2022 as compared to job growth goals for 2035

APPENDIX

2.3 Percent Sustainable Industries

As a supporting statistic, we calculated the approximate number of jobs in the Great Lakes and St. Lawrence River Region that already exist contributing to a more sustainable economy. Estimates for the ratio of "green jobs" in each state and province were obtained from the Organization for Economic Cooperation and Development (OECD) 2023 Report, "Bridging the Green Divide."[52] Total number of jobs were calculated using Canadian and U.S. Census estimates.

LOCATION	% GREEN JOBS	# GREEN JOBS
CANADA		
Ontario	12.4	1,695,071
Québec	10.3	828,177
GLSL Provinces	**11.9**	**4,213,804**
UNITED STATES		
Illinois	13.4	1,562,293
Indiana	11.3	740,160
Michigan	13.5	1,278,314
Minnesota	13.1	721,426
New York	12.3	2,268,003
Ohio	12.0	1,337,241
Pennsylvania	11.9	1,457,471
Wisconsin	11.6	656,340
GLSL States	**12.9**	**40,570,303**
Total GLSL Region (Canada + U.S.)	**12.2**	**44,784,107**

Figure 3. Jobs performing green tasks by state/province in 2022, as reported in the OECD 2023 Report.

3. Emissions

The following methodology and results correspond with Action Plan Goal #5: Reduce Emissions by 300 Million Metric Tons.

3.1 Baseline Data

Baseline emission data for 2023 acquired from the Canada Energy Regulator's Provincial and Territorial Energy Profiles[53] and the U.S. Energy Information Administration State Energy Data System.[54]

APPENDIX

3.2 Reduction Estimates 2035

Emission estimates for 2035 were calculated using each state and provinces established emission reduction/neutrality goals. While states and provinces have varying timelines for achieving these goals, each must reduce emissions by at least 40 percent from their baseline within the next ten years in order to meet established state and provincial goals.

LOCATION	CO2 PER CAPITA (Metric tons CO2, 2023)	TOTAL EMISSIONS (Metric tons CO2, 2023)	REDUCTION FROM BASELINE (Metric tons CO2, 2023)
CANADA			
Ontario	10.4	158,728,141	108,000,000
Québec	9.1	78,930,932	51,240,000
GLSL Provinces		**237,659,073**	**159,240,000**
UNITED STATES			
Illinois	13.2	166,600,000	146,280,000
Indiana	22.4	153,900,000	142,860,000
Michigan	14	141,100,000	114,000,000
Minnesota	14	80,800,000	60,960,000
New York	8.4	164,900,000	126,720,000
Ohio	15.6	184,200,000	163,200,000
Pennsylvania	15.4	200,900,000	168,960,000
Wisconsin	14.5	86,200,000	66,480,000
GLSL States		**1,178,600,000**	**989,460,000**
Total GLSL Region (Canada + U.S.)	**12.23**	**1,416,259,073**	**1,148,700,000**

Figure 4. Emissions by state/province in 2023 and estimated emissions targets for 2035 required to meet established state and provincial goals.

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