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MAGAZINE 2024



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GREGG RUHL
President & CEO





2024

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Hamilton-Oshawa Port Authority's Oshawa Harbour.

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2024 SPECIAL EDITION



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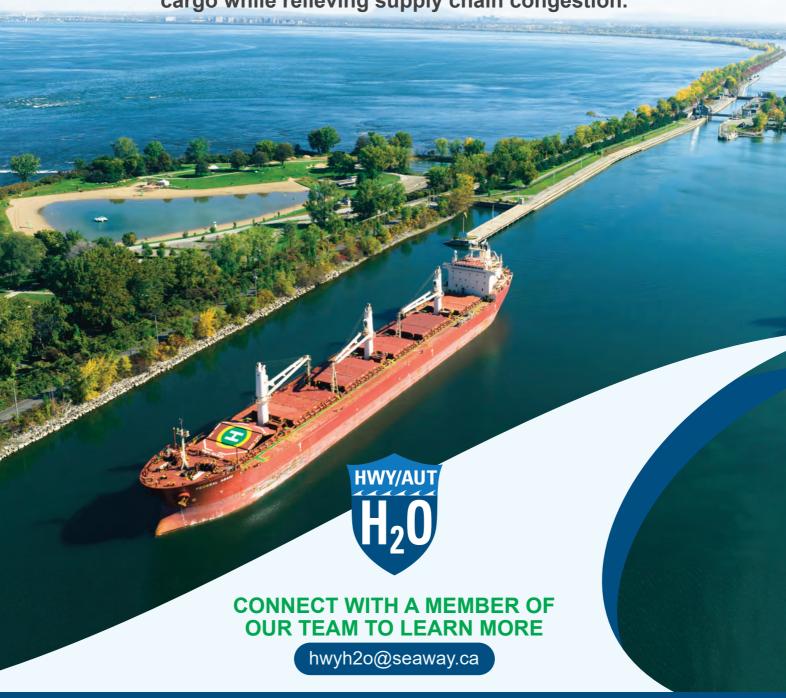
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THE GREEN CORRIDOR

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BRUCE R. BURROWS,
PRESIDENT AND CEO
CHAMBER OF MARINE COMMERCE

s we embark on the 2024 shipping season, we build new initiatives upon the strong foundation that was established over the previous year. Working together, the CMC and its membership did much in 2023 to emphasize the important role that CMC members play in meeting the needs of businesses and consumers, driving the economy, leading the drive for carbon reduction, and maintaining a high quality of life. That included:

- **Key research** including the launch of the 2022 Martin Associates Economic Study, which demonstrated the profound positive impacts that shipping along the Great Lakes-St Lawrence Waterway generates within the economies of Canada and the United States.
- Successful outreach An increase in industry news coverage and social media engagement led by CMC helped demonstrate the vital partnerships between producers of key commodities, ports, terminals, and ships as we work together to move what matters to people around the world.
- Increased Government Engagement Cumulative efforts by the CMC and its members have led to notable success with government collaboration. New investments made by the Government of Canada through Budget 2023 will support the development of a Green Shipping Corridor and a Supply Chain

FROM THE PUBLISHER

MARINE SHIPPING: FOCUSED ON THE FUTURE

Office; directly benefiting the Great Lakes-St. Lawrence shipping industry. Additionally, the establishment of the first-ever Ontario Marine Transportation Strategy will now allow our industry to pinpoint and cultivate opportunities that will enhance the province's position as a gateway to North America's heartland and a vital link in the global supply chain.

The 2024 issue of Marine Delivers Magazine highlights the ways in which Chamber of Marine Commerce members, industry partners, and government are building on these achievements and making the most of the opportunities in front of us.

In this edition you will see....

- A glimpse into what's to come in June 2024, as marine representatives from around the globe will gather in Montreal for "Shaping the Future of Shipping," a conference cohosted by the International Chamber of Shipping (ICS) and the CMC (pages 9 and 10).
- An exclusive interview with Chris Heikkinen, CEO of the Thunder Bay Port Authority (pages 11 to 13). Heikkinen details the port's recent successes and strategic objectives and expands on topics front of mind that include the exceptional cargo volumes seen at the port last year.
- Exciting investments that are underway at Port Milwaukee, with funding for a new agricultural maritime export facility operated by The DeLong Co., Inc. (pages 14 to 16). Port Director Jackie Q. Carter emphasizes the port's commitment to expanding its cargo operations and promoting Milwaukee as a cruise destination.
- The maritime industry's increasing focus on decarbonizing its operations, as the topic of green shipping corridors continues to gain momentum worldwide. The CMC emphasizes the

immense potential of green shipping corridors, particularly in the Great Lakes-St. Lawrence Seaway System (pages 17 to 20), which would substantially lower and ultimately eliminate carbon emissions on a net zero basis through cleaner fuel/energy sources, emerging technologies, and data sharing.

- The establishment of an additional new green shipping corridor between the ports of Montreal and St. John's (pages 22 to 26).
- Significant developments and improvements at various Great Lakes-St. Lawrence ports that are showcased in a series of CMC member highlights (pages 28 to 31). Efforts from ports to enhance port capacity, support economic growth, and promote environmental sustainability are all highlighted contributing factors as to why the marine industry is able to maintain its well-established reputation as the most efficient and sustainable mode of cargo transportation.
- The shift towards renewable energy in Atlantic Canada, particularly the increased interest in green energy projects such as wind farms and hydrogen production (pages 32 to 35). New CMC Member, Port of Argentia, is a key player in this renewable energy transition, serving as a hub for the storage and transportation of key components for offshore wind projects.
- BMO Financial Group's Chief Economist Douglas Porter's sobering picture of Canada's economic growth challenges (pages 36 and 37).

Join us in reading about the programs, collaborations, and exciting developments that show marine shipping is clearly focused on a brighter, stronger, and more sustainable future.

Enjoy! ■



Shaping the Future of Shipping

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International Chamber of Shipping Publications promote and support shipping industry best practices and provide guidance across all key sectors and trades of the maritime industry. Rigorous in development, and regularly used and recommended by ship operators globally, ICS Publications are an important complement to international regulations and are essential for every maritime bookcase.

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CMC WELCOMES THE WORLD:

ICS Conference Coming to Montreal

rom June 12-14, representatives from marine shipping organizations around the world will gather in Montreal for a global industry summit organized by the International Chamber of Shipping (ICS) and the Chamber of Marine Commerce (CMC). Titled "Shaping the Future of Shipping," the summit will explore themes that include trends in global trade, risk resilience, and sustainability, and will feature expert speakers, diverse perspectives, and one-of-a-kind networking opportunities.

As the collective voice of the international shipping industry, the ICS organizes this annual event to help fulfill its mandate - to act as a global advocate for the industry on issues of maritime affairs, shipping policy and technical matters, and to develop best practice in the industry. The ICS has members from approximately 40 countries, and as its summit is held in a different location each year, it organizes the event with the member organization for the host country, with CMC being the member representing Canada.

Last year it was held in Manilla, Philippines, with more than 250 delegates from the maritime industry, NGOs, governments, and international organisations meeting to discuss specific opportunities and challenges facing the seafarer workforce. Delegates at the summit emphasized that the goals and priorities discussed at the conference could only be achieved with investment and funding streams, particularly from governments, to address challenges related to seafarer recruitment, retention and training. Fifteen governments were in attendance at the summit to receive that message, thus influencing national and international policy making. This year's summit in Montreal will take place over three days, with each day having a specific purpose.

Day One (Wednesday, June 12)

is focused on showcasing Montreal and providing experiences that will attract ICS members early to maximize networking opportunities. The day will culminate with a gala dinner hosted jointly by the CMC and ICS, which will feature delicious dishes and world class entertainment. Two CMC members - Canada Steamship Lines and Algoma Central Corporation - have generously stepped forward as lead sponsors for the gala. Many more sponsorship opportunities will be available throughout the summit for organizations seeking one of a kind promotional opportunities with international reach, and the CMC encourages interested parties to send enquiries to our team.

Day Two (Thursday, June 13)

will focus on the summit, which will take place at the Grand Quay of the Port of Montreal, and will feature compelling speakers and presentations; a diverse audience comprised of industry leaders, policy makers, and academics; a convening of ICS members for their Annual General Meeting; and a reception for all attendees.

Day Three (Friday, June 14)

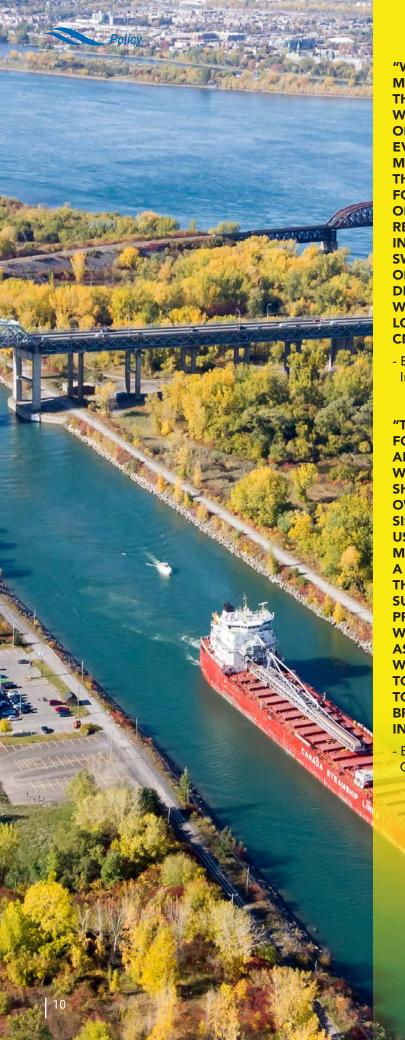
will involve networking and governance meetings within ICS that will in part focus on how feedback from delegates will be operationalized throughout the rest of the year.

We are delighted to be coming to Montreal in June for the next Shaping the Future of Shipping summit and to be working with our partner the Chamber of Marine Commerce (CMC). This yearly event historically convenes leaders in maritime and decision makers across the whole supply chain," commented Emanuele Grimaldi, Chairman of the International Chamber of Shipping. "This year's focus highlights the importance of our industry and the world's reliance on seaborne trade as our industry continues to navigate Black Swan events, as well as facing head on maritime's challenges such as decarbonisation, protectionism, workforce shortages, to name a few. We look forward hosting this event with CMC and making this event a success".

"The CMC has proudly been a conduit for collaboration across the North American marine shipping industry. We have a long history of assembling shippers of key commodities, ship owners, ports, terminals and important sister organizations in ways that help us drive the economy and move what matters. Marine shipping helps maintain a higher standard of living throughout the world as the most efficient and sustainable means of moving cargo. I am proud to take this opportunity to work with the ICS to host the most influential assembly of industry stakeholders in the world, and I encourage all CMC members to take advantage of the opportunity to help shape the future of shipping, and broaden your perspectives with your international counterparts."

The CMC will share further information with members about hotel booking arrangements, the conference agenda, sponsorship opportunities, and other event details via member updates in the weeks ahead, and encourages members to also look to www.marinedelivers,com and https://www.ics-shipping.org/ for ongoing updates.





"WE ARE DELIGHTED TO BE COMING TO MONTREAL IN JUNE FOR THE NEXT SHAPING THE FUTURE OF SHIPPING SUMMIT AND TO BE **WORKING WITH OUR PARTNER THE CHAMBER** OF MARINE COMMERCE (CMC). THIS YEARLY **EVENT HISTORICALLY CONVENES LEADERS IN MARITIME AND DECISION MAKERS ACROSS** THE WHOLE SUPPLY CHAIN. THIS YEAR'S FOCUS HIGHLIGHTS THE IMPORTANCE OF OUR INDUSTRY AND THE WORLD'S **RELIANCE ON SEABORNE TRADE AS OUR INDUSTRY CONTINUES TO NAVIGATE BLACK SWAN EVENTS, AS WELL AS FACING HEAD** ON MARITIME'S CHALLENGES SUCH AS **DECARBONISATION, PROTECTIONISM, WORKFORCE SHORTAGES, TO NAME A FEW. WE** LOOK FORWARD HOSTING THIS EVENT WITH CMC AND MAKING THIS EVENT A SUCCESS".

- Emanuele Grimaldi, Chairman, International Chamber of Shipping

"THE CMC HAS PROUDLY BEEN A CONDUIT FOR COLLABORATION ACROSS THE NORTH AMERICAN MARINE SHIPPING INDUSTRY. WE HAVE A LONG HISTORY OF ASSEMBLING SHIPPERS OF KEY COMMODITIES, SHIP **OWNERS, PORTS, TERMINALS AND IMPORTANT** SISTER ORGANIZATIONS IN WAYS THAT HELP US DRIVE THE ECONOMY AND MOVE WHAT **MATTERS. MARINE SHIPPING HELPS MAINTAIN** A HIGHER STANDARD OF LIVING THROUGHOUT THE WORLD AS THE MOST EFFICIENT AND SUSTAINABLE MEANS OF MOVING CARGO. I AM PROUD TO TAKE THIS OPPORTUNITY TO WORK WITH THE ICS TO HOST THE MOST INFLUENTIAL **ASSEMBLY OF INDUSTRY STAKEHOLDERS IN THE** WORLD, AND I ENCOURAGE ALL CMC MEMBERS TO TAKE ADVANTAGE OF THE OPPORTUNITY TO HELP SHAPE THE FUTURE OF SHIPPING, AND **BROADEN YOUR PERSPECTIVES WITH YOUR INTERNATIONAL COUNTERPARTS."**

- Bruce R. Burrows, President and CEO, Chamber of Marine Commerce



In Conversation with CHRIS HEIKKINEN

CEO, Thunder Bay Port Authority

BY LEO RYAN



At the western extremity of the Great Lakes/St. Lawrence waterway system, one finds a Canadian port that in 2023 posted exceptional cargo volume in key areas ranging from grain and potash to project cargo. How did all this come together at the Port of Thunder Bay?

As the furthest inland port in the country, our customers are shipping product through a very long east-west supply chain. It is the route that defines our customer base – what commodities work in scale, and to which markets?

Grain exports have been the backbone of the port since its inception; the port was created to open access to eastern markets for Western Canadian grain. Canadian grain is a strong product, and harvests have been on an upward trend for years.

Production of potash in Saskatchewan is trending in the same direction. There

have been issues in other supply chains during the past few years, leading to an influx of potash shipments at Thunder Bay. In 2023, dry bulk terminals in Thunder Bay handled four times the average volume of potash. This is a great story showcasing the agility of the Seaway supply chain. We have considerable unutilized capacity which shippers can take advantage of in a pinch. With global supply of potash constrained in part due to the Russia-Ukraine conflict, this available capacity and service has been vital in getting Canadian potash to market.

Project cargo moving through Thunder Bay is primarily travelling westward inbound from Europe with final destinations in the Canadian Prairies. We've grown this cargo steadily over the past decade with our focus on customer service. Shippers that generate value out of our competitive advantages: routing, world-class facilities, and service; include those moving steel products, windmill infrastructure, and other dimensional cargoes. 2023 was our best year to date in terms of project cargo and breakbulk, and we now have several cargo customers committed to regular service at our port, which is a big win for us.

With global warming seemingly continuing unabated, do you feel that the St. Lawrence Seaway should now permanently extend the allowable shipping timeline to the first week of January as it did for the 2023 season?

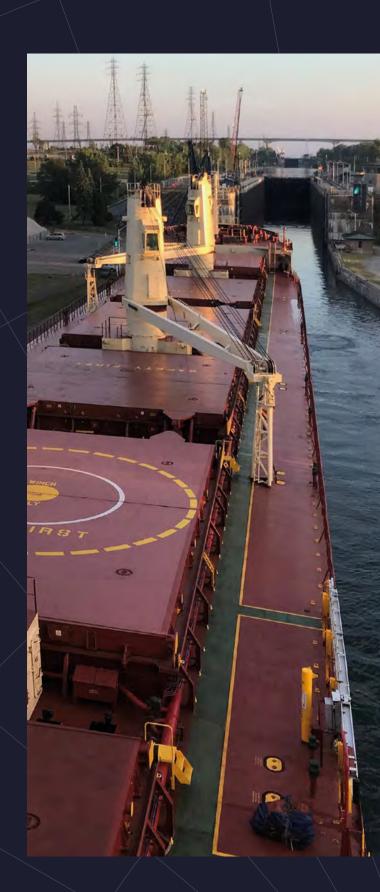
I am a fan of any extension to the Seaway season. We are pleased with the collaborative nature of the Seaway corporations to test the lock operation extensions. Our shipping season has lengthened considerably since the opening of the Seaway in 1959. If Administration de pilotage des Grands Lacs

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The GLPA operates, maintains and administers a safe and efficient marine pilotage service within designated Canadian waters in the St. Lawrence River and the Great Lakes Region.

Facilitateur du commerce canadien dans la région des Grands Lacs

L'APGL exploite, entretien et administre un service de pilotage sûr et efficace dans les eaux canadiennes désignées du fleuve Saint-Laurent et la région des Grands Lacs.





warmer winters continue, there's a strong argument to explore the viability of even longer shipping seasons.

An impressive transformation has taken place in the past few years, with the port broadening its traditional cargo base from grain to European markets to other commodities and general cargo as illustrated by the record-breaking trend at Keefer Terminal. Thunder Bay appears well-positioned to take advantage of future opportunities in foreign grain markets - can you identify some of those opportunities?

Grain moving through Thunder Bay is carried primarily to destinations in Europe, the Middle East, Africa, and Latin America. Africa is an interesting market to watch for grain because that continent is expected to continue experiencing significant population growth, and urbanization, for the next several decades.

More and more international and domestic shippers are recognizing Thunder Bay as a crucial project cargo gateway for Western Canada. Specialized vessels carrying wind turbine blades have become regular callers at the port. How do you view the future of this niche traffic generated by various projects in Prairie provinces?

Wind turbine blade shipments have been an important part of our project cargo business. Our road and rail connections and significant laydown space mean that cargo can be staged and delivered to site as needed. There continues to be many inquiries for wind components for the next few years. The turbines themselves trend larger almost every year. We're building new laydown space to accommodate bigger blades in 2025. It bodes well that we've got unencumbered land for expansion.

The port already handles infrastructure and operational equipment destined for mining operations in Alberta and Saskatchewan. Are some mining operations in Northern Ontario also on the radar screen?

Mining in Northern Ontario is an emerging opportunity. We have tapped into mine development over the past 10 years, handling shipments of heavy equipment and infrastructure components.

How would you describe the port's strategic objectives as a key player in a vital continental maritime corridor?

Growth and diversity of cargo are our main goals. Increasing cargo volumes and tapping into new cargo opportunities supports job creation and economic stability. There is a lot of opportunity in our catchment area, both in Western Canada and here in Northern Ontario. It is incumbent upon us to ensure the port is well equipped to capitalize on emerging cargo opportunities.

What is the total of ongoing capital expenditures? And what infrastructure upgrades are entailed in addition to the existing major increases in laydown areas and warehousing space?

We are undertaking a large rail upgrade project. We have significant rail infrastructure, and utilization rates have increased with cargo volumes. We're installing stronger rail to meet the demands of the cargo.

Our five-year capital infrastructure plan exceeds \$15 million dollars. As our cargo operations scale up, we are investing in robust assets that will serve sustainable growth into the future.

What are the leading features of the port's environmental pledge in terms of impact on port users, workplace safety and overall environmental sustainability?

Sustainability is more than an objective or a project on the side of one's desk these days. It is part of the way we do business. We are proud that every tonne of cargo moving through our port is utilizing the marine mode of shipping to its greatest extent: to or from the middle of the continent. Our efforts to attract cargo through the Seaway are part of the solution. But more than this, we must look at all of our activities through what we call a green lens. How might

an initiative impact the environment? Are there more environmentally friendly alternatives? In terms of infrastructure, considering future climate scenarios and designing our developments accordingly.

Employee health and safety are integral to day-to-day operations and long-term success. And part of employee safety is committing as best we can, to contributing to the sustainability of our planet.

Finally, your thoughts on the potential growth of Thunder Bay as a cruise destination. Last year seemed to mark a highly promising new chapter, with more and more passengers discovering the region's unique natural and Indigenous cultural attractions surrounding the planet's largest freshwater lake – including the iconic Sleeping Giant Provincial Park and the awesome boreal forest.

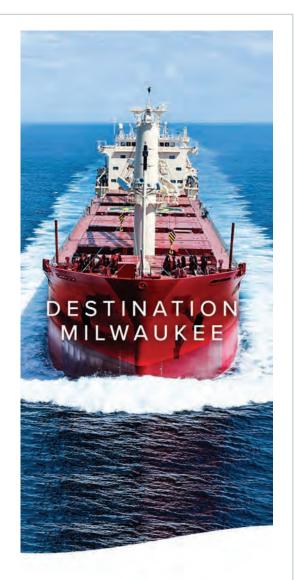
We are expecting growth in cruise traffic in 2024 and beyond. The cruise ships, bringing foreigners to our corner of the world known for its rugged beauty, also enliven the local community members. It is great to see this form of tourism that Thunder Bay hadn't seen for a decade. The City of Thunder Bay has led this venture with their Pool Six Cruise Terminal, and their success is admirable.

THUNDER BAY CARGO STATISTICS* (in metric tons)

Grain	7,262,437
Potash	1,605,479
Coal	497,970
Dry Bulk	159,567
General Cargo	56,206
Dry Bulk (Keefer)	50,068
TOTAL:	9,631,725

*From Dec. 1,2023 to Jan.15, 2024





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TRADE GROWTH

PORT MILWAUKEE POSITIONING ITSELF AS VITAL HUB IN NORTH AMERICA'S HEARTLAND

BY BRENT FREDERICK

new \$40-million agricultural maritime export facility – the largest one-time investment in Port
Milwaukee in some 70 years – will further position the port as an essential multimodal and marine transportation hub in the heartland of North America.

Operated by Clinton,
Wisconsin-based The DeLong
Co., Inc., the terminal is expected
to increase exports through
Port Milwaukee by as much as
400,000 tons per year and connect
Wisconsin farmers, growers and

producers with new international markets. The facility is among the first on the Great Lakes-St. Lawrence Seaway system that can handle a variety of agricultural commodities by truck, rail and international vessels.

JACKIE Q. CARTER PORT DIRECTOR

PORT MILWAUKE

The terminal currently moves dried distillers grains with solubles, an animal feed supplement high in nutrients derived as a byproduct of ethanol, but future service may include the export of Wisconsingrown soybeans, corn and grain, allowing the state's maritime and agricultural economies to expand beyond Asia and into other international markets such Northern Europe, Northern Africa and the Mediterranean. The two vessels that called at the facility last year sailed to Ireland.

The Wisconsin Department of Transportation estimates the terminal will generate \$63 million in new statewide economic impact annually. "This new facility will have a tremendous impact here in the local Milwaukee community and around the state and will help ensure more of our farmers' best-in-class, Wisconsin-made goods will be shared with folks all over the world," said Governor Tony Evers at the opening of the terminal last July.

"It's a very impressive facility. We are pretty happy with it," said Port Director Jackie Q. Carter. "We also are excited about the fact that not only is the facility up and operational, but we are already looking to expand its footprint just based on the feedback we have received from growers and producers in the region."



The Maritime Administration announced in November a Port Infrastructure Development Program grant of \$9.3 million for Phase 2 of the terminal.

"It was really important to us to immediately expand the capacity of The DeLong facility so that they can handle more commodities at once," Ms. Carter said. "Ideally, we'd love to see the expansion come by harvest 2024, but we've got to get a lot of the agreements in place and make sure we're in compliance with the grant requirements."

BROADENING CARGO BASE

Port Milwaukee handles a wide variety of cargo including agricultural exports, cement, construction material, salt, limestone, steel and other general cargo. Total traffic reached 2.36 million metric tons in 2023, up nearly 4% from 2.27 million metric tons the previous year. Total dry bulk volumes increased by 20%, with salt (up 7.5%), cement (up 8%) and aggregates (up 194%) leading the way. Liquid bulk volumes increased by 25% in 2023 compared with the previous year.

The port also handles high-value breakbulk and project cargo. In the past couple of years, it has moved brewery tanks, large dryer pieces used in the paper-making process, and even superyacht pieces.

"We are looking at project cargoes, the diverse cargoes that we don't typically see," Ms. Carter said. "We are looking to see if there's an avenue to grow that part of our business. I think we do really well with our bulk commodities, but it's those one-offs and those unique cargoes that we want to make sure people understand that we have a service here and we can meet that need. That's going to be a big effort for us in 2024."

CRUISE BUSINESS GROWING

Cruising has become another important part of the port's business. "We had a really solid cruise season with 30 vessel visits (in 2023)," Ms. Carter said. Viking Cruises' Viking Polaris and Hapag-Lloyd Cruises' Hanseatic Inspiration called at Milwaukee for the first time last year. A total of 11,502 passengers visited the city.

"The cruise ships have really elevated our community profile, and so residents are more aware of our existence as a port than they've ever been, all because they are fascinated by the fact that cruise ships dock in Milwaukee, right here in their city," Ms. Carter said.

The port uses the downtown Pier Wisconsin for smaller cruise ships. "It's a great entrance to the city and a great view for the passengers coming in," Ms. Carter said. Larger ships use the

port's City Heavy Lift Dock. The port is working with its partners to build outside of its commercial shipping area a dock – the South Shore Cruise Dock – for larger vessels so that it can host multiple cruise ships simultaneously.

"We want to get the cruise vessels into a nicer location that is specific for cruising," Ms. Carter said. Construction could begin this year.

Port Milwaukee continuously trumpets the cruise business in Milwaukee and throughout the Great Lakes. It is the founder of the Milwaukee Cruise Collaborative, a local group promoting the city as a cruise destination. The Collaborative includes a cross section of the local hospitality industry.

"As a port, our first business is commercial operations and moving commercial cargo," Ms. Carter said. "I always kind of joke that when you have cruise ships, and your cargo becomes





on port property to better understand their business, how they operate and who they serve so that we can better support everything that they do," Ms. Carter said.

"One of the things that I'm really looking to do is strengthen our ability to support and do business development. We call it a kind of reverse port 101, because we do port 101 where we bring folks in and tell them all the things about the port. Now, it's us going to these businesses and allowing them to tell us their stories so that we can better tell them when we're out at industry events and networking with people who are talking about what they need. We can be thinking about what port tenants exist at Port Milwaukee that might be able to meet those needs.

"WE ALSO ARE EXCITED ABOUT THE FACT THAT NOT ONLY IS THE FACILITY UP AND OPERATIONAL, BUT WE ARE ALREADY LOOKING TO EXPAND ITS FOOTPRINT JUST BASED ON THE FEEDBACK WE HAVE RECEIVED FROM GROWERS AND PRODUCERS IN THE REGION."

people with opinions who move and don't stay where you put them, you've really got to be strategic about it. You need to lean on people who are in the tourism industry, who know how to handle visitors and understand what they're looking for, and help us to ensure that the passengers have a really good experience when they come to Milwaukee."

Visit Milwaukee, the GLS, other Great Lakes ports and vessel agents are among the port's most important cruise partners. "We've got a great shore excursion operator, Great Lakes Shore Excursions, which plans all kinds of events and coordinates with the cruise ship to make sure that the passengers have the information and the activities they want and need," Ms. Carter said. "We really appreciate the work they do and the support they provide to make sure that the cruise companies are happy with the experience that their passengers are receiving because we want to make sure they keep coming back.

"Our state has talked about how the tourism industry has grown and the increase in economic impact we have seen, and cruise ships in Milwaukee have a good hand in that."

FIRST YEAR AS DIRECTOR

Jackie Carter celebrated in February (2024) her one-year anniversary as port director. She took the helm from Adam Tindall-Schlicht, who was appointed Administrator of the GLS. Ms. Carter is the first woman, and the first person of color, to serve as Director of Port Milwaukee. She was previously the port's Finance and Administration Officer, where she provided oversight of all port business operations, including its financial, human resource and administrative functions, and was integral in helping to shape the department's strategic planning and grant funding efforts.

"I think one of the things for me personally as the new director was getting in front of every tenant that is

PARTNERING WITH TENANTS

"We really want to be partners with our tenants in their business because when they do well, so do we. It's in our best interests to support them as best we can. In order to do that and be effective at that, we really want to understand, 'Who's your ideal customer? When we're on the road and you're not there, who should we be saying your name to?' That's really what this effort is all about."

Ms. Carter credits the 21-person staff at Port Milwaukee and the businesses on port property for the port's success. "It's a great team," she said. "There's a lot of collaboration, and that's really how we get stuff done. In 2024, we want to keep the momentum going, and look for new ways, new avenues we can pursue to attract some business that we haven't seen in recent years."



A FORUM IS SET FOR MAY TO DISCUSS THE GREAT LAKES/SEAWAY REGION'S NETWORK

BY JULIE GEDEON

reen shipping corridors are gaining worldwide momentum as the maritime industry moves towards decarbonizing its operations. At least 44 corridors were being developed in 2023, more than double the 21 announced a year earlier, according to the Global Maritime Forum. The Forum's annual report predicts 2024 will be a pivotal year for trade routes where zero carbon emissions can ultimately be achieved through collective public and private efforts. Success, it adds, depends on wise investments being made along with key fuel decisions, new commercial arrangements, and crucial government support.

The Chamber of Marine Commerce has embraced the potential of this new era that already sees the binational Great Lakes and St. Lawrence Seaway System generate approximately US\$50.9 billion (C\$66.1 billion) in economic activity across North America, according to recent Martin & Associates research. "While there are still challenges to be addressed, marine is the environmentally

friendliest mode, and holds immense potential to lead the world in sustainable development through greener supply chains," says Bruce Burrows, the President and CEO of the Chamber of Marine Commerce (CMC). "I'm excited about the ideas and innovation coming forth in our industry's collaborative approach to establishing green shipping corridors and a unique network in the Great Lakes/Seaway region to reflect its operational realities."

Burrows cites the bigger picture. "Just transporting more goods within this network would significantly reduce carbon," he explains, noting that greenhouse gas (GHG) emissions for moving the cargoes are 31 per cent higher if carried by rail and 558 per cent greater if trucked. "In Canada alone, ship owners have spent more than \$2 billion over the past decade to renew their fleets with vessels that are 40 per cent more efficient than then ones they've replaced, and ship owners are willing to do more but need transitional support to avoid losing business to less environmentally friendly modes."

Recent developments

Corridors are broadly defined as regular shipping routes, typically between two ports, where a commitment has been made to substantially lower and ultimately eliminate carbon emissions through cleaner fuel/energy sources, emerging technologies, and often data sharing. In December, the latest such corridor was announced in Canada between the ports of Montreal and St. John's. The Montreal Port Authority had earlier formed a corridor with the Port of Antwerp in November 2021. As part of COP28 last December, the Government of Canada also announced a West Shipping Corridor involving Canada's West Coast ports, as well as Edmonton, with ports in the United Emirates, Korea and Japan as part of a more intricate partnership based on trade.

With respect to the Great Lakes and St. Lawrence Seaway, it should be noted that numerous stakeholders account for the even more complex nature of the Great Lakes St. Lawrence Green Shipping Corridor Network (GSCN)

announced by Canada and the United States at COP27 in November 2022. The Great Lakes/Seaway system involves more than 110 commercial ports in Canada and the U.S., along with a myriad of routes and variously scaled activities. Nevertheless, everyone appears on board with the International Maritime Organization (IMO) call to slash carbon emissions by at least 40% by 2030 (compared to 2008 levels) and eliminate them by 2050.

Many perspectives

"The binational feeling after our first Collaborative Forum in Chicago in April 2023 has been incredibly positive, with Great Lakes and Seaway stakeholders keenly interested in exploring the issues and setting goals for this network," says Adam Tindall-Schlicht, Administrator of the (U.S.) Great Lakes St. Lawrence Seaway Development Corporation (GLS). "And we increasingly believe this GSCN will be a model of the best practices necessary for the decarbonization that must be achieved."



ADAM TINDALL-SCHLICHT,
ADMINISTRATOR OF THE (U.S.) GREAT
LAKES ST. LAWRENCE SEAWAY
DEVELOPMENT CORPORATION (GLS)

In late February, the GLS and the (Canadian) St. Lawrence Seaway Management Corporation (SLSMC) jointly led an online session attended by more than 100 stakeholders to present a draft Framework of Goals that charts a way forward. "The framework is the action guide for the GSCN and will ultimately be industry driven from

the bottom up through expert working groups," Tindall-Schlicht says. "We need stakeholder champions to further share expertise and ideas which will advance the GSCN to the next level."

The GLS and SLSMC have organized a second Collaborative Forum for May in Montreal. "Many people are already working on this decarbonization challenge," notes Terence F. Bowles, the SLSMC's President and CEO. "I think most everyone sees this network as a way to bring all of us together to focus our efforts toward net zero."

Establishing clear metrics to benchmark the GSCN's emissions so that the progress in lowering the carbon emissions can be measured is an emerging priority. "It requires extensive tracking, but existing technology can automate many of these processes to reduce the administrative burden, improve the data accuracy and deliver timely results," Burrows says.

The CMC believes a small independent organization could be charged with

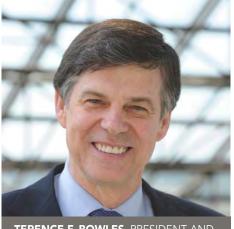


gathering and processing all this data to relate it in a readily comprehensible way to all the relevant stakeholders, government agencies, and the public. "This organization would also provide an objective forum to resolve issues that will inevitably arise as we determine various issues within this complex network covering a binational and multijurisdictional region," Burrows adds.

Meanwhile, alternatives to fossil fuels are in the process of being tested worldwide. Unprecedented funding by the Biden-Harris administration includes US\$7 billion (C\$9.43 billion) at the Department of Energy specifically for the development of hydrogen hubs at U.S. ports.

The Canadian government recently started this ball rolling by announcing \$165 million for projects that involve testing alternatives at a smaller scale. "It's a start," Bowles says. "As the network's requirements become clearer,

I'm sure more government support will be forthcoming because its policies have prioritized GHG reductions."



TERENCE F. BOWLES, PRESIDENT AND CEO OF THE ST. LAWRENCE SEAWAY MANAGEMENT CORPORATION

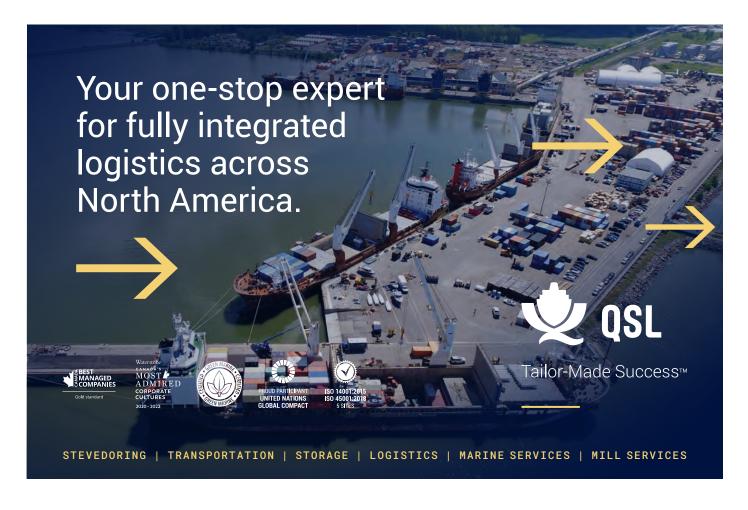
Necessary actions

Until the supply and logistical aspects of cleaner energy sources, such as renewable hydrogen or methanol, are worked out, Canadian ship owners would like to see government support for biofuel use. "This drop-in fuel can significantly advance our decarbonization progress, but we need help in obtaining it at an affordable cost,"

says John Sypnowich, the CSL Group's Chief Legal and Sustainability Officer.

Biofuel is unavailable from Canadian suppliers in the required amounts at a feasible price. Ship owners have been obtaining it from the U.S. through a Canadian distributor. "The U.S. federal and state governments have really stepped up their support of biofuel, making it the most affordable on the Great Lakes, but it still comes at a significant cost differential for us compared to fossil fuels, which makes its continued fleet-wide use too costly," Sypnowich explains. "We've seen most of the early corridor funding go to shoreside infrastructure, which is great, but it's time to incentivize biofuel's greater use so we can make a real difference immediately as other energy sources are developed."

Gregg Ruhl, Algoma Central Corporation's President and CEO, acknowledges that, at its current pricing, biofuel may not possess the necessary energy output to make its utilization feasible on a broader long-term scale. "There needs to be a realization that





the price differential of biofuels is a challenge for ship owners and their customers," he says. "We would be concerned about the financial impact on the company as we still need to be able to generate a return on the substantial investments made in new, cleaner-running ships in recent years."

Required harmonization

Ship owners also want to see policies harmonized binationally within the network. For instance, the Renewable Identification Number (RIN) credits issued in the U.S. for the use of renewable transportation fuels do not apply as soon as an American laker crosses into Canadian waters in the Great Lakes/Seaway System.

"These are bodies of water where vessels sail over the border repeatedly, so to have a system of fuel use, credits, pricing mechanisms that are unaligned between the two countries will not facilitate the use of low-carbon fuels that could make such a significant difference," Sypnowich emphasizes.

Biofuel use doesn't have a carbon factor in Canada at this point. "Canadian regulations don't yet recognize the lifecycle benefits of biofuels," Ruhl explains. "Instead ship owners/ operators are penalized in terms of GHG emissions intensity as biofuel must be reported as marine diesel oil even though it provides 10 to 12 per cent less energy." Ruhl also says a harmonized binational approach to the system's domestic trade is essential. "One side can't incentivize or regulate with the hope the other side will later follow suit," he says. "We cannot return to the type of situation that emerged when ballast water regulations weren't harmonized, or we'll find ourselves losing business to other more carbonintensive modes."

Incentivizing early investments in the best currently available technology that produces immediate, significant carbon reductions should be part of the transitional funding, according to Ruhl. "Either help us pay for these 30- to 35-year investments in the best currently available vessels so we're not so concerned about the rug being pulled from under us when the next new thing comes along, or at least guarantee that the rug won't be pulled when it does come along," he says.

Burrows also says incentives and support are essential with new fuels expected to cost double to triple the price of petroleum-based products. "Support can take the form of emission credits, tax benefits, direct investment programs, and regulatory policies that advance efficiency," he says. "It can be given to both shipowners and their customers for making GHG-reduction choices."

The CMC also recommends taking a fleet aggregate or pooling approach to carbon reduction, such as in the European Union's FuelEU Maritime framework which comes into force in January 2025. The initiative's main objective is to increase the demand for and use of renewable low carbon fuel while allowing ships to pool their compliance balance with other ships.

"Pooling would allow ship owners to focus on investments and innovations related to new-builds or younger vessels with the best retrofit potential as new technologies emerge," Burrows notes. "This approach was successful in reducing sulphur according to the IMO's timeline."





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CARBON REDUCTION IN EASTERN CANADA

MONTREAL/ST. JOHN'S CORRIDOR BEGINS TO LOOK AT WAYS TO REDUCE CARBON EMISSIONS

BY JULIE GEDEON





new green shipping corridor between the ports of Montreal and St. John's, in partnership with Oceanex and QSL, is already identifying ways to reduce its carbon footprint.

"We're excited about this collaboration between two Canadian ports and two long-time partners to improve this route's sustainability," says Guillaume Brossard, the Montreal Port Authority's Vice President, Development, Marketing and International Relations. "Identifying a corridor where the same vessels travel the same routes using the same ports and terminals every week makes it easier to attract the necessary investment capital."

The corridor is a busy shipping route, carrying almost 500,000 tonnes of annual cargo. Under a five-year cooperative venture announced in December, the four stakeholders will collaborate on implementing alternative fuels, but also

the more immediate electrification of various operations. They have agreed to share data and findings to improve transportation efficiencies, measure the corridor's decarbonization progress, and strengthen buying decisions.

The stakeholders hope to obtain corridor funding by jointly making representations to government entities about the route's steady trade and carbon advantages. The partners intend to significantly surpass the 80 per cent of emissions already saved when this maritime route is chosen over road transportation. Preliminary analyses indicate that sustainability improvements in freight transport between these ports could save 27,000 tonnes of diesel and 87,000 of greenhouse gas (GHG) emissions annually.

"We're each looking at every single aspect of this supply chain to see how we can reduce its footprint, by sharing key information, best practices, and the initiatives that we can each put in place to lower emissions," Brossard says.

At the Port of St. John's, preliminary design work to configure the plug-in shore power requirements for Oceanex vessels has been completed. "With the appropriate mechanisms, cooperation of our peers, and some government support, there's a new reality on the horizon that's exciting," confirms Sean Hanrahan, the St. John's Port Authority's President and CEO. The plan is to install shore power at the main terminal to accommodate two Oceanex vessels regularly transiting between St. John's and Montreal, as well as one arriving weekly from Halifax. "Obviously, a project of this nature involves huge financial considerations, so we're grateful to see the federal government supporting this type of initiative with its corridor funding," says Bob McCarthy,





the St. John's Port Authority's Vice President, Development. "To have these regularly calling vessels using shore-based hydroelectricity rather than diesel while at berth will make a huge environmental difference."

Hanrahan says the port also looks forward to learning from the larger Port of Montreal, QSL's terminal operations, as well as further evolving its long-time partnership with Oceanex in this new decarbonization phase.

Matthew Hynes, the Executive Vice President of Oceanex, is likewise keen to share knowledge and resources. "There's a lot of change happening and no one clear way for everyone to follow," he says. "So it's important that all the stakeholders in this corridor are on the same page, so that we take advantage of our unique relationships with each other, and other parties, including technology innovators and equipment vendors, to secure the

necessary information and resources more quickly as a group and adopt proven technologies."

Hynes is hopeful that by working jointly, the stakeholders can mitigate some of the risks of testing and implementing new technologies. "The corridor is a defined environment where we can really size up what's gone on in the past and work out hypothetical situations to assess their impact before we test and/ or implement anything," he explains.



"We're eager to pick the low-hanging fruit that we can do quickly with existing technologies such as shore power," he adds. "At the same time, Oceanex is in early discussions with alternative fuel producers seeking to establish infrastructure in Eastern Canada."

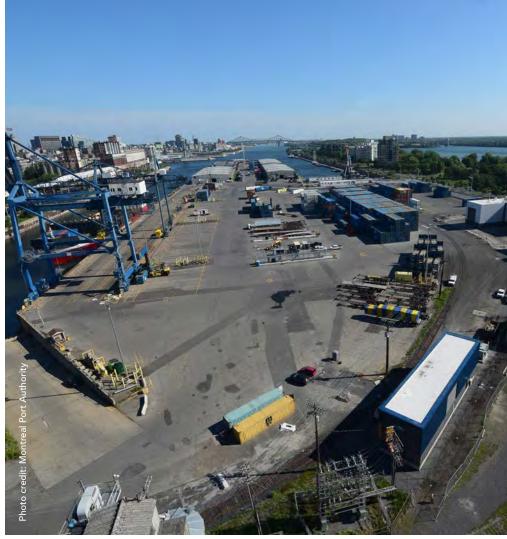
Oceanex also has an MOU with a German shipyard to develop environmentally friendlier vessels by investigating the design implications of using ammonia, methanol, hydrogen or biofuels.

For QSL, the corridor involvement is the next logical step on its sustainability path. "QSL has integrated an important number of electrically powered conveyer belts since 2009, but there hasn't been as much available in terms of heavy equipment that operates on cleaner energy," relates Claudine Couture-Trudel, Vice President, ESG Policy and Future Initiatives. "The corridor's framework is ideal to run trials on the electrical shunters that are emerging onto the market to see how they perform in our Northern environment and then share that information. The lessons learned will enable us to scale up the usage of this new machinery across our network."

QSL has applied for a grant to testrun machinery. "We want to see what actually performs well because of the significant money, time and effort involved in acquiring and testing this equipment as we continue to look after our regular business," Couture-Trudel adds.

Couture-Trudel says the potentially greater buying power of a harmonized corridor is sparking interest in adapting greener construction machinery for port and terminal uses.









PORTS OF OPPORTUNITY

BY: JASON CARD

arine shipping enjoys a well-established reputation as both the most efficient and most sustainable mode of transporting cargo - a reputation achieved in large part through a commitment to continuous improvement across the CMC's diverse members. Ports on both sides of the Canada-U.S. border have been especially active in building on this reputation over the past year by taking on enhancement projects that expand capacity or engage in new service offerings. In light of this, Marine Delivers is taking this opportunity to highlight some special developments that are growing the economy, protecting the environment, and supporting the success of those shipping vital commodities.

PORT OF DULUTH-SUPERIOR

We asked Deb DeLuca, Executive Director of the Duluth Seaway Port Authority, about recent improvements and the motivation for making them.

"In 2023, we welcomed back monthly trans-Atlantic liner service to our port for the first time since the late 1970s, and we opened a 56,000-square-

foot dockside warehouse expansion with truck bays and a covered rail connection," responded DeLuca. "Both of these new developments advance our vision for a healthy regional economy supported by a vibrant industrial port. The liner service helps position our regional manufacturers, producers and industries more competitively in the global marketplace. It enhances their supply chain efficiency, transparency and flexibility, plus it allows us to deliver custom-tailored cargo-handling and logistics solutions. Those kinds of advantages can make all the difference for companies operating in the middle of North America."

She continued, noting "Warehousing is another piece of that puzzle. It's in short supply and high demand for companies in our region, so the new warehouse expansion helps us help them. The expanded capacity and multimodal connections allow us to create solutions for them to do business more successfully. Ultimately, everything we do as a port is about being a good partner for our region. We're an economic development engine. Our daily focus is bringing business to the port and economic

development to the region, and doing it in the most environmentally efficient ways possible."

Speaking further to the motivation behind these developments, she said "We're proud of our port city heritage. We're North America's furthest inland seaport. We move the raw materials of everyday life. That's our North Star, and we want everyone in our community to share in that sense of pride, place and purpose."

Marine Delivers then asked about the role that government plays in port priorities and future plans.

"We advocate on behalf of the entire Port of Duluth-Superior, as well as the Great Lakes-St. Lawrence Seaway System, at the federal, state and local levels," stated DeLuca. "Well-intentioned policies at any of these levels can stymie or benefit port operations and trade development. Working with our trade association partners, we track such issues closely and strategize on the most effective way to represent our industry."

She went on to say "Port facilities are like cities onto themselves, with heavily used land-side infrastructure,



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often specialized, sometimes stretching for miles, plus the added challenge of marine infrastructure. Maintaining and improving this type of infrastructure is costly, but it gives back to our region and nation multifold the expenditure. Partnership with federal, state, local and tribal governments is absolutely crucial for making any port a success."

Specifically regarding government funding, she noted "Grant money is the lifeblood of modern, competitive ports, and it flows best through healthy arteries, which you could liken to strong partnerships, sage planning and efficient processes. Our port priorities and strategic plans are clearly communicated to and shared with government officials, agencies and legislators. Fortunately for our region, they realize the value of a strong world port here at the Head of the Lakes. With their support, our port continues to thrive and deliver on its mission. There are many ways to quantify that shared success story. One of them is to reference the most recent Martin Associates study, which showed that the Port of Duluth-Superior generates \$1.6 billion in economic activity and almost \$215 million in state and federal tax revenue. It also supports more than 7,000 jobs."

PORT OF MONTREAL

An ambitious port development is also being led by the Montreal Port Authority (MPA) – one that has been the object of meticulous planning since the late 1980s. This is the expansion project at Contrecœur – recognized as the most ambitious project ever undertaken by the Montreal Port Authority. It involves developing a site offering container capacity of 1.15 million TEUs (Twenty-foot Equivalent Units) with two berths, a rail yard and connected services in an industrial zone.

Following the completion of a thorough environmental impact assessment process, the project is currently at the procurement stage as the MPA is seeking private partners for the construction and operation of the future terminal.

"We look forward to delivering on this ambitious vision for the future of Canada's supply chains, and better serving our businesses and our community," said Julie Gascon, President and Chief Executive Officer of the MPA.

The MPA seeks to better serve the Quebec, Ontario and Midwest market in what it views as a necessary expansion for importers, exporters and consumers. With major highways close to the expansion site and a Class 1 railroad already accessible from the future premises, the project has a lot to offer.

"For major shipping lines, Montreal is a full-capacity round trip. We are committed to that strategic positioning, and our expansion to Contrecœur will reinforce it," added Guillaume Brossard, Vice President, Development, Marketing and International Relations at the MPA.

The project is financially supported by the Government of Canada (\$150 million) and the Government of Quebec (\$130 million), as well as the Canada Infrastructure Bank. The construction phase will create 8,000 jobs, and when in operation, the site will support 1,200 direct and indirect jobs.

PORT OF CLEVELAND

In the fall of 2023, the Port of Cleveland set out a strategic plan for 2024-2028 that not only includes growth and development, but a specific focus on environmental protection. Within the strategic plan is a commitment to a Climate Action Plan, with the goal of achieving net-zero greenhouse gas emissions by 2050. The Port of Cleveland is the first port in the Great Lakes to adopt such a plan.

"A thriving port serves as the lifeblood of a community," noted Will Friedman, Port President and CEO. "To fulfill our role as an economic powerhouse, we must continually adapt and evolve to meet the ever-changing needs of our community and the global economy. This plan will help serve as a progressive blueprint to sharpen focus, enhance efficiency and strengthen international competitiveness, unlocking the vast potential inherent in being a port community."







Key elements of the four-year strategic plan include:

- Creating new opportunities for business expansion and job growth, including growing its container business with additional agricultural exports, wood products, lumber and polymers;
- Elevating the port's commitment to diversity, equity and inclusion by engaging small and historically disadvantaged companies in procurement opportunities, and through strategic community investments via its Community Impact Fund; and
- Incorporating sustainable practices across port activities with the intention of becoming one of the most environmentally responsible ports in the nation. The goal is to achieve net-zero emissions by 2050, in alignment with the Biden administration's greenhouse gas reduction targets and goals of the City of Cleveland, Cuyahoga County and the Northeast Ohio Areawide Coordinating Agency. The plan will achieve this goal in part by positioning the port to better compete for federal grants such as the Congestion Mitigation and Air Quality Improvements grant for the Port's Advanced Cargo Processing & Fiber Connectivity Project, and the Reduction of Truck Emissions at Port Facilities grant program. The Climate Action Plan also addresses action items and areas of focus in buildings and energy efficiency, renewable energy, vehicles and equipment, marine operations and development financing.

HOPA PORTS

At the Hamilton-Oshawa Port Authority (HOPA Ports), continuous growth, development, and diversification have been the order of the day for more than 15 years. Over that period, HOPA and its port partners have invested close to \$1 billion in transportation infrastructure and terminals that have enabled the steady growth of key commodities. This trend has continued with the recent announcements of a \$135 million sugar refinery; the largest in Canada, as well as a new rail container facility, a new flour mill, and capital projects exceeding \$40 million in 2024.

"Around 2008 when the steel markets softened, we recognized that we needed to diversify and look at other cargo mixes, and that's really when we started to make capital investments around agricultural products," noted Ian Hamilton, President and CEO of HOPA Ports.

"To quote Wayne Gretzky, we were 'trying to figure out where the puck was going to be,' and started making investments that are paying off for us today, and are supporting the success of diverse organizations, both in steel and agriculture – all of which drive the Canadian economy."

Over the past 15 years, HOPA has attracted \$500 million in new investments by agrifood companies, including grain handling terminals, fertilizer terminals, and Ontario's leading mid-size brewery. HOPA kicked off 2024 by announcing even more agri-food investment, in the form of a new flour mill, to be constructed by Parrish & Heimbecker, and a new sugar refinery, to be constructed by SucroCan.

"Food processing is a \$4.8 billion sector in Ontario, and we're delighted to be providing the key ingredients to grow this sector further, in the form of the location and logistics solutions that food manufacturers need," said Hamilton.

In addition, HOPA continues to invest in capacity for the value-added steel-related manufacturing supply chain. In 2023, construction of a \$10 million, 60,000 sq ft rail transload facility for steel products proceeded on-track. This facility, to be operated by NSD Warehouse & Distribution and supported in part by the National Trade Corridors Fund, will make new connections between transportation modes and add more than 100,000MT of new steel handling capacity at the Port of Hamilton.

Cement, asphalt and aggregates led the cargo mix at the Port of Oshawa in 2023. "These commodities are critical to infrastructure, housing and manufacturing – everything we need to keep our regional economy humming," said Hamilton. "It is our job to make sure we have the supply chains in place to move these essential goods reliably and efficiently."

Bruce Burrows, President and CEO of the Chamber of Marine Commerce, noted "The focus and dedication that Chamber of Marine Commerce members are putting into upgrading their facilities for the future is what will keep the marine mode at the forefront of all discussions related to sustainable economic growth. The current mix of visionary research and development activity and service expansion by CMC members, coupled with unprecedented engagement and support by federal, provincial, and state governments, is setting the stage for a stronger and greener supply chain that will benefit business and consumers for generations to come."







s many parts of the world are engaged in a fundamental change of thinking away from fossil fuels towards renewable energy sources, Atlantic Canada has in the past few years attracted wide interest from industry and government circles nationally and internationally. At strategically located ports in the region, considerable excitement is spreading over opportunities in carving out new business with a definite green dimension – from marshalling hubs for giant monopiles destined for U.S. east Coast offshore energy projects to expanding local wind farms and exporting hydrogen to Europe.

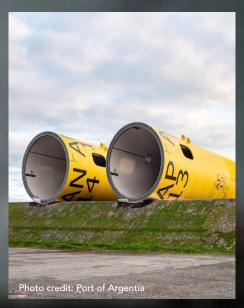
Acting as a significant catalyst has been the "declaration of intent" signed by Canada and Germany in August 2022 to create a hydrogen alliance between the two countries. Under the declaration, Canada pledged to produce and export green hydrogen to Germany. In response, a number of large-scale green hydrogen projects have been announced throughout Atlantic Canada, while Nova Scotia released an offshore wind capacity target of five gigawatts by 2030 with a focus on green hydrogen production. Among current green transition developments in Atlantic Canada, it seems fitting to single out the Port of Argentia in the province of Newfoundland and Labrador. But, as recalled CEO Scott Penney in an interview, the metamorphosis has

"When I joined the port in September 2020, it was in the heart of COVID and just after five days we learned that Husky Energy had scrapped a huge offshore crude project that would have created thousands of local jobs.

suddenly come after some tough,

lean years.

"So as to not be left behind, we went back to the old school to review what were the opportunities for ports. Then we very quickly found out that in the U.S. east coast while they were starting to develop offshore wind investments, they had a big deficiency in port laydown areas." "Someone in the shipping industry had to look at ports," Penney explained. Following a series of cold calls and presentations, there was a breakthrough: the Port of Argentia signed a contract with Dutch shipping line Boskalis for moving monopiles (wind turbine support structures) from Germany and offloading them into Argentia as North America's first monopile marshalling yard.



Subsequently, Penney described the pace of developments as "surreal."

"Things have come full circle. At the end of the day, the Port of Argentia is re-purposing a greenfield site -past U.S. naval base to be a powerhouse in energy transition."

What Penney describes as a whole new industry has found a home in Newfoundland.

And he cannot disguise his amazement over the very magnitude of the components involved.

"These are massive components – 120 metres long,10 metres high and can weigh shy of 3,000 tons!"

In 2023, Argentia received 56 monopiles for storage and eventual destination at U.S. offshore farms on the Atlantic coast. Some 60 units have been contracted for 2024.

Argentia a 'sleeping giant'

"Argentia is a sleeping giant of energy transition not only in Newfoundland but in North America," Penney enthusiastically declares. "We are a vital link in the supply chain for the U.S. offshore. And with the Pattern Energy project we are going to be the first to export hydrogen or ammonia to Europe."

In the past decade, San Francisco-based Pattern Energy has brought 10 wind energy projects to operation in four Canadian provinces. Last summer Pattern Energy inked a deal with the Port of Argentia to use about 6,000 acres of industrial and forested land around the port to build windmills and a production facility that would ship ammonia to foreign markets.

"To facilitate all these developments, we need to expand our infrastructure," Penney explains.



Prior to the launch of the monopile transit route, the port continued to implement investment upgrades of \$10 million on infrastructure improvements, increasing to the total quayside laydown area to over 12 acres. This past July, the port's long-term master plan received \$38 million from Canada's National Trade Corridors Fund to, among other items, add more space for three new berths to accommodate larger vessels. More recently, in January 2024, the port was "highly pleased"



"THINGS HAVE COME FULL CIRCLE. AT THE END OF THE DAY, THE PORT OF ARGENTIA IS RE-PURPOSING A GREENFIELD SITE - PAST U.S. NAVAL BASE TO BE A POWERHOUSE IN ENERGY TRANSITION."

over the decision by the provincial government to release the Cooper Cove Marine Terminal expansion from further environmental assessment, according to Penney.

Meanwhile, in other related developments, the Port of Stephenville was purchased this year by World Energy GH2 Inc., a Newfoundland and Labrador-based renewable energy company.

World Energy is developing its Nujio'qonik project which it says will be the first onshore project in the country to produce hydrogen and ammonia from renewable wind energy.

The company is proposing to construct and operate two onshore wind farms on the west coast with the associated transmission and supporting infrastructure to power a hydrogen/ ammonia production facility at the port. Such an undertaking could attract considerable heavy lift and project cargoes.

A multitude of projects

In Halifax, Invest Nova Scotia, the provincial government's business development agency which operates the Woodside Multi-Purpose Marine Facility on the Dartmouth side of the harbour, is well positioned for vessel-to-vessel transfer operations, ship repair, renewables and offshore energy projects, according to Jess Hawkes, Corporate Communications, Invest Nova Scotia.

DEME Offshore US presently uses the Woodside marine facility for the delivery, pre-assembly and transshipment of offshore wind turbines for Phase 1 of the Vineyard Wind 1 project off Rhode Island. Vineyard Wind 1 is the first commercial-scale offshore wind project for the U.S. and Woodside is one of few heavy industrial facilities on the Northeastern Seaboard with the existing site infrastructure and capacity to support the project's transfer and installation vessel operations.

At the Port of Sydney, Novaporte LP is seeking to establish a marshalling yard for components destined for U.S. offshore wind projects, with first phase operations storing monopiles slated for 2027.

"It's all about heavy lift for us now," says Novaporte's CEO Albert Barbusci. "We have made our move to marshalling and we have partnered with Blue Water Shipping from Denmark, a terminal operator with 25 years experience."



For its part, the Strait of Canso is aiming to get a piece of the wind energy pie. "It's the hydrogen and ammonia plants that are planned to be developed here and also the green energy that will support the development of these facilities, whether it be onshore wind development or development of offshore wind," said Tim Gilfoy, CEO, Strait of Canso Superport Corporation which owns and operates the Mulgrave Marine Terminal and the Port Hawkesbury Pier.

EverWind FuelsCo. has been given approval of the initial stage of its planned \$6 billion green hydrogen and ammonia plant at Point Tupper. Its plans are to use wind power to produce hydrogen and ammonia.

Bear Head Energy is another company planning to build a hydrogen and ammonia plant at Point Tupper, using green energy. As projects move forward, Gilfoy expects there will be an influx of wind turbines and associated equipment. The Mulgrave Terminal is gearing up to handle the potential wind business. Also a port to watch in Atlantic Canada is Belledune, which is building a "green energy hub" within the framework of a 30-year industrial strategy. For green hydrogen development, the Belledune Port Authority is working with Floridabased Nextera Energy, a leading world renewable energy enterprise.

Last but definitely not least, worthy of mention is Germany's Rhenus Logistics. This global project logistics leader with 39,000 employees in more than 1,000 locations announced in late February the expansion of existing operations across Canada through two new business units in Halifax and St. John's.

"At Rhenus, we have years of offshore industry experience in the Middle East and Europe, and we are now extending our knowledge and solutions to the Canadian Atlantic region," says Jeffery Haley, Director of Global Projects at

Rhenus Logistics Canada. "Canada is approving the development and growth of offshore projects, and Rhenus can be a part of expanding renewable energy sources with the help of our services and team of experts."







CANADIAN GROWTH: TIME FOR A RETHINK

DOUGLAS PORTER



DOUGLAS PORTERCHIEF ECONOMIST AT BMO
CAPITAL MARKETS

t's an open secret that Canadian GDP is heading in reverse on a per capita basis. While the shortterm cyclical story has been one of some modest resiliency, partly courtesy of a perky U.S. economy, the broad macro figures have also been flattered by the strongest population growth in decades. Indeed, it would be an unmitigated disaster if the economy was unable to expand at least a little bit when the adult population was growing in excess of 3% y/y. Stacked up against that reality, the 1% GDP growth of the past year is in fact quite meager. The over-riding point is that, even with a small bounce

in Q4, Canadian productivity is in a prolonged slump, and GDP per person is no higher now than it was at the end of 2014, nine long years ago.

This woeful performance is now well known. The question is what do we do about a problem like measly growth? It just so happens that former Finance Minister Bill Morneau tasked an Advisory Council on Economic **Growth** to consider this very issue, and the Council delivered its final report on December 1, 2017. At just over six years ago, it's still fairly fresh, albeit rudely interrupted by a pandemic. So, to avoid reinventing the wheel, it's well worth reviewing its major findings. The report fretted that real GDP growth was only going to average 1.5% over the next 50 years, based on historical productivity trends of 1.1% per year, and GDP per person could ease to "just" 0.8% growth on average over the same period (versus 1.9% in the prior 50 years). It would be churlish to say in hindsight "we wish".

Not satisfied with the prospect of sub-1% growth per person, the Council offered a wide variety of recommendations, some of which remain eminently reasonable (example: a targeted review of our tax system). As a brief reminder, the headline proposals were: Create an Infrastructure Bank (CIB) to boost such spending, become a top-tier foreign direct investment destination, increase annual permanent immigration and qualify more international students, support skills training, raise workforce participation, and strengthen business investment. Ottawa seized on some of the suggestions nearly immediately aggressively so on the immigration

file—made some partial steps on others, and have let some slip; a mixed response overall.

The **CIB** has been up and running for more than six years, and is still finding its way, with outstanding loans of \$11.6 billion at end-2023. The on-the-ground reality is that infrastructure spending overall has firmed slightly in recent years, but it's almost exactly in-line with its 20-year average as a share of GDP. Overall, nothing has changed significantly on this front, albeit with some very modest improvement.

In contrast, the situation in FDI remains weak. Inflows to Canada last year were \$60 billion, right in line with the average of the past five years, but also little different from levels prevailing prior to 2017. Meantime, Canadian FDI outflows were nearly twice as large last year at \$113 billion, leaving a large net FDI outflow of \$53 billion. That's not a record high, but after decades of rough balance, FDI is now consistently in a net outflow position of nearly 2% of GDP. And, notably, even portfolio investment flows dropped into a rare deficit in 2023, driven by record net selling of Canadian equities by non-resident investors. Thus, Canada recorded a rare trifecta in 2023 with deficits in FDI, portfolio flows, and the current account, for only the second time in the past 40 years.

The major policy measure to spur capital spending was arguably the accelerated capital cost allowance in late 2018. Suffice it say that **Canada** is still awaiting a private sector investment boom. Real outlays on equipment and structures were lower at the end of last year than at the end of 2017, and even below levels



prevailing as far back as 2008. A steep decline in spending in the oil & gas sector is a big factor, but no other sector has stepped up. Spending on machinery & equipment has been flat on balance for nearly 20 years in real terms, and is now just 40% of the level of spending on residential construction in nominal terms. Given that all the focus is now on accelerating homebuilding, we're unlikely to ever see M&E above housing outlays again.

The picture on increasing workforce participation has been mixed. The overall rate has actually dropped from just over 66% in 2017 to just above 65% now. But much of this can be attributed to the relentless demographic force of a wave of Baby Boomers reaching retirement age. The part rate for those aged 15-64 has risen by roughly a point from 79% in 2017 to around 80% now, led by a 3 point jump in women aged 25 to 44 (on child care support). One of the specific goals of the Council was to boost the part rate of those over

the age 55; instead, that group has seen a dip from just above 38% to just below 37%.

Note that the recommendations were generally careful not to push for big new bureaucracies, or large new government-funded programs. Yet, the reality is that **one of the fastest growing sectors in terms of jobs has been public administration.** Public sector payrolls have risen by 190,000 (or more than 17%) in just the six years since the report was published, with nearly half of those jobs in the federal government alone (a rise of more than 30%). As a share of overall payroll employment, public administration is now 7.2%, the highest of this century.

The rising share of public sector employment is likely doing no favours for Canada's weak productivity performance. The **Advisory Council aimed its recommendations at lifting output per person**, with an eye on offsetting a looming decline in labour force participation in the coming years. In fact, **the opposite has**

happened since 2017—productivity has stalled, while hours worked have jumped amid the surge in population. Ironically, while the Council fretted about Canada's potentially weak GDP growth rate of 1.5% over the next 50 years, the economy has in fact grown at precisely a 1.5% annualized pace since late 2017.

Bottom Line: Canada's economy is mired in a long-term growth funk, which increasingly looks structural in nature. The most recent significant study on strengthening the long-term growth outlook has so far proven to be damp squib. Simply, we need a serious rethink on proposals to lift productivity and growth. Given that Canada is plagued by weak capital spending and investment outflows, we can conclude at the very least that competitive-crushing tax hikes should be considered a non-starter. ■



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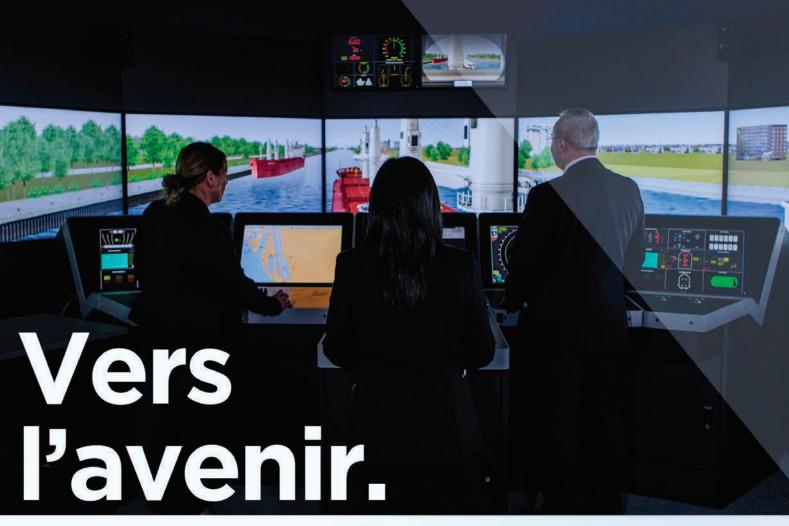
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