GLS’s Major Winter Work Projects: $178 Million Invested Since 2009

The concrete rehabilitation work in the culvert valve recesses continues this winter with more removal and repair of damaged concrete surfaces. A contractor is working in the “tear drops” of Snell Lock, which are located at the furthest upstream end of the filling and emptying culverts. These recesses are called the “tear drops” because of the winding path the north and south culverts follow as they drop in elevation from the inlet area at the upstream miter gate sill to the bottom of the lock. It is especially challenging for the contractor to install scaffolding and access these areas to complete the concrete demolition and shotcrete repairs.

Major projects for the Winter 2021 non-navigation (work) season include replacing damaged concrete in the filling and emptying culvert valve recesses at Snell Lock, installing the last pair of redesigned single-skin culvert valves at Snell Lock, and the first phase of replacing the concrete diffuser structures at Eisenhower Lock.

CONTINUED ON PAGE 2
About ten years have passed since the prototype single-skinned culvert valves were installed at the upstream end of Snell Lock. The upstream and downstream pairs of culvert valves control the flow of water into and out of the lock through the 14 feet wide by 14 feet tall recessed culverts that run the length of the lock. These prototype valves were proven successful, and two other pairs of the redesigned valves have been installed at Eisenhower Lock. The final pair of the original double-skinned culvert valves will be replaced this year at the downstream end of Snell Lock.

The first of two phases to replace three of the six concrete diffuser structures at Eisenhower Lock is also underway. The diffusers have deteriorated since their original construction over 60 years ago, and they play a critical role in the operation of the lock. When the lock is lowered to allow a vessel to transit from upstream to downstream, approximately 22 million gallons of water are released from the lock in about seven minutes. The diffusers control this massive release of water as the velocity of the flow is significantly reduced while passing through the diffusers before entering the downstream waterway. The diffusers at Snell Lock will also be replaced in the next few years after the work at Eisenhower Lock has been completed.
assets and technologically-advanced systems of the Seaway and providing
safe and secure transits for vessels using
the waterway to move goods to and from
North America.

Just as we were getting ready to open
the 2020 navigation season, we became
aware of the seriousness of the pandemic.
Quickly, we started working with key
Canadian and U.S. stakeholders and
marine industry associations to implement
protocols to ensure the transportation
corridor continued to be safe, secure
and efficient. The measures taken were
successful, and the Seaway was able
to maintain a high level of operational
performance, while remaining a respon-
sive transportation system and vital trade
gateway. Nearly 38 million tonnes of cargo
transited the system in 2020, which we
are pleased with, considering the global
economic impact from numerous lock-
downs in countries around the world.

Resilient maritime transportation systems
around the world are key to the efficient
functioning of the global economy. In
addition, marine shipping is the most
energy-efficient transportation mode,
with the lowest carbon footprint and,
of course, during the pandemic it has
proven to be one of the safest and most
reliable modes of transportation.

While Lake Ontario water levels in 2020
were well below those experienced in
2017 and 2019, water outflows remained
an important concern for our two
Corporations. We have worked collabora-
tively with key stakeholders to manage
water flows and to ensure vessels can
safely transit the system, while minimizing
the risk of flooding to communities.
Through a combination of favorable
weather and constant efforts to optimize
water outflows, as of February, water
levels in Lake Ontario are below historical
averages, which is very encouraging.

Operationally, 2020 was a strong year for
the Seaway Management Corporation.
Safety results were world class, with
both our lost time incident and total
incident rates at 0.31 incidents per
2000 hours worked. During the naviga-
tion season, even with the pandemic,
we continued to provide reliable and
efficient service to our customers.
There were few vessel delays related
to Seaway operations and the weather
cooperated at the end of the year, which
resulted in a smooth close to navigation.
With a less severe winter, winter works
projects have gone well. By the end of
2020/21, we will have completed various
major investments under our Asset
Renewal Plan, including bridge and lock
projects, to ensure continued system
availability of 99.5 percent.

Along with our work at maintaining a
robust transportation route, we continue
supporting initiatives such as all-season
buoys, increased ice-breaking assets
and pilotage efficiencies, which assist in
season extensions.

We are now preparing for our 2021
navigation season. As noted, the lack of
ice this winter has kept the winter works
projects on schedule. This combined
with strong demand, especially for the
movement of grain, has allowed us to
announce a normal opening date of late
March. Our opening ceremony, though
by necessity mostly held remotely, will
be an occasion to highlight both the
critical role the Seaway Corporations and
marine transportation have played in the
economies of our countries, especially
during the pandemic, and to recognize
the strength of the U.S./Canada relationship
exemplified by the joint management of
the Seaway.

We are optimistic that the global
economy will improve in 2021, although
some of this is dependent on how the
pandemic and vaccines are managed.
The movement of goods will remain
central to any improved economic
activity, and we are ready to support the
marine industry in any way we can.
another navigation season, however, I am optimistic because there are so many indicators and trends that are pointing in a favorable direction where the Seaway is concerned. Take safety, for example. The Seaway remains one of the safest waterways in the world, and as this chart shows, we are coming off one of the safest navigation seasons on record. 

Over the last 25 years, the average number of vessel incidents in the Seaway has decreased significantly. Since 1996, the average number of incidents has declined from 19 per year (1996–2006) to only six per year (2007–2020). Last year’s total of four vessel incidents was the second lowest on record (achieved previously in 2017 and 2011), and this downward trend bodes well for the upcoming navigation season.

Water levels is another cause for optimism. Last year’s navigation season opening was affected by the effects of high water levels on Lake Ontario. This year, however, is a very different—and much more positive story. Throughout the Lake Ontario/St. Lawrence River basin, precipitation and water levels have returned to
more normal levels. As of this writing, Lake Ontario water levels are down 58 cm (23 inches) from last year’s levels at this time, and 14 cm (5.5 inches) below average for this time year. The forecast going into the season is for average to below-average precipitation and water levels, which bodes well for all concerned, including commercial navigation.

Those of us who have worked in and around Great Lakes Seaway shipping have known for a long time that maritime navigation is one of the most—and in many cases the most—environmentally friendly modes of transportation by various measures. According to the most recent study on the subject (Environmental and Social Impacts of Marine Transport in the Great Lakes-St. Lawrence Seaway Region, 2013), Great Lakes Seaway commercial navigation carrying one ton of cargo one kilometer emits 19 percent fewer greenhouse gases than rail and 533 percent fewer greenhouse gases than trucks. This fact may finally get the wider recognition it deserves as the role of maritime transportation in mitigating climate change starts to garner more attention in the U.S. and Canada.

Finally, after a very strong end to the 2020 navigation season in terms of overall cargo, there is reason to be optimistic that the 2021 season will begin where the 2020 season left off. As economies around the world improve with each passing month, this positive trend is good news for the many cargoes shipped through the Seaway. Every navigation season is different, of course, and each is marked by its own distinctive ups and downs. The 2021 season will be no different. Nevertheless, I remain optimistic because this season starts out from a position of strength: improving navigation safety, stable water levels, a growing recognition of maritime navigation’s environmental benefits, and a steadily improving economic situation in North America and elsewhere. Last year reminded all of us of the need to be cautious in the face of a very uncertain world. That is still true, but as the world this year seems to offer us a little more certainty, I’m optimistic that better days are ahead!

DEPUTY ADMINISTRATOR’S COLUMN
CONTINUED FROM PAGE 4

GHG Emissions Comparisons (2010 vs Post Renewal)
Combined Great Lakes-Seaway Fleet

Finally, after a very strong end to the 2020 navigation season in terms of overall cargo, there is reason to be optimistic that the 2021 season will begin where the 2020 season left off. As economies around the world improve with each passing month, this positive trend is good news for the many cargoes shipped through the Seaway. Every navigation season is different, of course, and each is marked by its own distinctive ups and downs. The 2021 season will be no different. Nevertheless, I remain optimistic because this season starts out from a position of strength:

U.S. Great Lakes Cruise Coalition Partners with Hwy H2O Marketing Program

The United States-based members of the U.S. Great Lakes Cruise Coalition (GLCC), which consists of various U.S.-based ports, vessel agencies, and tourism entities, have now joined the Hwy H2O marketing brand of the Great Lakes St. Lawrence Seaway System (GLSLS). This move aligns regional cruising advocates with an existing brand that markets the Seaway System to users, including cargo owners, vessel lines, and other stakeholders of the system. This also brings marketing opportunities for cargo and cruising under one organization.

The Great Lakes Cruise Coalition, which includes members in both the United States and Canada, was created as a bi-national membership organization approximately 20 years ago with the specific goal of enticing cruise lines into the GLSLS market. While that goal has been realized, ongoing marketing efforts are necessary to continue expanding cruising in the Great Lakes Seaway System.

Under the new structure, cruise lines interested in calling on the GLSLS, should contact Rebecca Yackley, Director, Trade and Economic Development, Great Lakes St. Lawrence Seaway Development Corporation (202) 366-5418. Media inquiries should be directed to Nancy Alcalde, Director of Congressional and Public Relations, Great Lakes St. Lawrence Seaway Development Corporation (202) 366-6114.
In Review: 2020 Navigation Season

2020 was a navigation season that tested the St. Lawrence Seaway in unimaginable ways and, despite the challenges presented, the Seaway kept commerce moving while maintaining its traditionally high standards for safety and reliability.

In total, 37,736,000 million tons of commodities moved through the Seaway, reflecting a 1.66 percent decrease in Seaway-wide total tonnage compared to the 2019 navigation season. Remarkably, this volume kept pace with the Seaway’s five-year average, a testament to the resiliency of the system in unprecedented times.

There were several cargo categories that surged in 2020. These areas of strength helped offset some traditionally strong cargo sectors that were impacted; the complete shutdown of the automotive industry, the steel supply chain’s closure of ore mines; the idling of Great Lakes blast furnaces; and the manufacturing sector’s reduced demand for international steel to complement the affected domestic production.

Those top-performing cargos throughout the 2020 Navigation Season included:

- **Grain** — 13,308,000 metric tons; 27.1%* increase
- **General Cargo** — 2,264,000 metric tons; 3.3%* increase (Includes Wind Energy Cargo)
- **Gypsum** — 859,000 metric tons; 32.8%* increase
- **Coal** — 2,439,000 metric tons; 2.0%* increase
- **Asphalt** — 372,000 metric tons; 30.9%* increase

*Percentages rounded to nearest tenth

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**Grain: A Record Setting Year for Canada & A Rebound U.S. Harvest**

The season opened with a rush of vessels entering the system to load grain in Thunder Bay, Duluth, and Toledo, a pattern that was maintained throughout the year. When the record Canadian harvest and strong U.S. crop went to the local port elevators in the Fall of 2019, the load centers of Milwaukee, Chicago, Burns Harbor, Windsor, and Hamilton-Oshawa added their share of vessels laden with agricultural exports right up until the close of the season.

In a year when many supply chains were tested and over-burdened, the Great Lakes St. Lawrence Seaway System maintained its role as a dependable food supply chain sending soy, wheat, corn, and other grains to global markets. Both U.S. and Canadian grain export tonnage increased by 27 percent over 2019 levels, and given the record Canadian harvest and a rebounding U.S. crop, the 2021 navigation season will start off in a strong position.

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**Wind Energy Cargo Across the System & Back to Back Record Years at Port of Duluth**

It was not just grain exports that moved at a frenetic pace during the 2020 navigation season. The Great Lakes St. Lawrence Seaway System built upon the momentum of recent navigation seasons to further expand its role as a renewable energy supply chain, delivering wind energy equipment for projects throughout North America’s heartland and extending west into Canada and the plains states of America.

Leading the way once again was The Port of Duluth-Superior. The Port set another new record for the volume of wind-energy cargo handled at the Clure Public Marine Terminal, managed by Duluth Cargo Connect. After setting a record in 2019 of 306,000 freight tons of wind energy cargo, their 2020 volume grew to 525,000 freight tons. In accomplishing back-to-back milestones, shipments arrived on 30 Seaway vessels and originated from eight countries: Brazil, Germany, India, Malaysia, Mexico, South Korea, Spain, and Turkey. Included in their record tonnage were the largest wind blades and towers ever to be handled at the port.

All totaled during the 2020 navigation season, 92 ocean vessels transited the St. Lawrence Seaway laden with wind energy cargo heading to eight U.S. ports within the system. The Great Lakes St. Lawrence Seaway System routinely demonstrated its value as a global supply chain for renewable energy projects throughout North America from 14 countries of origin: Germany, Denmark, Spain, France, Turkey, Mexico, Brazil, and the Netherlands as well as India, China, South Korea, Thailand, Malaysia, and Vietnam.
With some traditional Seaway cargos, and their corresponding ports, severely impacted in 2020, the volume and distribution of the wind energy cargo throughout the system provided critical revenue and employment. Several ports had their 2020 Seaway tonnage revolve exclusively around wind energy cargo including Erie, PA, where the very first wind cargo vessel of the season arrived within a week of the Seaway opening in April.

The Port of Monroe, MI operated a short sea shipping schedule for wind energy cargo with the Port of Becancour that resulted in 16 port calls during the season. Bay City, MI handled wind cargo from China and South Korea for projects in Michigan and Indiana on an even larger scale than in 2019 with a dozen vessels bringing in equipment. The Port of Ogdensburg, NY received five wind energy vessels from China and Spain for a wind farm project located in upstate New York. And Menominee, MI continued its support of wind projects in the upper Midwest by handling wind cargo early in the season. Those shipments originated from Morocco, Denmark, and Spain.

The Port of Burns Harbor in Indiana celebrated its 50th anniversary during a navigation season in which their tonnage was highlighted by several large-scale project cargo shipments. In addition to receiving wind energy equipment from Mexico and India for two large wind farm projects in Ohio and Indiana, the Port handled cargo for one of the largest shipments in port history. Over 600 pieces of cargo arrived on board ten Seaway vessels carrying power generation equipment for the $1 billion Indeck Niles Energy Center under construction in Michigan. The port also handled some European steel (though at a reduced level), as well as coke from Italy and coal from Poland. They, too, participated in the strong grain export lane loading vessels with shipments bound for England, Spain, and Greece.

At the Port of Cleveland, one of the port’s cargo highlights in 2020 was the receipt of 3,000 cubic meters of Austrian timber via Spleithoff’s Cleveland-Europe Express in November. It will be assembled later this year in the construction of the country’s largest all-wood structure, a nine-story, 115-foot high residential housing complex located near downtown Cleveland. Additionally, the Spleithoff scheduled service brought in its mixture of containerized goods and breakbulk (including some expensive yachts) while the Port also received vessels throughout the season via Fednav’s FALLINE Liner Service carrying steel and breakbulk from Europe.

The State of New York’s ports were diverse in the cargo they handled. In addition to the wind cargo in Ogdensburg, the Port of Oswego handled several aluminum shipments for soybeans included Spain, Gibraltar, the Azores, Egypt, Belgium, and The Netherlands. Further, their General Cargo tonnage increased by 13 percent. In all, they had a total of 55 overseas vessels through the port, an increase of seven from 2019. Cargo handled at the port included aluminum from Canada, fertilizer from Norway, pig iron from Russia and Ukraine, sugar from Morocco, alfalfa from France, cement from Turkey, and salt from Egypt. Coke was exported to Canada, The Netherlands, Spain, Gibraltar, and Denmark.
SLSDC Renamed to GLS

The SLSDC has officially been renamed. The 2020 Water Resources Development Act (WRDA), signed into law on December 27, 2020, as part of the stimulus and FY 2021 federal appropriations package, included language to rename the SLSDC as the “Great Lakes St. Lawrence Seaway Development Corporation” (GLS).

The name change was spearheaded in Congress by Ohio members Rep. Marcy Kaptur and Sen. Sherrod Brown to better reflect the regional focus of the agency and its important role in sustaining economic development and commerce. In the coming months, you will be seeing the name change reflected in a number of ways including a new logo, new letterhead, and new signage for the agency.

IN REVIEW: 2020 NAVIGATION SEASON
CONTINUED FROM PAGE 7

The Port of Chicago, IL was diverse in its Seaway cargo mix, receiving two wind cargo vessels from Denmark carrying hubs while continuing to receive vessels carrying breakbulk commodities like steel, lumber from Germany, and cement from Turkey. On the export side, there were two tug/barge movements of mud oil and petroleum to the Port of Baltimore, bunker oil to the Lower St. Lawrence, and soybeans to Ireland and Norway.

Looking at Wisconsin’s navigation season, there was critical cargo delivered to the Port of Green Bay. In order to meet spiraling demand, the Port received multiple shipments of wood pulp from Brazil for the Wisconsin paper industry to be used in hard-to-find products like toilet paper and sanitary wipes.

The Port of Milwaukee saw a steady flow of steel including tinplate material used by manufacturers in the region’s food and beverage industry, machinery and brewery tanks from Belgium. Once the Fall harvest arrived at the port, seven vessels exported soybeans to destinations throughout Europe, North Africa, and the Middle East.

When reviewing the 2020 Navigation season, most importantly, the bi-national Great Lakes St. Lawrence Seaway kept the “lights on and vessel traffic moving” from opening day to closing day, safely and efficiently. As a critically important global supply chain, 2020’s Great Lakes St. Lawrence Seaway performance was, in the end, “business as usual”. And it couldn’t have come at a better time.
During the 2019 navigation season, water levels on Lake Ontario were at record highs. High Lake Ontario water levels continued to impact the beginning of the 2020 navigation season as well, as the International Lake Ontario St. Lawrence River Board (ILOSLRB) permitted record outflows in January, February, and March to reduce the risk of flooding on Lake Ontario.

The Seaway Corporations voluntarily decided to adjust the opening date for 2020, pushing it back to April 1, to accommodate this successful effort. It is important to note that under the 1909 Boundary Waters Treaty between Canada and the U.S., and the subsequent water use plans adopted pursuant to the 1909 Treaty, including the latest plan (Plan 2014), the Seaway Corporations were not required to delay the opening date to accommodate higher outflows. Under the 1909 Treaty, commercial navigation uses are an explicitly recognized priority use for the shared waters between Canada and the United States. Under Article VIII of the 1909 Treaty, navigation is second only to domestic and sanitary uses. Nevertheless, in 2020, the Seaway Corporations worked closely with the ILOSLRB to maximize outflows while ensuring safe conditions for navigation.

The situation this year, fortunately, is much different—and much improved—as water levels have stabilized considerably and reverted back to historical averages. Precipitation over the winter has been slightly lower than average, and the ILOSLRB has done an excellent job of maximizing outflows during the time that the Seaway has been closed for winter maintenance. As of this writing, Lake Ontario levels are about 10 cm below the historical average and down nearly 58 cm from the previous year—that is almost two feet lower than 12 months ago. As a result, the projection is for more normal opening conditions, and the Seaway Corporations announced a March 22 opening date for the Montreal-to-Lake Ontario section of the Seaway. The March 22 date is consistent with past Seaway opening dates.

Water levels are most heavily influenced by natural factors, including rain, evaporation, winds and runoff from streams that feed into the St. Lawrence River. A snapshot from February 21, 2021 illustrates how water levels change from year to year. The water level in Lake Ontario has remained relatively constant in the same time period, hovering around the historical average level.

<table>
<thead>
<tr>
<th>Location</th>
<th>Daily Mean Water Level (m) 21-Feb-21</th>
<th>Change from prior week</th>
<th>Compared to (Historical quarter-monthly statistics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Superior</td>
<td>183.44 m</td>
<td>+18 cm</td>
<td>Average: -16 cm; Last Year: -20 cm; Record High: +70 cm; Record Low: -70 cm</td>
</tr>
<tr>
<td>Lake Michigan-Huron</td>
<td>176.99 m</td>
<td>+70 cm</td>
<td>Average: -25 cm; Last Year: -25 cm; Record High: +141 cm; Record Low: -141 cm</td>
</tr>
<tr>
<td>Lake St. Clair</td>
<td>175.60 m</td>
<td>+79 cm</td>
<td>Average: -16 cm; Last Year: -17 cm; Record High: +172 cm; Record Low: -172 cm</td>
</tr>
<tr>
<td>Lake Erie</td>
<td>174.54 m</td>
<td>+52 cm</td>
<td>Average: -35 cm; Last Year: -34 cm; Record High: +138 cm; Record Low: -138 cm</td>
</tr>
<tr>
<td>Lake Ontario</td>
<td>74.52 m</td>
<td>-10 cm</td>
<td>Average: -58 cm; Last Year: -78 cm; Record High: +76 cm; Record Low: -76 cm</td>
</tr>
</tbody>
</table>

Stats periods of record: 1918–2019. Historical statistics and comparisons to previous years are for reference purposes only, based on quarter-monthly data and do not reflect fluctuations seen in daily data.
New Secretary of Transportation

On February 2, Pete Buttigieg, former mayor of South Bend, Indiana, was confirmed by the U.S. Senate as the new Secretary of Transportation. The final vote of 86 to 13 was seen as a strong show of support for the new Secretary. He was sworn in to assume his new position by Vice President Kamala Harris on February 3. At 39, he is the youngest Transportation Secretary in the Department’s history.

At his confirmation hearing before the Senate Commerce, Science, and Transportation Committee on January 21, he outlined a number of his primary goals. In addition to an immediate focus on safety, he indicated that one of his priorities will be investment in transportation infrastructure, a positive signal for the Great Lakes Seaway System as continued capital investment in U.S. ports, Seaway locks, and other maritime infrastructure is critical to the mission of the Great Lakes St. Lawrence Seaway Development Corporation (GLS).

In his first few days at the Department, he urged all 55,000 DOT employees to embrace “…imaginative, bold, forward thinking, as the Transportation Department embarks on a vital mission to rebuild America’s infrastructure and foster equality.” He said he is “deeply optimistic” about the transportation industry, despite the damage caused by the pandemic, saying that the mission of the USDOT “…has never been more important than in this season of change and possibility.”

Secretary Buttigieg hosted his first listening session at the Department with the GLS workforce. A number of GLS employees described their jobs and also their challenges at the Seaway. Afterwards, the Secretary noted how much he enjoyed the session and learning about the important work that GLS employees do every day, sensing the level of commitment, the quality, and the caliber of the Seaway team. He appreciated hearing about personal stories ranging from childhood memories of visiting the locks to an inspiring commitment to family and community life when not at work. He also reflected that although the GLS is the smallest mode at the Department, he finds it one of the most fascinating in terms of the work the agency does. On behalf of the Great Lakes Seaway System and its stakeholders, the GLS welcomes Secretary Buttigieg and looks forward to accomplishing many positive things together in the years ahead.

Personnel News

In January, Ian Hirt announced that he would return to the private sector after four years as port director of Ports of Indiana-Burns Harbor. “It has been an honor to lead the northwest Indiana port that has an impressive 50-year history,” said Hirt. “It truly has been a pleasure to work with an outstanding executive leadership team, staff, tenants, commission and community partners.”

During Hirt’s tenure, the northwest Indiana port achieved the following:

• Implemented numerous environmental initiatives including the adoption of its own stormwater management program authorized by the Indiana Department of Environmental Management;

• Received 2019 South Shore Clean Cities Sustainability Leadership Award for its work to reduce diesel emissions throughout the port;

• Received 2019 Northwest Indiana Partners for Clean Air Industrial Award for its work to improve air quality in northwest Indiana;

• Completed an exceptional year of handling heavy lift cargo in 2020, including cargo for a $1 billion power plant, one of the largest shipments in its 50-year history;

• Extended its partnership with Federal Marine Terminals, a nationally-renowned stevedore company.

During the transition, we are confident our staff will continue delivering exceptional service to our port companies. We wish Ian the best of luck in his next endeavor.” The Ports of Indiana executive leadership team has commenced plans to hire a new port director and the job description is now listed on the company’s website. ■ ■ ■
**DID YOU KNOW?**

**2020 Season Shipping Highlights**

- In August 2020, the Corporation took delivery of its new ice-class tugboat *Seaway Guardian* to perform its icebreaking, vessel assistance, and buoy commissioning and decommissioning responsibilities. The $24 million tugboat was constructed by Gulf Island Shipyards of Houma, LA, and replaces the GLS’s 1958 tug *Robinson Bay*.

- In late fall of 2020, a dredging project began to increase navigational depths for the *Seaway Guardian* at GLS facilities located in the Wiley-Dondero Canal (the pool). The project was paused for the winter season and will be completed in the spring.

**On the Horizon...**

- Construction on the Seaway Performance replacement tug is ongoing. The tug is expected to arrive in Massena, NY in December 2021.

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**Save the Date**

**March**
March 22
*Opening of The Great Lakes St. Lawrence Seaway System 2021 Navigation Season*

**June**
June 2–4
*GREENTECH 2021 Environmental Virtual Conference*  
(Virtual)  
https://green-marine.org/greentech

June 7–10
*American Wind Energy Association—CLEANPOWER Conference*  
Online Education & Matchmaking  
(Virtual)  
https://cleanpower.org/expo

**September**
September 27–30
*Seatrade Cruise Global*  
Miami, FL  
*The conference generally occurs in the spring and has been rescheduled to the fall.*

**December**
December 7–8
*American Wind Energy Association—CLEANPOWER Conference*  
Tradeshow & Business Development  
Salt Lake City, UT  
https://cleanpower.org/expo

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**NOTE:** Due to possible COVID-19 restrictions or related impacts, in-person event dates are subject to change.