

ENHANCED SHIP ROUTING KEY TO US-SINGAPORE LOW-CARBON CORRIDOR

‘Green and digital’ initiative expected to decrease supply chain costs while cutting carbon emissions

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A trans-Pacific trade lane between Singapore and Southern California will use enhanced routing technology to help convert it into a corridor aimed at speeding deployment of low- and zero-carbon container ships.

The “green and digital shipping corridor,” a partnership between the Maritime and Port Authority of Singapore (MPA) and the ports of Los Angeles and Long Beach, is part of a wider Green Shipping Challenge initiative unveiled at the 27th United Nations Climate Change Conference (COP27) in Sharm El-Sheikh, Egypt, earlier this month.

Included in the green corridor partnership is C40 Cities Climate Leadership Group, a network of international mayors committed to limiting rising average global temperatures.

“Reducing greenhouse gas emissions in the maritime supply chain is essential, and this trans-Pacific partnership will help us build a network of ports and key stakeholders to help decarbonize goods movement throughout the Pacific region,” commented Port of Los Angeles Executive Director Gene Seroka.

The green corridor connecting Los Angeles and Singapore builds on a similar low-carbon corridor partnership announced in January by the ports of Los Angeles and Shanghai, major hubs on one of the world’s busiest container shipping routes. Similarly, Singapore, Los Angeles and Long Beach are hub ports and considered “vital nodes on the trans-Pacific shipping lanes and key stakeholders in the maritime sector’s green transition,” according to the corridor partners.

“While we don’t have as much container volume moving between our port complex and Singapore, it’s probably the biggest fuel bunkering hub in the Pacific,” Chris Cannon, chief sustainability officer at the Port of Los Angeles, told FreightWaves. “So we really wanted to begin to work with them because of the critical importance they play in fuels and bunkering for the entire trans-Pacific trade.”

Cannon said that up until the green corridor partnerships with Shanghai and Singapore, cutting air pollution centered around cargo-handling equipment, drayage trucks serving the container terminals, zero-emission locomotives moving in and out of the port, and low-sulfur fuel emission control areas that extend 200 nautical miles from the coastline.

“That’s where our focus had

ended,” Cannon said. “But with the green shipping corridors, our focus is starting to be on what we can do to reduce carbon emissions along a ship’s entire journey.”

Untangling Supply Chains

To make that happen, the partners in the initiative will use digital technology, Internet of Things (IoT), and cloud-based computing to improve how cargo is transferred, Cannon emphasized.

“The plan is to identify the most direct and efficient routing for the ships and the most efficient way to track and provide advance notice of where cargo’s going, so that when it’s picked up, it can be picked up quickly, with advanced staging in place so that you can plan for things like customs clearance, freight forwarding and [drayage] appointments,” he said. “If we can reduce the number of times a container is touched, that reduces the amount of overall activity associated with the movement of that container, which means less fuel used which generates less carbon emissions.”

While carriers presumably always seek the most efficient routing to reduce fuel costs, electronic data interchange within various sectors of the supply chain has been lacking, according to Peter

Zimmerman, North American software sales manager for Vormittag Associates, Inc., an enterprise resource planning company.

“If we know when a ship is due in at port, the port can be more efficient – whether that’s storing cargo or notifying the trucking or rail company,” Zimmerman told FreightWaves. “So it’s not just the green aspect of it. There hopefully will be an opportunity for cost reduction in the supply chain as well.”

Initiative Has Shipper, Carrier Buy-In Despite Costs

The strongest backers of the initiative are the cargo owners, according to Cannon. He noted that Amazon, Ikea and other retailers last year committed to purchasing ocean freight services powered only by zero-carbon fuels by 2040 because consumers increasingly are asking that the goods they buy are transported in a way that reduces their carbon footprint.

“They’re telling the shipping lines, if you want my business, you better get yourself a low-carbon ship because, if you don’t, someone else will,” he said.

Container ship operators A.P.

Moller – Maersk, CMA CGM, COSCO Shipping Lines and Ocean Network Express have signed on to the Shanghai corridor and are expected to commit to the Singapore corridor as well.

Cannon also acknowledged the low-carbon ships on order by some of the shipping lines are more expensive to operate.

“Cargo owners are willing to pay more if their cargo is moved in the manner they want,” he said. “And shipping lines are going to build the cost into their business plans because that’s what their customers want.”

No Regulatory Oversight – Yet

The Federal Maritime Commission, which regulates international container shipping in the U.S., has been extracting information from carriers, shippers, ports and terminal operators to figure out how to improve data flow in an effort to speed cargo through the supply chain.

Cannon points out, however, that the green and digital initiatives are so far voluntary with no mandates planned from regulatory agencies.

“The best way to get progress in reducing emissions in shipping is to start voluntarily and use

incentives to encourage the use of these types of fuels and participate in these corridors,” he said.

At the same time, he said, regulators are interested and supportive.

“The IMO [International Maritime Organization, the U.N. agency responsible for regulating maritime shipping] is excited and wants to help us, and would like to help us with tracking our progress,” Cannon said. “FMC is interested as well, along with the [Environmental Protection Agency] and the [California Air Resources

Board].”

The World Shipping Council (WSC), which represents container line shipping and which Cannon said also supports the Singapore initiative, wants to ensure that any regulations involving the adoption of low-carbon fuels takes into consideration “the total climate footprint from production to combustion.”

In a Nov. 21 letter to the European Union, which has proposed using an emissions trading system as a way to lower emissions from global shipping, WSC and its coalition

members emphasized that when a price is set for fuel emission, “it is important that a fuel is not considered green if it has left a significant climate footprint during extraction and production,” stated Jim Corbett, WSC’s environmental director for Europe.

“Liner carriers are already investing in alternative fuels and technologies, and urge the EU to ensure policies are geared to accelerate investments in the necessary renewably derived fuels by adopting a full life-cycle perspective.”