

**Port Commission**

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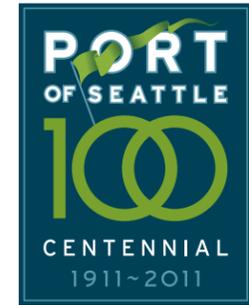
Linda Styrk

### Seattle's Green Gateway Programs

The Port of Seattle aims to lower emissions from all types of maritime operations in collaboration with our customers. To achieve these goals, we have made significant investments in several port programs, such as:

- Clean Truck Program – Developed in partnership with our customers, this program achieves emissions reductions without a significant burden to industry. All trucks now serving Port of Seattle terminals meet Clean Truck Program emissions standards.
- At Berth Clean (ABC) Fuels – The majority of ships that call the Port of Seattle participate in this program that encourages shipping and cruise lines to burn cleaner fuels while at berth.
- Green Gateway Partners – A recognition program designed to reward vessel operators for innovative environmental achievements above and beyond ABC Fuels participation.

There are also no added fees for our environmental programs. When we help the environment by reducing emissions, we make sure those costs are neutral for our customers.



*Where a sustainable world is headed.™*



P.O. Box 1209  
Seattle, WA 98111  
[www.portseattle.org](http://www.portseattle.org)

For more information, visit our Green Gateway page at [www.portseattle.org](http://www.portseattle.org)

Green your supply chain. Ship through





# THE GREEN GATEWAY

Seattle offers the lowest carbon footprint for cargo shipped by sea from Asia to major markets in the Midwest and East Coast.

## The Green Gateway for Trade

In 2009, the Port of Seattle commissioned an independent, peer-reviewed study conducted by Herbert Engineering Corp\*, which compared carbon emissions through the Port of Seattle to key destinations in relation to other gateways. We looked at a range of vessel sizes in anticipation of larger vessels transiting the Suez Canal and a wider Panama Canal.

The findings confirm what we've believed for a long time, that Seattle offers the lowest carbon footprint for cargo shipped by sea from Asia to major markets in the Midwest and East Coast. The 2011 updated study takes it one step further by exploring the effects of slow steaming, different vessel utilizations, and additional origins and destinations. The results show that Seattle remains the Greenest Gateway for key markets.

\*Carbon Footprint Study for the Asia to North America Intermodal Trade, Herbert Engineering Corp., 2011

## Faster, greener, better to your markets

Seattle is the closest US port to Asia, giving the added advantage of being faster to key markets. We pride ourselves on close collaboration with our customers to deliver unexpected solutions to business challenges.

Being The Green Gateway is about creating a business culture that balances the economic benefits of international trade with the clean, innovative practices that will sustain our environment and community.

Seattle's complement of frequent sailings and rail departures, DC & transload operations, efficient terminals and other value-added services such as our FTZ make us the smart choice for your cargo.

## The Green Gateway. A smart choice.

In our example we've focused on the 8,500 TEU container ships. With the completion of the Panama Canal expansion, the 8,500 TEU ships are widely expected to become the workhorse of the Transpacific trade.

The example looks at shipments from Shanghai to Chicago and to New York, via Seattle, compared to all-water via the Panama Canal. The findings show that Seattle remains the Green Gateway for Midwest and East Coast population centers.

Please refer to the full study and to our website for other vessel sizes, origins & destinations, speeds, utilizations, etc. [www.portseattle.org/greengateway](http://www.portseattle.org/greengateway)

## What does 1 MT CO<sub>2</sub>e Really Mean?

1 MT of CO<sub>2</sub>e is equivalent to burning 112.46 gallons of gasoline. In a car averaging 28 MPG, you could drive 3149 miles, like driving from Seattle to Boston.

When you ship an FEU from Shanghai via Seattle to Chicago instead of via the Panama Canal, you save 1.258 MT CO<sub>2</sub>e/FEU, the equivalent of burning 141 fewer gallons of gasoline in your car.

When you ship an FEU from Shanghai via Seattle to New York instead of via the Panama Canal, you save .236MT CO<sub>2</sub>e/FEU, the equivalent of burning 26.54 fewer gallons of gasoline in your car.

TEU = Twenty Foot Equivalent Unit FEU = Forty Foot Equivalent Unit

## 8,500 TEU CONTAINER SHIP Via Seattle thru the Green Gateway

Port of Origin	VESSEL DESIGN SPEED (24 Knots)						SLOW STEAMING (18 Knots)					
	Chicago	Columbus	Memphis	New York	Atlanta	Norfolk	Chicago	Columbus	Memphis	New York	Atlanta	Norfolk
Shanghai	1.522	1.608	1.659	1.778	1.719	1.791	1.114	1.201	1.252	1.370	1.311	1.383
Hong Kong	1.644	1.731	1.782	1.900	1.841	1.914	1.180	1.266	1.318	1.436	1.377	1.449
Singapore	1.870	1.956	2.007	2.126	2.067	2.139	1.302	1.388	1.439	1.557	1.498	1.571
Ho Chi Minh	1.785	1.871	1.922	2.041	1.981	2.054	1.256	1.342	1.393	1.512	1.452	1.525
Busan	1.442	1.528	1.579	1.698	1.639	1.711	1.071	1.157	1.209	1.327	1.268	1.340
Tokyo	1.381	1.467	1.518	1.636	1.577	1.650	1.038	1.124	1.175	1.294	1.235	1.307

MT of CO<sub>2</sub>e per TEU

## 8,500 TEU CONTAINER SHIP Via the Panama Canal

Discharge Port	VESSEL DESIGN SPEED (24 Knots)						SLOW STEAMING (18 Knots)					
	New York	New York	Savannah	New York	Savannah	Norfolk	New York	New York	Savannah	New York	Savannah	Norfolk
Port of origin	Chicago	Columbus	Memphis	New York	Atlanta	Norfolk	Chicago	Columbus	Memphis	New York	Atlanta	Norfolk
Shanghai	2.151	2.100	2.015	1.896	1.900	1.862	1.304	1.252	1.200	1.048	1.085	1.030
Hong Kong	2.261	2.210	2.125	2.006	2.009	1.972	1.363	1.312	1.260	1.107	1.144	1.089
Singapore	2.490	2.439	2.354	2.234	2.238	2.201	1.486	1.435	1.383	1.230	1.267	1.212
Ho Chi Minh	2.405	2.353	2.268	2.149	2.153	2.116	1.440	1.389	1.337	1.184	1.221	1.166
Busan	2.071	2.020	1.935	1.815	1.819	1.782	1.260	1.209	1.157	1.004	1.041	0.986
Tokyo	1.999	1.948	1.863	1.743	1.747	1.710	1.221	1.170	1.118	0.966	1.003	0.948

MT of CO<sub>2</sub>e per TEU