



Fast Facts

The New York City Private Ferry **Emission Reduction Program**

Technology: Refitting ferries with new, cleaner-diesel engines and catalysts that lower emissions and improve air quality.

Environmental Impact: Lower emissions from 31 ferries owned by NY Waterway, Inc.

Health Impact: By reducing harmful emissions that are linked to health issues like asthma and respiratory disease, the cleaner ferry engines are contributing to a healthier community.

nyserda.ny.gov/ **Transportation**













INNOVATIVE TRANSPORTATION SOLUTIONS

A Cleaner Ferry Commute with NY Waterway

Travel by private ferry has experienced a renaissance in New York City over the past 30 years. A niche service provided to a few hundred commuters has become a major form of transportation within the New York Harbor. The growth of the private ferry industry has created a viable means of public transportation, contributing to economic growth and improved mobility.

NY Waterway, Inc., the largest private ferry operator in New York and the country, transports 35,000 riders a day — more than many local transit systems in other regions of the State. As service has expanded, the company has looked for ways to make its diesel ferry engines quieter and reduce emissions. The company took on this challenge by announcing a major green initiative in 2011 to refit its ferries with new, cleaner diesel engines. NYSERDA and other local, State, and federal partners were there to help.

Refitting Its Engines

In collaboration with NYSERDA, the Federal Transit Administration, the New York City Department of Transportation, and the Federal Highway Administration, NY Waterway invested nearly \$6 million to install emissions-controlling technology on its vessels.

NYSERDA worked with NY Waterway and equipment manufacturers to develop custom-built, pollution-reducing technology for the ferries. Today, the company has installed customized diesel oxidation catalysts on nearly

NMHC CO CO. The diesel oxidation catalyst filters out harmful emissions and emits cleaner carbon dioxide and water, as depicted in this diagram.

all of the ferries it owns. Now, 22 of its vessels meet the U.S. Environmental Protection Agency's (EPA) Tier 1 emissions standards for engines. The catalysts reduce harmful pollutants such as carbon monoxide, volatile organic compounds, and particulate matter (soot).





The Caterpillar C18 ACERT marine propulsion engine is designed to meet EPA Tier 2 exhaust emissions standards.

An additional nine vessels originally had unregulated engines. On those vessels, the company installed diesel oxidation catalysts and new Caterpillar C18 ACERT marine propulsion engines, which meet EPA Tier 2 standards and have the most stringent offshore emissions requirements. The C18 ACERT offers virtually smoke-free operation, which makes a smaller impact on the environment.

Making a Clear Difference

By installing the diesel oxidation catalysts, NY Waterway has reduced emissions of carbon monoxide by 40 percent, particulate matter by 20 percent, and volatile organic compounds by 50 percent. New EPA Tier 2 engines have reduced total emissions by approximately 85 percent. NY Waterway's



This NY Waterway ferry has a decal that indicates it is reducing emissions and improving the air quality in the harbor.

investments to reduce emissions have resulted in improved air quality and a cleaner New York Harbor today and for years to come.

THE BENEFITS



Economic Development



Quality of Life



Carbon Footprint



Reducing Barriers "We are thrilled to be participating in this NYSERDA program. We are constantly looking for ways to reduce the environmental impact of our vessels and we thank NYSERDA, FTA, and DOT for their supportive efforts. The international ferry industry is watching what NY Waterway is doing and looking to it as a model for success."

- Arthur Imperatore, Sr., president of NY Waterway

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