



# Performance of a Greenhouse Gas and Criteria Air Pollutant Emissions Inventory for the Port Authority of New York and New Jersey

## ■ *Background*

As a cornerstone in its broader sustainability program, the Port Authority of New York and New Jersey (PANYNJ) has implemented a program to reduce its greenhouse gas (GHG) emissions by 80 percent, from 2006 levels, by the year 2050. To establish an initial baseline required to monitor progress toward this goal, PANYNJ utilized the services of Southern Research and SC&A, inc. to conduct a GHG and criteria air pollutant (CAP) emissions inventory of Port Authority facilities and operations for calendar year 2006. The results of that inventory effort are documented in the report entitled Greenhouse Gas Emission Inventory for the Port Authority of New York & New Jersey, Calendar Year 2006. The inventory includes the emissions of PANYNJ tenants (e.g., airlines and container terminals) and patrons (e.g., airport passengers and PATH riders).

Additionally, Southern Research was tasked to develop procedures and implement systems that allow for the tracking and reporting of GHG emissions annually. This service began in 2007 to monitor the emissions from Calendar Year 2006 and has been repeated each subsequent year to mark progress toward the 2050 goal. The 2012 report will be the fifth update to the PANYNJ's emissions inventory.

## ■ *Inventory Boundary*

The emissions inventory boundary includes all Port Authority and tenant energy consumption:

- Aviation
- Port Commerce
- Tunnels, Bridges, and Terminals
- PATH
- Real Estate and Development
- Construction
- Vehicle Fleet
- Employee Commuting



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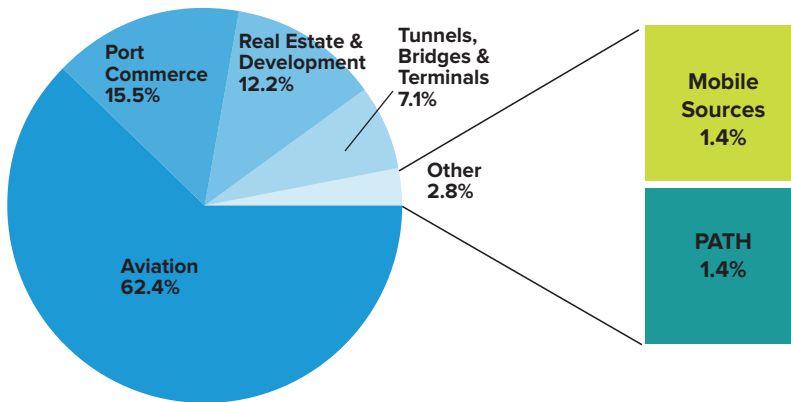
## ■ Project Description

The Port Authority, together with its wholly-owned subsidiaries, provides the region with integrated transportation and trade services and operates facilities in connection therewith, including, but not limited to the following:

John F. Kennedy International Airport	George Washington Bridge
LaGuardia Airport	Bayonne Bridge
Newark Liberty International Airport	Goethals Bridge
Teterborough Airport	Outerbridge Crossing
Stewart Airport	Lincoln Tunnel
Downtown Manhattan Heliport	Holland Tunnel
AirTrain JFK / AirTrain Newark	PATH Rapid Transit System
Port Authority Bus Terminal	Journal Square Transportation Center
George Washington Bridge Bus Station	World Trade Center
Auto Marine Terminal	Port Newark / Elizabeth Marine Terminal
Red Hook Container Terminal	Howland Hook Marine Terminal
Bathgate Industrial Park	Queens West
The Legal Center (Newark)	Essex Co. Resource Recovery Facility
The Teleport (Staten Island)	The South Waterfront (Hoboken)

Below are some 2006 statistics that indicate the scope of Port Authority operations and the CO2 equivalent emissions per department:

Area of the region served	3,900 square miles
Population	171 million (estimate)
Air passenger traffic	104.1 million (three major airports)
Port general cargo volume	31.2 million metric tons
Eastbound vehicular volume	127 million
PATH riders	60 million people (estimate)



## ABOUT SOUTHERN RESEARCH

Founded in 1941 in Birmingham, Alabama, Southern Research is a scientific and engineering research organization that conducts preclinical drug discovery and development, advanced engineering research in materials, systems development, and energy and environmental technologies research. SR supports clients and partners in the pharmaceutical, biotechnology, defense, aerospace, environmental, and energy industries.

We pursue entrepreneurial and collaborative initiatives to develop and maintain a pipeline of intellectual property and innovative technologies that contribute to the growth of the organization and positively impact real-world problems.