## Did you know?

- Port communities are subject to disproportionate health risks due to air pollution from port operations throughout the United States. Ports have continued to grow along with the shipping sector, without adequate concern for reducing overall air pollution caused by unsustainable freight and shipping practices.
- The biggest offender is soot pollution due to emissions in port communities - especially around Elizabeth, NJ, Newark, NJ, and Brooklyn, NY. For LatinX residents, the exposure to soot pollution is 75% higher compared with White Americans. For Black Americans, the risk of dying from soot pollution is the highest, with a rate of over triple that of White Americans. (Union of Concerned Scientists 2019/ Industrial Economics Incorporated 2022.)

## Example:

**In New Jersey, over 600,000 adults and 167,000 children are estimated to have asthma currently (NJ DOH 2020)**. As a neighbor to the Newark Port, the South Ward of Newark is adversely impacted by the diesel pollution from the Port of NY/NJ. The South Ward is the backyard of the third-largest port in the United States with 20,000 truck trips per day. 4,500 of them travel, park, or idle on the local roads of the South Ward. In the New York metro region, air pollution is estimated to contribute to more than 21,000 children's asthma cases each year – more than the seating capacity of Madison Square Garden. Across the region, around 20% of all childhood asthma cases are attributable to air pollution — but in the neighborhoods with the most traffic-related pollution, including parts of Newark, it can be up to 30% (Environmental Justice Fund 2022).

Emissions monitoring and environmental regulation have proven to be extremely lacking, particularly for the Gulf Coast and in the Mid-Atlantic, Southeast, and Northwest regions within the United States. This has allowed the serious harm done to port communities to go undetected.

**The passage of the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA) creates unique opportunities for billions of dollars in federal funding to support port emission reduction efforts. These efforts have not been prioritized historically, so many U.S. ports are unfamiliar with applying to large federal programs for green port infrastructure. Many ports also do not have an environmentally progressive culture, as they typically lack sustainability directors, decarbonization goals, emission-reducing implementation plans or emissions inventories.**

## What can we do to green ports and protect communities? Electrification is one big solution:

- Shore power: Also known as onshore power supply (OPS), shore power allows ships at the dock to use electricity from the grid, rather than dirty oil-based fuel. According to the Northwest Seaport Alliance, "for a ship that is at the dock for 40 hours (about 1 and a half days), [shore power] avoids burning about ten metric tons of marine gas oil (diesel fuel for ships) and avoids emitting about 32 tons of CO2 and 22 pounds of diesel particulate matter."
- Equipment and truck electrification: The transition to electric port trucks is essential to reducing overall air pollution, such as through Clean Truck Programs like the one conducted at San Pedro Bay in California. Diesel-powered cargo handling equipment typically used at ports must also be replaced with electric alternatives.
- Charging infrastructure and battery energy storage systems servicing port equipment will also be eligible for funding under EPA's $3 billion Clean Ports Program.

## For example, under a full electrification scenario for the Port of NY/NJ, such as one laid out by ICCT, we could:

- Experience an estimated 69% in PM2.5 emissions reduction for NY/NJ. Electrifying harbor craft (e.g., tugboats, ferries, work boats) alone could reduce PM2.5 emissions in NY/NJ by 30%.
- Shrink the area affected by port pollution from 2,172.3 km2 (about twice the area of San Antonio, Texas) to 504.5 km2 (about half the area of San Antonio, Texas).
- Avoid at least 16 premature deaths per year by reducing exposure.

## What can we (and you) do?

There is a path to a greener, safer future for shipping in the U.S. The technology for electrification exists and the funds for the transition are available. Across the country, Friends of the Earth works alongside port communities to ensure port authorities apply for this funding to help them transition to a zero-emissions future. Our priority is reducing air pollution from port and maritime activity and improving air quality in port-side communities.

Resource: ICTT. Electrifying Ports to Reduce Diesel Pollution from Ships and Trucks and Benefit Public Health: Case Studies of the Port of Seattle and the Port of New York and New Jersey. (2023, February 28). https://theicct.org/publication/marine-ports-electrification-feb23/

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