Climate Action Partnership

CLIMATE ACTION COUNCIL

CAC Fleet Community of Practice Meeting - NYC Fleet Renewable Diesel Experience

June 23, 2026	Meeting Recording

In this meeting, Thomas Conboy, provided a detailed overview of the city's transition to biofuels for heavy-duty vehicles, ferries, and building heating to meet aggressive greenhouse gas reduction targets. He explained that New York has successfully moved over 12,500 heavy-duty units to renewable diesel, which serves as a drop-in replacement for fossil fuels while offering significant emissions benefits. The discussion highlighted the technical advantages of renewable diesel over biodiesel, such as its performance in Arctic conditions and reduced particulate matter.

Presenters

- Tom Conboy | Urban Innovation Fellow| NYC Department of Citywide Administrative Services

Presentation Overview

Overview of NYC Fleet Decarbonization Goals

New York City is committed to a 50% greenhouse gas (GHG) reduction across its city fleet by 2025—a goal it has already met—and aims for an 80% reduction by 2035. The city utilizes three primary strategies to achieve these targets:

- Biofuels: Replacing fossil diesel with renewable diesel.
- Electrification: Rapidly transitioning passenger cars to electric vehicles (EVs) and building out charging infrastructure, including Level 2 and Level 3 fast chargers.
- Efficiencies: Implementing hybrids and "trimming excess" by scaling down the fleet where vehicles are not needed.

The Renewable Diesel (RD) Initiative

A cornerstone of NYC's heavy-duty strategy is the transition to renewable diesel.

- Technical Distinction: Unlike biodiesel, RD is chemically identical to fossil diesel and serves as a "drop-in" replacement. It can be mixed with fossil diesel or used in the same tanks without mechanical modifications.
- Implementation Scale: By October 2024, the city completed a full transition to RD for 12,500 heavy-duty and off-road vehicles, including ambulances, fire trucks, and garbage trucks.
- Performance: RD is particularly effective for garbage trucks, which also serve as snowplows in winter. NYC was the first major user of a "winter spec" Arctic blend, which includes an anti-gelling additive to ensure performance in cold temperatures.
- Environmental Impact: RD provides a rough estimate of 60% lifecycle emissions reduction compared to fossil diesel and a 30% reduction in local particulate matter.

Expanded Use in Vessels and Aviation

Beyond land vehicles, NYC is scaling RD use across its maritime operations:

- Staten Island Ferry: The entire fleet transitioned to 100% biofuels (RD) in 2023.
- Other Vessels: Testing is underway for fire boats, police boats, sludge boats (wastewater treatment), and the NYC Ferry system.
- Aviation: The NYPD is exploring a test for its helicopter fleet using 50% sustainable aviation fuel.

Sourcing and Logistics

- Feedstocks: The city prioritizes RD derived from organic waste, primarily used cooking oil and waste animal fats, to ensure a low carbon intensity score. The city strictly avoids feedstocks like palm oil.
- Supply: RD is produced at specialized refineries, shipped to NYC via barge, and distributed locally via tanker trucks. While RD carries a **cost premium** over fossil diesel, the city uses the Argus price index to manage supply vendor relationships.

Policy, Legislation, and Infrastructure

- State and Local Law: NYC supports a state-wide Low-Carbon Fuel Standard. Locally, there is an effort to codify the use of biofuels into law to ensure it remains a permanent part of city operations.
- Building Heat: The city is testing RD as a short-term replacement for heating oil in older, hard-to-decarbonize buildings like schools. Over 40,000 gallons have been successfully tested for building heat between 2025 and 2026.
- Solar Initiatives: To support EV charging, the Department of Citywide Administrative Services (DCAS) is installing five solar canopies on city-owned parking lots. Large-scale rooftop solar is also being implemented on wastewater treatment facilities and schools.

Key Challenges and Discussion Points

- Emergency Vehicles: While smaller refuse trucks and motorcycles are being electrified, large electric fire trucks and ambulances are not yet used at scale due to concerns regarding downtime and availability.
- Public Transit: The Metropolitan Transportation Authority (MTA) buses are a state agency and have not yet adopted RD at scale, focusing instead on hybrids and natural gas.
- Hydrogen: Logistics regarding the safe storage and transport of hydrogen in a dense urban environment currently keep it from being a primary focus compared to electrification and biofuels.

Resources

- Biofuels Info Guide (NYC)
- NYC Greenhouse Gas Inventories
- The Current Fuel Pathways (downloadable excel file) spreadsheet contains a list of certified pathways by feedstock, fuel, classification, and facility name. These include:
    - Lookup Table, Tier 1, and Tier 2 fuel pathways using the CA-GREET3.0 and 4.0 models.
    - Applications certified using the older generation CA-GREET2.0 model.
    - Pathways certified under initial validation and subsequent annual verification.

Contact Information

Please reach out to us at any time with questions, input, or for additional information.

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