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NEW YORK CITY DEPARTMENT OF TRANSPORTATION, STATEN ISLAND FERRY**

**HEARING BEFORE CITY COUNCIL  
COMMITTEE ON ENVIRONMENTAL PROTECTION  
JANUARY 13, 2015**

Good afternoon, Chairman Donovan and members of the Committee on Environmental Protection. My name is James De Simone, Chief Operating Officer of the New York City Department of Transportation Staten Island Ferry Division (“DOT”). Joining me here today is Nivardo Lopez, DOT’s Director of Legislative Affairs. We are here today on behalf of Commissioner Trottenberg who unfortunately could not be with us due to a prior commitment; however, she asked that I express her appreciation for inviting us to this hearing and also giving us the opportunity to comment on Intro 54

For over a century now the City of New York has owned and operated the Staten Island Ferry (“Ferry”). For the year just ended, our fleet of eight ferries serviced almost 22 million passengers - with an average of 109 passenger trips each and every weekday between the St. George Ferry Terminal in Staten Island and the Whitehall Ferry Terminal in Lower Manhattan making the Ferry our nation’s largest passenger-only ferry system. As such, it is a critical mass transit link between Staten Island and Manhattan, and is also one of our City’s most visited tourist attractions.

DOT takes its responsibilities insofar as operating the Staten Island Ferry very seriously and is fully committed to providing safe, on-time, and efficient ferry service. The agency has been recognized as an industry leader in safety management by the National Transportation Safety Board, the United States Coast Guard, the Passenger Vessel Association and others. We are extremely proud of the fact that the Ferry is the only marine operator in the United States today to have voluntarily established a safety management system modeled on the International Maritime Organization’s Safety Management Code and certified by the American Bureau of Shipping, on behalf of the United States Coast Guard.

We applaud and fully support the Council’s efforts insofar as emissions reduction and promoting cleaner burning fuels and we are very proud of our own environmental stewardship and initiatives in this regard. The Staten Island Ferry today one of the cleanest ferry systems in the nation insofar as emissions and is also a participant in the PVA Waters Program, a voluntary “best green business practices” regime sponsored by the Passenger Vessel Association. This program encourages best practices insofar as office operations, power sources, fuel type and consumption, engine maintenance and emissions, vessel design and construction, water conservation, environmental training and the like.

Over ten years ago, the Staten Island Ferry entered into a partnership with the Port Authority of New York and New Jersey (PONYNJ”) to reduce emissions in New York Harbor. Under this partnership, the PONYNJ funded emissions upgrades for the Staten Island Ferry fleet in

exchange for emissions credits achieved by the upgrades in order to utilize them in its New York Harbor dredging project.

Specifically, pursuant to this arrangement, emissions control technology was installed on all eight passenger ferries. The installation of this equipment resulted in the reduction of emissions of nitrogen oxide, sulfur oxide and particulate which led to all of the large ferries meeting Federal EPA Tier II requirements and the two smaller ferries meeting Federal EPA Tier III requirements. In addition to these initiatives, DOT on its own contracted for the design, manufacture and installation of Diesel Oxidation Catalysts for all of the large ferries, further reducing emissions.

We have also been at the forefront of trialing potentially greener fuels including ultra-low sulfur diesel ("ULSD"), biodiesel ("B5") and liquefied natural gas ("LNG"). To this end, the Staten Island Ferry began burning ULSD in 2007 well in advance of any regulatory requirement. As for B5, in 2008 we trialed ULSD with a 5% bio-fuel blend. On the LNG front, in 2012 the Staten Island Ferry was awarded a federal grant to study and trial the use of LNG as a marine fuel. Given the clean-burning properties of LNG and the perceived benefits including significant emissions reductions, lower fuel costs, reduced life cycle maintenance and the elimination of water pollution, this is a fuel that warrants our consideration.

We have a bid proposal on the street currently with proposals due the end of January. At that time, we will make determination on how to proceed. In 2008 and again in 2013 we engaged the services of energy consultants to review our operational tempo and fuel consumption, collect data, and identify ways in which we might be able to conserve fuel.

As for our facilities, the terminal in Lower Manhattan and the Ferry Maintenance Facility in Staten Island are both equipped with photovoltaic installations that provide a certain amount of solar power. Our terminal in St. George is also fitted with a living roof and we are now looking into LED lighting.

The operational problems experienced are major safety concerns for us, paramount of which is the potential for main engine shutdown. Even when considering how we might possibly mitigate these problems, such as additional personnel to maintain purifiers and change filters while underway, we find ourselves in an untenable situation. Cleaning and maintaining purifiers and injectors and changing filters, all the while maneuvering every twenty minutes, creates an unacceptable risk in and of itself.

In general, there are a variety of problems related to the use of biodiesel in the marine application: cold weather use is a major concern given the less than favorable flow properties compared to conventional diesel; the hydrophilic nature of biodiesel allows for significant concentrations of entrained water which is incompatible with the marine systems, can affect fuel storage stability and may cause damage to engines and fuel systems; the specifications for marine fuel is prescribed in the Code of Federal Regulations; however there is no recognized specification for a marine grade of biodiesel .

This lack of specification is a concern to engine manufacturers as biodiesel has the potential, depending upon its make-up, of dissolving certain nonmetallic materials in engine fuel systems (such as seals, rubber hoses, and gaskets) and interacting with certain metallic materials (such as copper and brass); biodiesel contains less energy than diesel and, therefore, the use of such fuel increases fuel consumption; biodiesel burns at a higher temperature than diesel and, therefore, the emission of nitrogen oxide can actually increase; finally, biodiesel can degrade over time, forming contaminants.

If biodiesel is stored for an extended period of time, close monitoring would be required to see if it remained within specification, potentially leading to a logistical problem with our need to store minimum quantities on site to maintain service and to store fuel on vessels when they enter non-operating maintenance periods.

The use of biodiesel in the maritime industry was and continues to be very limited. In fact, according to a report by the U.S. Department of Transportation Maritime Administration "...biodiesel use for marine applications has so far involved the use of custom specifications and blending procedures..." Further, the report states that the only blends approved by the American Society of Testing and Materials ("ASTM") are ASTM D-975-09 (up to 5% bio-fuel) and ASTM 7647-09 (6 to 20% bio-fuel) which are accepted for government purchase for on-road use; however, neither are approved for use as a marine fuel.

It is also interesting that the report indicates that the United States Navy and the United States Coast Guard have a zero tolerance for biodiesel in the fuels they procure for their ships, and the United Kingdom's Royal Navy has banned the use of biodiesel in ship systems. As indicated earlier in my testimony, the Staten Island Ferry trialed B5 in 2008. The results were alarming in that we experienced significant clogging of fuel oil purifiers, injectors and fuel filters and frequent fuel oil pump seal failures. The clogging of fuel oil purifiers was so persistent that it necessitated purifier cleaning four times per day versus the norm of once every other day.

There is also a cost factor involved. Although DOT's Ferry Engineering Unit had already determined that the use of B5 was unsuitable for the Staten Island Ferry vessels, the project was actually terminated by the Office of Management and Budget because of the cost differential between ULSD and ULSD B5. These costs, however, did not factor in the increased maintenance costs associated with using B5, which would have included labor, parts and materials.

The maritime industry is under stringent tier and emissions requirements during a phased in period that has already begun. The design on the next class of ferryboats for the Staten Island Ferry is now underway and these vessels, to be delivered beginning 2019, must meet Federal EPA Tier IV requirements. At that time, vessel operators will have to prove that the emissions from their vessels are within specified parameters. To achieve these mandates, after treatment technology is currently being developed and tested and the quality of fuel used will be critical for the emissions certification to be maintained. Marine engine vendors we have spoken to have expressed concern that the use of biodiesel or like additives will compromise the after treatment technology that is coming down the line and jeopardize ongoing certification mandated under Federal Law.

Finally, although a number of marine engine vendors indicate that their equipment is suitable for use with varying blends of biodiesel, assuming the fuel oil specifications are exactly what the original equipment vendor has prescribed, none of these vendors is willing to warranty any damage that might result from the use of biodiesel.

While we appreciate the goals of Intro 54, based on our operational experience, the problems encountered and related safety concerns we cannot support the proposed legislation at this time. It is our opinion the Federal EPA Tier requirements, along with the mandated use of ULSD will address the Committee's goal of reducing emissions in a technical manner that will not compromise operational safety. Thank you, Chairman Donovan and members of the Committee. We will be happy to answer your questions at this time.

**Testimony of John Petito**  
**Acting Deputy Commissioner, Bureau of Wastewater Treatment**  
**New York City Department of Environmental Protection**  
before the  
**New York City Council Committee on Environmental Protection**  
concerning

**Intro. 451 – Relating to the Use of Biodiesel Fuel in Marine Craft Owned or Operated by  
the Department of Environmental Protection**

**250 Broadway**

**January 13, 2015, 1 pm**

Good afternoon, Chairman Richards and Members of the Committee. My name is John Petito, Acting Deputy Commissioner of the Bureau of Wastewater Treatment (BWT) for the New York City Department of Environmental Protection (DEP). I am joined today by Associate Commissioner Eric Landau of the Bureau of Public Affairs, Kevin Byrnes, Chief of BWT's Marine Operations & Maintenance Section, Jim Aird, BWT's Senior Port Engineer, and other DEP Staff. Thank you for the opportunity to testify on Introduction 451.

As you know, DEP has overall responsibility for the City's water supply and sewer system, including providing drinking water to all New Yorkers, maintaining water pressure to fire hydrants, managing storm water, and collecting and treating wastewater. DEP operates 14 wastewater treatment plants located throughout the city that clean and disinfect more than one billion gallons of wastewater to Federal Clean Water Act standards every day. At the plants, the wastewater undergoes five major physical and biological processes that closely duplicate how water is purified in nature. One of the byproducts of these processes is sludge, which is transported by large vessels that many people see traversing the harbor and East River daily to a dewatering facility where it is put through centrifuges, which remove much of the remaining water. Currently the majority of the resulting material is landfilled, though we continue to seek sustainable, cost-effective uses such as land application, ideally as fertilizer.

Sludge vessels have been a part of the City's wastewater treatment system since the late 1930s and the Federal Work Projects Administration funded the first three motorized sludge vessels. Today, DEP operates a fleet of sludge vessels that transports nearly 1.2 billion gallons of sludge each year.

In 2009, DEP was awarded a \$53 million grant through the American Recovery and Reinvestment Act (ARRA) – one of the largest ARRA grants in the country – to finance 50% of the cost for three new sludge vessels – the *Hunt's Point*, the *Port Richmond* and the *Rockaway*, which joined the *North River*, and the *Red Hook*. These vessels operate seven days a week and each has a six-person crew, including a captain, chief engineer, assistant engineer, mate and two mariners. The new ships are 290 feet long, 70 feet wide and have the capacity to transport 140,000 cubic feet of sludge, or roughly one million gallons. They weigh 2,872 tons and are designed to travel at 10 knots, or approximately 11.5 miles per hour. On a typical week, the five sludge vessels make a total of 26 round trips and visit eight wastewater treatment plants. The three new ships are equipped with the latest marine technology, have a greater cargo capacity for redundancy and more versatility than the older models, including a shallower draft, which allows

them to navigate under the Pulaski Bridge and into Whale Creek, where they can dock directly adjacent to the Newtown Creek Wastewater Treatment Plant. This versatility has allowed DEP to dismantle an 800,000 gallon storage tank along the shore of the East River in Greenpoint, Brooklyn, and the land will be used to develop new affordable housing and expand Newtown Barge Park.

In addition to the five sludge vessels, DEP operates four smaller skimmer vessels, four shoreline survey vessels and one harbor survey vessel. All of our vessels use No. 2 ultra-low sulfur diesel fuel (ULSD).

Intro. 451 requires that from July 2015 until January 2018, a ULSD fuel blend with at least five percent biodiesel by volume (B5) be used in diesel fuel-powered marine craft owned or operated by DEP. Intro. 451 further requires that after January 1, 2018, ULSD fuel blend with at least twenty percent biodiesel by volume (B20) be used in diesel fuel-powered marine craft owned or operated by DEP.

DEP is concerned about the significant impacts this legislation will have on the Agency and our vessels. As mentioned, all of our vessels use ultra-low sulfur diesel fuel, meeting stringent EPA Tier II emission standards. As you have heard from the Department of Transportation, the required use of biodiesel, either B5 or B20, presents a host of issues regarding operational impacts, engine modifications, fuel availability, and storage that make the use of biodiesel in marine engines infeasible.

Though DEP has no direct experience with biodiesel in marine vessels, research and consultation with the U.S. Department of Transportation Maritime Administration (MARAD) in preparation for this hearing brought us to the conclusion that the required use of currently available biofuels in our vessels would be premature; and that continuing research by the federal government will result in a standard for renewable fuels that all marine operators will be able to adopt. MARAD research staff expressed interest in working with New York City on piloting the use of these improved renewable fuels.

A 2010 MARAD report echoes the Department of Transportation's experience with B5. MARAD is working in conjunction with the U.S. Navy, the Department of Defense, the National Oceanic and Atmospheric Administration, the Department of Energy, and the Department of Agriculture to develop renewable fuels for marine use. The results of the research reported in 2010 resulted in a complete shift away from biodiesel manufactured from waste vegetable oil to other feedstocks, such as sugar and algae. The 2013 report on the result of trials with a sugar-based renewable fuel was much more promising:

"This study compares the operational and performance differences in a test vessel's use of ULSD versus a 67/33 blend of ULSD and Amyris Renewable Diesel (ARD), which is derived from sugar. No significant differences were found between the test vessel's use of neat [unblended] ULSD and the blend in terms of engine performance, fuel economy, air emissions, engine vibration, underwater radiated noise, and effect on the engine itself. The test also found that after seven

months storage of the blended fuel at the test location there was no appreciable change in fuel composition or biological contamination.[...]The testing successfully demonstrated all facets of drop-in fuel performance, from fuel husbandry (loading, transferring, and supply to the engine), to comparable exhaust emission performance with no adverse equipment vibration or underwater noise impact.”

A key term in this context is “drop-in diesel,” which refers to the ability to use the blended renewable fuel in place of ULSD without the need for engine or equipment modifications or cleaning of barges that normally carry ULSD, which is necessary before on-loading biodiesel.

All federal agencies use American Society for Testing and Materials standards, and the U.S. Environmental Protection Agency (EPA) promulgates fuel standards. EPA has not yet issued a standard for renewable marine fuels, though the federal government is hard at work developing one. Until then, as reported by DOT, engine manufacturers will not warrant damage to their engines caused by biodiesel. Moreover, MARAD’s research shows that these alternative renewables show a 10% reduction in nitrogen oxide (NO<sub>x</sub>) emission; as you know, elevated NO<sub>x</sub> emission is a continuing concern with biodiesel. In short, the types of fuel MARAD is studying appear to burn cleaner than biodiesel.

It is also worth noting that because biodiesel fuel is incompatible with marine engines, including those of our three new sludge vessels, acquired for \$106 million, it would make them obsolete.

DEP makes every effort to reduce greenhouse gas (GHG) emissions and is willing to evaluate the feasibility of further reducing emissions by using biodiesel or appropriate blends in all stationary and mobile combustion sources beyond what is already required in local law. Because ULSD as a marine fuel is so clean burning, it represents only about 1% of DEP’s annual carbon emissions, and switching to B20 would only result in a one-thousandth (0.001) percent improvement in DEP’s carbon footprint. We have been working aggressively toward achieving a 30% reduction in NYC government greenhouse gas emissions by 2017 relative to the 2006 baseline inventory; and we are seeking new ways to help put the City on a path to 80 percent greenhouse gas reductions by 2050.

From 2006 to 2014, DEP has reduced its carbon emissions by approximately 11%. Major emissions reductions have been achieved through decreased carbon intensity of the city’s electricity supply; increased capture of methane from landfills and wastewater treatment plants; and reduced use of steam and fuel oil (for both buildings and transportation).

Further, we have allocated \$877 million for energy and GHG-related projects that will help us to reduce our carbon emissions by 33% by 2020 from 2006. Initiatives include upgrading the digester gas systems at our wastewater treatment facilities to capture and beneficially use the anaerobic digester gas (ADG) that is produced during the treatment process. The ADG consists mostly of methane and may be used as a renewable fuel source to generate electricity and/or thermal heat. Currently, wasted ADG emissions account for almost 30% of DEP’s total carbon emissions. DEP is also pursuing opportunities to increase energy efficiency and conservation,

while developing clean energy generation at our water and wastewater facilities (via cogeneration, hydro, and solar power), as well as reducing energy use through water demand management, and green infrastructure.

Expanding on these efforts by including our marine vessels might further enhance our greenhouse gas reduction potential, but we believe this step should be taken at the appropriate time in a cost-effective way that preserves the continuity of our operations. Using biodiesel fuel in our marine fleet now would present all the operational problems cited by DOT without the desired environmental benefit this Committee hopes to achieve.

We look forward to working with the Committee to find workable solutions to further reduce greenhouse gas emissions. Thank you for the opportunity to testify today. I would be happy to address any of your questions.





## Metropolitan Waterfront Alliance

**Testimony of Roland Lewis, President & CEO  
New York City Council Committee on Environmental Protection  
Oversight Hearing  
re: Use of Biodiesel Fuel in City Ferry Fleet  
January 13, 2015**

The Metropolitan Waterfront Alliance (MWA) is a bi-state coalition of over 800 community and recreational groups, educational institutions, businesses, and other stakeholders committed to restoring and revitalizing the New York and New Jersey waterways. Our waterways are alive with economic activity, active recreation, environmental education, and waterborne transportation, particularly critical to our region's emergency preparedness on our island metropolis.

**Intro 54 is a positive step toward improving an already clean and efficient mode of transportation.** The bill before this Committee today would require the City to begin using a fuel blend with 5% biodiesel on its own fleet, with an increase to 20% biodiesel blend by 2020. Ferries are already an efficient mode of public transit: the Staten Island Ferry carries triple the number of passengers of a crowded subway train, and a mid-sized passenger ferry can carry 10 times the number of people as the average bus. In 2008, New York City mandated the use of less polluting, ultra-low sulfur diesel (ULSD) by city-owned ferries, and many private operators have followed suit. The use of ULSD fuel has reduce pollutants from diesel exhaust to help the City to its air quality goals and improve public health.

**These requirements have reduced emissions, but there is still room for further reductions.** Ferries, like all fuel-powered vehicles, still produce some air pollution. Diesel fuel exhaust, and the resultant particulate emissions, have been identified as one of the most significant airborne health risks facing our region. To reduce emissions, vessel operators must switch to cleaner fuel, but ultra-low sulfur diesel (ULSD) for boats is often hard to find. The few facilities from which it is available are not located near marine enterprises, making it impractical for most operators to fill up with ULSD despite their willingness to do so.

**Biodiesel fuel mixes have been identified as an effective means of reducing emissions, and New York has already taken the lead.** The Environmental Protection Agency has projected use of B20 fuel (20% biodiesel) is expected to reduce hydrocarbon emissions by 21%, carbon monoxide emissions by 11%, and diesel particulate matter by approximately 10%. The City has made great strides, passing a bill in 2013 to make its municipal fleet of over 27,000 vehicles the greenest in the nation. That law mandated use of 5 percent biodiesel (B5) by 2014, and 20 percent biodiesel (B20) by 2016, excepting winter months, and a study of the feasibility of year-round B20 use.

**Our counterparts across North America are already powering many public and private ferries with biofuels.** The Red and White fleet in the San Francisco Bay area has used B20 biofuel since 2006, and San Francisco's public Water Emergency Transit Authority (WETA) has used biofuels on its Gemini vessel since 2007. Following suit, BC Ferries, which serves the Vancouver metropolitan region, began using a B5 biofuel composed of 5% canola-based blend and 95% low sulfur petroleum diesel on 90% of its fleet in 2009, which helped contribute to a 5% savings in fuel consumption costs in just three years.

**There may be ways to address concerns about of biofuels contributing to clogging in fuel systems on marine vessels.** While this is an issue that must be monitored should this legislation move forward, there is available research suggesting that this challenge can be met accordingly. The Washington State Ferry (WSF) system, the second largest ferry system in the country, conducted a pilot biodiesel fuel test in 2004 and a subsequent Biodiesel Research and Demonstration Project implementation in 2008 (research

available [here](#)). WSF's implementation project found excess sludge buildup in the fuel purifier of one of its vessels, but also identified remedies that this problem could be solved by adding biocides to the fuel. WSF strongly recommended the application of biocides to prevent microbial growth, with regular testing for microbes during fueling, and concluded that its research had "demonstrated the viability of using B20 biodiesel in year round marine conditions." It also concluded that "the percentage of biodiesel (B5 – B20) used in the fuel did not impact vessel operations."

**Increased ferry use should be part of an overall strategy to reduce fuel consumption.** New York City is the third most vulnerable major American city to the impacts of climate change. As climate change continues to fuel increasingly volatile weather patterns, New York City is likely to experience extreme weather events with greater frequency and severity, resulting in recurrent disruptions to safe and efficient transportation in New York City. Increased public support for ferry transit will produce corresponding ridership increases that have demonstrable public benefits. A shift in travel from private auto use to ferry transit would mean a fewer vehicle-miles traveled (VMTs) by motor vehicles on our already-crowded roadways, reducing congestion in addition to non-renewable fuel use. As we continue to re-engage with all the cultural and economic benefits the waterways that surround us can offer, we urge this Committee and the City Council to look to the "Blue Highways" as a vital component of our overall energy strategy.



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**Written Testimony of Mr. Shelby Neal**  
**Submitted to the New York City Council Committee on Environmental Protection**  
**January 13, 2015, 1 p.m.**

Good morning Chairman Richards and members of the Committee. I appreciate the opportunity to testify today on Int. No. 54 and Int. No. 451, legislation that would increase use of cleaner-burning biodiesel fuel.

My name is Shelby Neal. I serve as the Director of State Governmental Affairs for the National Biodiesel Board (NBB). The NBB is the trade association that represents the nation's biodiesel and renewable diesel production facilities, marketers, and feedstock producers. The association serves as the coordinating body for research and development in the United States.

Biodiesel is a renewable diesel replacement fuel that has been designated an "Advanced Biofuel" by the U.S. Environmental Protection Agency. The fuel is made from byproducts and co-products of other industries such as agricultural oils, fats, and waste greases. Biodiesel is refined to meet a specific ASTM International fuel specification and decreases harmful emissions by more than 50 percent. Currently, over 150 biodiesel plants exist in the United States with a combined production capacity of more than 2.5 billion gallons. The past two years, the industry has produced in excess of 1.4 billion gallons of biodiesel annually from sustainable, domestic sources.

Biodiesel is most commonly marketed as a five percent (B5) blending component with conventional diesel fuel, but is increasingly used in concentrations up to twenty percent (B20). It is distributed utilizing the existing fuel distribution infrastructure with blending occurring both at fuel terminals and "below the rack" by fuel marketers.

As you know, the City of New York has been a leader in alternative fuels and, specifically, biodiesel. In October of 2012, the City implemented the nation's first citywide standard for Bioheating fuel. And even prior to implementation of that policy, New York was the largest municipal user of biodiesel with most vehicles and buildings voluntarily using low to mid-level biodiesel blends year-round. In short, New York City has been a true pioneer, leading the way for others around the country.

With regard to the legislation being heard today, we strongly support both bills. The City has been a national leader in using biodiesel in both on-road and space heating applications, so moving forward into the marine sector is a logical next step. That said, we would suggest considering a slightly more gradual approach in terms of moving from B5 to B20. A stepwise strategy that factors in differences in weather between winter and summer seasons would yield interesting in-field performance data while ensuring the smoothest possible transition to a more sustainable, climate-friendly fuel for marine vessels.

In conclusion, I would like to thank Chairman Richards for holding this hearing and Councilman Constantinides for authoring the legislation. We are thrilled to support the City's continued efforts toward development of a forward-looking model for domestic, sustainable, clean energy.

**Testimony of John Maniscalco, CEO of the New York Oil Heating  
Association Before the New York City Council Committee on  
Environmental Protection  
Regarding Intro. 54 and Intro. 451  
January 13, 2015**

Good afternoon Mr. Chairman and members of the Environmental Protection Committee. My name is John Maniscalco and I serve as the CEO of New York Oil Heating Association, a 76-year-old trade association whose members, for the most part, are comprised of family-owned heating oil distributors and terminal operators located throughout the City of New York. Thank you for the opportunity to testify today.

NYOHA supports the goals of Intro No. 54 and Intro No. 451, which seek to set a minimum fuel standard of B5 biofuel for all city owned and operated ferries, as well as DEP owned and operated marine craft. These bills will push New York City even further toward a goal of cleaner air quality, greater energy independence, and economic growth for the region.

Over the past few years NYOHA has worked closely with the New York City Council and the Mayor on environmental initiatives including the landmark B2 heating oil standard, also known as Bioheat® fuel, which became law in 2012. Now in our second heating season under the Bioheat fuel standard I can report that this initiative has been a major success. The City has:

- Replaced more than 30 million gallons of petroleum with domestically produced biodiesel;
- Vastly improved air quality;
- Created green jobs;
- Incentivized companies to get buildings to use even higher levels of biodiesel blends; and
- Has not, to any large degree, seen an adverse impact on cost to building owners.

Additionally, the City of New York has already embraced biodiesel in its fleet of vehicles. The logical next step is to include ferries and other city marine craft. NYOHA supports an expansion to the biodiesel fuel standard in the marine industry starting with city owned ferries and DEP vessels. We believe this will help the marine sector contribute to improved air quality just as buildings have done in the heating oil sector, and vehicles in the transportation sector.

New York is a leader in environmental innovation and the addition of city owned ferries and DEP marine craft would set an example for other cities with active waterfronts.

In conclusion I would like to say that this is an exciting step forward. We support and thank this Committee and the bill sponsor Costa Constantinides for their untiring efforts in passing legislation that promotes clean, green biofuels, as well as sensible clean-air policies.

We at NYOHA look forward to working with the City Council and the Committee to reduce harmful emissions created by marine craft in the City of New York.

1.13.15 hearing testimony Int. 54 & Int. 451

Denise Katzman  
Business Manager EIPRC™ & Climate Science Analytic EnviroHancement™

Today I am speaking on my own behalf as a volunteer advocate.

Thank you to CM Constantinides, Chair Richards & Samara.

Powering city vessels via BioDiesel is the right direction. NY Waterway must be included, due to the contract that it holds with NYC.

Restaurant waste (no matter size of operation) must be mandated by NYC to be picked up at no charge by a BioDiesel entity. Biomass must be recognized as a viable cost saving component of BioDiesel US Military and Renewable Energy 6.8.13. NYSERDA supports biomass (see email attachment).

BioDiesel and "virgin soybeans" are the wrong direction. Soybeans technically promote Monsanto and GMOs. Soybeans bring an unsustainable non-resilient metric to this equation. From cradle to grave soybeans perpetuate increased GHG pollution via transport, biodiversity degradation of soil nutrients and crop cross contamination.

The prior EP chair Jim Gennaro was in the award-winning documentary FUEL, which profiled the benefits of algae fuel.

Restaurant waste and biomass is the right direction. We don't desire nor need fuel that promotes GHGs & Climate Crisis. By taking the right direction NYC will join CA's Low Carbon Fuel Standard 1.9.15 California Energy Commission awards biogas project \$5 million | Biomassmagazine.com NYC will save money by not having to clean up illegal dumping of restaurant waste and legal costs. Double benefit: this platform will lessen the need for fossil fuels and lessen combustible fuel lines from leaking, rupturing and exploding.

Last year true clean energy investment rose for the first time in 3 years to \$310 Billion. BioDiesel did fall and it can and will rise again.

Lastly: a moment must be taken to honor 4 Real American Idols that died last year 1.9.15 Real American Idols. — Environmental Health News Guardians of Science: Rick Piltz & Theo Colburn. Waterkeepers protecting our precious waterbodies: Pete Seeger & Martin Litton.



**Written Testimony of Scott Hedderich**  
**Submitted to the New York City Council Committee on Environmental Protection**  
**October 16, 2013.**

Chairman Richards, members of the Committee and bill author Councilman Constantinides, thank you. I appreciate the opportunity to testify before you today on two important bills (Int 0054-2014 and Int 0451-2014 ) touching upon the use of biodiesel in an effort to improve the environment for New York City residents.

My name is Scott Hedderich, I am Director of Corporate Affairs for Renewable Energy Group REG. Renewable Energy Group, Inc. is a leading North American advanced biofuels producer and developer of renewable chemicals. REG utilizes a nationwide production, distribution and logistics system to focus on converting natural fats, oils and greases into advanced biofuels and converting diverse feedstocks into renewable chemicals. With 10 active biorefineries across the country, research and development capabilities and a diverse and growing intellectual property portfolio, REG is committed to being a long-term leader in bio-based fuels and chemicals.

REG currently has more than 350 million gallons of owned/operated annual production capacity at biorefineries across the U.S., as well as over 20 terminal locations nationwide. That includes 6 locations we have in the New York metropolitan area in addition to 3 marine terminals with which we do business.

As the Committee's members are aware, biodiesel is a diesel replacement fuel that qualifies as an "Advanced Biofuel" under the federal Renewable Fuels Standard (RFS2) program. The fuel is made from agricultural oils, animal fats, and waste greases and is refined to meet a specific commercial fuel definition and specification. In order to qualify for the RFS2 all biodiesel must meet the ASTM specifications within D6751. Biodiesel is one of the most tested alternative fuels in the country and the only alternative fuel to meet all of the testing requirements of the 1990 amendments to the Clean Air Act<sup>1</sup>.

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<sup>1</sup> The U.S. EPA has indicated that biodiesel made from soybeans reduces greenhouse gas emissions by 57 percent compared to petroleum. Biodiesel made from waste raw materials (used cooking oil, animal fats) is 86 percent better than petroleum. Biodiesel reduces carbon monoxide emissions by 45 percent and sulfur oxides by 98.5 percent. With respect to pollutants that directly affect human health issues such as respiratory illness and cancer, biodiesel reduces particulate matter emissions by 78.5 percent and hydrocarbons by 90 percent.



New York City has been a leader in initiatives to improve the health and well being of its residents through the use of environmentally friendly biodiesel. This city lead the way with a first in the nation implementation of a requirement to use biodiesel in home heating oil (B2 in residential and commercial buildings and B5 in city owned facilities). The City committed moving its fleet of diesel vehicles – the largest municipal fleet in the nation – to B5 and higher blends and that commitment has been codified into law.

The Committee today is hearing testimony on two bills which continue the move toward a cleaner and healthier New York City. Int 0054-2014 and Int 0451-2014 would require the use of 5% biodiesel immediately in the city owned ferry fleet and marine vessels operated by the Department of Environmental Protection and would set the stage for higher blends three to five years hence.

The two bills before the committee today are excellent pieces of legislation. First, the authors should be commended for their simplicity. In an era of draft legislation running dozens and sometimes hundreds of pages, these bills are a refreshing breath of fresh air. Washington could well learn a lesson here. Second, these bills represent a common sense approach to improving the air quality and potentially the water quality for New Yorkers.

The use of biodiesel blends reduce emissions, including reductions in particulate matter; they have a direct and positive impact on the health of New Yorkers exposed sources of burning fossil fuels, like the diesel engines on the city ferries. Not only are the air emissions improved by using biodiesel, it is important to note that biodiesel breaks down readily in an aqueous environment; it is biodegradable and non toxic to fish. While no one would suggest we dump significant amounts of biodiesel in the Hudson River, it is critical to point out that higher blends of biodiesel in marine fuel reduce the environmental degradation and impact should a marine accident cause a fuel spill.

Biodiesel is widely available in the metropolitan area today. As I mentioned, our 6 terminals alone give us significant storage capability and can allow us to meet much of the city's biodiesel needs. The New York market has a number of other active biodiesel suppliers ensuring both an adequate supply *and* effective price competition.

**Today B5 is fully warranted by all the major diesel engine manufacturers.** ASTM D975 establishes that petroleum distillate blends up to 5% are considered the same for testing and performance properties as petroleum based diesel fuel. In other words, B5 *is* diesel fuel

As I mentioned, the legislation also calls for moving the fleet to higher blends of biodiesel (B20). Some will push back that this increase isn't feasible. Simply put: Nonsense.

Caterpillar, Detroit Diesel, Cummins and most other major heavy diesel manufacturers warranty their new engines for the use of B20. And while some companies have declined to conduct biodiesel evaluation on discontinued legacy models or models whose warranties have clearly

expired, we have data and significant experience from a number of studies focused on performance and emission improvement on older locomotive engines. Those studies show biodiesel had no negative impact, often improved cylinder wear and significantly reduced PM emissions (emission that have been attributed to increases in asthma in urban populations. Why is this important? Other than the 2 smallest ferries which have Caterpillar engines, The city ferry fleet is powered by GM EMD diesel engines. The same engines used on locomotives built in the 1980's and 90's and the same type of engine that was the focus of several of the studies.

Lastly, this legislation couldn't be more timely as the city moves forward with contractor selection for construction of replacement ferry vessels. As the city continues to focus on improving its citizens health and reducing its environmental footprint, requiring any new vessels be outfitted with new engines warranted for B20 is smart planning and common sense.

In conclusion, I would like to reiterate our support for these two bills. They're great legislation with real tangible benefits for the citizens of the New York City. Thank you again for allowing me to testify today.



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**Testimony of Daniel M. Gianfalla, President and Chief Operating  
Officer of United Metro Energy Corporation  
Before the New York City Council Committee on Environmental  
Protection  
January 13, 2015**

Good afternoon Chairman Richards and members of the Environmental Protection Committee. I'm Daniel M. Gianfalla, President and Chief Operating Officer of United Metro Energy Corporation (UMEC). UMEC supplies and delivers gasoline, ultra-low sulfur diesel fuel, biodiesel, bioheat, heating oil, and natural gas throughout the New York Metropolitan Area from terminals in Greenpoint, Brooklyn; Riverhead, Long Island; and Calverton, Long Island. UMEC was acquired by entrepreneur John Catstimatidis in 2012 who also owns United Refining, a major oil refinery in Pennsylvania that contributes to energy independence through domestic oil production.

Over the past decade, UMEC is proud to have partnered with the New York City Council and the Mayor's Office on such critical goals as PlaNYC and recent legislation requiring an 80% reduction in greenhouse gases by 2050. Today, we enthusiastically support Intro 54 which sets a B5 (5% biodiesel) minimum fuel standard in City owned and operated ferries, most notably the Staten Island Ferry. We also enthusiastically support Intro 451 which requires B5 in marine craft used by the DEP.

UMEC is already among the region's largest marketers of biodiesel and we will soon open one of the largest state-of-the-art biodiesel production facilities in North America – right across the river in Greenpoint, Brooklyn. A one-of-a-kind facility in New York City, the facility will make cleaner, greener biodiesel more readily and locally available for businesses, building owners, truck fleets and the City of New York itself to achieve the laudable and uniquely ambitious environmental goals that this City has set for all of us.

Particularly relevant to today's hearing is one of UMEC's proudest recent achievements– the opening of the City's very first public



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biodiesel marine fueling facility. The new dock is adjacent to our Greenpoint facility and provides custom blended biodiesel and ultra-low sulfur diesel to commercial marine vessels that will include the New York Water Taxi. We believe that this facility can play a vital role in helping to provide cleaner air to our city, reduce greenhouse gases and create greater energy independence.

With Intro 54, requiring the Staten Island Ferry to use clean, sustainable B5 – or 5% biodiesel at a minimum, the City will set the tone for sustainable marine fueling and hopefully result in even more City owned and private fleets going to biodiesel. The City of New York owns more than two dozen marine vessels including those operated by the NYPD, FDNY and others. Expanding the minimum fuel standards proposed in these two bills to include these other City-owned marine crafts would go a long way toward ensuring that our waterways become even cleaner and greener.

The City of New York has already paved a path toward greater biodiesel use in the heating oil sector and in the transportation sector. We are now in our second heating season where the citywide bioheat fuel standard has been in effect, displacing 30 million gallons of petroleum and counting. And forward thinking agencies like the Parks Department and the Sanitation Department have been using B20 blends or more in their truck fleets for a number of years.

We applaud Council Member Constantinides and Chairman Donovan Richards for these major steps forward and request that you consider expanding this biodiesel marine fuel standard to more city-owned vessels and encourage private ferry fleets and other private vessels to use more biodiesel.

Thank you.

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/17

(PLEASE PRINT)  
Name: JOHN MANISCALCO

Address: 189 MADISON AVE - 10th Fl

I represent: NEW YORK DIL HEATING ASSOC

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 54 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1/13/15

(PLEASE PRINT)  
Name: JAMES C. De Simone

Address: \_\_\_\_\_

I represent: DOT

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

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in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)  
Name: John Petito, Acting Deputy Commissioner

Address: \_\_\_\_\_

I represent: DEP

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

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in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Eric London, Associate Commissioner

Address: \_\_\_\_\_

I represent: DEP

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

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in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Nivardo Lopez 54

Address: \_\_\_\_\_

I represent: James C. DOT

Address: \_\_\_\_\_ 1/13/15

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 154 Res. No. \_\_\_\_\_

in favor  in opposition

Date: 1-13-15

(PLEASE PRINT)

Name: DANIEL GIANFALLA

Address: UNITED METRO ENERGY

I represent: Brooklyn

Address: 500 Kuylen Ave

Please complete this card and return to the Sergeant-at-Arms

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THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 154 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Denise Katzman

Address: \_\_\_\_\_

I represent: myself Volunteer Advocate

Address: \_\_\_\_\_

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**THE COUNCIL  
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Appearance Card

I intend to appear and speak on Int. No. 54-2014 Res. No. \_\_\_\_\_

in favor  in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: ST JOSEPH SCOTT McDERMOTT

Address: \_\_\_\_\_

I represent: RENEWABLE ENERGY GROUP REG

Address: AMCS IOWA

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**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. <sup>451</sup> 2014 54-2014 Res. No. \_\_\_\_\_

in favor     in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Shelby Neal

Address: \_\_\_\_\_

I represent: NATIONAL BIODIESEL BOARD

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 54 Res. No. \_\_\_\_\_

in favor     in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Roland Lewis

Address: 217 Water St Suite 300, NY, NY

I represent: Metropolitan Waterfront Alliance

Address: \_\_\_\_\_

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