Energy Vision Releases First Independent Evaluation of NYC’s “Clean Fleet” Plan

On May 16, in advance of the City Council Executive Budget Hearing, Energy Vision released Ending the Diesel Era: Cleaner Fleets for a Healthier New York City, a thorough assessment of NYC’s 2015 “Clean Fleet” Plan, which committed to reducing greenhouse gas emissions by 80% from its huge truck fleet by 2035 and to having the cleanest air of any major US city by 2050. The report found that, despite the City’s laudable clean air and climate goals, diesel and biodiesel remain the fuels of choice for its 10,000 medium- and heavy-duty vehicles.

“‘Clean Fleet’ fails to acknowledge a basic point,” said Energy Vision President Matt Tomich, “that the City can’t achieve its ambitious goals without phasing out diesel fuel. Diesel is—or should be—a fuel of the past, because better alternatives exist right now. These include switching City heavy-duty trucks to natural gas engines, which can then use renewable natural gas (RNG) fuel—a very real option that ‘Clean Fleet’ barely acknowledges.”

While the City deserves praise for purchasing more than 1,300 light-duty electric vehicles, electric battery technology is not a commercial solution for trucks, especially for the 2,100 city refuse and recycling trucks that must both collect garbage and plow snow. The City also is testing “renewable diesel” fuel, made from non-petroleum sources but with fewer health benefits and higher costs than RNG.

The 42 natural gas refuse trucks operating now in the Department of Sanitation’s fleet show that natural gas technology works in NYC. Energy Vision’s analysis found that, while more natural gas refueling facilities will be needed over time, sufficient refueling infrastructure exists to accommodate hundreds more of these clean, quiet trucks today—which cut health-threatening nitrogen oxide (NOx) and particulate matter (PM) emissions, noise and greenhouse gases (GHGs) versus diesel.

Exhaust from diesel fuel in trucks and buses is a major source of climate-damaging GHGs, as well as of health-threatening pollutants including NOx, PM, and black carbon. Diesel exhaust triggers asthma, which afflicts an alarming 13.3% of children living in New York City. Recognizing the health and environmental challenges posed by diesel, the New York League of...
LETTER FROM THE FOUNDER

At Energy Vision, our lens on the current state of affairs in this country is via our work promoting the clean energy sources and clean, carbon-free fuels needed for a sustainable future. And, despite the many discouraging attacks by the Trump Administration on environmental regulation, through EV’s lens we have seen exciting progress.

While the Trump Administration has abandoned the Paris Climate Accord goal of cutting global greenhouse gases 80% by 2050, 20 US states and 50 cities have committed to meeting this goal anyway. And despite the Administration’s focus on reviving the coal industry, our use of clean renewable resources has grown. In 2009, just 9% of this country’s energy came from solar, wind and other renewables. By 2018 this total had doubled to 18%.

Energy Vision’s push to advance a new pollution-free vehicle fuel made by processing the methane biogases emitted by decomposing organic wastes is making steady headway. This year, more than 70 plants in the US (up from a handful a decade ago) are producing this fuel, and it is powering almost 30,000 buses and trucks...more every day.

Our June workshop for New York State on the power of waste (p. 1) attracted a large crowd of almost 150 government and business leaders eager to learn about the “waste-to-fuel” strategy, which is critical for the fourth-largest waste-producing state in the country. NYC spends a whopping $400 million a year to export its wastes. Yet one-third are organics, which could and should be used as a valuable energy feedstock.

We report more good news (p. 3) that the first community in this State – Brookhaven – is requiring waste haulers (under its 2019 contracts) to buy new natural gas trucks with close to zero emissions which will be fueled with renewable natural gas. Neighboring Smithtown is also exploring this option.

Many challenges remain in New York (lead story, p. 1). Energy Vision’s 2018 report Ending the Diesel Era: Cleaner Fleets for a Healthier New York City, the first independent evaluation of NYC’s fleet sustainability plan, found the city to be still wedded to diesel or biodiesel fuel in its 10,000 trucks and the State Metropolitan Transportation Authority still operating thousands of diesel transit buses. With diesel exhaust creating a major health hazard for New Yorkers, only a major shift away from diesel can enable NYC to meet its ambitious clean air and greenhouse gas reduction goals.

“Replacing diesel vehicles with safer, non-polluting alternative fuels will reduce rates of asthma among NYC’s children, and myocardial infarctions, cardiac arrhythmias and strokes among adults. It will reduce the risks of lung cancer. And because it will prevent many cases of these debilitating diseases, the elimination of diesel trucks and buses in NYC will reduce healthcare costs and save money.” Dr. Philip J. Landrigan, MD, MSc, FAAP Director, Global Public Health Program, Boston College

City Councilmembers and Community Boards need to hear from New Yorkers about how crucial the shift to clean fuels is for the health of their families and for the example it sets for cities worldwide. And Mayor de Blasio needs to hear that while they applaud his plan to divest the City’s pension fund of fossil fuel company stocks, divesting the city fleets of diesel vehicles would mean much more. Toronto, London, Sacramento, Phoenix and Grand Junction are doing it. So can NYC. And with signs of climate change ever clearer, there is no time to waste.

EV: On The Road

March 8, 14, 19 EV’s Matt Tomich and Phil Vos testified before the NY City Council Committees on Transportation, Environmental Protection, Gov’t Operations, and Sanitation & Solid Waste on the important opportunity NYC has to meet its climate and clean air targets by using renewable natural gas (RNG) fuel in its buses and trucks.

March 24 Tomich spoke at Haverford College’s annual public policy forum about the role EV plays in advancing sustainable energy and transportation solutions.

March 27 Tomich spoke at the 2018 Advanced Energy Conference in NYC on the growing trend in the US toward use of RNG in heavy-duty trucks and buses.

April 17 Tomich provided the US perspective at the Global Methane Forum in Toronto, which explored options for mitigating methane from agricultural and municipal waste.

May 14 Tomich led a delegation of RNG experts in meetings with policymakers on Capitol Hill.

May 24 Joanna Underwood testified at the NYC executive budget hearing calling on NYC to stop buying diesel vehicles.

May 25 EV released its evaluation of NYC’s plan, Ending the Diesel Era (p. 1).

June 6 EV coordinated its 14th “Power of Waste” workshop in Brooklyn, attended by 150 industry, government and NGO leaders (p. 1).

June 28 Tomich moderated the panel “Global Perspectives on Renewable Gas” at the World Gas Conference in Washington, DC.
business, government and NGOs through a day-long program on New York’s huge potential to turn the methane-rich biogases from its decomposing organic wastes into fuel; on how biogases are upgraded into pipeline quality RNG; on end-uses for this fuel, especially in transportation; and on the economic, policy and regulatory environment that can promote RNG development.

Speaker Juan Corcino, fleet director for the South-Bronx-based beverage distributor Manhattan Beer, spoke compellingly about what drove him to spearhead conversion of New York City’s largest private fleet from diesel to natural gas starting in 2003. It was the severe pollution-induced asthma that afflicted two of his three children.

Speakers described many projects that could be models for NYC. Brian Paganini, President of Quantum Biopower, discussed his company’s project — the first to turn food wastes in Connecticut into fuel — while Michael T. Bakas from the energy services company Ameresco described its project converting the biogases (into vehicle fuel) from the main wastewater treatment plant in Phoenix, AZ (which collects wastewater from five communities). It is the largest project of its kind in the US and turns waste gases into a profitable product: renewable natural gas.

The workshop’s diverse partners included: the US EPA; the NYS Energy Research and Development Authority; NYC’s DEP and Economic Development Corporation; landfill-gas developer Aria Energy; Air Liquide, provider of biogas upgrading technology; energy solutions provider Ameresco; the Coalition for Renewable Natural Gas; Cornell University’s College of Agriculture and Life Sciences; Cummins Westport, manufacturer of natural gas engines; the Institute of Gas Innovation and Technology at Stony Brook University; National Grid; the NY League of Conservation Voters; WE ACT for Environmental Justice; and NYU’s Urban Future Lab.

**Brookhaven: First NYS Town to Fill up on Waste-Based RNG**

Since 2008, the Town of Brookhaven, New York has had its refuse collected by natural gas trucks, which are much less polluting and much quieter than diesel trucks. Now, Brookhaven is taking another step forward: its new refuse service contracts require use of even cleaner trucks and fuel.

This community of almost 500,000 — the largest of the ten towns in Suffolk County, Long Island — signed contracts, effective January 2019, with six haulers. They require the use of new natural gas trucks equipped with “near-zero” engines. These engines were introduced in 2016 after being certified by the US Environmental Protection Agency and the State of California. Their emissions of health-threatening nitrogen oxides (NOx) and particulate matter (PM) are 90% lower than the strictest EPA standards — close to zero.

These low emission trucks are especially important for the greater Brookhaven region. According to the American Lung Association, Suffolk County is ranked among the counties in NYS with the worst air due to its excessive number of days with high levels of ozone, the gaseous component of smog, to which both NOx and PM are major contributors. NOx and PM are also widely recognized triggers for asthma as well as for other respiratory and cardiovascular illnesses.

Brookhaven also signed a new five-year contract with the California-based company Clean Energy Fuels, which has delivered natural gas to the haulers at a fueling station that it designed, built and has operated since the 2008 switch from diesel to natural gas. Starting in 2019, Clean Energy will only deliver the renewable form of natural gas made from organic wastes, branded by the company as Redeem.

The 550,000 gallons a year of RNG fueling the 80 refuse trucks will also make their greenhouse gas emissions plummet. On a “life cycle” basis, the greenhouse gases (GHGs) fell 20% when Brookhaven switched from diesel to natural gas in 2008. GHGs will now fall another 50% using RNG, since this fuel is made by capturing the methane gases emitted by decomposing organic materials that would otherwise escape into the atmosphere, worsening climate change. Brookhaven is setting an important example for other towns across New York State and the country.
Conservation Voters; Harlem-based WE ACT for Environmental Justice; Dr. Philip J. Landrigan, founding director of Boston College’s Global Public Health initiative; and Kevin Cromar, Director of the Air Quality Program at NYU’s Marron Institute of Urban Management, have joined Energy Vision in calling on the City to move away from diesel. London has banned procurement of new diesel vehicles for its fleets, and other major cities worldwide are restricting or eliminating them.

The report’s answer: move our municipal fleets away from diesel to clean fuel options that exist today. “New York has a big stake in diesel fuel and fueling infrastructure,” notes Tomich. “Getting them to make the switch will take time. We look forward to working with our allies and supporters to help the City reach its goals.”

In the release announcing the report, Energy Vision and its partners call on the Council to encourage the City and MTA to:

- Stop buying new heavy-duty diesel trucks and buses;
- Focus new heavy-duty vehicle purchases on the best, road-ready diesel alternatives, particularly natural gas models equipped with ultra low-emission “near-zero” engines and running on renewable natural gas; and
- Make the necessary capital expenditures on infrastructure and fleet depot modifications to support implementation of these alternatives.