



Northeast Diesel Collaborative (NEDC) 2015 Partners Meeting October 26 – 28, 2015 Providence, Rhode Island



“We are all, in various ways, contributing to the development of more efficient passenger and freight transportation systems.”

Michael Repogle, Deputy Commissioner
of Policy, NYCDOT

Meeting Overview

- Day and a half program focused on ***cross-cutting – solution-seeking discussions*** on improving efficiency and emission reductions across all transportation modes.
- Opportunities for ***engagement and relationship building***.
- Discussion on ***policies across all sectors***, what is current and where we need to be to meet regional and national air quality goals.
- Topics focused on ***region specific needs***, highlighting examples of current ***industry practices and partnerships*** and funding and technologies that are helping to move the region forward.
- Overview of the latest ***high-efficiency and diesel emission reduction technologies***.
- ***First of its kind - Clean Corridor Congress*** – regional coordination across all modes of transportation on promoting clean freight corridors.
- ***U.S. EPA Breathe Easy Leadership Awards***

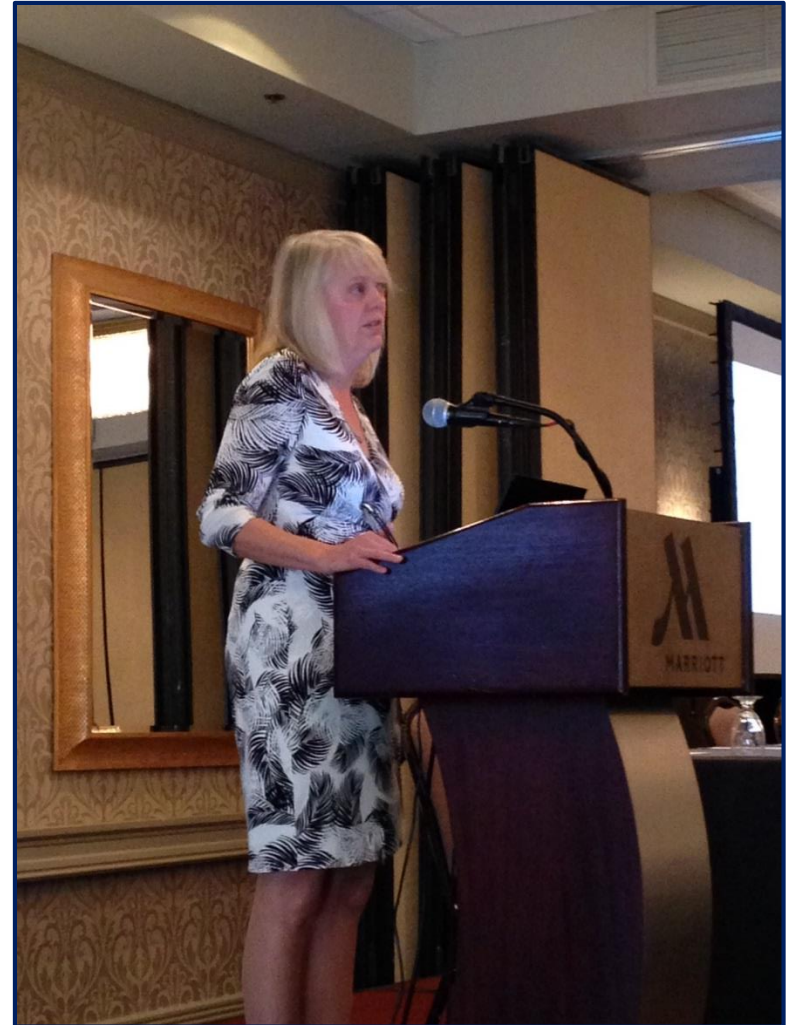
NEDC Speakers

- **Ray LaHood**, *Former U.S. Secretary of Transportation*
- **Curt Spalding**, *Regional Administrator, Region 1, U.S. EPA*
- **Jorge Elorza**, *Mayor of Providence*
- **Michael Repogle**, *New York City Department of Transportation (NYCDOT)*
- **Jim Pelliccio**, *Port Newark Container Terminal*
- **Dorian Bailey**, *The Port Authority of New York and New Jersey*
- **Janet Coit**, *RI Department of Environmental Management*
- **Don Graab**, *Norfolk Southern*
- **Wayne Clark**, *Milton CAT*
- **John Hroncich**, *BAE Systems*
- **Edward Lovelace**, *XL Hybrids*
- **Guiselle Aldrete**, *Starcrest Consulting*
- **Karl Simon**, *U.S. EPA OTAQ*
- **Susan McSherry**, *NYCDOT*
- **Geoffrey Sunshine**, *Health Effects Institute*
- **Ron O’Blenis**, *Rail Planner for HDR*
- **James Jack**, *Coalition for Responsible Transportation*
- **George Schoener**, *I-95 Corridor Coalition*
- **Gerry Bogacz**, *New York Metropolitan Transportation Council*
- **Matthew Spears**, *U.S. EPA OTAQ*
- **Christina Wolfe**, *Environmental Defense Fund*
- **Mike Rochford**, *Caterpillar*
- **Bill Van Amburg**, *CALSTART*
- **William Wolfgang**, *MBTA*
- **Bill McDonald**, *U.S. DOT MARAD*
- **Michael Scarpino**, *Volpe Center*
- **Chuck Feinberg**, *NJ Clean Cities*
- **Alycia Gilde**, *CALSTART*
- **Benoit Lacroix**, *Effenco*
- **Gary Rennie**, *U.S. EPA Region 1*
- **John Macaluso**, *Hug Engineering*
- **Ezra Finkin**, *Diesel Technology Forum*
- **Renee Moilanen**, *Port of Long Beach, CA*
- **Leah Pilconis**, *The Associated GCs of America*

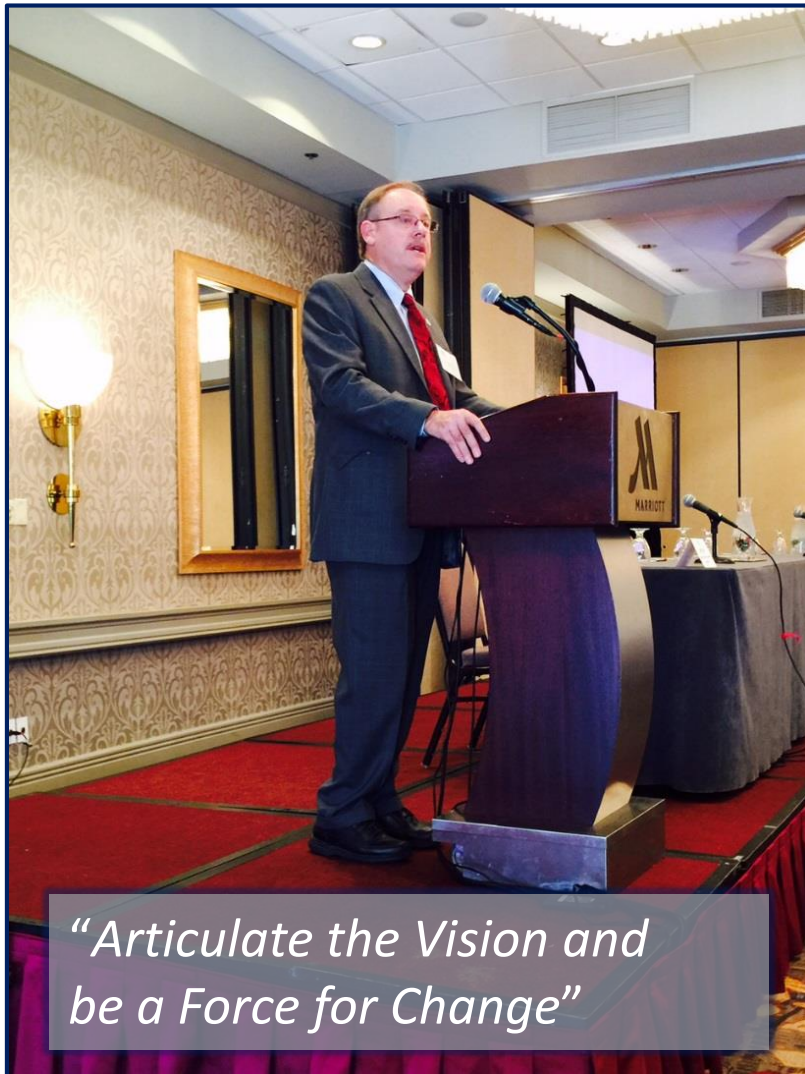
Regional Hosts Provide Welcome

Janet Coit, Director of Rhode Island Department of Energy Management

- RI vulnerable to Climate Change – 400 miles of coastline
- 1/3 of emissions are from transportation
- GHG and Diesel emission reductions are integral to climate/resiliency planning
- Local initiatives focusing on idle reduction and port resiliency
- VW scandal brings attention to diesel issue nationally/globally



Regional Hosts Provide Welcome



*“Articulate the Vision and
be a Force for Change”*

Curt Spalding, Regional Administrator, USEPA Region 1

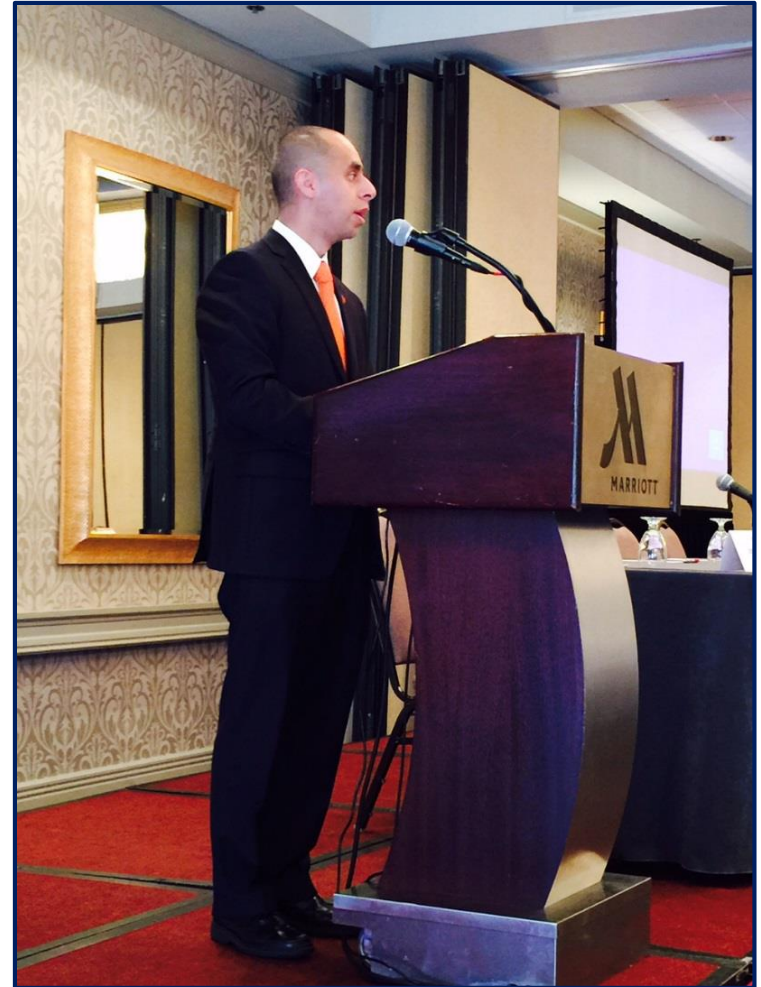
- Impossible to talk about infrastructure without climate change
- The NE suffered paralysis from recent storms and is still trying to understand how to react to it
- Critical need for adaptation & preparation
- New standards can be met when partners come together w/ practical solutions
- Need transformational ideas & promote justice to the communities we serve
- \$57M in DERA – 80 Projects
- Intermodal systems are improving but getting more crowded

Regional Hosts Provide Welcome

Jorge Elorza, Mayor, City of Providence, RI

- SustainPVD empowers City of Providence to act on solutions for sustainability & Climate Change
- Leveraging resources and partnering with industry & other sectors is moving us forward
- Divested municipal portfolio from “Filthy 15”
- Must lead by example – 11th Mayor to sign Compact of Mayors for Climate Change

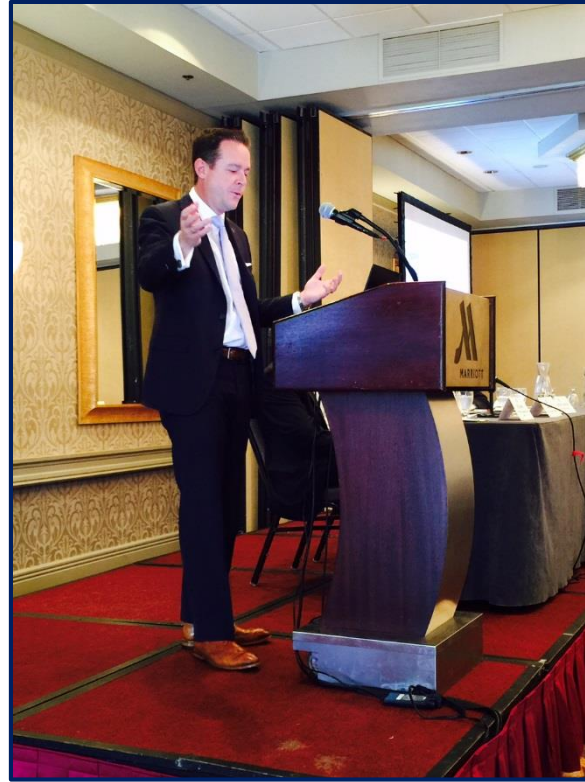
“We cannot act alone and no issue is more important than Climate Change”



Setting the Stage



Karl Simon
Director of Transportation
and Climate Division,
U.S. EPA OTAQ



James Jack
Executive Director,
Coalition for Responsible
Transportation



Geoffrey Sunshine
Senior Scientist,
Health Effects Institute

Setting the Stage

Key Takeaways:

- 2050 in the diesel space is nothing – that is a couple of engine cycles
- Look out for National Renewable Fuels Program & National Ports Initiative
- EPA goal – every child will attend school on a clean school bus
- Important to consider the idea of mega-regions
- Hardware vs. Software – opportunities for higher efficiency with lower capital costs/quicker ROI
- Collaborative logistics through smart programs, i.e., Freightest
- HEIs ACES (10 Year Study) - demonstrated reduction in toxicity from traditional pre-'07 engine emissions
- High ultrafine particulate had little to no impact on health effects (tumor growth)

“We all have to have the courage, conviction & challenge to think about the areas where we can find new opportunities and be open to trying them – some things may not work and that is fine.”

- Karl Simon, U.S. EPA

Technology Exhibit Hall Activity



16 Exhibitors



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Federal Policies – Meeting Compliance with Cleaner, High-Efficiency Technologies



Panel Led by **Bill Van Amburg**, CALSTART

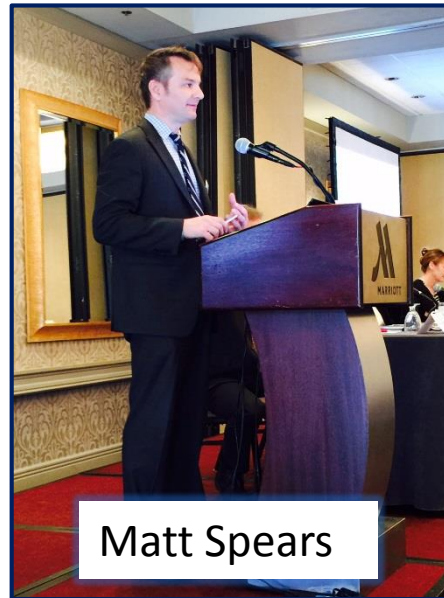


Chris Wolfe, EDF

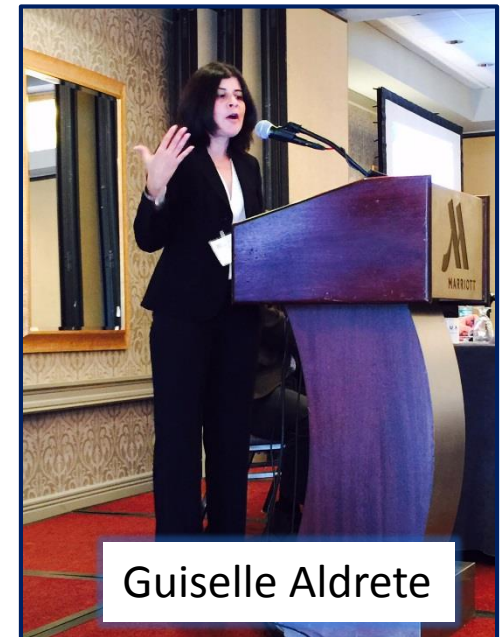
Federal Policies – Meeting Compliance with Cleaner, High-Efficiency Technologies

Panel Leader: **Bill Van Amburg**,
Senior Vice President, CALSTART

- **Matthew Spears**, Center Director, HD Diesel Standards, U.S. EPA
- **Mike Rochford**, Global Director for Regulations for Emission Reductions, Caterpillar
- **Guiselle Aldrete**, Air Quality Consultant, Starcrest Consulting Group, LLC
- **Christina Wolfe**, Manager, Air Quality, Port and Freight Facilities, Environmental Defense Fund



Matt Spears



Guiselle Aldrete

Federal Policies – Meeting Compliance with Cleaner, High-Efficiency Technologies

Key Takeaways:

- Phase 2 Goal: 1 Billion (minimum) tons of CO₂ reduction through cost effective technologies; 2 year payback for big trucks/vans & 6 year payback for vocational vehicles
- Cost benefits forecasting is difficult for long term projections
- First time fuel economy standards for MD/HDVs
- EPA still open to feedback prior to final Phase 2 rules
- Technology solutions must meet customer needs – not a one size fits all approach
- Diverse off-road technologies; operator education an important component
- Emission reduction improvements can be made with operational strategies (Vessel Speed Reduction Program)
- ECA has contributed to significant Sox & PM reduction; regulation helps Ports meet emission reduction goals
- Future of automation will play a big factor in improved efficiency and higher paybacks (taking operator out of equation)

NEDC Luncheon



Luncheon Keynote Address



“Our vision, with hard work, persistence, and partnerships is slowly becoming a reality.”



**Deputy Commissioner of Policy,
NYCDOT – Michael Replogle**

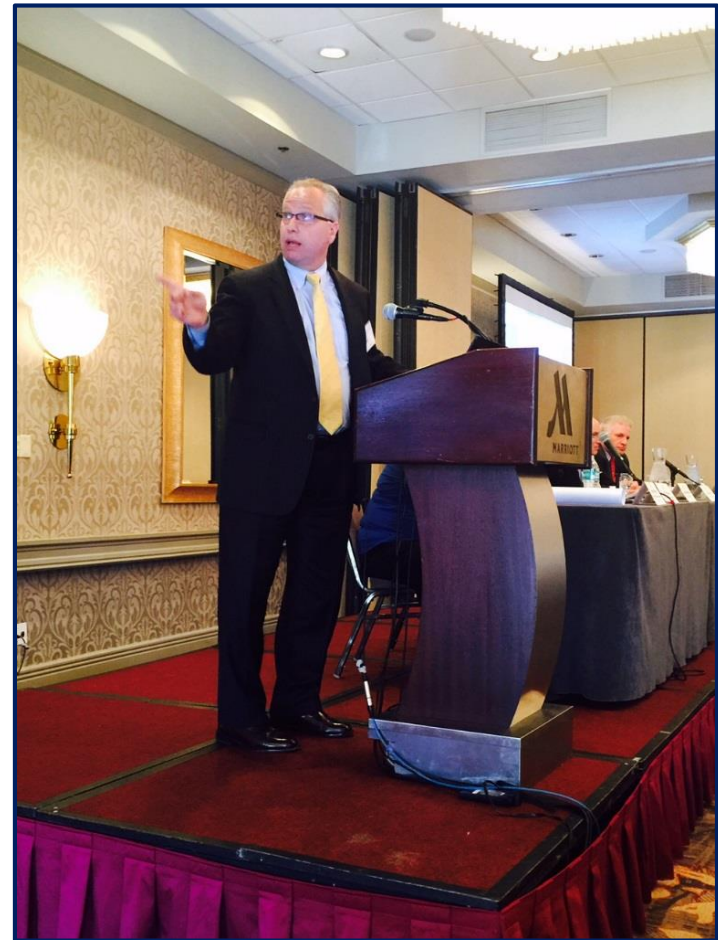
Luncheon Keynote: Michael Replogle

- Founded ITDP to focus on cleaner transportation alternatives “Bikes not Bombs” - took ideas from the margins to mainstream
- Freight remains a challenge with rising global trade flows & long life of diesel vehicles
- However, progress is being made across all modes of transportation; uncoupling of economic growth and mobility growth
- How mobility is addressed will have important effects on economic growth; traffic congestion results in losses of more than 2% of GDP in rapidly motorizing cities - air pollution results in 1 ¼ million deaths per year
- We must ensure smart cities are just cities, built on principles of increasing equality of access to opportunities for all with inclusive growth
- *“A truly advanced city is not one in which the poor drive cars, it is one in which the rich ride public transport, walk and bike.”* Mayor of Bogota – Enrique Penalosa.

NEDC Industry Partners Present



Anne Aylward, Deputy Director
of Research, VOLPE Center



Jim Peliccio, CEO,
Port Newark Container Terminal

NEDC Industry Presents – Ports/Rail



NEDC Industry Presents – Ports/Rail

Panel Leader: **Anne Aylward**, Deputy Director of Research, Volpe National Transportation Systems Center

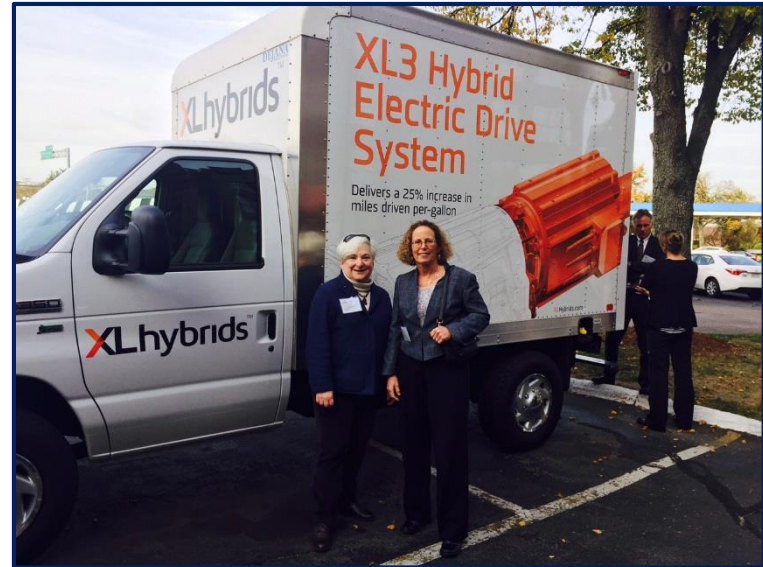
- **Jim Pelliccio**, Chief Executive Officer and President, Port Newark Container Terminal and President of East Coast Operations, Ports America
- **Renee Moilanen**, Manager of Air Quality, Port of Long Beach
- **Don Graab**, Vice President Mechanical, Norfolk Southern
- **Ron O'Blenis**, Rail Planner for HDR

NEDC Industry Partners Present

Ports/Rail Takeaways:

- PNCT modernization upgrades results in reducing 600 truck moves/day from roadway; replace all CHE with new, cleaner equipment by end of 2016
- POLB biggest challenge now is cargo throughput expected to double by 2030; currently handles 40% of all cargo coming into US; looking to zero emission technologies
- Line haul locomotives are free running assets but switchers are relatively stationary; upgrade efforts focus on switchers for localized emissions impact
- RRs are part of the transportation system; trucks and rail are looked at complimentary as opposed to competitively
- US Highway congestion is expected to increase by 2035; we are not going to be able to build our way out with more highways; must look to rail to accommodate growth; need to look at the whole system (passenger & freight rail needs to be considered together)

Break Time - Vehicle Display



NEDC Industry Presents – Transit/Construction



Panel Moderated by **Ezra Finkin**, Diesel Technology Forum

NEDC Industry Presents – Transit/Construction



Mike Derrig, Fresh Direct



William Wolfgang, MBTA
Leah Pilconis, AGCA



Dorian Bailey, PANYNJ

NEDC Industry Presents – Transit/Construction

Panel Leader: **Ezra Finkin**, Director, Policy and External Relations,
Diesel Technology Forum

- **William Wolfgang**, Director of Vehicle Engineering,
Massachusetts Bay Transportation Authority
- **Mike Derrig**, Fleet Director, Fresh Direct, LLC
- **Leah Pilconis**, Senior Environmental Advisor to The Associated
General Contractors of America
- **Dorian Bailey**, Senior Environmental Project Manager/Senior
Environmental Chemist, The Port Authority of New York and
New Jersey

NEDC Industry Presents – Transit/Construction

Transit/Construction Takeaways:

- MBTA seeks internal and external stakeholder involvement on fleet efficiency improvement & procurement planning; focus on system integration
- Fresh Direct using telematics, idle reduction & advanced vehicle technologies to significantly reduced emissions; experimenting with technologies to reduce emissions from TRUs; safety incidents reduced from 5k/week to 100/week
- PANYNJ has gone clean diesel since 2003; biggest challenge of Bayonne Bridge raising is proximity to community; implemented comprehensive 24/7 air monitoring program
- A construction companies net worth is a function of the equipment owned; agency action that renders equipment obsolete or limits its use inhibits a company's ability to get loans, bonds, bids

Evening Host – BAE Systems & Breathe Easy Leadership Awards



NPL Construction



Fresh Direct



MASS DOT

Buckley Heating & Cooling, RI



Milea Truck Sales

Breathe Easy Leadership Awards



TH Malloy & Sons Biodiesel



MASSPORT



NYCDEP

Day 2 – Morning Keynote



U.S. Secretary of Transportation [Ray LaHood](#)

NEDC Tech Talks



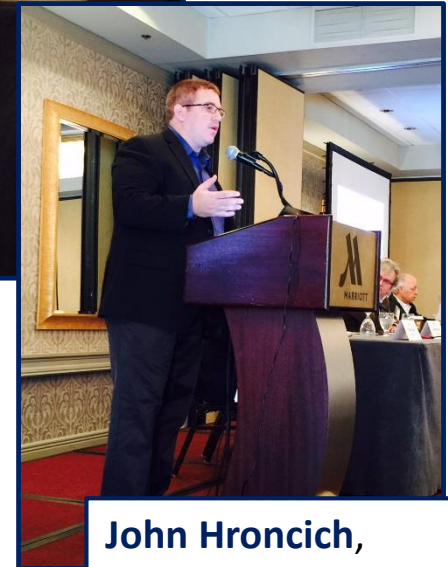
Ed Lovelace,
XL Hybrids



Benoit Lacroix,
Effenco



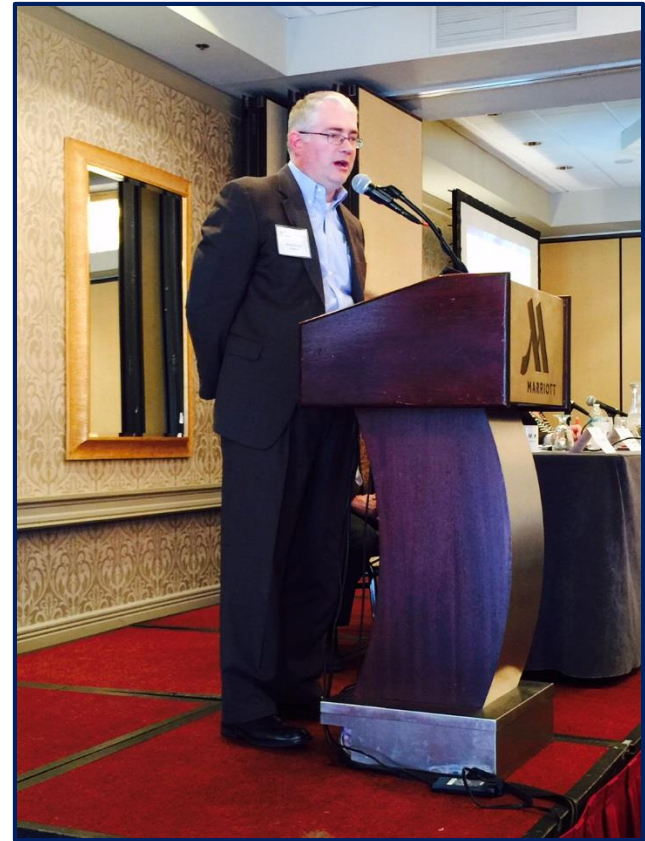
John Macaluso,
Hug Engineering



John Hroncich,
BAE Systems

NEDC Tech Talks

- **BAE Systems** – 1700 hybrid buses in NYC; leader in Hydrogen FC program; migrated hybrid bus technology to marine applications; involved in zero emission bus program for EJ communities; looking to expand into new energy markets
- **Caterpillar** – looking at hydraulics to store energy vs. batteries; hybrid excavator 50% fuel efficiency gains w/ payback in less than one year



Mike Rochford, Caterpillar

NEDC Tech Talks

- **XL Hybrids** – hybrid electric upfit readily adapted for Class 2- 6; cloud system to monitor and track vehicle performance; 20% fuel savings and CO2 reductions
- **Effenco** – active stop/start technology eliminates idle and reduces engine use by 50%; payback in 6 years or less; meets propose Phase 2 - 2027 goal
- **Hug Engineering** – target market in port community both inside & outside; passive DPF can bring vehicle up to 2007 standards; Tier 3 OGVs and Tier 4 for construction

Clean Corridor Congress



“Effective leadership towards sustainability demands that we simultaneously find effective ways to demonstrate near-term progress while inspiring and nurturing a shared long-term strategic vision and the partnerships that can enable its realization at scale.”

- **Michael Replogle**, NYCDOT

Clean Corridor Congress



Panel Leader: **Bill Van Amburg**, Senior Vice President, CALSTART

- **William “Bill” McDonald**, Deputy Director, North Atlantic Gateway Office, U.S. Department of Transportation Maritime Administration (MARAD)
- **Michael Scarpino**, Transportation Project Engineer, VOLPE Center
- **George Schoener**, Executive Director, I-95 Corridor Coalition
- **Chuck Feinberg**, Chairman and DOE Coordinator, New Jersey Clean Cities Coalition and Executive Vice President of Greener by Design
- **Gerry Bogacz**, Planning Director, New York Metropolitan Transportation Council

Defining Clean Corridors

- Every corridor is potentially a Clean Corridor
- Don't look at corridors in a linear fashion; I95CC breaks I-95 into 3 mega-regions
- NE is diverse; need to take an “all of the above” approach to multimodal transportation and technology
- All parts of government are part of the solution; P3s are critical
- Trucks still outcompete marine transportation, but Marine Highways will play a bigger role

Barriers

- Adding 100M people to population and 4B tons of cargo (check statistics)
- Congress and politics
- Chicken and Egg problem – no one wants to build new infrastructure in advance of demand
- Too many organizations are doing the same thing w/out coordination
- Over 400 mandated MPOs all conduits for Federal dollars; corridor planning needs a regional approach and long term view
- Missing information and lack of education (project successes, CNG infrastructure, etc.)
- Lack of coordination & funding incentives for infrastructure and advanced tech
- Lack of access to (i.e., HMT) or insufficient funding at Federal level

Opportunities

- Recent USDOT National Freight Plan highlights poor state of repair and the need for collaboration
- Increasing capacity at Ports requires an increased capacity on the road and rail networks to/from Ports
- Leverage EZ-Pass technology to increase goods movement efficiency (G-Map)
- TIGER grant opportunities across multiple states and diverse partners
- Resiliency – take advantage of overlaying cleaner strategies and technologies (or be fired)
- Case Study Examples: PANYNJ Truck Replacement Program, Hunts Point Clean Trucks, NYS-VIP, MassPort, NY EV Readiness Plan

Next Steps

- Figure out who is missing in the conversation
- Evaluate assets and prioritize investments
- Improve our communication and the economics of cleaner tech & on existing infrastructure
- Create a roadmap for future enhancement, requiring accountability
- Improve communication and outreach
- Consider different messaging and marketing for unique audiences
- Scope out Clean Corridor vision for mega-region; seek NFP funding for planning dollars
- Begin planning Clean Corridor/Freight Forum

“You can’t wish for a greener future, you need to build it.”

(Presenter Leah Pilconis quotes CEO Stephen Sandherr, The Associated General Contractors of America)

NEDC Strategic Planning Team



L to R – Barbara Brentano, GNA; Gary Rennie, EPA R1; Wayne Clark, Milton CAT; Abby Swaine, EPA R1; Alycia Gilde, CALSTART; Susan McSherry, NYCDOT; John Rogan, EPA R1; Chuck Feinberg, NJ Clean Cities; Martha Klimas, Bridgeport Port Authority *(Photo does not include all team members.)*