**DAQ Update – Public Meeting**

- International Tie Disposal – Project Tie Proposed Facility
- Public Meeting – 2/22/21 @6pm
- Audio Call in number: 1 (415) 655-0003, Access Code 178 013 3745

- Application for a facility outside of Hamlet in Richmond County that will process used railroad ties and other wood through a controlled heating process known as pyrolysis to create the biochar product. The process will occur in multiple kilns on site. The emissions will be controlled by after-burners and process limitations.
DAQ Update – Public Hearing

• International Tie Disposal – Project Tie Proposed Facility
• Public Hearing – 3/1/21 @6pm
• Website: https://deq.nc.gov/news/events/public-hearing-international-tie-disposal-llc-project-tie

• Public comment period closes March 3rd at 5pm:
• Submit comment after hearing at: 919-707-8714
• Email to DAQ.publiccomments@ncdenr.gov
  • Please type “International Tie ” in the subject line.

Department of Environmental Quality
Medium + Heavy Duty Zero Emission Vehicles Briefing
DEQ Environmental Justice Board Meeting
February 22, 2021

Division of Air Quality
Mike Abraczinskas, Director
Agenda

• Division of Air Quality Introduction
• Connection between Transportation & Air Quality
• Zero Emission Vehicles (ZEVs)
• Clean Transportation Initiatives
• Medium- and Heavy-duty ZEVs
• Input/Feedback from EJE Board
Division of Air Quality (DAQ)

To Protect and Improve the Outdoor Air Quality of North Carolina.

The Division of Air Quality (DAQ) works with the state’s citizens to protect and improve outdoor, or ambient, air quality in North Carolina for the health, benefit and economic well-being of all. To carry out this mission, the DAQ operates a statewide air quality monitoring network to measure the level of pollutants in the outdoor air, develops and implements plans to meet future air quality initiatives, assures compliance with air quality rules, and educates, informs and assists the public regarding air quality issues.
Connection Between Transportation & Air Quality

Primary air pollutants from transportation:
- Nitrogen Oxides (NOx)
- Particulate Matter (PM2.5)
- Greenhouse Gases

Source: Air Quality Trends in NC; October 2020

Source: NC Greenhouse Gas Inventory; January 2019
Clean Transportation Options

- Partial Zero Emission Vehicle (PZEV) - Hybrid
  - Clean combustion engine
  - Tailpipe
  - GHG and NOx pollutants
  - Advanced emission controls
- Zero Emission Vehicle (ZEV) - Plug-In
  - All battery powered
  - No tailpipe
  - No direct air pollutants
  - Sometimes called “Battery Electric”

Sales Data Source: EVAdoption.com
Initiatives to Stimulate Adoption of ZEVs

• Executive Order 80
• Diesel Emission Reduction Act (DERA)
• VW Settlement
• Medium- and Heavy-Duty (MHD) ZEV Memorandum of Understanding (MOU)
## MHD ZEV Projects in NC

**Diesel Emission Reduction Act (DERA)**

<table>
<thead>
<tr>
<th>DERA Projects</th>
<th>Town of Cary</th>
<th>City of Wilmington</th>
<th>City of Charlotte</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle being replaced (transit bus, school bus, etc)</td>
<td>Refuse Truck</td>
<td>Refuse Truck</td>
<td>Transit Bus</td>
</tr>
<tr>
<td>Infrastructure included</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Total cost of project</td>
<td>$560,834.05</td>
<td>$601,302.05</td>
<td>$867,127.00</td>
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<tr>
<td>DERA funding provided</td>
<td>$252,375.32</td>
<td>$270,585.92</td>
<td>$390,207.00</td>
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<tr>
<td>Location</td>
<td>Cary</td>
<td>Wilmington</td>
<td>Charlotte</td>
</tr>
<tr>
<td>Urban or Rural</td>
<td>Urban</td>
<td>Urban</td>
<td>Urban</td>
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</tbody>
</table>
## MHD ZEV Projects in NC VW Settlement

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>County</th>
<th>Funding Amount</th>
<th>County Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School Bus</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Public Instruction</td>
<td>Transylvania</td>
<td>372,270.00</td>
<td>Rural</td>
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<tr>
<td>Department of Public Instruction</td>
<td>Cabarrus</td>
<td>360,999.00</td>
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</tr>
<tr>
<td>Department of Public Instruction</td>
<td>Rowan</td>
<td>368,564.00</td>
<td>Urban</td>
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<tr>
<td>Department of Public Instruction</td>
<td>Randolph</td>
<td>277,963.00</td>
<td>Rural</td>
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<tr>
<td>Department of Public Instruction</td>
<td>New Hanover</td>
<td>369,325.00</td>
<td>Urban</td>
</tr>
<tr>
<td>Eastern Band of Cherokee Indians</td>
<td>Swain</td>
<td>402,810.00</td>
<td>Rural</td>
</tr>
<tr>
<td><strong>Transit Bus</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Durham</td>
<td>Durham</td>
<td>$428,066.00</td>
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<tr>
<td>Greensboro</td>
<td>Guilford</td>
<td>$501,838.77</td>
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<td>Salisbury</td>
<td>Rowan</td>
<td>$426,502.25</td>
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<tr>
<td>Salisbury</td>
<td>Rowan</td>
<td>$392,269.25</td>
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<tr>
<td>Chapel Hill</td>
<td>Orange</td>
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<tr>
<td>Raleigh</td>
<td>Wake</td>
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<td>Boone-Appalachian State</td>
<td>Watauga</td>
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<tr>
<td>Fayetteville</td>
<td>Cumberland</td>
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<td>Urban</td>
</tr>
<tr>
<td>Fayetteville</td>
<td>Cumberland</td>
<td>$127,750.00</td>
<td>Urban</td>
</tr>
<tr>
<td><strong>TOTALs</strong></td>
<td></td>
<td><strong>$6,039,808.00</strong></td>
<td></td>
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</tbody>
</table>
Truck Classifications

- Vehicle classes are based on gross vehicle weight rating (GVWR).
- Class 2 is subdivided into:
  - Class 2a vehicles with a GVWR of 6,001-8,500 lbs.; and
  - Class 2b vehicles with a GVWR of 8,501-10,000 lbs.
- MHDVs consist of classes 2b-8.

Source: U.S. Department of Energy
July 14, 2020

- 15 states and the District of Columbia signed a joint memorandum of understanding (MOU)
- NC DAQ involved Sept 2020

Action

- Advance and accelerate the market for electric medium-and heavy-duty vehicles, including large pickup trucks and vans, delivery trucks, box trucks, school and transit buses, and long-haul delivery trucks (big-rigs)

Goals

- 100 percent of all new medium-and heavy-duty vehicle sales be zero emission vehicles by 2050
- Interim target of 30 percent zero-emission vehicle sales by 2030
- Drastically reduce greenhouse gas emissions from MHD ZEV

Health benefits

- Especially for communities burdened with higher levels of air pollution and heavy truck traffic
MHD ZEV MOU cont.
MHD ZEV Action Plan

• Action Plan:
  o Task Force will develop a multi-state action plan to identify barriers and propose solutions to support widespread electrification of medium- and heavy-duty vehicles
• Focus on Disadvantaged Communities
  o Share equitably in the benefits of truck and bus electrification
  o Provide meaningful opportunities to provide input
  o Meet community needs
  o Build long-term relationships
• Measurable Sales of MHD ZEVs
• Public Fleet Purchases and Fueling Stations
• Inter-agency Cooperation within States
• Partnerships with Key Stakeholders

EXAMPLES for Action Plan:
• Financial vehicle and infrastructure incentives;
• Non-financial vehicle and infrastructure incentives;
• Actions to encourage public transit and public fleet ZEV MHD development;
• Effective infrastructure deployment strategies;
• Funding sources and innovative financing models to support incentives and other market-enabling programs;
• Leveraging environmental and air quality benefits associated with adoption of the California Advanced Clean Trucks rule under Section 177 of the Clean Air Act;
• Coordinated outreach and education to public and private MHDV fleet managers;
• Utility actions to promote zero emission MHDVs, such as electric distribution system planning, beneficial rate design and investment in “make-ready” charging infrastructure;
• Measures to foster electric truck use in densely populated areas;
• Addressing vehicle weight restrictions that are barriers to zero emission MHDV deployment;
• Uniform standards and data collection requirements; and
• Any other initiative the Task Force deems appropriate.
Steps to Date

- Bimonthly calls with Task Force
- Stakeholder engagement will be an important part of this program:
  - Technology
  - EJ Groups
  - Utilities
  - Environmental Groups
  - Fleet Owners
EXAMPLES of Industries Adopting MHD ZEVs
Potential Barriers to Adoption

- MONEY
- Agency capacity
- Infrastructure
  - Not at the same level as light-duty vehicles
  - Existing areas to build up / out
- Utility capacity
- Vehicle availability in the state
- Capital costs for fleets
- Maintenance and support capacity

Vision for Moving Forward

- Identify and establish open two-way communication
- Share the latest information on medium- and heavy-duty ZEVs
- Establish structured and unstructured opportunities to provide input
- Garner input on how Action Plan strategies can align with and support stated goals of EJ communities
- Facilitate an ongoing and constructive dialogue
- Build long-term relationships with EJ advocates and community groups
- Foster community participation in clean transportation planning and decision-making
Advancing the MHD ZEV MOU Initiative: Questions for the Board

• What are the most important transportation needs, improvements and priorities for EJ communities in NC?

• Do you see specific benefits or concerns regarding this project?

• Is there additional information you would like to have about health, safety or other impacts related to this project while considering these questions?

• What are the best ways in which to share this information and engage with communities?

• Please let us know if you would be interested and available to be a Point of Contact for NC. Or if you have anyone else you would recommend we bring into this effort, please let us know.
Contact information

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