Natural Gas for Transportation Roundtable

Wisconsin Clean Cities
Lorrie Lisek, Executive Director

October 22, 2019
Department of Energy – Transportation Focus

National Security

Economic Growth

Affordability for Businesses and Consumers

Reliability/Resiliency
How Does Clean Cities Fit Within DOE?

Vehicle Technologies Office

- Electrification
- Advanced Combustion Systems and Fuels
- Materials Technology
- Energy Efficient Mobility Systems

Technology Integration

- Improve energy efficiency
- Increase domestic energy security
- Reduce operating cost for consumers & business
- Improve global competitiveness of US economy

VTO develops advanced transportation technologies to:
Technical Portfolio

Light-, Medium-, and Heavy-Duty Vehicles

Alternative Fuel Infrastructure

Energy Efficient Mobility Systems and Technologies
WI Clean Cities: Local Partnerships – Global Impact

- Statewide organization
- Public/Private Partnerships
- Nearly 36M GGE Petroleum Displaced in 2018
- 2018 Reduction in GHG Emissions 122,000 tons

Since 2011, WCC has assisted in securing over $21M in funding for transportation projects.

- Fleets
- Product and service providers
- Environmental and energy agencies
- Advocacy organizations

Low Emission Natural Gas Vehicle
USDOT 021800
WI Clean Cities “Connect the Dots”

- Connecting fleets with fuel providers and industry partners
- Offering training and information
- Supplying access to technical assistance
- Identifying funding
- Providing public recognition
- Collecting data and tracking progress
Clean Cities: Tools of the Trade

The Alternative Fuels Data Center offers a large collection of helpful tools. These calculators, interactive maps, and data searches can assist fleets, fuel providers, and other transportation decision makers in their efforts to reduce petroleum use.

**Calculators**
- **Vehicle Cost Calculator**: Compare cost of ownership and emissions for most vehicle models. [View Mobile Version](#)
- **Petroleum Reduction Planning Tool**: Create a plan for your fleet to reduce petroleum consumption and emissions.
- **CNG VICE Model 2.0**: Evaluate ROI and payback period for natural gas vehicles and infrastructure.

**Interactive Maps**
- **Alternative Fueling Station Locator**: Locate alternative fueling stations and get maps and driving directions. [View Mobile Version](#)
- **TransAtlas**: Analyze vehicle densities and locations of fueling stations and production facilities.
- **BioFuels Atlas**: Compare feedstocks and analyze biofuel production by location.

**Data Searches**
- **Vehicle Search**: Compare light-duty alternative fuel vehicles, electric vehicles, and hybrids.
- **Laws and Incentives Search**: Search for laws and incentives related to alternative fuels and advanced vehicles.
- **Fuel Properties Comparison**: Compare alternative fuel properties and characteristics.

[www.afdc.energy.gov](http://www.afdc.energy.gov)  
[www.wicleancities.org](http://www.wicleancities.org)
Current Programs and Initiatives

- Midwest EVOLVE
- EPA Midwest Clean Diesel Initiative
- Clean Cities
- SmartWay
- Wisconsin Smart Fleet
- M2M 94 Clean Fuels Across I-94
Michigan to Montana I94 Corridor Project

US DOE selected project - funded $4.9M (with matching participant cost share)
Project began June 2017 with 60 trucks and 15 alternative fueling stations committed

I-94 Project Goals:

- Create a competent and experienced team to guide the creation of an alternative fuel corridor to:
  - Deploy selected stations and vehicles to fill identified gaps
  - Provide education/training to establish a sustainable alternative fuel and advanced vehicle market
  - Significantly grow the availability and use of alternative fuels and advanced vehicles in markets critical for long-term success of these technologies
  - Create a 15% increase in petroleum displacement within each Clean Cities Coalition geographic area
  - Develop and deploy a template that can be used around the country to help other corridors to be expanded

* Additional funding for natural gas infrastructure $1.3M
Funding Opportunities

2019 DERA Wisconsin Clean Diesel Grant Program
The DNR is now accepting applications for the 2019 Wisconsin Clean Diesel Grant program. Approximately $770,000 is available through this year's program to reduce emissions from older diesel engines across the state. The equipment and vehicles eligible for funding include school and municipal buses as well as nonroad engines, equipment and vehicles used in construction, cargo handling and agriculture. Application materials can be found below. Application packages must be emailed or postmarked by January 3, 2020.

- All application materials are located on the following website: https://dnr.wi.gov/Aid/CleanDiesel.html.
- For more information, contact Michael Friedlander at michael.friedlander@wisconsin.gov or (608) 267-0806.

Zero-Emission Vehicle Technology Pilot Program
The Wisconsin Office of Energy Innovation (OEI) is seeking proposals for the Zero-Emission Vehicle Technology Pilot Program. Successful applicants will demonstrate a clear and achievable project that increases deployment of zero-emission vehicle technology in Wisconsin. The deadline for submitting a proposal is November 8, 2019 at 12:00pm CDT.
Join us at Wisconsin Clean Cities 25th Annual Stakeholder Meeting

Wednesday, December 4, 2019
11 a.m. – 4 p.m.

Harley-Davidson Museum
Milwaukee, WI
Clean Cities Coalition Listening Sessions

“Feedback from the front-lines”

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Let’s get started…

- Everyone participates
- One speaker at a time
- Disagree without being disagreeable
- Share your unique perspective
- Respect each others’ thinking and value their contributions
- Articulate hidden assumptions
- There are no wrong answers
- All opinions shared will be kept anonymous
Name
Company
How long have you been using natural gas?

What one thing has made a difference or encouraged you and your fleet personnel regarding the use of natural gas in your fleet?
Natural Gas Vehicles/Technologies

Does natural gas meet your fleet requirements?

– What do you see as the benefits?
– What are the limitations or deficiencies?
– Have these vehicles met your expectations regarding efficiency? Power? Equivalency with diesel vehicles?
How does natural gas compare to conventional technologies?

- cost of ownership
- return on investment
- maintenance costs
- reliability
- ability to meet fleet goals
Have you experienced any fuel quality issues and/or maintenance issues?
Natural Gas Tanks

Have you experienced any issues with tank weight or packaging?

Have you experienced any tank life or service issues?
What has been your experience understanding fill status (full versus partial fill) and variability of fills from station to station or season to season?

Have you experienced issues in maintaining parts/service inventory or obtaining replacement parts?
Facility Issues

- Is natural gas station cost a factor?
- Is regulating authority an issue when siting a station?
- Are maintenance facilities an issue?
- Have you done any facility upgrades?
• Considering the many topics discussed today, if you were to prioritize the most needed or important advances/improvements, which one(s) would make the biggest difference in your fleet operations?

• What have we missed in this Listening Session?
Thank You!

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