DELAWARE CLEAN CITIES CONNECTIONS

Winter 2024

Message from the Delaware Clean Cities Director

We are pleased to present the Winter 2023/2024 edition of the Delaware Clean Cities Connections newsletter! With so many opportunities and initiatives happening in the clean transportation space, we hope this quarterly newsletter can serve as a resource for you to get updates about all the great work being done here in Delaware and throughout the country.

As you may recall, the Delaware Clean Cities Coalition is up for redesignation. The process of re-designating will include an interactive webinar between the coalition members and DOE staff to showcase all of the work we've done over the last four years, as well as providing opportunities to discuss any challenges, new ideas for support and needs the coalition may have.

We are showcasing all of our hard work over the last four years to the Department of Energy (DOE) on **March 22, 2024**. DOE will be reaching out to some of our key stakeholders leading up that date for interviews. Let's blow them away with all the good work we've been doing!

- Breanne, DE Clean Cities Director

Federal Funding Opportunities

Qualified Alternative Fuel Vehicle Refueling Property Credit

The 2022 Inflation Reduction Act (IRA) extended a tax credit opportunity to businesses and individuals who place alternative fuel vehicle charging or refueling stations on their property through 2032.

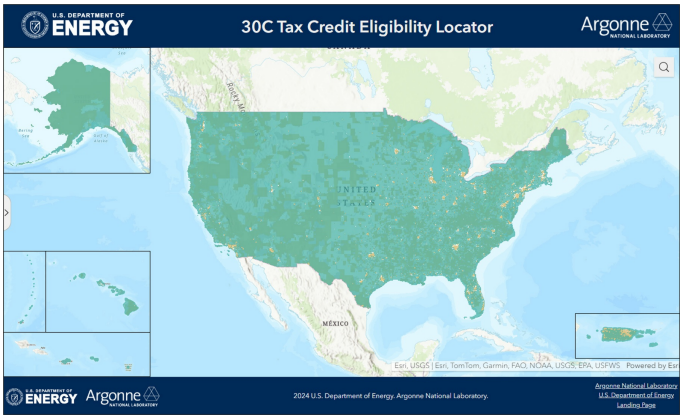
To receive the full credit of up to 30% of the cost, the installation of the station must meet certain requirements, including location in an eligible census tract. The Internal Revenue Service (IRS) and the Department of the Treasury recently issued guidance on eligible census tracts for the qualified alternative fuel vehicle refueling property credit and announced the intent to propose regulations for the credit as well.

The two types of eligible population census tracts are:

1. Low-Income Community Census Tracts
2. Non-Urban Census Tracts

The location requirement for the credit applies both to individual consumer property as well as commercial property. Wondering how to determine if you are eligible? The U.S. Department of

Energy, in partnership with Argonne National Laboratory, have released the "30C Tax Credit Eligibility Locator" interactive map to show which tract your property falls under. Click **here** to check out this tool!



Learn More

Find the full guidance document **here**. Have questions? Get them answered by clicking on the Frequently Asked Questions button below!

FAQs

Webinars

Joint Office of Energy and Transportation

The Joint Office of Energy and Transportation offers webinars to help states and key stakeholders build capacity for electric vehicles and plan for charging infrastructure. The Joint Office recently released the schedule for a February webinar series surrounding electric vehicle planning for communities. Tune in to hear on-the-ground experience from experts including best practices, challenges, and strategies for effectively planning, deploying, and operating EV charging infrastructure.

Feb. 13, 2024: 2:00 pm - 3:00 pm ET
Permitting and Site Selection Strategies for EV Charging Infrastructure

Feb. 15, 2024: 2:00pm - 3:00 pm ET
Navigating Zoning and Building Codes for EV Infrastructure

Feb. 27, 2024: 2:00 pm - 3:00 pm ET
Curbside EV Charging Strategies

Register Here

Delaware Dashboard

The 7th Annual RASCL Summit

Cool

On January 17th, 2024, the Resilient and Sustainable Communities League (RASCL) hosted its 7th annual summit in Dover, DE.

RASCL's mission is to support all Delaware communities in taking necessary actions to thrive in the face of changing environmental conditions through collaboration, information sharing, and technical assistance.

Composed of state, non-profit, and university partners, the summit provided an opportunity for industry experts to share experiences, dispel myths, and empower communities to strive towards a more sustainable Delaware.

Presentation topics included electric vehicle myths and trends, off-shore wind feasibility in Delaware, and development of community sustainability plans.

If you missed out on the summit this year, don't fret! All presentations from the day have been made available **here.**

Click the button below to learn more about RASCL and to make sure you don't miss out on the 8th annual summit!

Learn More

Transportation TidBit

As of January 1st, 2024, the following number of alternative fuel vehicles are registered in Delaware:

- 24,948 hybrid and plug-in hybrid
- 8,355 battery-electric
- 276 propane
- 214 liquified gas
- 158 compressed natural gas

Data provided by the Department of Transportation, Division of Motor Vehicles.

Switch Low Impact Refrigerant Program

Beyond the realm of transportation, numerous opportunities exist for curtailing emissions. The Department of Natural Resources and Environmental Control's (DNREC) "Cool Switch Low Impact Refrigerant Program" presents a pathway to address some of the less recognized or considered emissions stemming from our refrigeration systems.

Hydrofluorocarbons (HFCs) represent a common chemical refrigerant in the U.S. initially developed as a substitute for chlorofluorocarbons (CFCs) and other refrigerants known to harm the Earth's ozone layer. Though safer for the ozone layer, HFCs still possess a high global warming potential (GWP).

In response, a new generation of refrigerants has emerged, including hydrofluoroolefins (HFOs) and other natural alternatives, which exhibit minimal climate impact.

The Cool Switch Low Impact Refrigerant Program extends grants to non-residential applicants for replacing existing refrigerants with low GWP alternatives or for installing entirely new systems utilizing these alternatives.

Eligibility and Incentives
All non-residential consumers in Delaware utilizing at least 50lbs of refrigerant are eligible to participate in the Cool Switch. Incentives across all program pathways will be paid at a rate of $25 per ton of avoided CO2 emissions.

Want to learn more? Visit the website and **apply today**!

Stakeholder Highlight -- Autoport Inc.

In 2008, AutoPort, Inc. embarked on a transformative journey that reshaped sustainable transportation solutions. Collaborating with Dr Willett Kempton and the University of Delaware, AutoPort initiated a pioneering project to convert vehicles to fully electric models, marking a significant milestone for Vehicle-to-Grid (V2G) technology. AutoPort successfully converted a number of ICE vehicles to BEV with bi-directional V2G capability. These included BMW Minis, Toyota Scions, and Ford Econoline vans; in addition to a potential USPS Electric LLV. The success of the V2G proof of concept led to a licensing agreement, solidifying AutoPort's commitment to innovation in sustainable transportation and its mission to pave the way for a fleets' path to zero emissions.

Recognizing the need for broader industry acceptance, AutoPort strategically expanded its focus to alternative fuels in the medium-duty Class 2-6 truck equipment sector, with specific emphasis on Compressed Natural Gas (CNG) and propane. This evolution positioned AutoPort as a leader in reducing emissions and helping fleets reduce their carbon footprint in their communities through CNG and propane conversions. Despite initial challenges, AutpPort's foresight in embracing alternative fuels became a key driver in providing sustainable solutions.

In parallel, AutoPort seamlessly integrated its expertise in handling aftermarket equipment and alternative fuel conversions within a single company. This unique capability sets AutoPort apart as a one-stop-shop, offering industry-leading sourcing for fleets of all sizes. By streamlining the process and consolidating services, AutoPort empowers fleets on their journey to emission reduction, making it easier for them to adopt EV, CNG, and propane conversions, contributing to a cleaner, greener community.

Recently, AutoPort has actively re-engaged with Dr. Kempton to convert a number of light BEV vehicles for a major utility to bi-directional V2G. This strategic collaboration further reinforces AutoPort's commitment to advancing V2G technology and providing cutting-edge solutions for the evolving needs of the industry.

Today, AutoPort stands at the forefront of sustainable transportation solutions, seamlessly transitioning from V2G initiatives to becoming a trailblazer in alternative fuels, emissions reduction, and comprehensive fleet solutions. With a rich history of innovation and a commitment to shaping the future of eco-friendly fleet operations, AutoPort continues to lead the charge in creating a more sustainable and efficient transportation ecosystem.

Helpful Resources and Events

Save the date! The **Advanced Clean Transportation Expo** organized by TRC returns to Las Vegas, Nevada in May! The ACT Expo is the commercial transportation industry's largest conference and expo spotlighting the vehicle technologies and fuels driving fleet sustainability. With over 12,000 attendees, 350+ exhibitors, and 250+ vehicles on display, the ACT Expo serves as an opportunity for fleet managers to network, learn, and establish procurement plans for low- and zero-emission

Fuels Fix
Fuels Fix features stories about alternative fuels and advanced vehicle technologies successes in the United States. The site is powered by news from the US DOE Clean Cities Program as well as our working partners in the alternative fuels industry.

On-the-Go Podcast
On the Go is a podcast on alternative fuels, advanced vehicles, and emerging transportation technologies that are transforming mobility as we know it.

commercial and transit vehicles.

- **Monday, May 20, 2024 - Thursday, May 23, 2024**

Have questions? Contact registration@trccompanies.com

Secure your full conference pass today! **Register Now**

EV Hub Live Podcast
EV Hub Live is a first-of-its-kind video podcast recorded live and distributed for free to the public policy community working to advance transportation electrification.

Alternative Fuel Highlights

Growing Consensus on Phased Infrastructure Approach for ZE-MHDV Charging

New reports and tools published by the International Council on Clean Transportation (ICCT), CALSTART, and the Electric Power Research Institute (EPRI) are indicative of a strong national consensus regarding a strategic and phased approach to zero-emission medium and heavy-duty vehicle charging infrastructure buildout.

In November 2023, CALSTART published a report that called for first action on ZE-MHDV charging infrastructure to be focused on hubs within three geographic areas – along the West Coast's I-5 corridor, the Texas Triangle, and segments of I-80, I-40, and I-10. This initial focus aims to establish robust charging in key areas before expanding to regional corridors and eventually connecting to a national charging network.

An assessment published by the ICCT supports this targeted approach and highlights the same three geographic areas, despite using different methodology from the CALSTART report.

Furthermore, EPRI's recently published eRoadMAP, which provides valuable insights into electrification needs through 2030, pinpoints three electrification hotspots across the country that closely mirror the priority charging areas highlighted in both ICCT and CALSTART reports.

Collectively, these reports serve as guides for policymakers, industry stakeholders, and fleet operators, offering a clear roadmap for the phased deployment of ZE-MHDV charging infrastructure.

Read more about these reports **here.**

Revolutionizing Trucking: Near-Zero-Emission Natural-Gas Powered Hybrids

Breaking new ground in the realm of sustainable transportation, US Hybrid has announced the launch of a near-zero-emission natural gas-powered parallel hybrid powertrain. This innovative technology, designed for drayage and long-haul trucks, represents a leap forward in power, efficiency, and environmental impact.

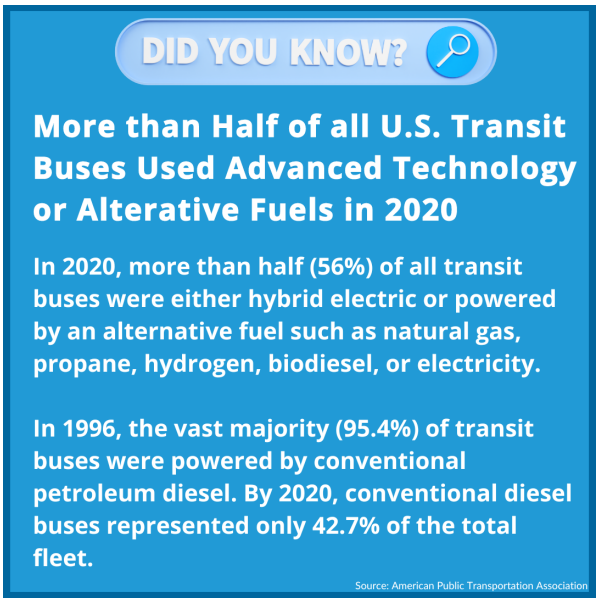
After six years of research, development, and testing, US Hybrid's technology promises several key advantages:

1. **More Power**: With 640 hp and 1770 lb-ft maximum torque from the natural gas powered engine, the electric motor ensures superior performance
2. **Less Fuel**: The smaller 8.9 liters Near-Zero NOx engine operates with double the fuel economy of a standard 15-liter engine, resulting in reduced fueling costs.
3. **Better Range**: Preliminary testing suggests an impressive 1,000 miles of range per fuel fill, doubling the range, power, and torque compared to similar CNG/RNG trucks.
4. **Increased Efficiency**: The combination

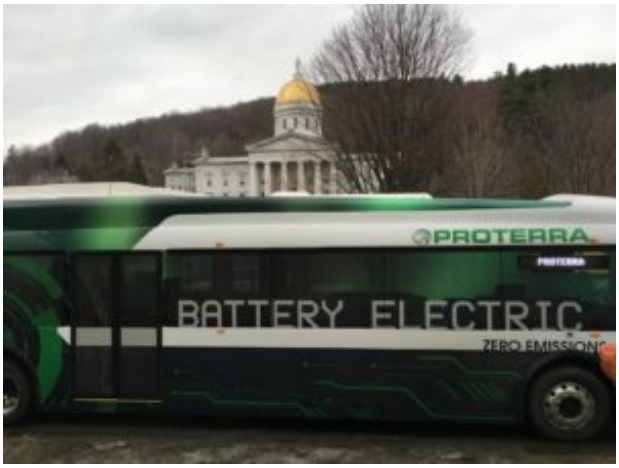
of CNG engine performance and the electric motor results in lower NOx emissions and reduced fuel consumption.

5. **Near-Zero Emission**: Emitting lower than 0.02 g/bhp-hr of nitrogen dioxide, this technology significantly improves air quality, particularly in neighborhoods near ports and warehouses.

Read More



Coalition Spotlight -- Vermont Clean Cities Coalition



The Vermont Clean Cities Coalition "Future of Rural Transit" initiative is charging towards the most efficient, equitable, and cost-effective rural transportation system in the US, aiming to address these challenges by combining public, Medicaid, and school transportation into a single electrified public transportation system.

The initiative's goals include reducing transportation costs for schools and municipalities, increasing mobility options, and mitigating environmental and public health risks associated with diesel emissions. Worldwide, public transportation typically serves both schools and communities, offering cost savings and increased functionality. The Future of Rural Transit project will study the feasibility of bringing such a system to Vermont and design a pilot utilizing all-electric buses.

In Vermont, transportation represents the largest share of dollars spent on energy for households (45%), with rural families spending up to 20% of their income on overall energy needs. The Future of Rural Transit project seeks not only to provide increased access to public transit for those living in rural areas, but to provide a more affordable, efficient, and sustainable transportation system for all.

To learn more, visit **Future of Rural Transit - Vermont Clean Cities Coalition (uvm.edu)** .

Delaware Division of Climate, Coastal and Energy
Delaware Clean Cities | de.gov/cleancities