



TODD NOVAK

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P.O. Box 8953
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DATE: Tuesday, January 9th, 2024
RE: Testimony on Assembly Bill 491
TO: Assembly Committee on Transportation
FROM: State Representative Todd Novak

Thank you Chair VanderMeer and members of the Assembly Committee on Transportation for holding this public hearing on Assembly Bill 491 (AB 491), relating to prohibiting certain rules related to dispensing liquefied petroleum gases for vehicle fuel purposes.

Wisconsin's propane industry contributes nearly \$2 billion to the state economy annually. Our state is among the highest users of propane in the country, with more than 250,000 Wisconsin residents using propane to fuel their homes.

Propane is a popular choice for residential equipment and appliances such as stoves, water heaters, and generators, as well as commercial and agricultural equipment like forklifts and grain dryers. Furthermore, propane powered vehicles are becoming more popular with many school bus fleets and law enforcement vehicles. Overall, propane is used widely in Wisconsin and is especially necessary in rural regions and in several commercial applications.

Unfortunately, due to regulatory hurdles, it can be incredibly burdensome for consumers and businesses alike to utilize propane autogas. [SPS 340.43](#) creates burdensome training requirements that prohibit self-dispensing, and creates training requirements for fuel dispensary employees that go beyond the scope of the training they receive to handle petroleum.

AB 491 simplifies the training requirements and eases the regulatory burden to allow more consumers and prospective businesses to utilize propane auto gas. In doing so, we will allow for propane autogas dispensing facilities to have parity with other vehicle fueling facilities.

Following my testimony, you will also have the opportunity to hear testimony from stakeholders including a constituent from my district. They will share with you the regulatory burdens they currently face for dispensing fuel that is as easy and safe to operate as a self-dispensing pump at your local gas station.

Thank you for your consideration of Assembly Bill 491.



WISCONSIN STATE SENATE
DAN KNODL
STATE SENATOR • 8TH DISTRICT

Assembly Bill 491
Public Testimony
Assembly Committee on Transportation
January 9, 2024

Thank you, Chairperson VanderMeer and members of the committee for holding this hearing on Assembly Bill 491.

This bill will remove arbitrary barriers on the self-dispensing of liquefied petroleum gas, often referred to as LPG. When used as a vehicle motor fuel, it is often called propane autogas.

Propane is the third most popular motor fuel worldwide. Propane autogas produces significantly lower emissions than traditional gasoline, and it is often cheaper as well. Consequently, its adoption can have many benefits, especially in fleet vehicles where it may be cost-effective to adopt the infrastructure needed.

Current state law mandates that the Department of Safety and Professional Services establish standards around the handling of LPG. This imposes unnecessary training requirements for anyone who dispenses propane autogas. Propane autogas is already a common fuel for passenger vehicles in a number of countries worldwide, including Australia and South Korea. Requiring training for anyone who dispenses LPG for vehicle fuel only serves to make the adoption of propane autogas impractical.

This bill does not affect the ability of the Department of Safety and Professional Services to promulgate rules governing the legitimate regulation of the propane industry. It simply adds an exemption from regulation for the self-dispensing of LPG for vehicle fuel purposes.

Thank you for your consideration of this bill, and we would be happy to answer any of your questions.



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TO: Assembly Transportation Committee
FROM: Jennifer Wickman, Director of Government Affairs
DATE: January 9, 2024
RE: Assembly Bill 491 – Self-serve propane autogas

Cooperative Network is an association of cooperatives representing a dozen different business sectors in Wisconsin and Minnesota. Farm supply cooperatives are a significant portion of our membership and include organizations all over Wisconsin that sell propane for a variety of agricultural uses – these range from heating to drying to driving. Farms use propane to power boilers, radiant heat systems, special furnaces for greenhouses, and grain dryers. Farms use propane to run forklifts, skid steers and tractors. And now, more and more farms are using propane to run their farm trucks and personal automobiles.

Propane powered trucks and automobiles have many advantages, including:

- higher octane than conventional gas which means it burns cleaner, lowering maintenance costs, and improving vehicle performance and longevity,
- cleaner burning also means propane autogas creates 12% less carbon dioxide, 20% less nitrogen oxide, 40% less smog-producing hydrocarbons, and 60% less carbon monoxide
- tax savings under the Alternative Fuel Tax Credit until December 2024
- lower cost per gallon means standard-size vehicles can see thousands of dollars in fuel savings

I've attached an article from CENEX entitled "SAVE MONEY with a Propane-Powered Car" which includes this information:

"Many people don't know this, but propane is the most-used alternative fuel in the nation. More than 220,000 vehicles across the U.S. are powered by propane—and that number is only growing and includes more than 13,000 school buses.

Propane is a domestically produced, well-established fuel that's been used in vehicles since the '70s and '80s. What's more, it's in ample supply—the U.S. is the number one propane producer and exporter in the world.

The way propane vehicles work is similar to conventional, gas-powered cars. Typically, propane is stored in liquid form inside a separate tank and is then either converted to a vapor inside the combustion chamber or injected as a liquid, where it is burned to produce power, just like gasoline."

It's fair to say that Premier Cooperative is the leading the way on this, but when I called all my other farm supply cooperatives, every one of them enthusiastically supported this bill which will allow everyone to enjoy the benefits of propane autogas.



SAVE MONEY WITH A PROPANE-POWERED CAR

By: **Andy Ernst**

CHS Propane Marketing Manager

in **Propane**



Sure, it's not a time-traveling DeLorean or a stunt-performing Charger, but the CHS Taurus can do something just about as amazing: run on both propane and gas.

Many people don't know this, but propane is the most-used alternative fuel in the nation. More than 220,000 vehicles across the U.S. are powered by propane—and that number is only growing and includes more than 13,000 school buses.

Never heard of a car that runs on propane? Also known as autogas or liquefied petroleum gas, propane is a domestically produced, well-established fuel that's been used in vehicles since the '70s and '80s. What's more, it's in ample supply—the U.S. is the number one propane producer and exporter in the world.

The way propane vehicles work is similar to conventional, gas-powered cars. Typically, propane is stored in liquid form inside a separate tank and is then either converted to a vapor inside the combustion chamber or injected as a liquid, where it is burned to produce power, just like gasoline.

Propane Benefits and Considerations

Also known as liquefied petroleum gas (LPG), propane is a domestically produced, well-established fuel. Using propane as a vehicle fuel increases energy security, can provide the convenience of on-site fueling economically, and reduces air pollution and the environmental impacts of vehicles.

Energy Security

The United States became a net exporter of petroleum (<https://www.eia.gov/tools/faqs/faq.php?id=32&t=6>) in 2020 with exports surpassing imports, although imports of 8.47 million barrels per day in 2021 remained an important part of balancing supply and demand for domestic and international markets. Overall the transportation sector accounts for about 30% of total U.S. energy needs and 70% of U.S. petroleum consumption. Diversifying the U.S. fuel supply with domestic fuels like propane—the vast majority of which is produced here and distributed (/fuels/propane_production.html) via an established infrastructure—has helped reduce our overall use of imported petroleum in recent years. Using alternative fuels and other advanced technologies to reduce petroleum consumption continues to strengthen national security and reduce transportation energy costs for businesses and consumers.

Vehicle and Infrastructure Availability

A variety of medium- and heavy-duty propane vehicle models are available through original equipment manufacturers and select dealerships. Also available for light- and medium-duty vehicles are engines that are designed as prep-ready, meaning they are designed to handle the higher temperature and lower lubricity of propane. For vehicle options, see the Alternative Fuel and Advanced Vehicle Search (</vehicles/search/>) or, for light-duty models, the Alternative Fuel and Advanced Technology Vehicles list (</vehicles/search/download.pdf>).

While propane vehicles can cost several thousand dollars more than comparable gasoline vehicles, the cost of the fuel itself is typically lower than that of gasoline, so the return on investment can be quick. In comparison to diesel vehicles (such as school buses), however, propane models can cost on par with their diesel counterparts because of the diesel vehicle's more expensive engine and emissions controls. Fleets and consumers also have the option of economically, safely, and reliably converting in-use light-, medium-, and heavy-duty gasoline vehicles for propane operation using qualified system retrofitters. It's critical that all vehicle and engine conversions meet the emissions and safety regulations (/vehicles/conversions_regulations.html) and standards instituted by the U.S. Environmental Protection Agency, the National Highway Traffic Safety Administration, the National Fire Protection Association (Code 58 (<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=58>)), and state agencies like the California Air Resources Board. Learn about propane vehicle conversions (/vehicles/propane_conversions.html).

By using the AFDC Station Locator (</stations/>) tool, fleets and private users can identify nearby public and private fueling stations. Propane stations are categorized as either primary or secondary. Primary stations have dedicated vehicle services and tend to be less expensive than secondary stations, which mostly serve the propane tank and bottle market.

Fleets can use existing public infrastructure or work with local propane marketers to establish private infrastructure and a pricing structure, which can greatly reduce the end cost of the fuel. Negotiating a supply contract can be beneficial to fleets in terms of reducing their overall fuel cost. Costs will depend on the volume of fuel that's indicated in the contract and the complexity of the equipment being installed. Learn more about the cost of propane infrastructure (https://propane.com/wp-content/uploads/2022/06/21PERC0390_6671-BR-21_Refueling-Guide_v1_HR.pdf).

Fuel Economy and Performance

Propane at primary infrastructure sites (those that frequently provide fuel to vehicles) typically costs less per gallon than gasoline, and propane vehicles provide a comparable driving range to conventionally fueled vehicles. Propane's lower British thermal unit rating per gallon results in lower fuel economy, but its lower per-gallon cost can quickly offset the lower fuel economy.

The potential for lower maintenance costs makes propane a popular choice for high-mileage vehicles. Propane's high octane rating, combined with its low-carbon and low oil-contamination characteristics, has resulted in improved engine life compared to conventional gasoline engines. Cold-start problems can often be reduced as well. This is because the fuel's mixture (propane and air) is completely gaseous when entering the engine's combustion chamber, and propane engines do not require an enriched fuel mixture during cold-weather startups the way other, liquid-fueled engines do.

Public Health and Environment

Compared with vehicles fueled by conventional diesel and gasoline, propane vehicles can produce lower amounts of some harmful air pollutants and greenhouse gases, depending on vehicle type, drive cycle, and engine calibration. Learn more about [propane emissions \(/vehicles/emissions_propane.html\)](/vehicles/emissions_propane.html).



(mailto:technicalresponse@icf.com) **Need project assistance?**

Email the [Technical Response Service \(mailto:technicalresponse@icf.com\)](mailto:technicalresponse@icf.com) or call [800-254-6735 \(tel:800-254-6735\)](tel:800-254-6735).

The AFDC is a resource of the U.S. Department of Energy's [Vehicle Technologies Office \(https://energy.gov/eere/vehicles/technology-integration\)](https://energy.gov/eere/vehicles/technology-integration).

[Contacts \(/contacts.html\)](/contacts.html) | [Web Site Policies \(https://energy.gov/about-us/web-policies\)](https://energy.gov/about-us/web-policies) | U.S. Department of Energy (<https://energy.gov>) | USA.gov (<https://www.usa.gov>)

Good morning Chair Vandermeer and members of the committee. My name is Cheryl Lytle and I am the Executive Director for the Wisconsin Propane Gas Association. With me is Tim Lease with Premier Cooperative, and a WPGA board member.

We are here today to express our support for Assembly Bill 491 that will remove training requirements for self-service dispensing of propane Autogas.

Using liquefied petroleum gas or propane as a fuel is a relatively new concept that has been becoming more widely used in the last few decades. Across the country, there are about 60,000 on-road propane vehicles and a majority of those are used in medium-size fleets, school buses, shuttles, and police vehicles. Some propane vehicles are available from the manufacturer, otherwise traditional vehicles can be converted to solely use propane Autogas or a combination of traditional gas and propane Autogas.

There are many reasons why consumers are choosing propane Autogas for their vehicles with the two most significant being the environmental benefits and cost savings compared to conventional fuels.

Propane Autogas is a cleaner-burning fuel compared to gasoline and diesel. It produces fewer greenhouse gas emissions, including carbon dioxide and nitrogen oxides, which can help reduce a vehicle's carbon footprint and contribute to better air quality.

Propane Autogas is an extremely cost-effective option and can save fleet operators and individual vehicle owners a significant amount of money on fuel expenses. In December, the average cost of propane Autogas was \$1.40/gallon compared to the average cost of gasoline at \$2.75/gallon.

Also, Propane Autogas engines often require less maintenance because they run cleaner and have fewer moving parts prone to wear and tear. This can result in lower maintenance costs over the vehicle's lifetime.

School districts choose propane school buses because the engines start in cold weather without plugging-in, reduced maintenance expenses, can lock-in the rate during summer fill and are generally quieter than diesel engines. However, transportation directors tell us they don't use propane buses on long trips because of the uncertainty of places to re-fuel the bus.

Some of the other reasons for choosing propane Autogas include that it is largely produced in North America, reducing dependency on foreign oil and promoting energy security.

As I've just shared, there are many reasons people are choosing propane Autogas, however in Wisconsin there is a regulatory training requirement that is posing an unnecessary barrier to the broader use of propane Autogas in our state.

Specifically, Wisconsin law prohibits public self-service dispensing of propane and specifies that only trained and authorized employees of the bulk storage plant, service station or entity operating vehicle fleets may dispense the gas. For the most part, Wisconsin's rules are adopted from the National Fire Protection Association Code, however this language is specific to Wisconsin and does not appear in NFPA code. In addition, there is no prohibition on self-service dispensing of propane Autogas in our neighboring states of Michigan, Iowa and Minnesota.

Please support Assembly Bill 491 to allow Wisconsinites to utilize propane Autogas by removing the training requirement.

I will now turn it over to Tim Lease to speak more on how the regulations affect the use of propane Autogas.

Propane Autogas Saves More With Every Mile

When you compare the cost-per-mile of propane autogas against other energy sources, the choice is clear.

ELECTRICITY

\$2.02

DIESEL

\$0.86

GASOLINE

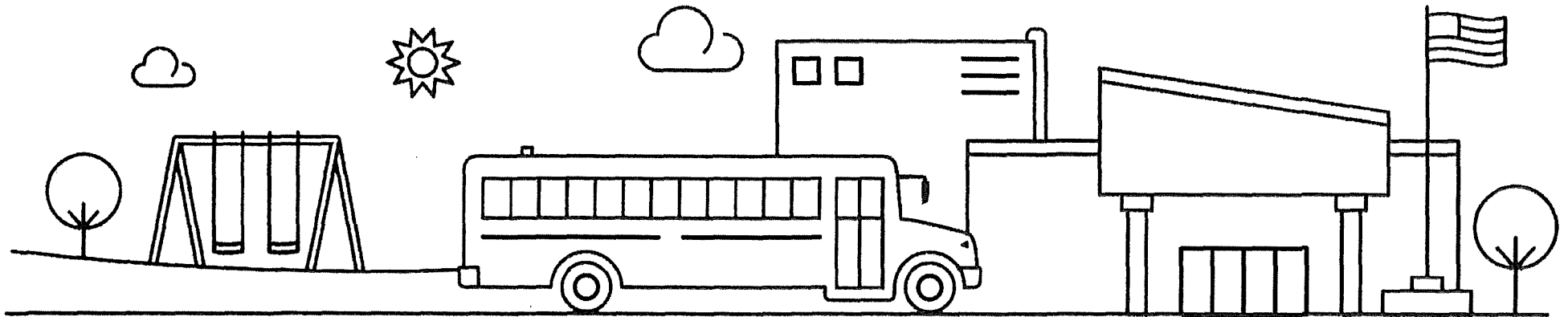
\$0.85

NATURAL GAS

\$0.76

PROPANE AUTOGAS

\$0.63



Source: Roush CleanTech. Cost-per-mile calculations based on Type C school buses; annual miles traveled per bus, number of years operated, fuel economy, and fuel price per gallon.

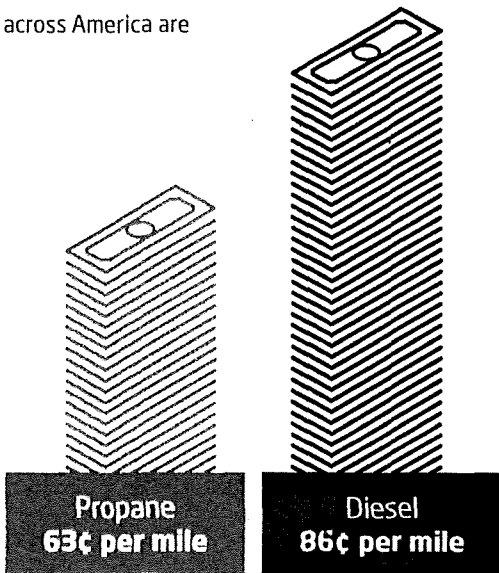
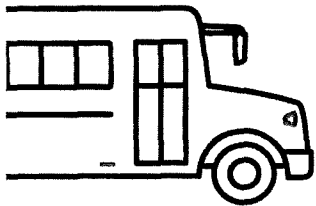
Propane vs. Diesel

Propane school buses are more cost effective, reduce emissions, and require less maintenance than diesel buses.

It's no wonder that school districts across America are making the switch to propane.

Cost Per Mile

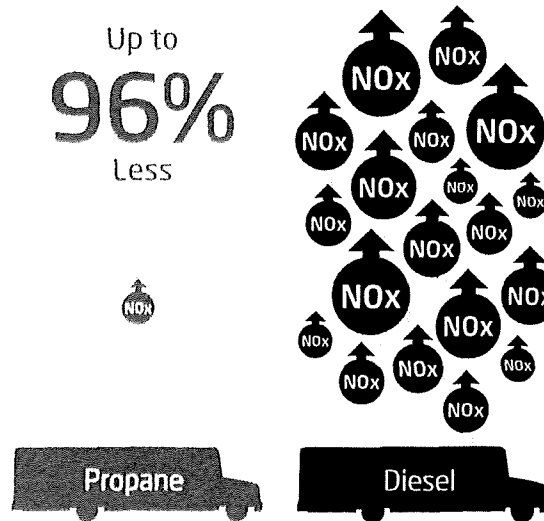
Propane buses are more cost effective than diesel



Toxic Emissions

Propane buses release far less nitrogen oxide (NOx) into the atmosphere than diesel buses

Up to
96%
Less

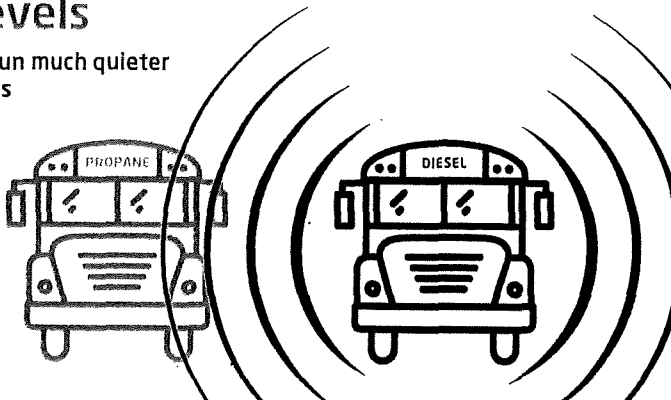


Stinky Exhaust

Propane buses don't release noxious fumes like diesel buses

Noise Levels

Propane buses run much quieter than diesel buses



Cost Savings

When comparing propane buses to diesel, fleet owners report an average savings of \$3,000 per bus per year.



Good morning. My name is Tim Lease and I am the Energy Division Manager for Premier Cooperative. I want to personally thank Sen. Knodl and Rep. Novak for introducing this legislation and allowing us the opportunity to testify on the subject.

As an Energy Division Manager, I oversee residential, farm and commercial propane distribution, including propane autogas. Premier Cooperative provides propane autogas for 21 customers amounting to over 200,000 gallons annually. This includes several school districts and law enforcement agencies in our area. As propane autogas has become more popular, Wisconsin's training requirement that Cheryl detailed has become an impediment for those that operate vehicles with propane autogas.

The training requirement that is specified does not detail the type of training, length of training or anything other than requiring training to dispense autogas. Dispensing propane autogas is nearly identical to dispensing motor vehicle fuel, except that the technology has made it safer to dispense propane autogas.

I have a quick video that I'd like to share with the committee that demonstrates how propane autogas is dispensed.

[share video]

As you can see, dispensing propane autogas is identical to refueling with gasoline with one major difference: it is safer to dispense propane autogas because of the built-in safety mechanisms including pressure-relief valves, shut-off valves that detect fuel line ruptures, and overfill prevention devices. You can't pull the nozzle out of the connection when the operating lever is pulled.

Propane autogas is an important part of my job, as I mentioned, but I also own 2 vehicles retrofitted to run on propane autogas. These vehicles are less expensive to operate and are better for the environment. Currently, if I travel in Wisconsin and need to purchase propane at a company other than my own, I would need training from that company before I could use their dispenser. This would be enough to deter most people from using propane autogas and it would make pay at the pump impossible without training.

The training requirements and regulations have been barriers for businesses and individuals to switch to propane autogas but have also hindered the availability of propane autogas. If you look at the Department of Energy's alternative fuel corridor, it shows numerous fueling stations with propane autogas south of Highway 29, but only one or two in northern Wisconsin and the UP. Removing the training regulation would remove that barrier and allow for more broader use of propane autogas, leading to more fueling options in Wisconsin.

I want to, once again, thank the committee for the opportunity to testify on AB 491 and encourage your support for the proposal. Thank you for your time, we'd be happy to answer any questions the committee may have.



January 9, 2024

TO: Assembly Committee on Transportation

FROM: Mike Tierney, Legislative Liaison for the Wisconsin Department of Safety and Professional Services

RE: AB 491 – *prohibiting certain rules related to dispensing liquefied petroleum gases for vehicle fuel purposes.*

Chairperson VanderMeer and Committee members,

Thank you for holding this hearing today on Assembly Bil 491 related to prohibiting certain rules related to dispensing liquefied petroleum gases (LPG) for vehicle fuel purposes.

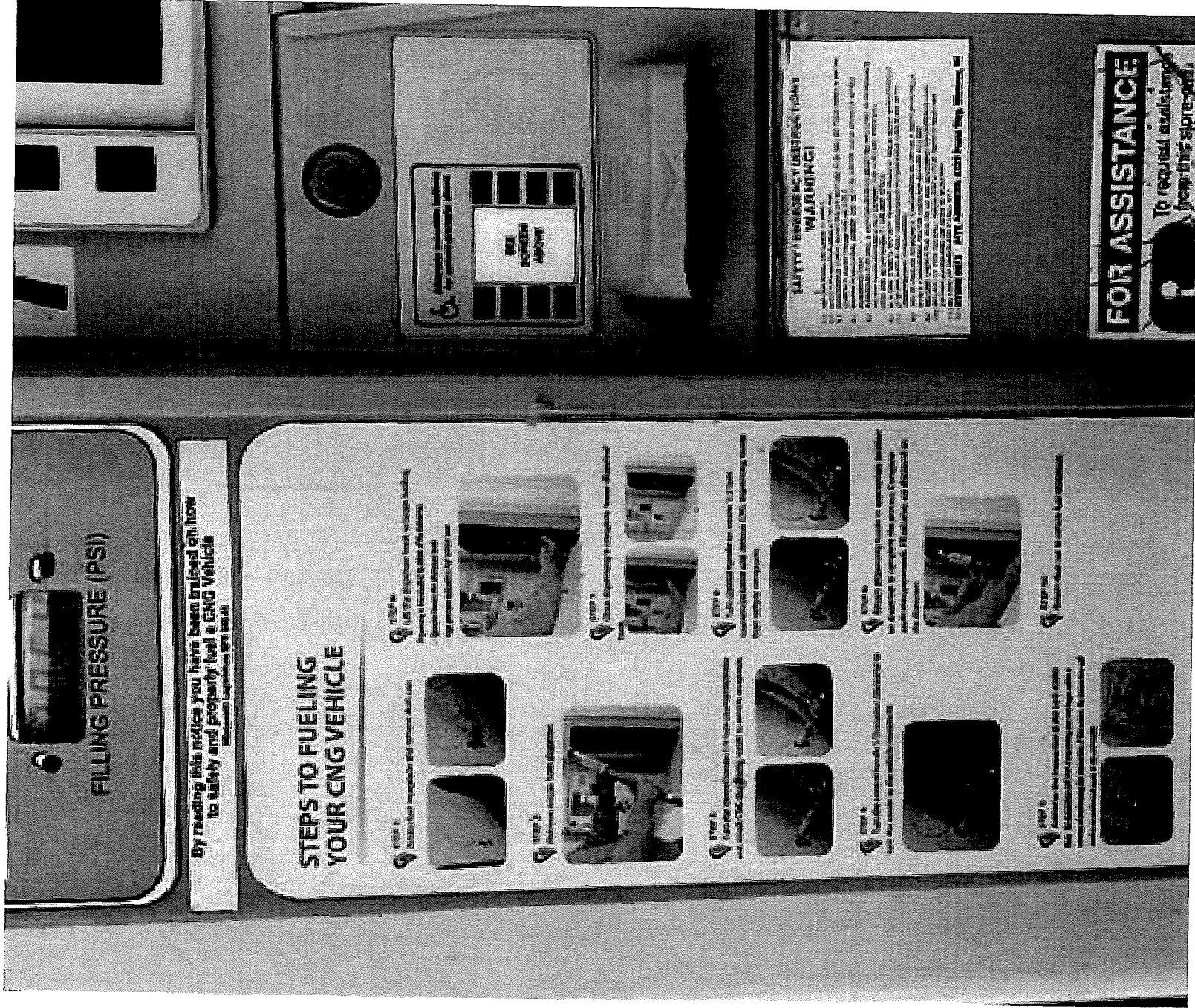
As noted by the authors, “Wisconsin’s propane industry contributes nearly \$2 billion to the state economy annually. Our state is among the highest users of propane in the country, with more than 250,000 Wisconsin residents using propane to fuel their homes. Propane is a popular choice for residential equipment and appliances such as stoves, water heaters, and generators, as well as commercial and agricultural equipment like forklifts and grain dryers. Furthermore, propane powered vehicles are becoming more popular with many school bus fleets and law enforcement vehicles. Overall, propane is used widely in Wisconsin and is especially necessary in rural regions and in several commercial applications.”

Given propane’s stated importance, safeguarding against errors related to safety that could affect the propane supply and ability of the industry to meet the needs of Wisconsin consumers’ needs to be a top priority. DSPS disagrees that there are burdensome training requirements in the current code. The reference to training is intended to be a safeguard against errors. The current wording of SPS 340.43 is attached.

Like Compressed Natural Gas (CNG), LPG is dispensed into a pressure vessel (“tank”) that is designed to handle high pressure. Unlike a traditional regular gas tank that can last for decades, pressure vessels have a 20-year lifespan and need to be inspected and potentially replaced if damaged in any way. Arguably, a person who operates a vehicle fueled using CNG or LPG, does take on a higher level of responsibility and having a training requirement helps that person fulfill that responsibility and keeps themselves, their families and community members safer.

SPS 340.43 already allows customers to self-dispense fuel into their own vehicles with CNG provided they are trained and the fueling connection meets ANSI standards. A photo of a currently used CNG pump in Wisconsin is attached. As you can see, the process entails 10 steps. If the goal of this bill is to allow persons to self-dispense LPG as well, then an alternative would be to have the department also create an exemption for LPG self-dispensing using equipment that meets national testing standards.

In terms of dispensary employees, the code requires that only trained and authorized employees fill tanks (no distinction is made between CNG or LPG). However, again, the code does not dictate the nature of the training. The department believes requiring a minimal amount of training is better for Wisconsin businesses than having an accident occur and have those businesses subsequently be subject to fines from OSHA. Thank you.



SPS 340.43 Dispensing to vehicle fuel tanks, recreational equipment and containers.

(1) Public self-service prohibited. Self-service dispensing by the general public of any gas regulated by this chapter is prohibited, except trained members of the general public may fuel compressed natural gas motor vehicles through a fueling connection that complies with ANSI NGV1–2006.

Note: The ANSI NGV1–2006 standard contains construction and performance criteria for compressed natural gas vehicle fueling connection devices consisting of (1) a receptacle (mounted on the vehicle), (2) a nozzle (mounted on fueling dispenser), and/or (3) a three-way valve (internal or external to the nozzle), having design pressures of 2400, 3000 or 3600 psig. Nozzle design will not permit gas flow until positively engaged to the receptacle and will not release the receptacle until gas flow has ceased and captured gas is safely vented. Interconnecting components are standardized. Nozzle and receptacle design prevent the fueling of a vehicle with lower service pressure by a dispenser with a higher service pressure.

(2) General. No person, except for the following, may dispense any gas regulated by this chapter unless the dispensing is through approved dispensing devices:

(a) A trained and authorized employee of a bulk storage plant, container charging plant or service station.

(b) A trained and authorized employee of an entity operating a commercial fleet of motor vehicles.

(3) Location of key-, card- or code-operated dispensing systems.

(a) Public areas. Vehicle-fuel dispensing systems may be located in areas accessible or open to the general public only if all of the following requirements are met, except subd. 3. does not apply to the fueling allowed in sub. (1):

1. The system is equipped with key-, card- or code-operated dispensing devices listed or approved by a nationally recognized testing laboratory.

2. The keys, cards or codes referenced in subd. 1. are provided only to ~~trained and~~ authorized personnel.

3. An attendant is on duty at all times when gas is being dispensed.

(b) Non-public areas. Dispensing of gas is permitted without an attendant only if all of the following requirements are met, except subd. 1. does not apply to the fueling allowed in sub. (1):

1. The dispensing system is located in an area that is not accessible or open to the general public.

2. The system is equipped with approved key-, card- or code-operated dispensing devices.

3. The keys, cards or codes referenced in subd. 2. are provided only to trained and authorized personnel.

(4) Posting of signs. A permanent sign providing a 24-hour service-call telephone number in letters at least one inch high shall be posted at the vehicle-fuel dispensing device in all non-attended locations.

History: CR 11-002: cr. Register August 2011 No. 668, eff. 9-1-11.