



## **Powering Your Journey** To a Cleaner, **Greener Future**

The Dover Fueling Solutions® Clean Energy Product Portfolio



DFS Worldwide Brands









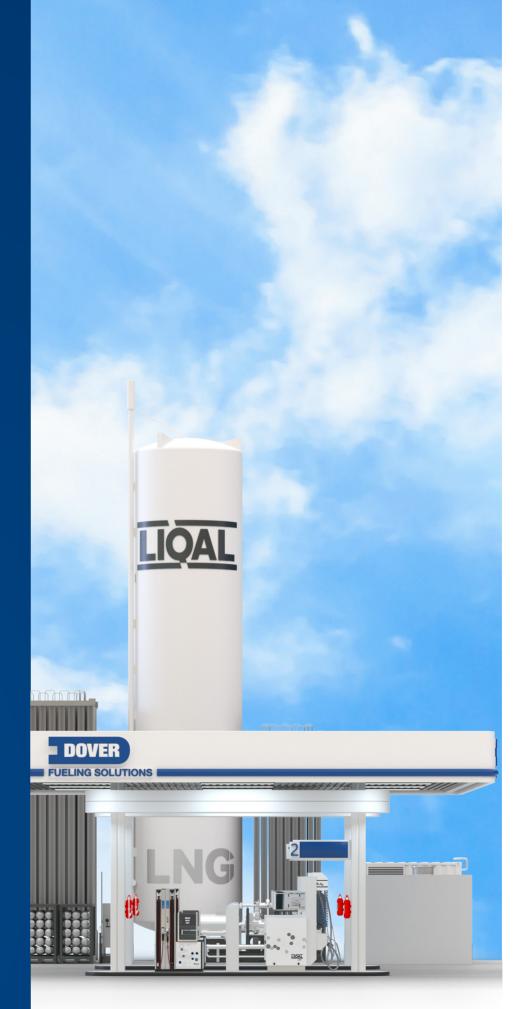


## Clean Energy, Now and in The Future

At Dover Fueling Solutions® (DFS) we are dedicated to offering cleaner and more environmentally friendly ways to power vehicles. To help contribute to a greener planet, we have invested in a broad range of products and solutions that support a variety of clean fuels, including liquefied natural gas (LNG), Hydrogen (H2), liquefied petroleum gas (LPG), compressed natural gas (CNG) and electricity, alongside conventional fuel dispensers that have a lower impact on the environment.

The energy mix in the fuel and convenience retail industry is changing. As the world tries to balance the ever-growing global need for more energy, alongside decarbonization, in the transportation sector, is your business ready to take on new challenges this brings?

Each of these fuels, in turn, are an essential part of the decarbonized energy mix and we're here to make sure our technologies support our customers, and their customers, on the journey towards a more sustainable future.



# Your Journey to Sustainability Starts Here

#### Hydrogen

Hydrogen is a zero carbon gas and the most abundant element in the universe. It can be produced via a number of methods, including solar and wind power or water electrolysis. Transport and distribution can be done via pipeline, high pressure tube trailer and liquified form. Within a fuel cell, compressed hydrogen (up to 700 bar), in contact with oxygen from the air, generates electricity for the car engine and produces only water as exhaust.

#### **Electricity**

Electricity is considered one of the cleanest ways to power modern cars. Electric vehicles (EV) are 100% eco-friendly and do not emit any harmful emissions or fumes whilst you drive, making them the go-to choice for many environmentally-conscious motorists.

#### LNG

LNG is a non-toxic liquid, formed when natural gas is cooled down to -160°C/-260°F. This non-flammable liquid is 600 times smaller in volume than when in its gaseous state, and therefore it is both easier and safer to handle and ship. LNG is the cleanest fossil fuel. It is an excellent alternative to reduce greenhouse gas emissions and help combat global warning. Combined with proper site equipment, LNG can be boiled off in order to produce and deliver CNG at the same station.

#### **CNG**

CNG, a fuel based primarily on methane, is the cleanest of all fossil fuels, as when burned, it releases carbon dioxide and water vapor into the atmosphere: the same compounds we exhale when we breathe, helping to reduce the harmful effects of greenhouse gas emissions.

#### LPG

LPG is a mixture of gaseous hydrocarbons produced from natural gas and oil extraction, and from oil refining. It is automatically generated during the production of methane and during the refining process itself.

DFS Worldwide Brands



Wayne OPW+ ClearView AvaLAN Bulloch



## Clean Energy Now and the Future

At DFS) we are dedicated to offering cleaner and more environmentally friendly ways to power vehicles.

To help contribute to a greener planet, we have invested in a broad range of products and solutions that support a variety of clean fuels, including liquefied natural gas (**LNG**), Boil-off Gas Treatment Unit (**BTU**), compressed natural gas (**CNG**), Hydrogen (**H2**), electric vehicle (**EV**) charging, and liquefied petroleum gas (**LPG**), that have a lower impact on the environment.



#### Fueling a Green Energy Movement

DFS Hydrogen dispenser

The DFS Hydrogen dispenser has been expertly designed for reliable performance against low total cost of ownership (TCO), leveraging decades of hydraulic innovation to make the refueling process safe and dependable. Bringing true product leadership to your retail forecourt or truck refueling hub, this dispenser was born from the best technology DFS has to offer, including advanced solutions to enhance the user experience, right at the fuel dispenser.

With multiple configuration possibilities and a broad range of options, this dispenser can be made to fit even the most specific forecourt needs, including simultaneous filling of two nozzles in any combination of H35 and H70 dispensing pressures. We also offer the option for an integrated heat exchanger for optimal continuous hydrogen dispensing.

This dispenser is designed with safety in mind, from the initial assembly right through to installation and daily operation. It also has the logic to control the entire refueling process for autonomous operation according to all safety codes and fueling protocols for compatibility to all available light and heavy duty vehicles.



#### Mix It Up. Introduce LNG.

LIQAL LNG dispenser

The LIQAL LNG dipenser is designed using state-of-art technology and is recognized for its reliable operation, day-after-day, month-after-month, year-after-year. Our field-proven components provide dependable performance and deliver outstanding uptime and availability, regardless of site throughput. Assembled with solid corrosion protection resulting from a powder-coated stainless-steel casing, our dispensers are protected in even the harshest weather conditions.

From assembly to installation to daily operation, the LIQAL LNG dispenser is engineered with safety in mind. From essential to premium safety features, our dispensers ensure safe and intuitive use, day-in, day-out. According to all safety codes, our integrated safety programmable logic controller (PLC) has logic controlling the venting, cooling, and filling for the entire fueling process for autonomous operation. As you would expect from a leading technology provider, our dispensers are also "Volvo Ready", with functionality to handle venting and filling through the same connection.

The innovative design of the LIQAL LNG dispenser features our patented nozzle docking bay, which is both heated and purged for tension-free connectivity and decoupling of the filling nozzle. This ensures a long hose and nozzle life, limiting the risk of leakages.

## Consistent Refueling. Unlimited LNG Storage.

LIQAL Boil-off Gas Treatment Unit (BTU)

Guaranteeing a perfectly conditioned environment for the storage of LNG, the LIQAL BTU System ensures LNG fuel can be stored safely for an unlimited amount of time. This modular unit removes the need for any active management of storage pressure, eliminating the need for liquid nitrogen (LIN) consumption and logistics, and maximizes the LNG storage capacity for optimal delivery of LNG fuel to your station.

The LIQAL BTU system protects the environment by preventing the venting of boil-off gas into the atmosphere. It does this in a cost-effective way that does not impact LNG deliveries, nor demands active management, making your life simpler. As a fully standalone unit with its own advanced process control system, it is able to effectively control the storage of LNG across all of your LNG fueling stations.

The LIQAL BTU system is designed to deliver extreme reliability over its long lifetime. Its internal components have been built to last, are field-proven and require fewer maintenance interventions, resulting in a low TCO. Simply put, the LIQAL BTU system is worth the investment.

**FUELING SOLUTIONS** 





#### Lower Greenhouse Gas Emissions

Wayne Helix® 6000 II CNG fuel dispenser

Available as a standalone and back-to-back model in combination with conventional fuels, the Helix® 6000 II CNG fuel dispenser is suitable for both retail and truck applications. With multiple configuration possibilities for one or two nozzles on each side and a broad range of options, this dispenser can facilitate even the most demanding forecourt needs. Safe and secure, the Helix® 6000 II CNG dispenser meets the highest levels of security standards.

As with all our Wayne Helix® fuel dispensers, the Wayne Helix® 6000 II CNG dispenser benefits from robust, field-proven technology to provide accurate metering and a reliable operation. You can remain confident this model won't let you down when it comes to precise CNG dispensing.

The intelligent design, superior quality and advanced IoT technology of the Helix® 6000 II CNG dispenser allows your business to really stand out from the crowd. And its future-proof design, with field retrofit modularity, is ready to grow whenever your business needs to take that next step.



### Fueling the Future with LPG

Tokheim Quantium® ML LPG dispenser, Tokheim Quantium® FS LPG dispenser, Wayne Helix® 6000 II LPG dispenser, Wayne Century® 3 LPG dispenser

Modular. Versatile. Flexible. The Tokheim® and Wayne® LPG dispensers take the best-of-the-best in fuel dispensing technology and deliver a highly configurable solution with an optimized footprint, making them the ideal solution to integrate LPG fueling to your forecourt.

What's more, these dispenser models are future-proofed to easily handle retrofit upgrades or enhancements, making it a great choice for fuel retailers wanting to offer LPG fueling options for their customers both now and in the future.

Both the Tokheim® and Wayne® LPG dispensers leverage decades of hydraulic innovation, quality materials and global components to ensure low TCO. A more reliable dispenser means fewer service callouts, lower service interventions and improved dispenser uptime. These LPG dispensers are built to last.





## Advanced Payment Security

#### **Prizma**

Introducing Prizma, a connected mobility and convenience hub that brings new possibilities to your retail business. Expand site revenue opportunities using Prizma's ability to support any type of fuel - whether conventional or clean - as well as any payment type.

Take control of forecourt devices and streamline business operations with Prizma, a flawless connected system that easily integrates with fuel dispensers, price signs, tank level gauges, electric vehicle chargers, car washes and video systems... in fact, the whole spectrum of forecourt products and services. In addition, Prizma makes use of both standard and proprietary protocols and is future proofed to easily accept new devices and protocols as they're needed, thanks to the system's robust forecourt device controller.

Prizma is the only solution fuel retailers need to optimize the balance between forecourt operations and convenience retail to maximize customer fueling throughput.

#### **DX Power**

DX Power™ effortlessly integrates EV chargers with Prizma, DFS' connected mobility and convenience hub, to provide retailers with improved visibility and control, and customers with flexible payment options. As a modular and open cloud-based platform, DX Power™ can interface with any EV charger and Charge Point Operator (CPO/CPMS) to provide a frictionless customer journey.

DX Power™ leverages the Prizma ecosystem and existing loyalty programs on fuel retail sites to ensure EV chargers are included in transactions through the POS. This gives customers the additional ability to pay with cash, as well as traditional bank (credit or debit), local account, and fleet cards. This increases customer flexibility, as they can charge without the need for a roaming contract or registration to pay via charge cards. Facilitating the reuse of existing forecourt equipment, DX Power™ - in conjunction with Prizma - optimizes investments and provides site operators with clear visibility and control over payment options. DX Power™ is also a cost-effective solution, as one outdoor payment terminal (OPT) can serve up to 15 charge points, efficiently processing payments.

This solution provides a unified customer experience, whether installed on a single site or through a network of service stations, DX Power™ will redefine connectivity and interactivity to help drive revenue on forecourts now and in the future.



