CNG

Compressed Natural Gas

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The NFTA-Metro Compressed Natural Gas Fueling Station at Frontier Garage

The high capacity fast fill compressed natural gas fueling facility at Metro's Frontier Bus Garage will feature state-of-the-art equipment. Two compressors will serve four fuel dispensers. This more than covers Metro's needs for the immediate future, but the facility can be expanded to meet new demands.

Trillium

Trillium CNG designs and constructs natural gas fueling stations around the world. They specialize is fleet service. Trillium is headquartered in Chicago but has built facilities across the United States. Of special interest to Western New Yorkers is Trillium's success in Helsinki, Finland and Munich, Germany. The company has valuable experience in four-season climates.

Compressed Natural Gas?

CNG is a perfect fuel for Metro buses. It is safe, clean, affordable and American.

Natural gas burns the best of all the fossil fuels, leaving mostly carbon dioxide and water behind – just like us. It produces less unburned hydrocarbons, carbon monoxide, nitrogen oxides, sulfur oxides and particulate matter than gasoline. Through the course of their lives, Metro's CNG buses will save the atmosphere from more than 1,300 tons of carbon.

Although the price of natural gas fluctuates, it is consistently below low sulfur diesel. It is currently running about two-thirds the price of diesel, a benefit that is expected to continue.

Natural gas has a number of safety advantages over diesel fuel. It is non-toxic, non-corrosive and will never contaminate ground or water. CNG is stored under high pressure but the range of flammability is much more narrow than gasoline. CNG will not burn at concentrations below 5 percent or above about 15 percent when mixed with air. The flashpoint for gasoline is 250 degrees Fahrenheit, whereas the flashpoint for natural gas is 1100 degrees, making the risk of fire much lower. Natural gas is lighter than air and dissipates if leaked.

The source of CNG is also important: 99 percent of the natural gas used by Metro will come from North America.

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The fleet
Metro has ordered 44 full-size Metro buses that will run on compressed natural gas. These new buses will replace the oldest diesel vehicles currently in the fleet. Metro has also ordered 10 CNG-powered paratransit vans, designed specifically for transit riders with special needs.

The fueling station
Public transportation benefits the community most when it is carrying passengers. So fueling Metro's CNG buses right at home makes the most sense. It also gives Metro control over fueling times, allowing for maximum efficiency. Metro can ready buses when the time is right, working around bus schedules.

The station will consist of:

- Four fast fill transit dispensers with four satellite dispensers for smaller vehicles
- One defueling station
- Two 250HP compressors
- One tandem buffered storage assemble with six storage cylinders
- This provides a minimum storage capacity of 70,000-standard cubic feet at 4,500-pounds per inch
- One twin tower CNG dryer
- One 4,895-square-foot fueling canopy
- One electrical control building that will house the distribution and control equipment

This facility's maximum fueling capacity is 44 full-size transit buses and 18 paratransit vehicles. Cost: $5.9 million.

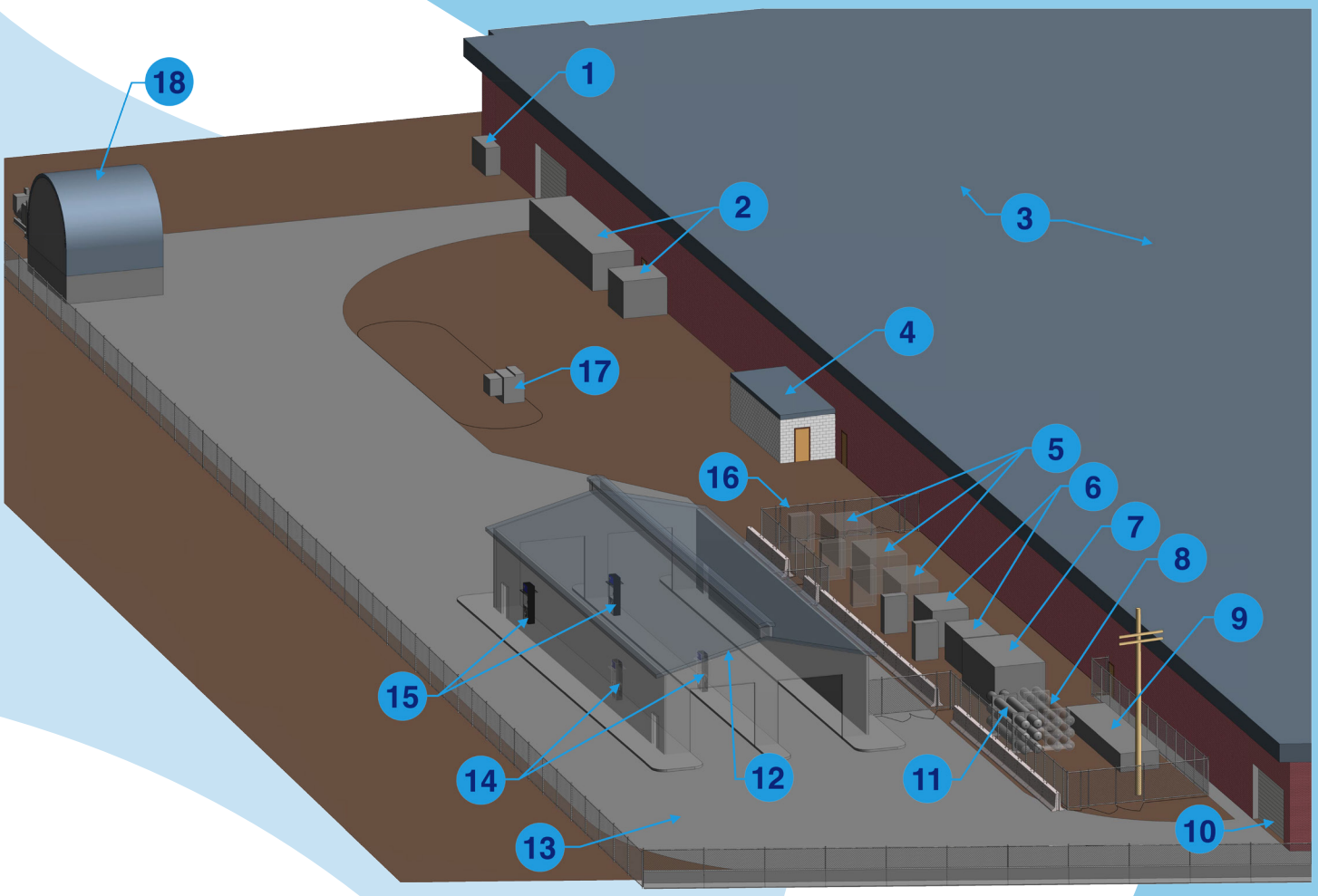
Station expansion capabilities:

- Three additional 250HP compressors
- One additional tandem buffered storage assemble with six storage cylinders, for minimum storage capacity of 70,000-standard cubic feet at 4,500-pounds per inch

The expanded facility's maximum fueling capacity is 95 full-size transit buses and 74 paratransit vehicles.

CNG Fueling Station

Frontier Bus Garage



1 - Solar Panel Controls
2 - Storage
3 - Existing Frontier Bus Garage
4 - New CNG Control Building
5 - Future Compressor Stations
6 - Compressor Stations
7 - Gas Dryers
8 - Future Storage Tanks
9 - National Fuel Riser & Meter Set
10 - Existing Bus Overhead Door
11 - Storage Tanks
12 - New Canopy
13 - Expanded Pavement
14 - Future CNG Dispensers
15 - CNG Dispensers
16 - New Fencing
17 - Transformer
18 - New Salt Storage Building

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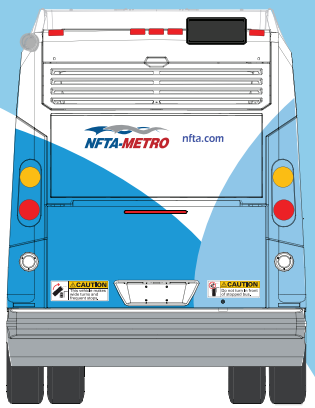
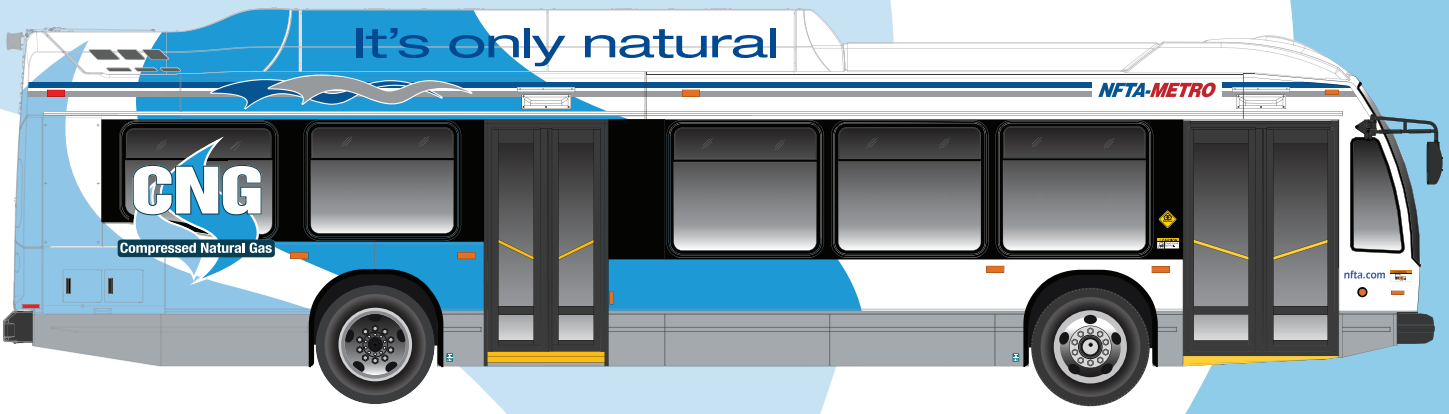
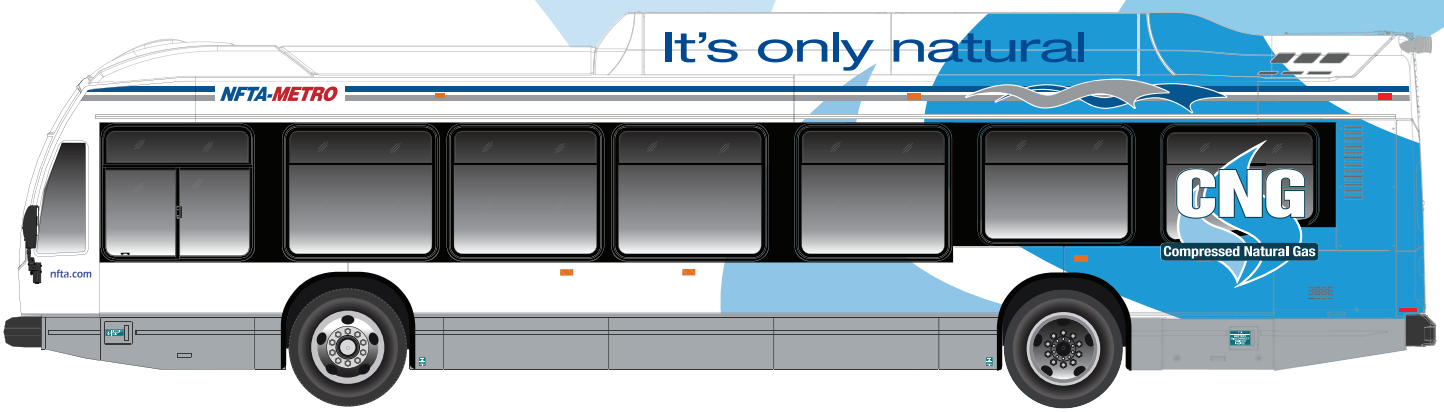
CNG Metro Fleet

Metro Bus

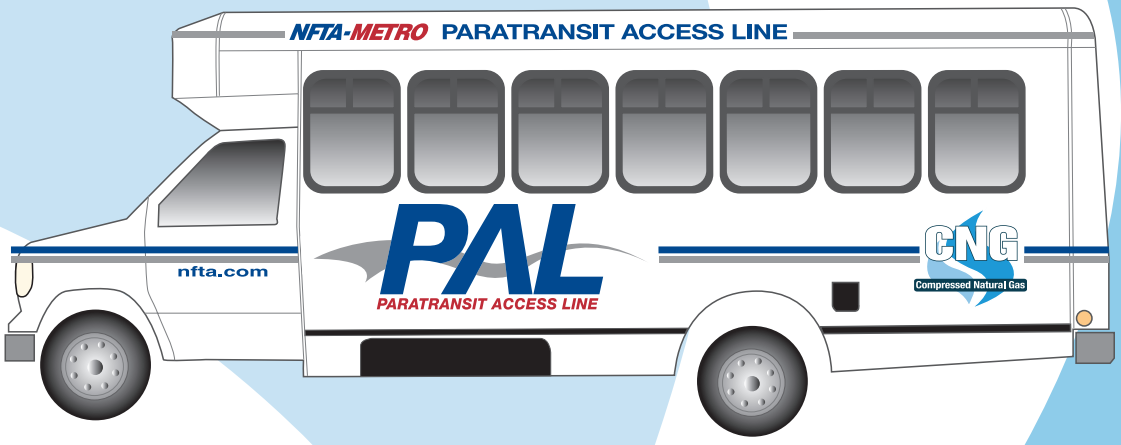






CNG Metro Fleet

PAL Van



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