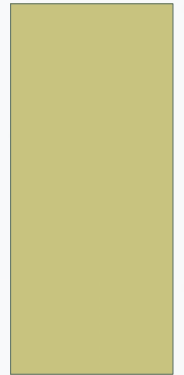


CLEAN TRANSPORTATION IN DELAWARE

WILMAPCO'S OUR TOWN CONFERENCE



THE PRESENTATION

1) What are alternative fuels?

2) The Fuels

3) What's Delaware Doing?



WHAT ARE ALTERNATIVE FUELED VEHICLES?

- “Vehicles that run on a fuel other than traditional petroleum fuels (i.e. gas and diesel)”

- Propane
- Natural Gas
- Electricity
- Biodiesel
- Ethanol
- Hydrogen



THERE'S A FUEL FOR EVERY FLEET!

LNG Liquefied Natural Gas

CNG Compressed Natural Gas

LPG Propane

 Biodiesel



 Ethanol

 Electricity

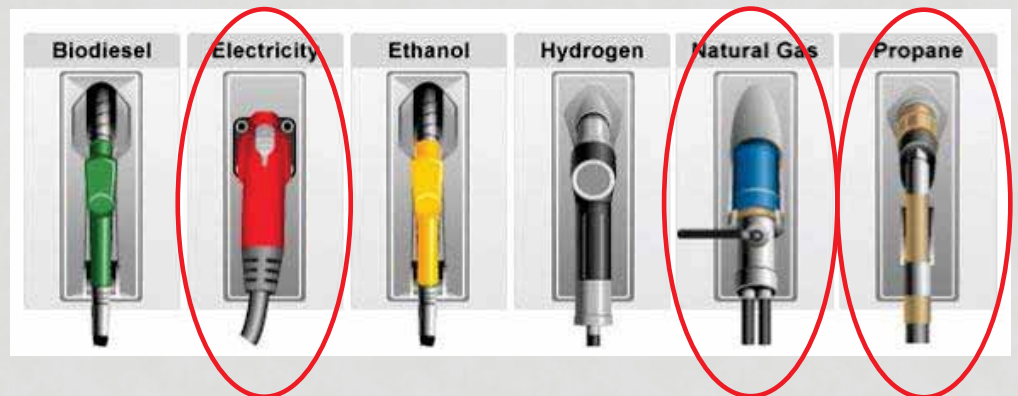
H₂ Hydrogen



DELAWARE'S ALTERNATIVE FUELS

- “Vehicles that run on a fuel other than traditional petroleum fuels (i.e. gas and diesel)”

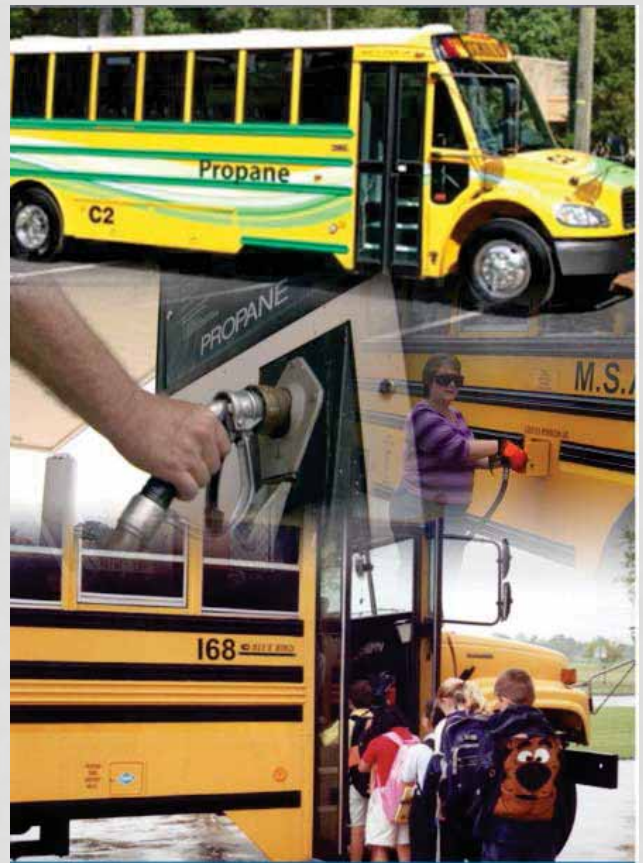
- **Propane**
- **Natural Gas**
- **Electricity**
- Biodiesel
- Ethanol
- Hydrogen



THE FUELS

PROPANE

- By-Product of Natural Gas
- Compressed at high pressure to liquefy
- Domestic Fuel Source
- Great for:
 - School Busses
 - Step Vans
 - Larger Vans
 - Mid-Sized Vehicles



COMPRESSED NATURAL GAS (CNG)

- Predominately Methane
- Uses existing pipeline distribution system to deliver gas
- Good for:
 - Heavy-Duty Trucks
 - Passenger cars
 - School Buses
 - Waste Management Trucks
 - DNREC trucks



PROPANE AND CNG INFRASTRUCTURE



- 8 Propane Autogas Stations
- 1 CNG Station
- Fleet and Public Access with accounts

ELECTRIC VEHICLES

- Electricity is considered an alternative fuel
- Uses electricity from a power source and stores it in batteries
- Two types:
 - Battery Electric
 - Plug-in Hybrid
- Great for:
 - Passenger Vehicles



EV INFRASTRUCTURE

- 61 charging stations in Delaware
 - At 26 locations
- 37,000 Charging Stations in the United States
- Three types:
 - Level 1
 - Level 2
 - D.C. Fast Charging



TYPES OF CHARGING STATIONS

Charger	Current Type	Voltage (V)	Charging Time	Primary Use
Level 1	Alternating Current (AC)	120 V	2 to 5 miles per hour of charge	Residential
Level 2	AC	240 V	10 to 20 miles per hour of charge	Residential and Commercial
DC Fast	Direct Current (DC)	480 V	60 to 80 miles per 20 min. of charge	Commercial

WHAT'S DELAWARE DOING?

CLEAN TRANSPORTATION INCENTIVE PROGRAM

- Clean Vehicle Rebate Program
- Electric Vehicle Charging Equipment Rebate Program
- Alternative Fueling Infrastructure Grants
- Heavy Duty Vehicle Rebate Program

CLEAN VEHICLE REBATE PROGRAM

- Rebates released so far:
 - Electric and Plug-in Hybrid Rebates: 260
 - Dedicated Propane Rebates: 7
- Rebates have been given to applicants from all three counties



REBATES!

Started on November 1, 2016!

Type of Vehicle/Vehicle Technology	Rebate/vehicle
Battery electric vehicles	\$3,500
Plug-in hybrid electric vehicle	\$1,500
Retrofitted electric vehicles	\$1,500
Electric vehicles with an MRSP over \$60,000	\$1,000
Dedicated propane vehicles	\$1,500
Dedicated natural gas vehicles	\$1,500
Class 7 & 8 dedicated natural gas vehicles	\$20,000

ELECTRIC VEHICLE CHARGER REBATES

- Rebates towards the purchase of an electric vehicle charging station
 - Residential (up to \$500)
 - Commercial (up to \$2,500)
 - Workplace (up to \$5,000)
- 77 Rebates for EVSEs so far!



ALTERNATIVE FUELING INFRASTRUCTURE GRANTS



Recipients:

- **Sharp Energy (three projects)-** Propane
- **Chesapeake Utilities-** CNG
- **Royal Farms-** D.C. Fast Charging
- **Division of Parks and Rec.-** Level 2 Charging
- **University of Delaware-** Level 3 Charging Stations

BY THE NUMBERS

- Over 2,000,000 lbs of CO₂e have been prevented annually.
- 267 vehicles to the road
- 76 home electric vehicle charging stations
- 12 Public Charging Stations
- 3 new Propane Stations
- 1 new CNG station



THE FUTURE IS HERE (ALMOST)!



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