



ALTERNATIVE FUELS COALITION OF CONNECTICUT

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Submitted Comment by:
T. Michael Morrissey
On behalf of the:
Alternative Fuels Coalition of Connecticut

Governor's Council on Climate Change (GC3) Meeting
September 8, 2016
1:00 PM - 3:00 PM
Connecticut Department of Energy and Environmental Protection
Gina McCarthy Auditorium
5th Floor 79 Elm Street Hartford, Connecticut

September 12, 2016

Dear Council Members:

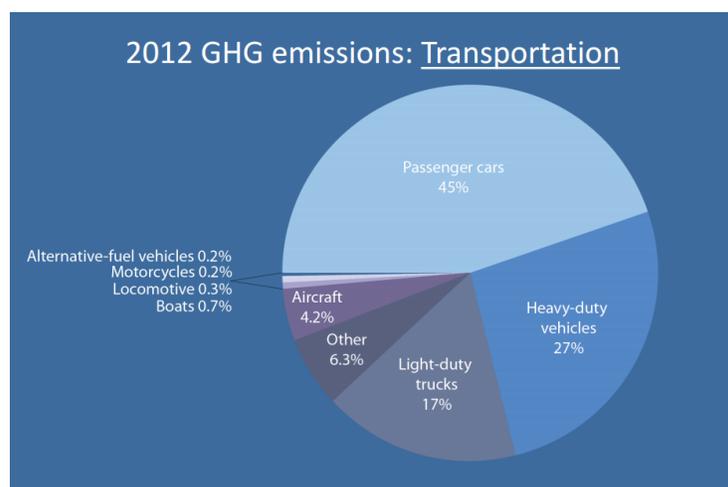
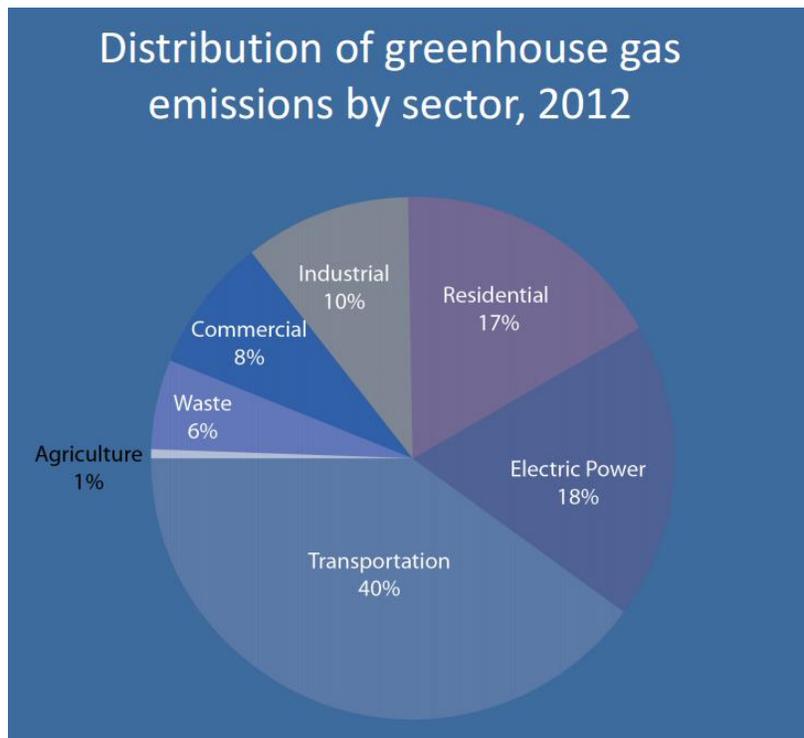
Thank you for providing me with the opportunity to speak to you last week. I would like to use time to communicate my oral thoughts to you in writing along with some additional points.

My opening remarks focused in on the the slide presentation titled "**Heavy Duty Vehicle Electrification Wedge**" and some of Councilers' comments that "no real" or practical technology exists today or in the immediate future, to reduce Green House Gases (GHG) emissions in this vehicle sector for vehicles like school buses, etc.

Note: One of the central goals for the GC3 is to establish an interim target (or targets) to ensure that Connecticut will continue the progress it has already made, and to identify

additional actions to meet the 2050 target in an efficient, cost-effective, and sustainable manner.¹

Respectfully, we would like to offer, that something can be done now to reduce GHG emissions in the transportation sector especially with light, medium & heavy duty vehicles. Let's take a closer look at this here;



In other words, 34 % of all GHG Emissions are the results of Light-duty, Medium & Heavy duty vehicles like School Buses, Airport Shuttles, Transit & Para Transit vehicles, Local Delivery Trucks Refuse Vehicles and more. Although electrification of these vehicles is a long term goal, no practical electrical technology exists today or in the near future, to reduce GHG emissions produced by these types of vehicles.

¹ GC3 Exploratory Report Update March 2016

However, there is technology now which can be harnessed to reduce GHG emissions. Alternative fuels such as **propane** and **natural gas** are available today and offer viable capabilities to achieve immediate interim goals to reduce GHG emissions in the transportation sector.

The best example of this is demonstrated with Pupil Transportation. Connecticut proudly is leading New England when it comes to the use of a clean alternative fuel such as propane. It is important to know;

- The City of **Shelton** and **Torrington** have been operating 105 propane buses for the last four years
- IC Bus during the last month completed the largest single order of propane buses in the Northeast by delivering 149 propane school buses to the City of **Waterbury**.
- Last week the Town of **New Milford** deployed a third of their buses to operate on propane with the goal of replacing their entire fleet to propane.
- In late August, the Town of **Newtown** announced their plan to adopt 50 new propane buses over the next couple of years as well as the City of **Danbury** who earlier this year announced they would replace all 125 Diesel powered buses with propane ones at the start of their new contract year.
- And there are more propane buses coming to CT. The Town of **Simsbury** has issued an RFP for 6 new propane buses and our intelligence tells us **Guilford, Glastonbury, Rocky Hill, Ansonia** and **Derby** are actively studying their propane options today.
- These propane bus deployments, whether they be current or in the future, have all been accomplished without a single incentive from the State of CT. Propane buses organically have the strength to stand on their own and environmentally and economically cost justify themselves even with today's low prices for gasoline and diesel fuel.

Why Propane School Buses are growing in Popularity in CT

- School buses that use propane are quieter, safer and result in fewer discipline problems
- Buses fueled by propane are providing long-term savings for school districts and private contractors.
- Buses fueled by propane save money as propane is 30 percent less expensive than gasoline and 50 percent less than diesel.
- Propane is a clean fuel and assist in reducing Green House Emissions by over 20% and reduces ton of particulate matter from the environment.

- Infrastructure costs are low and do not require any Federal Funding to implement.

Today, over 500,000 students are riding in excess of 7,500 buses daily on propane powered school buses and over the last year, orders for propane powered school buses has increased by 45% for School Bus Owners or their operators. Take a moment to see what **Jenna Bush Hager** a former teacher and daughter of former President George Bush, has to say about propane [here](#).



New Propane Dispenser - Durham Bus - Waterbury CT



FORD MOTORS IS SUPPORTING THE USE OF ALTERNATIVE TRANSPORTATION FUELS IN A BIG WAY

Look at their vehicle offerings for light and medium duty vehicle platforms

WHY **ALTERNATIVE FUEL** IS IMPORTANT TO YOU AND FORD.

Reduced carbon footprint.

For many businesses, operating a fleet is the single largest contributor to their carbon footprint.

When a business decides to reduce its carbon output, the fleet managers need to know how to identify which alternative fuel will make the biggest difference.

Reduced dependence on foreign oil.

Most of the world's oil reserves are concentrated in the Middle East. Since most alternative fuels are available in the U.S. from U.S. sources, switching to alternative fuels can limit how much money is transferred offshore to support our domestic energy demands.

Ford Offers Customers A Complete Selection



	Transit Connect Van/Wagon	Transit Van/Wagon	Transit Cutaway/Chassis Cab	E-350/450 Cutaway Chassis	E-350/450 Stripped Chassis
Fuel Type					
Ethanol (E85)	Ethanol (E85)*	Ethanol (E85)**	Ethanol (E85)**		
Biodiesel (B20)		Biodiesel (B20)	Biodiesel (B20)		
CNG/Propane	CNG	CNG	CNG	CNG/Propane	CNG/Propane
GVWR (lbs.)	4,780 - 5,280	8,550 - 10,360	9,000 - 10,360	10,050 - 14,500	11,500 - 14,500
GCWR (lbs.)	5,820 - 6,320	10,600 - 13,500	12,000 - 13,500	13,000 - 22,000	13,000 - 22,000
Payload (lbs.)	1,110 - 1,620	2,610 - 4,560	4,290 - 6,020	5,100 - 8,988	6,875 - 9,695
Engine	2.5L DOHC I-4 [†] 1.6L EcoBoost® I-4	3.7L Ti-VCT V6 [†] 3.5L EcoBoost V6 3.2L I-5 Power Stroke® Diesel	3.7L Ti-VCT V6 [†] 3.2L I-5 Power Stroke Diesel	6.8L Triton® V10 [†]	6.8L Triton V10 [†]
Transmission	6-Speed SelectShift® Automatic with Overdrive	6-Speed SelectShift Automatic with Overdrive	6-Speed SelectShift Automatic with Overdrive	TorqShift® 6-Speed Automatic with Overdrive (6.8L Triton V10)	TorqShift 6-Speed Automatic with Overdrive (6.8L Triton V10)

*Available in certain states only. See dealer for details. **Government orders only.
[†]Available with CNG/Propane Conversion Engine, Box, Package



Cost of ownership.

All fleet managers should consider the combination of acquisition costs, fuel prices and residual values to determine the total cost of ownership of the vehicles in their fleet. Although acquisition costs for alternative-fuel vehicles may be higher, these costs are often offset by the lower costs of the alternative fuels. In addition, the lower volatility of alternative-fuel prices reduces risk of future price shocks.

Blueprint for sustainability.

Our efforts were acknowledged in 2014 when we were named by Interbrand as the Best Global Green Brand in the world ... (and) for 2015, Ford Motor Company was named on the Ethisphere Institute's list of the World's Most Ethical Companies for the sixth year in a row, the only automaker to earn the recognition in each of the last six years. Nonetheless, we know our sustainability journey is far from over, and we are determined to go further.

Excerpted from <http://corporate.ford.com/microsites/sustainability-report-2014-15/review-letter-ford>

Of Alternative-Fuel Commercial Vehicles



F-150 Pickup	F-250/350/450 Super Duty® Pickup	F-350/450/550 Super Duty Chassis Cab	F-650/F-750 Medium Duty Chassis Cab	F59 Commercial/ F53 RV Stripped Chassis
Ethanol (E85)	Ethanol (E85)	Ethanol (E85)		
CNG/Propane	CNG/Propane	CNG/Propane	Biodiesel (B20)	CNG/Propane
6,010 - 7,850	9,900 - 14,000	9,800 - 19,500	Gas: 22,000 - 33,000 Diesel: 20,500 - 37,000	16,000 - 22,000 (F59) 16,000 - 26,000 (F53) 23,000 - 26,000 (F59) 23,000 - 30,000 (F53)
9,400 - 17,100	19,200 - 40,400	19,000 - 35,000	37,000 - 50,000	10,050 - 15,610 (F59) 9,650 - 18,720 (F53)
1,460 - 3,270	2,150 - 7,050	2,517 - 12,660	11,814 - 26,592	
3.5L Ti-VCT V6 FFV 2.7L V6 EcoBoost® 3.5L V6 EcoBoost 5.0L V8 FFV†	6.2L V8 FFV† 6.7L Power Stroke® V8 Diesel	6.2L V8 FFV† 6.8L V10† 6.7L Power Stroke V8 Diesel	6.8L V10† 6.7L Power Stroke V8 Diesel	6.8L V10†
6-Speed SelectShift® Automatic with Overdrive with Tow/Haul Mode and Progressive Range Select	TorqShift® Heavy Duty 6-Speed SelectShift Automatic with Overdrive	TorqShift Heavy Duty 6-Speed SelectShift Automatic with Overdrive TorqShift 5-Speed SelectShift Automatic with Overdrive (6.8L only)	TorqShift Heavy Duty 6-Speed Automatic with Overdrive	TorqShift 6-Speed Automatic with Overdrive and Tow/Haul Mode

Clearly Ford Motors and other OEM's have gotten behind Alternative Fuels but the State of Connecticut is lagging behind here! Long term goals should not obfuscate short term thinking and solutions when it comes to GHG emission reductions.

THE STATE OF CONNECTICUT MUST DO MORE TO PROMOTE THE USE OF ALTERNATIVE FUELS

- 40% of our Greenhouse Gas Emissions are caused by our transportation sector
- Up fitting vehicles especially Class 2 through 8 to propane or natural gas would have an immediate benefit to emissions reductions in our state. The technology to operate on these fuels exists today.
- Today, propane is the third leading motor fuel in the world with over 25 million vehicles operating on it today.
- GC3's purpose is to come up with a plan to reduce Green House Gases by the year 2050. As we are seeing with the School Buses in our state, we are doing something about reducing Green House Gases today, not tomorrow.

You must do more to promote and or incentives ways to deploy the use of both propane and natural gas in our state.

- Allowing Airport, transit and paratransit shuttle vehicles for which consume millions of gallons of polluting diesel and gasoline fuels, especially when these fuels have come down in price and are being used in record quantities, is not the prudent way to go and is counterproductive in meeting short and medium term emission reduction targets.
- Our State needs to do more by exploiting and leveraging the use of clean burning propane and natural gas in our state.

Although electrification is the long term goal in Connecticut, interim steps to immediately reduce GHG emissions should **not be ignored**. Propane and Natural Gas are a solution now for light, medium and heavy duty vehicles. Promoting and creating incentives to accelerate the use of these fuels is essential to **meeting interim**² GHG emission goals.

Sincerely,

T. Michael Morrissey
Director of Government Affairs – Business Development

**** PROPANE ~ THE CLEANEST FOSSIL FUEL KNOWED TO MANKIND ****

² GC3 Exploratory Report Update March 2016