

“Making Alternative Fuels Relevant, Again”



**Annual Meeting
November 22nd 2016**

Welcome to PECO



Special Thanks to Our Sustaining Members



EP-ACT is a member supported 501 (c) 3 non-profit organization. We rely on the generosity of our members that fund our mission of petroleum reduction within the transportation sector. We promote clean air; energy independence and economic development by using alternative fuels; vehicles; and technologies in the vehicles we drive.

www.ep-act.org

215-990-8200

For a complete list of all of our stakeholder members go to:

<http://ep-act.org/stakeholders>

Agenda

10:00- 10:05- Welcome,
Liz Murphy- Senior VP Regulatory & External Affairs- PECO

10:05- 10:25- Introductions-
Brian Keelen- Chairman -EP-ACT

10:25- 10:35- State of the Coalition-
Tony Bandiero- Executive Director -EP-ACT

10:35- 10:45- Electric Vehicle's Planning/Workgroup
Mark Hand- Department of Environmental Protection

10:45- 10:50- Smart Driver Network
Tom Bonner- PECO

10:50- 11:05- Electric
Brett Gipe- 1st Priority Green Fleets

11:05- 11:20- Hydrogen
Nick Mattica- Air Products

11:20- 11:30- BREAK

11:30- 11:40- Natural Gas -
Barry Carr- Landi Renzo

11:40- 11:55- Propane -
Derek Whaley- Roush CleanTech

11:55- 12:10- Biodiesel
Dan Falcone- Approved Oil

12:10- 12:20- 2017 Planned Activities
Nick DeMarie & Caroline McCallum-
Program Manager , Board Member -EP-ACT

12:20- 12:35- Panel Session-What Can We Do Together ???

12:35- 1:35- Networking Luncheon

Please join us for some early holiday cheer immediately following the event at:

Slánte

Located at: 3000 MARKET STREET PHILADELPHIA, PA 19104 USA



**Welcome &
Introductions**



State of the Coalition

Where are Clean Cities?



Compressed Natural Gas



Electricity



Biodiesel



Ethanol



Fuel Economy



Liquefied Natural Gas



Propane



Hydrogen



Idle Reduction

Clean Cities Coalitions

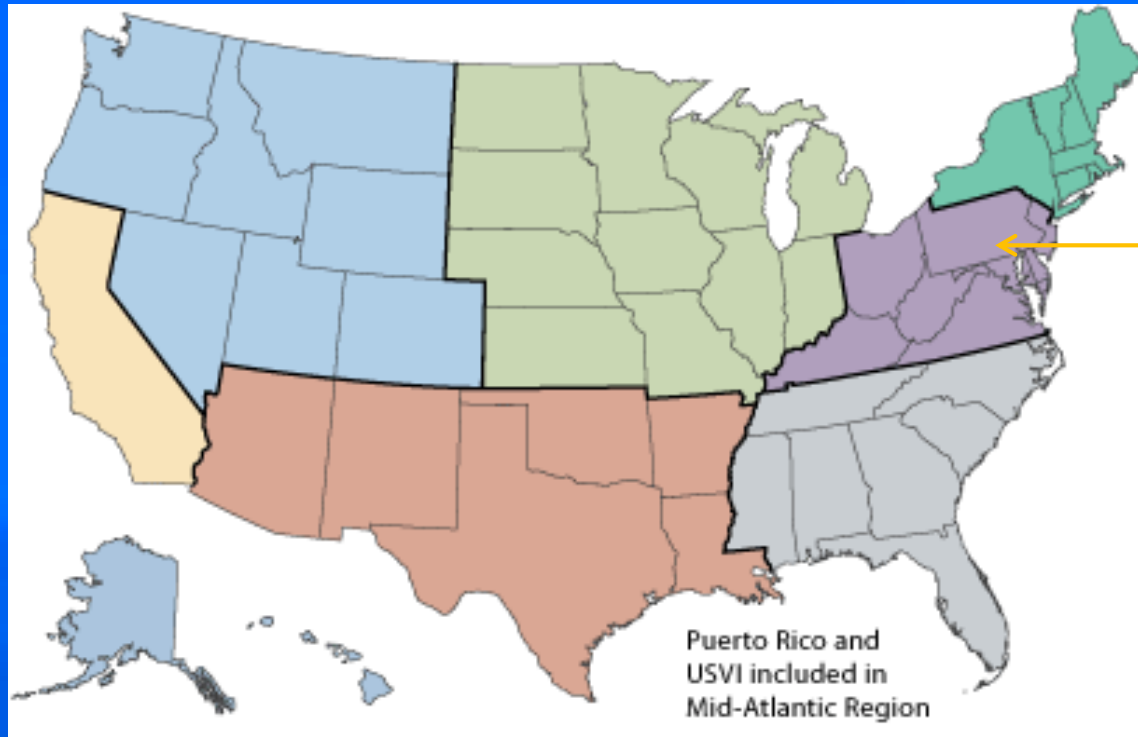


U.S. Department of Energy



Eastern Pennsylvania Alliance for Clean Transportation

Where is EP-ACT?



Mid-Atlantic
Region



Services

What we offer:

- **Workshops/ educational seminars**
- **Training**
- **Fleet Analysis**
- **Facility Analysis**
- **Informational Resources**
- **Market Research**
- **Incentives**
- **Grant Writing**
- **Grant Administration**
- **Project Management**
- **Networking**



Who is EP-ACT?



2016 Activities/Initiatives/Projects

ENERGY INDEPENDENCE SUMMIT 2016

The National Renewable Energy Summit
February 2-10 • Washington, DC

PROGRAM AND SCHEDULE

Sunday, February 7
 5:00-6:00 Registration Open
 6:00-10:00 Informal Super Bowl Gathering at Union Hotel

Monday, February 8 (at the Union Hotel)
 8:00-8:15 Registration and Continental Breakfast at the Union Hotel
 8:15-8:45 Welcome and Opening Remarks
 Sam Spoforth, President, Transportation Energy Partners and Executive Director, Clean Fuels Ohio
 8:45-9:45 Outlook for the Alternative Fuels Industry: Roundtable of Clean Transportation Industry Leaders
 David Farnon, Director of Government Relations and Public Affairs, Volvo
 Charles Lee, Director, Industry Relations & Policy Segment, Cummins Westport
 Christine Lofgren, Marketing Manager, KODOL ClearTech
 Henrik Ekenstam, Head of U.S. Federal Affairs, Volvo Corporation
 Bruce Brummette, CEO, Volvo
 Moderator: Robin Dickson, Executive Director, Utah Clean Cities (TTP Board)

9:45-10:45 Clean Transportation Policy Developments in 2015 and Environmental Outlook for 2016
 Government Coffer, President, Electric Drive Transportation Association
 Matthew Gendron, President, Volvo Trucks
 ARI Taylor, Senior Vice President, Public and Government Affairs, National Petroleum Gas Association
 Moderator: Philby Whitmore, Chairman, National Clean Fuels Coalition (TTP Vice President)

10:45-11:00 NETWORKING BREAK - SPONSORED BY QUANTA ENERGY

11:00-12:00 The Nature of the Renewable Fuels Standard
 Anne Steisel, Vice President of Federal Affairs, National Bioethanol Board
 David Cox, Director of Operations & General Counsel, Coalition for Renewable Natural Gas
 Tom Nault, CEO, Growth Energy
 Moderator: Carl Lusk, Executive Director, South Shore Clean Cities (TTP Board)

12:00-1:00 LUNCH WITH SPECIAL GUEST SPEAKER
 The Honorable Ryan Zinke, U.S. Senator, North Dakota
 Introduction by Anne Steisel, Vice President of Federal Affairs, National Bioethanol Board

1:15-2:15 Innovative State Policies and Programs that Promote Clean Transportation
 Shanna Harries, Chair, State Government Advisory Committee, Ohio America
 Carol Prosser, Program Manager, National Association of State Energy Officials (NAESCO)
 Nick Arnesen, Executive Director, Georgetown Climate Center
 Moderator: Sarah Copley, Director, Alternative Fuels, EPA/DOE (TTP Board)

Transportation Energy Partners
www.transportationenergypartners.org

Innovations in Transportation: Natural Gas Vehicles and Pennsylvania's Agriculture Industry

Informational Workshop for Agricultural Business Owners and Fleet Managers in the Commonwealth

Brought to you by Spire Natural Gas Fueling Solutions
 Spire is making natural gas vehicle fueling a reality. Learn why CNG is a smarter choice for your fleet.

Wed., March 23, 2016

Acorn Farms
 3141 Mount Joy Road
 Mount Joy, PA 17552

Workshop Sessions
 Natural Gas Vehicle Advancements
 Tony Bandiera, Executive Director, Eastern Penn. Alliance for Clean Transportation

Alternative Fuel Incentive Grant Program
 Mark Hand
 Pennsylvania Department of Environmental Protection

CNG Engine and Fuel System Technology
 Bill Boyce
 Cummins Westport Inc.

Meet Spire
 Chad Shaffer
 Director, Origination
 Spire Natural Gas Fueling Solutions

Agenda
 7:30 - 8:00 a.m. Breakfast
 8:00 - 10:00 a.m. Workshop Topics

Please RSVP by Friday, March 18 to Sarah Copley
Sarah@GreenleePartners.com

North Central PA DEP Alternative Fuel Roadshow

March 15th 2016

EP-ACT
 Eastern Pennsylvania Alliance for Clean Transportation

pennsylvania
 DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast PA DEP Alternative Fuel Roadshow

March 22nd 2016

EP-ACT
 Eastern Pennsylvania Alliance for Clean Transportation

pennsylvania
 DEPARTMENT OF ENVIRONMENTAL PROTECTION

South Central PA DEP Alternative Fuel Roadshow

March 24th 2016

EP-ACT
 Eastern Pennsylvania Alliance for Clean Transportation

pennsylvania
 DEPARTMENT OF ENVIRONMENTAL PROTECTION

ASE-Certified Biodiesel for Diesel Technicians Training

Date Thursday, September 22nd, 2016
Location UTI Exton, PA Campus
Time First Session: 9:00 AM - 12:50 PM
 Repeat Session: 2:00 PM - 5:50 PM
Address 1750 Pennsylvania Dr, Exton, PA 19341

This CASE/NATEP certified training program is designed to educate and inform diesel mechanics and service technicians about the use of biodiesel blends in existing diesel engines. With this education, technicians will be able to better advise their customers and other technicians about the true impacts of using biodiesel and biodiesel blends in diesel equipment. Attendees will learn the latest information about the OEM support for biodiesel, biodiesel fuel quality, performance, service requirements, and biodiesel impacts on PM traps and NOx aftertreatment found on new diesel engines.

ASE CONTINUING EDUCATION COURSE AT NO COST - OVER \$500 VALUE!

FREE DOUGHNUTS/COFFEES, JUICE/WATER, COFFEE AND MEAL

CHOICE OF MORNING OR AFTERNOON SESSION

ONLY ASE ACCREDITED BIODIESEL TRAINING PROGRAM FOR DIESEL TECHNICIANS IN NORTH AMERICA

SCHEDULE

MORNING SESSION
 9:00 AM - 12:50 PM
 ASE Biodiesel Technician and Instructor provided
 12:00 PM - 1:00 PM
 Lunch Provided

AFTERNOON SESSION
 Repeat of morning session
 2:00 PM - 5:50 PM
 ASE Biodiesel Technician and Instructor provided
 5:00 PM - 6:00 PM
 Dinner Provided

About the Instructor
 Mr. Steve Howell is a Fellow of ASTM and Chairman of the ASTM Biodiesel Task Force responsible for the international biodiesel ASTM specifications. He is the Senior Technical Advisor to the National Biodiesel Board and is a CASE and NATEP certified instructor.

This no cost training courtesy of the Pennsylvania Soybean Board and the National Biodiesel Foundation. Supporting organizations:

All local diesel technicians are invited! CEU Credits and Certificate Provided No Cost To Participants

Email your interest to natepinfo@maritz.com or call 816.903.6272 to reserve your spot!

6th Annual The Only Smoke In The Air TOSITA EV Workshop Networking BBQ

WHEN: Wednesday July 13th, 2016
WHERE: PECO 2301 Market Street Philadelphia, PA 19103
TIME: 10:00 - 2:00 pm

Join us for our renowned Networking BBQ!
 Register here: <http://www.pennsylvania.gov/evworkshop>
 Or go to: <http://www.pennsylvania.gov/evworkshop>
 Please pass this along to a friend

With TOSITA Sponsorship

Please join us for our annual The Only Smoke In The Air EV Workshop. As the name indicates, the only smoke in the air will be coming from our networking BBQ and not from the tailpipes of our numerous Electric Vehicles on display.

Hear an overview of electric (EV's) and hybrid (HEV's) vehicles, and where the market is headed for this fast approaching alternative fuel.

Eastern PA is poised to take the lead on the east coast for this rapidly expanding market. We will have dozens of types of EV's on site, including Medium duty and an all Electric School Bus.

Hear a panel of experts discuss the EV movement in the US and how OEM's offerings will substantially increase within the next few years.

Other topics that will be covered:

- Utility Perspective, load requirements, Utility support
- Electric Vehicle Supply Equipment (EVSE's) types, associated costs
- Fleet Vehicle Types - OEM and conversions
- Vehicle to Grid Technology (V2G)
- Outlook for EV market, local, regional and national

Don't miss this once a year!

Sponsors: PECO, ChargePoint, Ford, GM, Altec, Strouse Electric Co., Inc., AutoPort Inc., IATA/ATA, and others.

South East PA DEP Alternative Fuel Roadshow

April 7th 2016

EP-ACT
 Eastern Pennsylvania Alliance for Clean Transportation

pennsylvania
 DEPARTMENT OF ENVIRONMENTAL PROTECTION

CNG and Your Municipal Fleet

April 19th 2016

EP-ACT
 Eastern Pennsylvania Alliance for Clean Transportation

PSATS
 Pennsylvania State Association of Transit Systems

Fleet Footprint Event

Emissions Requirements and the New Energy Landscape

Thursday, April 21, 2016 * 9:30am-4:30pm
 Hyatt, 3 Headquarters Plaza, Morristown, NJ 07960
 Learn about emerging emissions requirements and how your

2016 Activities/Initiatives/Projects



Current: Activities/Initiatives/Projects











Initiative for Resiliency in Energy through Vehicles

 <p>Pennsylvania Department of Transportation</p> <p>Arlene A. Kohn Secretary</p> <p>John J. Foy Assistant Secretary</p> <p>James M. Gorman Deputy Secretary</p> <p>William E. Harkins Executive Director</p> <p>Michael J. Lippert Director of Planning & Policy Development</p> <p>Robert C. McQuinn Director of Construction Management</p> <p>David W. Miller Director of Operations</p> <p>Thomas J. Pappalardo Director of Traffic Engineering</p> <p>Joseph J. Scully Director of Safety</p> <p>Richard S. Smith Director of Design</p> <p>William J. Tamm Director of Maintenance</p> <p>John J. Vanecko Director of Research & Technology</p> <p>William J. Ziegler Director of Administration</p>	 <p>The Honorable Anthony Foxo Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590</p>
<p>Subject: Pennsylvania's Transportation Communities Designation of Alternative Fuel Corridors</p>	
<p>Dear Secretary Foxo:</p> <p>On behalf of Eastern Pennsylvania Alliance for Clean Transportation (EP-ACT), I am writing to express my support for the designation of the PA Turnpike as an Alternative Fuel Corridor under Section 141(i) of the FAST Act. The Pennsylvania Turnpike Commission (PTC) is partner in our organization and we are excited to collaborate with them on this endeavor.</p> <p>It is important to note that the PTC is equally supportive of our south state application also being submitted under Section 141(i) of the FAST Act by the I-80 Corridor Coalition.</p> <p>The PTC serves 100 million travelers each year and is one of the most traveled interstate highways in the Commonwealth of Pennsylvania, serving as a critical east-west and north-south lifeline linkage for interstate commerce. Through a robust service safety reconstruction program, the PTC has substantially increased investment capacity to alternative fueling along its PA Turnpike system. Today, the PTC provides:</p> <ul style="list-style-type: none"> • A compressed natural gas (CNG) fueling station with public access • Electric vehicle charging stations at four service plazas. Supported by a Pennsylvania grant program, the project will result in 2 and level 2 charging stations at 15 service plazas by July 2017 • E-85 Fuel, a high-level ethanol gasoline blend, at four service plazas • A PTC fleet vehicle that utilizes propane and B-5 bio-based blend fuel <p>The PTC recognizes the importance of expanding access to alternative fuels across Pennsylvania and has initiated public-private partnerships to offer CNG and electric vehicle charging stations throughout the PA Turnpike as an Alternative Fuels Corridor will reinforce the PTC's ability to further expand access to alternative fuels across the entire system.</p> <p>Thank you for your continued leadership in the United States to improve our nation's transportation infrastructure. This designation of both the PA Turnpike and the I-80 Corridor is of importance to the Commonwealth of Pennsylvania to advance industry and economic development throughout the Northeast. If you have any questions regarding my support for the proposal, please do not hesitate to contact me at 215-990-8200.</p>	
<p>Sincerely,</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Anthony Foxo Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590</p> </div> <div style="width: 45%; text-align: right;"> <p>Tony Bandiero Executive Director Eastern Pennsylvania Alliance for Clean Transportation EP-ACT.org</p> </div> </div> <p align="center">Driving Together, Toward a Green Tomorrow. ®</p>	

Young Researcher Career Development Award – Transportation and Infrastructure
Project Number: 16-0436 (2017-2018)
Submitted to: The Science Department of Transportation (Science@dot.gov)

TRANSPORTATION
INFRASTRUCTURE
RESEARCH
INSTITUTE

The Mid-America Alternative Fuel Corridor

In 2013, the Lincoln Highway became the first road across the United States, stretching from Times Square to San Francisco. A century later, Interstate 80, which approximates the route of the original Lincoln Highway, is a fitting start to a nationwide network of alternative fuel corridors. Much as an improved, hard-surfaced road to coast roads transformed auto travel from an uncertain and risky venture to a reality, so too can a Mid-America Corridor of alternative fueling infrastructure transform non-petroleum fuels from a novel means to reduce emissions and combat climate change to a viable option for passenger and freight travel.

Corridor Scale

At a little over 2,900 miles, I-80 is the second longest interstate highway in the U.S. Shown as the northernmost east-west route (and highlighted in blue) in Figure 1, I-80 is a major freight corridor (in terms of average annual fuel volume), particularly in the first 1,200 miles east of the Nebraska border. From its eastern terminus at 15°N Northern New Jersey to Omaha on the Iowa/Nebraska border, I-80 crosses a dozen major interstate highways and passes through countries with a combined population of roughly 19 million people, traversing New Jersey, Pennsylvania, Ohio, Indiana, Illinois and Iowa the route serves portions of the New York metropolitan area on the east, Youngstown, Cleveland, Toledo, South Bend, Gary, Chicago, Joliet, Kansas City, Des Moines and Omaha on the west. Philadelphia, Pittsburgh, Milwaukee and Detroit are major population and freight centers that feed into I-80.


Figure 1. Major Freight Corridor in the United States, 2013

https://www.cba.dot.gov/data/traffic-volume-analysis/cba_traffic_volume_analysis.html

With daily fuel volume in excess of 8,500 trucks along most of its entirety (Figure 1), the Mid-America Corridor supports more than 3 billion gallons (947,000 tons) of truck travel, nearly a quarter of the 36.4 billion miles of travel on the route.¹ As shown in Figure 2, the Mid-America Corridor also serves major shipping terminals for the ports of New York, New Jersey, Cleveland, Indiana Burns Harbor and Milwaukee. Deepwater, as well as 45 nearby intermodal terminals on the CMA, Norfolk Southern (NS), Canadian National (CN), Canadian Pacific (CP), Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) main lines. In addition to the 35 terminals that are within 20 miles of the Corridor, I-80 serves a larger group of

¹ https://www.cba.dot.gov/data/traffic-volume-analysis/cba_traffic_volume_analysis.html

1



August 2016

The Honorable Anthony Foss
Office of the Secretary
U.S. Department of Transportation
200 New Jersey Ave. SE
Washington, DC 20590

Re: Joint Letter of Support for the Designation of Alternative Fuel Corridors
[Docket No. FHWA-2016-0017]

Dear Secretary Foss:

On behalf of Northeast Diesel Collaborative (NEDC) and its Northeast Clean Freight Corridors (NECCF) Workgroup, and U.S. Department of Energy (U.S. DOE) Clean Cities Coalitions in the Northeast and Mid-Atlantic States (Maine, Vermont, New Hampshire, Rhode Island, Massachusetts, Connecticut, New York, New Jersey, Connecticut, and Pennsylvania), we are pleased to submit this joint letter of support for the Eastern Pennsylvania Alliance for Clean Transportation (EPACT) application to designate Alternative Fuel Corridors under Section 1413 of the Fixing America's Surface Transportation (FAST) Act, and pursuant to Federal Register Notice Vol. 81, No. 141, pp. 47850-2.

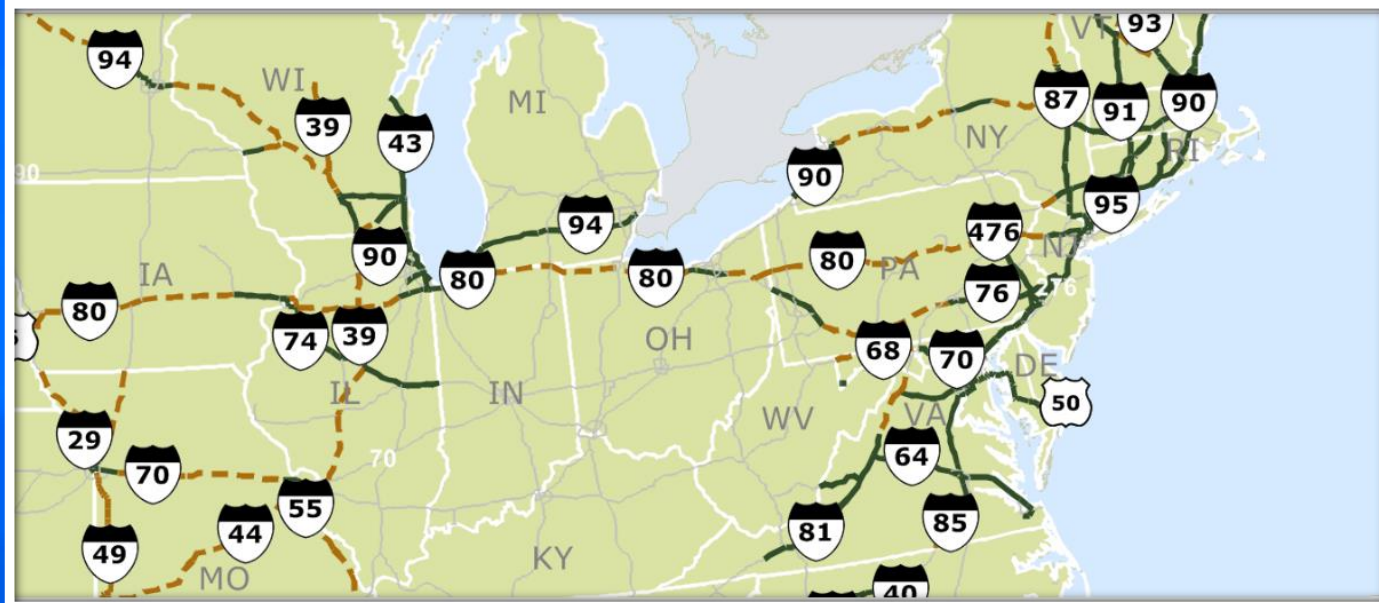
Since late October 2013, the NECCF, in collaboration with Clean Cities Coalitions and a diverse stakeholder partnership, have come together to evaluate critical barriers and opportunities to promote sustainable transportation in the Northeast by establishing clean freight corridors. To facilitate the adoption of cleaner fuels, technologies and strategies by freight carriers in the region, NECCF fosters coordination among state, industry, public, and private and transportation modes. Participation in NECCF includes the U.S. Federal Highway Administration (FHWA), the U.S. Department of Transportation (U.S. DOT) Volpe Center, U.S. DOT Maritime Administration, other federal, state and local environmental, transportation, energy agencies, U.S. Department of Energy (DOE) Clean Cities Coalitions, the 1-95 Corridor Coalition, port, freight shippers and carriers, non-profit organizations, and advanced technology and alternative fuel providers.

Currently, the Northeast produces 20 percent of the nation's Gross Domestic Product, hosts 17 percent of the U.S. population, and supplies only two percent of the nation's land area. Over the next 50 years, the Northeast will see rapid population growth, adding 17 million new residents in a region already constrained by significant land use, energy, and environmental challenges, and vulnerability to the impacts of climate change. Expanding capacity to improve freight and passenger flows across all modes can only partly address the challenges created by increasing demand. Providing new clean infrastructure along key Northeast corridors and at key freight facilities will be essential to promote the adoption of transportation technologies powered by cleaner alternative fuels, as well as to

[illegible]


Current: Activities/Initiatives/Projects

Alternative Fuel Corridors



US Department of Transportation (US DOT)
Federal Highway Administration

Part of the Fixing Americas Surface Transportation Act (FAST)

- 55 Interstate Routes
 - 35 states included
 - 85,000 miles of road
- 
- Rt. 76-476
 - PA Turnpike Commission
 - I-80 Mid America
 - IL Dept. of Transportation
 - I-95 corridor
 - Northeast Diesel Collaborative
 - All selected for Autogas (LPG) Natural Gas (CNG & LNG) and EVSE's



Current: Activities/Initiatives/Projects

V W Settlement Details

HOW

- Assuming an October 2016 settlement approval date, it can be expected that states must submit their mitigation plan in June 2017, and would receive funds in August 2017. (These dates are preliminary/estimates and could change)

October 2016:
Final Settlement
Approved

January 2017:
Trustee Approved

March 2017:
Certification Form
for Beneficiaries
Due

May 2017:
Trustee chooses
beneficiaries

June 2017:
Beneficiaries
submit Mitigation
Plan

Once approved,
beneficiaries can
request funding

August 2017:
Trustee must
respond to
funding request

	Percentage of Project That Can Be Funded Through Trust	
	Government-Owned Eligible Large Trucks	Non-Government Owned Eligible Large Trucks
Repower with new diesel or AFV engine	100%	40%
Purchase new diesel or AFV vehicle	100%	25% (50% for drayage trucks)
Repower with all-electric engine, including infrastructure	100%	75%
Purchase new all-electric vehicle, including infrastructure	100%	75%

Eligible Beneficiary	Initial Allocations	Eligible Beneficiary	Initial Allocations	Eligible Beneficiary	Initial Allocations
Puerto Rico	\$ 7,500,000	Louisiana	\$ 18,009,993	Colorado	\$ 61,307,576
North Dakota	\$ 7,500,000	Kentucky	\$ 19,048,080	Wisconsin	\$ 63,554,019
Hawaii	\$ 7,500,000	Oklahoma	\$ 19,086,528	New Jersey	\$ 65,328,105
South Dakota	\$ 7,500,000	Iowa	\$ 20,179,540	Oregon	\$ 68,239,143
Alaska	\$ 7,500,000	Maine	\$ 20,256,436	Massachusetts	\$ 69,074,007
Wyoming	\$ 7,500,000	Nevada	\$ 22,255,715	Maryland	\$ 71,045,824
District of Columbia	\$ 7,500,000	Alabama	\$ 24,084,726	Ohio	\$ 71,419,316
Delaware	\$ 9,051,682	New Hampshire	\$ 29,544,297	North Carolina	\$ 87,177,373
Mississippi	\$ 9,249,413	South Carolina	\$ 21,636,950	Virginia	\$ 87,589,313
West Virginia	\$ 11,506,842	Utah	\$ 32,356,471	Illinois	\$ 97,701,083
Nebraska	\$ 11,528,812	Indiana	\$ 38,920,039	Washington	\$ 103,957,041
Montana	\$ 11,600,215	Missouri	\$ 39,084,815	Pennsylvania	\$ 110,740,310
Rhode Island	\$ 13,495,136	Tennessee	\$ 42,407,793	New York	\$ 117,402,744
Arkansas	\$ 13,951,016	Minnesota	\$ 43,638,119	Florida	\$ 152,379,150
Kansas	\$ 14,791,372	Connecticut	\$ 51,635,237	Texas	\$ 191,941,816
Idaho	\$ 16,246,892	Arizona	\$ 53,013,861	California	\$ 381,280,175
New Mexico	\$ 16,900,502	Georgia	\$ 58,105,433	Tribal Subaccount	\$ 49,652,857
Vermont	\$ 17,801,277	Michigan	\$ 60,329,906	Trust Cost Subaccount	\$ 27,000,000
				Tribal Cost Subaccount	\$ 993,057
				Total	\$ 2,700,000,000

Current/ Finished Projects

The Montgomery County NGV Conversion Initiative

is a comprehensive conversion project which includes some of Pennsylvania's largest companies and a diverse set of business platforms. This project seeks to partner local transportation organizations; municipalities; public transportation; carting; construction; and service industries into one unique application, while simultaneously utilizing private investment in infrastructure to help spur the usage of Compressed Natural Gas (CNG) as an alternative to gasoline and diesel.

**ENDING
DECEMBER 2016**

The Eastern Pennsylvania Propane School Bus Conversion Initiative

seeks to help 6 counties in eastern Pennsylvania, utilize 50 new school buses that run on propane. The goals and the objectives of the project are to provide air quality benefits to school children who ride these buses and fuel cost savings to those districts who utilize CNG to replace diesel in their vehicles. This project will be an aggregation project with 2 private bus companies and 1 school districts brought together by The Greater Philadelphia Clean Cities Program (GPCCP).

**ENDING
SEPTEMBER 2016**

The Northeast Extension CNG Conversion Initiative

seeks to spur the acceptance of utilizing compressed natural gas as a vehicle fuel. Our 2 project partner's unique application will convert 23 vehicles that will utilize a new CNG fueling station. This project will introduce CNG to the public and to private companies that run along the Northeast extensions of the interstate highway. The project will promote the economic and environmental benefits of CNG in the Northeast part of Pennsylvania.

**ENDING
DECEMBER 2016**

The Southeastern PA CNG Vehicle Conversion Initiative

This project will introduce CNG to southeastern PA by showcasing some of the region's most recognizable companies and their own fleets utilizing CNG as a motor fuel. The strength of this application comes from the commitment by all project partners, even business competitors, to utilizing PA's abundance of natural gas. The aggregation of all of our partners into a single application will promote the acceptance and new applications possible when businesses of all types support natural gas as a conventional motor fuel.

**ENDING
OCTOBER 2016**

The Tincum Township Propane Vehicle Conversion Initiative

seeks to convert 3 separate fleets in Tincum Township from gasoline to propane fuel. The aggregation of these companies together will convert 34 vehicles ranging from Ford Crown Victoria Police Cruisers to dedicated E-450 shuttle buses.

**ENDING JUNE
2017**

The W.W. Transport and Easton PA CNG Vehicle Conversion Project

This project seeks to expand the usage of natural gas as a domestically produced reliable vehicle fuel. This project will help spur the usage of CNG to an undersubscribed area, in both the availability of regional infrastructure and vehicle conversions. Our project will help purchase and convert 30 Class 8 diesel tractors to CNG. The development of this project will be instrumental in helping Northampton county and more specifically Easton PA with its foray into using CNG as a vehicle fuel.

**ENDING
DECEMBER 2016**



Current & Past Projects Vehicles Deployed

The Montgomery County NGV Conversion Initiative

32 Various dedicated CNG
deployed

COMPLETED

The Eastern Pennsylvania Propane School Bus Conversion Initiative

38 dedicated Propane
School Buses deployed

COMPLETED

The Keystone State LNG Conversion Initiative

20 LNG Class 8 Tractors

COMPLETED

The Southeastern PA CNG Vehicle Conversion Initiative

30 dedicated CNG under
14000 GVW

COMPLETED

The Tinicum Township Propane Vehicle Conversion

18 propane vehicles

8 LEFT TO COMPLETE

The W.W. Transport and Easton PA CNG Vehicle Conversion Project

5 dual fuel, 25 dedicated
CNG ordered

COMPLETED

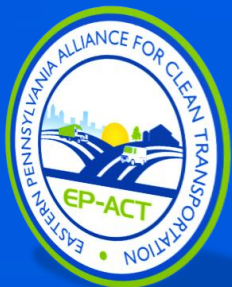
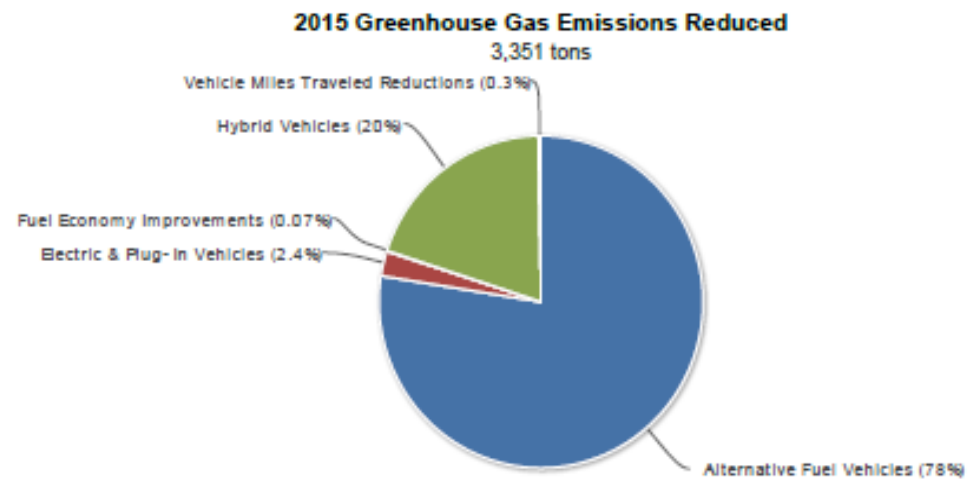
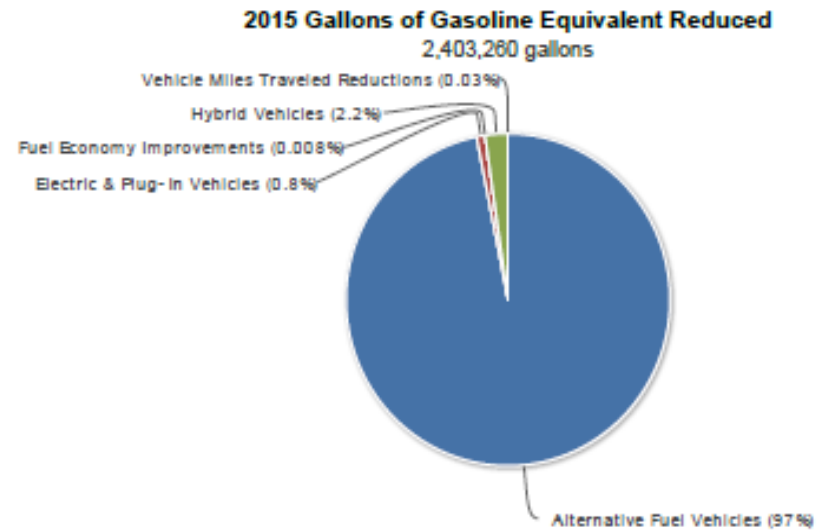
The Northeast Extension CNG Conversion

14 dedicated CNG
vehicles deployed

COMPLETED

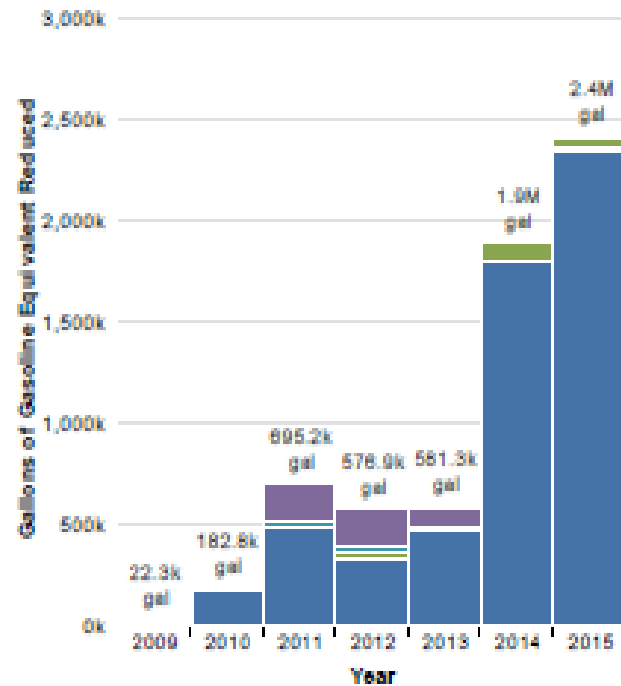
180 Various alternative fuel vehicles on the road in past 2 years

Snapshot of Performance

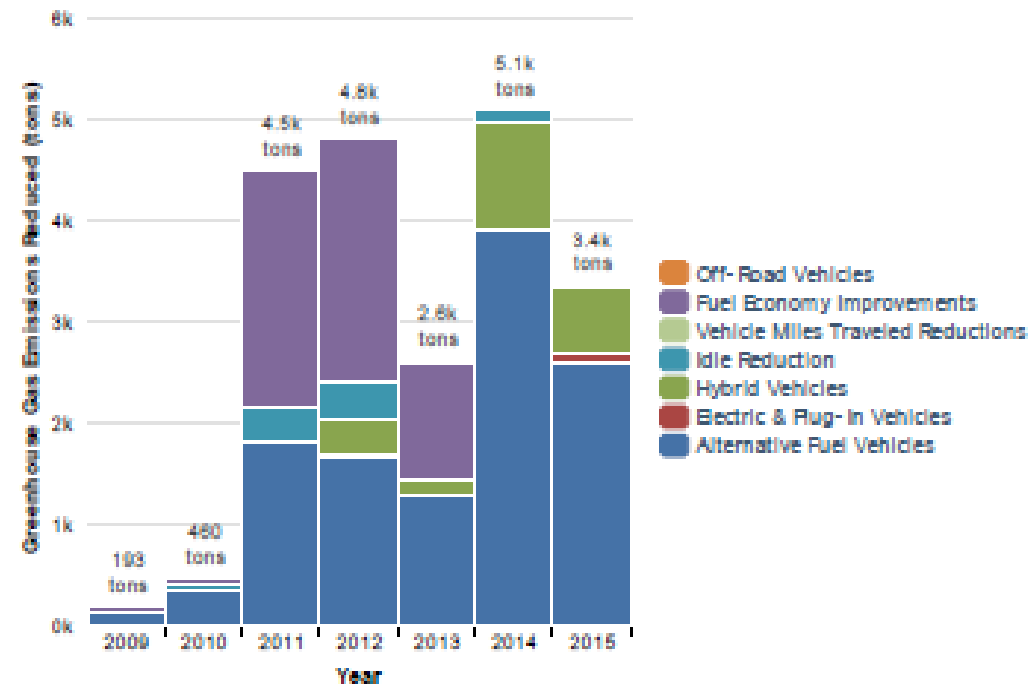


Snapshot of Performance

Historical Gallons of Gasoline Equivalent Reduced



Historical Greenhouse Gas Emissions Reduced



Snapshot of Performance

Last Year's Displacement (2014) = 1,886,660 GGE's

This Year's Displacement (2015) = 2,403,260 GGE's

Increase of Displacement = 516,600 GGE's

Percentage Increase = 27%

Last Year's GHG's Reduced (2014) = 5,085 tons

This Year's GHG's Reduced (2015) = 3,351 tons

Decrease in Reduction = 1,734 tons

Percentage Decrease = 34%



Snapshot of Performance

LNG — MOST IMPROVED

Eastern Pennsylvania Alliance
for Clean Transportation

2016 National Clean Cities Coordinator Training Workshop

September 1, 2016



U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy





pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

EV Planning Workgroup



An Exelon Company

**PECO's Smart
Driver Network**

Smart Driver Network

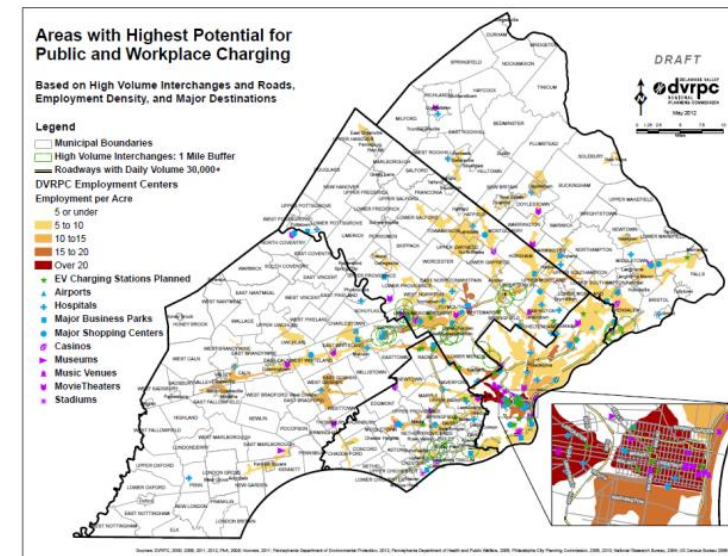
The Challenge:

- ✓ Achieve environmental and energy goals through expanding AFVs

Our Approach:

- ✓ Establish state goal of doubling deployment of EVs and NGVs in PA above forecast levels by 2030
- ✓ Develop state and regional EV and NGV infrastructure plans through planning collaboration between transportation experts, local governments and utilities

- ✓ Direct utilities to submit EV and NGV infrastructure investment plans that support establishment of public, backbone charging and refueling networks
- ✓ Authorize establishment of EV smart charging rates



PECO is pleased to be participating in the DEP-led PA EV Stakeholders Meetings in December



**Electric Vehicles
and EVSE's**



EV Market Overview for EP-ACT
November 2016

About Us



First Priority GreenFleet brings to the market end-to-end solutions for fleets across a full product matrix of alternative fuel vehicle platforms designed to offer highly reliable performance, reduce total cost of ownership, and assist our clients in diminishing their environmental footprint.



Mission Statement: First Priority GreenFleet seeks to participate in revolutionizing the national, private and public commercial transportation industry by meeting the demand for Zero and Ultra Low Emission Vehicles and contribute to the effort to reduce greenhouse gas emissions, improve air quality and public health, and promote the social, environmental, and economic well-being of our communities.

Our History



First Priority GreenFleet is a subsidiary of First Priority Global. Established in 1998, First Priority Global is one of the world's leading manufacturers and distributors of a comprehensive array of firefighting, emergency medical, specialized rescue and mobile health solutions, conducting business throughout the U.S. and in over 30 countries around the world.

First Priority GreenFleet was established to meet the market demand for clean transportation solutions and assist both government agencies and private transportation enterprises in significantly reducing their environmental footprint and effecting a more sustainable future.



Our Products



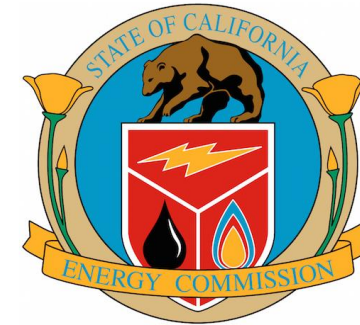
First Priority Bus Sales



- The only full line of Zero Emission School Buses.
- The only Bus Sales Company capable of servicing zero emission school buses on both coasts.
- Expected to roll out the largest deployment of zero emission school buses in U.S. history in the Sacramento area.
- Working on similar size pilot programs in the Los Angeles area and in discussions with NY City agencies about rolling out first deployment of Electric School Buses in a pilot program w/ConEd (V2G).



Our Customers



Clean Transportation Market



- EPA mandates have put pressure on Federal, State, and local governments to dramatically reduce GHG, CO2 and all other particulates generated from operating diesel and conventional fuel buses and trucks. These mandates carry heavy fines and huge budget implications.
- The largest fleet of offenders to the EPA clean air mandates are School Buses. There are 480,000 yellow buses operating daily and many are scheduled to be retired in the next 5-7 years depending on geography.
- The second largest fleet of offenders are delivery trucks of which there are millions on the roads today. These trucks are subject to the same 2023 deadline from the EPA.
- Federal, State, and local governments recognizing the urgency of the climate and air quality conditions have established new rules, set aside funds for grants and vouchers to drive the cost of conversion to cleaner alternative fuel vehicles down, and provide necessary infrastructure.
- Together these rules and regulations require all existing trucks and School buses with a 2010 registration or earlier, to be off the road by 2023, making the market for new School bus purchases by 2023, \$120 billion and Class 4-6 trucks \$403 billion.



Key Activities US

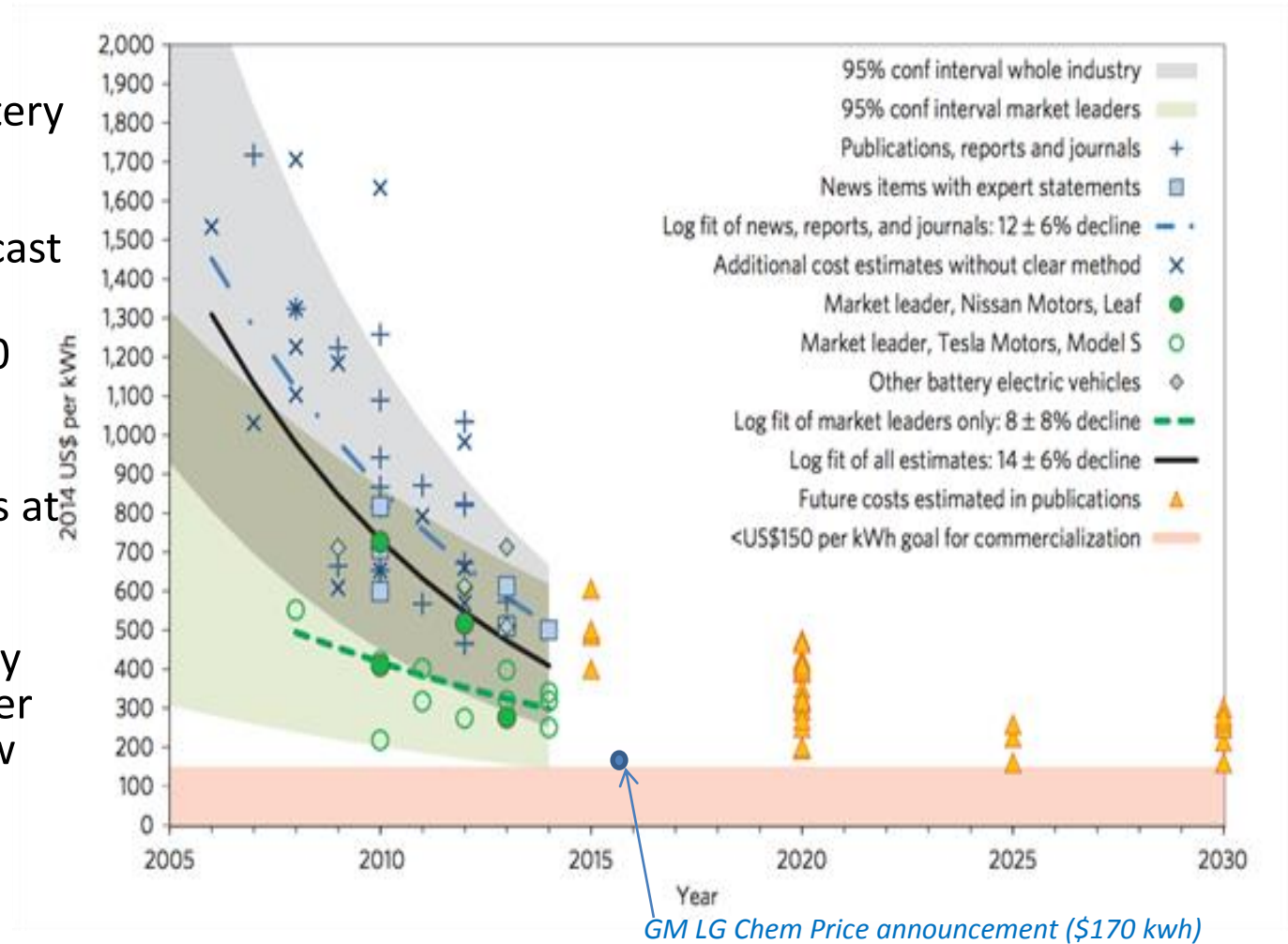
- HD Fuel Economy – Phase 2 (new rules for 2021-2027)
- Super Truck 2
- DOE EV funding
- Passenger car CAFÉ – mid term review 2017
- Clean Power Program
- Hydraulic Fracturing – Oil and Natural gas
- New Ozone Air Quality Standards
- Emerging standards for connected/automated vehicles
- “Clean” and Alt Fuel Highway Corridors

Where Are We Now?

- Conventional truck tech improving via M/HD Phase 1 fuel economy regulations
- Focus increasingly on integration/optimization and smart control technology
- Natural gas expanding – low diesel fuel cost a challenge – but Low NOx engines real and in production
- Renewable fuel growing thanks to credits
- Hybrids – Gen 2 systems and price points emerging in market
- E-trucks –relaunch coming with better market segment focus, support, manufacturers
- Traditional OEMs not as active in hybrid and electric – still waiting to see market – new OEMs and smaller and new innovative companies leading

Battery Costs Below 2020 Expectations?

- Report shows battery cost reductions happening faster, steeper than forecast
- Old forecast: \$300/kwh by 2020
- New findings: Industry already \$410/kwh; leaders at \$300/kwh
- Behavioral and market factors may be more of a limiter than batteries now



Nature Climate Change report:

<http://www.carbonbrief.org/blog/2015/03/electric-vehicle-batteries-already-cheaper-than-2020-projections/>

Semi?

- Part of announced Master Plan Part 2
- Also to include high volume passenger transport, maybe pickup



Jerome Guillen, formerly with Daimler and Cascadia platform, heading up Tesla truck development

414 Supercharger stations with 2,277 Superchargers



◀ Asia-Pacific

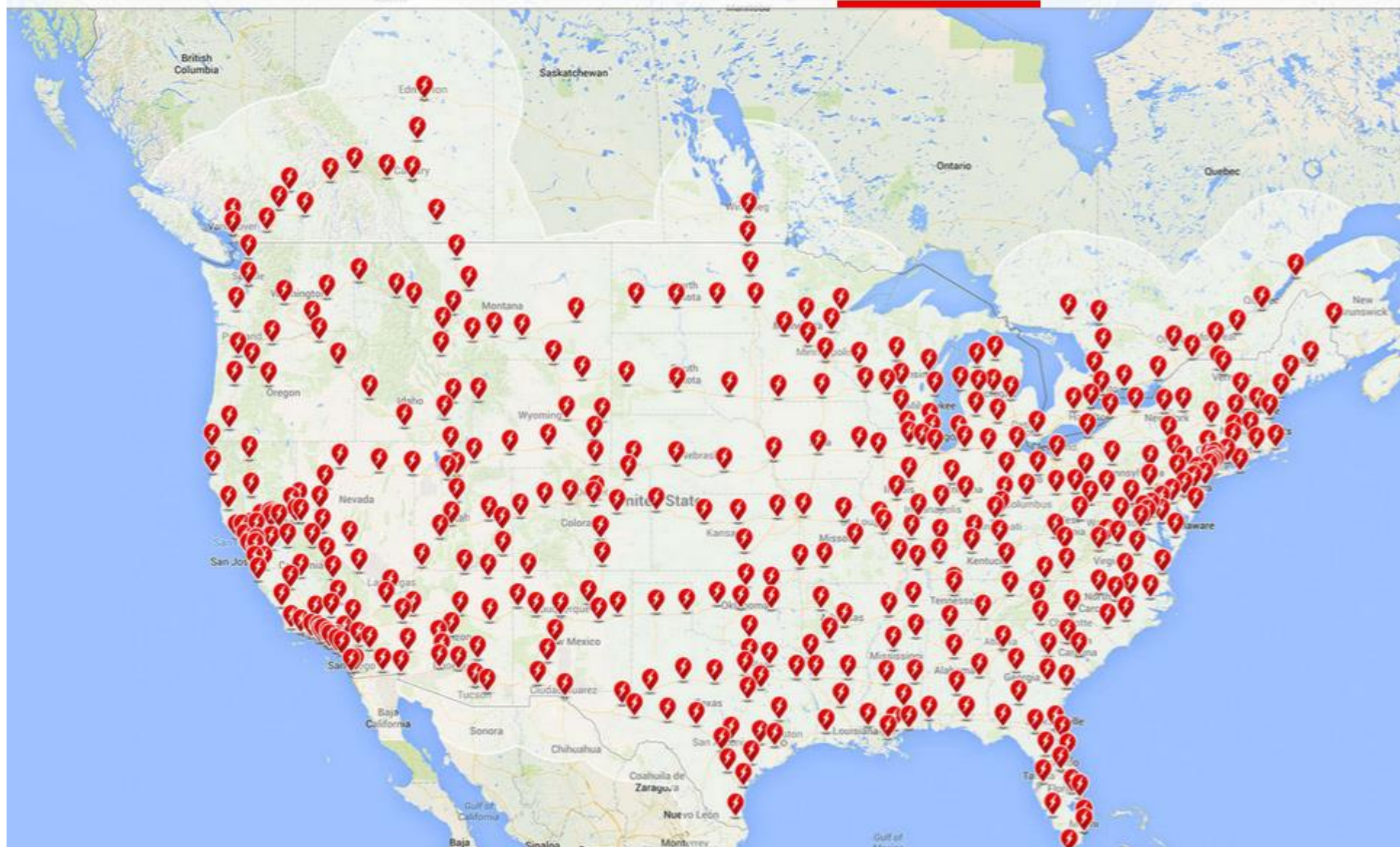
Today

Canada

2015

2016

Europe ▶



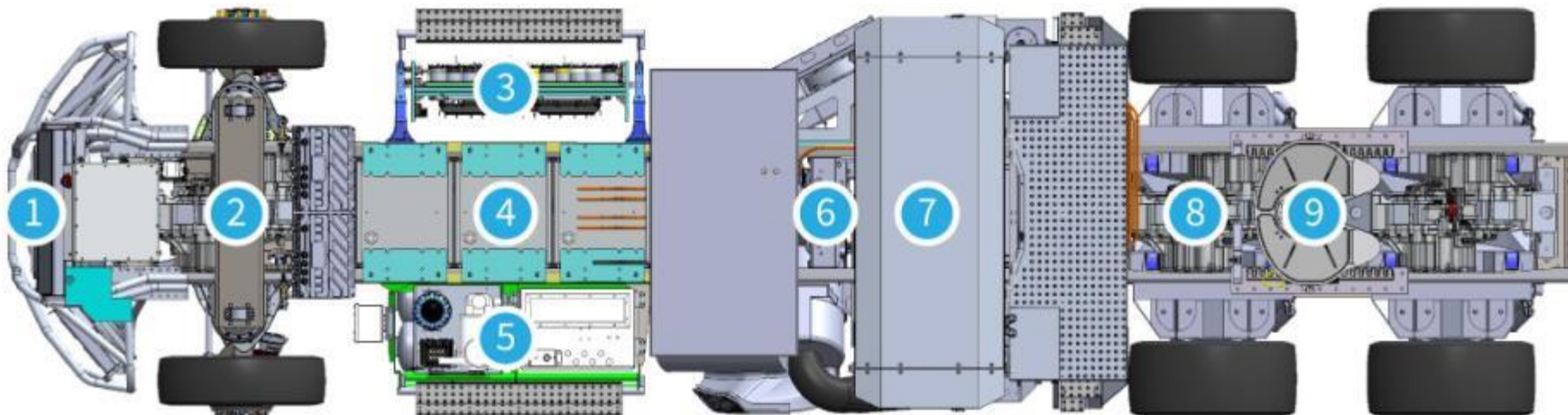
Nikola Motor Co



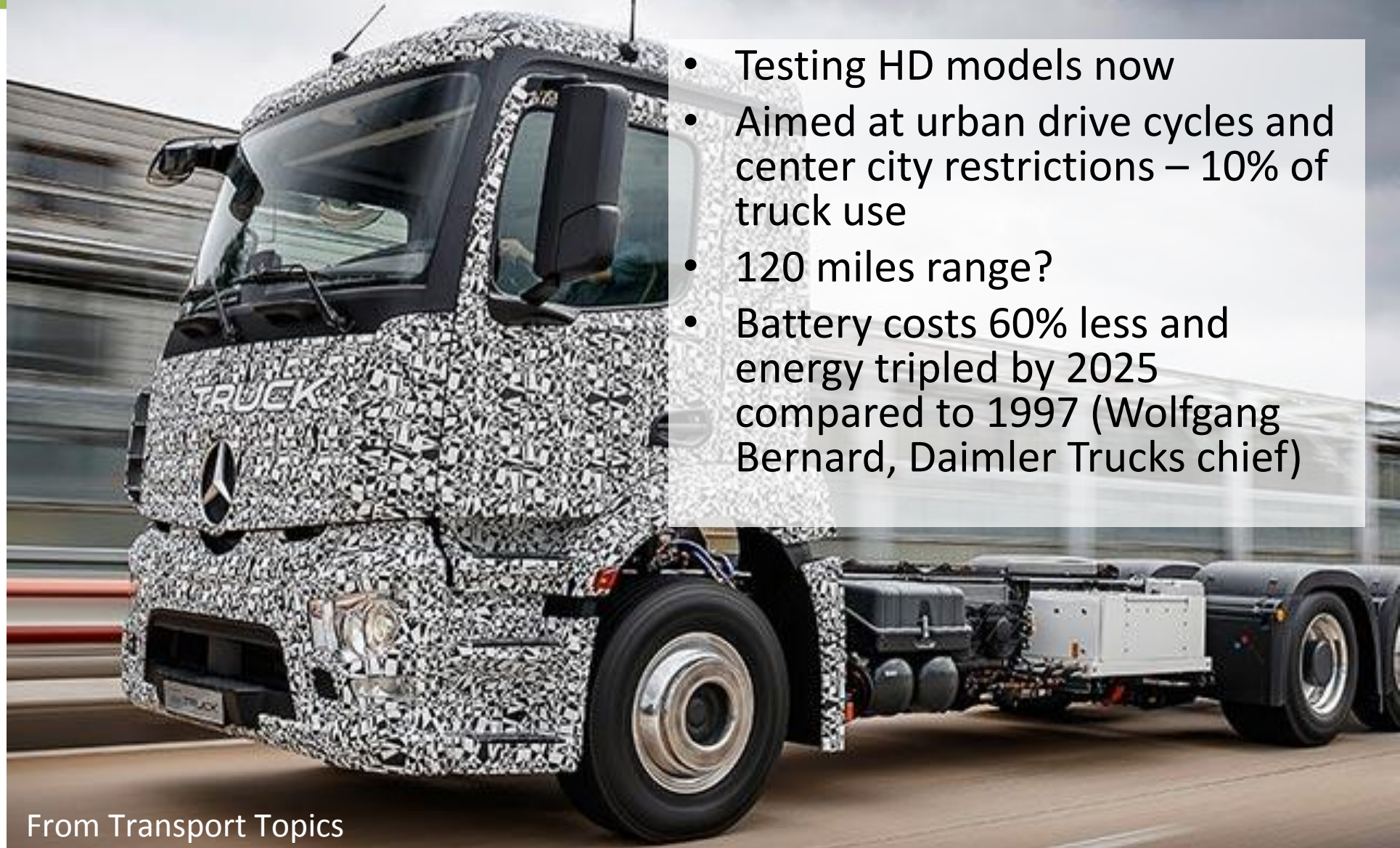
NIKOLA
MOTOR COMPANY



- Essentially a series-electric drive “locomotive” for line haul
- Integrates a fuel cell to extend range
- Products coming?



Daimler – E-Trucks in 5 Years



- Testing HD models now
- Aimed at urban drive cycles and center city restrictions – 10% of truck use
- 120 miles range?
- Battery costs 60% less and energy tripled by 2025 compared to 1997 (Wolfgang Bernard, Daimler Trucks chief)

From Transport Topics



Courtesy: HD Trucking



Mack Unveils Electric Refuse Truck at Waste Expo using
Wrightspeed powertrain

Courtesy: Trucks.com



First E-Highway Test
Begins June 22 in Sweden



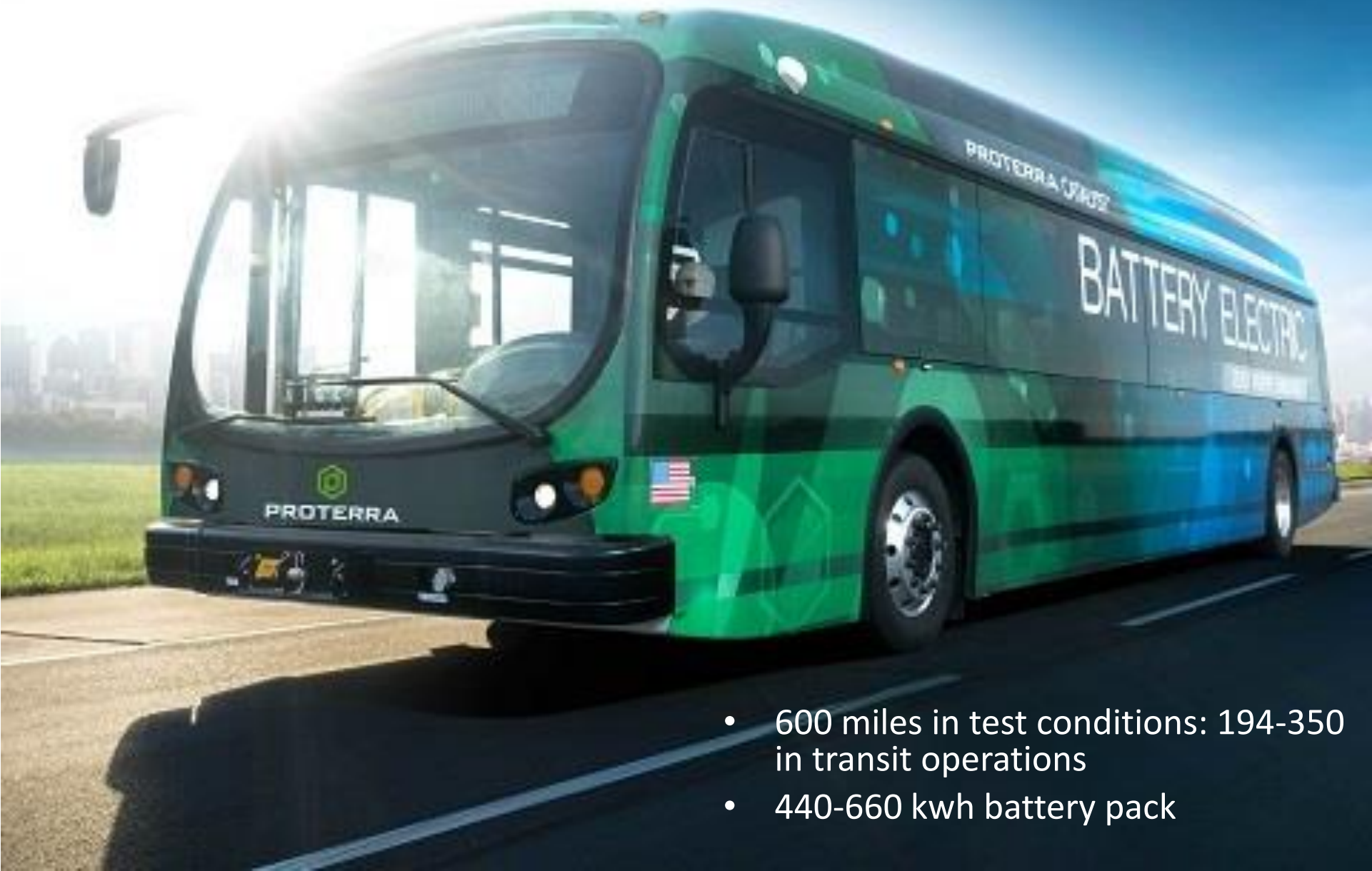
Horsefly Delivery Drone

FAA Approved Testing to Start



Proterra Catalyst E2

350 mile range!



- 600 miles in test conditions: 194-350 in transit operations
- 440-660 kwh battery pack

Zero Emission Bus Market Growing in the United States



El Dorado National Fuel Cell Bus



Complete Coach Works
Electric Bus



BYD Electric Bus



Proterra Electric Bus



New Flyer Industries Electric Bus



Almost Twenty ZEB Products Across Nine Bus Makers and Up-fitters



BYD to Zenith – Growing Electric Options



- BYD, a world leader in batteries and buses, has qualified Class 5 truck; focusing on Class 5,7 and 8 for US
- Mitsubishi E-Cantor coming late 2016
- Zenith ramping up, Amp/Workhorse, Motiv, Orange, Transpower, Phoenix growing – and, **First Priority GreenFleet** (bought EVI assets)





OUR MANUFACTURERS



ZE, PHEV Delivery Trucks



Motiv

Motiv, EDI (FPGF)



First Priority GreenFleet & BYD

Motiv ERV



- ERV – Electric Refuse Vehicle, City of Chicago
- Up to 10 – expanding validations to other regions
- 60 mile range, 70 compaction cycles, 10 battery packs
- Crane Carrier Chassis, Loadmaster 20 cubic yard rear loader body

Orange EV

- All electric yard tractor – now an on-road version, too
- Up to 80,000 pound loads, up to 20 hour work days

ORANGE EV



Terminal Tractors, Shuttle Carriers

- Kalmar announces electric versions with fast charge capability
- ZE terminal tractors (yard hostlers, yard goats) prime candidates for pilot scale deployment



Hybrids “Back” – New Players, Prices



- New conversion, retrofit options showing more attractive price points
- Hino Class 5 Cab-over highly competitive for price and selling well

XL Hybrids

- New and existing vehicle conversion to cost-effective hybrid electric on Class 2-6 chassis
- Solid payback in high mileage applications
- Fast conversion uses known QVM approach



Lightning Hybrids

- Retrofit or conversion
- Hydraulic hybrid system
- Benefits for reduced brake wear, improved stopping, fuel savings
- Currently Class 2-5

Plug In Work Trucks Odyne Systems



- Odyne next generation systems in deployment nationwide
- Significant work site engine off power; idle reduction; hybrid driving capability
- Several models
 - Plug-in hybrid utility bucket trucks
 - PHEV “digger-derrick” version
 - PHEV underground compressor truck
 - Class 4-8



Altec JEMS

- Jobsite Energy Management System
- Operates boom, tools without engine
- New versions can provide Automated Idle Management System; engine-off cab comfort
- HVIP incentives for larger systems



EDI (Efficient Drivetrains Inc) Export Power PHEV

- California hybrid & EV drivetrain developer, supplier (Partner w/FPGF)
- Architecture allows high power export from vehicle
- Of interest to commercial, military markets
- Powered relief centers during Lake Fire



“The EDI trucks will allow new operational efficiencies for both maintenance with no service interruption, and disaster relief. We can power about 100 homes at the same time off of that vehicle.”

*Dave Meisel,
Senior Director, Transportation, PG&E*



What Can Fleets Do? Take Control!

- Fleets - take control of own destiny and footprint – by measuring actions and planning changes via Sustainable Fleet Accreditation
- Developed **BY AND FOR FLEETS**: validates real fleet progress against sustainability standard
- Metrics: **reduce fuel use; reduce climate and criteria emissions; increase efficiency**
- LEED-like structure: Provides independent review of fleet progress – gives guidance on strategies – but encourages **innovation**



THANK YOU



Brett Gipe
Chief Commercial Officer
443-370-8782
bgipe@firstpriorityglobal.net





**Hydrogen Fuel
Cells**

Hydrogen Fuel Cell Cars

Presentation by:

Nick Mittica, Commercial Manager



November 22, 2016

60+ Years of Hydrogen Experience

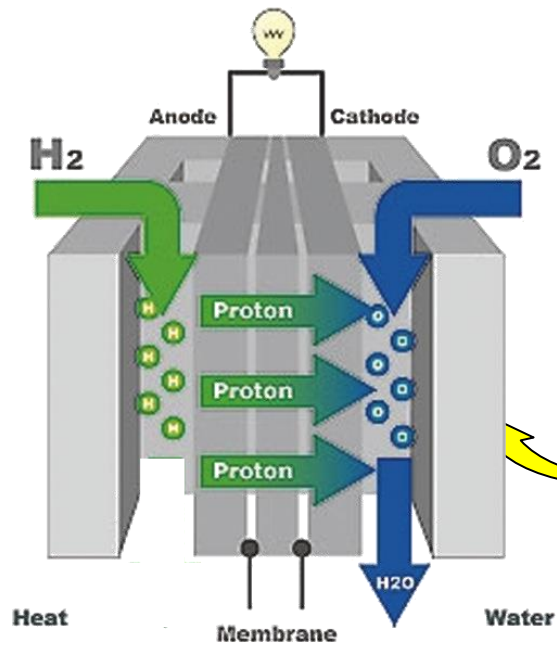
- One of largest hydrogen producers in the world
 - Produce ~6 million kgs/day (>2 billion standard cubic feet)
- Bulk, liquid, and pipeline distribution
- Unique product offerings for H₂ fueling
- H₂ energy projects since 1993
 - > 200 hydrogen station projects
 - > 1,500,000 fuelings/yr
 - > 5,000,000 total fuelings
 - Twenty countries



Question: Is a Hydrogen Fuel Cell Car an Electric Car?

Answer: Yes!

How do Fuel Cell Vehicles Work?



- A fuel cell is an electric generator.
- Uses H_2 and O_2 to produce heat, power and water
- Fuel cells are 2-3 times more efficient than internal combustion engines

Why Hydrogen Fuel Cell Cars?

- Efficiency: Two to three times more efficient than an internal combustion engine
- The automobile is removed from the emissions discussion!
- Form, Fit and Function of H₂ fuel cell cars consistent with driver's expectations



Why Hydrogen?

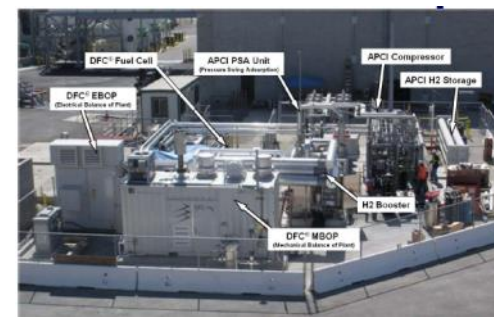
- It's the most abundant element in the world.
- It's carbon-free.
- It's not toxic.
- It can be produced from natural gas or renewable resources in the US and reduce our dependence on imported oil.
- When used in a fuel cell, the only emission is water.

Hydrogen Energy Markets

- Transportation



- Power Generation



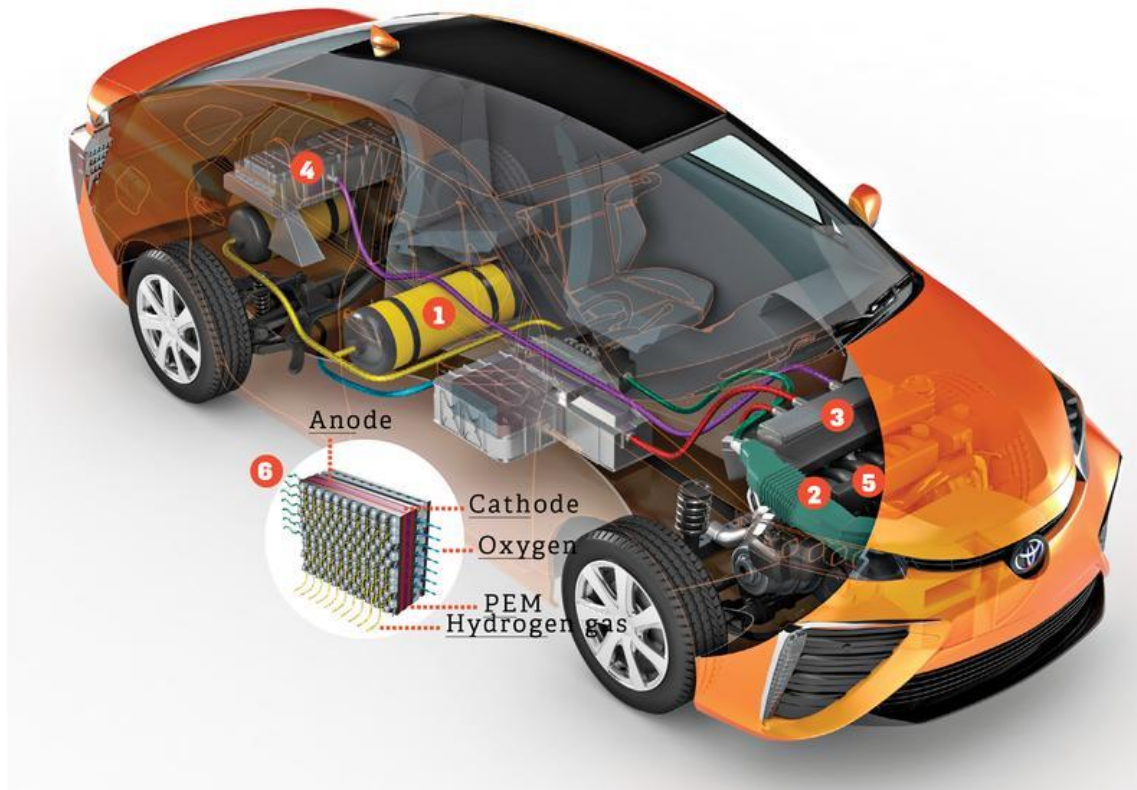
Hydrogen Vehicles Today



motoring



Toyota Mirai



1. Hydrogen tank
2. Airflow
3. Power Control Unit
4. Battery (Ni-metal hydride)
5. Electric motor
6. Fuel cell

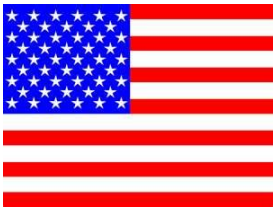
Automotive Industry Update

- Toyota, Hyundai and Honda have launched cars commercially in select markets. Available for purchase or lease
- Automaker partnerships announced in order to facilitate development and create larger scale faster
- All major car companies developing these vehicles. Others expected to launch cars 2018-2020

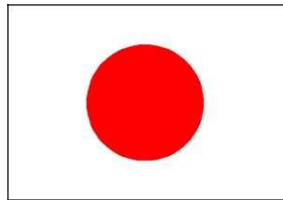


Where Will the Cars Go?

- Locations where fueling infrastructure is built
- Regions where demographics support the sale of vehicles
 - Early adopters of new technology
 - Desire to be “Green”
 - Financial ability to pay premium
- Government Policy
 - Environmental regulations
 - Financial incentives



**United
States**



Japan



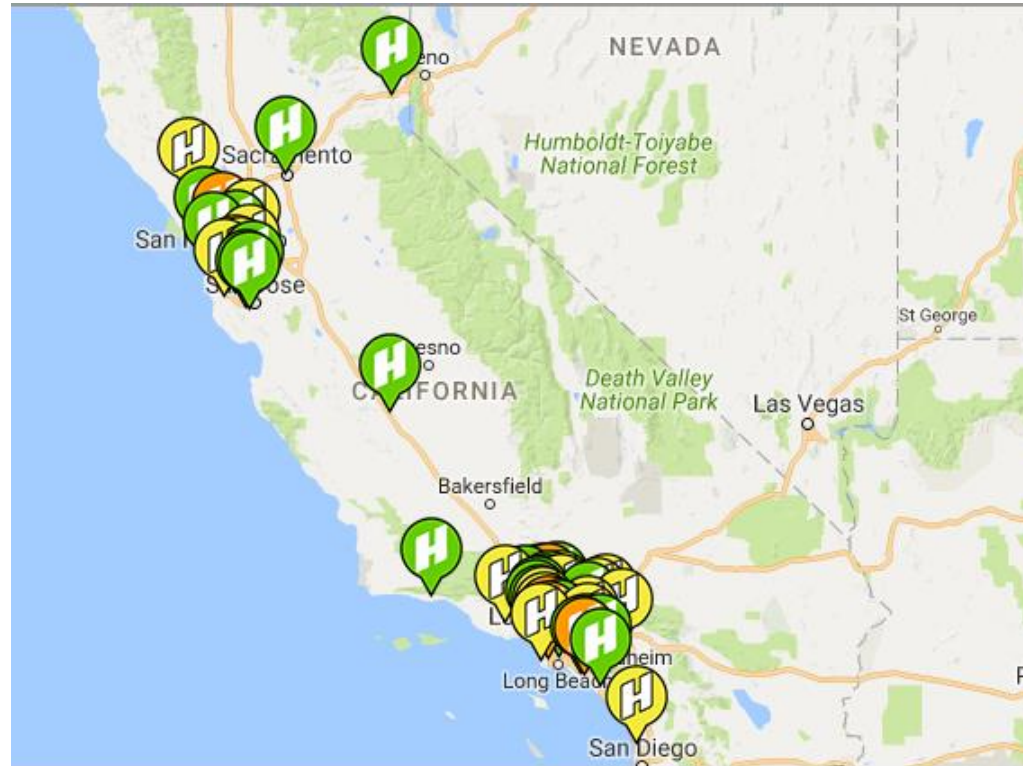
Germany



UK

CA is the first US market.
Northeast ZEV states are next.

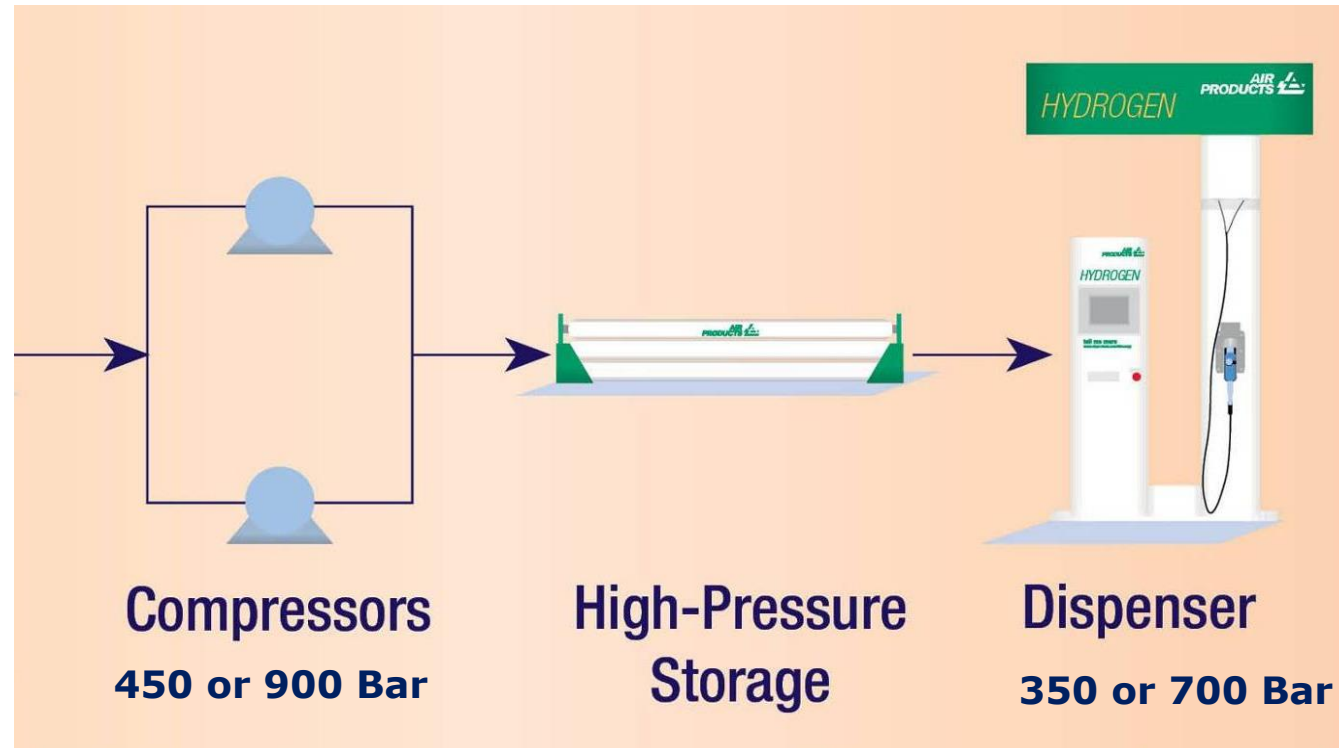
CA H2 Fueling Stations



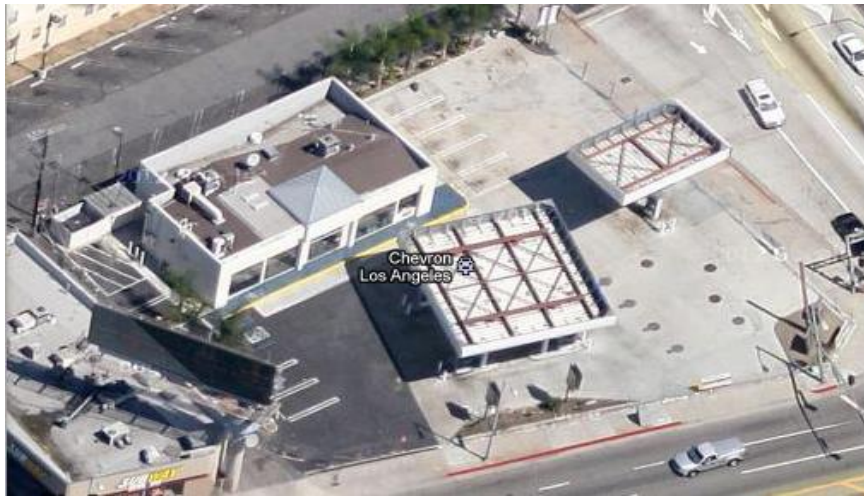
- 23 retail stations operational, 5 non-retail stations operational
- 25 retail stations under development
- 29 being built in CA with Air Products SmartFuel® technology
 - 21 retail stations are operational
- Additional funding announcements expected by end of the year

Typical Hydrogen Fueling Station

Hydrogen Supply



Station Deployment – West LA



Santa Monica, H2 Station



Hydrogen Dispensing Stations in CA



Shell, Torrance – Pipeline



UCI, Torrance

Hydrogen Dispensing Stations in CA



PA Fueling Stations

- Air Products, Trexlertown, PA



- Three forklift deployments
 - Wegmans, Pottsville, Sysco, Philly, P&G Mehoopany
- Penn State
 - Bus fueling station. Commissioning in progress

The Bottom Line

- The use of hydrogen as a fuel continues to be evaluated globally in many applications.
- Automotive manufactures are launching commercial fuel cell vehicles now. More will be sold in coming years!
- Hydrogen production and delivery infrastructure exists today! Industry stakeholders are collaborating on deployment of new H2 fueling stations in select markets.

Additional Resources

- Air Products
 - www.airproducts.com/h2energy
- Automotive Manufacturers
 - <http://www.toyota.com/fuelcell/>
 - www.hyundaiusa.com/tucsonfuelcell/
 - <http://world.honda.com/FCXClarity/>
- Fuel Cell and Hydrogen Energy Association
 - www.FCHEA.org
- California Fuel Cell Partnership
 - www.fuelcellpartnership.org



Thank you...
tell me more

www.airproducts.com/h2energy





BREAK



Natural Gas



LANDIRENZO®
U S A

EP-ACT Annual Meeting - 2016

Keeping Alt Fuels Relevant

EcoMobility Since 1954



Opportunities for LD/MD Vehicles – Innovation and Future Product



2017 Corporate Focus



Sustainability in Transportation

Natural Gas and **RNG** as a fuel reduces heat trapping Green House Gases by 25-30% compared to gasoline or Diesel, and 98% less carcinogenic particulate matter

Fuel Diversity

Natural Gas offers fleets an additional, clean choice to utilize during weather emergencies and offers a cost effective solution for environmental mandates

Efficiency and Cost Improvements

Landi Renzo continues to develop more efficient solutions and long term price stability

Collaborative Clean Corridors

FAST Act Clean Corridors will be eligible for vehicle and infrastructure funding



2017 Corporate Focus: Challenges

Low Oil Prices

Low Oil Prices have slowed the growth of the alternative fueled vehicle industry, end users and government need to be educated through Clean Cities and industry leaders

Long Term Price Stability

Natural Gas as a transportation fuel will continue to trend below current and future oil pricing. Local natural gas utilities need to continue to provide outreach to fleets

Partner With Competitive Suppliers

Infrastructure Providers need to partner with natural gas suppliers for more competitive rates

Aggregate Procurement

DOE Funded Project for a Regional and National Vehicle Procurement Opportunity



- Established in 2006
- \$50 million investment
- The most advanced technical center in the world for emissions analysis
- Center of Excellence for the study of the alternative fuels and Eco-Mobility

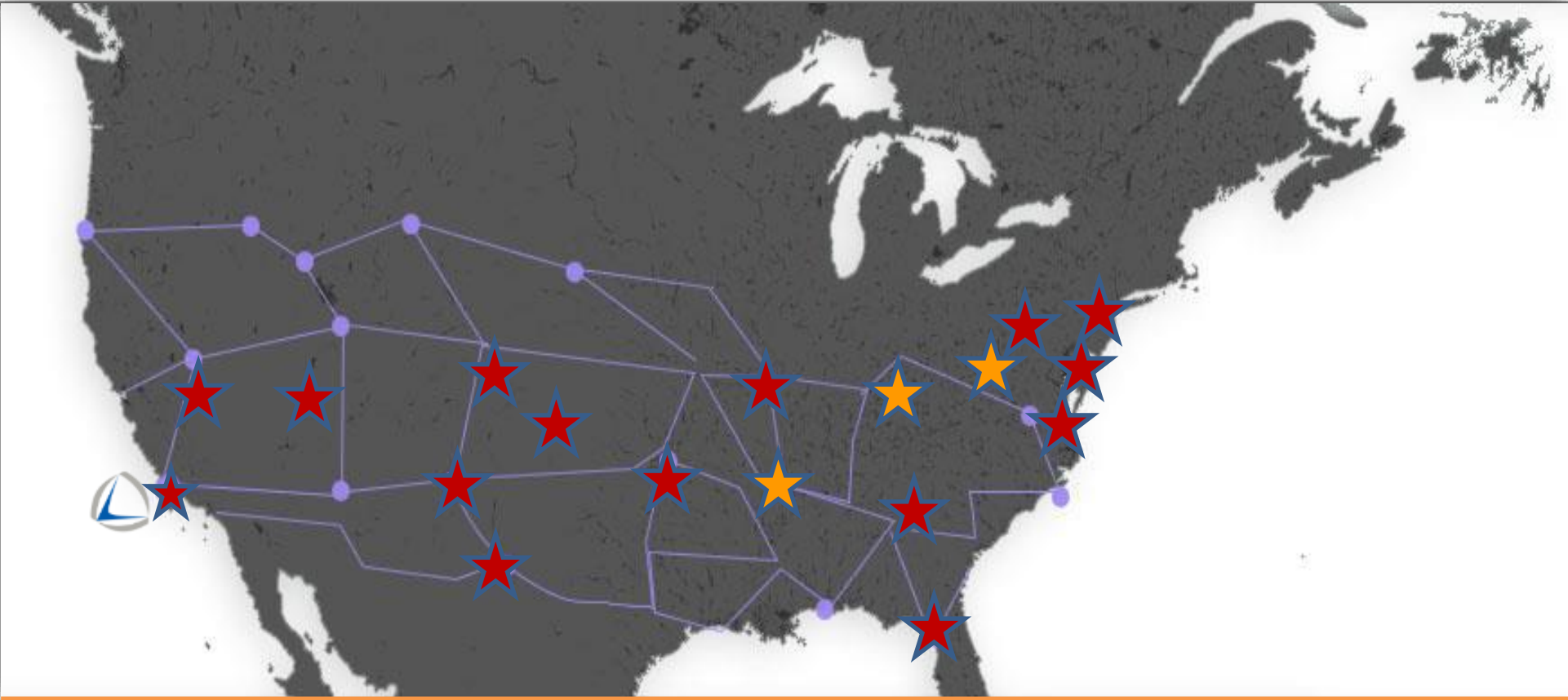


Ford Product Overview

	F-250/350 Pickup	6.2L	Bi-Fuel Dedicated		EPA 50 State
	F-350 Chassis Cab	6.2L	Bi-Fuel Dedicated		EPA 50 State
	F-450/550 Chassis Cab	6.8L	Bi-Fuel Dedicated		EPA 50 State
	F-650 Chassis Cab	6.8L	Dedicated		50 State
	E-450 Cutaway	6.8L	Dedicated		50 State
	F-53/59 Stripped Chassis	6.8L	Dedicated		50 State



Distribution & Service Channels



1954

Moving Forward!

2016



Barry P. Carr
Director, Business Development
Landi Renzo USA
(315)278-2061
bcarr@landiusa.com





**Autogas, LPG,
Propane**



Derek Whaley
Business Development
North East & Central
North America

ALTERNATIVE FUEL SOLUTIONS:

Powered by:



Alt. Fuel Experience

- Compressed Natural Gas (CNG)

- Design of fuel system.
- Calibration.
- EPA and CARB certification.
- Vehicle integration.



- Electric

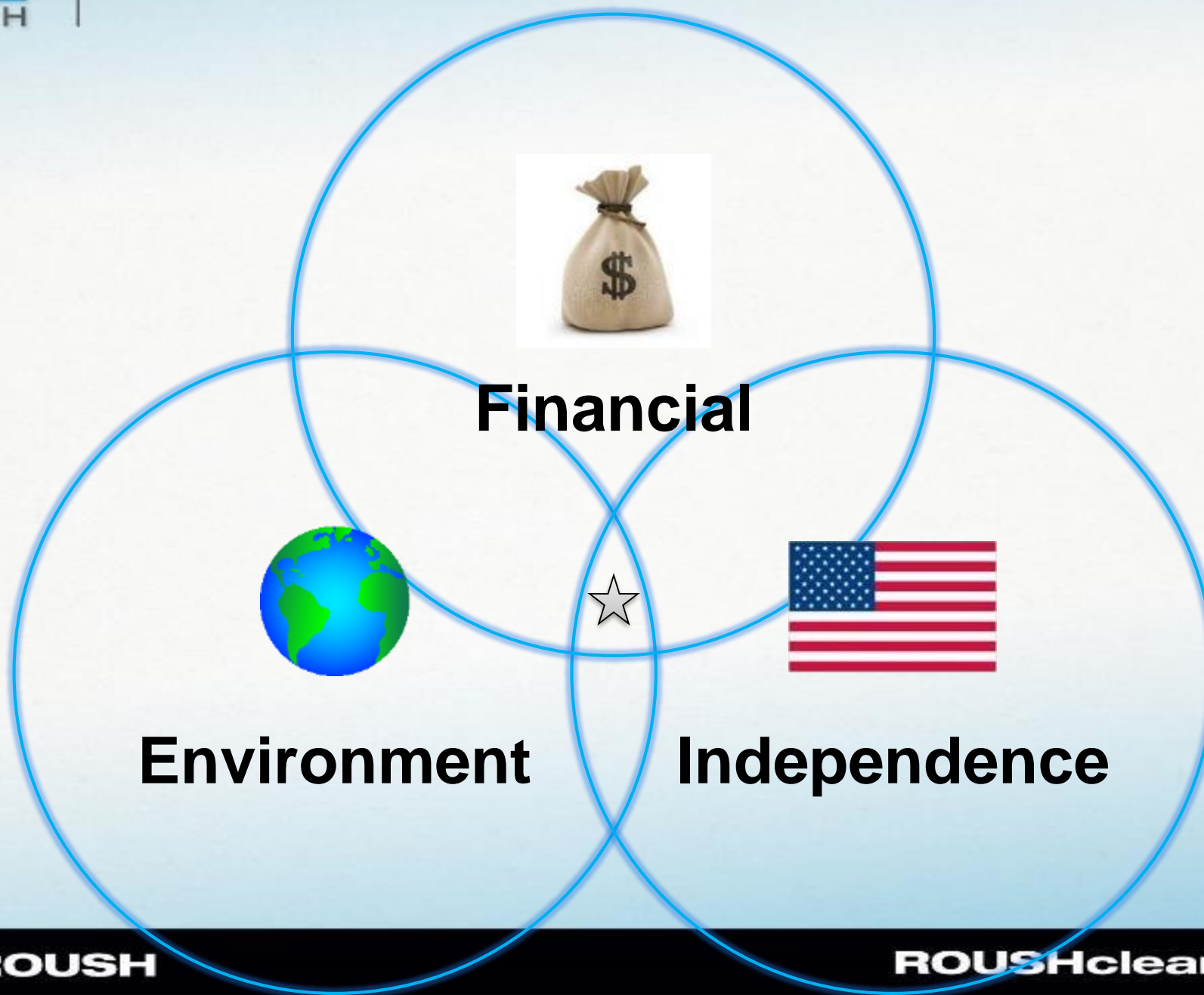
- Over 16,000 recharging stations built.
- Blink ECOtality contract with U.S. DOE.

- Hydrogen

- 207.297 MPH (world land-speed record.)
- Vehicle design.
- Aerodynamics development.
- Vehicle fabrication.
- Propulsion system integration.



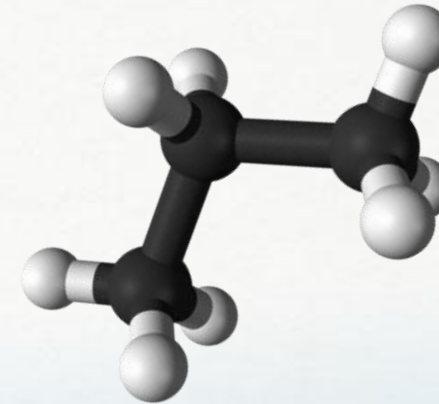
Where Does Propane Fit?



What is Propane Autogas?



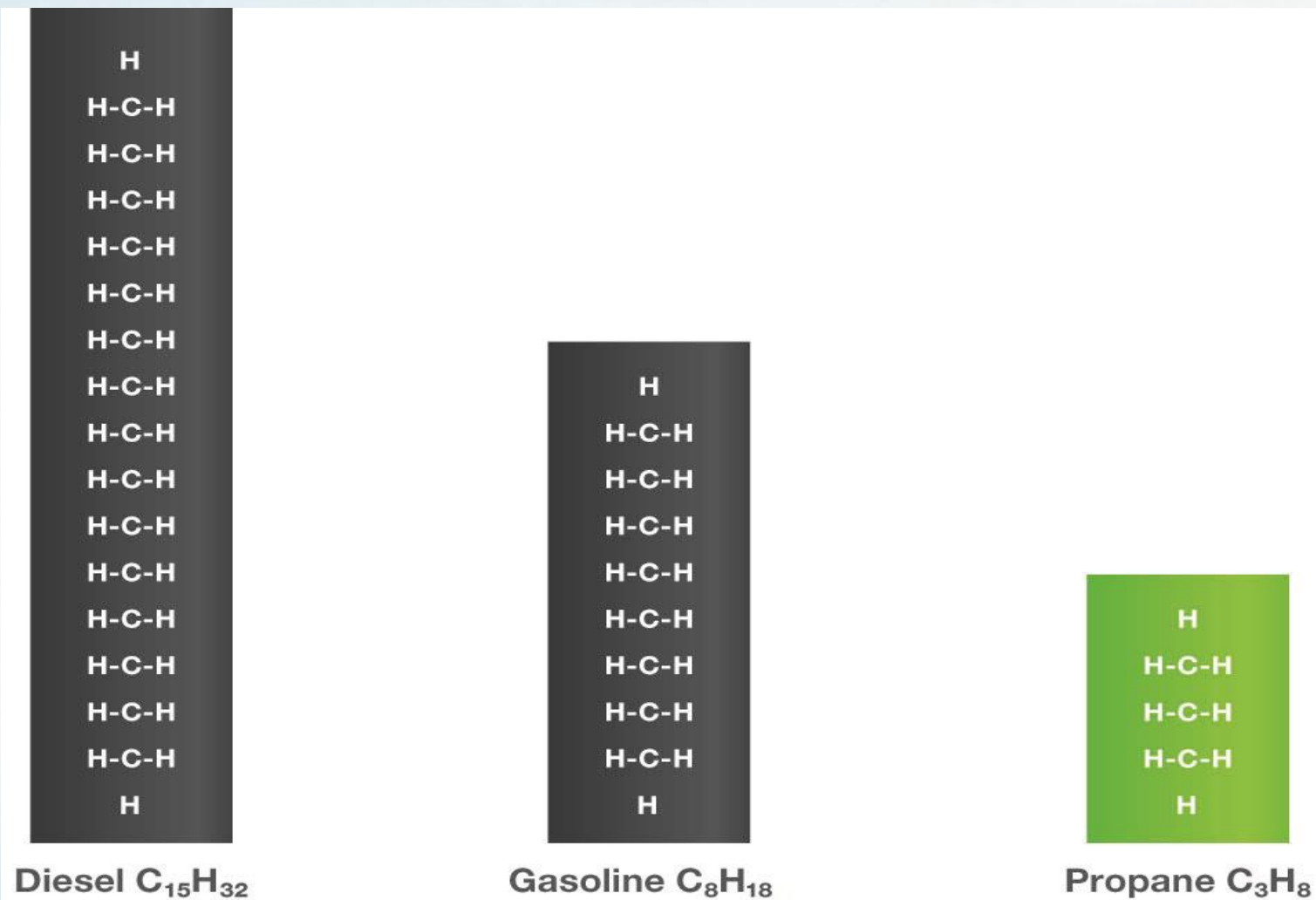
- ❖ Abundant Domestic Fuel:
 - 90% of propane used in the U.S. comes from the U.S.
 - 7% of propane used in the U.S. comes from Canada
 - Major natural gas shale found in northeast U.S.
- ❖ Growing Acceptance:
 - Largest public refueling infrastructure of any alternative fuel
 - Powers over 23 million vehicles worldwide
 - Price gap continues to widen
- ❖ Environmentally Friendly:
 - 60% reduction in Nitrogen Oxide (NO_x) emissions
 - 80% reduction in Hydrocarbon emissions
 - 100% reduction in Particulate Matter (PM) emissions
- ❖ Fuel Safety:
 - Low operating pressure (150-250 psi)
 - Narrow flammability range



Propane Molecule
(C₃H₈)

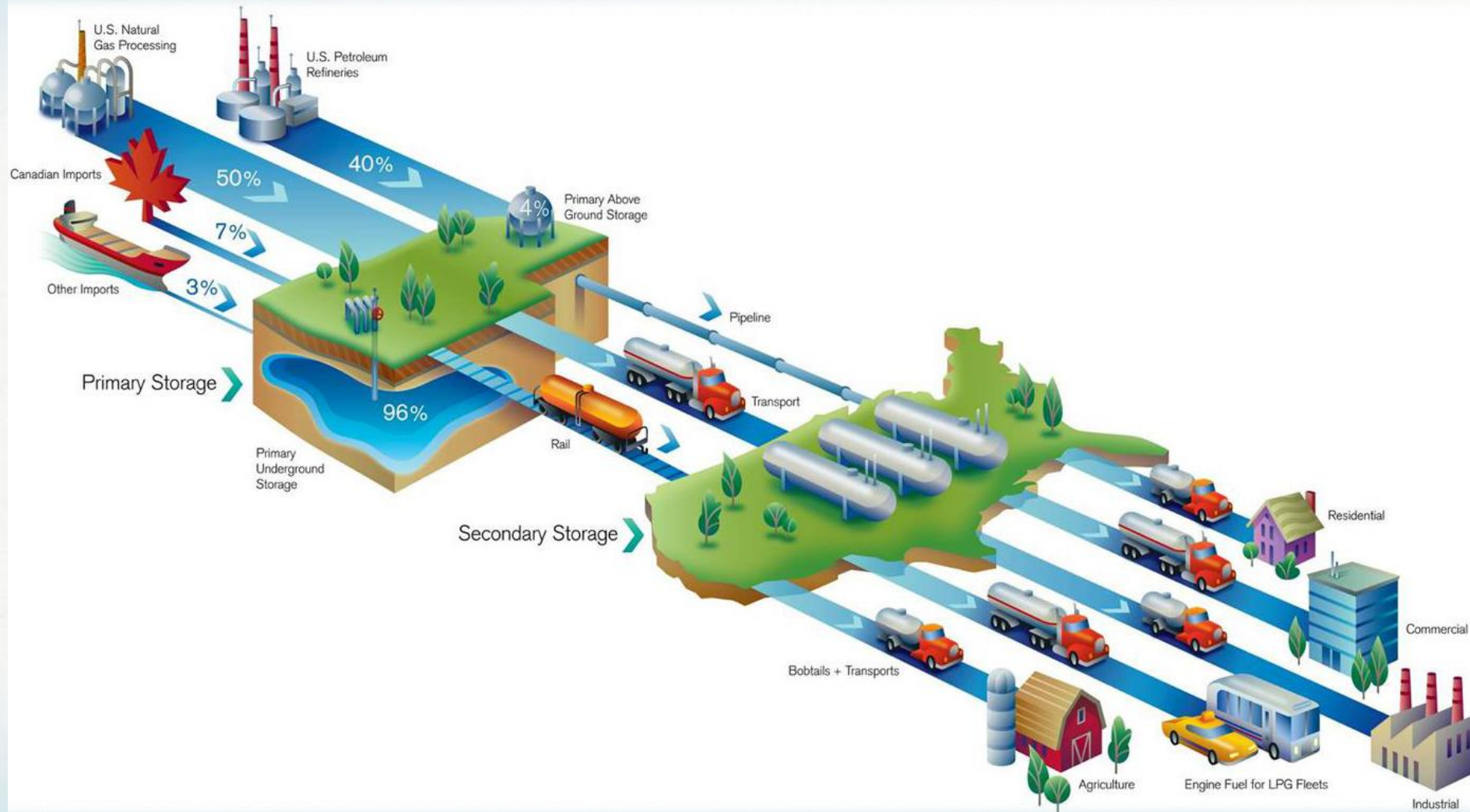


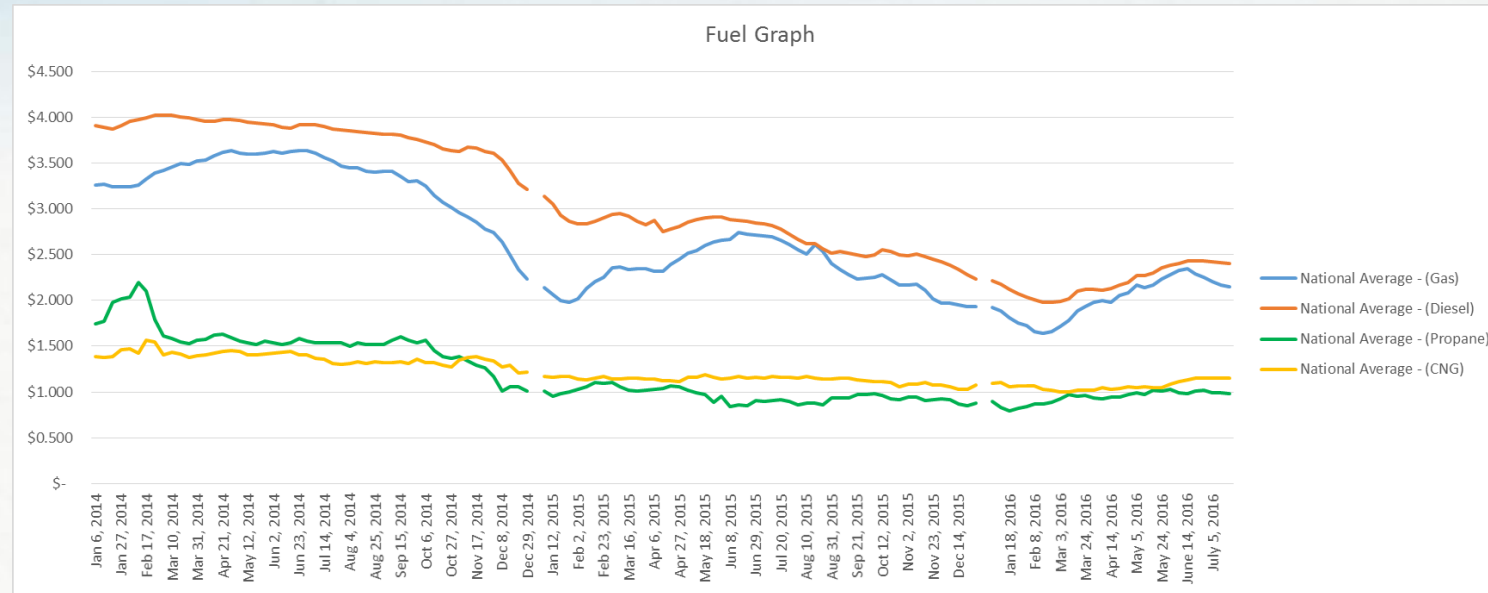
Propane: A Low Carbon Fuel





US LPG Consumption





- ❖ As much as gasoline and diesel has dropped in price, propane has followed suit
- ❖ On a national average, propane is 59% less expensive than diesel
- ❖ There is a Federal fuel rebate through the end of 2016
 - Propane - \$0.36



- ❖ Propane poses no harm to groundwater, surface water, or soil
- ❖ Propane autogas is a nontoxic, non-carcinogenic, and non-corrosive fuel
- ❖ Emissions reductions compared to diesel:
 - 60% less NO_x emissions
 - 80% reduction in Hydrocarbons
 - 100% reductions in Particulate Matter
- ❖ Today we meet the next level of EPA emissions



OVER
11,000
VEHICLES



Ford F-53 / F-59

Ford E-450

Ford F-250/350

Ford F-450/550

Ford F-650 / 750

Blue Bird Vision

Micro Bird G5





Model Years

2017

Engine Size / Manufacturer

6.8L V10 (3V) Ford Engine with exclusive ROUSH
CleanTech Propane Fuel System

Applications

169" / 189" / 217" / 238" / 252" / 273" / 280"
wheelbase configurations

6-speed automatic transmission

Fuel Tank Capacity

Short: 50 gallons (47 usable)

Mid-Ship: 70 gallons (67 usable)

Extended Range: 100 gallons (93 usable)

Technical Specifications

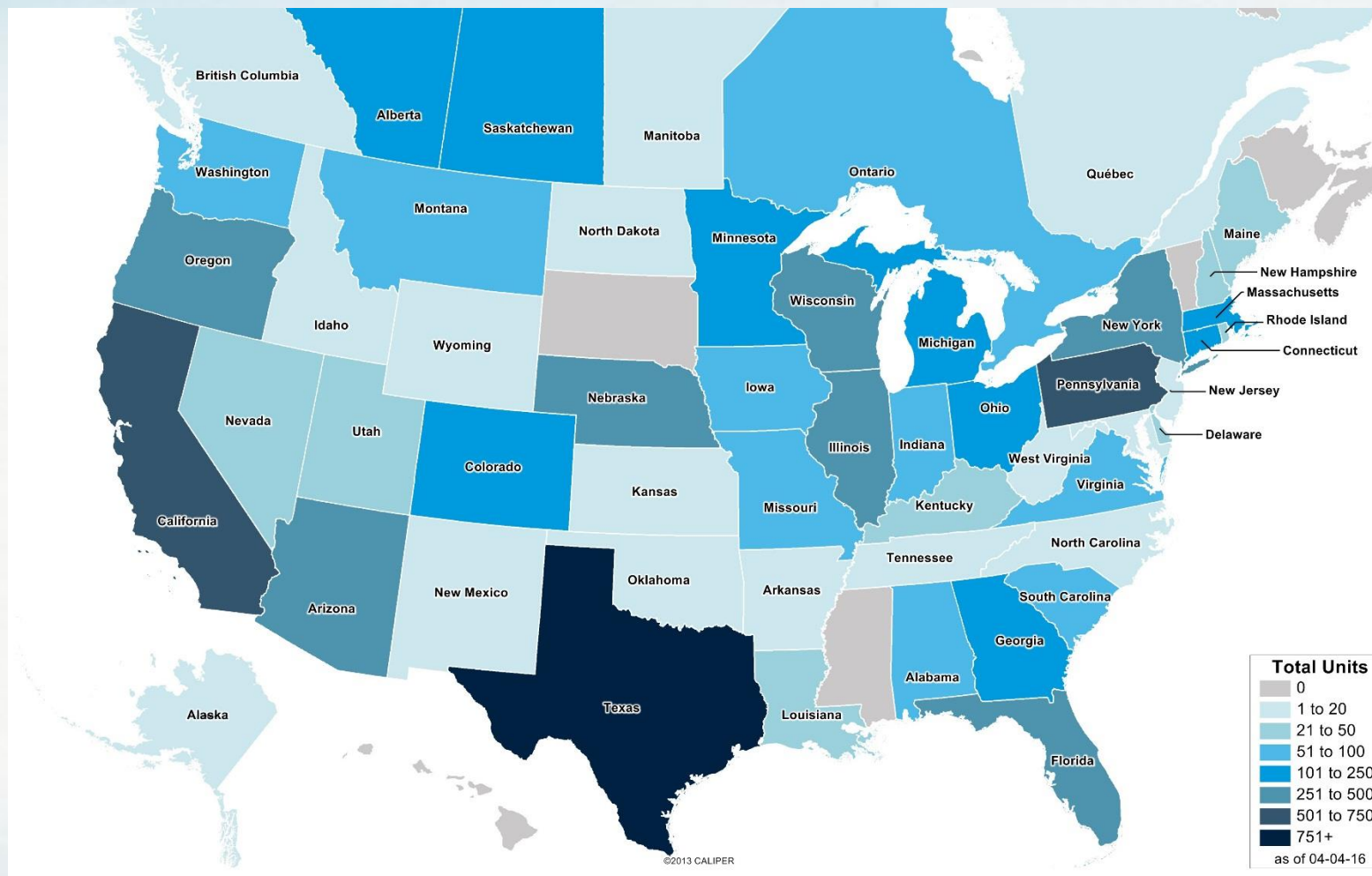
EPA and CARB approved

GVWR: 33,000 lbs

Up to 77 passengers

Blue Bird Vision (Type C)





7,800 Ford/ROUSH propane powered Blue Bird Visions sold since introduction









East Penn Schools, PA



Derry Twp Schools – Hershey PA

Customer Deployments



Customer Deployments







Derek Whaley
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North America

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Biodiesel

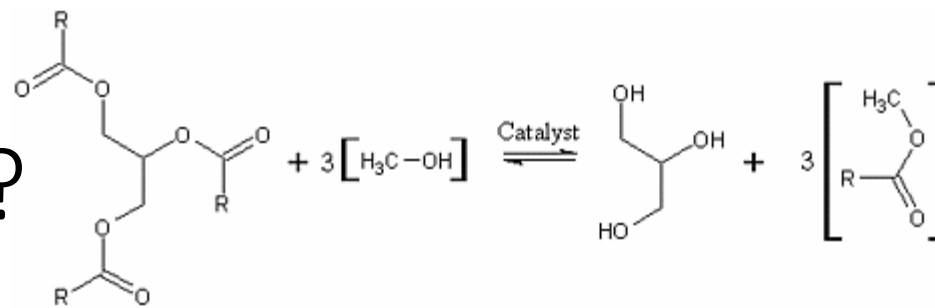


Overview: The Benefits of Biodiesel

Soundview Energy, Inc.

Daniel Falcone
November 22nd, 2016

Biodiesel: What is it?



- Biodiesel is a domestic renewable fuel for diesel engine application made from fats & oils, such as, soybean oil and used cooking oil.
- Chemically, biodiesel is made through a process of transesterification in which mono-alkyl esters are produced most commonly from triglycerides esters.
- It is a biodegradable product which comports to CAA health effect testing.
- It is a qualifying advanced biofuel that can be used in diesel engines (without modifications) in blend ratios ranging from 5% to 100% offering both economic and GHG/Environmental advantages.



Specifications: ASTM D6751

Property	ASTM Method	Limits	Units	Property	ASTM Method	Limits	Units
Calcium & Magnesium, combined	EN 14538	5 max	ppm (ug/g)	Cetane	D 613	47 min.	
Flash Point (closed cup)	D 93	93 min.	Degrees C	Cloud Point	D 2500	Report	Degrees C
Alcohol Control (One of the following must be met)				Carbon Residue 100% sample	D 4530*	0.05 max.	% mass
1. Methanol Content	EN14110	0.2 Max	% volume	Acid Number	D 664	0.50 max.	mg KOH/g
2. Flash Point	D93	130 Min	Degrees C	Free Glycerin	D 6584	0.020 max.	% mass
Water & Sediment	D 2709	0.05 max.	% vol.	Total Glycerin	D 6584	0.240 max.	% mass
Kinematic Viscosity, 40 C	D 445	1.9 - 6.0	mm ² /sec.	Phosphorus Content	D 4951	0.001 max.	% mass
Sulfated Ash	D 874	0.02 max.	% mass	Distillation, T90 AET	D 1160	360 max.	Degrees C
Sulfur				Sodium/Potassium, combined	EN 14538	5 max	ppm
S 15 Grade	D 5453	0.0015 max. (15)	% mass (ppm)	Oxidation Stability	EN 14112	3 min	hours
S 500 Grade	D 5453	0.05 max. (500)	% mass (ppm)				
Copper Strip Corrosion	D 130	No. 3 max.					

ASTM D6751 is the approved standard for B100 and for blending up to B20 and has been in effect since 2001.

- The laboratory analysis is a *performance based standard* (feedstock and process neutral) ensuring the industry is equipped with a reliable quality control methodology.



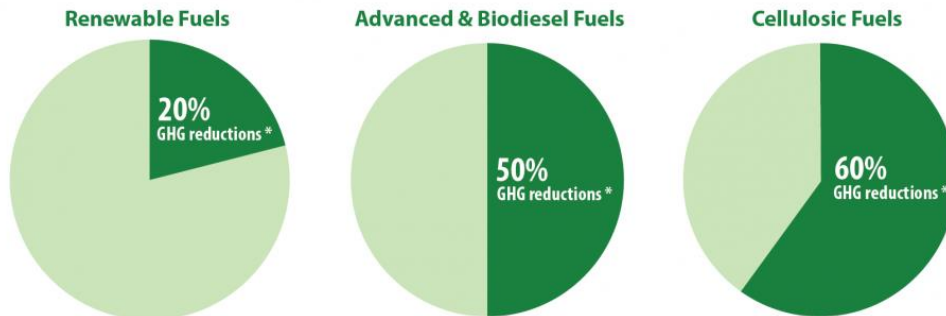
Emissions: Reduction Levels



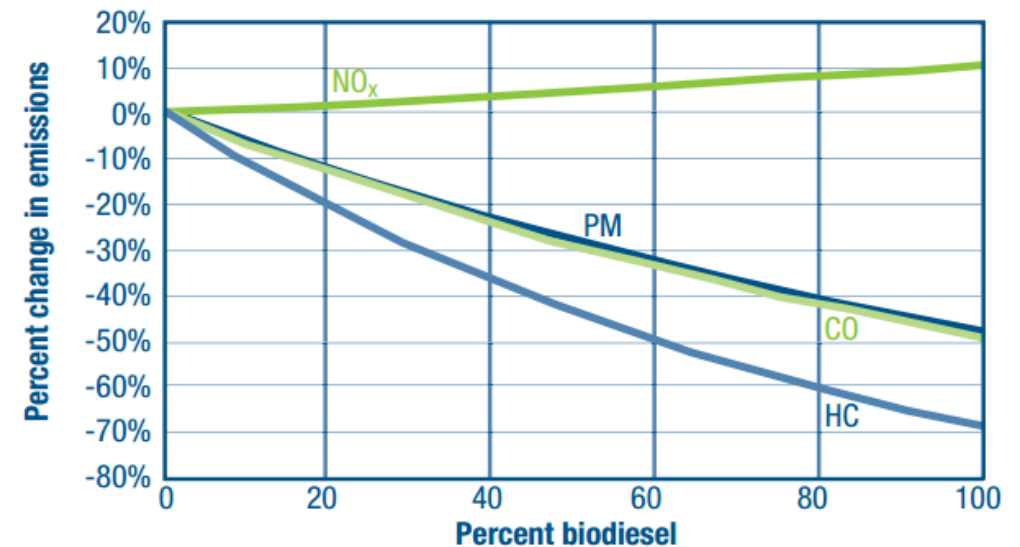
- **Advanced Biofuel Qualified:** Biodiesel produces lifecycle greenhouse gas emissions that are at least 50% less than baseline lifecycle greenhouse gas emissions.
- On average, Biodiesel reduces US greenhouse gas emissions by over 80%

Lifecycle Greenhouse Gas (GHG) Emissions

GHG emissions must take into account direct and significant indirect emissions, including land use change.



* compared to a 2005 petroleum baseline



Basic Emission Correlation. Average emission impacts of biodiesel for heavy-duty highway engines. Source: U.S. EPA².

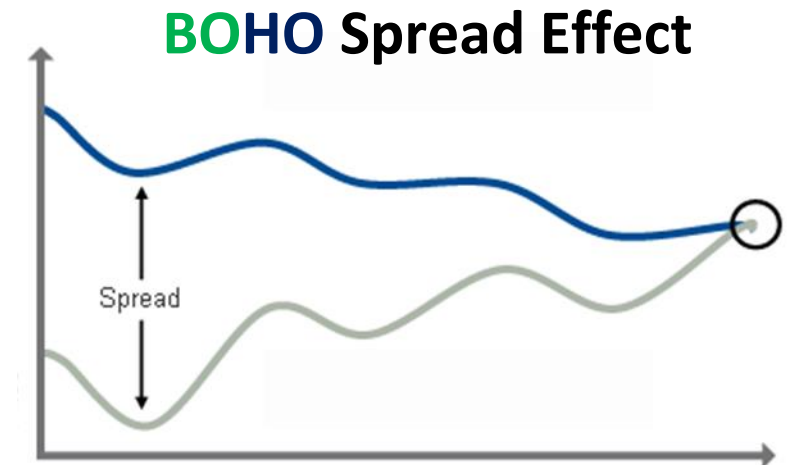
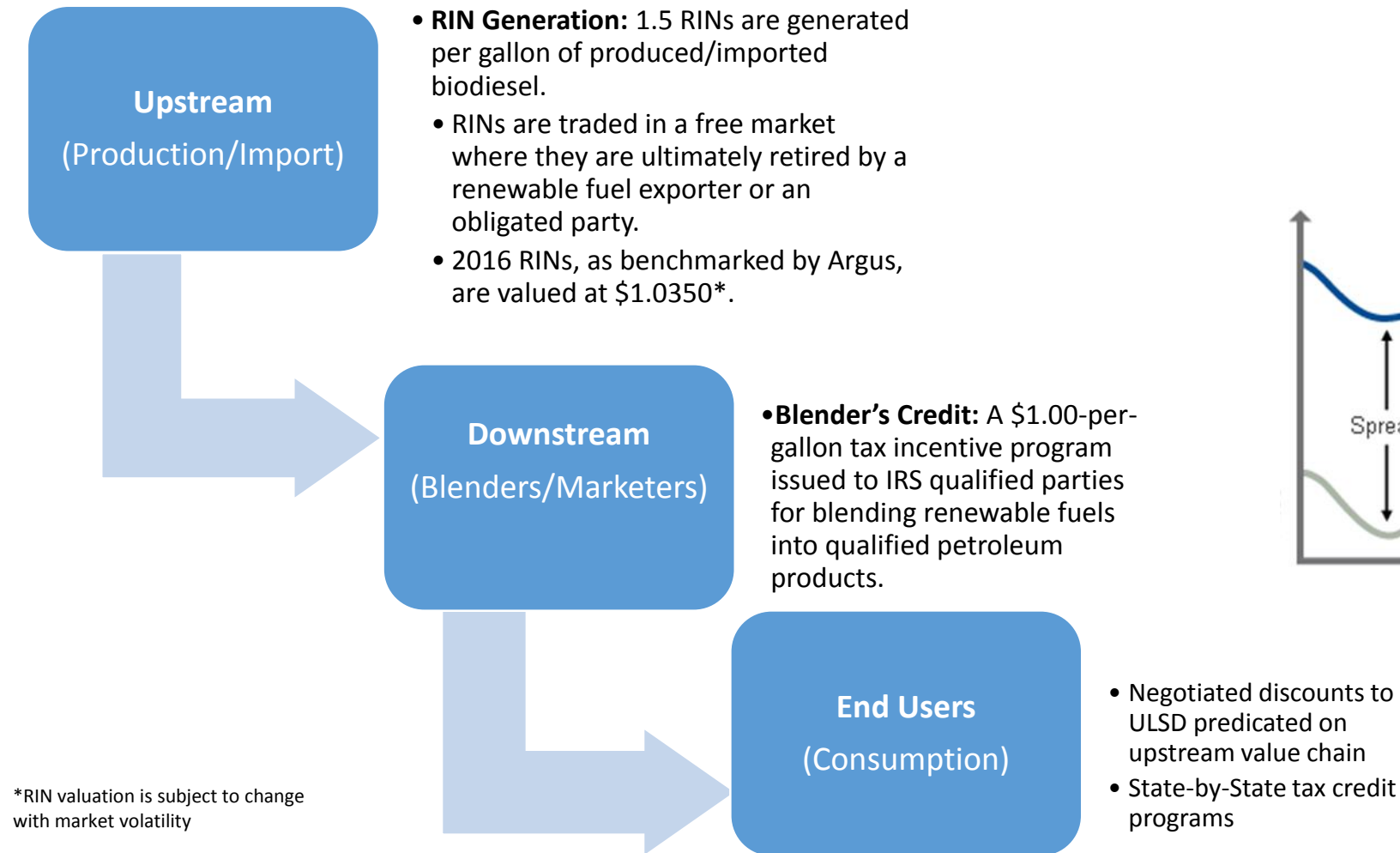
Market Adoption: OEM Blend Allowances

- In the GVW Class 5-8 vehicles that account for 92% of on-road diesel fuel use, nearly 90 percent of the medium- and heavy-duty truck OEMs support B20 biodiesel blends
- For a complete listing of OEM position statements on biodiesel, as well as the current U.S. Diesel Vehicles List, visit: www.biodiesel.org/using-biodiesel/oem-information

Models equipped with Cummins engines are B20 approved
See NBB website for more details.



Economic Overview: Tax Incentives & RINs



Regulation: Renewable Fuels Mandate

- All diesel fuel sold in Pennsylvania **must contain at least 2% biodiesel (B2)** one year after in-state production of biodiesel reaches 40 million gallons. The mandated biodiesel blend level will continue to increase according to the following schedule:
 - 5% biodiesel (B5) one year after in-state production of biodiesel reaches 100 million gallons;
 - 10% biodiesel (B10) one year after in-state production of biodiesel reaches 200 million gallons; and
 - 20% biodiesel (B20) one year after in-state production of biodiesel reaches 400 million gallons.
- All biodiesel retailers in Pennsylvania must register with the Pennsylvania Department of Agriculture each year. Additional compliance and blending standards, in-state registration requirements, and certification and enforcement guidelines apply.



Ending: Soundview Energy, Inc.

- Who is Soundview Energy?
 - SVE is specialized team focused on the commercial trading, risk management, logistics, quality assurance & marketing of petroleum and renewable fuels.
 - The group leverages its experience, relationships & wide industry scope to deliver leading consumer experiences across a multitude of product ranges and cross-blends.
 - Products: ULSD, ULSHO, Biodiesel, Residual Fuels & Biodiesel Blended Products

Daniel Falcone

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Wholesale Division Manager

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Cell: 917-533-4853

Please contact today to discover markets we serve & full product offerings!





2017 Planned Activities

UPCOMING EVENTS- 1ST QUARTER

- 1ST RESPONDERS TRAINING PHILADELPHIA FIRE ACADEMY-5200 PENNYPACK ST. PHILADELPHIA, PA 19136
- JANUARY 10, 2017 - 8:00AM-5:00PM
- PHILADELPHIA AUTO SHOW- JANUARY 28-FEBRUARY 5, 2017
- ENERGY INDEPENDENCE SUMMIT- FEBRUARY 15-17, 2017- WASHINGTON D.C.
- ANNUAL FUEL DISPLACEMENT REPORT TRAINING- FEBRUARY, 2017- DATE TBD
- CNG DEDICATED EVENT- MARCH, 2017- DATE TBD



UPCOMING EVENTS- 2ND QUARTER



- ODYSSEY DAY- APRIL 20, 2017
- ACT EXPO- MAY 1-4, 2017- LONG BEACH, CA
- 1ST EP-ACT ANNUAL GOLF OUTING/AWARDS DINNER- MAY 15TH, 2017- MCCALL COUNTRY CLUB
- PROPANE DEDICATED EVENT- JUNE, 2017- DATE TBD



UPCOMING EVENTS- 3RD QUARTER

- *ANNUAL TOSITA EV EVENT- JULY 12, 2017*



- *HYDROGEN DEDICATED EVENT- AUGUST, 2017- DATE TBD*



UPCOMING EVENTS- 4TH QUARTER

- ANNUAL STAKEHOLDERS' MEETING- NOVEMBER 21, 2017
- LOCATION TBD





**Panel Session
What Can We Do
Together?**

Thank you for attending...
“Making Alternative Fuels Relevant, Again”



Annual Meeting
November 22th 2016

**We would like to give a special thanks
coffee break sponsor :**



**We would like to give a special thanks
to our host and lunch sponsor:**



Would like to wish everyone a Happy Thanksgiving and a Happy
Holiday Season. We appreciate all you do to keep us

"Driving Together, Towards a Green Tomorrow®..."