



**The Low – Hanging Fruit of Energy Cost Savings:**

*Alternative Fuel Vehicles and LED Lighting Projects*



PROMOTING EXCELLENCE IN GOVERNMENT

1



**Moderator:**

[Joy Kramer](#), CEO Event Energy Partners LLC 678-390-2737  
Event Energy Partners is a meeting and event contractor focused on economic development and sustainability initiatives for government, transportation and commercial organizations.

**Presenters:**

[Ian Skelton](#), Atlanta Gas Light - Southern Company Gas  
[Chris Strippelhoff](#), Municipal Gas Authority of Georgia  
[Jenna VanHarpen](#), Blue Bird Bus  
[John Noel](#), Energy + Environment  
[Peter Floyd](#), Esq, Alston + Bird

PROMOTING EXCELLENCE IN GOVERNMENT

2

# Learning Objectives

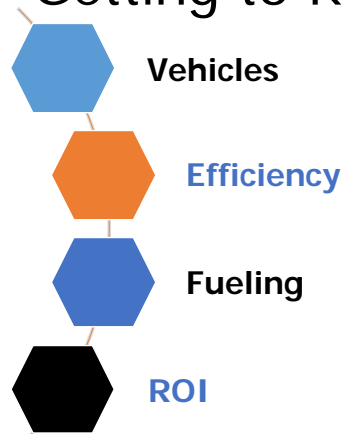
At the end of this session, you will be able to

- Discuss ROI analysis for vehicle conversion projects
- Recall considerations for on-site fueling infrastructure
- Evaluate the costs and benefits of LED lighting for facilities, roads, and parks
- Recall the financing tools for energy efficiency projects



3

# Getting to Know **Natural Gas**



*Ian Skelton – Director of Natural Gas Vehicles, AGL*  
*Chris Strippelhoff – Municipal Gas Authority of Georgia*



4

## Poll Question

Does your government currently use alternatively fueled vehicles?

Yes

No

## Market Drivers for NGVs



### Abundant Domestic Energy Supply

- 98% produced in North America
- Development of shale has increased supply to > 100 years



### Reduced Emissions

- Reduces emissions up to 90% over diesel and gasoline
- Meets EPA requirements without Diesel Particulate Filters (DPF), Diesel Exhaust Fluid (DEF), etc.



### Reduced Greenhouse Gases

- NGVs emit 13 - 21% less GHG than diesel and gasoline



### Cost Savings

- Last 12 months NYMEX settlement price = \$0.31/therm
- $\$0.31 \times 1.25 \text{ therms/Gasoline Gallon Equivalent} = \$0.38/\text{GGE}$
- Underlying commodity is \$0.38/Gallon!

## CNG Units and Conversions



### State of Georgia Rule 560-9-1-.07

Equivalency table:

1 Therm = 100,000 BTUs

1 gallon of regular-grade gasoline = 124,000 BTUs

1 Therm = .8 gallons of regular-grade gasoline

“To calculate the gallon-equivalent basis of compressed natural gas, multiply the amount of Therms by 0.8, then multiply result by applicable motor fuel excise tax.”

Note: 1 gallon of diesel is approximately 138,000 Btus, or 1.38 therms

7

## Typical CNG Vehicles



### Ford - Qualified Vehicle Modifier (QVM)

Gaseous prep option on:

- F-150 thru F-750
- Transit Connect
- Transit
- E-series cutaway
- F-53/F-59 stripped chassis



### Refuse trucks from McNeilus, Heil, etc.

- Cummins-Westport Low NOx engine reduces NOx emissions by 90% compared to diesel
- Various tank configurations



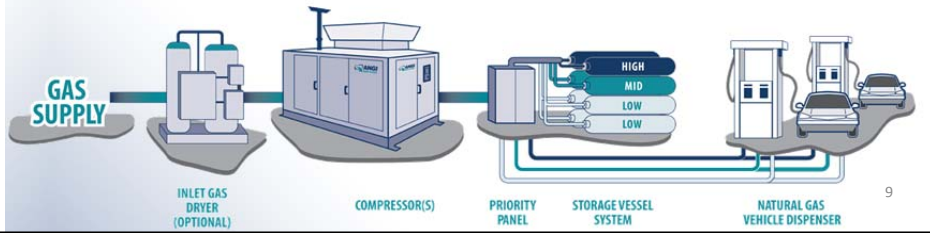
### Class 8 Tractor-Trailers

- New Cummins-Westport 12L engine can haul 80,000 lb. loads
- New CNG tank packages provide the required range



8

# Typical Fast-Fill CNG Station



9

## Public Access CNG Stations



**Atlanta Gas Light**

**Atlanta Area**

- American Fueling Systems, Chamblee
- PS Energy/Clean Energy, Atlanta
- Clean Energy, College Park
- PS Energy/Clean Energy, East Point
- Clean Energy, Fulton Industrial
- PS Energy/Clean Energy, Lithonia
- PS Energy/Clean Energy, Stone Mountain
- Dekalb County, Decatur
- Dekalb County, Ellenwood
- Gain Clean Fuel, Smyrna
- Mansfield Clean Energy Partners, Doraville
- Premier Transport, Forest Park
- Trillium Shell Gas Station, Atlanta

**Georgia**

- AFS Columbus CNG, Columbus
- AMP Trillium, Dalton
- AMP Trillium, Perry
- City of Augusta, Scott Nixon Dr.
- City of Augusta, Hephzibah
- City of Covington, Covington
- City of Douglas, Douglas
- Enmark Truck Stop, Savannah
- Flint River Fuel Center, Oglethorpe
- Ford A New, Ringgold
- Highland Energy, Sandersville
- Langdale Fuel, Valdosta
- Love's Truck Stop, Thomson
- Refuel CNG, Thomasville

MUNICIPAL GAS AUTHORITY OF GEORGIA

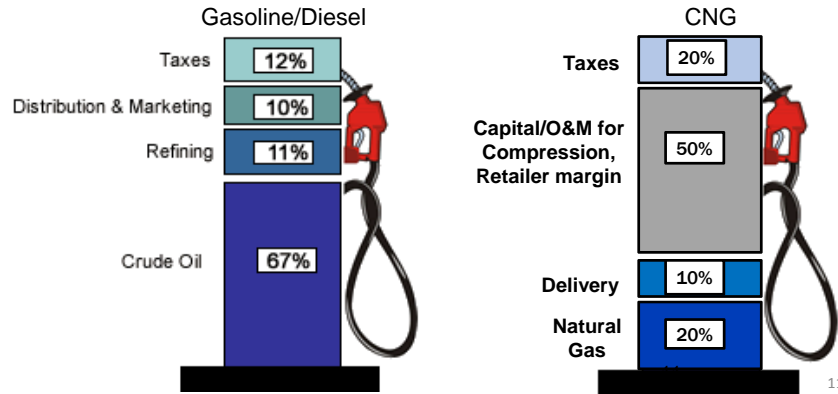
For more information: 10 [afd.energy.gov/locator/stations](http://afd.energy.gov/locator/stations)

© 2016 Southern Company. All rights reserved. AGS/10211

## PRICING CHARACTERISTICS



- *Natural gas is only about 1/4 of the total cost of CNG vs. 2/3 of the total price for gasoline, giving CNG a dampener against price volatility*
- *Also, this means more of our fuel dollars stay in the state of Georgia which is better for our local economy*



11

## CNG Proforma



Year	Escalator	1	2	3	4	5	6	7	8	9	10
Heavy Duty Vehicles		10	15	20	20	20					20
Diesel Gals/yr/vehicle	10,000	100,000	150,000	200,000	200,000	200,000					200,000
Diesel Cost	\$ 2.25 4%	\$ 234,000	\$ 365,040	\$ 506,189	\$ 526,436	\$ 547,494					\$ 666,110
Light Duty Vehicles		10	15	20	20	20					20
Gasoline											
Gals/yr/vehicle	1,200	12,000	18,000	24,000	24,000	24,000					24,000
Gasoline Cost	\$ 1.95 4%	\$ 24,336	\$ 37,964	\$ 52,644	\$ 54,749	\$ 56,939					\$ 69,275
Total Fuel Cost		\$258,336	\$403,004	\$558,832	\$581,186	\$604,433					\$735,385
Total Gasoline Gals Equivalent (GGE)/Yr		122,000	183,000	244,000	244,000	244,000					244,000
Total Gasoline/Diesel Cost (\$/GGE)		\$2.12	\$2.20	\$2.29	\$2.38	\$2.48					\$3.01

12

## CNG Proforma



NYMEX \$/mmbtu	\$3.10 Escalator	1	2	3	4	5	6	7	8	9	10
Gas Cost \$/GGE	\$0.54 2%	\$ 66,887	\$ 102,336	\$ 139,177	\$ 141,961	\$ 144,800					\$ 159,871
CNG Station Cost	\$ 1,500,000	\$ 101,973	\$ 101,973	\$ 101,973	\$ 101,973	\$ 101,973					\$ 101,973
Station Maintenance		\$ 33,760	\$ 38,640	\$ 43,520	\$ 43,520	\$ 43,520					\$ 43,520
Average Electricity Cost (\$/GGE)	\$0.15 1%	\$ 18,483	\$ 28,002	\$ 37,709	\$ 38,086	\$ 38,467					\$ 40,429
Software Expense		\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000					\$ 3,000
Telecom Expense		\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000					\$ 4,000
Insurance Expense		\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000					\$ 15,000
Merchant Card Charges	2.5%	\$ 6,078	\$ 7,324	\$ 8,609	\$ 8,688	\$ 8,769					\$ 9,195
<b>CNG Cost (not incl. taxes)</b>		<b>\$ 249,180</b>	<b>\$ 300,274</b>	<b>\$ 352,988</b>	<b>\$ 356,228</b>	<b>\$ 359,529</b>					<b>\$ 376,988</b>
<b>CNG Cost (\$/GGE)</b>		<b>\$2.04</b>	<b>\$1.64</b>	<b>\$1.45</b>	<b>\$1.46</b>	<b>\$1.47</b>					<b>\$1.55</b>
<b>Total Annual Savings</b>		<b>\$ 9,156</b>	<b>\$ 102,730</b>	<b>\$ 205,844</b>	<b>\$ 224,958</b>	<b>\$ 244,904</b>					<b>\$ 358,398</b>
<b>Savings (\$/GGE)</b>		<b>\$0.08</b>	<b>\$0.56</b>	<b>\$0.84</b>	<b>\$0.92</b>	<b>\$1.00</b>					<b>\$1.47</b>
<b>Cumulative Savings</b>		<b>\$9,156</b>	<b>\$111,886</b>	<b>\$317,730</b>	<b>\$542,688</b>	<b>\$787,592</b>					<b>\$2,342,980</b>

13

## Potential Funding for CNG



### Federal Volumetric Excise Tax Credit (VETC)

\$0.50 per GGE

Available even if entity doesn't pay federal excise tax

Expired 12/31/16 but could be reinstated as in years past

Grants - Work with your Clean Cities Coalition, MPO and Regional EPA Collaborative!

DOE Clean Cities – Alternative fuels, petroleum reduction

EPA DERA "Clean Diesel Campaign" - CNG is eligible

DOT Congestion Mitigation & Air Quality (CMAQ)

FAA VALE grants for airports

FTA grants for transit

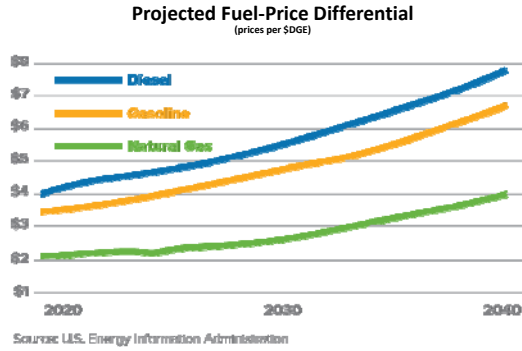
### VW Settlement

\$60 Million for Georgia NOx mitigation

Funds up to 100% for Class 4 – 8 CNG vehicles replacing diesel

14

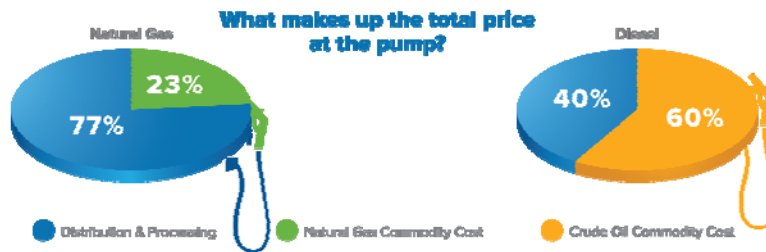
**Diesel and gasoline prices are more volatile, but natural gas provides long-term fuel cost savings**



**Natural Gas vs. Oil:**

- 3:1 price advantage over oil on a Btu basis
- Pump prices \$0.75 to \$1 lower than diesel

**Natural Gas Provides Fuel Price Stability**



**Natural Gas:**


- Decades of affordable domestic reserves
- Natural gas sourced from North America
- Commodity cost makes up 23% of sales price

**Diesel:**


- History of volatile price swings
- Crude oil sourced fuel from high-conflict regions
- Commodity cost makes up 60% of sales price




**18–24 month  
payback**



**Lower Fuel  
Costs:**  
Can be >\$1.00/gallon cheaper




**Lower  
maintenance  
costs**




Depending on range and application, fleets can realize a pay back in as little as 18–24 months due to:

- Lower fuel costs
- Lower maintenance costs

*Incentives reduce the pay back time frame*




NGVAMERICA 17

**Light Duty  
Vehicles and  
NGV Availability**



18

## School/Transit Bus and NGV Availability



19

## Refuse Vehicles and NGV Availability



20



Natural gas vehicles are up to 3x quieter than their diesel counterparts and significantly reduce noise and air pollution in the local community.


 NGVAMERICA 21


## KEY ACTION STEPS

**ACTION I: Review your fleet operations and determine:**

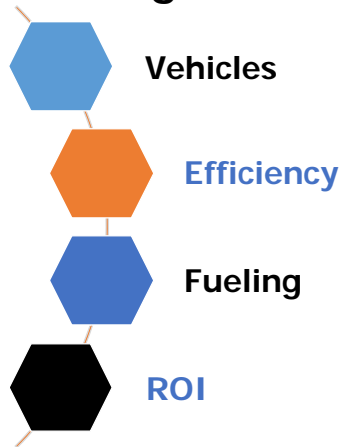
- 1) Which vehicles are consuming the most fuel.
- 2) Which vehicles are returning to base daily.
- 3) Where is the overlap?

**ACTION II: Research other fleet operators in your community and consider them as potential partners in building a CNG fueling station.**

**ACTION III: Contact your natural gas provider, or one of us for assistance.**


 NGVAMERICA 22

## Getting to Know PROPANE AUTOGAS:



*Jenna VanHarpen – Director of Alternative Fuels, Blue Bird*



23

## Blue Bird Propane Buses

Presented by:  
**Jenna Van Harpen**  
Director of Alternative Fuels  
Blue Bird Corporation



**BLUE BIRD**

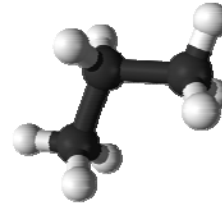
Private & Confidential

24

## 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<sub>x</sub>) emissions
  - 80% reduction in Hydrocarbon emissions
  - 100% reduction in Particulate Matter (PM) emissions
  
- ❖ Fuel Safety:
  - Low operating pressure (150-250 psi)
  - Narrow flammability range



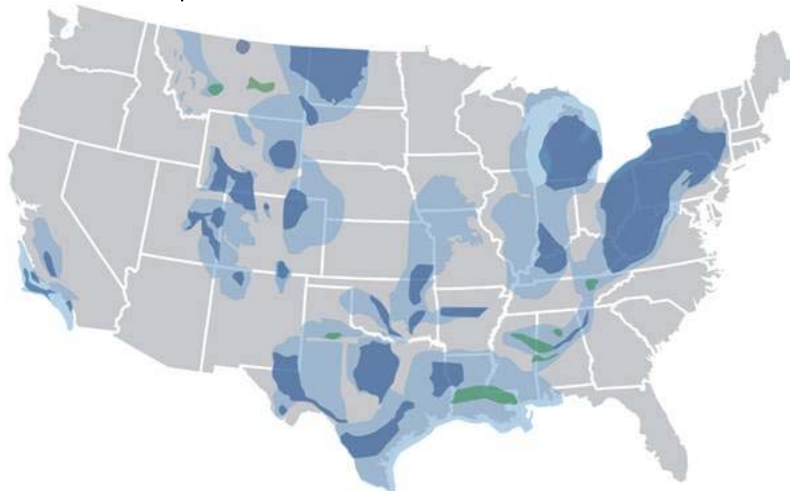
Propane Molecule  
(C<sub>3</sub>H<sub>8</sub>)



## Where Does it Come From?

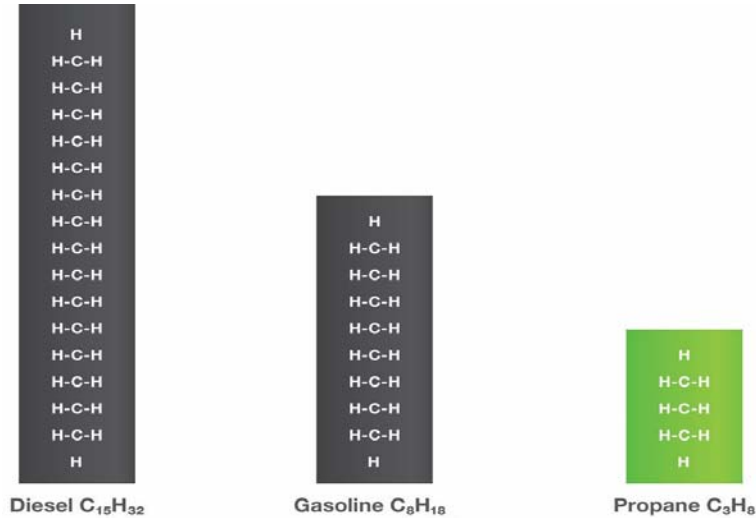


U.S. Natural Gas Shale Deposits





## Benefits: Environmental



## Benefits: Environmental



- ❖ 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 for 2016



## Benefits: Cold Weather Performance



- ❖ Brandon winter runs
  - In-city lift bus route
  - Ambient temp: Start -24°F End -11°F
  - Wind chill: Start -47°F End -34°F
  - Cabin temp: 69°F within 20mins
- ❖ Starts in -50°F temperature
- ❖ Does not require a block heater
- ❖ Quicker cabin heat than diesel
- ❖ Drivers report rear windows remain clear



## Our Partnership



**BLUE BIRD.**

**ROUSH**  
**CLEANTECH**



30

Private & Confidential

# Blue Bird Propane History



✓ Propane is a by-product of natural gas and petroleum, occurring naturally during domestic oil refining and natural gas processing.

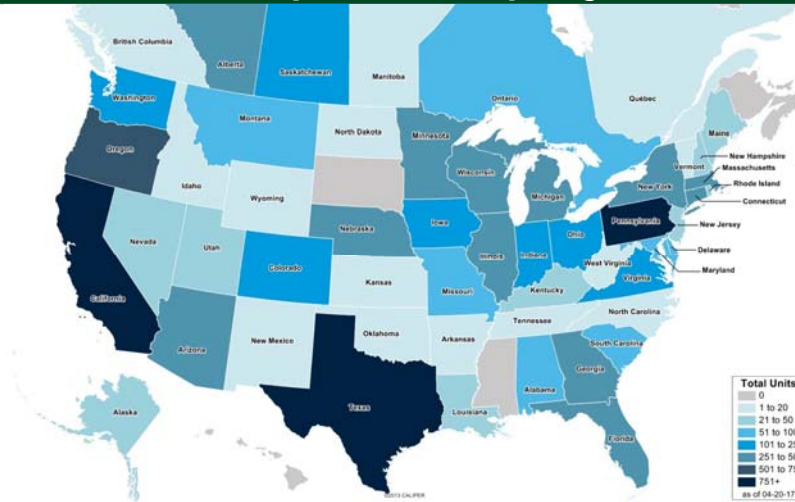
✓ 97% Produced in North America

- GEN 1 – Launched in 1992 - Vapor System Technology
- GEN 2 – Launched in 2007 - First liquid injection system with the GM8.1L /PTI/Clean-Fuel Technology
- GEN 3 – Launched in 2011 - Ford / ROUSH CleanTech technology
- GEN 4 – Launched in 2014 - This is our current Ford / ROUSH CleanTech system

We have listened to the owners and technicians and made considerable improvements regarding maintenance accessibility, performance and emissions.



# Blue Bird Propane Deployments



Over 10,000 propane powered Blue Bird Visions sold since introduction  
 275 Propane Blue Bird Buses in GEORGIA (Bibb, Valdosta, Fulton, Paulding)

Private & Confidential



# Why Propane?



## COST SAVINGS



DISTRICTS REPORT SAVINGS OF UP TO  
**.37¢ PER MILE**

## COLD STARTS



STARTS IN TEMPERATURES AS LOW AS  
**-30°F**



## NOISE REDUCTION



UP TO  
**40% QUIETER**

## LOWEST EMISSIONS



**INCREDIBLY REDUCED EMISSIONS**



\*than a typical fuel tank  
Private & Confidential

# Maintenance Components



## Real World Savings with Propane

- Our customers report
  - \$0.77 per mile on diesel buses
  - \$0.43 per mile on propane buses
- That's a savings of \$0.34 per mile, which means.....
- If you drive 12,000 miles per year and operate for 15 years...
  - 1 bus saves \$4,080 in 1 year
  - 1 bus saves \$61,200 in its lifetime

**Total Cost of Ownership (TCO) Calculator available for YOUR fleet**

**Our Propane Buses win when it comes to Total Cost of Ownership!**

35

Private & Confidential

## Emissions/Green House Gas (GHG)

- Blue Bird's Gen 4 Ford/ROUSH propane system is 50% cleaner than Gen 3 without any intensive after treatment systems
- Blue Bird's Gen 4 is in the best place to meet future GHG emission standards, without significant changes
- Now that NOx and PM emissions have been achieved, GHG emissions are the next to be regulated
  - Carbon Dioxide (CO<sub>2</sub>)
  - Nitrous Oxide (N<sub>2</sub>O)
- GHG emission changes
  - 2017
  - 2020
  - 2023
  - 2027 (possibly)



**Changes in Regulations Means We can Expect Higher Vehicle Costs with More Equipment to Maintain**

36

Private & Confidential

# What Customers Should Know



Complexity and costs are estimated to continue increasing over the next few years as the new Green House Gas emission standards come into play.

EPA and NHTSA, on behalf of the Department of Transportation, are each proposing rules to establish a comprehensive Phase 2 Heavy-Duty (HD) National Program that will reduce greenhouse gas (GHG) emissions and fuel consumption for new on-road heavy-duty vehicles including buses. This technology-advancing program would phase in over the long-term, beginning in the 2021 model year and culminating in standards for model year 2024 or 2027 depending on the final rule.

*The agencies estimate that the additional costs to meet the proposed standards for vocational vehicles is in the range of \$1,150 to \$1,990 per vehicle in the first year (2021) and \$1,770 to \$3,590 per vehicle in years 2024-27.*

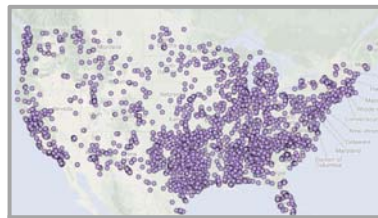
37

Private & Confidential

# Infrastructure



- **Public Stations**
  - Over 3,000 nationally
  - Higher per-gallon price
  
- **Private Stations**
  - Buy or lease equipment (500, 1000, 2000, 5000 Gallon + Tanks)
  - Lower per-gallon price
  - Lock in fuel price with annual contract
  - \$.36 Rebate for 2016
  
- **Temporary Options**
  - Wet-Fueling (Delivery truck)
  - Quickest to get customer fueling
  - Usually a short-term strategy



38

Private & Confidential

## Building a Strong Foundation



- Certified to a .05 g/bhp-hr NOx
- Reliable Technology & Robust Service Program
- Committed Industry leading partners
- 700 plus Customers & 300 Million Miles of Data

39

Private & Confidential

## What is Nox and what does it mean?



40

Private & Confidential

# VW Update

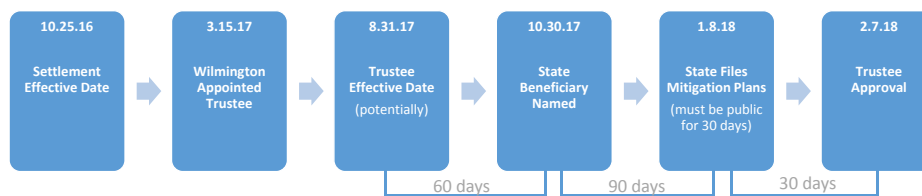


- Volkswagen must contribute \$2.925 billion to the Environmental Mitigation Trust (EMT)
  - The purpose of this trust is to fund actions that reduce NOx emissions
- Each state receives a set amount based on number of affected vehicles sold in the state: Georgia's Share: \$58M
- Eligible projects include:
  - Class 4-8 school bus, shuttle bus or transit bus replacement
  - Class 4-7 medium duty truck replacement
  - Class 8 freight and drayage (port) trucks
  - Airport ground service equipment (electric only)
  - Forklifts (electric only)

41

Private & Confidential

# EMT Funding Timeline



42

Private & Confidential



# Clean School Bus Program Example

Clean School Bus Program Assumptions	TOTAL
Total Buses Operating in Example State (# Units)	50,000
Est. Pre-2009 Buses in Operation (# Units)	17,500
Est. Cost of 2018 Model Year Diesel Bus (\$)	\$90,000
Est. Cost of 2018 Model Year Propane Bus (\$)	\$98,000
Est. Cost of 2018 Model Year CNG Bus (\$)	\$125,000
Clean School Bus Incentive (% of bus cost)	25%
Total Example State EMT Allocation (\$)	\$100,000,000
School Bus, One-Quarter Funding Allocation Scenario (\$)	\$25,000,000
Propane Bus Incentive (\$), Based on 25% of Total Bus Cost	\$24,500
CNG Bus Incentive (\$), Based on 25% of Total Bus Cost	\$31,250
Number of Estimated Bus Replacements, Propane Scenario	1,020
Number of Estimated Bus Replacements, CNG Scenario	800

Diesel Displacement	
Miles Per Year	12,600
MPG	7
Gallons Per Year	1,800
Petroleum Displacement Impact Per Year, 1,020 Buses (Gallons of Diesel Displaced)	1,836,000
Total Program Petroleum Displacement Impact, 1,020 Buses over 15 Year Service Life (Gallons of Diesel Displaced)	27,540,000

43  
Private & Confidential

## Getting to Know Energy Efficient Lighting:



 *John Noel— CEO Energy + Environment, Candidate for Public Service Commission*

 Carl Vinson  
Institute of Government  
UNIVERSITY OF GEORGIA

 GGFA

44

## Poll Question

Does your government have any energy efficient lighting projects?

Yes

No

## The Low Hanging Fruit: Energy Efficient Lighting





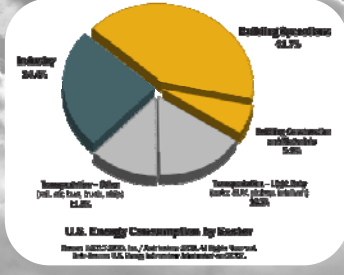
## About Us

- Founded in 1999
- Energy efficiency experts
- Transform environments with LED lighting solutions
- Save money on bills and maintenance
- Projects throughout US, including Hawaii & Alaska

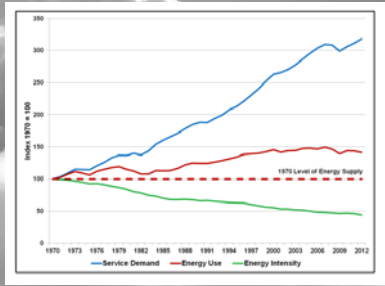
*People, Planet, Profit*

47

## Why Efficient Lighting Matters




**U.S. Energy Consumption by Sector**  
Source: EIA/DOE, 2012. Excludes 2012. All Rights Reserved. Both Energy U.S. Energy Information Administration/EIA/DOE.



**Report: Efficiency is a More Important Economic Driver Than Energy Supply**

A new analysis concludes that economic productivity is more closely tied to energy efficiency than energy production.



48



## Lighting Upgrade Benefits



- Reduce operating costs
- Reduce HVAC “load”
- Reduce maintenance
- Reduce carbon footprint
- Improve quality of light



49

## Do I Need a Lighting Upgrade?



- Do you have older lighting technology? Metal halide, high pressure sodium, even T12/T8 fluorescent?
- Has your facility layout changed but lighting layout hasn't?
- Do sustainability initiatives factor in?



50

## Lighting Upgrade Overview

- **Lighting Assessment**  
Evaluation of your current lighting output and energy use – what's working and what's not.
- **Lighting Design**  
Design should address lighting needs found during assessment – may reduce number of fixtures, definitely reduces wattage
- **Installation**  
A crew installs your new lighting solution - may include lighting controls or electric vehicle charging stations
- **Transformation**  
Better light quality, improved safety on site and even increased productivity



51

## Evolution of Lighting Efficiency

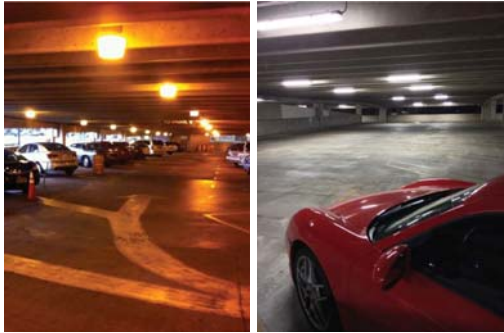


- Rapidly changing technology
- Large efficiency gains from incandescent to CFL to LED
- Significant reduction on electric bills
- Technology affordable
- Rebates

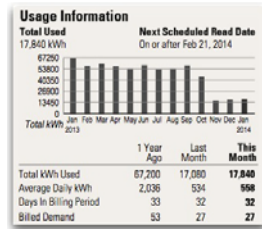
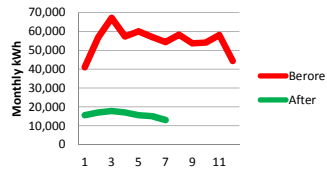


52

## Impact of Lighting Upgrade



Before  
After



53

## Energy Efficiency Options

- Domestic Water Consumption (Bathroom, Sinks/Toilets)
- Hot Water (Tanks & Boilers) Systems (Kitchens, Industrial Processes)
- Building Envelope ("Skin", Roof, Windows, Insulation)
- Mechanical Systems & Controls
- Appliances (Copiers, Refrigerators, Computers)
- Window Film (Solar Gain)
- Waste Heat Recovery
- HVAC optimization (BesTec Motor Control)



54

## Financing Tools



ALSTON  
& BIRD<sub>LLP</sub>

*Peter Floyd, Esq. Alston + Bird*

ALSTON  
& BIRD<sub>LLP</sub>



55

## Georgia AFV & Other Operating Cost Savings Opportunities – **Local Government Financing**

*Innovative Intergovernmental &  
Public Private Partnerships*

*Peter K. Floyd, Esq.*  
**Alston & Bird, LLP**

<sup>56</sup>  
ALSTON & BIRD<sub>LLP</sub>

## Get to the Point

**Decide:** whether Lighting Retrofits, AFVs, fueling charging stations, or Renewable Energy is right for you

- operational cost savings
- sustainability strategy

**The Bigger the Better:** There are more financing tools and efficiency savings available for larger projects

**Collaborate:** Multiple local governments should consider working together and with local business regionally to define a cohesive plan and take advantage of economies of scale



57

## All Financing Options Available

For efficiency/operational savings projects, including AFV projects

- Traditional “non-appropriations” lease financing:
  - GMA or ACCG COPs programs and ESCO/GEPC
- Revenue bonds:
  - sales to the public or as one component of a larger revenue system
- Back door general obligation (GO) revenue bonds:
  - intergovernmental contract or intergovernmental contracts (two versions: gov. customer or true backdoor GO)
- Traditional GO Bonds:
  - Full tax base pledged bonds
- Special Option Sales Tax (SPLOST) Bonds
- TADs and Community Improvement Districts (CIDs)

58

**Federal Loans: Up to \$25,000,000**  
**State Funded: Up to \$3,000,000**  
**Georgia VW Settlement: \$58,000,000**

### Georgia Environmental Finance Authority

- Low Interest Loans
- State Energy Programs : The State Energy Program (SEP) provides financial assistance and technical support to Georgia's energy efficiency and renewable energy programs.
  - Solar Program
  - Biogas Technical Assistance Program
  - School Technical Assistance Program
  - Building Operator Certification
- Performance Energy Contracting
- Fuel Storage Tank Program
- Georgia Energy Challenge State Utilities Program

[www.gefa.ga.gov](http://www.gefa.ga.gov)





## Other Back Door GO Lease Financing Obligations

- City of Covington Compressed Natural Gas Station – principal amount \$1.6 million
- City of Douglas Compressed Natural Gas Station – principal amount \$1.2 million



61

## Landfill Gas-to-Energy Projects

- Conversion of landfill gas to natural gas for direct use or to feed into gas pipeline
- Conversion of landfill gas to renewable fuels and chemicals from biogas using gas-to-liquids (GTL) technology
  - Compressed Natural Gas (CNG)
  - Liquefied Natural Gas (LNG)



62

## Public Private Partnerships

**amp Trillium, LLC Opens First Public CNG Station in Perry, Ga. to Serve Frito-Lay's Fleet** - CHICAGO, IL--(Marketwired - Mar 26, 2014)

Local government can:

1. Finance and own station and lease to operator
2. Be a customer
3. Be a natural gas supplier
4. Finance/negotiate economic incentives

63

## Joint Action

- Sharing in the investment risks and now rewards through the Joint Development Authority (JDA) is a great example of intergovernmental relationships used effectively
- Infrastructure is also being developed with the share risk/reward model
  - e.g., Covington, Madison and Social Circles joint funding, development, ownership and operating of the Stanton Springs Gas System

64



## Knowledge Check

Which of the following are acceptable financing methods for energy efficiency projects?

- A. SPLOST
- B. Revenue bonds
- C. GO bonds
- D. Lease financing
- E. All of the above are acceptable financing methods

**ALSTON  
& BIRD** LLP

Peter K. Floyd, Esq.  
Partner, Alston&Bird, LLP  
Development, Energy &  
Government  
404-881-4510  
[Peter.Floyd@alston.com](mailto:Peter.Floyd@alston.com)

Joy Kramer  
Event Energy Partners LLC  
Media, Events and Marketing  
678-556-9154  
[Joy.Kramer@eventenergy.net](mailto:Joy.Kramer@eventenergy.net)

  
*Event Energy Partners LLC*



John Noel, President  
Energy + Environment LLC  
[www.EnergyandEnvironment.com](http://www.EnergyandEnvironment.com)



Ian Skelton  
Director, Natural Gas Vehicles  
Atlanta Gas Light - Southern  
Company Gas  
[iskelton@southernco.com](mailto:iskelton@southernco.com)  
404-584-4626



Chris Strippelhoff  
Municipal Gas Authority of  
Georgia  
[cstrippelhoff@gasauthority.com](mailto:cstrippelhoff@gasauthority.com)



Jenna VanHarpen  
Blue Bird Bus  
[Jenna.Vanharpen@blue-bird.com](mailto:Jenna.Vanharpen@blue-bird.com)

## Connect With Us!



Facebook

[facebook.com/VinsonInstitute](https://www.facebook.com/VinsonInstitute)



Twitter

[@CVIOG\\_UGA](https://twitter.com/CVIOG_UGA)



LinkedIn

**Carl Vinson Institute  
of Government**



[www.cviog.uga.edu](http://www.cviog.uga.edu)