

Alternative Fuel Solutions – Propane

A Rural Perspective

Presented by:

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My Story – Why Did I Choose Propane?

- Fleet fuel costs reached over \$100,000
- Contract costs are based on operating costs – were we reaching breaking point.
- What costs can be reduced? How?
- What is an “alternative fuel” system?
- Wow.....let’s try this!



What did I need for successful conversion?

- Vehicle conversion equipment partner
- Refueling infrastructure partner
- Propane partner
- System maintenance partner
- Funding



**I've decided what is best for
my fleet, now what?**



Should I Purchase or Lease Equipment?

- Which option is best?
 - It depends on funding availability and/or local choice
- Purchase
 - Requires RFP process
 - 100% Ownership (and liability) of equipment
 - Maintenance cost is paid by owner
 - Best fuel pricing - not tied to one fuel provider**
- Lease
 - Equipment owned by Fuel Company
 - Fuel pricing includes add on for equipment lease
 - Maintenance costs covered by leasing company
 - Must buy fuel from equipment provider

What do I need to know for Site Location?

- Determine if you will be a private or public alternative fuel station
- Identify where site would be best located
- Ensure site is sufficient for future expansion as necessary
- Involve your propane partner as they will know the state and local requirements



Infrastructure Cost and Considerations

- Cost will vary depending on the size of your infrastructure (\$18,000-\$60,000)
- Infrastructure size will be determined by the number of gallons used per week
- Other factors to consider:
 - ✓ Electric Connection
 - ✓ Lighting
 - ✓ Phone connection for electronic reports
 - ✓ Affects to Neighbors
 - ✓ Security



Getting Fuel for your Propane Station

- State Contract (government entities)
- Request for Proposals (can determine your own fueling requirements based on your organizational need)



What it cost Macon County to Convert to Propane

- Infrastructure – includes Fuel Tank, Pump, Dispenser, Fuel Management (WEX Fleet Cards), installation of electrical wiring and phone line, site prep, and awning \$28,820
- Bi-fuel Conversion kits – equipment & installation – 13 vehicles
 - FY16 - \$55,586 10% Local= \$5,559 90% provided by NCDOT grant funds
 - FY17 - \$32,580 10% Local= \$3,258 90% provided by NCDOT grant funds
- **Total Investment – YTD = \$37,637**

Cost Savings

July 1, 2017-June 30, 2018

- Average Propane Cost
\$1.40/gallon
- Average Gasoline Cost (without taxes) - \$1.97/gallon
- Average % of savings = 31% -
this takes into account a 10%
drop in fuel economy



Alternative Fuel Excise Tax Credit

- What is it?
 - A federal tax incentive for alternative fuel that is sold for use or used as a fuel to operate a motor vehicle
- Application must be submitted to the IRS to become a claimant.
- The IRS will contact you and set up a visit by a field agent who reviews your application and submits recommendation for you to receive a registration number
- Last credit was 50 cents for every 1.353 gallons of LPG (about 0.37/gallon) – expired December 31, 2017
- Macon County received \$11,769.40 for 2017 (30,917 gallons of propane)



Safety and Training

- Training of vehicle operators is required and takes about an hour
- Training quickly eases fears about using propane
- Quick Connect Nozzle makes fueling very similar to gasoline fueling
- Low emission nozzles have minimized the need for PPE



Am I happy with the decision to convert to propane????

ABSOLUTELY!!!!



QUESTIONS?

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