Alternative Fuel Solutions – Propane
A Rural Perspective
Presented by:
Kim Angel, Macon County Transit
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?

Contact Information:
Kim Angel, Transit Director
Macon County Transit
36 Pannell Ln
Franklin, NC  28734
828-349-2222