Alternative Fuels in Tennessee: Funding & Fleet Examples

Environmental Show of the South – May 18, 2017

Jonathan Overly, ETCleanFuels

Reducing oil dependence one fleet at a time.
Agenda

✓ Our two Tennessee Clean Cities coalitions, working together
✓ How do we engage stakeholders?
✓ What funding sources are available in Tennessee?
  ▪ Funding opportunities
  ▪ Examples of fleets or partners we’ve helped

TNCleanFuels’ Diamond & Platinum Members:

- ICOM
- Gibson County Utility District
- Oak Ridge National Laboratory
- Waste Management
- The University of Tennessee, Knoxville
- Anderson County, Tennessee
Who is ETCleanFuels?

- 15-year old nonprofit in East TN, 501(c)3
  - 2 full-time staff, several interns
  - Became Designated member of U.S. DOE Clean Cities Program in 2004
  - Contract with UT Knoxville for staffing & office space
  - 1 of 2 Clean Cities coalitions in Tennessee that collaborate frequently
  - 40+ dues-paying members; 300+ stakeholders

- Helps Fleets Save $$$ & Reduce petroleum use
How do we engage stakeholders?

Meetings: Multiple coalition meetings/yr + fleet specific
Communication Channels: Weekly emails, webinars & 7 SM channels
Industry Conventions & Expos: WTS/GTS, ACT Expo, Energy Ind. Summit
Government Partnerships: Southeast Diesel Collaborative, TN Environmental Conference, Sustainable Transportation Awards & Forum
Professional Associations & Conferences: TN Sheriffs’ Association, TN Municipal League, Tennessee Tow Show

Industry Partnerships: Propane, EVs, NG, biofuels, hybrids, adv. tech.
Fleet Partnerships: Many...

VIA:
**Funding Opportunity #1:**

**CMAQ**

<table>
<thead>
<tr>
<th>Funding Program Name</th>
<th>Short Description</th>
<th>Total Amt Avail. In TN</th>
<th>Per Vehicle Max.</th>
<th>Date Avail.</th>
<th>Infra?</th>
<th>Size or Fuel Specific?</th>
<th>Destroy old engine or vehicle?</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMAQ - Congestion Mitigation &amp; Air Quality</td>
<td>FHWA funding that TDOT manages working in concert with local TPOs/MPOs</td>
<td>Roughly $42M (every year or two)</td>
<td>Up to 50-80% of the TOTAL vehicle cost</td>
<td>Next round expected to open in 2017, but depends on release of 2016 funds</td>
<td>Yes but downside</td>
<td>Have 2 grant rounds: diesel- specific (ET only) and &quot;General call&quot; (gas or diesel)</td>
<td>Yes, engine must be destroyed</td>
</tr>
</tbody>
</table>

**NOTES:**

- Potential of million-dollar proposals, but time between grant application and starting/purchasing vehicles can be quite long.
- TCF has significant experience assisting fleets and have written many proposals, and can work with UTK to serve as "sponsor." Within CMAQ management in Tennessee, public fleets directly apply for funding. TDOT usually requires that private fleets have a "sponsor" that will serve as liaison, manager and risk partner.
**CMAQ example:**

Premier Transportation Services of Memphis

- Began discussing alt fuels, technologies & funding opportunities in 2015
- Wrote grant for them in 2016 for “General Call” CMAQ funds to a) replace 7 older taxis with propane Transits, b) replace 5 older buses with dedicated propane buses, and c) upfit a Ford Senator shuttle with a Lightning Systems hydraulic-hybrid system; they won $447,000.
Funding Opportunity #2: RDE4HT

<table>
<thead>
<tr>
<th>Funding Program Name</th>
<th>Short Description</th>
<th>Total Amt Avail. In TN</th>
<th>Per Vehicle Max.</th>
<th>Date Avail.</th>
<th>Infra?</th>
<th>Size or Fuel Specific?</th>
<th>Destroy old engine or vehicle?</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDE4HT - Reducing Diesel Emissions for a Healthier TN</td>
<td>State EPA funds; Tennessee Clean Fuels under contract to manage for TDEC</td>
<td>$150-280k</td>
<td>100% of incremental cost, up to $16,700</td>
<td>Next round opens Oct. or Nov. 2017</td>
<td>No</td>
<td>Needs to replace pre-2007 diesel vehicles</td>
<td>Yes, engine must be destroyed</td>
</tr>
</tbody>
</table>

NOTES:

✓ Next round could be the last round of this funding.
✓ Must be an alternatively fueled vehicle, or one that implements significant fuel economy improvements (like hybridization).
✓ Very fast turnaround times and contract signing. Fleets can move to implementation within a few months.
✓ Two rounds of this funding were already released, funding 7 different fleets across Tennessee such as FedEx Express, UPS, Sevier County Utility District and school districts such as Clarksville-Montgomery County and Jackson-Madison County.
“Reducing Diesel Emissions” example:

Clarksville-Montgomery County School System

- Found propane school buses as better choice for them in 2013 due in large part to DPF headaches
- Over last 2 years, have helped them apply for and receive funds to offset the incremental cost for purchasing 22 new dedicated-propane Blue Bird buses! 15 will start use in August 2017; 7 will start use in August 2018.
## Funding Opportunity #3:
### TDOT “Green Island”

<table>
<thead>
<tr>
<th>Funding Program Name</th>
<th>Short Description</th>
<th>Total Amt Avail. In TN</th>
<th>Per Vehicle Max.</th>
<th>Date Avail.</th>
<th>Infra?</th>
<th>Size or Fuel Specific?</th>
<th>Destroy old engine or vehicle?</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDOT &quot;Green Island&quot; funding</td>
<td>Public station and private fleet E85, B20 infrastructure funding – fuel tanks and dispensers</td>
<td>Approx. $700,000</td>
<td>Up to 80% of infra. cost, up to a maximum of $45k/fuel</td>
<td>Expected to open this Summer</td>
<td>YES</td>
<td>Must be implementing biodiesel as B20 or ethanol as E85</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**NOTES:**
- This is the last round of this funding that is a mix of federal and state dollars.
- Focused on corridor development for public stations with some select locations in mind, like Memphis, Knoxville and other locations (that are currently close to similar biofuel stations). Also focused on private fleets that want to put in their own B20 or E85 tanks and dispensers!
- Reimbursement basis.
“Green Island” example:

Pilot-Flying J E85 + B20 Tanks & Dispensers

- Pilot put in the first E85 station in Tennessee in Knoxville in 2007
- They ended up adding 4 more sites from Strawberry Plains to Crossville to Dickson that have both E85 and B20
Other Funding Opportunities...

- **EPA “DERA”** – Usually will need one big project that is focused on current or former nonattainment area and has an EJ component – could be $250,000 to $1,000,000 w/ cost share anywhere between 25-75%

- **DOE “Clean Cities” Projects** – Usually NOT focused on vehicle or infrastructure now (was in past), but other initiatives that will help market development for alt fuels (e.g., SADI Project*)

- **TN Nat Gas & Propane Vehicle Incentive Program, TDEC** – While chances are slight that this TN-based funding will return, could offer up to 50% and $25,000 per vehicle for CNG, LNG or propane vehicles

- **EPA Clean School Bus** – Started reopening 2 years ago and use lottery system to fund replacing older diesel school buses w/cleaner ones
Other Funding Sources & Partner Examples:

DOE Funding & SADI Project

Southeast AFV Demonstration Initiative

www.SADIdemo.org
Other Funding Sources & Partner Examples:

GRSM & Clean Cities Nat’l Parks Initiative

- GRSM & 2 coalition partnership (w/ Asheville, Land-of-Sky Coalition)
- Replaced 3 full-size trucks w/NEVs + 5 gas mowers w/propane mowers
- Installed first in the USA DCFC at NPS unit + Level 2 units at both VCs
Thank you!

How can we help YOU?

Jonathan G. Overly – 865-974-3625
jonathan@etcleanfuels.org
www.TNCleanFuels.org

Follow us on Facebook, Twitter & Instagram - “TNCleanFuels”