ETCleanFuels: ET Projects & Partnerships

December 8, 2011 – ISSE Presentation
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Agenda

✓ Who we are, what we do – Brief History
✓ UT connections, collaborations
✓ Projects examples by fuel or technology
  • Propane
  • Electric vehicles & EVSE
  • Biofuels
  • Natural gas
  • Idle reduction

ETCleanFuels’ 2011 Founding Partners:

EASTMAN  UTBI  OAK RIDGE  Pilot  TVA  UNIVERSITY of TENNESSEE
Who is ETCleanFuels?

✓ 10-year old nonprofit in East TN, 501(c)3
  • Full-time staff 2, AmeriCorps members 2, interns 1-2
  • Designated member of U.S. DOE Clean Cities Program (~90)
  • Contract w/ UTK for staffing, office space & equip.

✓ Focused on transp. sector change: diversify away from oil (use alternatives) or reduce consumption!

✓ Key metric = # GGEs reduced each year
Who is ETCleanFuels?

Kristy  Leah  Jeff  Grace  (and other volunteers!)
There are ~10 different ways coalitions are organized.
What Does ETCleanFuels Do?

#1 – Help move East Tennessee fleets to using alt fuels

✓ Hold quarterly regional open meetings - (Knox, Chatt, TC areas)
✓ Workshops & presentations, adult & K-12 education
✓ Look for partnership opportunities
✓ Collaborate on grants - federal, state, foundation, others
✓ Work to build public access to alternative fuels
✓ Lead/manage multiple state and regional newsletters
K-12 School Presentations

- Presentations focus on relaying the basics & importance of alt fuels and fuel economy
  - ’06-’07 & ’07-’08 = 700-1,700 reached
  - ’08-’09 = 3,600 students reached
  - ’09-’10 = 4,990 students reached
  - ‘10-’11 = 10,000+ students reached!

- “1st Graders for Clean Fuels” - hits all 5 of the senses through an interactive presentation
- “Clean Fuels Jeopardy!” a hit!
- “The Oil Timeline” for younger kids
Brief History - Summary

UT Connections

- EcoCAR2, & past (Challenge X, Future Truck)
- Gordie Bennett & MOG – events, presentations, vehicles
- Committee on the Campus Environment (served 4 yrs)
- Transit & Parking Dept. – now Mark Hairr! (L2s, DCFC?)
- Collaboration with Genera Energy for cellulosic ethanol
UT Connections

- Dean Davis – Various discussions, projects (ex.: H2)
- Presentations to various classes over the years – Dr.s Littmann, Cherry, Tonn; SPEAK
- Fleet = Terry Ledford & Mike Moneymaker (alt fuels use)
- Biodiesel production system (no longer in use)
Propane SEP

✓ Received 2007 funding through SEP

✓ Although original focus was biofuels, redirected funding to propane in 2009 for 2 projects:
  • *Tri-Cities Airport* – converted 3 tarmac vehicles to dedicated propane
  • *City of Kingsport* – converting 3 work trucks to bi-fuel propane and assisting with propane refueling costs

✓ Airport work completed in 2010; Kingsport work being completed right now
Propane – Building Partnerships

- Developed partnership w/ TPGA in 2011 – **Propane Leadership Team** – all 3 coalitions and TPGA members working to getting propane in use

- Holding conference calls monthly to discuss projects, opportunities, new fleet inquiries, potential relationships to help the effort

- Partnerships being formed, or opportunities include:
  - School buses – Central States Bus Sales, TN Assoc. of Pupil Transportation, Blue Bird
  - Police fleets – American Alt. Fuel
  - Roush CleanTech – trucks, vans, shuttles
The EV Project – TN is a Unique Partner!

Beginning in **2010**, the EV Project will deploy charge infrastructure in the following major markets:

**KNOXVILLE, TN**
The EV Project – Locations in TN

- Hardware “footprint boundary design”
- 3 major cities, plethora of connected, smaller cities
Working to Add L2s & DCFCs

✓ Really ramped up efforts to help place EVSE

✓ ECOtality lead for TN has had more issues out of Knoxville region than anywhere else; rubbed many people “raw”

✓ We are working to help get over the hump with the City of Knoxville, Airport, others

✓ Taken lead on a number of sites both commercial & municipal

✓ Was able to get small contract w/ ECOtality for some work
Other EV Efforts

✓ We have built an ET map w/ other EV references:  [www.ETEV.info](http://www.ETEV.info)
✓ Recently managed National Plug In Day event, and have started “mini” EV events

✓ We’ve also created a Facebook page & a Google doc (info list) for East TN EV Owners, both fleet & ind.; working to provide outlets for them to a) get to know one another better, b) partner with us, and c) for collaborating on EV and EVSE promotion
# of EVSE

Almost all are through the EV Project.

See legend.

Significant state of flux as locations are being added.
Pictures of East TN EVSE
I-75 Green Corridor Project

- A UTK-ETCleanFuels Project!
- 2nd and longest biofuels corridor in U.S. (1,786 miles)
- $818k award; $1M+ cost shared
- Add 15 E85 & 10 B20 public pumps to make driving all the way from Sault Ste. Marie, MI to Miami, FL on your biofuel (200 mi. max distances)
- Expected to displace 1.7+ MGY of petroleum
- Significant hurdles along the way, but still truckin’
Supporting Genera Energy/UTBI

- Switchgrass growth counties school presentations
- Social Media work
- Showcase regional work in presentations
- Video promotion assistance
- Connect interested parties on feedstocks
- More

www.GeneraEnergy.net
www.UTbioenergy.org
Switchgrass

Hear from the farming families - videos @ GeneraEnergy.net!
Coming – Biofuels Outreach Project

- Biofuels for fleets work
- Multiple workshops, ethanol and biodiesel
- Dealership FFV promotion
- Assist state in public station grant for E85 and/or B20 - placing these in locations that currently don’t have access, or enough access
- Dispelling biofuel myths – Website-based info and using multiple social media to drive readers to our site and info
- Promoting biofuels as renewable, sustainable option for Tennessee fleets
- Other tasks included, too
Tennessee Team for NGVs...

Cross-state Collaboration

- Partnership of TN Clean Cities coalitions, TN Gas Association & other organizations to advance NG as transportation fuel in the state
- Have several items on 1-year agenda (e.g., education, legislation)
- Working on fleets and public stations throughout the state to make this a viable alternative for Tennessee
What is in TN now?

- Current Fleets: Knoxville Utilities Board, AT&T, MLGW, Scott Appalachian Industries, Piedmont NG, several city/county fleets
- Picture of Current and Planned Stations in Tennessee...
Crossville’s Eco Travel Plaza - TSE
(One example of idle reduction action or technology)

- Goal = Cleaner, healthier place for truckers
- Providing 50 electrified spaces for HD trucks
- Reducing emissions by 70-99%
- Added solar!!
  - Roof-top
  - 35 kW system
  - Will offset much of the initial TSE usage to zero pollution!!

Intent – work on more transportation projects that are EV that include solar!
TSE Equipment added in Crossville

Shorepower units

AireDock units
Usage is very low – working on solutions
Idle-Free Tennessee
(Also called Idle-Free School Zones)

✓ School-focused idle reduction plan for all drivers
✓ Discuss with county/muni. school leaders, board; talk to principal, PTA
✓ Meet with school bus drivers, applaud their efforts; discuss opp. for healthier kids through increasing idle reduction efforts; ask to sign pledge!
✓ Post 3 signs at most schools & provide classes info
✓ Knox County underway; 7 schools so far
✓ Hoping to find funding to work on in other counties
“Do not follow where the path may lead. Go, instead, where there is no path and leave a trail.”
- Ralph Waldo Emerson

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