

MEETING NOTES

EAST TENNESSEE CLEAN FUELS COALITION 14th Stakeholders Meeting ~ June 12, 2003

Where: Copper Cellar on Cumberland Avenue in downtown Knoxville

When: 11am to 1:15pm

Lunch: From a smaller menu of four items; sponsored by Ted Russell Ford, a Founding Partner in the ETCFC.

Attending (total of 24 people)

Bardsfield, John Mark – Hydrocore

Barkenbus, Jack – Energy, Environment and Resources Center (EERC)

Bishop, Doug – City of Sevierville

Cantrell, Teresa – Great Smoky Mountains National Park (GSMNP)

Conger, Mike – Knoxville Regional TPO

Detring, Reed – Big South Fork National Park

Doane, David – Energy, Environment and Resources Center (EERC)

Downing, Mark – ORNL/National Transportation Research Center (NTRC)

Dunagan, David – U.S. DOE EE/RE Atlanta Regional Office (ARO), Clean Cities Program Manager

Engleman, Greg – Interested Citizen

Gale, Pete – McNutt Oil Co.

Gordon, Douglas – Interested Citizen

Greenberg, Barry – Knoxville Area Transit (KAT)

Headrick, Brian – Knoxville Utilities Board (KUB)

Hennon, Helen – ESC / Tennessee Air Board

Hickman, Jerry – City of Sevierville

Naegeli, Wolf – Foundation for Global Sustainability/9 Counties. 1 Vision.

Overly, Jonathan – Coordinator, ETCFC

Penland, Mark – TN Dept. of Environment and Conservation (TDEC)

Shannon, Tom – UTK Dept. of Mech., Aerospace and Biomedical Eng. (MABE) Dept.

Sinclair, Brooke – Knoxville Utilities Board (KUB)

Vaughn, Kelly – Knox County Division of Air Quality Mgmt.

Wells, Parks – Tennessee Soybean Promotion Board

Winther, Evelyn – Interested Citizen

Other participant information:

Thus far, a total of **112 people** have participated in the 14 meetings, representing **61 different companies and organizations**.

Meeting Content

1. Called meeting to order ~11:10am.
2. Briefly described outline for the day and discussed the documents that were provided to the group (see the 14th Meeting Agenda on the Web site - www.etcfc.org under “Documents,” which includes a list of what information was handed out). See agenda for the main information that was discussed that day.
3. Noted next months meeting date of **July 10, 2003**. Will be at Copper Cellar.

Meeting Notes taken and submitted by Jonathan Overly.

Working Committee Notes

AFVs & Infrastructure WC Notes

(received 7/1/03)

Attendees:

Doug Bishop – City of Sevierville

Pete Gale – McNutt Oil Co.

Barry Greenberg – KAT
Brian Headrick – Knoxville Utilities Board (KUB)
Helen Hennon – ESC / Tennessee Air Board
Brooke Sinclair – Knoxville Utilities Board (KUB)
Kelly Vaughn – Knox County Air Quality Mgmt.

NOTES:

Our discussion began with a question about the status of the possible Pilot alternative fuel station. Jonathan informed us there had been no enthusiastic response from Pilot.

Brian: Will contact other fuel companies in town since Pilot doesn't seem
(KUB) interested.
He is also working on a questionnaire to estimate KUB diesel consumption so the option of biodiesel can be considered.

Reed: They are ready to try B20 if a supplier can be found.
(Big South Fork)

Brooke: Has been tracking diesel prices for comparison.
(KUB)

KUB, Big South Fork, and McNutt Oil entered a discussion about cleaning and preparing diesel tanks to receive biodiesel. **Pete** from **McNutt Oil** described a process to avoid problems occasionally experienced during the change over to biodiesel. (Rinse diesel tanks with biodiesel before filling them for use.)

KUB and **Big South Fork** discussed splitting a test tanker of B20 purchased from **McNutt Oil**. This seems promising.

There was a short discussion about the future of natural gas taxes for home "fuel makers".

Brian: Will propose natural gas "fuel makers" for use at KUB, Home
(KUB) Depot, and Lowe's. (major accounts)

Brooke: Sam's would be ideal for an alternative fuel station since
(KUB) they already have everything, including gasoline.

Meeting Notes taken and submitted by Kelly Vaughn.

Education & Marketing WC Notes

No notes received as of 7/10/03.

Fuel Cell Vehicle WC Notes

(received 7/8/03)

Attendees:

John Mark Bardsfield – Hydrocore (co-chair)
Jack Barkenbus – EERC
Jerry Hickman – City of Sevierville
Parks Wells – TN Soybean Promotion Board
Evelyn Winther – Interested Citizen

Group objectives for June:

- In following H2 roadmap, add to current database information about:
 - ~ current infrastructure - what alt. fuels are most viable present to future
 - ~ what are the reserves / abundance issues / costs involved (well to wheel issues)

- ~ how are the fuels used / sociological implications / infrastructure
- ~ advantages/ disadvantages of each and impacts on air quality
- ~ how fuels fit into current needs of all involved in ETCF Coalition
- Policy on polluting internal combustion vehicles (ICV) currently on-road
 - (if around 80% of our worse air pollution is caused by 20% of vehicles, and 70% of local air pollution from interstate traffic, what are some federal mandates which could be implemented to help solve current crisis?)
- ~ loan / grant / voucher program for high emission vehicles to be turned over to local authorities, recycled, and voucher used to purchase alternative fuel vehicle (AFV) or hybrid low emission vehicle
 - ~ vouchers for repairs / maintenance of ICV's / addition of emission capturing devices such as EmeraChem's Emx and Esx
 - ~ program could be paid for by an automatic payroll deduction at work, etc.
 - ~ potential for filling in gaps and providing a market for govt. auction vehicles
- Hythane (80% CNG/ 20% H2) potential uses and future
 - ~ take advantage of existing natural gas infrastructure
 - ~ help abate abundance issues of CNG

Additional points of interest:

John Mark Bardsfield:

- When looking at the advantages/ disadvantages of alt. fuels we need to look at each from a non-biased perspective, incorporating abundance issues, costs and ecological factors.
- Although CNG has inherent flaws (most scarce), it is a good bridge to H2 use.
- The 1:3 ratio of H2:CNG in Hythane could gradually be shifted to a 3:1 ratio.
- Perhaps there could be additional incentives in the car voucher program for going a step further (i.e. purchasing a low or 0 emissions vehicle instead of bringing existing vehicle up to codes).
- EmeraChem reps were at the TN Corridor Summit meeting and stated that the main problem with the Emx technology (NOx filter) is that sulfur clogs the catalyst. This problem will be reduced as we move toward low sulfur fuels & biodiesel.
- H2 internal combustion engines have the interest of the auto industry, but NOx emissions are produced (lower amt. than with standard engines).
- The future may lie in ceramic block engines which dissipate heat so quickly that they require no oil. Costs are too high at present for converting engines by enamel coating.
- We need to look at how to lower production/ end costs of biodiesel.

Parks Wells:

- The high costs of biodiesel are associated with the price of feed stock and oil. As more large producers come into the market (e.g.: Archer Daniels Midland), costs will drop.

Jerry Hickman:

- There is a big problem of emissions from older cars - for example, the antique car shows. These are \$40-\$50 K cars with AC/ power steering & brakes/ cruise control. The owners are paying thousands for their hotels & meals, why not \$300 for a muffler [Emx] which virtually eliminates emissions? If it was required by law, they would.
- The problem of reducing traffic or requiring vehicle emissions testing to gain entrance into the Great Smoky Mnt. National Park is that the main roads are considered federal highways. This is another reason to promote federal standards for emissions.

Jack Barkenbus:

- The Department of Energy is looking step by step at the H2 roadmap presented at the Regional Clean Air Action Summit. The ETCFC should get in tune with what they are doing.
- General Motors is promoting the stationary fuel cell (FC) power market in advance of their plans to introduce FC vehicles.

Evelyn Winther:

- GM recently televised their new concept for fuel cell vehicles - a common chassis for all models (cars/ vans/ trucks). This will speed up and simplify production. Also - all the controls (gas/ brakes) are located on the steering panel. Estimated time to mass market for these vehicles is around 10 years.

Meeting Notes taken and submitted by Evelyn Winther.