

MEETING NOTES

EAST TENNESSEE CLEAN FUELS COALITION 17th Stakeholders Meeting ~ September 18, 2003

Where: Copper Cellar on Cumberland Avenue in downtown Knoxville

When: 11am to 1:10pm

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

Attending (total of 26 people)

Don Ault – First Capitol Trams and Carriages ☼
John Mark Bardsfield – Hydrocore
Bob Bowers – Wilbur Smith Associates
Buster Brackins – Sevier County Utility District
Ted Buel – GT Designs, Inc.
Bruce Bunting – ORNL ☼
Jim Chamberlain – BAT Associates, Interested Citizen ☼
Bob Colby – ATTI & Chattanooga/Hamilton County Pollution Control Bureau
David Deputy – AmeriGas Propane
David Doane – Energy, Environment and Resources Center (EERC)
Mark Downing – ORNL/National Transportation Research Center (NTRC)
Bryon Fortner – City of Sevierville
Asher Freeman – Student, Interested Citizen ☼
H. E. “Mike” Gardner – Clean Air Partners ☼
Barry Greenberg – Knoxville Area Transit (KAT)
Teresa Guy – AmeriGas Propane
Jeff McCarter – Sevier County Utility District
Robert Morgan – Interested Citizen ☼
Wolf Naegeli – Foundation for Global Sustainability (FGS) & 9 Counties. 1 Vision.
Jonathan Overly – Coordinator, ETCFC
Jerry Sanders – ATTI
Brooke Sinclair – Knoxville Utilities Board (KUB)
Randy Underwood – Sevier County Utility District
Parks Wells – Tennessee Soybean Promotion Board
Evelyn Winther – Interested Citizen
Carla York – Ebus

Other participant information:

A total of 6 new people (☼) attending this meeting.

Thus far, a total of **124 different people** have participated in the 17 meetings, representing **65 different companies and organizations**.

Meeting Content

1. Called meeting to order ~11:15am.
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 the dates and locations for the next 5 months meetings - through the end of 2003 (see the agenda).

Meeting Notes submitted by Jonathan Overly.

Working Committee Notes

AFVs & Infrastructure WC Notes

(No notes received.)

Education & Marketing WC Notes

(No notes received.)

Hydrogen Economy WC Notes

(received 8/14/03)

Attendees:

David Deputy - Amerigas Propane (Kingsport & Morristown)

Teresa Guy - Amerigas Propane (Knoxville)

Jerry Hickman - City of Sevierville

Dr. Ronald Sternfels - Plasma Gasfication Consultants (Knoxville, Huntsville, Birmingham)

Evelyn Winther - Community volunteer

Gary Wynn - Community volunteer

General ideas for East TN:

In looking at ways to promote hydrogen economy, the group focused on the following aspects -

- ~ delivery (trucking/ pipeline) vs. on-site generation of H2
- ~ how to promote research/ pilot projects in this area
- ~ introduction of hybrid vehicles as an immediate solution to increase mileage
- ~ incentive programs for AFV purchase such as parking passes, tax credits (federal & state), etc.

> Distribution & On-Site Generation of Hydrogen

Although the ultimate desired source of hydrogen would be local on-site generation from hydrolysis of water powered by some type of 'green power', our group is looking at the reality of cost and current infrastructure in predicting the best plan for this area. Some of the specifics are as follows:

- ▶ Dr. Sternfels: Portable turnkey filling stations supplied by H2 delivered by trucks will probably precede the piping in of H2. Pipelines in use now in areas such as Alabama & East TX (Gulf Coast). Low pressure is used in pipelines to prevent diffusion and loss of the gas en route. This mirrors the situation of local power generation vs. transmission of power (on-site production doesn't have the drawback of lost power en route).
- ▶ David Deputy: In looking at H2 production from waste streams (companies such as Plasma GC's and Hydrocore), although there is a need for a continuous feed - there would not necessarily be a conflict with local waste reduction projects. The big picture is that there is overall more waste than municipalities can handle. As far as trucking in H2 is concerned, H2 tankers would be considered safer than either gasoline or propane. Gas tankers are not built to handle the increased pressure from a rollover. Although propane tankers are sturdier, once they leak the propane spreads whereas hydrogen would evaporate.
- ▶ Evelyn Winther: There are houses being built now that have a stationary fuel cell unit, powered by hydrolysis of water generated by solar panels on the roof (a zero emissions set up).
- ▶ Dr. S.: Stationary fuel cell units, though expensive, are generally thought to pay for themselves in about 10 years (after which the homeowner is on gravy street !).

> Promotion of Pilot/ Research Projects In This Area

Legislation proposed by Lamar Alexander for the GSMN Park [senate.gov] and the wave of H2 promotion which could be generated in the upcoming presidential election were discussed. GM and Ford have made a serious commitment to fuel cell vehicle production. Toyota and Honda are launching their fuel cell fleets in America. We need to look at ways to generate local interest and investment.

- ▶ David Deputy: In addition to seeking research funds, there is a great opportunity for pilot projects such as housing developers who could set up H2 generated neighborhoods which sell excess power back to the utility company. The utilities are required to buy (at retail price!) excess electricity produced.
- ▶ Gary Wynn: Federal funding of such projects is needed. There are many stakeholders with some opposition to H2 economy who's influence has to be overcome (auto makers, oil exploration companies, etc.).
- ▶ Dr. S.: Sevierville should build a giant parking lot, close the Pigeon Forge corridor and GSMNP to thru traffic and require tourists to rent AFVs !
- ▶ Jerry Hickman: Sevier County did look at bringing in fuel cell buses but there were some technical problems with the elevation changes (> 200 feet).

- ▶ Dr. S.: Now there are some FC vehicles which make automatic adjustments for altitude.

> Hybrid (Electric & Gasoline) Vehicles

These vehicles will make a good stopgap until we can get mass produced zero emission FCVs. Honda is on the front lines with the Prius and Insight. They work by charging batteries with a flywheel which is allowed to spin whenever the engine can be disengaged from the chassis (e.g. going downhill/ braking). Hybrid vehicles are most effective on level ground with smooth driving and handling. Especially for the immediate future, the ETCFC should promote these vehicles which are available to the general public.

>Incentive Programs for Alternative Fuel Vehicle Purchase

As opposed to increasing emissions testing, offering incentives may yield better results.

- ▶ David Deputy: It would be political suicide for officials to pass legislation which impose emissions standards for vehicles other than what was in effect for such vehicles at the time of their manufacture. The good news is that the present administration is implementing the first significant standards for stationary diesel engines.
- ▶ Evelyn Winther: In Washington D.C. residents who purchase AFV's are allowed to drive in the multi-passenger lane. Although we don't have room on our highways to offer such an incentive, maybe there could be something like a free parking voucher program.
- ▶ Dr. S.: Ultimately, the most far reaching solution will be to offer tax incentives - federal credits and/ or TN state tax rebates for those purchasing AFVs.

Meeting Notes taken and submitted by Evelyn Winther.