East Tennessee

Clean Fuels Advisor

A quarterly publication of the East Tennessee Clean Fuels Coalition



Bringing alternative fuels and hybrids to the forefront. Alt Fuels = biodiesel, electricity, ethanol, hydrogen, natural gas and propane.

Eastman and Chattanooga Go Bio

Two big fleets in East Tennessee, one for-profit and one government, have made the move to biodiesel.

Starting at roughly the same time and with the same approach, both Eastman in Kingsport and the City of Chattanooga have begun using B5. Eastman started on March I and Chattanooga started just a couple of days later. Both plan to slowly segue to B20.

"We've been looking at biodiesel for a while but when the tax incentive passed, we knew it would be much more doable," notes Darren Curtis, a staff engineer in Eastman's transportation department. "A team of several Eastman folks continued discussing it and began looking at getting the fuel up here, and in talking with our current fuel supplier, decided to do it."

Tri-Cities Petroleum of Weber City, Virginia began carrying B100 in late February, meeting the timeline Eastman had set of starting B5 by March I. Jason Barger of Tri-Cities Petroleum says "We did it primarily because Eastman wanted it, but after speaking with Jonathan [Overly] saw that there looked to be a growing demand for it. We're working with several other local companies to see if we can supply their biodiesel needs as well."

In Chattanooga, city Fleet Manager Brian Kiesche had learned about biodiesel from an ETCFC district meeting and began looking at supply scenarios.

"We went for a proposal to expand our refueling infrastructure that didn't pan out. But once Benton Oil started carrying it locally, we started talking with them and figured out another way to get started that would work for us," says Kiesche.

They ended up deciding to simply switch to the low-end blend and then increase it, like Eastman.



Top: a massive diesel crane at Eastman prepares for a job. Bottom: a knuckle boom prepares for work in Chattanooga. Both these vehicles began running on B5 in March.

"Both organizations are sizable fleets in East Tennessee--Eastman over 200 vehicles and Chattanooga almost 390--and will help us grow use of and demand for biodiesel here," says Jonathan Overly of the ETCFC.

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Clean Fuels Checklist:

Become a member of the ETCFC; support our efforts!

Attend
Earth Fest
in Knoxville
on April 23!



This project is funded (in part) under agreement with the State of Tennessee Dept. of Transportation.



Regal Moves Knoxville Forward with Biodiesel

After hearing about biodiesel, including having some customers inquire about it, Regal Petroleum has decided to do Knoxville and East Tennessee a big favor.

Not only are they placing a public B20 pump at their I206 Proctor Street cardlock location (shown at right) where they have 24-hour availability, they are purchasing and installing a I0,000 tank to hold B100 for filling tanker trucks. Their facility is about I00 yards from Middlebrook Pike and about I.5 miles from the largest fuel tanker-loading facility in East Tennessee, so it will be fairly easy for any tanker to fill several of their compartments with petro-fuels and then fill one (or more) with biodiesel.

"This was an expensive move for us, but we see great potential for biodiesel in this area," say Philip Freels, general manager at Regal. "We're choosing to offer virgin soy-based biodiesel because of it's outstanding characteristics, especially wintertime performance. We'll be blending onsite with petro-diesel to make the B20 we'll offer here."

Freels and Owner Scott Smith have been discussing



The B100 for tankers is already available at their Proctor Street facility; the B20 for vehicles will be ready mid-April.

this for several months and finally made the decision.

Smith says, "we've seen some significant regional fleets get on-board and that tells us this is growing. If we can be a first for Knox County and help get this Ameri-

can be a first for Knox County and help get can fuel in use, that's a win-win for us."

The facility is easily accessed from I-40, either direction. Get directions to their facility online at www. regalfuels.com or www.etcfc.org.

ETCFC '04-'05 Steering Committee

Our Steering Committee is made-up of nine members from a variety of organizations and areas in East Tennessee. Each member serves a 3-year term.

The 2004-2005 Steering Committee for the ETCFC is:

Doug Bishop - City of Sevierville Teresa Cantrell - Great Smoky Mountains National Park

Bob Colby - Advanced Transportation Technology Institute

Barry Greenberg - Knoxville Area Transit Dejim Lowe - Tennessee Valley Authority Dan Pursglove - Interested Citizen <u>Iohn Trollinger</u> - McNutt Oil Parks Wells - Tennessee Soybean Promo-

tion Council Carla York - SAIC

East TN Environmental Conference a Success

The Tri-Cities area hosted their fourth annual environmental conference in Kingsport on March 10 and 11, and it was a grand success.

Bringing together a wide variety of environmentally based interests provided a great setting for sharing information about actions taking place and actions needed.

Main forum presentations covered topics such as the built environment, aspects of homeland security and "environmental futures." Session topics included updates on the new EPA PM-2.5 and 8-hour ozone standards, health tracking, stormwater construction, E-waste & recycling markets, IAQ (indoor air quality), TDOT long Anita Streets presents beneath one of the ETCFC's street range planning, stream health, and of course, alternative fuels!

The conference was a big success for the ETCFC as we met many folks and discussed not just generalities of alt fuels but what steps need to be taken to begin using them. Fleets wanting more information included City of Kingsport, Greenville Landfill/Transfer Station, Denso Manufacturing and the Johnson City



signs stating "Biodiesel Blvd." Thanks City of Sevierville for making our street signs!

Power Board.

Kingsport and Johnson City Power Board have already made plans to begin gathering more information while Denso is looking at the possibility of using biodiesel in their back-up electric generators.

Five Ford Escape Hybrids In Use Locally



One of the City of Maryville's Escape Hybrids, sporting the city's green key logo.

In the last two months, three local orgnizations have taken delivery of Ford Escape Hybrids: City of Maryville (2), Knoxville Utilities Board (KUB, 2) and Knox County (1).

The vehicles are being used in different types of ways. Maryville is using them for meter reading while KUB's and Knox county's are being driven by administrators.

The Escape Hybrid boasts 36 city/31 highway fuel economy (2x4) and uses what Ford calls "eCVT" (electronically controlled continuously variable transmission) to efficiently transfer power to the wheels. It is not a plug-in type (they are few); it runs purely off the fuel that is put into the vehicle(gas) and the energy that is recovered (electric) through regenerative braking. The braking energy is stored in a sealed nickel-metal hydride (NiMH) battery pack, which is rated at 330 volts.

Jeep and John Deere Put Significant Weight Into **Biodiesel Movement**

For more information on the ETCFC and alternative fuels, and to see pictures of other regional projects, visit us online at www.ETCFC.org.

In two huge moves that are helping advance biodiesel's use and acceptance, DaimlerChrysler and John Deere have begun fueling diesel vehicles with biodiesel blends on the manufacturing line.

Last fall, Jeep announced that they would be putting B5 in the tank at the factory in every new Common Rail Diesel (CRD) Jeep Liberty that is built. In February, John Deere announced that they would begin fueling all of the diesel vehicles that they sell with a B2 blend.

Having vehicle manufacturers like these two heavyweights come forward and make these steps really puts some bite into the notion that biodiesel is growing in acceptance, and is here to stay.

In the press release for Jeep from the National Biodiesel Board (NBB), NBB Chairman Bob Metz said, "Imported petroleum makes up one third of our national trade deficit, so it is exciting to be able to use a product that is grown each year in America instead of shipped from the Middle East."



A 7920 John Deere tractor running on B2 and a Jeep Liberty Limited running on B5... biodiesel powered.

John Deere started its factory fill with B2 at its Waterloo Works plant in Waterloo, Iowa on March 4. They plan to transition to B2 in the rest of their U.S. plants by the end of 2005. Tractors, combines, self-propelled sprayers and other diesel equipment made in the U.S. will be filled with B2. In addition, John Deere plans to actively encourage its customers to contiue to use B2.



Jonathan Overly's

Coordinator's

Corner

Southeast Regional Biofuels Workshop -- June 6-7, 2005

The Southeast Alternative Fuels Task Force (SEAFTF) is hosting their second regional workshop to advance cleaner fuels on Monday and Tuesday, June 6 and 7, 2005.

The Southeast Regional Biofuels Workshop will take place in Gatlinburg at the Park Vista Hotel over about a day and half (allowing time for most folks to return home during the afternoon of the 7th).

"This workshop focuses on biofuels [biodiesel and ethanol] because the task force decided its first priority is to increase access to these clean,

domestic, renewable fuels over the next few years," says Alan Jones, environmental policy advisor with the Tennessee Department of Transportation and a co-chair of the SEAFTF. "Foreign oil dependence is at



an all-time high and demand for petroleum fuels continues to increase. Air quality and the need to reduce emissions from mobile sources are major concerns for all major metro areas in the four states. With the help of fuel suppliers, we can quickly expand access to biofuels, and more fleets across the region can begin using them," notes Jones.

Two key goals of the SEAFTF are expanding publicly accessible biodiesel and ethanol across the four states of Georgia, North Carolina, South Carolina and Tennessee. Specifically, the goals reach for three new stations for each fuel by the end of 2005, and 12 stations by the end of 2010. If all goes well, they'll probably go well beyond these numbers, due to greater federal fiscal support of both fuels.

"To a large degree, it is all about partnering," says Jonathan Overly, co-chair of the task force's infrastructure committee. "This kind of action doesn't take place unless fuel marketers become committed partners, so a primary objective right now for us is increasing the number of fuel marketers and distributors we interact with. And that is a major part of the upcoming conference... we need to expand our connections to convenience store owners and otherwise fuel distributors."

More information about the workshop including registration information and an agenda can be found on the SEAFTF's Web site, <www.sealtfuels.org>.



ETCFC Loses a Friend

On Friday, February 11, 2005 Mike Ellis of Clinch River Valley Energy Group (CRV) passed away at his home in Gatlinburg. He was 56.

I first met Mike on the phone in Fall 2003 when he had seen an advertisement of the ETCFC discussing biodiesel and called for more information. "What is this stuff biodiesel?" he asked. After a brief explanation, he noted that he mostly worked in the stationary side of energy but appreciated the information.

A day later he called back and said he had just heard a radio advertisement on biodiesel and apparently did not learn enough from his first call. He was definitely intrigued. So I invited him to attend a biodiesel meeting that was taking place in Maryville.

Sure enough, this gentleman that looked like I thought Mike would sound showed up at that biodiesel meeting in November 2003. I still remember that meeting clearly. He joined in the approximate 30 people in attendance and didn't ask any questions... he just listened. As the meeting lasted a couple of hours, he looked to head out early and I caught him before he could leave the building.

I introduced myself and wondered if he was Mike, and he said yes. He noted he was very interested in biodiesel and would be getting back intouch with me soon to talk about it.

And the rest is history. Over the next year and a half, Mike worked diligently to build a biodiesel business and get biodiesel in use in the region. He noted on several occasions that some of his reasons were economic but that he really had a passion for renewable energy. That attitude shone through recently when a combination solar, and wind-power project he worked on came to fruition at the University of Tennessee. It now opperates in the corner of the of the Presidential Courtyard.

Mike was a friend to the ETCFC and frequently attended our monthly meetings and shared his achivements with biodiesel and solar and wind power with those in attendance at meetings. He regularly called me and provided updates on where his biodiesel activities were going, and he did his best to keep us in the loop in terms of what he was doing and inviting us to get involved.

The rest of the board of directors at CRV was frequently on the job helping Mike, fielding questions about the production or legal aspects of certain ideas or helping with communications for CRV. A crack biodiesel team they were!

Mike will be missed for his take-charge attitude toward making a difference in his community and his light-hearted way at getting his message across. Mike was one of the people who knew that self-deprecating humor was a great ice-breaker, and he used it effectively. Time after time, in meetings we both attend, he would bring smiles to the faces of all those present through his special way of talking about the work he so enjoyed.

Want to Help the ETCFC? Donating is as Easy as Ever

The ETCFC works hard to move alternative fuels forward in our community and needs your help to be successful. We utilize your funding in a several ways, but the main two are I) keeping a full-time coordinator to organize meetings, develop relationships with fuel distributors and marketers, respond to information requests and maintain information

networks; and 2) for advertising and marketing.

If you'd like to help, first become a member (see membership information on page 5). In addition, we've become a member of Active Giving online. You can go to this address to donate online to the ETCFC: http://www.active.com/donations/campaign_public.cfm?key=etcfc.



ET's First Biodiesel Producer Almost Ready for Prime Time

They haved planned, they have sweated, they have worked hard! And it is almost their time.

John Carter, Mike Cretella, and Kevin Wright, collectively the three gentlemen that started



In recent months they have added to the Blue Sky team, almost quadrupling the team size (their are now a total of nine part-time employees).

"We're so close we can smell it, and yes, it does smell like french

Blue Sky Biodiesel, have been working on their dream over the last few years and are very close to being able to provide ASTM-certified biodiesel to the East Tennessee community!

They have been steadily chipping away at the things that need to be completed to be a competitive biodiesel producer. Networking being one of them, they have participated in ETCFC activities for about the last year and a half.

fries!", says Director of Operations Kevin Wright. "Seriously, it is a distinct pleasure to be positioned to be East Tennessee's--and possibly Tennessee's--first ASTM-certified producer of biodiesel. We are really looking forward to working with the ETCFC to start aggresively marketing our biodiesel."

We do too, Kevin! Use locally produced materials to create a renewable fuel? Sounds like a good idea!

Alt Fuel News & Notes

SOUTHEAST ALT FUELS TASK FORCE UPDATE - The Infrastructure Committee has now received updated maps for B20 and E85 and will soon be selecting new locations to work to place public stations. If you are a fuel provider and are interested in getting connected into this process, attend the Biofuels Workshop planned in June (see top of p. 3).

BIODIESEL BRIGADE - More folks have expressed interest in joining the biodiesel brigade. We are getting more magnets printed so if Overly has told you he'd get them, call him again! (865-974-3625)

LOUDON POLICE LOOKING AT CNG CONVERSIONS - The Loudon city police department is looking at the possibility of converting some of its police cars to run on CNG. Metro Ford may end-up being the conversion company.

KNOX COUNTY CAC TRANSIT - Based on the current timeline, Karen Estes with Knox County CAC Transit says that if all goes well, their first four vans should be in service in the area by early Summer. CAC Transit won CMAQ funding last year to purchase dedicated propane vans for their transportation services. They provides transit service for a small fee to anyone in Knox County that Knoxville Area Transit does not reach.

SEVERAL STATE PARKS LOOKING AT BIODIESEL - Panther Creek and Fall Creek Falls State Parks are both assessing the opportunity to use biodiesel in their diesel fleets. Several steps remain before they will be able to begin using a biodiesel blend, but Panther Creek Manager John LeCroy and Fall Creek Falls Interpretive Specialist Stuart Carroll are moving



Several ET Cities and Counties Plotting Alt Fuel Action

Groups in several East Tennessee counties have recently held meetings to educate themselves to the pros and cons of biodiesel, and discuss its use.

Eldonna Janutolo of Johnson City Transit and city official Charlie Harmon met with the ETCFC in February to discuss using the fuel in their mass transit system. After some review, it looked like the easiest alternative would be to simply start with a low-end blend like B5 and put that in their main diesel tank. That tank (and facility) also serves the city school buses and the city fleet so they would be switching all those vehicles at once with that choice.

In early March, the ETCFC was invited to present to the Athens city council by Bo Perkinson. City council members, a few other city staff and some media folks listened to a presentation on alternative fuels and biodiesel and are now looking at ways to begin trying it in some city diesel vehicles.

Anderson county Director of Public Works Brian Jenks has been working on getting biodiesel in use in the county and put together a

meeting in March for representatives from several places including the county, Oak Ridge, and Clinton Utilities Board. Public works and the county's



emergency services divisions are both interested in using biodiesel blends, but need to find the right infrastructure solution.

In Kingsport, interest in biodiesel peaked at the ET Environmental Conference recently. A meeting will took place in Kingsport on April I to discuss how biodiesel might fit into the city's fueling systems.

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Sevierville Alt-fuel Mass Transit Hits the Streets

After working on creating a mass transit system for about five years, it's finally come to fruition. And it just happens to be 100 percent alternative fuel!

"Being involved in the Clean Fuels Coalition for a couple of years now it just didn't seem right to *not* have our new vehicles run on alternative fuels," says City of Sevierville Director of Public Works Bryon Fortner. "The dedicated propane trolleys were a little more expensive, but the hybrid-electric trolleys were very expensive. It took a couple of years to put together the resources to make this happen."

They have four new dedicated propane trolleys and four new hybrid-electric, propane-fueled trolleys. The dedicated propane trolleys use spark-ignition, internal combustion engines to propel them while the hybrid-electrics are all electric drive. They plug-in during non-use periods and utilize a propane-fire microturbine to charge the batteries while in service.

Being new to the mass transit business, Sevierville is having Pigeon Forge operate its system. Pigeon Forge has operated a trolley system of fourteen



From left to right, new dedicated propane and hybrid-electric trolleys await graphics before they go into service.

vehicles for about 10 years.

Sevierville's alt-fuel fleet doesn't stop with propane, though. They have been operating two compressed natural gas vehicles for about a year and all their diesel vehicles currently run on B5. They plan to move B20 in the near future when they complete a new refueling center that has been in the works for a couple of years as well.



Join the ETCFC

The ETCFC works hard to simultaneously reduce foreign oil dependence and improve regional air quality by putting alternative fuels to use in the transportation sector.

This work is vital to our country as there will be a world oil peak in the comming century, perhaps within the decade, and renewable-sourced hydrogen as oil's replacement is no where near ready for prime time. Additionally, this work is vital to Tennessee, as our air quality problems are serious and we have to start creating more local action to make a difference.

And we can.

If you'd like to get involved, come to one of our monthly meetings and hear straight from the users' themselves how local fleets and individuals are making the switch. Go to our Web site, www.etcfc.org to see when and where monthly meetings are held.

Also, consider supporting our effort by becoming a member! Membership has many benefits, and includes receiving the ETCFC newsletter, Clean Fuels Advisor, free! More membership information can be found on our Web site as well.

PARTNERSHIP LEVELS (annual dues)

 Founding Partner
 \$4,000

 Platinum Partner
 \$2,000

 Gold Partner
 \$1,000

 Silver Partner
 \$500

 Associate Partner
 \$20

 Supporting Partner
 \$25

The Supporting Partnership level is reserved for nonprofits and individuals.

Knox Regional TPO Helps ETCFC with Grant

In its first opportunity to apply for a CMAQ (Congestion Mitigation and Air Quality) grant, the ETCFC was successful. That happened with the help of Knoxville's Regional Transportation Planning Organization (TPO).

Both Mike Conger and Jeff Welch of the TPO took an interest in our meetings a couple of years ago,

attending several to learn about our activities. When it came time to apply for a CMAQ grant, it would hopefully help that they knew something about our effort and how we were achieving success.

Of course, the grant had to stand on its own. We presented information on expanding biodiesel's use in the Knox county area and how that could have an impact on reducing NOx emissions (based on using a low-NOx additive in a biodiesel blend).

Information that the ETCFC has gathered shows that in some regions, CMAQ funding is used for alt

fuels while in others it is not. It had not been in this area (except for an IdleAire proposal).

"There haven't been many alternative fuel proposals around here over the years. But based on the proposal, and seeing what the ETCFC was doing, indicated to us that there was certainly a chance for action, so we decided to support it for one year," says

TPO Director Jeff Welch.

Jonathan Overly of the ETCFC says, "I know some (Clean Cities) coordinators who's regional CMAQ funds appropriators don't accept alt fuels proposals, for whatever reason, so our TPO is giving us an opportunity that we need to take advantage

of. We have worked hard and will be showing information on our emissions'-reducing actions soon."

The ETCFC won a one-year \$60,000 grant for 2004-2005, with the opportunity to re-apply for the same amount if success can be shown from the first year (and other proposals showing greater reductions don't beat us out!).

Benton Oil Markets Biodiesel

In looking to expand biodiesel use in the area, Benton Oil has begun includling information on biodiesel in the customer information they send out. To paraphrase, some of that information says "biodiesel can save you money."

"Some days, I'm getting so many calls that I'm having to slow folks down and say 'I want to make sure you know what you are dealing with here'," say Ross Benton, president of the company. "In making sure they have all the necessary information to make a solid decision, that's slowing some down, but I'm also finding that some have done their homework.

Some know more about this stuff than I do," says Benton.

Don't let him fool you. He's ramped up quickly in learning about biodiesel's pros and cons. Benton adds, "you've got to inform them about the potential filter and wintertime use issues when you tell them all the good reasons to use it, so I'm having to spend quite a bit more time on the phone lately."

Due to a fax he sent out one day during the week of 3/7/05, he sold 22,000 gallons of biodiesel blends (mostly B20 and some B5) that day.

East Tennessee Clean Fuels Coalition

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Partners' Spring Update

Benton Oil & McNutt Oil - Both of these regional public B20 station operators have been offering B20 at less than pure petro-diesel prices. As prices have been going up for both fuels, as of the fourth week in March, B20 was still less than #2 diesel. Want to help your community and the U.S., all at the same time? Buy biodiesel right now!

University of Tennessee - UTK has now had a backhoe running B20 for about three months, and recently added an on-road truck to their B20 fleet. If all goes well, they could have all their diesel vehicles running B20 in the future.

Advanced Catalyst Systems LLC - They recently joined the coalition and have some great ideas for ways to put renewables into action in everyday automobiles. Attend one of our Knoxville meetings to meet them and hear more about their exciting possibilities!

Alcoa, Inc. - Having started on B20 last fall, Alcoa was surprised to begin having some trouble once harsh wintertime came. Some 2-micron fuel filters were noticing gelling and that briefly stopped their biodiesel program. They feel like they have the problem solved now and plan to start back in early April!

Pioneer Oil - Having followed ETCFC activity for about the past year and a half, Jerry Isaacs of Pioneer decided it was time to get involved. They are in the middle of placing a 10,000 gallon underground tank to store B100 at their Morristown location and expect to be able to start supplying biodiesel blends to regional customers in mid-April. Contact Isaacs at 800-289-7090. They are located in Hamblen county.

Tri-Cities Petroleum - As Eastman's fuel supplier, Tri-Cities is now ready to supply biodiesel blends to regional fleets in and around the northeastern Tennessee area. They have placed a 10,000 gal-Ion underground tank for BI00 storage and are already talking to several area customers about supplying blends. They are also planning to open a public B20 station at their Weber City, VA store.

Athens Utility Board - The first biodiesel user in McMinn county is on-board! AUB took delivery of their first load of B5 the week of March 14, and will be working with the City of Athens and some other users in the county to fire-up biodiesel consumption in their area. Bo Perkinson has been a huge help in connecting the ETCFC to potential users in McMinn county. Go Bo!



ETCFC 2005 Partners

Founding Partners University of Tenn., Knoxville Oak Ridge National Laboratory Sevier Transportation Board

> Platinum Partners Knoxville Utilities Board Eastman

Gold Partners Tennessee Valley Authority Dream Works Printing Tennessee Koyo Steering Systems Co. Knoxville Area Transit

Silver Partners

- Benton Oil
- Alcoa, Inc.
- Knox County
- WBIR-TV Ch.10
- Metro Pulse
- 100.3 The River
- Friends of the Smokies
- Hallsdale-Powell Utility District
- St. Mary's Health System