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.

Panther Creek First State Park to Use Biodiesel

After doing his homework to find out how Panther Creek State Park could buy biodiesel, John LeCroy found success by taking their first load of B20 on May 23, 2005 from the Sevier Farmers Co-op.

Panther Creek is a 1,435-acre state park in the Morristown area located on the shores of the Cherokee Reservoir

LeCroy, manager at the park since 2003, found the connection he needed when the East Tennessee Clean Fuels Coalition (ETCFC) presented on alternative fuels at a state parks workshop in 2004. The ETCFC provided a list of regional suppliers, and LeCroy and his staff took care of the rest.

We're excited to be using an alternative fuel because of the environmental benefits," says LeCroy. "Ever since I started here, we've had goals of becoming a green park and being good stewards of our natural resources." Other actions they've taken include putting timers on public bathrooms so lights don't stay on when not in use."There's just a lot of little things we can do that make a difference," notes LeCroy.

As the first state park in Tennessee to begin using biodiesel, LeCroy hopes to be an example to other parks. He even hopes to go beyond B20 in their vehicles!

The park operates five diesel vehicles currently, and LeCroy hopes to add another when they look to purchase another work truck soon. The current diesel vehicles include two mowers, a Bobcat, a farm tractor and a dump truck. The ETCFC will work with LeCroy to make sure they don't have any problems if they decide to go to a higher biodiesel blend.



Top: Park Manager John LeCroy stands behind a Grass-hopper mower that now runs on B20. Bottom: Rickie Cline stands in front of a tractor that runs on B20.

State parks across Tennessee have more than 330 diesel vehicles, so an opportunity does exist to foster greater usage of biodiesel by Tennessee state parks with Panther Creek's leadership.

Congratulations John LeCroy and Panther Creek!

ET Adds 9 Public Biodiesel Stations in 4 Months

The first six months of 2005 have seen an explosion of public biodiesel stations in East Tennessee that vary from B5 to B100.

With B20, six public stations have been added. Two

of them are a Regal Fuels location in Knoxville and a Tri-Cities Petroleum's station in Weber City, VA (about three minutes outside of Kingsport on the north side). The other four are all owned by Robinson Enterprises who serve the McMinn, Monroe, Meigs Counties area. The stations are all in McMinn

County in Athens, Etowah, Englewood and Calhoun. They have simply changed their main diesel tank to holding B20.

The two B5 locations are Athens and Rogersville. Sweetwater Valley Oil opened a B5 pump at their BP on the eastern side of Athens while the Hawkins Farmers Coop moved all of their on-road and off-road diesel to B5 in Rogersville, the county seat of Hawkins County.

The only place where you can get B100 in East

 Public B20 station Public B5 station Public B100 station

main office and cardlock facility, which opened in April and has 24-hour access. Although not a purely public station, any organization can become a cardlock member at no cost and access the pump. The BI00 pump is right next to an on-road diesel pump so users can easily "splash

Tennessee is McNutt Oil's

blend" any mix, or fill-up with B100. It is an easy way to be comfortable starting your own biodisel usage.

Information on all 15 of East Tennessee's public biodiesel stations can be found on the ETCFC Web site <www.etcfc.org> on the "Refueling Locations" page.

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American Fuels Checklist:

Become a partner with the ETCFC; support our efforts!

Help the ETCFC through a donation! (See p. 3 for more info!)



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



ET Clean Fuels Advisor



Hawkins Co-op Joins Sevier in Offering B5



At right: Tom Henard (left) of the Hawkins Co-op and Chili Sanders of the Hawkins County EMS stand by one of the Co-op's trucks running on B5. Above: Sanders and other EMS workers stand in front of two of their nine vehicles running B5.



switching to a biodiesel blend, like B5 (5% biodiesel).

In April, after speaking with several regional folks about it, he did it, but took his program another step: he made his off-road diesel B5, too! Now all they offer is B5, whether for on-road or off-road. (They offer them for purchase at the co-op or for delivery to regional customers.)

"From everything I've learned about biodiesel, it seems like their are big benefits without much risk for a B5 blend," says Henard. "Perhaps most importantly, this community gets to start doing more for our foreign oil problems."

Tom Henard, manager of the Hawkins Farmers Co-op, had been reading about biodiesel and mulling Chili Sanders, the local EMS captain, agrees. "We supported Tom in the move and have had no problems thus far," notes Sanders. "But even with the B5, we can smell a difference... it's just not as strong as the regular diesel smell." The EMS is running seven ambulances and two crash trucks on B5.

The co-op is helping the ETCFC lead the battle for bringing biodiesel to Hawkins County, but they have some local help in the fight. County Executive Crockett Lee and County Commissioner Mike Messick are interested in assisting in getting other fleets trying biodiesel blends, with the county school buses and highway department and city of Rogersville as potential users.

Hawkins County is not currently nonattainment for any pollutants. But it doesn't hurt to be working on what is really a regional problem as the EPA is already looking at creating stiffer particulate matter health-based standards due to impacts they are learning are connected to fine particulates.

The co-op has 1,300 members and is in Rogersville (just off of Highway11W) at 240 Burem Pike.



An example of the signage that Pilot placed on local pumps that are offering the ethanol blend.



Barry Greenberg, Dan Pursglove and Mike Whedbee, long-time members of the ETCFC and volunteers for the Run, take a moment to catch-up on each other's alt fuel activities.

Pilot Begins Offering E-10 in Knoxville

With a history of working to put ethanol into use in the East Tennessee community, Pilot Corporation recently began offering E-10 at 34 of its Knoxville area locations.

Yes I said 34!!

Alan Wright, Pilot's vice president of supply and distribution, says "multiple issues coming together really helped us

make the decision to begin offering this blend to the Knoxville community. Ethanol's growing popularity and reduced cost made it possible for us to make the E-10 blend and not need to increase the cost of the fuel to our customers."

With foreign oil dependence at an all-time high, their decision couldn't have come at a better time! Ethanol is a renewable fuel that has more oxygen and a higher octane rating which results in a cleaner burn.

Most ethanol is currently made from corn in a wet milling process although research continues into ways to use other cellulosic (plant-based) materials, non-food resources, to produce ethanol. Pilot's ethanol comes from Tate & Lyle North America plant located in Loudon County.

Pilot is looking at possibly opening an E-85 station in Knoxville in the future. You can find the locations of the E-10 stores on the ETCFC Web site <www.ETCFC.org>.

If you want more information on ethanol, visit the National Ethanol Vehicle Coalition's Web site at <www.E85fuel.com>.You'll find a FAQ, info on handling and use of ethanol blends, listing of refueling locations, info on funding opportunities, and much more.

2005 Run for Clean Air Kicks It Up a Notch

With a total of around 230 participating, the 2005 Run was another successful ETCFC event... especially with the new additions for 2005.

Most significantly, the Run added a "Clean Air Q&A" that brought more information to those in at-

tendance about regional air quality issues, in addition to prizes!

Another addition this year was two masseuses and their massage tables. That was popular!

The same course was used that was used in 2004 (along beautiful Cherokee

Boulevard in Sequoyah Hills) and Mother Nature did her part providing a great day with partly cloudy



weather and comfortable temperatures in the 60's and 70's.

Race director Ted Buel did a great job keeping everything organized, including the volunteers. On the order of 30 volunteers helped out that day,

including ten from the local Americorps office. Thanks John Harris!

Certainly last but not least, the event raised roughly \$3,000 for the coalition. As we work to further diversify ETCFC funding, it is efforts just like this that

combine educational opportunities with fundraising that will help us succeed.

2005 Southeast Biofuels Workshop Creates Excitement

The Southeast Alternative Fuels Task Force (SEAFTF) hosted their second regional workshop to advance cleaner fuels on Monday and Tuesday, June 6 and 7, 2005. The 2005 Southeast Regional Biofuels Workshop took place in Gatlinburg at the Park Vista Hotel.

"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 (the four states that make up the task force). Specifically, the goals reach for three new public stations for each fuel by the end of 2005, and 12 new stations by the end of 2010. If all goes well, they'll probably go well beyond these numbers, due to general interest from fuel suppliers and the general public and continued or increasing federal fiscal support for both fuels.

"To a large degree, it's all about partnering," says Jonathan Overly, co-chair of the task force's infrastructure committee. "This kind of ac-

tion doesn't typically take place unless fuel marketers become partners, so a primary objective for us right now is increasing the number of fuel marketers and distributors



we interact with. And that was a major part of the conference... we need to expand our connections to convenience store owners and other fuel distributors and marketers."

The workshop drew over 200 people with many of those being fuel suppliers. Comments seen thus far were very positive with folks noting that the sessions provided good insights, there were many good questions and presenters *and* attendees could address those fuel issues.

Workshop follow-up information is being posted to the SEAFTF's Web site as well as most of the presentations that were shown.Visit <www. sealtfuels.org> and the "2005 workshop" page to find that information and pictures from the event.

Upward Bound -ETCFC Goals

In the last year and half, the ETCFC has seen some good progress on the biodiesel front, with a few examples of small progress on other alternative fuels. The main reason for that is because biodiesel is the low-hanging fruit by which we are getting the message out to East Tennesseans that action for our regional air quality and our country's energy dependence are needed at the local level. We shouldn't wait for the federal government to show us the way when we can take action ourselves

when it is clear it's needed.

This progress with biodiesel has brought some goals out that are quite doable *if the entire coalition works together*. Here are a couple of examples: 1. <u>1,000,000 gallons of B100 consumed in East</u> <u>Tennessee (ET) in 2005</u>,

2. <u>Have biodiesel in use by at least one entity in</u> every county in ET (33) by the end of 2006.

Addressing number one, let's first look backward. Collectively, we took biodiesel consumption in ET from 0 gallons to about 90,000 gallons in 2004. A very large chunk of that was Knoxville Area Transit, but look at what has happened so far in 2005 (in addition to Alcoa fueling 550 vehicles with B20): Eastman, two farmers co-ops, and two cities have moved to bioblends in all their equipment. For Eastman, that's around 350 pieces of total equipment; for one co-op (Sevier) that's on the order of 1,500-3,000 customers; and one of those cities has 385 (now bio-)diesel pieces of equipment (Chattanooga). And that doesn't count the fifteen public refueling stations we have for biodiesel.

Thus, it is still going to take some hard work, but goal number 1 is possible.

For goal number 2, it also helps to look at 2005's progress thus far. At the end of 2004, our records show that we knew of nine counties that had at least one entity in it that was using biodiesel. As of June 2005, we've added seven more, and there is already planning in-place that should add another 5-7 counties before the end of '05. Thus '04 took us to nine and '05 should take us to around 22. With a

team as strong as ours, reaching the remaining 11 in 2006 really shouldn't be that difficult, if we help one another.

It should be emphisized here that *this is the easy part* (remember... I said "low-hanging fruit"). Our work will get tougher as we move our focus to other fuels, vehicles and technologies. Resolve and teamwork will be necessary if we are to continue growing our effort.

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 1) 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.



Jonathan Overly's

2005 Clean Cities Conference Discusses Changing AF Landscape

The 2005 Clean Cities conference took the changing AFV world and met it head-on with new opportunities and information.

AFV options are morphing as more original equipment manufacturer (OEM) E-85 models are coming out and fewer OEM propane and natural gas models are available. One thing that was prevalent at the conference was aftermarket converters--companies that take vehicles and install propane and natural gas fuel systems into vehicles after purchase. One example was a propane conversion system for the new Chrysler 300 (shown at top right).

That also included companies that can turn a non-plug-in type hybrid into the plug-in type. One

Alt Fuel News & Notes

CORTESE TREE SPECIALISTS, INC. - Located in downtown Knoxville and operating six diesel vehicles, Sam Adams and company at Cortese Tree is pleased now that there is a downtown Knoxville public biodiesel station. They are fueling one vehicle



Cortese Tree Specialists' Sam Adams stands next to one of their diesel vehicles that is refueling at the downtown Knoxville B20 station on Proctor Street.

example was Edrive's conversion of a Prius, which could then operate in pure electric mode below 33 mph (they boasted 125+ mpg performance, but that didn't include the electricity in the formula).

Additionally, biodiesel and hydrogen were hot topics. Biodiesel is growing in many parts of the country and so discussion was all over the place on biodiesel (e.g., warranties, supply, product consistency). Hydrogen was discussed frequently as more work has gone into designing the hydrogen highway across California and Ford has come out with an internal combustion engine (ICE) H2-powered V10 shuttle (shown 2nd at right). As fuel prices continue to drive change, don't miss the bottom photo!

right now with B20 from the Regal Fuels cardlock, but expect to have all their vehicles on B20 by Fall.

MEIGS COUNTY GETTING BIODIESEL

PROGRAM STARTED - Meigs County Mayor Ken Jones sat in on a recent McMinn County meeting to discuss biodiesel and left word with the ETCFC that he wanted to talk. Soon thereafter, we connected and made a plan for getting their highway department on biodiesel. Highway department Superintendant Tim Jennings has already received their first load of B5 and will continue to monitor employee comments.

STATE CO-OP OFFICES MAY BRING BROADER SUPPORT FOR BIODIESEL - The state offices for the Tennessee farmers co-ops is

interested in helping the co-ops learn about the opportunity of biodiesel. Jim Wilson, fuel supply manager for the co-ops attended the recent biofuels workshop and wants to help pass along information. Expect more co-op action before the end of 2005.

TDEC & TDOT Move to Biofuels Action

Go

Two Tennessee departments have started actions supporting alternative fuels: environment and conservation (TDEC) and transportation (TDOT).

Working together, they began supporting the creation of the Southeast Alternative Fuels Task Force

(SEAFTF) over two years ago. The task force just finished hosting a 4-state workshop that realized an attendance

that overshot expectations and great interaction in the sessions and breakout meetings.

TDEC & TDOT were driving forces in making the event a success. TDEC staff Marc Corrigan, Emeline Johnston and intern Michael Adaikpoh, and TDOT employees Alan Jones and Linda Tidwell all contributed to workshop planning activities including helping bring in sponsors and speakers.

TDOT is considering options for using biodie-

sel in state diesel vehicles, and flex-fuel vehicles can already refuel at an E-85 location in Nashville.

Tidwell sees great potential for increasing the availability of biofuels across the state over the next year. Making biofuels publicly available is an essential



step in increasing their future use, Tidwell says. The Tennessee General Assembly passed a bill this year that authorizes TDOT

to assist retail fuel stations in air quality nonattainment areas to convert or install storage tanks and fuel pumps for either biodiesel or E-85.

These two departments join the state energy office (in the Dept. of Econ. and Comm. Dev.) which has fiscally supported two clean cities coalitions over the past few years and is soon putting out grants for county school districts to help pay the infrastructure costs of shifting to biodiesel use in school buses.









Palm Springs images (top-to-bottom): - 2005 bi-fuel (LPG) Chrysler 300

- Ford's new H2-V10 (ICE) shuttle
- Prius converted to be plug-in electric
- H2-powered fuel cell auxillary power unit
- (APU) on a class 8 (heavy duty) truck

- Gasoline prices in Palm Springs on May 5, 2005. Yes, that says \$2.65 to \$2.85 per gallon!



Summer 2005

Chattanoogans Jump On-board with Biodiesel

In the last four months, Ross Benton and Benton Oil have uncovered several new customers in the Hamilton County area.

The city of Chattanooga is running B10 in 385 diesel vehicles after starting on B5 in April. Cleveland is running B5 in their 50 diesel vehicles when they can get the price right. Both fleets have emergency service vehicles and fire trucks on the blend.

Recently, the Hamilton County Highway Department began using B5 in four of their 45 diesel vehicles and is planning a move to more vehicles. Harold Austin and Ken Blankenship oversee the program there and have not heard of any problems in the two months of biodiesel usage.

Crabtree Farms, a community farming operation located in central Chattanooga has begun using B50 in their two tractors and van and plans to move to a higher blend this summer. Dinson Lee of Crabtree notes, "it has been a smooth transition so far. We are really looking forward to getting on higher blends."

Another group with buses (in addition to the Staffords that operate eight school buses on B20 for Hamilton County), McCallie School has begun using B20 in their 13 pieces of equipment (mostly buses)



Crabtree Farms Kubota tractor that is running on B50.

and is open to moving to a higher blend.

Southern Champion Tray, a manufacturer of a variety of types of paperboard packaging, started on B5 and has since moved to B10. Company Trucking Department Manager Paul Kimble says, "We've been real pleased to find a local supplier that we've had a previous relationship with. We're proud to be a leader in the Chattanooga area by using biodiesel."

Next on the slate are CARTA and EPB, two significant quantity diesel users in the area that could contribute to emissions' reductions for the county.

North Carolina Looks at Alt Fuel Support Bills

Through discussions in the Southeast Alt Fuels Task Force, the ETCFC has learned that Anne Tazewell of the North Carolina Solar Center, working with the Trianlge Clean Cities Coalition, wrote several bill summaries that would support developing alt fuel and hybrid legislation for the state goverment.

Tazewell previously worked with the Triangle Clean Cities Coalition in Raleigh, where she worked before joining the Solar Center at NC State to run an alternative fuels' action group.

The six bills support the following:

• establishing variable motor vehicle registration fees based on vehicles' pollution and fuel economy scores to generate funds for alternative fuel projects and advanced transportation technologies • allowing the state energy office to sell excess Energy Policy Act (EPAct) credits to generate funds for state alternative fuel use

 \bullet $% \left(setting renewable fuel and hybrid use standards for the state <math display="inline">\right)$

• eliminating state motor fuel taxes on biodiesel and ethanol

• establishing a \$2,000 tax credit for alternative fuel vehicles and hybrid-electric vehicles

• banning MTBE and encouraging neighboring states to follow suit

All of the bills have been introduced by legislators and await committee review. More information can be found by contacting the ETCFC.

Blount County Biodiesel Usage Grows

Blount Countians are stepping to the plate to do their part to put biodiesel in use.

Recently, Spectra Environmental, a company that

operates a county recycling facility and provides disposal services for regional solvent users, moved their six heavy-duty diesel trucks to B20.

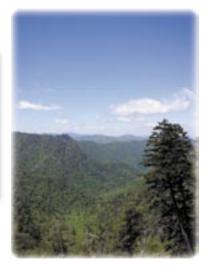
Steve Dixon, President of Spectra, says, "we've been wanting to do this for some time now and local availability of biodiesel made

it possible for us to get started. We'll place our own tank onsite at our facility eventually and probably go to a blend above B20. We are also experimenting with using biodiesel as a solvent." In addition, the Blounty County Highway Department is moving from using B20 in two trucks to another 12 trucks this summer.

Bill Dunlap, superintendent of the highway

department, noted that their year-long trial has revealed few problems, limited to one gelling episode. However, he expects that's an easily solvable problem, and is considering moving some off-road equipment to B20.

The City of Maryville continues to look at adding vehicles to their B20 fleet and county officials are helping to connect to the school bus drivers to see about their refueling at local public B20 stations.



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, <u>www.etcfc.org</u> 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	-	\$200
Supporting Partner	-	\$25

The Supporting Partnership level is reserved for nonprofits and individuals.

Blount

East Tennessee Clean Fuels Coalition

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Be part of the solution, not the pollution.

Partners' Summer Update

Benton Oil - Although they opened their only public B20 station in December '04, Benton has already seen consumption at that pump on certain days near the 1,000 gallon per day mark. Ross Benton says that it is due to a couple of things, including the price (same as diesel), word-ofmouth, and visibility (biodiesel pump right next to the diesel pump).

University of Tennessee - The team of the Mechanical and Civil+Environmental Engineering departments' biodiesel production and research system is currently slated to be built, not purchased. Team members met with advisor Blue Sky Biodiesel in early June to discuss materials' issues and other facets of biodiesel production. The team will be meeting more throughout the summer to nail down other parts of how the collaborative project will work. The hope is that the team will begin putting the system together by mid-summer and begin producing product and performing testing by fall 2005.

<u>Claiborne County's Jacob Davis goes to B100</u> -After learning about biodiesel and trying B20 in his four tractors and two trucks, Davis decided it was time to try a higher blend, so he tried B100. He been running B100 in his equipment for about four weeks and is getting excellent results thus far. <u>Great Smoky Mountains National Park</u> - Thanks to Ernie Oaks of DOE's Green Energy Parks Program and the good heartedness of Toyota, the Smokies have received a gift of four 2005 Toyota Prius'. The Green Energy Parks Program works to obtain vehicles or funding for vehicles that use alt fuels. The Prius'have been emblazened with some beautiful graphics to allow them to be rolling billboards for the Park, and are expected to be in use there by late Summer.

Sevier Farmers Co-op - Jeff Ailey, Fuel Manager at the Co-op, says that about once a day he gets a comment from one of their B5 users... and about 99% of those comments are positive. Many speak about fuel economy and mention their vehicles are showing an improvement. Dump trucks have mentioned 3-5 mpg improvement while smaller vehicles have noted 5-8 mpg. More pulling power and acceleration are also being noticed.

<u>Coffman Oil and Kelso Oil</u> - Through a joint meeting in mid-June, both these oil companies are learning about biodiesel. Some customers of each have brought up biodiesel and thus they are becoming interested in it. Coffman has public stations and delivers direct to customers while Kelso primarily provides direct-to-customer service.



ETCFC 2005 Partners

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

> Platinum Partners Knoxville Utilities Board Eastman

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

<u>Take Action Today</u>! See p. 5 on how you can become a partner in fighting foreign oil dependence.