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Transforming an Industry

Educational, research and marketing initiatives in the Bioheat world plow ahead with a real sense of urgency

by Erin Voegelé

The past year has proven to be both challenging and successful for the Bioheat sector. While economic conditions and the expiration of the biodiesel tax credit have worked against growth in the industry, new mandates, increased public perception and new marketing initiatives have continued to edge the industry forward. As we move into the New Year, those involved in the industry are regrouping, planning new initiatives and projects expected to enable further growth in the utilization of Bioheat.

The National Biodiesel Board and National Oilheat Research Alliance have teamed up with the goal of establishing a new ASTM standard for higher blends of Bioheat. The initiative includes two extensive studies designed to prove the safety and effectiveness of heating oil blends containing up to 20 percent biodiesel.

The NBB was the catalyst for the studies, says NBB Petroleum Liaison Paul Nazzaro. "Steve Howell, the technical director of NBB, and I brought NORA leadership and their technical people together to determine what additional investigations would be required for us to get a higher blend of biodiesel approved for use in home heating oil," Nazzaro says. "Right now, under ASTM 396—which is the heating oil spec—we have approval to use up to 5 percent. The purpose of this new testing is to determine if we can move into a 10, 15 or 20 percent blend, and what harm—if any—would be done to legacy systems. The whole purpose of this round of testing is to get approval for higher blends, up to 20 percent, in 396 heating oil."

NBB has taken on a leadership role in the project, which includes making sure the entire team is on track and getting the necessary funding into place. Work on the project began in early 2010. To date, this has included preliminary discussions, the formation of a task force, known as the Bioheat Technical Steering Committee, and a peer review of project plans.

One of the studies will focus on the field experiences of dealers who have been supplying higher Bioheat blends to customers, says NORA President John Huber, noting that work on that project should be complete by next summer. The other will focus on studying the effects of biodiesel-blended ultra-low sulfur fuel oil on equipment. "This study is a more rigorous scientific study," Huber says. "We're looking at pumps, which are the main movable part in the oil heating system. We're running those in an effort to mimic a five-year cycle." The second study, which is being completed at Pennsylvania State University, is expected to be complete in late 2011 or early 2012.

It is important to note that these tests have no impact on the current ability to sell Bioheat today, Nazzaro says. "Bioheat is fit for use up to 5 percent under ASTM 396. This is just behind-the-scenes work with NORA to get a higher blend for long-term utilization."

Rebranding an Industry

According to Nazzaro, a lot of the push for higher blends of Bioheat is coming directly from the oilheat sector, which is unique when compared to the transportation fuel industry. "They know for their industry to continue to move on, they have to change their whole operating system to Bioheat because they face fierce competition from natural gas," he continues.

It has been proven that when ultra-low sulfur heating oil is blended with approximately 12 percent biodiesel, the fuel competes on an environmental basis with natural gas. "That's huge—and part and parcel the driving reason why we are pursuing higher blends," Nazzaro says.

"We as a petroleum product get beat up by politicians, get beat up by the environmentalists, just regularly get beat up," Huber says. "The Bioheat product allows us to make a lot of those problems disappear," and sometimes even lean in our direction, he adds.

From the standpoint of heating oil dealers, the two primary attributes of Bioheat are that it's a renewable fuel that has a reduced carbon footprint, and it's a domestic fuel. "When we put those two things together, the industry feels that this will allow us to become a strongly marketed fuel again, and move us away from the traditional oil product into a new renewable, green fuel," Huber says.

Matt Cota, executive director of the Vermont Fuel Dealers Association, agrees that competition with natural gas is a

primary driver of interest in Bioheat. "If the agreement is that we want a renewable fuel, we'll win that argument against natural gas. If we want to reduce carbon, we're a better fuel than natural gas when we are blended with biodiesel. From a regulatory standpoint, from an environmental standpoint, biodiesel-blended heating oil is better on many levels than natural gas."

"Natural gas is not renewable," says Michael Cooper, vice president and director of sales and trading at Ultra Green Energy Services LLC. "That's the bottom line." When the Bioheat blend approaches 11 or 12 percent, you have an edge over natural gas when it comes to emissions, he says, and when you move to B20, you are beating them by a significant margin.

For these reasons, the oilheat industry is moving in the direction of rebranding itself as the Bioheat industry. "Bioheat is eventually just going to be our heating oil product," Cooper says. "That's a great thing. It's huge, but it doesn't maximize the opportunity" if only B5 is being sold. The real opportunity, Cooper says, is selling higher blends that compete with natural gas.

While the heating oil industry is moving towards Bioheat, Cooper also notes that it is necessary for those on the biodiesel side of the equation to understand that oilheat suppliers have very intimate relationships with their customers, and need to be absolutely certain that the fuel works as promised before they are willing to supply it. "Heating oil is an old-fashioned business," he continues. "We have to fit into their paradigm, their speak, and their emotional connection to their customers." Cooper says oilheat is the only industry he knows where dealers have keys to their customers' homes, which speaks to the intimate relationship an oilheat dealer has with its customers. Huber notes that sometimes these relationships are multigenerational, so they need to be certain their customers won't be adversely affected by a new, or unfamiliar, product. But as the use of Bioheat builds a stronger, more extensive history, dealers, and their customers, will steadily gain more faith in the product.

"It's definitely an evolution here," says Michael Ferrante, president of the Massachusetts Oilheat Council. "That's how I would describe this whole process of transforming the oilheat industry into a Bioheat industry." The industry is really working together to make that happen. "Many of us believe we should change the name of our fuel," he says.

Education and Marketing

To help expedite the acceptance and use of Bioheat, Nazzaro says that the NBB will be stepping up marketing and education initiatives this year. Those efforts will be much more targeted than they were in the past, however. "Funding that is coming in right now is being used to invest in Bioheat and people who are really selling Bioheat, not just dreaming of selling it," Nazzaro says. "We have to do that because resources are precious" and they ought not to be wasted.

"All consumer outreach moving forward will be developed and invested in areas where biodiesel is actually at the terminal and can be delivered," Nazzaro continues. "I will not allow any of the funding to be deployed in areas where there is no Bioheat distribution. We are going out with a rifle and a scope versus going out with a cannon. I cannot reemphasize this enough—we are interested in helping fuel dealers that are already doing their best to get the product mainstreamed."

In addition to creating new direct marketing materials for potential Bioheat customers, the NBB will also be conducting two focus groups of current oilheat users. The purpose of the focus groups will be to really drill down what their expectations and understandings of Bioheat are. "We really want to, at this stage, take a snapshot of what they are thinking now," Nazzaro says. "Once I get that material collated, it will be the premise for continuing to utilize the materials that we have, or modify them for the future."

The NBB is also reaching out to energy executives in the Northeast for train-the-trainer educational initiatives. The organization has also been approached by several states seeking to market Bioheat to their citizens. According to Ferrante, the Bioheat educational initiatives he is pursuing in his state took a real hit when the Massachusetts biodiesel mandate was suspended last year. "That really took some of the wind out of our educational initiatives, but we're continuing to do as much as we can in the area of education," he said.

Making Economics Work

"Biodiesel really had a steam going at the end of 2009, and some of that has dropped off with the loss of the tax credit," says Cota, noting that approximately 10 percent of the Vermont Fuel Dealers Association's members are currently supplying a Bioheat product. "There were some dealers that were selling it exclusively, but as the tax credit has [expired], they've offered conventional heating oil as well. They believe in the product, but at the end of day they've got to make sure they stay in business."

While Ferrante notes there is a slight price premium for Bioheat in the current market, he adds that it shouldn't be an impediment to its use. "No matter what the price is, we have to do it," he says. "That's my view, and I think a lot of us feel that there is a price to pay for reducing petroleum use and making heating oil a cleaner, renewable fuel."

The biodiesel tax credit is important, Cooper says—but market stability is even more important in the eyes of wholesalers. Whenever the biodiesel tax credit moved towards reinstatement this past year, many producers put their sales and operations on hold in hopes the credit would come through. However, that metric doesn't work for wholesalers. Dealers need to know the fuel will be available for purchase when they need it, Cooper says.

The expiration of the tax credit has had an impact, but Nazzaro points out that the requirements of the RFS2 and higher renewable identification number prices are offsetting at least a portion of that impact. We need to keep the wheels of progress turning, he says, and if the tax credit isn't reinstated, we still have to trudge forward without it.

Although those already selling Bioheat are sticking with it, Nazzaro notes that those who haven't adopted it are in a holding pattern. "It's not just because of the tax incentive, by the way," he says. "NORA has not been reauthorized [by Congress]. So, the oilheat industry is concerned that its own leadership group has a short shelf life. If they don't get reauthorization, there'll be no funding to come into NORA to help promote the best interests of oilheat. We are in a very, very unsettled time on both the biodiesel and heating oil sides of the fence."

"We know that we have the infrastructure to deliver Bioheat; we know that we can easily create the infrastructure to produce biodiesel; we know that we have the consumers that can burn Bioheat; we've just got to tie it all together in a cost-effective way," Cota says. "At the end of the day, consumers want to find the least-cost way to heat their homes. If that way is renewable and green, then we've got a win-win. We know it can happen, we're just working on ways to make it price competitive."

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