

PA10-074

SB382

Environment	1501-1508, 1533-1535, 1543-1557, 1566-1574, 1586-1588, 1611-1618, 1634-1640, 1653-1655, 1679-1683, 1703-1709, 1710, 1712-1716, 1745-1800	130
House	5217-5222	6
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**CONNECTICUT
GENERAL ASSEMBLY
HOUSE**

**PROCEEDINGS
2010**

**VOL.53
PART 16
4949 – 5314**

rgd/md/gbr
HOUSE OF REPRESENTATIVES

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REP. OLSON (46th):

Thank you, Mr. Speaker.

Mr. Speaker, I move for the immediate transmittal of all items acted upon which required further action of the Senate.

Thank you, Mr. Speaker.

DEPUTY SPEAKER ALTOBELLO:

Question is immediate transmittal to the Senate.

Seeing no objection, so ordered.

Representative Olson.

REP. OLSON (46th):

Thank you, Mr. Speaker.

I move for the suspension of the rules for the immediate consideration of House Calendar Number 512.

DEPUTY SPEAKER ALTOBELLO:

Question for the Chamber is suspension of the rules to -- for the immediate consideration of Calendar Number 512.

Is there any objection?

So ordered.

Let the Clerk please call Calendar 512.

THE CLERK:

On page 29, Calendar 512, substitute for Senate Bill Number 382, AN ACT REQUIRING BIODIESEL BLENDED

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HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE, favorable report of the Committee on Appropriations.

DEPUTY SPEAKER ALTOBELLO:

Representative Hurlburt, of the 53rd, you have the floor, sir.

REP. HURLBURT (53rd):

Thank you, very much, Mr. Speaker.

Mr. Speaker, I move for acceptance of the joint favorable committee's report and passage of the bill.

DEPUTY SPEAKER ALTOBELLO:

Question for the Chamber is acceptance of the joint committee's favorable report and passage of the bill, in concurrence with the Senate, I believe.

Please proceed, sir.

REP. HURLBURT (53rd):

Thank you, very much, Mr. Speaker.

Mr. Speaker, the proposal before us will further our efforts and with our biofusul -- I'm sorry -- biodiesel and bioheat efforts that we've taken so far in the past few years and it will create a safe -- safer and healthier environment for the State of Connecticut and, further, create green jobs.

The bill before us has three, main proposals.

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Just rather quickly, to wrap them up, the heating oil silver standard will be reduced over a period of time. The biodiesel blend requirements will be increased over the next few years, and it creates a biodistillate advisory board.

Mr. Speaker, I move adoption --

DEPUTY SPEAKER ALTOBELLO:

Question before --

REP. HURLBURT (53rd):

-- and passage.

DEPUTY SPEAKER ALTOBELLO:

-- the Chamber --

REP. HURLBURT (53rd):

Passage.

DEPUTY SPEAKER ALTOBELLO:

Question before the Chamber is acceptance and passage.

Representative Chapin, of the 67th, you have the floor, sir.

REP. CHAPIN (67th):

Thank you, Mr. Speaker.

Mr. Speaker, I also rise in support of the bill before us. I know it has changed a little bit, I think, from the time it left the committee, but I

think the changes are good ones and that it's deserving of the support of the entire Chamber.

Thank you, Mr. Speaker.

DEPUTY SPEAKER ALTOBELLO:

Thank you, Representative Chapin.

Representative Miller, do you care to remark on this bill? Of the 122nd.

REP. L. MILLER (122nd):

Thank you.

Yes, I would, Mr. Speaker. Thank you.

And I rise in strong support of the bill.

Biodiesel is -- it should be a no-brainer. This is a product that will help to clean up the environment, reduce greenhouse gasses, and it's good for the health of all Connecticut citizens.

The State of Connecticut is a heating-oil state, so during the winter months, we use approximately 600 million gallons of heating oil. That's a lot of oil. So when you combine that with a little biodiesel, you clean up the sulphur and you make it a lot healthier to breathe.

And I just remind people that just the other day in the concourse there's an asthma display. And Connecticut happens to lead the country with incident

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of asthma, and we're also very high in the area of COPD. So that biodiesel combined with heating oil and diesel fuel can help to reduce the incidents of asthma as well as COPD.

And I would just refer to a study, about seven, eight years ago, from the University of Connecticut, where a professor stated that we could save

\$20 million in health benefits if we converted over to biodiesel and bioheat. So this is good for the environment, good for the human beings. It's good for everybody, good for the State of Connecticut, Mr. Speaker.

Thank you, very much.

DEPUTY SPEAKER ALTOBELLO:

Thank you, Representative Miller.

Further on the bill? Further on the bill? If not, staff and guests please retire to the well of the House. Members take your seats. The machine will be open.

THE CLERK:

The House of Representatives is voting by roll call. Members to the chamber. Members to the chamber. The House is voting by roll.

DEPUTY SPEAKER ALTOBELLO:

And have all members voted? Have all members voted?

Please check the board and make sure your vote is properly cast. If all members have voted, the machine will be locked. Will the Clerk, please take a tally. And will the Clerk please announce a tally.

THE CLERK:

Senate Bill 382, in concurrence with the Senate.

Total Number Voting	147
Necessary for Passage	74
Those voting Yea	146
Those voting Nay	1
Those absent and not voting	4

DEPUTY SPEAKER ALTOBELLO:

Bill passes, concurrence with the Senate.

(Speaker Donovan in the Chair.)

SPEAKER DONOVAN:

Are there any announcements or introductions?

Representative Peter Villano.

REP. VILLANO (91st):

Thank you, Mr. Speaker.

Mr. Speaker, for purposes of announcement,

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Mr. President, would also move that all items on Senate Agenda Number 4 be placed on our calendar.

THE CHAIR:

Without objection, so ordered.

SENATOR LOONEY:

Thank you, Mr. President.

Mr. President, the next three items that would -- would like to call, the next three go items, first is on calendar page 31, Calendar 206, Senate Bill 382 and after that should be marked go as the next item.

The next to follow that, Mr. President, is calendar page 33, Calendar 256, Senate Bill 124, and the third item, Mr. President, is calendar page 34, Calendar 258, Senate Bill 274.

Thank you, Mr. President.

THE CHAIR:

Thank you, sir.

Will the Clerk please return to the call of the calendar?

THE CLERK:

Calendar page 31, Calendar Number 206, File 302 and 655, Substitute for Senate Bill 382, AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE, favorable

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report of the committee of Environment and
Appropriations.

THE CHAIR:

Senator Meyer.

SENATOR MEYER:

Thank you, Mr. President.

I move acceptance of the Joint
Committee's favorable report and passage of this bill.

THE CHAIR:

On acceptance and passage, do you
care to remark further?

SENATOR MEYER:

Yes I would briefly. Colleagues we're trying in
Connecticut to move in a couple of directions. One
direction is less reliance on fossil fuel and the second
is reducing toxicity and other parts of our fuels that
cause problems. This bill goes in that direction. This
bill reduces the sulfur standard in -- in heating oil.
It reduces it to 50 parts per million beginning in July
of next year and to 15 parts per million in July 2014.

The bill also gradually increases biodiesel in our
fuel, starting with a two percent biodiesel component in
2011 and going up in small increments up to 20 percent
biodiesel by the year 2020. It was -- it was felt by the

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Appropriations Committee that this bill might make Connecticut non-competitive and so the Appropriations Committee made an amendment which says that these sulfur content amounts I just referred to and the biodiesel amounts I just referred to will not take effect until the neighboring states of Massachusetts, New York and Rhode Island have adopted substantially similar requirements.

And finally, Mr. President, the bill has a provision in it that if we don't have enough biodiesel that the amount of biodiesel called for by this bill would be -- would be reduced. So that -- that in essence is the bill. I -- I urge your favorable consideration of it.

Thank you, Mr. President.

THE CHAIR:

Thank you, Senator.

Would you care to remark further? Would you care to remark further?

If not, Senator Meyer.

SENATOR MEYER:

If there is no objection, I'd be very privileged for this to go on the Consent Calendar.

THE CHAIR:

Is there objection? Seeing none, so ordered.

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THE CLERK:

Roll call -- roll call vote has been ordered in the Senate on the Consent Calendar. Will all senators please return to the chamber? Roll call vote has been ordered in the Senate on the Consent Calendar. Will all senators please return to the chamber? And pay particular close attention to the call of those items placed on the Consent Calendar.

Starting with Senate Agenda Number 3, Substitute for Senate Bill 456; calendar page 2, Calendar 143, Substitute for Senate Bill 393; calendar page 12, Calendar 462, Substitute for Senate Bill 5404; calendar page 13, Calendar 475, House Bill 5402; calendar page 14, Calendar 479, Substitute for House Bill 5028; Calendar 480, Substitute for House Bill 5372; calendar page 23, Calendar Number 541, House Bill 5241; calendar page 25, Calendar 35, Senate Bill 12; calendar page 27, Calendar 106, Substitute for Senate Bill 318; Calendar 122, Substitute for Senate Bill 319; calendar page 29, Calendar 169, Substitute for Senate Bill 108; Calendar 170, Substitute for Senate Bill 109; calendar page 30, Calendar 195, Substitute for Senate Bill 414; calendar page 31, Calendar 206, Substitute for Senate Bill 382;

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calendar page 32, Calendar 218, Substitute for Senate Bill 302; Calendar 223, Substitute for Senate Bill 380; Calendar 230, Senate Bill 283; calendar page 33, Calendar 235, Substitute for Senate Bill 216; calendar page 34, Calendar 258, Substitute for Senate Bill 274; calendar page 35, Calendar 316, Substitute for Senate Bill 278; calendar page 36, Calendar 318, Substitute for Senate Bill 418 and calendar page 40, Calendar 546, Senate Resolution Number 17.

Mr. President, I believe that completes the items placed on the Consent Calendar.

THE CHAIR:

The machine is open on the Consent Calendar.

THE CLERK:

The Senate is voting by roll call on the Consent Calendar. Will all senators please return to the chamber? The Senate is voting by roll on the Consent Calendar. Will all senators please return to the chamber?

THE CHAIR:

Senators please check the board to make certain that your vote is properly recorded. If all Senators have voted and all Senators votes are properly recorded, the machine will be locked

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and the Clerk may take a tally.

THE CLERK:

Motion is on passage of Consent Calendar
Number 1.

Total Number Voting	35
Those Voting Yea	35
Those Voting Nay	0
Those Absent, Not Voting	1

THE CHAIR:

Consent Calendar 1 is adopted.

Senator Looney.

SENATOR LOONEY:

Yes thank you, Mr. President.

Mr. President, I would yield the floor to any
members for announcements or points of personal
privilege.

THE CHAIR:

Are there announcements or points of personal
privilege? Are there announcements or points of personal
privilege?

Seeing none, Senator Looney.

SENATOR LOONEY:

Thank you, Mr. President.

**JOINT
STANDING
COMMITTEE
HEARINGS**

**ENVIRONMENT
PART 5
1346 – 1678**

2010

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March 12, 2010
10:30 A.M.

REP. MINER: Thank you, Mr. Chairman.

Good morning, again, Senator. Do you think the Citizen's Election Fund might provide us an opportunity for revenue?

SENATOR PRAGUE: I was going to say that, Representative Miner, but then you would say, "Oh, that's the fiftieth way Senator Prague has of spending that fund."

REP. MINER: I'm perfectly all right with it this time.

SENATOR PRAGUE: Thank you.

REP. ROY: Thank you.

Any other questions or comments from members of the committee?

Seeing none, Senator, thank you very much.

SENATOR PRAGUE: Thank you.

REP. ROY: Kevin Lindemer, followed by Lewis Davidson.

KEVIN LINDEMER: Thank you very much, Chairman Roy, and members of the committee, and thank you for giving me the opportunity to come here and offer a few comments about S.B. 382.

My name is Kevin Lindemer. My company is Kevin Lindemer, L.L.C. I have 25 years of experience in the refining and marketing industry and another 17 years of experience in the energy research and consulting area.

My firm was retained by the National Oil Heat Research Alliance, or NORA, to conduct an

independent analysis of the availability of ultra-low sulfur diesel fuel and related issues. NORA is the national organization representing heating oil issues on consumer education, technical education and training, as well as research and development.

One of the purposes of NORA is the research into the very questions that we were asked by the ICPA to address here today. The purpose of our research was to address for NORA the questions of first, whether or not there will be adequate supply of ULSD or ultra-low sulfur diesel fuel available to meet certain prospective heating oil markets, and (b) what might the potential price impacts be on consumers in consideration of such a move.

I'm here -- I'm not here as an advocate. I'm here to present an independent research view and -- and present you an outline of what our research so far has yielded on these questions. Our study is not yet ready for release to the public. It still needs to be finished up and presented to the NORA board. However, NORA has authorized me to come here and speak, but they are not yet responsible for the views that I express here today.

S.B. 382 would require, as a matter of law, the statutory specification for heating oil to change from about 3,000 parts per million of sulfur today per gallon down to about 50 parts per million in 2011 and eventually 15 parts per million by July 1st, 2014.

From a market perspective, 2010 may be the best time in years to begin this process of moving to ultra-low sulfur diesel fuel for heating oil applications. In 2009, U.S. refiners actually exported an average of about 220,000 barrels a day of ultra-low sulfur

diesel fuel, or about 7 1/2 percent of the national market demand.

So this means that U.S. refiners produce more low sulfur diesel fuel than the domestic market required and found it profitable to export this product from the United States principally to Europe and Latin America where there are mandates in place for ultra-low sulfur diesel fuel.

Connecticut's anticipated demand for ultra-low sulfur diesel fuel as heating oil would be about 14 1/2 million barrels per year, which is a relatively small 1.4 percent of total U.S. ultra-low sulfur diesel demand. Total ultra-low sulfur exports are lower -- smaller -- than the total U.S. demand for heating oil.

But this simply means that the ultra-low sulfur diesel demand or production has met transportation needs. There is sufficient amount left in surplus of those needs to allow this product to be used in domestic heating oil without adversely affecting the transportation fuels market.

NORA believes that a shift to ultra-low sulfur heating oil will result in cost savings for consumers for heating oil system maintenance and wear and tear. NORA estimates that a typical household would probably save about \$50 per year in lower service charges.

The refining industry will not switch from heating oil to ultra-low sulfur diesel fuel on its own. The -- the industry must have some signal from the market or from regulators. And it's important to note that every significant change in sulfur content in either gasoline or diesel fuel has always come about

through legislative initiatives and mandates. Over the past 20 years, heating oil has been left out of that process.

A shift of Connecticut's to ultra-low sulfur in Connecticut will also diversify supply or supply diversity will be strengthened and a somewhat greater measure of energy security achieved if Connecticut's mandate to change the specification to ultra-low diesel is moved forward.

REP. ROY: Mr. Lindemer, I'm going to have to ask you to wrap up.

KEVIN LINDEMER: Yes.

REP. ROY: I' sorry.

KEVIN LINDEMER: Okay. So what we're -- what we -- our research is showing is that today there is an adequate amount of volume to start this process moving forward, and we believe that the impact on consumers will be relatively minor.

REP. ROY: Thank you. Very good.

Questions?

Representative Lambert.

REP. LAMBERT: Thank you, Mr. Chairman.

You mentioned that it would be lower service charge and that the average home that uses the fuel would save \$50. Could you tell me why?
I -- I'm --

KEVIN LINDEMER: Yes. Ultra-low sulfur diesel fuel is -- it burns cleaner, so as a result, you

don't need to have your furnace -- it doesn't take as long to clean your furnace.

SENATOR MEYER: Are there any other questions?

Yes. Representative Hurlburt.

REP. HURLBURT: Thank you very much, Mr. Chairman.

Thank you very much for your -- for your testimony today. I'm sorry I was out of the room for -- for the beginning of the part, but I did catch the end that you said there'd be very little impact on consumers, and can you just clarify that or -- or expound on that for -- for me and the numbers, please?

KEVIN LINDEMER: Yes. Our -- our view is that the average price of ultra-low sulfur will average maybe three to five cents a gallon more than heating oil. Typical homeowner, that's going to be about 24 -- 25 to \$30 a year in added fuel costs, but that's more than offset by the expected savings in service charges.

REP. HURLBURT: But you just answered for Representative Lambert, and I appreciate. We did have some, and I -- and I briefly saw it in here, and I'm trying to find it, from the Department of Environmental Protection, some concern about the NOx emissions with -- with the ultra-low sulfur.

Could you talk about, you know, what's the difference in NOx emissions between current home heating fuel and the ultra-low sulfur?

KEVIN LINDEMER: Sorry. That's a -- that's a point that I can't answer in terms of the exact NOx emissions: It depends on the heating oil plant, so sorry. I can't answer that.

REP. HURLBURT: Okay. Well, I -- I appreciate your honesty, and -- and maybe we'll have somebody else up here who -- who'll have the opportunity to testify to that effect. Thank you very much.

And thank you, Mr. Chairman.

SENATOR MEYER: Thank you, Representative.

Representative Miller.

REP. MILLER: Thank you, Mr. Chairman, and good morning.

The state of Massachusetts has adopted some form of biodiesel. How -- especially with their heating oil. Do you have any knowledge of how their program is going?

KEVIN LINDEMER: No, I don't. My -- my charge here was the ultra-low sulfur, not the biodiesel part of the program.

REP. MILLER: Okay. Thanks.

KEVIN LINDEMER: Sure.

REP. MILLER: And the ultra-low sulfur will also reduce -- will have an effect on greenhouse gases as well. Is that correct?

KEVIN LINDEMER: Yes. Yes, it is, because it burns more efficiently, and it will allow consumers, when they upgrade or replace their heating oil plant, to adopt the much more modern and highly efficient heating oil technology, which you can't do today with the high sulfur heating oil.

REP. MILLER: What -- what kind of an impact would that be? Would it be a 10 percent reduction, 20, 30?

KEVIN LINDEMER: It depends upon the -- the plant, but I believe something on the order of 20 to 30 percent is possible, but I would encourage you to check with the ICPA.

REP. MILLER: Thank you.

KEVIN LINDEMER: Thank you.

SENATOR MEYER: Any other questions by members of the committee?

Representative Davis.

REP. DAVIS: Thank you, Mr. Chairman.

As -- as mentioned, much of the use of ultra-low sulfur has been through legislative action, and I'm sure you understand that the refiners would probably be opposed to this.

They have indicated that they don't believe their industry can handle this at this time, and that -- that should we act in passing this piece of legislation, we might be compromising the reliability of the oil supply. Can you respond to that concern, please?

KEVIN LINDEMER: Yes. For the state of Connecticut, the volume of heating oil is actually very small compared to the overall market, and it's much smaller -- about 20 percent of the volume of ultra-low sulfur that is now exported.

If all of the U.S. heating oil market were to change to ultra-low sulfur diesel fuel at the -- at the same time, the refining industry

would need to make investments to upgrade heating oil to ultra-low sulfur. But if you're looking at only the state of Connecticut, the impact would be very small and easily met by current industry production.

REP. DAVIS: One -- one of the things that we need to look at is the system of delivery. I mean, we're not an island here, and very often, deliveries come through our state, and we're talking about regional distribution. Are other states in our area considering such legislation, and would that make it more easy or easier to deliver this type of oil to our state rather than just putting us in a situation where we're isolated and --

KEVIN LINDEMER: I can't speak as -- to much to what the other states are doing, but in terms of logistics, we already bring in relatively large amounts of ultra-low sulfur diesel fuel into Connecticut, as do all of the other states, so the -- the distribution systems are relatively parallel.

And the heating oil distribution system, with a little time, can be converted to ultra-low sulfur, so this is probably not a logistics issue.

REP. DAVIS: Okay. So as -- as far as you're concerned, these -- these concerns are addressed with our -- our current production, and you don't see this timeline as being a significant problem for us.

KEVIN LINDEMER: Not for the state of Connecticut, no.

REP. DAVIS: Thank you.

Thank you, Mr. Chairman.

Bill 383 that would require a statewide water use plan, we'd love to see that kind of plan, but we do not want to see the streamflow regulations that are currently under consideration be delayed pending this. The state has been -- supposed to be working on this type of plan for a long time now. We'd love to see it happen, but we don't want to stall the streamflow regulations. They are a critical component of moving us towards such a plan.

Thank you very much.

REP. ROY: Thank you, David.

Any questions or comments from members of the committee?

Seeing none, thank you.

DAVID SUTHERLAND: Thank you.

REP. ROY: Michael Devine, followed by Martin Mador.

MICHAEL DEVINE: Thank you, Mr. Chairman, Representative Roy, members of the Environmental Committee.

My name is Michael Devine. I am a resident of the state of Connecticut, have a company, Earth Energy Alliance. I am here to speak as a technical advisor for the National Biodiesel Board with -- with regards to Senate Bill Number 382.

The United States EPA recently released the -- the results of the most comprehensive life cycle greenhouse gas study of biodiesel that has ever been completed. Biodiesel produced from domestic soybean oil is assumed to reduce

greenhouse gases by 57 percent controlled to petroleum diesel fuel. And the EPA's uncertainty analysis recognizes that the greenhouse gas reduction could be as high as 85 percent.

Biodiesel from soybeans, animal fats and recycled cooking oil are now considered advanced biofuels by the EPA because they are more than 50 percent better than petrodiesel. The Department of Energy and the USDA say that biodiesel reduces life cycle carbon dioxide, a greenhouse gas, by over 78 percent. Biodiesel also significantly reduces EPA-related emissions with direct impact to human health.

Biodiesel is the only alternative fuel to voluntarily complete EPA's tier one and tier two testing to qualify emission characteristics and health effects. With regards to energy balance, biodiesel has a very high energy balance. Newly published research from the University of Idaho and the U.S. Department of Agriculture show that for every unit of fossil fuel energy needed to produce biodiesel, the return is a positive 4.5 units of energy.

Biodiesel made from soybean oil has a high energy balance because the main energy source used to grow soybeans is the sun. The energy balance takes into account planting, harvesting, fuel production and fuel transportation to the end user.

As a result of modern farming techniques and energy efficiency, biodiesel's energy balance continues to improve. With regard to any supply issues, biodiesel -- the biodiesel industry has 2.8 billion gallons of capacity nationally, more than 200 million gallons of which reside in the northeast.

Approximately four billion gallons of feedstock are available domestically. With regard to food versus fuel, it is important to understand that unlike corn, whole soybeans are not fed to animals. When soybeans are produced, two products are produced: the protein meal which is fed to livestock, and the oil which is used for products such as Snickers, french fries and biodiesel.

The U.S. biodiesel only uses 8 percent of the oil from this country's soybean crop, hardly enough to affect the price of foods produced with it. Biodiesel is produced from American soybeans that uses approximately 3 percent of the nation's soybeans harvest annually.

Biodiesel is the most diverse fuel on the planet. It is made from regionally available renewable resources that are abundant in the U.S., including soybean oil, other plant oils, recycled restaurant grease, beef cow and other fats.

The increased demand for biodiesel is stimulating research and investment in developing new materials to make biodiesel, such as algae, camellia, jetropa and other land crops and waste materials like trap grease.

A VOICE: (Inaudible).

MICHAEL DEVINE: I'd be happy to, sir.

REP. ROY: Thank you.

Any questions or comments from members of the committee?

Seeing none, thank you very much.

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10:30 A.M.

REP. HURLBURT: And this will promote the industry and not specific Connecticut farmers.

STEVEN REVICZKY: Right.. It -- it cannot go to promote a specific brand of milk. It has to go to promote the generic Connecticut dairy industry.

REP. HURLBURT: Okay. I -- I think that's important so that, you know, people -- people understand that this will help the entire industry, not a specific -- you know, not farmer's cow or any -- any one individual producer.

Mr. Chairman, I thank you. I only went through to Section 4, I think, as opposed to through all eight, and -- and I'll turn it back over to you. Thank you, Mr. Chairman.

REP. ROY: You have my undying gratitude. Thank you.

Any other comments or questions from members of the committee?

Seeing none, Steve, thank you very much.

STEVEN REVICZKY: Thank you. And I -- I just want to point out, there was a lovely editorial in the Hartford Chron on Wednesday dealing with acidified foods. You all ought to, read it. It's good.

REP. ROY: Can't wait.

Steve Guveyan, followed by Jiff Martin.

STEVE GUYEVAN: Good afternoon, Chairman Roy, members of the committee. I'm Steve Guveyan from the Connecticut Petroleum Council testifying in opposition to Senate Bill 382.

It's a two-part bill. It lowers the sulfur standard of home heating oil, and it adds a biofuel mandate. Two different ideas, same bill. We're opposed to both parts of it.

Neither -- no state in the country has any law on the books like either part of it. So if you don't have a home heating oil with 15 ppm, you don't have a biofuel mandate with numbers that look anything like what this bill proposes.

So we put a counter-proposal on the table in the interest of moving forward rather than bringing the sulfur content down from 3,000 parts of sulfur in home heating oil to 50 and then 15. We propose to bring it down from 3,000 to 500. So it would be an 82 1/2 percent reduction.

We've talked to the proponents of the bill. Give us four years to get there, because that's the time period that most regulators would give us to make a fuel change of this order or magnitude. Very expensive to do it, but we are willing to do that. We are unwilling to go to 50 or 15.

Fifteen is the standard for diesel fuel. If we were to go to one five, which is in the bill, then diesel fuel and home heating oil become the same fuel, and as we all know, the price of diesel fuel is substantially higher than the price of home heating oil, even if you take out the taxes. It's an expensive commercial fuel.

We are not interested in seeing two different fuels become one and that one be more expensive than what home heating oil is today. If you break out the prices of home heating oil and you compare them to ultra-low sulfur

diesel fuel, and you run it back for a few years, (inaudible) it goes up to 18 cents a gallon different -- more expensive for the diesel.

So we're telling you in advance, this kind of a bill moves up the price for homeowners. In the end, because it will put a lot of pressure on the price of diesel, it will probably move up the price for diesel as well. Today, the price difference is about five cents a gallon. It's been up to about 18 cents a gallon.

And the long-term outlook, according to the Department of Energy EIA is the pressure is going to remain on diesel fuel, so we are very concerned about making two into one.

The 15 ppm number diesel is there because the EPA said it's necessary to ensure that the after-treatment devices on cars, trucks and buses, especially the trucks and buses, work well. We don't need it for cars.

So going down to a 50 for home heating oil would be the bottom end of the limit. A 500 would be fine. We'd be fine with going to a 500. You don't need the 15 for a boiler or a burner or a furnace the way you do for a car or a truck or a bus.

The final point we want to make on the bill is about two years ago, you passed another bill which became a law. It was House Bill 5600 -- now it's Public Act 0898 -- that requires us and everybody else in Connecticut to reduce greenhouse gas emissions -- ten percent by 2020 and then by 2050, 80 percent. We have to comply with that.

What this bill says is that we have to bring our sulfur down, and by doing that, our

greenhouse gas emissions go up. So we're asking you as the committee to determine what is it you want us to do. If you really want us to bring down sulfur to the degree this bill says, then understand the greenhouse gas emissions for this state, because we do have to do a full life cycle analysis, are -- are going to go up. So we ask you to really consider hard what is it you want as your priority.

REP. ROY: Thank you.

Representative Hurlburt.

REP. HURLBURT: Thank you, Mr. Chairman.

Steve, great -- great to see you, and I thank you for all of the work that you've been willing to do with us on biofuels over the past three or four sessions.

STEVE GUYEYAN: Thank you.

REP. HURLBURT: And -- and I appreciate your concerns. One of the questions I have is what's the current situation in Europe? What are -- what are their current standards? Do you know that answer?

STEVE GUYEYAN: For heating oil --

REP. HURLBURT: For sulfur.

STEVE GUYEYAN: For heating oil, they're at 1,000 parts of sulfur. We're at 3,000. We're offering to go to 500. So we're willing to go less than the standard in Europe, which is 1,000.

REP. HURLBURT: Okay. Are we -- are we a net exporter or importer of heating oil -- heating oil from Europe?

STEVE GUYEYAN: Heating oil? Not from Europe. Let's see, 50 percent of our distillate pool, which is heating oil and diesel, 50 percent comes from what we would call the Middle Atlantic states like New Jersey, Philadelphia, up where the refineries are; thirty percent from the Gulf Coast; twenty percent imports. Most of the imports are not Europe. Most of the imports are Canada, Virgin Islands.

REP. HURLBURT: Okay.

STEVE GUYEYAN: Where we see imports from Europe and Rotterdam is when the price of -- when the temperature outside gets really cold, there's a real squeeze on heating oil, and all the suppliers look worldwide to find it. That's when you get it coming in from places like Russia, from Rotterdam, which usually that really, really temperature, they drive -- drive the price and the supply.

REP. HURLBURT: I mean, we -- we have testimony before us here from Bantam BioHeat. It says the -- the blended product is readily available, and they've been using it successfully with their -- with their customers, you know, in zero degree weather, and moved from a two to five percent, so the --

STEVE GUYEYAN: You're in the bio (inaudible).

REP. HURLBURT: Well, yes. I'm moving over to that, but, I -- I'll -- I'll jump back over to -- to the difference in costs. We -- we did hear testimony earlier today that the -- that the difference in cost was -- was, you

know, to the consumer, would be nil, that -- that there's a benefit, you know -- you know, you're paying a couple cents more per gallon when you -- when you bring it in, but the benefit of cleaning or the need to clean is less.

You know, you may be spending 25 bucks more a year for -- for the new stuff, but you're saving between 30 and \$50 a year because you're not having to do the maintenance that current -- current heating oil needs.

STEVE GUYEVAN: Okay. If you get into the sulfur, not to the bio, just for the moment, if you reduce the sulfur from the 3,000 to the 500, then you reduce a lot of the need to do the cleaning. In fact, there's a Brookhaven report cited in somebody's testimony today that gets you to the link that shows that all emissions considered looking at heating oil. If you go down to a 500 level, it's the same as natural gas.

And I think pretty much everybody would agree, natural gas is a clean burning fuel. So it's a way of putting the heating oil and the natural gas at the same level. On the bio -- on your place on the bio, this bill was saying not for diesel fuel. The bio is just for the heating oil.

REP. HURLBURT: Uh-huh.

STEVE GUYEVAN: Let's see. We're suppliers -- you know, I'm the Connecticut Petroleum Council here, just in Connecticut, but the (inaudible) oil companies operate throughout the country and throughout the world. The experience in Minnesota, which was the first state to really do a bio bill -- it's the home capital of

soybean oil, so it makes sense it would pass there -- it has been very difficult.

It started at 2 percent. It's been suspended a number of times, maybe every year since it passed, including this winter. Again, that's for diesel. This is for heating oil. The point is, cold weather performance problems.

So I guess what I would say is if you as the committee are willing to give the industry immunity from liability when all those lawsuits start flying, what -- what -- you know, be more willing to look at this.

But it's been very difficult. It was suspended again in Minnesota this year. The -- the waiver is still in effect right now, and it's going to be suspended for the rest of the year -- the rest of the winter year.

REP. HURLBURT: If I recall correctly, and -- and we do a lot of bills, so sometimes I don't remember the specifics of what, you know, finally ended up in a bill, but didn't we give the -- give the commissioner an opportunity to -- to put a waiver in a bill we did last year or -- or in 2008 if -- if there was a problem with either temperatures or supply?

STEVE GUYEVAN: There is, and I think there's a waiver in this year's bill. The difficulty is, put yourself in the -- just for the moment, in the position of somebody who's got some money that they're going to invest into this. You sign contracts to buy it. It may be more expensive than standard heating oil, especially if there's no biodiesel blending credit.

You've got to get it here from maybe the Midwest -- the soybean oil or it could be palm oil coming from Indonesia or wherever. There's a big cost to that. It's \$2 million to do the blending equipment out of New Haven, and then all of the sudden after you've made all those investments, a commission comes along and says we're going to waive that.

So I sit there and say, "Hey, wait a second; what about all my investment?" You are now letting less expensive product into the state, and I'm the one that followed the rules here.

So, yes, you're right. It's a way around it, and I guess what we would say is from your point of view -- public policy point of view -- it makes sense to leave a waiver in there, but I guess we would recommend that the waiver bar be very, very high. Well, that's -- are they just going to knock on the door of the commissioner and say, "Please give us a waiver?"

REP. HURLBURT: And -- and like I mentioned before, you know, we have testimony from -- from a distributor that says, you know, that they have been using bio successfully, that -- that it's readily available -- that's a quote from -- from their testimony -- that they're -- they're not having a problem with -- with the temperature.

You know, we do have a waiver. You -- you site Minnesota that, you know, has a waiver. They've been able to -- to use it successfully. You know, I think we have some of the safeguards in place. We -- it seems that we have the -- the product available. It seems that we have the quality available. We have the waiver in place if something happens.

You know, so I'm just -- I just want to make sure that, you know, we -- we do have the appropriate safeguards in place should something happen to the market here in the state, but it -- but we've got testimony that says from -- you know, not from Legislators, but from -- from the industry, that say it's available and -- and we can do it.

STEVE GUYEYAN: It is -- it is available, and, Representative Hurlburt, just so you know where we're coming from, we -- we like biofuels. If you were to propose as a committee banning their use, we would oppose that.

REP. HURLBURT: Thank you.

STEVE GUYEYAN: We've -- we've -- no, I'm -- I'm very serious. We have companies that are bringing it now. You can get it down in New Haven very easily. They'll blend it for you.

REP. HURLBURT: Uh-huh.

STEVE GUYEYAN: So we like the use of it. What we're saying is we don't like going so far that you mandate it. It has to earn its place in the market just like any other product does. You don't -- you know, when plasma t.v.'s came out ten years ago, everybody said, "Wow, these are great." Nobody in this building is going to mandate a plasma t.v.

And the same thing is true with biofuels. It has to earn its place in the market. And usually what happens is when somebody comes before you and says, "We want you to mandate something," it's a sign that there is some difficulty in the market with the product. We

like it. We don't want to see difficulty with it.

But we've heard from a large number of people. They don't want to have to be required to use it. Maybe four or five years from now as it blends into the product stream, peoples' comfort level gets higher, prices come down, people feel better about it, then, you know, views may change.

You know, we're also very concerned what Congress is going to do. There's a \$1 a gallon blending credit. The Senate, a couple days ago, decided to reauthorize it.

REP. HURLBURT: Uh-huh.

STEVE GUYEYAN: That was the good news. The bad news is they're only reauthorizing it until the end of the year. So our concern is we're going to get into -- potentially, if you pass the bill with these numbers in it, the blending credit goes away, now we get into difficulty getting it in big numbers of gallons.

It's available. Our concern is if we do a mandate with numbers like this, the price -- it's still available, but the price is going to be a lot higher than what it is today. And if that blending credit goes away next December 31, and, you know, Congress has said, "We're only going to put it in until next December 31," now we're back to where we were at the beginning of this year, which is there's no blending credit. It's available. Take the blending credit out, it's substantially higher. Nobody wants it.

REP. HURLBURT: Okay. Well, I -- I'll look forward to working with you on this as -- as we have in the past --

STEVE GUYEYAN: I'm here.

REP. HURLBURT: -- on -- on these sorts of issues --

STEVE GUYEYAN: Thank you very much. Appreciate it.

REP. HURLBURT: -- and -- and I appreciate your willingness to answer all my questions.

Thank you, Mr. Chairman.

REP. ROY: Thank you.

Any other questions or comments?

Representative Chapin.

REP. CHAPIN: Thank you, Mr. Chairman.

I recognize that the standard is 3,000 parts per million, but if I were to go home and pull a gallon out of my fuel oil tank, is it substantially less than that, is it around 3,000, sometimes does it exceed 3,000?

STEVE GUYEYAN: Okay. Yes. It will not exceed 3,000. As it goes through terminals, everybody tests. If it exceeds 3,000, we can't sell it, so nobody does. It could be just under 3,000. Nobody likes to get too close to the line, because if you miss it, now you can't sell it. So it will be under 3,000. The question is how much under 3,000.

The Colonial Pipeline, which brings product up from Texas, Louisiana, refined, you know,

gasoline, diesel, home heating oil to Linden, New Jersey, their specification for heating oil is 2,000. Two thousand. Then it may pick up a little bit of sulfur after it leaves there before it gets here.

Generally, in the process, the further the process, the little bit more sulfur you pick up, but their standard is 2,000, so there's no question it's going to come under it. If it comes from a different source and does not come up to the Colonial Pipeline, it could be 2500, 2700, 2800. Again, nobody wants to get too close to the end, but it's not going to be 1,000 to 1200 or 1400.

REP. CHAPIN: Thank you.

Thank you, Mr. Chairman.

REP. ROY: Thank you.

Any other questions or comments from members of the committee?

Seeing none -- oop, Representative Davis.

REP. DAVIS: Thank you, Mr. Chairman.

Thank you, Steve, for your testimony.

Are there any other states that have specific standards below the 3,000? At least if you know about?

STEVE GUYEVAN: Not to my knowledge.

REP. DAVIS: So I --

STEVE GUYEVAN: In the interest of full disclosure, there is a move a foot in a number of the northeastern states right now, this state

being one of them, to bring that sulfur level down.

So I think I can answer "no" to your question, but to give you the answer, here's a move a foot, and that's part of our -- part of our reason for saying, "You know what? We can live with a 82 1/2 percent reduction, go from 3,000 down to 500."

We would like to see conformity and uniformity in the northeastern states. We do not want to see Connecticut with it's own separate heating oil standard -- separate BioHeat standard and a separate sulfur standard, because you know what that means. We're a small state. We are not California or Texas. If we have our own standard here, it just means that the supply is going to be tighter, and we know what that means for products, and we're not interested in seeing that.

REP. DAVIS: Okay. So at this point, a 500 standard would be something that you could live with and you feel, at a regional level, that would also be a plus and allow helping with delivery as well as moving the fuel to our area, getting it and refining it.

STEVE GUYEYAN: Five hundred in this state and other northeast states, yes. We do ask, because the air quality regulators at EPA and DEP normally do four years to get there.

REP. DAVIS: Uh-huh.

STEVE GUYEYAN: We would ask for four years. The process of getting from 3,000 to 500 -- I mean, it's not some magical switch you just hit.

REP. DAVIS: Right.

STEVE GUYEYAN: I think one or two of the companies' testimonies make it clear. You've got to go through engineering, you've got to go through product procurement, you've got to get permits, there's the actual construction. Sunoco just went through one of these. They're constructional. Only the construction was 20 months.

So, you know, the four-year is a very, you know, cool process, but if it's -- four-year time period is clear and the same number throughout the north, we're very happy with that.

REP. DAVIS: What would happen to us if we passed the standards that are proposed in this bill?

STEVE GUYEYAN: Well, honestly, I wouldn't want to be a heating oil customer at that point in time. I can't give you a price. We don't do price projections. I can't tell you how many cents a gallon it's going to be, but you do know that being a very small state and heating oil -- you know, two-thirds of the heating oil was sold in one-third of the year. You know, the -- the curve that looks like this.

It's not a good time to be a heating oil customer if we have our own unique set of specifications that nobody else in the northeast goes to. We're too small to affect the world markets at that point, and it's too easy for companies to say, "You know what? Connecticut is one or two percent market share, just, you know, let somebody else pick up those kind of specifications. They can have the gallons, and we'll move our product elsewhere." We don't want to see that.

REP. DAVIS: We had a previous testimony that indicated that we're already producing enough fuel at the level actually of 15 that this would not be a significant problem for Connecticut. You disagree with that.

STEVE GUYEVAN: We disagree, and I guess the proof in the pudding is -- we don't do price projection, but I guess the proof is, just go back over the last three years and look at the price differential between home heating oil and ultra-low sulfur diesel.

Use the New York Harbor spot price, which is probably the best indicator for us here in Connecticut, and it runs high. It always runs higher than -- than home heating oil does. So you don't have to -- it's easy to Monday morning quarterback, and when the answers are already in, and we like doing that, and it's clear that the numbers are higher, so we're -- you know, put the numbers out there and give everybody fair warning.

REP. DAVIS: Thank you.

Thank you, Mr. Chairman.

REP. ROY: Thank you.

Any other discussion?

Seeing none, Steve, thank you very much.

STEVE GUYEVAN: Thank you, Mr. Chairman.

Thank you, Chairman Meyer (inaudible).

REP. ROY: Jiff Martin, followed by John Guskowski.

My name is Paul Hoar. I am President of AgriFuels, a value and quality consulting company in Glastonbury, and I would like to speak in favor of Senate Bill 382.

The environmental benefits of S.B. 382 are substantial. Sulfur reduction from 3,000 parts per million to 15 ppm in heating oil will significantly reduce the effects of acid rain in Connecticut and in the northeast.

Introduction of an ever increasing biodiesel component into the heating bill -- heating oil from 2 to 20 percent will make heating oil a very clean fuel. You'll hear more about that from the folks behind me. Significant reductions of unburned hydrocarbons, carbon monoxide, particulate matter, will occur.

In addition, for every percentage point of biofuel used in heating oil, there will be a corresponding reduction in nitrous oxide, a major greenhouse gas, according to the National Energy Removal Lab of the Department of Energy, and there was a comment earlier about the nitrous oxide. I believe Representative Hurlburt mentioned that.

The provision of the section on quality control standards will help ensure these benefits are achieved. As you know, the Department of Consumer Protection will have the authority to verify that the biodiesel offered for sale conforms to the specifications mandated by the EPA for biodiesel with the designation of ASTM 6751.

The DCP will be ensuring compliance with the critical specifications of the biodiesel offered in -- in that particular section of the bill of the component, whether it is produced in state or is imported. Assisting

the DCP ensure compliance was the newly created -- will be the newly created AS team lab at the Center of Environmental Services and Engineering at UCONN and with funds made available by the state Legislature last year.

In-state producers and marketers will also be able to reduce their testing costs and show compliance to the DCP through this critical specifications testing protocol designated tier two testing at UCONN.

Section 2 contains provisions -- a provision for the state of Massachusetts that Representative Davis brought up and one of the previous speakers talked about -- the requirement for substantially similar requirements to the blend components in the bill of the various states nearby.

As you know, the Massachusetts Legislature passed a clean energy biofuels act in July of 2008 requiring the use of 2 percent biodiesel in heating oil and diesel motor fuel starting in July 2010 and increasing that to 5 percent in 2013.

In Rhode Island, House Bill H7 -- H7653 was introduced last month, which calls for the reduction of sulfur in heating oil to 15 ppm. The bill also requires an introduction of bio-based diesel into heating oil up to 5 percent over a similar timeframe to the Senate Bill 382.

New York State Assembly has already passed an ultra-low sulfur, contrary to one of the previous speakers, of 15 ppm in heating oil bill and they are going to be looking to implement a biodiesel legislation for a component in the heating oil going forward.

One might argue, and my closing, that the requirements in Massachusetts and those being introduced in Rhode Island and New York are substantially similar to those in this bill.

Thank you. Do you have questions?

REP. ROY: Thank you.

Any questions from members of the committee?

Representative Davis.

REP. DAVIS: Just -- just one point and thank you for your testimony and for answering my questions before I ask them.

What about the timeline that we have set up here? Do you -- do you believe that would be an issue for the refineries in delivery system or are we okay with the timeline that we have set?

PAUL HOAR: Well, I -- I'm not an expert on refinery timelines, however, if I take the broad view of saying that there -- in the timeline that we're talking about, between 50 and 60 billion gallons of distillate fuel -- fuels in the United States, the seven billion gallons in the U.S. that are the heating oil component, that leaves 53 billion gallons of transportation fuel, which is already mandated to be 15 ppm. So, in effect, heating oil is a boutique fuel in terms of meeting that 15 ppm.

So if the -- if the -- if it were brought into compliance with the 15 ppm for all the rest of the 53 billion gallons, I don't understand the argument of why it would be more expensive for home heating oil relative to the 15 ppm sulfur component.

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10:30 A.M.

REP. DAVIS: What -- what's -- if you have this information, what -- what's the current cost of heating oil as opposed to diesel oil -- diesel fuel -- heating fuel as opposed to diesel?

PAUL HOAR: Currently, it's -- it's a little over \$2 wholesale from the information that I have, but there are speakers behind me who are much more qualified to talk about that in terms of pricing.

REP. DAVIS: Thank you.

Thank you, Mr. Chair.

REP. ROY: Thank you.

Any other questions?

Representative Miller.

REP. MILLER: Thank you, Mr. Chairman.

Good afternoon, Paul.

New York has already passed the low-sulfur 15 price per million?

PAUL HOAR: Yes, sir. The --

REP. MILLER: For heating oil.

PAUL HOAR: -- the -- the New York State Assembly has passed an ultra-low sulfur, 15 ppm heating oil bill. I believe -- I believe it was last year. And one of the speakers who is not here today is -- is meeting with the -- their legislation -- legislators --

REP. MILLER: Falcone?

PAUL HOAR: Right. Danny Falcone, who --

REP. MILLER: Where's he from?

PAUL HOAR: Well, he is from -- he's from New York, but he distributes from Rhode Island down to New Jersey, so he has a regional, and he does a lot of business here in Connecticut, so he's -- but he's quite knowledgeable of the New York market, and that's he is done there at the hearing down there today.

REP. MILLER: And the 15 parts per million that New York has passed, when does that kick in?

PAUL HOAR: I -- I don't -- I -- it's similar to 382, and I -- every state has a little bit different in terms of the implementation, 2 percent by 2011, potentially 5 percent by 2013. Those kinds of numbers, in -- in a broad sense, are similar to here in Connecticut, between New York, Rhode Island, Massachusetts, and of course this bill here in Connecticut.

So it is a regional effort to go forward to include the biodiesel component at a -- at a similar amounts in each one of the states through legislation that's being introduced as we speak today.

REP. MILLER: Uh-huh. Well, why do we have such a discrepancy? Some people say that there is legislation that has been passed in certain states to have heating oil reduced to 15 parts per million and some say that it will take four years to get it down to the 500 mark.

PAUL HOAR: Well, I -- I believe that comment is a supply issue based upon what they would like to do.

REP. MILLER: Okay, but we're sitting up here. We're going to have to make a decision. Who do we listen to and -- and what do we do?

PAUL HOAR: Well, I believe --

REP. MILLER: And I shouldn't ask you that.

PAUL HOAR: I -- I understand. Well, my recommendation, sir, is to pass the bill, because I believe it can be met. The -- the sponsors of the bill are an industry which understands the issue. They are the ones who are going to be supplying it to their customers. They have the price issue that was brought up about it being way too expensive. I think you'll hear about that.

But -- but the issue of being able to meet that -- that 15 ppm, as I mentioned before with Representative Davis, it's already 15 ppm per transportation fuel in -- in the majority -- by EPA mandate as of October 2007.

So if that is already in play, how can you say that a -- a percentage of less than 20 percent of the rest of the market can't meet that 15 ppm? It may be a cost issue, but I'm not sure it's a capability issue, sir.

REP. MILLER: And in the New York legislation, are there any waivers that were inserted in the bill to cover the supply situation if there's a problem?

PAUL HOAR: I -- I believe in each one of the -- as was previously mentioned, each one of the bills has a -- an out if there is a problem, where a commissioner or a board or the governor, and I believe in -- yes, in New York, it's the governor. If he sees an issue where it can't be met for unforeseen

circumstances, then he has the ability to waive that.

It's a commissioner in Massachusetts. It would be a commissioner here of DCP here in the state of Connecticut. I'm not sure which -- which -- oh, it's the Environment Committee -- environment commissioner in Rhode Island who would have that authority to waive it should there be a problem with meeting the requirements of the bill.

But then again, each -- in each case, they -- he would have to report back to the legislators why they were not implementing, because at that point, it's law, and they have to report and say, "Well, I have to change it for this period of time."

In most cases it's a finite period of time -- 45 days or 30 days -- that it's -- that it would be delayed for whatever the reason is, and -- but they would have to come back to the Legislators and -- and let the folks -- let you folks know why they weren't implementing the -- the bill at that particular time.

REP. MILLER: And lastly, who stores bio here in the state? Who has supply?

PAUL HOAR: Well, the --

REP. MILLER: Where do these oil companies get it if they want it here in Connecticut?

PAUL HOAR: Well, they can buy it from the two producers here in the state.

REP. MILLER: Two?

PAUL HOAR: It would be one in Bethlehem and the one in Southington and another one that's

going to be in effect later this year in New Haven. So they can buy it locally. Most of that feed stock is yellow grease as you will hear. So it's recycled cooking oil that we already have in the state. It's the locally-grown feed stock so to speak.

The balance would -- would come from out of state either by rail or barge or, in some cases, truckers will bring in a -- a B100 from out of state in order to supply the components right now.

In terms of usage, the Department of Transportation has consumed a B20 blend for their DOT vehicles since 2001, and Richard Baron is the Maintenance Chief down there, and he's been running it, and he has consumed over 2 million gallons of B20 in snow plows and trucks and all the vehicles that the DOT has since 2001.

He's one of the higher users in the -- in the country. And it's a -- a fleet, and they -- they monitor it, but he has had virtually no problems. I'm sure he would answer that question to you if you asked him today.

REP. MILLER: Does Santa, who is probably the biggest in the state --

PAUL HOAR: Right.

REP. MILLER: -- does he store any of it?

PAUL HOAR: Mr. Santa does. He -- he imports it. As far as I know, he -- I actually don't know exactly what his story is. I think there are some speakers behind me who can tell you that, but I'm -- I'm pretty sure he has a large onsite, because as you know, he sells B20 at his pump --

REP. MILLER: All right.

PAUL HOAR: -- in New Haven, so -- and he's been doing that for a number of years, and I believe what he gets is a B100 and blends it there, so he would have a -- a storage facility.

REP. MILLER: And he also has storage in Massachusetts from what I understand. Is that correct -- do you know?

PAUL HOAR: That's possible. I'm not sure if that's right.

REP. MILLER: All right. Thank you.

Thank you (inaudible).

REP. ROY: Thank you.

Any other questions or comments from members of the committee?

Seeing none; thank you very much, Paul.

PAUL HOAR: Thank you. Thank you.

REP. ROY: Erin Wirpsa Eisenberg, followed by Leah Schmalz.

ERIN WIRPSA EISENBERG: Hello. My name is Erin Wirpsa Eisenberg. I'm the Executive Director of CitySeed in New Haven. I am here to voice my support for Raised Bill 5419, AN ACT CONCERNING FARMS, FOOD AND JOBS.

Just to give you a little background about CitySeed, we're a community-based nonprofit in New Haven. We operate a network of farmers' markets, and we seek to promote increased

KARL RADUNE: Good afternoon. It's Karl Radune.

REP. ROY: Radune? Okay.

KARL RADUNE: I'll answer to anything, so --

REP. ROY: Check with the clerk's desk after to make sure they have the correct spelling.

KARL RADUNE: Okay. Well, good afternoon. I'd like to thank Chairman Roy and the committee for allowing me to testify today in support of S.B. 382.

My name is Karl Radune. I've been a biodiesel enthusiast for about eight years since I made my first batch of fuel. Currently a member of the Connecticut Biodiesel Bioheat Association and I'm a voting member of the National Biodiesel Board.

I'm speaking here today because I'm also the President of Biodiesel One and a producer of B100 biodiesel located in Southington, Connecticut. Our company manufactures biodiesel from used cooking oil -- "yellow grease." We purchase the yellow grease collected within the state whenever possible and sell the biodiesel to Connecticut fuel distributors.

Our primary fuel -- our fuel is primarily used in the home heating market. Biodiesel One follows a sustainable biodiesel business model. S.B. 382 is good for the people of Connecticut. This bill will result in significant reductions in air pollutants that cause asthma, cancer, smog and global warming.

This bill will create private sector green collar jobs in a new emerging Connecticut industry. S.B. 382 is good for the

Connecticut biodiesel industry. Passage of this bill will identify in-state production targets. This in turn will provide the incentive for new and existing producers like Biodiesel One to expand capacity, to investing new facilities and to hire more employees.

Passage of S.B. 382 will give some confidence to the lending institutions to invest in small businesses that represent the biodiesel industry. In my opinion, S.B. 382 is a job stimulus bill that will actually work.

I'm sure I have at least a minute, and I'd like to -- there were some earlier questions about NOx emissions and price. NOx from home heating use is an open flame. NOx is generally -- is created in compression ignition engines and it's -- because it has a high CT number, it ignites prior to pop dead center of a cylinder.

So this is actually a chemical reaction happening under high pressure temperature. In a combustion ignition engine, if you retired the timing, you can reduce the NOx on the engines. In an open flame, you do not create nitrous oxides. That's one thing.

As far as price, there was a mention earlier about the high cost of biodiesel and whatever. We do need the -- we do need the biodiesel incentive. With that incentive, I'm able to sell at purity with -- to oil or the NIMEX home heating number.

What I don't hear -- if I was a representative of a company that, you know, made \$36 billion of (inaudible), I wouldn't talk to you about the subsidies the U.S. Congress gives them either. With those subsidies erased, diesel

fuel would be about 6, \$8 per gallon as it is in Europe. So, apples to apples.

SENATOR MEYER: Okay. Well, Mr. Radune, you've been a good advocate for biodiesel.

KARL RADUNE: Thank you.

SENATOR MEYER: And there's another good advocate from Gus Kellogg.

KARL RADUNE: Yes, sir. I know.

SENATOR MEYER: We -- we appreciate the good information you give us.

KARL RADUNE: Thank you.

SENATOR MEYER: Are there any questions by the committee?

Thanks.

KARL RADUNE: Thank you.

SENATOR MEYER: Our next witness is Bill O'Neill, followed by Greg Foran.

WILLIAM O'NEILL: Good afternoon, Senator Meyer, and Senator Roy, in his absence, and members of the Environment Committee.

For the record, Bill O'Neill, Manchester. I've been privileged to serve on the legislatively formed Greenway Council, Connecticut Greenway Council, for the past ten or more years. Presently, it's Chairperson. I was pleased and thrilled that the legislation also passed a Greenway license plate bill.

SB 388

DAN MEISER: All right. Well -- and -- and actually -- and just to show our commitment, we were in Senator Maynard's neighborhood yesterday. I was down buying scallops from the Bomster Boys down on the docks, and, you know, that, I think, really goes to show that -- the commitment that not only our restaurant but a lot of restaurants have in this state to -- to sustain, you know, keeping it local and staying within the state, and -- and this would just add to that.

REP. ROY: Any other questions or comments?

Seeing none, thank you very much.

DAN MEISER: Thank you very much.

REP. ROY: Gus Kellogg, followed by Bob Crook.

GUS KELLOGG: Good afternoon, Chairman Meyer, Chairman Roy.

My name is Gus Kellogg. I'm here to speak in favor of S.B. 382, AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE.

I'm the Founder and CEO of Greenleaf Biofuels. We are a biodiesel distributor based in Guilford, and we are also in the process of building a 10 million gallon a year biodiesel plant in New Haven Harbor. I am also the Founder of the Connecticut Biodiesel BioHeat Association which represents the interests of the biodiesel producers and marketers in the state and currently serve as the President of that organization.

The Legislature nearly passed a similar bill last year that would have required the use of

biodiesel and all heating oil and diesel fuel sold in the state. This year, we are working more closely than ever with the state's heating oil dealers represented by the Independent Connecticut Petroleum Association and support this bill's requirement for the blending of biodiesel and for heating oil only at this time, not transportation fuels. As many of you are aware, that was the major roadblock to passing this bill last year.

We also commend the ICPA for the dedication to improving the combustion properties of the fuel they sell and dramatically reducing emissions, and therefore also support the bill's requirement for the use of ultra-low sulfur heating oil. Biodiesel itself is an ultra-low fuel and lends itself well to this new standard. There have been a few significant developments over the past year that I'd like to highlight.

First, biodiesel production capacity in Connecticut has grown 200 percent with the startup of BiodieselOne in Southington, joining BioPur as the state's second biodiesel producer. Next, the federal government has supported biofuels in a big way with the implementation of the second generation renewable fuel standard, also known as RFS2.

Under the guidance of Gina McCarthy, our former DEP Commissioner, the EPA completed its lifecycle analysis of biofuels used in the U.S. and has determined that soy biodiesel has a net greenhouse gas reduction of 57 percent compared to conventional diesel, thus qualifying as an advanced renewable fuel.

Significantly, this lifecycle analysis included carbon figures for indirect land use, a much debated topic over the past two years.

Furthermore, biodiesel produced from recycled cooking oils, the raw material -- raw material most used in Connecticut for the production of biodiesel, was found by the EPA to reduce greenhouse gas emissions by 86 percent compared to conventional diesel.

When our biodiesel plant comes online later this year, we will have 14.5 million gallons of production capacity in the state. All of this is planned to be produced from used cooking oil -- recycled cooking oil. This will result -- will result in lifecycle net carbon reductions of 168,000 tons per year, and that's just a start.

With the market stability provided by this bill, biodiesel production in this state could grow to 120 million gallons a year by 2020. This bill in itself will result in the reduction of greenhouse gas emissions from our state's heating oil by some 800,000 to one million tons per year by 2020.

Finally, the U.S. Senate just this week passed legislation to extend the Federal Biodiesel Tax Credit, thus underscoring the federal government's support of the domestic production in the use of biodiesel fuels.

Connecticut needs to leverage the federal policies to create its own policies regarding the production and the use of biodiesel so that our state captures all the direct and indirect benefits. These include creating new green collar jobs, displacing petroleum, reducing airborne pollutants and greenhouse gas emissions and helping secure our energy independence.

There will also be measurable property tax income from municipalities and income tax for

the state. Therefore, we urge your support of this bill.

Thank you.

REP. ROY: Thank you, Gus.

Any questions or comments from members of the committee?

Representative Miller.

REP. MILLER: Thank you, Mr. Chairman. Just --

Good afternoon.

GUS KELLOGG: Good afternoon.

REP. MILLER: Your plan -- your building at New Haven Harbor, are you building it there, because you're going to be exporting this, shipping it out by boat or barge or --

GUS KELLOGG: No. We -- we are essentially co-locating our biodiesel plant with the existing petroleum distribution infrastructure. Biodiesel, although I use it at 100 percent in my house, to heat my house, I know that it will be used as a blend stock in petroleum products primarily. So the location of our facility in New Haven is critical to that.

We can very easily blend with the existing supply of petroleum. It's -- it's a product that easily blends with petroleum as you know, and being co-located with a major terminal makes it that much easier to blend into the existing fuel.

REP. MILLER: Where specifically is the plant?

GUS KELLOGG: It's in the old North Yard. It's adjacent to the Magellan Forbes Avenue Terminal just north of the Key Bridge.

REP. MILLER: Thank you.

REP. ROY: Thank you.

Representative Lambert.

REP. LAMBERT: Hi, Gus. Thank you for your testimony.

GUS KELLOGG: Thank you.

REP. LAMBERT: I remember this discussion very well from last year, but can you again address the fact that you would think one, if a bill got passed, that we had to have a certain percentage, that you would be able to have that supply met; and number two, can you again address coal.

The fear that some -- you know, because I think we went through this before -- I remember diesel, some of the school buses couldn't get started. So, I mean, there's -- there's adverse for everything, so I'm just wanting you to have the opportunity to please address those two issues.

GUS KELLOGG: Great. Thank you.

I'll address the cold soak issues first, if I could, because they were fresh on my mind as well, and I -- I jotted down some notes from some testimony earlier from ATI. It's important to note in -- in Minnesota that what he was referring to was a transportation only fuel.

Since that incident and actually borne out of that incident, which is I believe three years old now, there have been more strict standards put on -- on biodiesel for consumption in the United States, and specifically, we are controlled by ASTM standards.

A new test was added to the ASTM D6751 standard, which requires a cold soak filterability test so that we're ensuring that -- that the biodiesel sold in this country is not going to plug filters, particularly at these lower blend levels.

I'd also like to point out, this bill again is not requiring the use of biodiesel in transportation fuels. It's only for use in heating oil. The tanks that are storing the heating oil, 95 percent of the domestic heating oil tanks are inside buildings.

They are in -- in basements of buildings. And there's very little concern for the cold flow issues there. And speaking again from my own experience, I, you know, slept very well in a home last night heated by pure biodiesel. I drove up here today in a modern diesel running on 50 percent biodiesel and 50 percent petroleum diesel.

And I don't believe that cold flow issues are going to be a concern in the BioHeat sector, particularly at these lower blend levels. And with all that enthusiasm to talk about cold soak, I forgot the first question. Could you repeat that please?

REP. LAMBERT: Supply.

GUS KELLOGG: Supply, yes. And -- and this is also addressing Representative Miller's question earlier. It's a, I guess, a little known

secret that there's already a lot of biodiesel coming into Connecticut. There is storage capacity for about six million gallons of heated -- heated insulated storage in New Haven Harbor for -- for biodiesel specifically.

And it is coming in from outside -- outside Connecticut obviously and -- and it's also coming from outside the U.S. There's been a lot of biodiesel that's come into Connecticut from Malaysia and Indonesia -- palm oil based.

I can tell you that not many people are -- are terribly happy with that product, even up to some of the people who are -- are purchasing it and bringing it into the state. They are looking for options. The support from the federal government is making the -- is giving a real boost to the domestic production of biodiesel, and there is a significant amount of biodiesel coming into Connecticut from the Midwest, soy-based biodiesel.

But I think what's great about this bill and one of the pieces that we are a big advocate of is requiring this -- this in-state production trigger, because we believe that we can, just as we're trying to support the heating oil retailers in the state, we believe we can build an industry around the production and distribution of biodiesel in Connecticut.

It may not meet all of our requirements in-state, but as you heard from Karl Radune earlier, we are already producing biodiesel in Connecticut, and it's a very nice story to have this, what it considered a waste stream, the -- the recycled cooking oil, which by the way, is being exported out of Connecticut, and -- and in many cases is being exported out the United States right now.

It's going to Europe for biodiesel, Asia and Latin America for animal feed. That's a resource -- those are valuable BTU's we could be recycling and reformulating into a heating oil right here in Connecticut. And I do believe that there will be more than adequate supplies.

REP. LAMBERT: Thank you, Mr. Kellogg.

Thank you very much, Mr. --

REP. ROY: Thank you.

Any other questions or comments from members of the committee?

Seeing none, thank you.

GUS KELLOGG: Thank you.

REP. ROY: Bob Crook, followed by Doug Williams.

ROBERT CROOK: Chairman Meyer, Chairman Roy, members of the committee. My name is Bob Crook. I'm Executive Director of the Coalition Connecticut Sportsman testifying in support of Committee Bill S.B. 116 dealing with the reduction in camping fees and handgun hunting for deer.

We fully support lowering the camping fees from the current levels. The recreational economic arguments are similar to those concerning sportsman fees in that current fees will price out residents, nonresidents, promote them to recreate in other states and negatively impact retail establishments and sales tax revenue and reduce outdoor activity in the state.

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REP. ROY: Thank you.

Any other questions or comments from members
of the committee?

Seeing none, thank you very much.

RICHARD COWLES: You're welcome.

REP. ROY: Is Elizabeth Garra come back? If not,
Jamie Lohr, followed by Maureen Westburke or
Westford or something.

JAMIE LOHR: Hello. My name is Jamie Lohr. I'm
the Owner and President of Guardian Fuel and
Energy Systems in Westerly, Rhode Island, and
Stonington, Connecticut. Hi, Andy.

A VOICE: (Inaudible).

JAMIE LOHR: I am not going to talk about
pesticides. I'm here to support Senate
Bill 382, AN ACT SUPPORTING BIODIESEL BLENDED
FUEL, HEATING OIL, AND LOWERING THE SULFUR
CONTENT OF HEATING OIL.

I -- I wanted -- I've submitted my testimony
in writing, so you have that, so will hope not
to read it, but I also want you to know that I
belong to the Heating Oil -- Oil Heat
Institute of Rhode Island, who is considering
a similar bill there, and I am a stakeholder
in the Ocean State Clean Cities Coalition and
was present at a recent round table discussion
of legislation that they are also submitting
to Rhode Island to have a similar bill.

And I tell you that because there has been
some discussion as to whether there would be
similar legislation in all the neighboring
states of Connecticut.

I also understand that the -- any wording about the BQ9,000 certification of producers and marketers will be removed from this bill, and that's something that I support also. We began using BioHeat in our heating oil in 2006. I use it in my own home, and at the beginning, of course, no one knew what BioHeat was -- or biodiesel -- and so we began an education process which we continue today.

Prior to that, about four years before we started carrying it, we had learned of soy-based biodiesel, learned about how it's made, the feedstock, the properties, how to handle and store it, how to blend it, the importance of ASTM specifications for that fuel, and how biodiesel could be introduced into heating oil for the purpose of creating a better fuel.

And in fact, blending higher BTU petroleum oil with biodiesel actually creates a better fuel in the blending than either of those fuels is independently in my opinion, because you get the -- you get higher BTU value from the -- from the heating oil, from the petroleum component, and you get the cleaning properties and the reduced emissions from the biodiesel.

Our interest in it particularly was to find the fuel to supplement heating oil that was made from renewable resources and that would reduce emissions, and additionally, we have the health benefits of reduced particulate matter, the cleaning properties that biodiesel adds to heating oil, improved system operation that's better combustion in heating systems and better combustion in -- in engines -- also diesel engines, cleaner burners for heating systems and lack of soot.

If I could just quickly tell you, we have now -- about 30 percent of our heating oil

customers are on BioHeat, and over the years since we started, they have collectively saved over 148,600 pounds of CO2 and sulfur from their emissions.

We also use biodiesel blends in our fuel trucks, saving 38,300 pounds of CO2 and sulfur, and we have a customer in Old Mystic, Connecticut, that sells biodiesel with no adverse conditions at all in engine operations or heating uses. They've saved 65,900 pounds of CO2 and sulfur from their customers' tailpipes.

REP. ROY: Jamie, thank you. You didn't say that you were -- had submitted written testimony, is that correct?

JAMIE LOHR: I did, yes.

REP. ROY: You did?

JAMIE LOHR: Yes, I did.

REP. ROY: You did submit it, okay.

JAMIE LOHR: Uh-huh.

REP. ROY: Great, because those numbers are very interesting there at the end.

Any questions for Jamie?

Senator Maynard.

SENATOR MAYNARD: Just to say thank you, Jamie, for coming up. You've been a leader in this industry, and we appreciate your making this information available to the committee.

JAMIE LOHR: Thank you.

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SENATOR MAYNARD: We look forward to working with you on it.

JAMIE LOHR: Thank you.

REP. ROY: Representative Miller.

REP. MILLER: Good afternoon.

JAMIE LOHR: Hello.

REP. MILLER: I see you -- you visited Connecticut as well as Rhode Island --

JAMIE LOHR: Yes.

REP. MILLER: -- so you might have two states to deal with.

JAMIE LOHR: We -- we do -- we have regulations in both states, often differing, and about half of our customers are in Connecticut.

REP. MILLER: So you're used to it?

JAMIE LOHR: Yes, we are.

REP. MILLER: You're a lucky person -- two states to deal with.

JAMIE LOHR: Thank you.

REP. ROY: Thank you.

Any other questions?

Representative Lambert.

REP. LAMBERT: Thank you, Mr. Chairman.

And you would be -- thank you for coming -- you'd be the expert to talk about supply as

we've heard from previous customers -- witnesses. Could you please just speak on that, because you have it from two distinct states and you'd be able --

JAMIE LOHR: Yes. We -- we actually prefer to use biodiesel manufactured locally. In Rhode Island, there is legislation that -- that allows us to -- to buy biodiesel manufactured in Rhode Island to ASTM specs that allows us not to charge excise tax on the transportation fuel if we buy it from Rhode Island.

So that's one reason to prefer it. It actually makes it cheaper than diesel fuel, but also because it creates jobs locally. Our manufacturer that we buy most of our biodiesel from has just increased their capacity -- doubled their capacity. I believe they can produce two million gallons per year, and we also have purchased biodiesel manufactured in Connecticut.

One of the best things that I think about buying locally-produced biodiesel is it further reduces the impact on the environment. If you're not trucking soybeans to a plant and then trucking it across the U.S. to get it here, you are really saving a lot of emissions, and, as was mentioned before, most of our biodiesel is made from waste food service oil, and so it is reducing the impact of waste food service oil going to -- to our landfills.

I -- I would like to add one more thing which I scribbled on my paper this morning. There's a group of middle school students in one of the communities that we operate it, and they have started collecting waste oil. They are selling it. It's being manufactured into biodiesel, and then they are giving that money

to local charities to buy BioHeat for needy --
needy families.

And they have just added MASH, the Mystic Area
Shelter and Hospitality, to their list of --
of recipients, and they have donated, to this
point, I believe it's 6,000 gallons of
BioHeat, and so the needy families in our
locality are actually way ahead of most of the
community.

REP. LAMBERT: Thank you for sharing that, and
thank you for answering my question.

Thank you, Mr. Chairman.

REP. ROY: Thank you.

Representative Urban.

REP. URBAN: Thank you, Mr. Chairman.

Could you just tell -- first of all, welcome.

JAMIE LOHR: Thank you.

REP. URBAN: I'm glad to have you.

Could you tell us which community is doing
that marvelous initiative?

JAMIE LOHR: The -- the children go to schools in
Westerly, but they are expanding the project
to include Mystic and Stonington, and it's
been a wonderful project. I love the -- the
name. It's TGIF, "Turn Grease Into Fuel."

REP. URBAN: That's awesome.

JAMIE LOHR: Thank you.

REP. URBAN: That's great. Thank you so much. Anything I can do to help with that, please let me know.

JAMIE LOHR: Thank you.

REP. ROY: Thank you.

Any other questions or comments from members of the committee?

Seeing none, thank you very much.

JAMIE LOHR: Thank you.

REP. ROY: Maureen Westbrook or Westford from Connecticut Water, followed by Eric Hammerling. Maureen is not here.

Eric, you're on, followed by Pete Noel.

ERIC HAMMERLING: Members of the Environment Committee, thank you for having me here. I'm going to try as quickly as possible to testify on five bills in three minutes. I'm very excited to see several of these bills.

HB 5420
HB 5417

Just very quickly, we are supportive of S.B. 116. We are supportive of H.B. 5419. And I'm going to focus most of my attention today on the forestry-related bills before you.

S.B. 388 is an outstanding bill with a lot of provisions to it, but we're particularly excited about the Timber Harvesting Revolving Fund that is a part of that bill. That revolving fund would create more forestry jobs, generate revenue, reduce fire and pest problems and enhance wildlife habitats.

REP. ROY: Any other questions or comments from members of the committee?

Seeing none, thank you very much.

PETE NOEL: Thank you for your time, and a yay, rah, rah for my hometown girl, Katy Stevens -- I'm a Middlebury boy -- on American Idol last night. My daughter's in the church choir with her, and I'm hoarse today from cheering for Katy last night. All right.

REP. ROY: Jesse Stratton, followed by Chuck Sherwood.

JESSE STRATTON: Good afternoon, Representative Roy, Senator Meyer. Puppy Pete is a hard act to follow, but it also feels like déjà vu. The issues don't change over the years.

My name is Jesse Stratton. I'm Director of Government Relations for Environment Northeast, a research and advocacy organization working on energy, climate change and air quality issue solutions for New England and Eastern Canada.

I'm here very briefly today to testify in strong support for Senate Bill 382, which would lower the sulfur content of diesel fuel and thereby dramatically reduce the negative health impacts, quality equipment functioning impact of burning high sulfur diesel and in the process also enable the state of Connecticut to meet the requirements of EPA for our regional Haze SIP Plan.

In addition, I would like to address the second part of the bill, which you've spent a lot of time on today in terms of the blending requirements for biodiesel, which I have no

problems with except that when we worked on this legislation in other states, and particularly Massachusetts where it was passed in 2008 to insert a requirement that that biodiesel component have a life cost analysis done on it that verifies that the global warming impact or greenhouse gas emissions from that biofuel be 50 percent less than the equivalent emissions would be from the distillate fuel that it would replace.

And with that, I -- actually, in my testimony, I attached a link to the Massachusetts legislation as well as the language for that.

I'd be happy to take any questions.

REP. ROY: Thank you.

Any -- Senator Meyer.

SENATOR MEYER: Jesse, I just want to make a comment. I -- I wish had served with you on the General Assembly.

JESSIE STRATTON: Thank you.

SENATOR MEYER: Dick was just telling me that you were Chair of this committee and you've had a wonderful mentoring relationship with -- with me and with the committee and I just want to -- want to thank you, and your testimony today is entirely consistent with your priorities.

JESSIE STRATTON: Thank you, Senator.

REP. ROY: Any other questions or comments for -- Representative Mushinsky.

REP. MUSHINSKY: Thank you.

I wanted to ask you, is there any way we can keep the palm oil from being part of this biodiesel mix? Because I -- I'm really distressed that we're bringing palm oil into the state. That's -- causes more damage at the other end of the world.

JESSIE STRATTON: It's certainly something I'd be happy to talk with you further about. It is -- it is eliminated from the Massachusetts legislation and it's (inaudible) -- it's a 14-page bill, so I decided not to attach it to my testimony, but this is the link to the Massachusetts, which goes through all the various fuels in terms of those requirements.

REP. MUSHINSKY: Okay. So we -- we could actually, if we write this correctly, we could prohibit the use of palm oil as one of the --

JESSIE STRATTON: Correct, and I -- I think in general, I would designate somebody probably other than ravage legislation to determine the relative different fuels rather than getting into them essentially regulation writing within statute.

REP. MUSHINSKY: Okay. Thank you.

REP. ROY: Thank you.

Any other questions or comments from members of the committee?

Seeing none, Jessie, thank you very much.

Chuck Sherwood, followed by Margaret Miner.

CHUCK SHERWOOD: Good afternoon, members of the committee.

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**JOINT
STANDING
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Any other questions or comments from members of the committee?

Ann, thank you very much.

ANN BERMAN: Thank you.

REP. ROY: Tom Devine followed by Peter Soulsby.

TOM DEVINE: Chairman Roy, thank you.
Environmental Committee, thank you.
Appreciate speaking in front of you and being here all day.

My name is Tom Devine. I work for my family's company, Devine Brothers, Incorporated, retailing heating fuel to mid and lower Fairfield County, Connecticut. I'm a Board Member of the New England Fuel Institute -- NEFI -- in Watertown, Massachusetts, the Independent Connecticut Petroleum Association here in Connecticut, the National Oilheat Research Alliance in Washington, D.C., and I'm a former member of the Connecticut Fuel Oil Conservation Board. I'm here today to testify in favor of Senate Bill 382.

The conservation fuel oil provides us with a cleaner environment. It saves the users of the energy money and conserves the valuable resource oil. Devine Brothers, Incorporated has -- has been conserving fuel oil by successfully retailing a blend ratio of 5 percent renewable biodiesel with 95 percent carbon based fuel heat -- or heating fuel for the past six years.

As a matter of fact, we were the first company in the state of Connecticut to -- to sell the product. This blend referred to -- is referred to as BioHeat, and it has afforded

our customers the ability to burn a heating fuel with a reduced amount of carbon and sulfur translating to a cleaner burn resulting in a more efficient burn.

When carbon and sulfur are removed from heating oil, as in BioHeat, and this product is burned in a boiler or furnace, less soot is built up within the heating unit. Soot decreases the efficiency of the heating unit by acting as an insulation factor.

With less soot being created, a heating unit will have a better heat transfer in the heat exchanger resulting in an efficiency -- resulting in efficiency retention. Ultimately, the result is a cost savings, conservation of fuel and use of a cleaner burning eco-friendly product that lowers the carbon footprint of my customer.

According to a study performed by the National Oil Heat Research Alliance, the Brookhaven Laboratory study that a gentleman earlier referred to, biodiesel, when blended with -- at a -- a 20 percent blend with an ultra-low sulfur fuel would create a fuel for my customers and would be the cleanest burning fuel on the market. This would also be a fuel that would have the highest BTU rating amongst the energies of propane, natural gas and electricity.

In regard to BioHeat, if the entire heating fuel industry in the state of Connecticut retailed the product since its introduction to the market six years ago, Connecticut would have cut back on the amount of carbon-based fuel sold in the state of Connecticut by millions and millions of gallons. The conservation of oil as the percentage of the

bio component increasing -- increases is staggering. Okay.

However, the state of Connecticut cannot do this alone. It is imperative that the surrounding states move together to mandate and -- and to -- for this to be implemented, as long as the biodiesel meets ASTM D6751.

And another thing this would allow us to do is go back into a diesel selling market, which we had to get out of when the federal government changed the specification for off-road diesel.

I would also quickly like to point out that in Europe, the sulfur content, it's -- the standard is not a 1,000 parts per million. It's 50 parts per million. And -- and that can be given to anybody that wants to see that by NORA.

In 2011, the NIMEX is going to be trading diesel and heating oil on the same platform, so cost won't be a factor. And the -- as I said earlier, the transportation issues will actually, if this is done -- if we go to an ultra-low sulfur product, the transportation issues will actually better -- be better for a company like me, because I'm now able to sell a diesel fuel where I'm not now able to do so.

SENATOR MEYER: Thank you.

Are there any questions?

Representative Lambert.

REP. LAMBERT: Thank you, Mr. Chairman.

Thank you, Mr. Devine. You had -- in your testimony, you have it is imperative that surrounding states, and -- and yet we had

someone come and testify that they do both Rhode Island and Connecticut. You're saying expanding in that whole -- like a regional area?

TOM DEVINE: Yes. I mean, if Connecticut goes and New York goes to a BioHeat, and Massachusetts, which is already have -- has a mandate, and they're going through some of the challenges, and Rhode Island, it would -- it would lessen the effects of a boutique fuel on the market.

I mean, we've -- we've been selling it very successfully for the last six years and our customers love it. And as a heating oil dealer, I would say I would never do anything for my customers that -- that we work hard to get to hurt them.

We're the guys that are in your basement that are getting you heat at night. We're the guys that are working hard to get you a good price on oil. And we don't want to do anything that's going to hurt our customers because they're just as important to us. So an ultra-low sulfur product with a BioHeat blend is absolutely the best mix for one of our customers to use to heat their home, and it's better for the environment -- much better for the environment.

REP. LAMBERT: While I was listening all day, but you had mentioned the highest BTU rating among the energies of propane, natural gas and electricity. Would you like to expand upon that?

TOM DEVINE: The BTU content or the BTU output of heating oil is roughly -- I think it's 138,000 -- and when you blend it with a bio product, you're going to get roughly the same BTU output that -- that you get from regular

heating oil. That's -- I think, natural gas is about 90,000 BTU output and propane is roughly a little less than that. Electricity can compare with natural gas or propane.

What I -- what I would throw out there is when you have an ultra-low sulfur product and a bio product, you're -- and I've said this in my testimony -- you're lowering the carbon footprint, you're -- you're creating less soot, and in doing so, you're creating less of that buildup inside the heating unit, which is going to extend your efficiency, which is already the highest BTU energy out there. You're extending your efficiency longer into the winter, which is going to save the customer money.

REP. LAMBERT: Thank you very much.

TOM DEVINE: Thank you.

REP. LAMBERT: Thank you, Mr. Chairman.

REP. ROY: Thank you.

Any other questions or comments from members of the committee?

Seeing none, thank you very much, sir.

TOM DEVINE: Thank you very much.

REP. ROY: Peter Soulsby, to be followed by Chris VanDehoef.

PETER SOULSBY: Thank you very much Commissioner Roy -- Chairman Roy and distinguished members of the committee.

My name is Peter Soulsby. I am a resident of Marlborough, a member of the Connecticut

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KACHINA WALSH-WEAVER: Taking no action -- well, we generally say "take no action" on the bill, which means just -- doesn't -- don't even bring it up for a vote.

REP. ROY: Thank you.

Any other questions?

I'm sorry, did you have more?

REP. LAMBERT: No, (inaudible).

REP. ROY: Any other questions or comments from members of the committee?

Thank you, Kachina.

Peter Aziz, followed by Gene Guilford.

PETER AZIZ: Good afternoon. My name is Peter Aziz, and I own Bantam Fuel, which is a small heating oil company serving 3,000 homes and businesses in Litchfield County. I strongly support S.B. 382.

Since October of 2006, every gallon my company has delivered has been a blend of heating oil and biodiesel. We made the switch because the blended product was readily available in New Haven Harbor. It didn't cost us any more than traditional heating oil, our customers' heating equipment required no modifications, and it was the right thing to do.

We began cautiously blending only 2 percent biodiesel with our heating oil to make a 2 percent BioHeat, because we wanted to see how it would perform in the zero degree weather of Litchfield Hills and in a wide

variety of heating equipment we have in the field.

That first winter, we had absolutely no problems. In fact, we found that the blend burned more cleanly than traditional heating oil, leaving cleaner fuel filters, less soot in furnaces, and since it burns with less smoke, we could tune our customers' equipment to slightly higher efficiencies.

Today, we're delivering a 5 percent BioHeat blend. Our customers are happy because they have a fuel with cleaner combustion, higher efficiencies, less sediment, less service trouble, and cleaner emissions.

They're happy with the fact that 5 percent of their heating fuel now has significantly less greenhouse gas emissions. And they're happy with the fact that 5 percent of their fuel is a truly renewable resource, much of which is grown right in the U.S.A.

If heating oil had less sulfur in it, as proposed in this bill, that would mark another huge improvement in clean combustion, clean filters, reliable operation and clean emissions. I'm here to tell you from three and a half years, four heating seasons' experience, that BioHeat works.

It's available. It's affordable. It's delivered using the same ships and trucks. It's handled by the same local people that our customers trust. BioHeat works. It's a phenomenally clean fuel, and with your help, it can be even cleaner.

The really brilliant thing about this legislation is that with nothing more than the stroke of a pen, Connecticut can immediately

have the cleanest home heating fuel in the country. No public spending is required -- not a penny.

From the shipping into Connecticut's ports to the hundreds of small heating oil companies across the state delivering personal service, the infrastructure for this is already here. It's already working. And homeowners and businesses don't have to make a single change to the equipment in their basements.

With S.B. 382, we're giving Connecticut a fuel they already choose handled by same industry, delivered by the same local professionals they already trust, only greener, cleaner, better. We heard an earlier testimony by Steve Guveyan of the CPC that if this bill were passed, he wouldn't want to be a heating oil customer. And I'm not sure why that is except that he may have gotten a few of his facts wrong.

And if I may, the European sulfur standard is 50 parts per million, not 1,000 parts per million. He indicated there wouldn't be enough sulfur -- low-sulfur product for the national heating oil demand.

First of all, we're not talking about national demand, we're talking about Connecticut -- Connecticut, New York, Massachusetts, Rhode Island. He indicated that low-sulfur fuel would be significantly more expensive. Today, this day on the NIMEX, it's trading at five and a half cent premium to heating oil. And next year, when they're both traded on the same NIMEX platform, that will be arbitrated right out.

And as Paul Hoar indicated in earlier testimony, the boutique fuel is the high-sulfur heating oil. It's only something like

17 percent of what's produced and consumed in the nation.

REP. ROY: We're going to stop there.

PETER AZIZ: Okay. Thank you.

REP. ROY: Any questions or comments from folk on the committee?

Seeing none, thank you very much. Appreciate you coming out.

PETER AZIZ: Thank you. Thank you.

REP. ROY: Gene Guilford, followed by Joyce Acebo-Raguskas.

EUGENE GUILFORD: Chairman Roy, Chairman Meyer, members of the Environment Committee.

My name is Gene Guilford. I'm President of the Independent Connecticut Petroleum Association. Our organization represents 565 members made up primarily of heating oil retailers and gasoline retailers in the state of Connecticut.

These companies employ currently 13,000 Connecticut citizens. We contribute more than \$6 billion in economic value for the health and wellbeing of our state. I'm here today in strong support of S.B. 382.

First of all, because we're keeping our word to this committee and to its House Chair, because five years ago we were here talking about a very similar piece of legislation and we said, with all due respect Representative Roy, not yet.

But there's going to be a day when we'll be back, because we had to get over the transition of ultra-low sulfur diesel fuel's on-road federal mandate, which was taking place at about that same time.

In a similar juncture, we also had to tell Representative Miller, who's been one of the staunchest supporters of biodiesel in the Connecticut General Assembly, not yet. So finally, we're able to come here after very careful consideration, after working since last summer, discussing this issue with every single company who supplies heating fuel to the state of Connecticut, working with the National Biodiesel Board, working with the National Oil Heat Research Alliance, who commissioned a study on the supply of ultra-low sulfur diesel fuel that was reported to you earlier today.

To be able to tell you that, Representative Miller, now your time has come.

A VOICE: (Inaudible).

EUGENE GUILFORD: It's been a while. And furthermore, when it comes to the supply of ultra-low sulfur diesel fuel, we can have differences of opinion on the matter of whether or not this makes sense. But we can't have differences of facts.

The fact remains. Two hundred and twenty thousand of ultra-low sulfur diesel fuel per day in 2009 were exported from this country primarily to Europe and South America. So I have an amendment for you, with all due respect to the American Petroleum Institute, who we have listened to carefully over the last decade, as the ultra-low sulfur diesel

regulations have been imposed by the EPA on our economy and through us as retailers.

We will agree to rename the state of Connecticut "Mexico," so that we can get the ultra-low sulfur diesel fuel they're exporting from this country if that's what it takes to get it here.

Now the fact remains, under the federal mandate for ultra-low sulfur diesel fuel, the entire ultra-low sulfur diesel fuel pool is going to be at 15 parts per million in 2014. That's when we propose heating oil to start in Connecticut and only in Connecticut.

We strongly support this piece of legislation. We believe we can revolutionize this industry in this state and protect 13,000 jobs, better serve our consumers, we can lower emissions, we can improve efficiencies, and we can do a lot better job taking care of our customers if we have a better fuel. The only way to get it is by changing the statute that compels us the kind of fuel we can have.

Thank you very much for your attention.

REP. ROY: Thank you, Gene.

Any questions or comments from members of the committee?

Seeing none, thank you.

EUGENE GUILFORD: Thank you very much.

REP. ROY: Joyce Acebo-Raguskas, followed by Gary Proctor and Jeremy Cardhere.

JOYCE ACEBO-RAGUSKAS: Good -- good afternoon. Thank you for being here, Chairman Roy --

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REP. ROY: Bring the mike closer to you. Thank you.

JOYCE ACEBO-RAGUSKAS: -- Chair Meyer and the committee. Thank you so much.

SB382

Yes, my name is Joyce Acebo-Raguskas. I'm with the Environmental Concerns Coalition and many other environmental coalitions. This one is in Milford. I am here in nonsupport of Bill 5418, AN ACT CONCERNING INTEGRATED PEST MANAGEMENT PLANS FOR MUNICIPAL FACILITIES.

I am not in agreement of this Bill 5418, nor any extension of this bill. The bill does not reassure nor satisfy the well-being of human beings, and that would include our children. The wording "Integrated Pest Management" -- IPM -- is somewhat vague and not only in application but content monitoring and so forth.

It does not specify the use of nontoxic material only for our playing fields for our children and students K through 8 in any language of this bill. The wording does not address the protection and well-being of all those exposed to toxic materials. Nontoxic materials must be the only consideration in playing fields and municipalities to ensure the well-being of our people.

Bill 5418 clearly does not satisfy the safety and health hazards to all the exposed human beings and continues to contribute to the destruction of our ecosystem. A little bit of toxic matter matters. It matters both short- and long-term for the well-being of us human beings -- us as human beings as well.

And I think we would like to say that it is our obligation to provide protection and not exposure. And I would say also that I thank you all for all that you do and the support that you've given things that I've worked on.

And in addition, I'd like to support S.B. 382. Just throw that in there, because I had a little extra time. And I look forward to the dandelions and the -- and the wine that goes along with them, so thank you.

REP. ROY: Thank you.

Any questions or comments from members of the committee?

Joyce, thank you very much.

JOYCE ACEBO-RAGUSKAS: You're welcome.

REP. ROY: Gary Proctor, followed by Steve Sack. Jeremy not show up?

GARY PROCTOR: He had to go back to work. He was a young farmer I wanted to introduce here, but he couldn't be.

HB5419

My name is Gary Proctor. I'm the Vice President of the Connecticut Poultry Association and Chairman of the Poultry Processing Committee. I just wanted to say when Dan Meiser was here from Firebox Restaurant, he was here in the morning, but he had to go back and start his restaurant up, but he was -- he was so concerned about testifying that Jiff called him back just before he was due and he came back in and testified, so that's -- I really appreciated that.

least 30 more jobs to the economy and five or six new farms.

As far as turkeys and tourism and food security and environment, it speaks for themselves. There is no place today, as we've heard testimony, for anybody to do USDA inspections. There just is none in Connecticut.

And there isn't anyplace anybody can take their chickens to to get processed even without USDA inspections. This would be very important to the organization and to Connecticut restaurants and chefs and stores, and it's -- I think it's just a good -- a good all-around bill. It's needed. We get calls every day asking us to do something about being able to get chickens into these markets.

So thank you very much.

REP. ROY: Thank you, Steve -- Gary.

Any questions from members of the committee?

Seeing none, you're all set. Thank you.

GARY PROCTOR: Thank you.

REP. ROY: Steve Sack, followed by Jason Cohen.

STEVE SACK: Good afternoon, committee. My name is Steve Sack, Jr. I'm from Sack Distributors, a fourth generation wholesaling of petroleum products in the state of Connecticut.

I'm here today in support of Special Bill 382, AN ACT REQUIRING BIODIESEL BLEND HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE OF CONNECTICUT.

You've heard from a lot of different people -- good things, bad things about it. I came with some points here, but listen everybody. I think I'm going to go off of what -- what I wrote here.

We're a family wholesaling business in the state of Connecticut. We own terminal structures. We have terminals throughout Connecticut. We have a couple terminals that we wholesale BioHeating oil in.

We've done biodiesel fuel -- not actually store it, but sell it to customers. We do store BioHeating oil. We do a 5 percent blend now in some of our terminals through the bitter cold winters and never had a problem. I know they had a problem in Minnesota, but that was on diesel fuel.

Working with a lot of people, we have seen some of those issues here in Connecticut, but only on the diesel fuel portion. We think we may have narrowed it down to being a additive package and the diesel fuel that they're trying to fix.

But on the heating oil side, for three years, I saw the many different retailers throughout the state of Connecticut. I have not had one complaint -- not one problem anywhere in the state of Connecticut with this product.

We talk about lowering the sulfur content of heating oil. Go back in time when I'm relatively young. I've been in my family business for about 20 years. When I first started, there was one product. It was 3,000 parts per million, one product only that covered heating oil, diesel fuel on-road and off-road. One product -- you had five tanks, ten tanks, all the same product.

This bill is kind of bringing it right back to where we were before again, having one product. You can have less tanks, less potentials of spills or problems by serving the entire state with one single product. The only difference will be a dye and not a dye in a product for tax purposes, but the base product itself is going to be one product.

That would allow many retailers to get back into the off-road diesel fuel portion and make it more competitive. It would also save on pollutions in the air, because the same truck could go to Mrs. Jones' house and then go down the street to a construction site and make a delivery for the off-road diesel fuel versus getting another truck and going back out and travelling again to make that delivery with a different type of product that you have to do today.

Five years ago, you could do it in the same truck. You cannot do it today with the same product. The state of Connecticut has also spent a lot of money in investing some grants into the production of biodiesel, production of terminals.

It -- it's time you start to see some real benefits of -- of your investment in the state of Connecticut's investment into grants, getting these things up and running. It's a good thing for the environment. It's a good thing for the people of the state of Connecticut. Thank you.

REP. ROY: Thank you, Steve.

Any questions or comments from members of the committee?

Representative Miller.

REP. MILLER: Thank you, Mr. Chairman.

Good afternoon.

With regard to your terminals, I don't know if you recall that Sunoco used to have a pump, and you could press in the type of fuel you wanted.

STEVE SACK: There are five grades you're talking about.

REP. MILLER: Yes. Yes. Now, at your terminals, is this a possibility that you'll be able to blend the bio into the heating oil at certain levels? Is -- is there equipment like that available?

STEVE SACK: Yes. There are -- there are some terminals -- you can do it basically two different ways -- have a heating oil tank and a B100 straight bio tank and have a -- a rack injection blending system. You type in 2 percent, 5 percent, 10 percent, 20 percent, and it will blend it right at the loading rack.

At my facilities, I actually bring it in free-blended already. So I just house it in -- in the tanks that I do carry it in, I carry one blend of 5 percent. I can hold a B20 blend, and we have a BioHeat tank and a regular two oil tank, so the customers can then blend to whatever blend ratio they would like to deliver to homes.

But you can do it either way. You can have a push button of -- just like the old Sunoco gas pumps at the gas stations.

REP. MILLER: And it that an expensive operation?

STEVE SACK: It is expensive, yes. You'll probably -- you have to set up a different tank, a heating system. You have to pay to heat the tank because the bio itself you have to keep above 60 degrees.

If it gets down and -- and forms a solid -- it will form a solid at 20 degrees. Then you have to heat it back up to 100 to make it liquid again. So we only store it in a blended -- in a blended fashion.

REP. MILLER: Thank you very much.

REP. ROY: Thank you.

Any other questions or comments from members of the committee?

Seeing none, Steve, thank you very much.

STEVE SACK: Thank you.

REP. ROY: Jason Cohen, followed by Doug Nagan.

JASON COHEN: Senator Meyer, Representative Roy, and the committee. Thanks so much for sticking around and giving me an opportunity.

My name is Jason Cohen and I'm the Director of Parks and Recreation in Colchester, and I'm -- I'm representing Connecticut Recreation and Parks Association.

You've heard a lot of -- I'm here regarding Senate Bill 5418, IPM. And we support this bill with some amendments that would ensure that the current situation is extended permanently, meaning that pesticides are permitted under mandated IPM and expanded on.

Comments on SB382 from Gus Kellogg, Founder and CEO, Greenleaf Biofuels LLC

March 12, 2010

I would like to speak in favor of **SB382, AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE.**

My name is Gus Kellogg and I am the Founder and CEO of Greenleaf Biofuels LLC. We are currently based in Guilford as a biodiesel distributor but are in the process of building a 10Mgy biodiesel production plant in New Haven harbor. I am also a founder of the Connecticut Biodiesel/Bioheat Association, which represents the interests of biodiesel producers and marketers in the state, and currently serve as the President of that organization.

The legislature nearly passed a similar bill last year that would have required the use of biodiesel in all heating oil and diesel fuel sold in the state. This year we are working more closely than ever with the state's heating oil dealers, represented by the Independent Connecticut Petroleum Association, and support the bill's requirement for blending biodiesel into heating oil only at this time, not transportation fuels. As many of you are aware, that was the major roadblock to passing a bill last year. We also commend the ICPA for their dedication to improving the combustion properties of the fuel they sell and dramatically reducing emissions, and therefore also support the bill's requirement for the use of Ultra Low Sulfur heating oil. Biodiesel itself is an ultra low sulfur fuel, so lends itself nicely to this new standard.

There have been a few significant developments over the past year that I'd like to highlight. First, biodiesel production capacity in Connecticut has grown 200% with the start-up of BiodieselOne in Southington, joining BioPur as the state's second biodiesel producer. Next, the Federal government has supported biofuels in a big way with the implementation of the second-generation Renewable Fuels Standard, or RFS2. Under the guidance of Gina McCarthy, our former DEP Commissioner, the EPA completed its lifecycle analysis of biofuels used in the U.S. and has determined that soy biodiesel has a net GHG reduction of 57% compared to conventional diesel fuel, thus qualifying as an advanced renewable fuel. Significantly, this lifecycle analysis included carbon figures for indirect land use, a much debated topic over the past two years. Furthermore, biodiesel produced from recycled cooking oils, the raw material most used in Connecticut for the production of biodiesel, was found by the EPA to reduce GHG emissions by 86% compared to conventional diesel.

When our biodiesel plant comes online by the end of this year, we will have 14.5Mgy of production capacity in the state. All of this is planned to be produced from recycled cooking oil. This will result in lifecycle net carbon reductions of 168,000 tons each year. And that's just a start. With the market stability provided by this bill, biodiesel production

in this state could grow to 120Mgy by 2020. This bill will result in the reduction of GHG emissions from our state's heating oil by some 800,000-1M tons per year by 2020.

Finally, the U.S. Senate just this week passed legislation to extend the Federal biodiesel tax credit, thus underscoring the Federal government's support of the domestic production and use of biodiesel fuels. Connecticut needs to leverage the federal policies to create its own policies regarding the production and use of biodiesel so that our state captures all the direct and indirect benefits. These include creating new green collar jobs, displacing petroleum, reducing greenhouse gas emissions and helping secure our energy independence. There will also be measurable property tax income for municipalities and income tax for the state. Therefore, we urge you to support this bill.

We have made a few minor suggestions to clean up some of the language in the fuel quality section, which is included as an addendum to the written testimony I've submitted today.

Thank you for your time.



**STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION**



Public Hearing – March 12, 2010
Environment Committee

Testimony Submitted by Commissioner Amey W. Marrella
Department of Environmental Protection

Raised Senate Bill No. 382 - AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE

Thank you for the opportunity to present testimony regarding Raised Senate Bill No. 382 - AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE.

The Department of Environmental Protection (Department) does not support Raised Senate Bill No. 382 in its current form. The Department supports lowering the sulfur content of distillate fuels. Reducing fossil fuel consumption and the air emissions associated with burning distillate fuel is a worthy and cost effective multi-pollutant reduction strategy that will assist the State in meeting its clean air objectives—attaining the federal health based air quality standards for both ozone (i.e., smog) and fine particulate matter (PM2.5).

The entire State fails to meet federal ozone standards, obligating the State to develop more strategies to reduce ozone precursor emissions. In addition, New Haven and Fairfield Counties are designated as not attaining the federal PM2.5 standard. Emissions from combustion of distillate fuels, such as heating oil, result in air pollution in the form of nitrogen oxides (NOx), particulate matter (PM), and sulfur dioxide (SO2). SO2 emissions create sulfates, which are the primary component of PM2.5 in Connecticut and the most significant contributor to acid deposition and visibility impairment in the State. On an annual basis, the combustion of distillate oil is responsible for 36 percent of total SO2 emitted in the state. In the heating season, distillate oil combustion contributes almost one-half (49 percent) of Connecticut's total SO2 emissions. All of these pollutants endanger public health by contributing to ozone, PM and regional haze. They can also cause inflammation of the airways and exacerbate asthma in children and adults and exacerbate other cardio-pulmonary diseases, such as chronic obstructive pulmonary disease (COPD).

The Department favors adoption of a bill that reduces the sulfur content of heating oil from the established maximum of 3,000 ppm to 15 ppm as soon as practical and by no later than the 2016-18 timeframe. Such a bill would protect public health and our regional air shed and meet federally enforceable commitments to reduce Connecticut's contribution towards regional haze, while simultaneously protecting Connecticut's consumers from the damaging effects of high sulfur heating oil.¹ This approach is necessary and consistent with our obligation to address Regional Haze pursuant to the federal Clean Air Act and represents a significant PM2.5 compliance strategy.

As currently drafted, the bill does not contain enough specificity for the Department to analyze the environmental implications of a biodiesel mandate beginning in 2011 and the Department has not conducted any analysis the potential impact to the price of fuel of should such a mandate be enacted.

Finally, the Department would like to work with the Committee to improve the drafting of this bill because clarity is needed on what specific fuel is being regulated. Additionally, the sulfur content limit for off-road diesel fuel should be deleted in its entirety because that standard is now set by the federal government at 15ppm sulfur.

Thank you for the opportunity to present testimony on this proposal. If you should require any additional information, please contact Robert LaFrance at 424-3401 or Robert.LaFrance@CT.gov.

¹The 2006 Clean Diesel Plan includes an analysis of the potential emission reductions from reducing the sulfur content of distillate oil to 15ppm. The plan contains an estimated reduction of SO2 emissions by over 10,000 tons per year. See Connecticut Clean Diesel Plan 2006 at <http://www.ct.gov/dep/lib/dep/air/diesel/docs/ctcleandieselplanfinal.pdf>

Raised Bill No. 382 – Proposed Amendments

AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Subsection (a) of section 16a-21a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2011*):

(a) The amount of sulfur content of the following fuels sold, offered for sale, distributed or used in this state shall not exceed the following percentages by weight: (1) [For number two heating oil, three-tenths of one per cent] For the period beginning July 1, 2011, and ending June 30, 2014, fifty parts per million and, on and after July 1, 2014, fifteen parts per million, and (2) for number two off-road diesel fuel, three-tenths of one per cent.

Sec. 2. (NEW) (*Effective October 1, 2010*) (a) For purposes of this section:

(1) "Heating oil" means heating fuel that meets the American Society of Testing Materials or "ASTM" standard D396 or the "ASTM" standard D6751;

(2) "Biodiesel blend" means a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats that meets the most recent version of ASTM International designation D6751;

(3) "Sold" means the wholesale sale made to a retailer or the retail sale made to an end-user consumer;

(4) "Commissioner" means the Commissioner of Consumer Protection, or the commissioner's designee; and

(5) "Sufficient in-state production of biodiesel" means fifty per cent of the annual mandated volume of biodiesel, as determined by the most recent data available from the Energy Information Administration of the United States Department of Energy, is available from in-state producers based upon the combined nameplate capacity of such producers.

(b) (1) Subject to the provisions of subdivision (2) of this subsection and subsections (d) and (f) of this section, (A) not later than July 1, 2011, all heating oil sold in this state shall be a biodiesel blend containing not less than two per

cent biodiesel, (B) not later than July 1, 2012, all heating oil sold in this state shall be a biodiesel blend containing not less than five per cent biodiesel, (C) not later than July 1, 2015, all heating oil sold in this state shall be a biodiesel blend containing not less than ten per cent biodiesel, (D) not later than July 1, 2017, all heating oil sold in this state shall be a biodiesel blend containing not less than fifteen per cent biodiesel, (E) not later than July 1, 2020, all heating oil sold in this state shall be a biodiesel blend containing not less than twenty per cent biodiesel.

(2) The provisions of subparagraphs (A) to (E), inclusive, of subdivision (1) of this subsection shall not take effect until the states of New York, Massachusetts and Rhode Island each adopt requirements that are substantially similar to the provisions of subparagraphs (A) to (E), inclusive, of subdivision (1) of this subsection.

(c) Unless the commissioner issued a waiver pursuant to subsection (f) of this section, any biodiesel blended with heating oil shall be produced in accordance with industry-accepted quality control standards, including, but not limited to, any standard required under the BQ-9000 certifications program of the National Biodiesel Accreditation Programs. A certificate of analysis that verifies conformity with the critical specifications of designation D6751 of ASTM International, as defined by the National Biodiesel Accreditation Commission, [the] shall be provided by the marketers or producers of any such biodiesel prior to the blending of such biodiesel with heating oil. The Department of Consumer Protection, within available appropriations, shall verify that biodiesel offered for sale in this state conforms [with] to the critical specifications [mandated by] of designation D6751 of ASTM International as defined by the National Biodiesel Accreditation Commission, the biodiesel fuel quality compliance protocol currently accepted by the Department.

(d) On or before April 1, 2011, and on or before April 1, 2012, the Commissioner of Consumer Protection, in consultation with the Distillate Advisory Board established pursuant to subsection (e) of this section, shall, within available appropriations, determine whether there is sufficient in-state production of biodiesel, to comply with the provisions of subparagraphs (A) and (B) of subdivision (1) of subsection (b) of this section, respectively. If the commissioner determines that such production is not sufficient, the commissioner, in consultation with the board, may delay the implementation date contained in said subparagraph until July 1, 2012, or earlier, and July 1, 2013, or earlier, respectively, provided the commissioner: (1) Not later than three business days after such determination, posts a notice specifying the duration of such delay on the department's Internet web site, and (2) not later than thirty days after such posting, reports, in accordance with the provisions of section 11-4a of the general statutes, the reasons for such delay to the joint standing committees of the

General Assembly having cognizance of matters relating to the environment, general law and energy and technology.

(e) (1) There is established a Distillate Advisory Board. Such board shall be located in the Department of Consumer Protection and shall consist of the following members appointed by the Commissioner of Consumer Protection: (A) Two representatives of the producers or suppliers of biodiesel in this state, (B) two representatives of the retail heating oil industry in this state, and (C) two representatives of the wholesale distillate supply industry in this state. Each member of the board shall serve at the pleasure of the commissioner and without compensation. No funds shall be allocated or made available to the board.

(2) The board shall advise the commissioner on industry and market progress in meeting and enabling compliance with the requirements of subsections (b) and (c) of this section.

(f) (1) The Commissioner of Consumer Protection, upon the receipt of a petition submitted by the Distillate Advisory Board in compliance with the provisions of subdivision (2) of this subsection, shall temporarily waive the requirements of subsections (b) and (c) of this section when: (A) The United States Department of Energy authorizes a release from the Northeast Heating Oil Reserve, (B) there is an inadequate supply of low-sulfur distillate products, or (C) there is an inadequate supply of biodiesel blending stocks or an operational problem that affects the supply of biodiesel blending stocks. Any such waiver shall be for a period of not less than thirty days and not more than forty-five days, provided such waiver may be renewed after the expiration of such period of time.

(2) Any petition from the Distillate Advisory Board that requests a waiver of any requirement of subsection (b) or (c) of this section shall include, at a minimum: (A) A statement of the immediate threat to the health and safety of the citizens of this state posed by the inadequate supply of low-sulfur distillate products, biodiesel blending stocks or operational problems that affect the supply of biodiesel blending stocks, as applicable, (B) the cause and nature of such inadequate supply or operational problem, as applicable, (C) the expected duration of such inadequate supply or operational problem, and (D) as applicable, a description of any alternative distillate supply that temporarily is needed to take the place of the applicable distillate supply described in subsection (b) or (c) of this section. Not later than three business days after receipt of any such petition, the commissioner shall issue a waiver of the requirements of subsection (b) or (c) of this section, as applicable.

(g) Not later than February 1, 2012, and each year thereafter, the Commissioner of Consumer Protection, in consultation with the Distillate Advisory Board, shall

submit a report, in accordance with the provisions of section 11-4a of the general statutes, to the joint standing committees of the General Assembly having cognizance of matters relating to energy and the environment on the progress in meeting the requirements of this section and on any affect that such requirements may have on the price or supply of heating oil in this state.

This act shall take effect as follows and shall amend the following sections:		
Section 1	July 1, 2011	16a-21a(a)
Sec. 2	October 1, 2010	New section

Statement of Purpose:

To amend the maximum sulfur content of home heating oil and establish a biodiesel blending requirement for such oil.

[Proposed deletions are enclosed in brackets. Proposed additions are indicated by underline, except that when the entire text of a bill or resolution or a section of a bill or resolution is new, it is not underlined.]

Testimony of

Joel M. Rinebold

Director of Energy Initiatives

Connecticut Center for Advanced Technology, Inc.

before

Environment Committee

March 12, 2010

regarding

Senate Bill No. 382

An Act Requiring Biodiesel Blended Heating Oil and Lowering the Sulfur Content of Heating Oil Sold in
the State

Introduction

The Connecticut Center for Advanced Technology, Inc. ("CCAT") offers this testimony regarding Senate Bill No. 382 - An Act Requiring Biodiesel Blended Heating Oil and Lowering the Sulfur Content of Heating Oil Sold in the State.

The Connecticut Center for Advanced Technology, Inc. (CCAT) is a nonprofit corporation that provides services and resources to entrepreneurs and businesses and, through collaboration with industry, academia, and government, to help companies innovate and compete, thereby strengthening our nation in the global market. The Energy Initiative at CCAT has been established to improve the economic competitiveness of the region through solutions that lower energy costs and increase long-term energy reliability. CCAT administers the Connecticut Biodiesel Production and Distribution Grant Program, with funding provided by the Department of Economic and Community Development, which provides grants for the production of biodiesel and the construction and/or modification of biodiesel production and distribution facilities. Through this program, CCAT seeks to increase economic growth opportunities for Connecticut's clean energy sector and promote a greater use of biodiesel; advance technological innovation in biodiesel; increase public confidence, support and awareness for biodiesel; support the development of biodiesel production and distribution equipment and facilities; and reduce dependence on fossil fuel consumption, and greenhouse gases emissions.

This Bill contains components that are favorable for the development of a biodiesel industry in this State. The components of this Bill that appear favorable include:

- ***Promote the use of biodiesel in Connecticut and the Northeast:***

The Bill would increase the use of biodiesel in Connecticut and the Northeast. The State of Connecticut has invested approximately \$1.6 million to support the development of three biodiesel production facilities in Connecticut that will have a combined production capacity of approximately 22.5 million gallons per year. These facilities could serve approximately three (3) percent of Connecticut's #2 distillate market.

- ***Create jobs and encourage economic development:***

Providing a market for Connecticut-produced biodiesel will create jobs and encourage economic development. It has been estimated that the three biodiesel production facilities identified above are expected to provide the following benefits to the state annually:

- Monetary value of the biodiesel fuel produced of approximately \$97 million;
- Monetary value of the carbon dioxide offsets of approximately \$557,000; and
- Over 200 new jobs including direct, indirect and induced impacts.

- ***Effective merger of industry development with environmental benefits:***

The use of biodiesel can reduce air emissions including greenhouse gases. For example, 22.5 million gallons of biodiesel can reduce carbon dioxide emissions by approximately 181,000 tons.

CCAT finds value with this Bill, but suggests a minor refinement with the definition of biodiesel blend identified in the Bill, as follows: "Biodiesel blend means a fuel blend that includes mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats that meets the most recent version of ASTM International designation D6751".

Conclusion

CCAT supports policies that encourage the production, distribution and use of biodiesel in Connecticut that serve to enhance economic development including job creation and reduce air emissions including greenhouse gases.

Respectfully submitted,

Joel M. Rinebold

Director of Energy Initiatives

Connecticut Center for Advanced Technology, Inc.



Co-Chair Edward Meyer
Co-Chair Richard Roy
Senator John McKinney
Representative Clark Chapin

Members of Environment Committee:

I am submitting testimony in support of **S.B. 382, AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE.**

The Independent Connecticut Petroleum Association (ICPA) represents 564 petroleum marketers and their associated business in Connecticut. ICPA members employ over 13,000 people in our state and provide 682,000 Connecticut residences with 500 million gallons of heating oil each year.

In 2006 we came before this committee in opposition to a bill that would require a low sulfur heating oil mandate. We supported a cleaner fuel, but at that time the 600 family owned retail heating oil dealers were not assured that the traditional points of supply (New York, Massachusetts and Rhode Island), where they pick up fuel, would have the Connecticut-mandated fuel that was being proposed in the bill. At that time, ICPA proposed an amendment that was passed in to law (PA 06-143) that protected heating oil dealers and the consumers that they serve by requiring that fuel specification changes made in Connecticut had to be similarly done in our neighboring states. Additionally, ICPA committed to Chairman Roy and the members of the committee at that time, that we would return if circumstances were to change that would allow a switch to a lower sulfur heating oil.

Today we return to propose the changes to the specification of heating oil that we began discussing in 2006.

More than a decade ago under federal mandate, the sulfur content in diesel fuel was slated for substantial reduction. The reductions fall into two categories; on-road diesel fuel reduced to 15ppm sulfur and that was substantially accomplished in 2005, and then off-road diesel and that category of reductions also reaches 15 ppm sulfur by 2014, as the attached chart lays out.

The only part of the distillate stream not slated for sulfur reduction by federal mandate is heating oil, and heating oil is slightly less than 2% of the distillate demand in the country today - a very small amount.

There are two key questions, which we have dealt with for more than a decade here, to be answered in consideration of our proposal before you today.

1. Is there sufficient supply of the ultra-low sulfur product, 50ppm sulfur product from July of 2011 through July of 2014, and then 15ppm sulfur product from July 2014 forward; and
2. What are the price implications for consumers of the change in specification that we recommend.

On the matter of the first question, with us here today is Mr. Kevin Lindemer, an energy expert and consultant who has performed an in-depth study for the National Oilheat Research Alliance, who will provide expert and independent testimony addressing the question of the availability of the ultra-low sulfur diesel supply issue.

We are pleased to report that in 2009, 220,000 barrels per day (bpd) or over 80 million barrels per year of ULSD was produced here in the United States and then exported overseas, principally to Europe and South America. Connecticut needs a very tiny percentage of those exports to remain here in the United States for our use as a heating fuel. To anyone coming before you today or while this legislation is being considered and suggests some harm will come from this mandate - remind them that the United States is a net exporter of ULSD and we're only asking for a small quantity to be left here in Connecticut as it is being shipped out of the country.

If Connecticut were renamed Mexico or Germany we could get this fuel. S.B. 382 keeps a small portion of U.S. exports of ULSD in Connecticut, so that we can enjoy the same benefits that many South American and European nations enjoy.

On the matter of the second question, price impacts, Mr. Lindemer will present that the net effect of this switch in ULSD will result in a savings to consumers.

This legislation in NO WAY affects the fuel supply that the trucking industry relies on. All this bill does is use a small amount of the ULSD that we send to other countries for our use in our state. If ULSD is good enough for South America and Europe it is good enough for Connecticut!

The refining industry has been gearing up for nearly a decade to meet federal requirements for ULSD (*see attached Clean Diesel Fuel Alliance*). In fact, federal law already requires all refiners to produce 15ppm fuel for off road use by 2014. S.B. 382 takes a similar approach for Connecticut and leaves no doubt that this proposal is attainable without any difficulty for the refining industry.

Examine that chart carefully. Understand that the entire on-road diesel demand has already been switched to ULSD/15ppm fuel. The remaining off-road diesel demand, a far smaller share than on-road, completes its transition to ULSD/15ppm in 2014.

In 1981 America had over 350 domestic oil refineries. Today it has 149. Refineries have been closing in this country for thirty years and production consolidated into larger, more efficient refineries. The world has been moving, gradually, away from gasoline and toward the ultra-low sulfur diesel product we are discussing here today. Refineries where the investment to produce ULSD, given the cost of production each marginal barrel results in a sensible return on investment, have been expanded to produce more ULSD. Those older, less efficient refineries where marginal production doesn't merit investment, are closed. Given the 220,000 barrel per day exports of ULSD, nothing we do here today is going to effect the life of a refinery in America, other than send an important market signal that the last remaining part of the middle distillate pool that was forgotten by Washington, heating oil, gets to be cleaned up too.

Every environmental improvement in fuels has resulted from legislative mandate. Our industry seeks to have clear market signals from a marketplace so that producers know what to produce and in what quantities - switching fuel specifications doesn't just happen - it needs to be led. We came here today to lead. Connecticut mandating ULSD for heating plugs our state into a world-wide production of this same product and adds to our energy security as a result.

Another component of this bill would require the use biodiesel in heating oil - a renewable fuel content that begins at 2 percent and scales up to 20 percent by the year 2020. As we move through this transition we will eventually be taking 100 million gallons of traditional, ULSD petroleum out of our market and replacing it with clean, renewable agricultural fuels that are domestically produced and strongly supported by mandates found within the 2005 and 2007 federal Energy Policy Acts and reaffirmed by Congress just this week.

Joining us here today is Mr. Michael Devine on behalf of the National Biodiesel Board to discuss the nation's available bio supply, its price and competitiveness, as well as the recently announced federal EPA Renewable Fuel Standard/2 that deals with issues such as lifecycle analysis and biodiesel's use in our economy. We also are pleased to have the Connecticut Biofuels Association here to discuss our own state's biofuel production that is important to this legislation.

The language in this bill takes a similar approach to a renewable fuel mandate as the original multi-state sulfur law we discussed in 2006 and earlier today.

Protecting heating oil retailers and their customers needs to remain a priority. S.B. 382 mandates the use of biodiesel when we can obtain it in New York, Massachusetts and Rhode Island. There is already a mandate for biodiesel in Massachusetts.

Ultimately, this bill will produce the cleanest fossil fuel-based heating fuel in America. A ULSD/20% biodiesel combination reduces the sulfur content of heating oil by 99.93% - from 3000ppm to 15ppm. We begin with a reduction from 3000ppm to 50ppm sulfur in July of 2011 through July of 2014, and then reduce further to 15ppm sulfur in July of 2014, exactly when the rest of the middle distillate pool subject to the ULSD standard needs to also reach 15ppm sulfur.

This reduction in sulfur would leave heating oil with a sulfur content that is 75% less than natural gas. When ULSD and biodiesel are used together heating oils carbon footprint is reduced an additional 30%.

The environmental benefits of a ULSD biodiesel used for heating purposes are undeniable (*see attached CT Full Fuel Efficiency & Carbon Emission*). Supply is good, prices are competitive and the Connecticut-based independent petroleum industry is ready to keep their customers warm with this new, clean renewable fuel.

We ask that the Environment Committee lead the nation by bringing the cleanest heating fuel in America to Connecticut by **supporting S.B. 382, AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE.**

Respectfully,

Eugene A. Guilford Jr.
President

Connecticut Full Fuel Cycle Efficiency and Carbon Emissions Residential Hydronic Heating and Domestic Hot Water Systems

Energy Efficiency and Life Cycle Carbon Emissions

A Consortium of State Oilheat Associations commissioned a Greenhouse Gas Project to study¹ the full fuel cycle efficiency to determine the energy efficiency and GHG emissions impact for hydronic heating systems which also provide domestic hot water. The research concluded that focusing on sustainability in the built environment requires life cycle assessments of operational building energy systems. Sustainable energy production and consumption should also require life cycle assessments from wellhead to burner tip.

Fuel Mix

Connecticut is projected to experience significant changes in its natural gas supply mix by 2020. Connecticut will see a significant decrease in gas from Western Canada and the Gulf Coast, increase in gas from the Rocky Mountains, Midcontinent and the Southwest, increase of Gulf Coast LNG and LNG shipments into regional terminals.

Fuel Cycle Emissions

Figure 1 shows the fuel cycle emissions in pounds of CO_{2e} per MMBtu of fuel delivered (not including end-use equipment efficiency) for each fuel type in 2006 and 2020. This graph provides CO_{2e} emission up to the burner tip and gives an emissions impact understanding of potential changes in fuel mix between 2006 and 2020. Marginal comparisons between heating oil and biofuel blends should be made versus the marginal LNG supply. Figure 1 shows that delivered bio-blends can provide less CO_{2e} emissions than marginal LNG without taking into account system efficiencies.

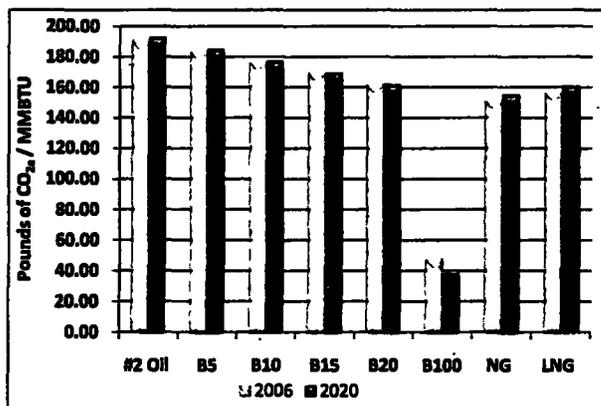


Figure 1 - Connecticut Fuel Cycle Emissions

¹ "Final Report Resource Analysis of Energy Use and Greenhouse Gas Emissions from Residential Boilers for Space Heating and Hot Water", Bruce Hedman and Anne Hampson, ICF International, August 2008.

System Energy Efficiency (Resource Conservation)

Brookhaven National Laboratory² (BNL) developed an accurate method to determine system efficiency for integrated heating and domestic hot water residential systems³. The BNL model is more accurate in predicting actual building heating and DHW performance and the commonly used AFUE methodology. Three boiler configurations were examined: an average boiler currently sold, a high efficiency boiler and a condensing boiler. The comparison was performed on a 2,500 ft² ranch home with a basement with typical "code" construction. Figures 2 and 3 provide the total annual resource energy requirements to provide heating and hot water services to the modeled 2,500 square foot house (including energy use along the fuel cycle and end use equipment efficiency). Total energy requirements to provide the annual heating and hot water services is higher for natural gas for both the average, high efficiency non-condensing units in 2006 (Figure 2), reflecting two important factors: 1) large amount of Gulf Coast and Western Canadian gas supply, and 2) the appliance and system efficiency advantage oil and biofuel blends have versus natural gas and LNG through less water content⁴.

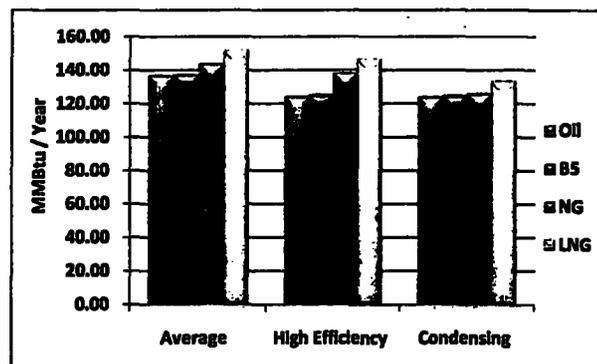


Figure 2 - 2006 Fuel Cycle Energy

Figure 3 shows that ultra low sulfur diesel (ULSD) and B20 have higher source energy efficiency than the natural gas supply and marginal LNG across the board in 2020.

² Performance of Integrated Hydronic Systems, Project Report, May 1, 2007, Thomas A. Butcher, Brookhaven National Laboratory.

³ AFUE leads to low estimates of the energy savings potential of modern, integrated systems, particularly where advanced controls are used.

⁴ With respect to current non-condensing appliances - natural gas maximum boiler AFUE efficiency is 83% and oil maximum boiler AFUE efficiency is 88% with the reason for this differential being the water content in the fuel and resultant combustion gas dewpoint affecting performance.

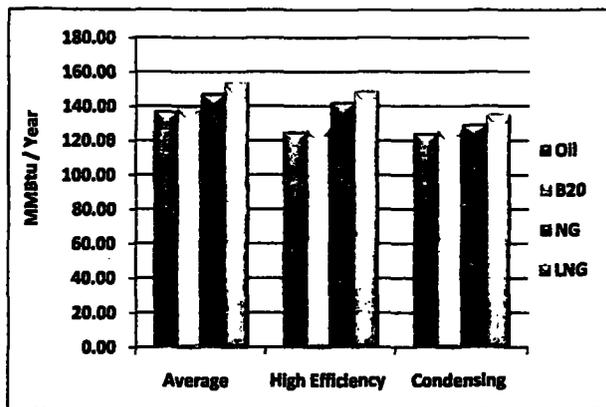


Figure 3 - 2020 Fuel Cycle Energy

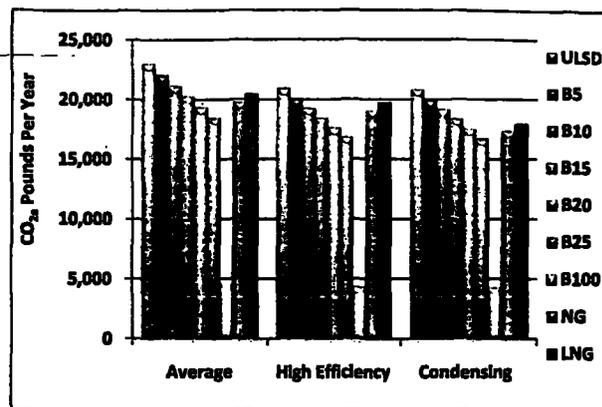


Figure 5 - 2020 Annual CO_{2e} Emissions in Pounds per Year

Life Cycle Emissions Comparison

Figures 4 and 5 show a condensing boiler using marginal LNG supply produces 8% less CO_{2e} per year than heating oil in 2006 and only 6% less CO_{2e} emissions than ULSD in 2020. Remarkably, if you compare a high efficiency non-condensing boiler using LNG supply you find it produces 4% less CO_{2e} per year than heating oil in 2006 and 2% more CO_{2e} emissions than ULSD in 2020. In 2006, a high efficiency B10 boiler produces the same CO_{2e} emissions per year as a high efficiency boiler using LNG and in 2020 a condensing B20 (ULSD) boiler produces 2% less CO_{2e} emissions per year than a condensing boiler using LNG.

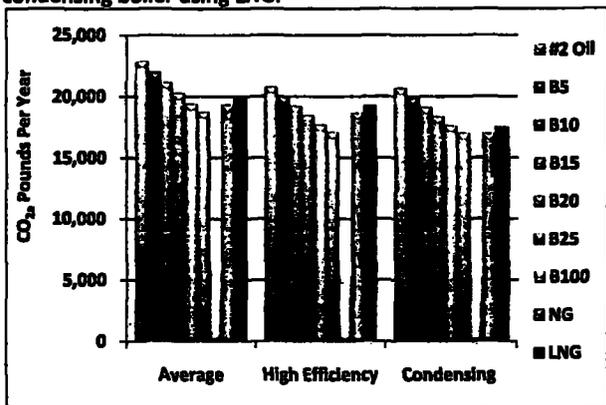


Figure 4 - 2006 Annual CO_{2e} Emissions in Pounds per Year

Life Cycle Emissions Planning

Fuel delivery characteristics will vary dramatically over time, as supply sources vary and sustainable alternatives enter the market, creating complexity regarding fuel switching policy designed to reduce carbon emissions. Figure 6 assumes a linear shift in emissions from 2006 to 2020. The liquid fuel bio-blend (between B10 and B15) is projected to emit less CO_{2e} emissions than LNG going forward from around 2015 based upon this projection.

Clearly, today's policies and regulations must take future fuel diversity into account to prevent unintended consequences and to deliver the lowest potential emissions solutions.

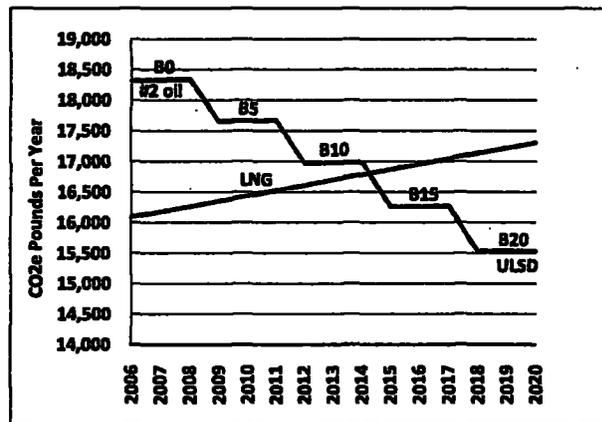


Figure 6 - Emissions for a High Efficiency Boiler over Time

Conclusions

Resource energy analysis and full fuel cycle emissions analysis are more comprehensive and accurate methods to assess the total energy and emissions impacts of residential energy consumption. Site energy analysis only takes into consideration the ultimate consumption stage. Significant energy is consumed, with resulting CO_{2e} emissions, during all stages of energy use.

There are strong energy and environmental reasons, for combined hydronic heating and DHW systems, to encourage the development and/or use of:

- Sustainable biofuels – B5 today, B10 in the near future and B20 as supply and technology permit
- ULS Diesel as it becomes available
- High efficiency non-condensing oil-fired boilers
- Condensing gas and oil-fired boilers

Care should be taken selecting policy approaches that provide either regulatory mandate or consumer incentive to change behavior that may foreclose future innovation. Eliminating oilheat dealers of today will also eliminate the B20 dealers of tomorrow.

<http://www.clean-diesel.org/nonroad.html>



Locomotive, marine and non-road diesel fuel standards begin at later dates (except in California).

EPA fuel standards for locomotive, marine and non-road diesel fuel engines and equipment, such as farm or construction equipment, become effective at dates later than those for highway vehicles:

- Diesel fuel intended for locomotive, marine and non-road engines and equipment is required to meet the Low Sulfur Diesel fuel maximum specification of 500 ppm sulfur in 2007.
- By June 2010, the ULSD fuel standard of 15 ppm sulfur will apply to non-road diesel fuel production.
- Beginning in 2012, locomotive and marine diesel fuel must meet the ULSD fuel standard of 15 ppm sulfur.

Click here for [EPA Winterization Standards Letter 11-30-07 \(PDF\)](#).

Click here for [Non-road ULSD Use Fact Sheet \(PDF\)](#).

Click here for [Non-road Diesel Pump Labels \(PDF\)](#).

Non-road Diesel Fuel Standards										
Who	Covered Fuel	2006	2007	2008	2009	2010	2011	2012	2013	2014
Large Refiners & Importers	NON-ROAD	500+ ppm	500 ppm	500 ppm	500 ppm	15 ppm				
Large Refiners & Importers	LOCOMOTIVE & MARINE	500+ ppm	500 ppm	500 ppm	500 ppm	500 ppm	500 ppm	15 ppm	15 ppm	15 ppm
Small Refiners & Other Exceptions	NON-ROAD, LOCOMOTIVE & MARINE	500+ ppm	500+ ppm	500+ ppm	500+ ppm	500 ppm	500 ppm	500 ppm	500 ppm	15 ppm
<p><u>Except in California</u>, compliance dates for Non-Road, Locomotive and Marine fuels in the years indicated are: June 1 for refiners and importers, August 1 downstream from refineries through fuel terminals, October 1 for retail outlets, and December 1 for in-use.</p>										
<p><u>In California</u>, all diesel fuel transitioned to ULSD in 2006. Locomotive and Marine diesel fuels were required to transition to 15 ppm ULSD effective January 1, 2007.</p>										



Colonial Pipeline Company

Sam Whitehead
Government Affairs Manager

Phone: 678/762-2333
Fax: 678/762-2465
swhitehe@colpipe.com

March 12, 2010

Dear Members of the Environment Committee:

Colonial Pipeline Company is an interstate common carrier of petroleum products. Each day, we deliver 100 million gallons of gasoline, kerosene, home heating oil, diesel fuel and national defense fuels to shipper terminals in 13 states. Our 5,500 mile system transports these fuels from Texas, Louisiana, Mississippi and Alabama refineries to marketing terminals located near the major population centers of the southeast and Eastern Seaboard. Colonial Pipeline is a significant transporter of heating oil and other refined petroleum products up the East Coast and some of our product eventually lands in Connecticut.

Colonial supports a transition from the current 3,000 ppm level to 500 ppm sulfur home heating oil in 2014, which also fits with the federal diesel schedule and marine requirements in 2015. We do not support SB-382 calling for 50 ppm heating oil in 2011, and 15 ppm in 2014. Normally, a minimum of four years is required to change fuel specifications in order to assure market normalcy.

Our primary concern is the lowering of sulfur in heating oil to 50 ppm in 2011 and 15 ppm by 2014. We recommend lowering the sulfur level to only 500 ppm, which would offer significant environmental benefit while providing significant and needed flexibility to the transportation and refinery segments. It would allow the opportunity to handle jet fuel/ULSD interfaces that will occur when 500 ppm distillates disappear.

On Colonial's system alone, we estimate that 6,000,000 barrels of jet fuel/ULSD interface is generated per year. Today, that interface volume is marketable as 500 ppm diesel or heating oil with a majority being distributed as heating oil. With the 500 ppm diesel being phased out, the 15 ppm heating oil limit would force this interface material to be segregated in tankage and transported to refineries to go through additional processing to lower the sulfur. The sulfur removal technology is only present at refineries. Obviously, this extra handling and processing will add a significant burden to the distribution and refining industry. We stress the need for further justification below the 500 ppm level and recommend the 50 ppm level be the absolute lowest level allowed, no sooner than 2018 to allow for the handling of jet fuel/ULSD interface material.

ULSD is available and used by a number of heating oil distributors already to provide fuel to those customers who want a cleaner fuel, or a fuel suitable for use in newer, high efficiency heaters and boilers. It is not necessary to mandate that all heating oil be ULSD to support such discretionary fuel choices by customers.

We urge the committee to seek a resolution that would offer significant environmental benefit while providing the necessary flexibility to the transportation and refinery segments.

Colonial Pipeline is committed to serving the energy needs of our customers in the Northeast well into the future and we appreciate the opportunity to comment on the proposed rule.

Sincerely,



Sam Whitehead



102 West Center Street, Southington, CT 06489

Date: March 12, 2010

Environment Committee
State of Connecticut

Subject: **RAISED BILL NO. 382**
AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE.

Good morning

I would like to thank the chairmen and the committee for allowing me to testify today in favor of SB 382.

My name is Karl W. Radune. I have been a biodiesel enthusiast, since I made my first 1 liter batch, about eight years ago. I am now a member of the Connecticut Biodiesel/Bioheat Association and a voting member of the National Biodiesel Board.

I am speaking here today because I am also the President of BioDiesel One, Ltd.; a producer of B-100 biodiesel fuel, located in Southington Connecticut.

We manufacture biodiesel from used cooking oil (yellow grease). We purchase yellow grease collected within the state whenever possible and sell the biodiesel to Connecticut fuel distributors. Our fuel is primarily used in the home heating market. BioDiesel One, Ltd. follows a sustainable business model.

SB 382 is good for the people of Connecticut. This bill will result in significant reductions in air pollutants that cause asthma, cancer, and global warming. This bill will create private sector (Green Collar) jobs in a new emerging Connecticut industry.

SB 382 is good for the Connecticut biodiesel industry. Passage of this bill will identify in state production targets. This in turn will provide the incentive for new and existing producers, like BioDiesel One, Ltd., to expand capacity, to invest in new facilities, and to hire more employees.

Passage of SB 382 will give some confidence to lending institutions to invest in small businesses that represent the biodiesel industry. SB 382 is a jobs stimulus bill that will work.

Thank you for your time. Does the committee have any questions?

First, let me thank the Committee for allowing me the opportunity to send in written testify on behalf of Bill No. 382.

My name is Danny Falcone. I am a Board Member of The Connecticut Biodiesel and Bioheat Association, Member of the National Biodiesel Board and the Wholesale Manager of Ultra Green Energy Services: a Petroleum/Biodiesel Distributor and Marketer in the states of CT, NY, NJ and PA. We have had the opportunity to help bridge the gap between the traditional Petroleum markets and the renewable fuel markets by taking on petroleum terminal storage positions with regard to Bio-fuels in the Tri-State Area. We bring the economics and quality assurance protocols to the petroleum markets and show how these two fuels can meet and sell a product that will be cleaner, greener and more profitable to the distributor, marketer right down to the consumer. We believe based on the recent release of the RFS 2 EPA mandate that every State needs to embrace this requirement and establish protocols for the implementation of Bio blended fuels.

Connecticut has an opportunity with this bill which has the full support of both the Petroleum and Biodiesel Industries, to lead the country to a cleaner and brighter future. I apologize for not being present for the testimony but I am in New York getting support for legislation that will align New York and Connecticut for this expansion. Section 2.5(b) 2 of the bill requires that New York adopt requirements that are "substantial similar" to the provisions of this bill and that is what I am working on. The New York Assembly has already passed an Ultra Low Sulfur (15 parts per million) Heating Oil bill and will be looking to implement legislation for a Bio blended fuel. We have the full support of NORA and the NY Oil Heating Association and will be working diligently to help NY follow Connecticut's leadership. Thank you again for your time and I hope CT moves forward with this initiative.

Sincerely,

Daniel Falcone
VP and GM
Total Fuel Services Corp
Wholesale Manager
Ultra Green Energy Services, LLC.

**Comments on SB 382 from Paul Hoar, President, AgriFuels LLC.
March 12, 2010**

My name is Paul Hoar and I am President of AgriFuels LLC, a biodiesel quality consulting company located in Glastonbury, CT. We assist producers, marketers and laboratories become BQ 9000 accredited and assist our customers determine the quality of their biodiesel through our Biofuels Quality Trending Service. I am also the treasurer of the Connecticut Biodiesel / Bioheat Association.

I would like to speak in favor of SB382.

The environmental benefits of SB 382 are substantial. Sulfur reduction from 3000 parts per million to 15 parts per million in heating oil will significantly reduce the effects of acid rain in CT and the Northeast. Introduction of an ever increasing biodiesel component into heating oil from 2% to 20% will help make heating oil a very clean fuel. Significant reductions of unburned hydrocarbons, carbon monoxide and particulate matter will occur. In addition, for every percentage point of biodiesel used in heating oil there will be a corresponding reduction in Nitrous Oxide, a major green house gas, according to the National Energy Renewable Lab of the Department of Energy.

The provisions in the section on quality control standards will help insure these benefits are achieved. The Department of Consumer Protection will have the authority to verify that the biodiesel offered for sale conforms to the specifications mandated by the EPA for biodiesel with the designation of ASTM D6751. The DCP will be insuring compliance with the "critical specifications" of the biodiesel component whether it is produced in the state or is imported. Assisting the DCP insure compliance will be the newly created ASTM lab at the Center of Environmental Services and Engineering at UCONN with equipment funds made available by the state legislature last year. In-state producers and marketers will be able to reduce their testing costs and show compliance to the DCP through this "critical specifications" testing protocol, designated Tier II testing, at UCONN.

Section 2 b (2) contains a provision for the states of Massachusetts, Rhode Island and New York to adopt requirements that are "substantially similar" to the biodiesel blend components in the bill.

As many of you know, the Massachusetts legislature passed the Clean Energy Biofuels Act in July 2008 requiring the use of 2% biodiesel in heating oil and diesel motor fuel starting in July 2010 and increasing to 5% in 2013. The Massachusetts Department of Energy Resources is studying the benefits of applying the percentage mandates on a statewide average basis rather than for every gallon of diesel motor fuel sold.

In Rhode Island, House bill H7653 introduced last month calls for the reduction of sulfur in heating oil to 15 ppm. This bill also requires an introduction of bio-based diesel into heating oil up to 5% over a similar time frame to SB 382.

The New York State Assembly has already passed an Ultra Low Sulfur (15 parts per million) Heating Oil bill and will be looking to implement legislation for a biodiesel component in the heating oil.

One might argue that the requirements in Massachusetts and those being introduced in Rhode Island and New York are substantially similar to those in this bill.

On a positive note, the U.S. Senate yesterday passed the IRS \$1 per gallon incentive so the future looks bright for the industry in 2010 as it strives to meet the approximately 700 million gallon biodiesel requirement of the EPA RFS2 mandate. What Connecticut's portion is of that requirement is not clear but, by approving SB382, we will be making significant headway into the national effort to clean up our environment and to locally put people back to work.

Thank you for your time. Do you have any questions?



Co-Chair Edward Meyer
Co-Chair Richard Roy
Senator John McKinney
Representative Clark Chapin

Members of Environment Committee:

My name is Steve Sack Jr., I own Sack Distributors, a 4th generation company that operates terminals throughout Connecticut, where we sell heating oil and other petroleum products to retail heating oil dealers.

I am here today in support of **S.B. 382 AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE.**

This proposed bill benefits the environment, small businesses and consumers. From a wholesale perspective this legislation will facilitate greater competition in the sale of off road diesel to the benefit of consumers.

Several years ago the federal government required a reduction of sulfur in the sale of fuel used for off road purposes. Before that change, we sold heating oil to heat homes and for off road activities (ie. construction projects). Once the federal government made changes to the sulfur rules we would have been required to store three different products - heating oil, on road diesel and off road diesel.

Small wholesalers like myself and several larger wholesalers could not accommodate storage of three different products. Unfortunately, our company and many like us had to make a decision to not offer off road diesel in a way that was easily assessable to most retailers. This bill addresses that problem.

Reducing the sulfur content of heating oil would allow us to store heating oil and on road diesel with no additional storage needed for off road diesel. Making that change allows small mom and pop retailers to once again compete for off road diesel business where most are unable to do that today.

In addition to the environmental benefit's, wholesalers who could not afford to store the extra off road diesel will once again compete, retailers who could not obtain off road diesel will once again compete and ultimately consumers will win!

My company welcomes a cleaner fuel that allows us to more widely compete for off road diesel business and the ability to server our customers who were practically regulated out of the off road diesel business by the federal government.

If you have any questions I would welcome to opportunity to address them.

Respectfully,
Steve Sack Jr.



HESS CORPORATION

Memorandum In Opposition To Ultra Low Sulfur Heating Oil Bill/SB-382

Bill Synopsis

S. 382 would require the use of ultra low sulfur diesel (50 ppm S) for heating oil, beginning July 1, 2011. It further requires a reduction to 15 ppm in 2014. The bill repeals existing legislation calling for 500 ppm when surrounding states adopt similar legislation. This law eliminates the current grade of home heating oil, which has a typical sulfur content of 1500 to 2000 ppm sulfur. Hess opposes this legislation.

Background

>50% (EIA, 2002) of Connecticut households use heating oil as their primary energy source for home heating. Connecticut is the 3rd or 4th largest consumer of home heating oil in the United States, according to EIA. Both heating oil and ultra low sulfur diesel fuel ("ULSD") are called "distillate fuels."

About Hess

Hess Corporation is headquartered in New York City. Hess operates a 65,000 BPD petroleum refinery in Port Reading, NJ and has a 50% interest in HOVENSA, L.L.C., which operates a 500,000 BPD refinery in the US Virgin Islands. Collectively, these two facilities supply 10% to 15% of the home heating oil used in the Northeast. In Connecticut, Hess also operates a fuel oil terminal in Groton, CT, markets fuel oil, natural gas and electricity and has motor fuel outlets operated by Hess and independent dealers.

Hess Supports A Balanced Regional Sulfur Reduction Approach

Hess recognizes the need for regional particulate matter reductions to meet the federal air quality standards, even though Connecticut appears to meet this standard. For this reason, Hess has expressed support for New Jersey's proposal to reduce sulfur in home heating oil (HHO) to 500 ppm by 2014. This allows US refiners essential lead time to produce additional supply of lower sulfur distillates. A study commissioned by the heating oil dealers concluded that 500 ppm heating oil was, on balance, equivalent to natural gas in environmental impact.

Why Hess Opposes This Legislation

- ***In combination with cookie cutter proposals from the regional heating oil dealer groups, this legislation is likely to disrupt the supply and demand balance for distillate fuels and substantially raise prices for both road diesel and heating oil.*** Tight worldwide supplies caused distillate fuels to cost >0.20 to 0.50 cents per gallon more than gasoline over the past several years. Distillate prices have dropped because of a recession driven decline in demand. But coupled with recent refinery closures in the East, the huge spike in demand during the winter months caused by using ULSD for heating oil will tighten supplies and bring back the "distillate premium," particularly as the US economy recovers. *A respected industry consultant projects that the increase will be about 20 cents per gallon for both diesel and heating oil (assuming New York or other states adopted a similar standard) and that the increase could be much higher (80 cents) during shortages. A copy of the report is attached to this memorandum.*
- ***It will eliminate critical domestic heating oil supplies from Connecticut.*** Hess and HOVENSA make up about 10-15% of the Northeast heating oil supply and cannot, without major capital investments and long lead times, produce new supplies of ULSD required by this bill. Many other domestic refiners have the same problem. Projects to add the hydrogen plants and hydrotreating units needed to treat home heating oil to meet a 15 ppm standard typically cost over \$200MM dollars.
- ***It will increase the risk of supply disruptions and price spikes.*** Connecticut is already vulnerable to distillate fuel oil shortages and price spikes during winter months due to high demand for home heating. Many areas in Connecticut are not on natural gas lines and cannot afford a supply disruption or major price spike. For example, in January and February 2000, heating oil prices in the Northeast rose sharply when extreme winter weather increased demand unexpectedly, compounded by interruptible gas customers switching to fuel oil. This problem will be worsened by eliminating some local producers and many foreign producers of heating oil, because relatively few producers worldwide make 15 ppm diesel. Also, the Northeast Heating Oil Reserve will not meet the bill's specifications.
- ***There is no air quality reason to reduce the sulfur content of heating oil in Connecticut.*** CTDEP is on record that the state does not have a

particulate matter compliance issue, which is the primary air quality driver for this proposal. This means that this bill will impose substantial economic burdens on the residents of the state using fuel oil for no demonstrable reason:

“Only two counties in Connecticut, Fairfield and New Haven, are designated as nonattainment for the annual PM2.5 NAAQS. These two counties, along with counties in downstate New York and northern annual PM2.5 NAAQS. These two counties, along with counties in downstate New York and northern New Jersey, are included by EPA in a single multistate PM2.5 nonattainment area based on measured violations in the New York and New Jersey portions of the area. All Connecticut monitors measure compliance with the annual PM2.5 NAAQS, with monitored PM2.5 levels in Connecticut exhibiting a general downward trend from 2001 through 2006 as a result of control program implementation.”

http://www.ct.gov/dep/lib/dep/air/regulations/proposed_and_reports/pm25/finals/abstract_&_executive_summary.pdf

- **It increases pollution.** In fact, removing sulfur from fuels is a very energy and resource intensive process and offsets the limited perceived environmental benefits. Both Hess and HOVENSA would have very significant increases in NO_x, SO_x and CO₂ emissions to produce more of these fuels. This pollution increase outweighs the purported benefits.
- **It amounts to a regressive tax.** Per capita, rural areas use more heating oil than urban areas. As a result, raising the cost of heating oil hurts people in Connecticut with lower incomes.
- **It will devastate the US petroleum refining industry and result in higher imports.** The refining industry is economically reeling from the combined effects of the recession and federal fuels mandates. The effect has been recent closures in New Jersey, Delaware, Canada, Aruba and elsewhere, and many more are hanging on by a thread. For those refineries which supply the heating oil market, the sudden shift in product specification is likely to result in some further shutdowns, reducing fuel supplies and eliminating high paying union jobs.
- **More efficient boilers can still be deployed in Connecticut without a 15 ppm S fuel mandate.**
 - There is no mandate anywhere in the world that compels a 15 or 50 ppm S standard for all residential heating oil boilers. For example, the EU standard is 1000 ppm, effective as of 2008.

- Some proponents cite more efficient “condensing boilers” as a reason for the 15 ppm standard. These boilers can (but do not always achieve) efficiencies in the 93% range vs. approximately 85 to 86% for high efficiency boilers. But there are already ultra high efficiency condensing boilers that operate on existing fuel, such as the Monitor FCX or Peerless Pinnacle and many more oil boilers that can meet the 85% standard that achieves an Energy Star rating from EPA. See, “EPA ENERGY STAR® Boiler Product List.”
- For those limited number of boilers where the manufacturer recommends low sulfur fuel (e.g. Viessmann, which recommends 50 ppm S fuel), *the product needed to operate these boilers is already available in the marketplace to consumers, so that a mandate is not needed.* Even these ultra high efficiency boilers have their detractors, based on a variety of real world factors, such as much higher boiler cost (generally 30-40% higher) and higher maintenance costs.
- *Reducing S content in HHO below 500 ppm has not been demonstrated as cost effective.*
 - EPA’s May 2004 Regulatory Impact Analysis for the offroad diesel rule reports that the cost of going to 500 ppm was about 2 cents or so but that the next step to 15 ppm was an additional ~ 5 cents per gallon. The main reason for the higher cost of step 2 is the difficulty of removing the last few S molecules from feedstocks that are very hard to treat. Most of the easier to treat feedstocks were converted for the road diesel rule in 2006, leaving behind harder to treat distillates.
 - 15 ppm S places heating oil in competition with the road diesel market for barrels. Virtually all countries have a separate and higher heating oil specification, where low sulfur road diesel is required. It is also the lowest sulfur specification worldwide for light distillates. That means less supply overall with two predictable effects, higher long term prices and very limited ability to obtain supply quickly in the case of a cold winter. In 2000, runouts were avoided by imports of higher sulfur material mostly from Russia and Eastern Europe. 500 ppm heating oil allows for a much greater diversity of supply.
 - The reason that EPA chose 15 ppm was because of catalyst poisoning which would not allow new vehicles to meet tailpipe

standards. There is no technological driver for heating oil, as discussed above.

- The cost benefits cited by proponents of low sulfur heating oil are based on a study by NYSERDA and Brookhaven National Labs. This study used 500 ppm heating oil, not 15 ppm heating oil. The study posited that the lower sulfur level would reduce cleaning intervals and, to a very limited extent, improve heat transfer in the boiler. The study questioned whether these savings would actually materialize. Reducing the sulfur content from 500 ppm to 15ppm would have very little, if any, positive effect on equipment costs, because it is not plausible to assume that cleaning intervals would rise to 10 or 20 years at this lower sulfur level.
- The reduction from 500 to 15 ppm requires much more aggressive refining to remove the tiny portion of sulfur remaining in the fuel. This requires significant additional investment (~\$100MM for a large refinery) and significantly increases emissions.
- A 15 ppm standard "strands" high quality and expensive distillate that has gone slightly offspec. Pipeline interfaces between higher sulfur products like jet fuel or kerosene and ULSD would no longer be able to be marketed as a high value fuel, and would have to be downgraded to much lower value fuel. This same issue exists when the near zero sulfur product at a refinery exceeds the pipeline standard of 7-8 ppm because of minor technical issues or catalyst life problems.

Conclusion

Any fuel oil sulfur reduction should allow domestic refiners at least four years to make the investments necessary to produce additional supplies. No reduction below 500 ppm has been demonstrated as cost effective and is not needed for air quality or fuel combustion equipment purposes.



Connecticut Business & Industry Association

**TESTIMONY OF ERIC J. BROWN
ASSOCIATE COUNSEL
CONNECTICUT BUSINESS AND INDUSTRY ASSOCIATION
BEFORE THE
ENVIRONMENT COMMITTEE**

MARCH 12, 2010

Good afternoon. My name is Eric Brown and I am associate counsel with the Connecticut Business and Industry Association (CBIA). CBIA represents thousands of businesses of all sizes throughout Connecticut that provide hundreds of thousands of Connecticut citizens with good jobs and good benefits.

CBIA appreciates this opportunity to inform the committee of our opposition to the current version of:

**SB-382, AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND
LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE
STATE**

This bill proposes to change the heating oil sulfur standard from 3000 ppm to 50 ppm, and later to 15 ppm. It also contains a bioheat mandate, beginning at 2% in 2011 increasing to 20% by 2020.

CBIA appreciates the Environment Committee's willingness to address air emission issues that go beyond just the industrial sector and, in fact, would impact residential activities as well. Further, we appreciate the bill's recognition, in section 2, regarding the proposed bioheat mandate, that such proposals must be considered from a regional perspective and not make Connecticut an "island" of tougher fuel standards.

Unfortunately, both sections 1 and 2 fail to recognize another reality of the marketplace and the fuel industry. It is our understanding that approximately 4 years of lead-time is typically needed to make the necessary refinery upgrades associated with producing fuel with significantly new fuel specification. Further, mandating a sulfur content in home heating oil that is equivalent to that for diesel fuel is likely to create very strong price pressures on both diesel and heating oil, because various economic sectors, including transportation, industry and residential, will all competing for the same fuel.

CBIA recommends the Committee consider alternative language that would reduce sulfur content to a significantly lower level but not to an equivalent degree as diesel fuel, and allow sufficient time for refineries to upgrade their facilities to accommodate the new standards and increased demand.

Thank you for this opportunity to testify.



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March 12, 2010

Testimony in opposition of:

S. B. No. 382 (RAISED) AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE.

Submitted by Don Tuller, President, Connecticut Farm Bureau Association

The following testimony is submitted on behalf of the Connecticut Farm Bureau, a statewide nonprofit membership organization of over 5,000 families dedicated to farmers and the future of Connecticut agriculture.

Senator Edward Meyer, Representative Richard Roy and members of the Environment Committee:

As President of Connecticut Farm Bureau and a farmer, I am submitting the following testimony to express Connecticut Farm Bureau's opposition to provision of SB 382 that mandates the use of biodiesel heating oil in Connecticut.

While the Connecticut Farm Bureau strongly supports the use alternative fuels, including biodiesel, the effect of this bill will be to further raise the cost of living for every resident of Connecticut and increase the operating costs for business across our state. Connecticut farmers are already paying higher energy costs than competitors in nearby states and for many reasons at an economic disadvantage. Passage of this bill will simply make things worse. Connecticut Farm Bureau encourages its members who wish to voluntarily use biodiesel blend fuels by offering a discount program through a local supplier. To make the use of biodiesel mandatory, will distort supply and demand and result in artificially higher prices Connecticut consumers. Our state and nation is troubled economically. This is the worst possible time to be considering a measure that will make it more expensive to live and work in Connecticut. Please do not move forward with SB 382.

Don Tuller farms with his family on Tulmeadow Farm in West Simsbury.



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March 12, 2010

TO: Members of the Environment Committee
RE: Opposition to SB-382, Low-Sulfur Heating Oil/ Bio-Heat Mandate

Dear Committee Members:

We are writing to express our concerns about your proposed rule to reduce the sulfur content of home heating oil from 3,000 ppm to 50 ppm, and then 15 ppm. While we understand and appreciate Connecticut's desire to significantly lower the sulfur level in heating oil, we believe the current proposal is excessive. Lowering sulfur nationally in transportation fuels has worked, but it has increased demand for Ultra Low Sulfur Diesel Fuel (ULSD - 15ppm), and higher pump prices for diesel fuel reflect that. If this proposal passes, higher diesel prices may take heating oil prices higher, too.

The recession has obviously dampened economic activity and has only temporarily lessened the need for this product. Of course, we are hopeful that we will soon have these very tough times behind us and strong demand for ULSD will have returned. We do not need or want additional and unnecessary demand for this lifeblood of our economy.

We respectfully recommend that you consider lowering the sulfur content of heating oil to 500 ppm, but do not mandate lowering it all the way down to 15ppm. Heating oil should remain a separate and distinct distillate pool. We also suggest you eliminate the bio-heat mandate, because there is little bio-fuel available in Connecticut; most of what will be used (soybean or palm oil) will have to be imported from other states or countries.

Sincerely,

A handwritten signature in cursive script that reads "Paul Fiore".

Paul Fiore
Executive Vice President



March 12, 2010

Co-Chair Edward Meyer
Co-Chair Richard Roy
Senator John McKinney
Representative Clark Chapin

Members of Environment Committee:

My name is Peter Aziz, and I own Bantam Fuel, a small heating oil company serving 3,000 homes and businesses in Litchfield County. I strongly support S.B. 382.

At Bantam Fuel, we haven't delivered straight heating oil in 3½ years. Since October of 2006, every gallon we deliver has been a blend of heating oil and biodiesel. We made the switch because the blended product was readily available in New Haven Harbor, it didn't cost us any more than traditional heating oil, our customers' heating equipment required no modifications or adjustments, and it was the right thing to do.

We began cautiously, blending only 2% biodiesel with our heating oil to make a 2% "BioHeat." We wanted to see how it would perform in the below 0°F weather of the Litchfield Hills, and how it would perform in the wide variety of heating equipment we see in people's homes and businesses.

That first winter we had absolutely no problems. In fact, we found that the blend burned more cleanly than traditional heating oil, leaving cleaner fuel filters and less soot in furnaces. And since it burns with less smoke, we could tune our customers' equipment to slightly higher efficiencies. And at higher efficiencies, you burn less fuel, saving our customers money.

In three years we never lost a single customer because of our switch to BioHeat, and we never looked back. Today we're delivering a 5% BioHeat blend.

Our customers are happy because they have a fuel with cleaner combustion, higher efficiencies, less sediment, better lubricity, and cleaner emissions.

Our customers are happy with the fact that 5% of their heating fuel is a truly renewable resource, and much of that is grown right here in the USA. And they are happy that their heating fuel now has significantly less Greenhouse Gas emissions.

I support the part of the bill that reduces the sulfur content of heating oil, because that would mark another huge improvement in clean combustion, clean filters, reliable operation, and emissions that are better for the environment.

I stand here to tell you, from 3½ years' experience, that BioHeat works. It's available, it's affordable, it's delivered using the same ships and trucks, it's stored in the same tanks, and it's handled by the same local people our customers trust. From the standpoint of infrastructure, workability, and affordability, BioHeat works. It's a phenomenally clean fuel, and with your help it can be even cleaner.

As a society, we struggle with options for reducing pollution, reducing our carbon footprint, and reducing our dependence on foreign oil. Yet wind, solar, and hydroelectric power on a scale big enough to make any sort of difference is tremendously expensive, tremendously intrusive, and requires significant taxpayer dollars to subsidize projects that have a dubious future.

Shifting to any of these power sources, or even to Natural Gas, would require hundreds of thousands of homes and businesses in Connecticut to spend scarce dollars changing the heating systems they already have.

And here's where you can see the truly brilliant thing about this legislation, S.B. 382: With the stroke of a pen, mandating a biodiesel blend and a low sulfur formula for heating oil, Connecticut can immediately have the cleanest home heating fuel in the country.

No public spending is required. Not a penny. From the shipping into New Haven, Bridgeport, New London, and Hartford, to the hundreds of small heating oil companies across the state delivering personal service every day, the infrastructure is already here, already working.

And homeowners and businesses don't have to make a single change to the equipment in their basements.

With nothing more than the stroke of a pen, Connecticut can have the cleanest home heating fuel in the country. That's the brilliant thing about this legislation.

With S.B. 382 we're not giving the people of Connecticut an energy source they're not sure if they want, not sure if it will work, and not sure it's safe, at a price they can't afford. We're giving them a fuel they already choose, handled by the same industry, delivered by the same local professionals they already trust... only greener, cleaner, better.

When we announced the change from traditional heating oil to BioHeat, we were flooded with letters, emails, and phone calls from ordinary people saying "Good for you! Congratulations for doing the right thing!" When you pass this legislation, you too will be flooded with the congratulations of ordinary citizens.

Please support S.B. 382!

Respectfully,
Peter Aziz
Owner, Bantam Fuel

Testimony of Kevin J. Lindemer, Kevin J Lindemer LLC, concerning SB 382, AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE, before the Committee on Environment, Connecticut General Assembly

product from the United States, principally to markets in Europe and South America, where there are mandates in place for lower sulfur distillates. 220,000 barrels per day equates to 65,700,000 barrels of ULSD exports over a year.

Connecticut's anticipated demand for ULSD as a heating fuel would be 14.5 million barrels, or a relatively small 1.4 percent of US ULSD demand.

- **ULSD exports are lower than the total demand for heating oil in the residential/commercial sectors.** This simply means that after ULSD production has met domestic transportation needs, there is sufficient amounts of ULSD left in surplus of those needs to allow for the product remaining to be used as a domestic heating fuel without adverse effects on the transportation market.
- **A shift to ULSD for heating oil will result in cost savings for consumers for heating system maintenance and wear and tear.** *NORA estimates the heating plant service cost savings for a typical homeowner would be about \$50 per year.*
- **Refiners will not switch from heating oil to ULSD on their own.** They must have some signal from the market or from regulators. It is important to note that every significant change in either gasoline or diesel fuel specifications to reduce sulfur came about through legislative mandate – and over the twenty years of this process heating oil as always been left out.
- **Connecticut's supply diversity will be strengthened, and a somewhat greater measure of energy security achieved, if Connecticut's mandate to change the specification of heating oil to meet a ULSD standard.** This is due to ULSD increasingly becoming a more widely available international product than higher sulfur grades. There is strong production in the United States, Canada, the Caribbean, and around the world. Simply stated, suppliers who bring ULSD to Connecticut have more places from which to acquire supply.
- **Some ULSD refinery upgrade projects have been indefinitely postponed due to the market environment** E.g.; demand for ULSD has fallen and the market does not need the capacity at this time. Here again, this points out the fact that not only does surplus productive capacity result in the US exporting 180,000 barrels of ULSD today, but there are additional refinery upgrade projects to produce more ULSD that has been postpone due to lack of demand and/or sufficient capacity to meet the change to ULSD for on-road and off-road uses.

Thank you for your time and attention and I'd be happy to answer any questions you have on the issues I have addressed here today.

Testimony of Kevin J. Lindemer, Kevin J Lindemer LLC, concerning SB 382, AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND LOWERING THE SULFUR CONTENT OF HEATING OIL SOLD IN THE STATE, before the Committee on Environment, Connecticut General Assembly

Chairman Meyer, Chair Roy, members of the Committee on Environment.

My name is Kevin Lindemer of Kevin J Lindemer LLC. I have over 25 years of broad-based experience in the international energy industry, including over 8 years experience in the refining and marketing industry and 26 years of experience in energy research and consulting. I have direct industry experience with Cenex Harvest States in Minnesota and Irving Oil. My consulting experience includes 14 years with Cambridge Energy Research Associates where I started the Downstream Oil research and consulting group and with Global Insight where I was the Executive Managing Director of the energy business.

My firm was retained by the National Oilheat Research Alliance to conduct an independent analysis. NORA is the national organization representing heating oil issues on consumer education, technical education and training as well as research and development. One of the purposes of NORA is the research into the very questions we were asked by ICPA to address here today. The purpose of our research was to address, for NORA, the questions of [a] whether there is or will be adequate supply of Ultra Low Sulfur Diesel [ULSD] fuel available to meet certain prospective mandates for its use as a heating fuel, as well as [b] potential price impacts on consumers in consideration of such a move. I am not here as an advocate for any particular position or point of view on this issue. I am here to deliver an outline of what our research has yielded on the questions we were asked.

Our group's study is not yet ready for release as it is just being completed and needs to be first presented to the NORA Board. NORA has, however, authorized me to appear here today and provide you with information relating to ULSD supply for Connecticut as a potential heating fuel, as well as potential price impacts.

NORA has not reviewed nor is responsible for the views that I express here today.

SB 382 would require, as a matter of state law, the statutory specification for heating oil to change from 3000 [three thousand] parts per million of sulfur currently, down to 50 [fifty] parts per million, effective July 1, 2011 and 15 [fifteen] ppm by July 1, 2014.

- From a market perspective, 2010 is the best time in years to begin the process of moving to ULSD for heating oil applications
- ULSD exports averaged about 220,000 bpd in 2009 or over 7.5% of the domestic market demand. This means that domestic refiners produced more ULSD than the domestic market required and found it profitable to export this



March 12, 2010

Co-Chair Edward Meyer
Co-Chair Richard Roy
Senator John McKinney
Representative Clark Chapin

Members of Environment Committee:

My name is Tom Devine; I work for my family's company Devine Bros., Inc. retailing heating fuel to mid and lower Fairfield County CT. I am a board member of The New England Fuel Institute (NEFI), The Independent Connecticut Petroleum Association (ICPA), The National Oilheat Research Alliance (NORA), Washington, D.C. and formerly a member of the Connecticut Fuel Oil Conservation Board. I am here today to testify in favor of S.B. 382.

The conservation of fuel oil provides us with a cleaner environment, saves users of energy money and conserves the valuable resource oil. Devine Bros., Inc. has been conserving fuel oil by successfully retailing a blend ratio of 5% renewable biodiesel with 95% carbon based heating oil for the past six years. This blend referred to as bioheat, has afforded our customers the ability to burn a heating fuel with a reduced amount of carbon and sulfur translating to a cleaner burn resulting in a more efficient burn.

When carbon and sulfur are removed from heating oil, as in bioheat, and this product is burned in a boiler or furnace less soot is built up within the heating unit. Soot decreases the efficiency of a heating unit by acting as an insulation factor. With less soot being created, a heating unit will have better heat transfer in the heat exchanger resulting in efficiency retention. Ultimately, the result is a cost savings, conservation of fuel and use of a cleaner burning eco friendly product that lowers the carbon footprint of my customer.

According to a study performed by NORA, biodiesel when blended at 20% with an ultra low sulfur fuel would create a fuel for my customers that would be the cleanest burning fuel in the market. This would also be a fuel that would have the highest BTU rating among the energy's of propane, natural gas and electricity.

In regard to bioheat, if the entire heating fuel industry in the state of Connecticut retained bioheat since its introduction to this market six years ago, Connecticut would have already cut back the amount of carbon based fuel sold in the State by millions of gallons. The conservation of oil as the percentage of the bio component increases is staggering.

However, the State of Connecticut can not mandate biodiesel on its own. It is imperative that the surrounding states move together if a mandate were to be implemented. Otherwise we as an industry in Connecticut would be dealing with a boutique fuel which brings with it other challenges as well as putting us at a disadvantage to the surrounding states.

So long as the biodiesel meet ASTM D6751 standard and we can blend it with an ultra low sulfur heating fuel, and the mandate could be waived in the event of shortage I believe the heating oil industry can provide clean, renewable and efficient product to fuel oil consumers ultimately lowering their carbon footprint and creating less soot emissions to the environment - and that is what S.B. 382 dose for Connecticut!

Finally, this bill allows my company to get back into the off road diesel business. Several years ago the federal government changed the specification for off road diesel and I was no longer able to store it. By making heating oil and off road diesel the same product S.B. 382 allows me to reenter the off road diesel market.

I ask that you vote in favor of S.B. 382. If you have any questions I would be happy to answer them.

Thank you,
Thomas Devine



Connecticut
Petroleum Council

A Division of API

Steven Guveyan
Executive Director

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www.api.org

March 12, 2010

Testimony of
Steven Guveyan, Connecticut Petroleum Council
In Opposition to SB-382, Low-Sulfur Heating Oil/ Bio-Heat Mandate

The Connecticut Petroleum Council—a trade association representing major oil companies, refiners and terminal operators doing business in Connecticut—*strongly opposes SB-382* (the Low-Sulfur Home Heating Oil/Bio-Heat mandate bill) which contains a reduction in sulfur levels to 50 ppm by 7/1/2011 and 15 ppm by 7/1/14, and adds a bio-heat mandate beginning next year at 2%, increasing to 20% by 2020.

Both proposals in the bill are draconian; no state has adopted either one—let alone both—for the reasons articulated below. Passage of this bill would create the ultimate “boutique” or specialized fuel for Connecticut-only. As you know, state-specific fuels such as California gasoline cost more—usually much more—than widely used fuels. In lieu of this proposal, we propose reducing the sulfur content of heating oil from the current 3,000 ppm standard to 500 ppm, beginning July 1, 2014, an 82.5% reduction. Doing so would help improve our air quality with respect to sulfur, particulate matter (PM 2.5) and regional haze, and offer significant environmental benefits, while still providing the necessary flexibility to the transportation and refinery sectors. That, in turn, would help minimize the chance of supply and price disruptions.

LOW-SULFUR FUEL

We oppose moving the home heating oil sulfur standard to 15 ppm—the same as diesel fuel—because it would *put homeowners in direct competition with diesel fuel*, demand for which has been growing worldwide. If passed as written SB-382 will place *extreme pricing pressure on diesel fuel and home heating oil* which, according to this bill, would now effectively be the same fuel. The two fuels should remain separate in order to assure an orderly market for each.

The price differential between 15 ppm ultra low sulfur diesel (ULSD) and 3,000 ppm home heating oil over the last 3 years in NY Harbor shows diesel to be almost always more expensive, *with the spread ranging up to 18 cents per gallon more*. Had this bill passed 3 years ago, homeowners in Connecticut would have been guaranteed substantially higher heating oil costs for the 2007-2009 time period.

Normally, regulators give a *minimum of four years when changing fuel specifications* because of the time that refineries need for planning, engineering, permitting, procurement, construction and start-up. This bill gives only 14 months (7/1/11), and establishes a new Connecticut-only heating oil standard of 50 ppm, neither of which is practical. Currently, there is no 50 ppm sulfur standard anywhere in the U.S.

The 15 ppm standard for ULSD was introduced in order to enable advanced after-treatment devices on engines that reduce tailpipe emissions in cars and trucks. Removing sulfur was a prerequisite to avoid damage to catalytic after-treatment devices. The use of 15 ppm fuel is *NOT* required for homeowner burners, boilers and furnaces.

Currently, 15 ppm ULSD can be purchased for use as heating oil by heating oil dealers who have customers wanting it. It is not necessary to mandate it. Consumers should be allowed freedom to choose.

Most people choose not to buy it because of its higher cost and questionable cold-weather performance. Some heating oil dealers recently complained that tanks holding 15 ppm fuel have corroded. Until the cause of the corrosion is found, we strongly recommend against requiring 15 ppm fuel in heating oil tanks.

The refining industry proposal to reduce sulfur content from 3,000 ppm to 500 ppm is very significant and will yield major benefits. Any proposal to reduce sulfur below 500 ppm needs to be economically justified. Refinery upgrades to produce 15 ppm fuel are extremely expensive (over \$100 million estimated for the HESS refinery in NJ that supplies fuel here; about \$210 million for a recent SUNOCO refinery upgrade in PA), and those costs may be passed on to consumers.

If Connecticut decides to move below 500 ppm sulfur, then the reduction should be limited to 50 ppm, not 15 ppm. A 50-ppm standard should only be considered after Connecticut carefully studies the price/supply implications of such a change. Emissions from 50 ppm sulfur heating oil would not be appreciably different from 15 ppm ULSD in terms of particulate matter (PM 2.5) or visibility (regional haze). Going from 3000 ppm to 50 ppm would be a 98.3% reduction in sulfur. Unlike highway vehicles, there is no emissions control-technology on home heating oil equipment that is enabled by 15 ppm fuel, so there is little justification for making this expensive, incremental reduction. Newer, higher-efficiency heaters and boilers are able to operate on 50 ppm fuel, which could become the ultra-low standard for heating fuel.

If Connecticut were to go to 50 ppm fuel, we recommend going in two steps: 500 ppm by 7/1/14, and 50 ppm by 7/1/18, keeping with the minimum four-year time period needed to make changes at refineries.

Finally, there is a strong likelihood that requiring low-sulfur heating oil will increase greenhouse gas emissions, in direct conflict with the legislation passed by the Connecticut General Assembly in 2008 (HB-5600, PA 08-98) requiring a 10% reduction in greenhouse gas (GHG) emission by 2020 compared to 1990 levels, and an 80% reduction by 2050 compared to 2001 levels. Removing sulfur from heating oil is an extremely energy-intensive process which will emit GHG's to burn the fuels needed to de-sulfurize. De-sulfurizing of distillates is generally accomplished by hydro-treating. To produce the hydrogen needed for hydro-treating, most refineries must "crack" natural gas or refinery fuel gas to obtain the hydrogen needed for the process. The result of this process is, ironically, to produce large amounts of carbon dioxide (CO2), because the carbon atom being cracked is oxidized to CO2. The amount of hydrogen needed to for hydro-treating the part of the distillate pool not already at 15 ppm is significant. Therefore, a decrease in sulfur, especially to 15 ppm, will likely yield more greenhouse gases.

It is important to understand that although the greenhouse gases emitted from refineries in order to produce low-sulfur home heating oil are out-of-state (e.g. NJ, Philadelphia, Gulf Coast), the Connecticut law passed in 2008 requires DEP to use full life-cycle analysis when studying greenhouse gases, which means those emissions in NJ somehow need to be reduced here in Connecticut—a problem which no one has yet solved!

BIO-HEAT MANDATE

This bill also requires an oppressive bio-heat mandate, beginning at 2% in 2011, and increasing to 20% by 2020. No state in the country has passed such a far-reaching mandate for good reason—there have been significant cold-weather problems with bio-fuels. Because it is a large soybean state, Minnesota passed a significant (5%) bio-fuels mandate (for diesel fuel) which has been suspended several times (including this year) because of cold-weather performance problems.

Connecticut does not have a large, indigenous bio-feedstock source such as soybean oil or canola oil to rely on the way some other states that pass mandates do (e.g. Minnesota/Missouri). Nor do we have a large animal fat base here. Mandates don't make sense for states that don't have the feedstock; it's clear that if a bio-fuel mandate passes, the bio-fuel added to heating oil will be imported from the Mid-West, or from foreign countries.

The current Connecticut bio-diesel incentive law adopted in 2007, and the amendments to it you are now considering (SB-118) make more sense than a law mandating it. We supported passage of that law three years ago, and we continue supporting it today.

Little bio-fuel is being produced in the U.S. right now because the federal bio-fuel blending credit of \$1.00 per gallon expired on 12/31/09. Without it, bio-fuel is more costly and less competitive than standard petroleum products. IF Congress renews the credit, it may be only for one year (2010). A bio-fuel mandate will force consumers to potentially incur higher costs and increase dependence on uncertain fuel subsidies.

Bio-fuels have been more expensive than standard fuels--sometimes significantly so--and that could be passed on to end-users throughout the state. In 2008, Greenwich dropped a plan to use a soy-based fuel to power about half of its 300-vehicle fleet. At that time, bio-fuel cost about 40 cents more per gallon than regular diesel fuel. We recommend that you instruct the Office of Policy & Management (OPM) to study the price differentials and report back to you by the end of 2010.

Finally, bio-diesel fuel can hurt air quality; it likely increases nitrogen oxide emissions (NOx) --an ozone precursor--slightly.

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NPRA

Charles T. Drevna
President

National Petrochemical & Refiners Association

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March 5, 2010

RE: Heating Oil Sulfur Proposed Legislation

Dear Representative:

I am writing to register NPRA's (National Petrochemical and Refiners Association) strong opposition to Senate Bill 382 that would reduce the sulfur content of heating oil sold in Connecticut to *ultra-low* (50 and 15 parts per million, or "ppm") levels by 2011 and 2014, respectively.

NPRA is a national trade association representing some 500 members, including virtually all U.S. refiners and petrochemical manufacturers. Our members supply consumers with a wide variety of products used daily in their homes and businesses. These products include gasoline, diesel fuel, home heating oil, jet fuel, lubricants, and the chemicals that serve as building blocks for everything from plastics to clothing to medicine to computers and many other products essential to maintaining and improving the nation's quality of life.

NPRA members represent about 95% of the nation's refining capacity. U.S. refineries on the East and Gulf Coasts supply about 50% of the northeastern region's heating oil demand. The remaining U.S. heating oil supply is imported from foreign refineries.

Numerous refineries on the U.S. East and Gulf Coasts currently produce *high sulfur* heating oil. Many of these refineries also produce *ultra-low* sulfur diesel for transportation use and *low* sulfur distillates for other markets. However, they do not have the machinery on the ground today to suddenly shift their *high* sulfur production to *low/ultra-low* sulfur levels on the mass scale that would be needed. Furthermore, foreign refineries do not possess such capability either.

Consequently, NPRA urges you to refrain from advancing this misguided legislation. As policymakers evaluate future changes to heating oil sulfur levels, please consider the following facts:

- Major fuel quality changes, such as sulfur level reductions, requires billions of dollars in refining infrastructure investment – it is unrealistic to expect that this level of capital can be accessed on an expedited basis, particularly given the current economic climate.



NPRA

Page 2

- In 2007, the Northeast states made a commitment through the MANE-VU forum to logically progress heating oil quality to reduce sulfur levels in a unified approach. The first phase of the program is reasonable provided there is adequate lead time and consistency in application through-out the Northeast. Large refining investments require a *minimum* 4-year lead time to transition the *entire* industry to a new fuel standard – anything less poses a serious risk of inadequate supply capability and provides sub-optimal planning, permitting, engineering, and construction opportunity.
- Refining capital projects require extensive resource planning and meticulous execution for the engineering design, equipment fabrication, environmental permitting, construction, and start-up phases.
- Heating oil supply reliability will be sacrificed if any State acts prematurely and alone to make a significant change to fuel quality – a carefully planned timeline and coordinated regional approach is necessary to ensure that fuel changes occur as seamlessly as possible for consumers.

Give these realities, last January NPRA opposed a proposal by the New Jersey Department of Environmental Protection (NJDEP) to reduce sulfur content of heating oil to 15 ppm by 2016. However, the Association supported a NJDEP proposal to reduce the sulfur content of heating oil to 500 ppm by 2014.

I would be pleased to address any further questions you may have about the U.S. refining industry and potential changes to heating oil sulfur standards.

Sincerely,

Charles T. Drevna



March 10, 2010

Daniel Brusstar
Director, Energy Research

MEMORANDUM IN OPPOSITION

Comments on Connecticut General Assembly Bill No. 382:

***AN ACT REQUIRING BIODIESEL BLENDED HEATING OIL AND
LOWERING THE SULFUR CONTENT OF HEATING OIL***

The CME Group is concerned about the impact of lower sulfur specifications on the heating oil market, and urges the Connecticut General Assembly to act in concert with the New Jersey Department of Environmental Protection (NJDEP) to harmonize the implementation schedule for lower sulfur specifications in heating oil. The current proposal to require a lower sulfur content of 50 parts per million (ppm) on July 1, 2011 and 15 ppm on July 1, 2014 will be disruptive to the heating oil market, and could lead to price spikes. To this end, the CME Group supports the New Jersey DEP's proposal to reduce the sulfur content in heating oil to 500 parts per million (ppm) on July 1, 2014, and to 15 ppm in 2016 or possibly later, subject to further comment from stakeholders on the feasibility of the refinery production of 15 ppm heating oil.

In addition, the CME Group encourages the Connecticut Legislature to provide more lead-time and to coordinate with New Jersey and New York to avoid disruptive price spikes. The petroleum products market in the "New York Harbor" area is the internationally recognized hub for petroleum products trading, and encompasses the Tri-state area of New Jersey, New York, and Connecticut. Therefore, it is critical to have identical sulfur specifications in the Tri-State area to avoid supply problems and price spikes for heating oil consumers.

Further, the CME Group asks the Connecticut Legislature to defer the implementation of the proposed biodiesel requirement until the states of New Jersey and New York each adopt similar requirements. The proposed biodiesel requirement represents a big step that has not been matched by New York or New Jersey. Given that Connecticut is an integral part of the New York Harbor area, it is critical that the biodiesel standards be unified in the Tri-state area to ensure the efficient functioning of the heating oil market.

BACKGROUND

CME Group Inc. ("CME Group"), on behalf of its four futures exchanges, known as designated contract markets ("DCMs"), appreciates the opportunity to comment on the proposed rules to lower the maximum sulfur content for home heating oil sold in Connecticut. These proposed regulations will have far-reaching impact on the consumers in New York, as well as to the consumers in New Jersey.

The CME Group exchanges are federally regulated by the Commodity Futures Trading Commission (CFTC), an independent regulatory agency. CME Group is the parent company of four DCMs: (1) the New York Mercantile Exchange, Inc. ("NYMEX"); (2) Chicago Mercantile Exchange, Inc. ("CME"); (3) the Board of Trade of the City of Chicago, Inc. ("CBOT"); and (4) the Commodity Exchange, Inc. ("COMEX").

CME is the largest energy and derivatives clearing organization in the world, and CME Clearing includes CME ClearPort[®], a set of flexible clearing services for energy market participants to substantially mitigate counterparty risk and provide capital efficiencies across asset classes. The CME Group exchanges serve the risk management needs of customers around the globe.

As an international marketplace, the CME Group exchanges bring buyers and sellers together on the CME Globex electronic trading platform and on trading floors in Chicago and New York. The CME Group exchanges offer the widest range of benchmark products available across all major asset classes, including futures and options based on interest rates, equity indexes, foreign exchange, energy, emissions, agricultural commodities, and metals. In particular, the NYMEX New York Harbor No. 2 Heating Oil futures contract is the key futures benchmark for heating oil pricing in the U.S., and New Jersey is the delivery hub for this vital futures contract. As the benchmark for heating oil prices, trading on CME Group exchanges is transparent, open and fully regulated.

The New York Harbor area is the main hub for petroleum products trading and commerce, with both oil refineries and import terminals that are strategically important to the economy. The New York Harbor area consists of fuel terminals in Connecticut, New York and Northern New Jersey, and serves as the delivery point for the NYMEX New York Harbor No. 2 Heating Oil futures contract, which is the key benchmark for pricing heating oil, diesel fuel, and jet fuel. The New York Harbor area spans across Connecticut, New Jersey, and New York. The fuel terminals in Bridgeport and New Haven are an integral part of the New York Harbor marketplace.

The New York Harbor market functions as one unified, common market for petroleum products, where fuel specifications are uniform across Connecticut, New Jersey and New York. It is critical to have uniform fuel specifications in the Tri-state area to maintain the efficient functioning of the vibrant New York Harbor market, and the end result is the lowest possible fuel prices for consumers.

As a regulated futures exchange, NYMEX provides a forum for trading in futures and options for various energy fuels, including No. 2 heating oil. On average, futures contracts that are purchased and sold each day at NYMEX are equivalent to approximately 75 million barrels of heating oil, with a daily market value of \$7 billion. This activity represents legal commitments to make or take delivery of No. 2 heating oil in the New York Harbor market with maximum 2000ppm sulfur in future months through August 2012. Currently, the commercial oil marketplace has locked-in the prices for 330 million barrels of heating oil deliverable in New York Harbor through August 2012; however, the majority of open positions in futures contracts are generally offset prior to the end of trading in an expiring contract month and thus do not necessarily result in a physical delivery obligation.

The fuel market is responsive to a complex array of fundamental economic and commercial factors, and government regulation will have a definite price impact on home heating oil. Given adequate lead-time of at least four years advance notice, the marketplace will work efficiently to adjust to the lower sulfur requirement.

In addition, the price hedging function of NYMEX is used by the petroleum industry in the supply chain to help provide a competitive and efficient market price. This is particularly important for those companies that seek to hold inventories of fuel oil. Without a means to hedge effectively, they are less likely to hold inventories, leading to potential shortage conditions and greater price volatility. The effective functioning of the NYMEX futures market thus helps to assure that heating oil and fuel oil are supplied to the market in an economically rational manner, and this serves to moderate price fluctuations. In order for the price discovery and hedging functions of the Exchange to work effectively, it is critical that legislators and regulators pursue policies that provide adequate lead-time and uniformity across Connecticut, New York and New Jersey, so that the marketplace can work efficiently to meet the energy demands of Connecticut consumers.

I thank you for the opportunity to share our viewpoint from a market perspective. If you have any questions, please do not hesitate to call me at (212) 299-2604 or email me at Daniel.Brusstar@CMEgroup.com.



March 11, 2010

Environment Committee
Connecticut General Assembly
Legislative Office Building
Room 3200
Hartford, CT 06106

**Re: Lowering the Sulfur Level in Heating Oil Sold in Connecticut,
S.B. No. 382**

To Members of the Committee:

The International Liquid Terminals Association (ILTA) is pleased to submit comments on the above-mentioned bill under consideration by the Connecticut General Assembly.

ILTA is an international trade association that represents eighty-five commercial operators of bulk liquid terminals, aboveground storage tank facilities, and pipeline companies located in the United States and 46 other countries. In addition, ILTA includes in its membership more than three hundred companies that supply products and services to the bulk liquid storage industry. In Connecticut, ILTA members operate six terminal facilities with a combined storage capacity of 160 million gallons. Two ILTA member companies have corporate offices in the state.

ILTA member facilities include deepwater, barge, and pipeline terminals whose bulk liquid commodities are essential to the national and international economies. These terminals interconnect with and provide services to the various modes of bulk liquid transportation, including oceangoing tankers, barges, tank trucks, rail cars, and pipelines. The commodities handled include petroleum products, chemicals, crude oil, renewable fuels, asphalt, animal fats and oils, vegetable oils, molasses, and fertilizers. Customers who store products at these terminals include oil producers, chemical manufacturers, product manufacturers, food growers and producers, utilities, transportation companies, commodity brokers, government agencies, and the military.

ILTA and its members support a reduction in the sulfur content of home heating oil to a level of 500 parts per million (ppm). We believe that this level of reduction would effectively assist the state in complying with Federal National Ambient Air Quality Standards for fine particles, sulfur dioxide and ozone. However, we believe that full implementation of the 500 ppm standard for heating oil should be completed before the state evaluates whether an even lower heating oil sulfur standard is needed.

March 11, 2010
ILTA - Page 2

If Connecticut ultimately considers implementing a sulfur standard below 500 ppm, ILTA strongly supports a staggered approach, beginning with a 2014 implementation date for the 500 ppm level. Any further reductions should occur over the subsequent four years, with full implementation no sooner than 2018. This schedule would provide reasonable time to evaluate the effectiveness of the initial reduction. It would also ensure the establishment of reliable capability across the regional supply chain including manufacturing, pipeline receipts, marine imports, and all other logistical considerations necessary to maintain very low sulfur levels.

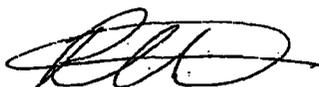
In further lowering the limit for sulfur in home heating oil, Connecticut should consider 50 ppm as the minimum bound. This would ensure that distillate product that marginally exceeds the Environmental Protection Agency's 15 ppm ultra low sulfur diesel (ULSD) standard can be placed into an allowable, though limited market. There will remain a future need for placement of such material, typically originating from pipeline product interface, a manufacturing variance, and even import reliability. Home heating emissions for this grade of oil would not appreciably differ from ULSD emissions. Also, heating systems are capable of accommodating higher sulfur levels; current diesel engines are not.

ILTA's greatest concern is that implementing a 15 ppm standard for heating oil would preclude efficient disposition of material that will fall outside of the very narrow ULSD range. Such occasional exceedances must be anticipated due to the multiple sources of distillate in the region. A sudden catalyst breakthrough in manufacturing would result in small sulfur spikes. Transition material between diesel and jet fuel, which is compatible with 500 ppm fuel oil, will be generated with every interstate pipeline receipt. Imported material that is occasionally used to balance peak demand could be of marginal quality given the current 50 ppm standard for much of Europe. Any of these complications would require ongoing re-processing, resulting in significant inefficiencies, increased costs, and limited supply across already constrained manufacturing and logistics channels.

For the reasons stated above, ILTA supports a reduction in the sulfur content of fuel oil as used in home heating oil to a level of 500 ppm and recommends that any consideration of further reductions to the allowable sulfur limits for heating oil be deferred until after implementation of this standard. In all cases, a lower bound of 50 ppm should be maintained in the home heating oil market to ensure a suitable pool to efficiently absorb ULSD material from all other categories that has fallen outside of the very narrow ULSD range.

Thank you for your consideration.

Sincerely,



R. Peter Weaver
Director of Regulatory Compliance and Safety



March 12, 2010

RE: Connecticut Heating Oil Legislation (SB382)

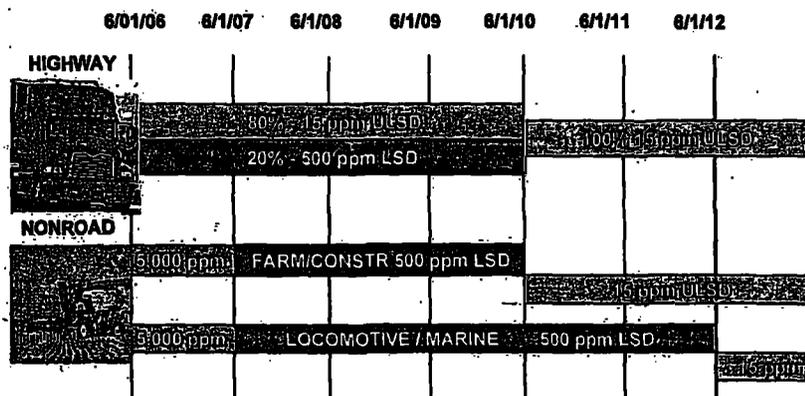
On behalf of ConocoPhillips, I would like to express strong opposition to proposed legislation that reduces the sulfur content of home heating oil to *ultra-low* levels in less than one and a half years. SB382 calls for all home heating oil sold in Connecticut to not exceed 50 parts-per-million sulfur (50 ppm) by July 2011 and 15 parts-per-million sulfur (15 ppm) by July 2014.

ConocoPhillips supports the removal of sulfur from heating oil, but we respectfully request that you consider a different approach that would provide adequate time for large refining investments to be made and to ensure plentiful supplies for Connecticut's heating oil consumers.

ConocoPhillips is one of the largest producers and suppliers of heating oil to the northeastern and mid-Atlantic states. ConocoPhillips owns and operates 12 refineries throughout the U.S.; five of our refineries have direct local access, pipeline access or waterborne access to the northeast region. While ConocoPhillips has invested billions of dollars to remove sulfur from fuels that are sold into the *transportation* and *off-road diesel* markets, very large investments are still needed to remove sulfur from *heating oil*.

Like ConocoPhillips, refining companies nationwide invested extraordinary sums of capital under EPA's diesel sulfur reduction program that is targeted at the *transportation* and *off-road diesel* markets, not the *heating oil* market (see chart below). Consequently, the refining industry still does not have enough equipment on the ground today to remove sulfur from heating oil supplies.

EPA Diesel Sulfur Regulation Timeline



Note: This timeline represents compliance at the refinery gate; terminal compliance dates are approximately 3 months later.

The significance of the EPA timeline is that refineries were provided with adequate advance notice to make major capital investments in distillate sulfur removal for the *transportation* and *off-road diesel* markets:

- EPA adopted the Heavy Duty Highway Diesel rule in June 2001 giving refiners 5 years to invest in deeper desulfurization capacity before the first drop of 15 ppm sulfur on-road diesel production was required on June 1, 2006 (refer to Highway bars on the chart above).
- EPA adopted the Nonroad Diesel Engines and Fuels rule in June 2004 giving refiners 3 years to invest in more desulfurization capacity to produce 500 ppm sulfur non-road diesel for the agricultural, construction, railroad and marine markets on June 1, 2007; refineries were allowed 4 more years to bring sulfur down to 15 ppm for the *agricultural/construction* sector by June 1, 2010 and then another 2 years to bring sulfur down to 15 ppm for the *railroad/marine* sectors by June 1, 2012 (refer to Nonroad bars on the chart above).

In our view, the EPA program has been very successful because of this meticulously planned timeline. Refineries had the lead time necessary to make investments that has prevented supply shortfalls and even short-term supply disruptions. Consumers are unaware of the dramatic changes occurring in *transportation* and *off-road diesel* quality because the transition has been implemented flawlessly. We seek the same outcome for *heating oil* consumers.

When considering further sulfur reductions for heating oil, we urge law-makers to be mindful of the advance lead time needed to make refining investments. It takes at least 4 years to complete a major heating oil sulfur reduction project from start to finish – there are no shortcuts to this process! Here are the primary activities that must be undertaken for such large-scale investments:

- Completing corporate capital planning and project financing
- Securing an engineering contractor to finalize the project design, manage the equipment procurement schedule, ensure quality control and timely production of equipment, and oversee construction
- Obtaining numerous federal and state environmental permits for construction and operation
- Bidding, ordering and fabricating long-lead time equipment, such as high-pressure reactors and compressors
- Completing on-site construction to install new equipment and integrate the process into existing refinery infrastructure
- Training operators and starting up a new process unit

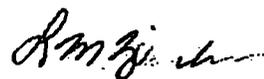
ConocoPhillips fully supports the petroleum industry's view that the better solution to remove sulfur in heating oil and guard against supply shortfalls is to harmonize the entire northeastern region at 500 ppm sulfur by July 2014. We also urge the States to carefully consider the supply, cost and environmental implications of sulfur reductions below 500 ppm for the following reasons:

- **The reduction in heating oil sulfur content from current levels of 2000-2500 ppm down to 500 ppm will reduce SO₂ emissions by 75-80%.**
- **There is no known environmental justification for reducing heating oil sulfur levels below 500 ppm**
A Brookhaven National Laboratory study – Low Sulfur Home Heating Oil Demonstration Project – concluded that "when all air emissions are included, low sulfur content (500 ppm) home heating oil and utility natural gas are virtually equal in their environmental impacts" (Source: BNL-74956-2005-IR summary report at www.bnl.gov/isd/documents/30441.pdf).
- **A reduction down to 15 ppm, as Connecticut is proposing, would place heating oil in direct competition for supply from the transportation and off-road diesel market.**
Distillate consumption is expected to return to strong growth levels as global economies emerge from the recent recession. As the supply-demand balance tightens, the market price for all distillates is expected to increase – extra demand for ultra-low sulfur product for *heating oil* market would exacerbate this market response.
- **ConocoPhillips is not aware of any heating oil equipment (including condensing boilers, high-efficiency burners or emission control systems) that requires a 15 ppm sulfur fuel to achieve the manufacturer's efficiency claims.**
The EPA's ultra-low sulfur diesel fuel standard (15 ppm) for transportation and off-road diesel exists to enable the use of advanced technologies to reduce diesel engine emissions. There is no comparable technological driver for a 15 ppm *heating oil* sulfur standard.

- **A 15 ppm standard would significantly reduce product handling flexibility in the supply and distribution system.**
In contrast, a 500 ppm standard allows for efficient disposition of the jet fuel/diesel fuel interface that occurs from sequential pipeline movements of these products. As a result, this interface volume which bolsters heating oil supplies today would be lost at a 15 ppm standard and would have to be reprocessed at refineries. The interface cannot be blended into jet fuel supplies due to other limiting specifications that are critical to aircraft engines.
- **A 15 ppm standard would significantly reduce refinery operating flexibility during scheduled maintenance operating conditions.**
Due to decades of technological advances, refineries operate very efficiently. However, operational and equipment updates, along with planned preventive maintenance, is unavoidable. In such situations, a refinery's only alternative may be to reduce throughput or shut down portions of the refinery to avoid exceeding this severely low 15 ppm sulfur standard. Having a 500 ppm sulfur standard for heating oil will alleviate the larger impacts on other refinery products, including loss of gasoline, jet fuel and transportation diesel output, while bolstering heating oil supplies.

We request an opportunity to work with you to enact legislation that will reduce heating oil sulfur levels, provide refineries with the lead time needed to make investments and ensure that a fuel so vital to consumers is not at risk of supply shortages.

Sincerely,



L. M. Ziemba
President
ConocoPhillips Global Refining



March 12, 2010

Co-Chair Edward Meyer
 Co-Chair Richard Roy
 Senator John McKinney
 Representative Clark Chapin

Members of Environment Committee:

RE: Senate Bill 382, An Act Supporting Biodiesel Blended Heating Oil and Lowering the Sulfur Content of Heating Oil in the State.

My name is **Jamie Lohr**. I am the owner and President of Guardian Fuel & Energy Systems, Inc. of Stonington, Connecticut and Westerly, Rhode Island. **Established in 1993, we retail and wholesale heating and transportation fuels.** I am a 31 year resident of the State of Connecticut, and reside today in Stonington, CT.

I come to **support Senate Bill 382, An Act Supporting Biodiesel Blended Heating Oil and Lowering the Sulfur Content of Heating Oil in the State.**

Guardian Fuel & Energy Systems - Biodiesel Product Experience

In 2006 we began using **BioHeat®** in our own home, and introduced it to our heating oil customers. Initial interest was minimal, since most people had never heard of biodiesel. We began an education process that continues today.

We had come to know of soy-based biodiesel several years before, and had spent a great deal of time and energy learning how it's made, **feedstocks, its properties, how to handle and store it, how to blend it, the importance of ASTM specifications, and how biodiesel could be introduced into heating oil for the purpose of creating a better, blended fuel. Blending the higher Btu petroleum product with cleaner burning biodiesel, in fact results in a fuel that is better than either of its components alone.**

Specifically, Guardian Fuel was interested in a fuel that was made from **renewable resources, with reduced emissions.** Blending biodiesel with 3000ppm sulfur heating oil and with 15ppm sulfur diesel fuel (ULSD), we also get **additional benefits:**

- health benefits** (reduced particulate matter)
- cleaning properties** (tanks, burners)
- improved system operation** (better combustion, cleaner burners, no soot)
- reduced foreign oil consumption** (small steps)

**support for American farmers /crops
creation of green New England manufacturing jobs**

Today, about 30% of our heating customers choose BioHeat®, (a blend of 95% high sulfur heating oil and 5% ASTM certified biodiesel). **No modifications or investment** in their heating equipment was required; this is a "drop-in fuel". We have taken **no special precautions** other than to watch carefully in 2006. We have had **no service issues** of any kind. No tank issues, no filter issues, no burner issues. Nothing but cleaner burners, absence of carbon, and absence of 'black mayonnaise.' Our BioHeat® customers have **collectively saved over 148,600 pounds of CO2 and sulfur** from their emissions.

To gain additional experience (in short order) **with biodiesel blends**, we operate our fleet of International fuel delivery trucks (model years 1989, 1993, 1997, 2006, 2007) and one Jeep Grand Cherokee (2007) on BioDiesel™ (a blend of 15ppm ULSD and ASTM biodiesel at 5%, 10%, 15%, and 20% blends) starting in 2006. We made no engine or exhaust modifications. We took no special precautions. We have had no service issues of any kind. We have **saved approximately 38,300 pounds of CO2 and sulfur** from our exhaust.

Our customer, Haley Brook Market in Old Mystic, CT began selling BioDiesel™ (a blend of 95% 15ppm ULSD and 5% ASTM biodiesel) at their pumps in April, 2009. There have been no reported problems. Haley Brook has **saved approximately 65,900 pounds of CO2 and sulfur** from their customers' tailpipes, while increasing their 'diesel' sales (from the same period the year before) by an astonishing 27%.

Heating Oil Industry Supports Efforts to Improve Emissions

In September, North Atlantic heating oil industry leaders met to adopt standards for change. The changes proposed are a reduction in sulfur content of heating oil, and to include biodiesel as a component of heating oil. Both of these changes will bring cleaner air in reduced emissions of greenhouse gases and particulate matter, from heating oil. These proposed changes represent more steps in the continued, decades-long process of the heating oil industry to develop **more efficient heating systems; to use less fuel, and in improving the fuel itself; for the benefit of the consumers who use heating oil, and for every citizen, in the very air we breathe.**

Finally, I understand that language regarding BQ9000 certification of producers and marketers **will be removed from SB 382** (will not be a requirement) and therefore won't comment except that I completely **support this omission.**

I support the proposed Senate Bill 382, and ask that you do the same.

Thank you.

Jamie K.W. Lohr, President
Guardian Fuel & Energy Systems, Inc



March 10, 2010

Environment Committee
Connecticut General Assembly
Room 3200, Legislative Office Building
Hartford, CT 06106

Re: Testimony in Opposition to SB-382

Dear Committee Members:

The American Highway Users Alliance is a 78-year old national federation of hundreds of non-profit associations, businesses, and motoring clubs. We represent the interests of millions of highway users nationwide, whether they travel by car, bus, truck, RV, or motorcycle.

Thank you for the opportunity to testify in opposition to SB-382, an act to require a lowering of the sulfur content in heating oil sold in the state. While we applaud the desire of the committee to reduce pollution, we are concerned that the proposed standards could have some unintended negative consequences for highway diesel fuel users. We ask that you consider our views and make changes to the legislation.

As drafted, the new sulfur standard would create market competition between highway fuel and home heating oil that currently does not exist. A spike in demand for limited supplies of special fuel could have a sharp price impact on diesel prices, causing both seasonal spikes and year-round supply problems that would harm both residents of oil-heated homes and the operators of diesel vehicles.

The national ultra-low sulfur diesel fuel standard is needed to enable the emissions control technology of the newest generation of diesel engines and prevent engine problems. This same reasoning does not apply to home heating equipment, which does not utilize the same type of emissions control technology as highway vehicles.

We recommend a more affordable standard, such as a 500-ppm standard by 2014, which would still dramatically decrease sulfur emissions from home heating oil. This standard could be reasonably expected to be adopted by other states throughout the Northeast region, which would prevent Connecticut from having higher-priced fuel than its neighbors.

Under a 500-ppm by 2014 plan, we believe major environmental benefits would be realized without the unintended consequences of price spikes in the highway fuel and home heating oil markets – spikes that hurt poor and middle-class people the most.

Thank you for your considering our views. We believe that the sulfur content in home heating oil could certainly be lowered in a thoughtful, flexible manner that helps improve the environment and limits economic impacts. We urge you to reconsider the current legislation and we would be pleased to work with you as you do so.

Sincerely,

Gregory M. Cohen
President and CEO