



March 12, 2019

The Hon. Mike Thompson, Chairman
 Subcommittee on Select Revenue Measures
 House Committee on Ways & Means
 1102 Longworth House Office Building
 Washington, DC 20515

The Hon. Adrian Smith, Ranking Member
 Subcommittee on Select Revenue Measures
 House Committee on Ways & Means
 1139 Longworth House Office Building
 Washington, DC 20515

Subject: Extension of the Biodiesel and Renewable Diesel Tax Credit (26 U.S.C. §40A)

Dear Chairman Thompson and Ranking Member Smith:

We appreciate the opportunity to provide a statement for the record on expired tax incentives, also known as tax extenders. Specifically, urge the immediate and retroactive extension of the biodiesel and renewable diesel tax credit. Doing so will provide much-needed certainty not only to America’s biodiesel producers, but also the hundreds of small heating oil retailers that now market and deliver biodiesel-blended heating oil to consumers throughout the Northeast.

We further request this statement be included as part of the record for the subcommittee hearing titled “Temporary Policy in the Internal Revenue Code,” held on Tuesday, March 12, 2019 at 2:00pm. We stand ready to provide the subcommittee with additional information as required or to answer any questions that may arise regarding this statement.

Background

Since 1942, NEFI has been a leading voice for these truly “Main Street” energy distributors and HVAC service providers. Most are multi-generational family businesses that deliver a reliable, efficient and, thanks to biodiesel, *increasingly renewable* heating fuel to more than 6 million homes and businesses nationwide.¹ Of these, 80-percent located in the Northeastern United States (see Figure 1).² Note that our industry and consumers and many policymakers commonly refer to blends of sustainable biodiesel and conventional heating oil as Bioheat® Fuel.³

State	Homes using Oilheat or Bioheat	% of Total Homes	Average Annual Space Heating Use by Volume⁵
Connecticut	574,588	42%	443 Million Gallons
Maine	345,805	62%	273 Million Gallons
Massachusetts	707,835	27%	619 Million Gallons
New Hampshire	234,629	45%	182 Million Gallons
New Jersey	299,525	9%	231 Million Gallons
New York	1,663,074	23%	1.1 Billion Gallons
Pennsylvania	843,106	17%	701 Million Gallons
Rhode Island	128,844	31%	119 Million Gallons
Vermont	111,092	43%	98 Million Gallons
<i>Total Northeast</i>	<i>4.9 Million</i>	<i>23%</i>	<i>3.7 Billion Gallons</i>

Some members of the House Ways & Means Committee represent Congressional Districts with at least 1,000 homes use oilheat or Bioheat as a primary heat source (Figure 2).

Figure 2. Ways & Means Committee Members with 1,000+ Oilheat & Bioheat Homes⁶

Member	Congressional District	Homes using Oilheat or Bioheat	% of Homes
Rep. Beyer, Don	8 th Virginia	4,769	2%
Rep. Blumenauer, Earl	3 rd Oregon	12,207	4%
Rep. DelBene, Suzan	1 st Washington	2,311	1%
Rep. Higgins, Brian	26 th New York	4,472	2%
Rep. Holding, George	2 nd North Carolina	2,501	1%
Rep. Kildee, Dan	5 th Michigan	1,679	>1%
Rep. Kind, Ron	3 rd Wisconsin	11,180	4%
Rep. Larson, John	1 st Connecticut	91,840	33%
Rep. Moore, Gwen	4 th Wisconsin	3,430	1%
Rep. Neal, Richard	1 st Massachusetts	85,574	30%
Rep. Pascrell, Bill	9 th New Jersey	12,893	5%
Rep. Reed, Tom	23 rd New York	24,875	9%
Rep. Rice, Tom	7 th South Carolina	2,514	1%
Rep. Smith, Adrian	3 rd Nebraska	1,212	>1%
Rep. Suozzi, Tom	3 rd New York	87,207	35%
Rep. Thompson, Mike	5 th California	1,564	>1%
Rep. Walorski, Jackie	2 nd Indiana	1,142	>1%
Rep. Wenstrup, Ben	2 nd Ohio	10,421	4%

Due to Congressional redistricting, household data for Reps. Brendan Boyle (PA-2), Dwight Evans (PA-3) and Mike Kelly (PA-16) is currently unavailable. It should be noted, however, that all Pennsylvania Congressional Districts have a sizable number of homes that use oilheat and Bioheat. In the 115th Congress the 2nd Congressional District of Pennsylvania, represented by Rep. Dwight Evans at the time, had the smallest market share with 6% or 15,590 homes. The largest at the time was the 8th District, represented by Rep. Brian Fitzpatrick, had the largest with 28% or 75,522 homes.

Biodiesel Use in the Heating Oil Market

Many heating oil companies now offer consumers the option of using a biodiesel-blended heating fuel. According to the National Oilheat Research Alliance (NORA), “5-percent (B5) blends are being used seamlessly across the [oilheat] market.” Some retailers are delivering, and consumers are safely using, blends as-high as twenty-percent (B20).⁷ The industry is already looking beyond B20, however. At the direction of Congress, NORA is developing a pathway to even higher blends and the introduction of advanced biofuels for home heating that are derived from cellulosic waste.⁸

Studies by NORA, Brookhaven National Laboratory and other non-partisan research organizations have consistently found numerous benefits to the blending of biodiesel and other renewable fuels with today’s clean and efficient ultra-low sulfur heating oil (ULSHO).⁹ These benefits are being realized *today* thanks to *billions of dollars* of commercial investments in biodiesel production and blending technology; well-regulated, safe and reliable liquid fuel transportation, distribution and storage infrastructure; and the presence of storage tanks in more than 6.5 million U.S. homes.

Neither the construction of new pipelines or transmission lines nor the conversion of space heating equipment in homes are needed to realize these benefits. The heating oil industry is ready to bring the next generation of safe, clean and renewable heating fuels to consumers today.

1. Environmental Benefits

Bioheat Fuel has been proven to reduce harmful emissions. Most recent research has shown that, based on a 20-year atmospheric lifecycle analysis of carbon dioxide equivalent (CO_{2e}) greenhouse gas (GHG) emissions, blends as low as seven-percent (B7) to be *equivalent to* that of natural gas.¹⁰ Analyses based on a 100-year atmospheric lifecycle finds that modest blends of 20 percent (B20) yield *fewer* CO_{2e} emissions than natural gas.¹¹

As mentioned, some heating oil marketers are offering Bioheat blends as high as 20-percent (B20). Blends up-to and including B20 have been approved for use by the American Society for Testing and Materials (ASTM).¹² If the entire Northeastern heating oil market were to utilize a B20 blend it would displace more than 913 million gallons per year of conventional heating oil¹³ and 7.4 million metric tons of CO_{2e} emissions.¹⁴ That is the equivalent of removing nearly 1.6 million cars off the road each year, more than all the registered vehicles in the cities of New York and Boston *combined*.

In addition to GHG emissions, NORA has also observed considerable reductions to criteria pollutants and particulates.¹⁵ This includes particulate matter, sulfur and nitrogen oxides, mercury, carbon monoxide and aromatic hydrocarbons emissions. The resulting improvements to air quality provide public health and environmental benefits such as reductions to acid rain and regional haze.

Figure 3. Bioheat Emissions Reductions¹⁶

Emissions	5% Biodiesel (B5)	10% Biodiesel (B10)	20% Biodiesel (B20)	100% Blend (B100)
Carbon Dioxide (CO ₂)	4%	8%	16%	81%
Nitrogen Oxides (NO _x)*	≥ 5%	Varies	≤ 8%	≤ 35%
Sulfur Oxides (SO _x)	5%	10%	20%	100%
Particulate Matter (PM _{2.5})	≥ 3%	≥ 6%	12-16%	≥ 47%
Carbon Monoxide (CO)	≥ 3%	≥ 5%	≥ 9%	16-40%
Hydrocarbons	5%	10%	20%	100%

* Nitrogen Oxide emissions reductions have shown to vary greatly based on the type of appliance used. Reduction estimates shown are for residential space heating equipment. The NBB has found commercial boilers utilizing higher blends can reduce NO_x emission by up to 35%.

Improved GHG performance can be realized with the development and introduction of other advanced biofuels and feedstocks in the heating oil market. Research into Bioheat blends above B20 and their application in home heating systems is ongoing and has yielded positive results.¹⁷ The industry is also developing a new generation of advanced biofuels derived from cellulosic feedstocks such as wood, municipal solid waste, and forestry and agricultural waste. One such fuel, ethyl levulinate (EL), is being developed by Maine-based Biofine Technology, LLC and is being field-tested in New England this winter. Industry experts believe this fuel, when combined with high efficiency space heating equipment, may offer a pathway to a *zero-carbon heating fuel* by 2035.¹⁸

2. Consumer Benefits

The biodiesel tax credit helps increase demand for Bioheat Fuel. Given the competitive nature of the home heating market, both RFS (RIN) credits and the biodiesel tax credit are passed-on through the distribution chain from producer to importer/supplier, retailer and, ultimately, the consumer. This lower cost provides an economic incentive for consumers and businesses to choose biodiesel-blends over 100-percent petroleum-based heating fuels.

Consumers also benefit from relative fuel quality and performance properties. Blends of sustainable biodiesel and ultra-low sulfur heating oil have been shown to significantly improve heating system performance and longevity and reduce instances of customer service calls. Rigorous testing finds that “blends of up to 20-percent can be used with heating oil fuels with performance equivalent to - if not better than - conventional fuel oil,” and that few modifications to existing systems are necessary to realize these benefits.¹⁹

“Biodiesel blends provide added lubricity and a higher, safer flash-point than conventional fuel oils, while having higher cold flow properties and slightly higher viscosity,” NORA reports.²⁰ The miniscule amount of sulfur (no greater than 0.0015% or 15-parts-per-million) present in today’s fuel allows consumers to purchase and install lower-cost, compact and ultra-efficient heating systems. These condensing units offer AFUE ratings that exceed 90-percent. The above fuel quality, system performance and efficiency benefits result in meaningful consumer savings, in addition to the many environmental benefits.

3. Commercial Benefits

The sale and use of Bioheat Fuel benefits America’s mostly small “Main Street” home heating oil businesses. Foremost, it allows them to help meet consumer demands for a cleaner, more efficient and environmentally-secure fuel. One survey found that 64-percent of consumers say a renewable component makes them feel better about using heating oil and 54-percent say it makes them less likely to convert to a competing fuel.²¹ Preventing conversions to fuels like natural gas, which is mostly methane - a potent greenhouse gas - by encouraging use of renewable fuels is good for the fuel marketer, the consumer, and the environment.

Reducing dependence on fossil fuels such as natural gas is important in the Northeast where many state governors, agencies and legislatures are advancing ambitious carbon-reduction policies. Bioheat provides small business heating fuel marketers the opportunity to contribute to these carbon-reduction efforts. In some states, local heating oil marketers have actively lobbied governors, agencies, and legislatures to require or establish new incentives for the sale and use of Bioheat Fuel.

With support from the local heating oil industry, Rhode Island and New York City now require five-percent biodiesel blends in all heating oil sold.²² The New York City law further aims to phase-in a 20-percent blend by the winter of 2034. On September 13, 2017, New York Governor Andrew Cuomo signed a law requiring a five-percent blend in all heating oil sold in Nassau, Suffolk and Westchester counties effective July 1, 2018. Along with New York City, this region comprises 70-percent of the state’s heating oil market. Rhode Island and New York are now considering legislation that would require sale and use of Bioheat Fuel blends that exceed five-percent.

Chairman Neal’s home state of Massachusetts has approved regulations offering alternative energy credits to heating oil retailers that sell biodiesel blends of 10% or higher effective January 1, 2018.²³ The new regulations have the potential to displace 65 million gallons of petroleum fuel and reduce CO₂ emissions by 528,000 metric tons each year. This is the equivalent of removing more than 113,000 passenger vehicles from roads annually.²⁴ Under the new law, the heating oil industry will make a considerable contribution towards state’s Global Warming Solutions Act requirement of an 80-percent reduction of GHG emissions from 1990 levels by 2050.²⁵

Other states in the Northeast have considered (or are soon expected to consider) similar policies to encourage or require a renewable component in the local heating oil supply. Extending the biodiesel tax credit will help bolster overall support for these ambitious GHG reduction policies.

4. Economic Benefits

The production of biodiesel and sale and use of Bioheat Fuel also supports state and local economies and thousands of American jobs. As mentioned, the availability of a clean-burning, efficient and increasingly renewable heating fuel provides an attractive alternative to residential conversions and government policies to encourage them, thereby preventing the loss of heating oil market share to competing fuels such as electricity, propane and natural gas. This helps to preserve thousands of small businesses and tens-of-thousands of good-paying jobs in the home heating industry.

The biodiesel tax credit is important to these businesses and their employees. Many have rebranded their businesses to market an environmentally-friendly fuel to their consumers. This includes renaming their companies, wrapping their delivery trucks and storage tanks with “green” imagery, and redoing their websites. They have also convinced their customers to embrace this fuel. For those companies that have yet to rebrand, extending the biodiesel tax credit and brining greater certainty to federal biofuels policies will help encourage them to “make the leap.”

Growing demand for biodiesel in the heating oil market also supports American farmers and biodiesel producers. Home heating applications provide feedstock growers and biodiesel producers a market during the off-season for on-highway biodiesel demand, which peaks in the summer. According to the National Biodiesel Board (NBB), the biodiesel industry supports 64,000 jobs, \$11.42 billion in economic impact, and \$2.54 billion in wages paid.²⁶ The National Oilheat Research Alliance estimates that almost 18-percent of these benefits can be attributed to the growing demand for biodiesel in the heating oil market.²⁷ This translates to 11,500 jobs, \$2 billion in economic impact, and \$450 million in wages paid.

Important Role of the Biodiesel Tax Credit

The biodiesel tax credit has aided in the development and growth of biodiesel and Bioheat Fuel. Without it, the many benefits to the environment, consumers, and the economy mentioned above may not have been possible. The tax credit remains vital to market confidence in and the competitiveness of biodiesel and Bioheat, especially as Congress and the administration evaluate possible changes to the Renewable Fuels Standard. This is essential to ensuring adequate market supply and continued investments in biodiesel and Bioheat production, blending, storage and distribution.

According to the National Biodiesel Board, 100 million gallons of biodiesel were commercially available prior to the creation of the credit in 2005. According to the EPA, that number has grown to nearly 3 billion gallons.²⁸ Because the tax credit is structured as an incentive to blend biodiesel into the existing fuel supply, it has helped develop a market for biodiesel in states and regions where production is limited. The tax credit encourages heating oil suppliers in these regions to supplement local supplies with imports of sustainable biofuels from elsewhere in the United States, primarily the farm-rich Midwest, or from foreign producers such as Canada. The BTC also provides an incentive to small local producers in these areas to invest in their businesses and expand capacity, thereby enriching local economies, expanding the available fuel supply, and creating new jobs.

Since the expiration of the tax credit nearly 15-months ago, biodiesel producers and suppliers have been operating with the expectation that Congress will retroactively extend the biodiesel tax credit, as it has always done. Failure to retroactively extend the credit could result in reduced production capacity, especially in the Northeast. It will be less competitive to import and blend biodiesel and smaller producers in the region could cease operations. This will adversely affect businesses, consumers and the environment across the region, especially in states where blending is mandated.

Conclusion

Biodiesel-blended heating oil provides measurable benefits for businesses, consumers, the environment, and local economies. Along with other federal and state incentives, the biodiesel tax credit has played an important role in helping to realize these benefits and ensure biodiesel supplies necessary to meet growing demand for Bioheat Fuel. It has also led to billions of dollars of investments in related production, storage, blending and distribution infrastructure.

It is therefore essential that Congress immediately and retroactively extend the biodiesel tax credit for the 2018 and 2019 tax years, and that it do so before Tax Day on April 15, 2019. We further urge lawmakers to take act on a longer multi-year extension before the end of the First Session of the 116th Congress. Doing so will not only provide long-overdue market certainty for biodiesel producers, it will also support small Main Street energy businesses as they continue to deliver a clean, efficient and environmentally-secure heating fuel to American homes.

Thank you in advance for your consideration.

Sincerely,



Sean O. Cota
NEFI President & CEO

¹ U.S. Census Bureau, *American Community Survey (ACS)*, Fuel Oil Use by Occupied Housing Units, Five-Year Average (2013-2017). Hereafter abbreviated as *ACS Fuel Use by Occupied Housing Units (2013-2017)*. Percent (%) of homes is calculated as a percentage of total state occupied housing units.

² *Ibid.*

³ Bioheat[®] Fuel is a registered trademark of the National Biodiesel Board (NBB).

⁴ *ACS Fuel Use by Occupied Housing Units (2013-2017)*.

⁵ U.S. Energy Information Administration (EIA), *Sales of Distillate Fuel Oil for Residential & Commercial End-use, Five-Year Average Distillate Fuel Oil, Residual Fuel Oil and Kerosene Consumption (2013-2017)*. Only includes use in space heating applications and as recommended by the National Oilheat Research Alliance is defined as 100% residential, 70% commercial, and 20% farm/agriculture use as a portion of EIA volumes. Does not include fuel use for industrial, rail, or marine applications, or for on or off-road engines or electric power generation.

⁶ *ACS Fuel Use by Occupied Housing Units (2013-2017)*. Percent (%) of homes is calculated as a percentage of total occupied housing units in each Congressional District.

⁷ National Oilheat Research Alliance, *Survey on Mechanical Issues Related to Biodiesel Blending*, March 2017, p.2.

⁸ Congress revised the NORA statute in the 2014 Farm Bill to focus on the research and development of advanced biofuels. See Pub.L.113-79, Section 12405(a).

⁹ Ultra-low (15-parts-per-million) heating oil has been required in the state-wide heating oil market in New York since 2012; in Philadelphia, Pennsylvania since 2015; and in Delaware and New Jersey since 2016. New England states and the District of Columbia will require ultra-low sulfur heating oil on July 1, 2018. Low (500-parts-per-

million) sulfur heating oil is currently required state-wide in Maryland, Pennsylvania, Massachusetts, Rhode Island, Vermont, Connecticut and the District of Columbia.

¹⁰ Entropy Research LLC, *Analysis of Fuel Cycle Energy Use and Greenhouse Gas Emissions from Residential Heating Boilers*, developed for and submitted to the National Oilheat Research Alliance, June 2018, p. xii.

¹¹ *Ibid.*, p. xi.

¹² ASTM Standard Specification for Fuel Oils, D396-18a.

¹³ U.S. EIA, *Sales of Distillate Fuel Oil for Residential & Commercial End-use*, Five-Year Average Distillate Fuel Oil, Residual Fuel Oil and Kerosene Consumption for space heating in the Northeast (2013-2017). See Footnote 5.

¹⁴ Based on the U.S. EPA's estimate of 4.6 metric tons of carbon dioxide emissions per year for the typical passenger vehicle. See <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>.

¹⁵ *NORA Biofuel Report to Congress*, p.15.

¹⁶ National Biodiesel Board, *Bioheat Emissions Reductions Findings*, January 26, 2017 and the Biodiesel Emissions Calculator at www.biodiesel.org/handling-use/emissions-calculator. Values rounded to nearest whole number.

¹⁷ Butcher, Dr. Thomas A., et al., *B20 to B100 Blends as Heating Fuels*, Brookhaven National Laboratory, June 2018.

¹⁸ Sweetser, Richard, "FutureFuel: Biofuels and Advanced Biofuels for Residential Heating," *Indoor Comfort Marketing Magazine*, January/February 2019, pp. 4-8.

¹⁹ National Oilheat Research Alliance (NORA), *Developing a Renewable Biofuel Option for the Home Heating Sector: A Report to Congress, State Governments and Administrator of the EPA*, May 2015, p.3. Hereafter abbreviated *NORA Biofuel Report to Congress*.

²⁰ *Ibid.*

²¹ "Oilheat Consumer Perceptions and Attitudes Research Study," Warm Thoughts Communications, conducted between May-July 2015. Summary available at <https://www.indoorcomfortmarketing.com/inside-the-mind-of-todays-home-heating-oil-customer.html>.

²² The state of Rhode Island requires a five-percent blend in all heating oil sold in the state effective July 1, 2017 (see 23 RIGL §23-23.7); and New York City effective October 1, 2017 (see NYC Admin. Code §24-168.1).

²³ 22 CMR 16.05(1)(a)(6)(a)(vii)

²⁴ Calculated using the method under Footnote 11, but with an 8% carbon reduction under a ten-percent blend.

²⁵ Summary of the Global Warming Solutions Act at <https://www.mass.gov/service-details/global-warming-solutions-act-background>.

²⁶ Meyer, Cal, *Testimony on Behalf of the National Biodiesel Board*, House Ways & Means Committee, Subcommittee on Tax Policy, Hearing on Expired Tax Provisions, March 14, 2018, p.2.

²⁷ *NORA Biofuel Report to Congress*, p.15.

²⁸ U.S. Environmental Protection Agency, *Analysis of 2016 Renewable Fuels Standard RIN volumes*, January 19, 2017.