

EXECUTIVE ORDER 594 GUIDANCE

LIQUID BIOFUELS FOR BUILDING HEAT VIA ENE52

To support emissions reductions at state facilities, Executive Order 594 states: “all agencies still utilizing heating oil as of July 1, 2021, shall ensure that **any heating oil product purchased shall consist of at least 10% biofuels (i.e., B10)**... Agencies may be exempt from this requirement if biofuels are not readily available or are cost prohibitive, or if a specific performance constraint is identified.”

Executive Order 594 (EO594) [Guideline for Sections 4D and 5D: Heating Oil and Biodiesel](#) provides official guidance on fuel content specifications, equipment considerations, calculating emissions impacts, and the process for documenting exemptions. The information below is intended to provide state entities with a brief overview of biofuel availability, performance, cost, and how it can be purchased through statewide contract [ENE52: No.2 Heating Fuel and APS Eligible Liquid Biofuel](#). Any entity not using ENE52 to purchase biofuel should consult the Guideline linked above. The [Leading by Example team](#) can also be contacted to answer questions and provide additional support as needed.

<p><b>Liquid Biofuel Availability</b></p>	<p>Biofuels that meet the LBE eligibility requirements in support of EO594 are available to be delivered anywhere in Massachusetts via Statewide Contract ENE52. Agencies will need to contact their respective vendor to initiate B10 delivery; vendors offering these fuels vary by zone:</p> <ul style="list-style-type: none"> <li>• Zones 1-2 (Greater Boston and North Shore): Broco Oil (978-228-0613)</li> <li>• Zones 3-7 (Cape Cod, South Shore, Central &amp; Western): Peterson’s Oil (508-368-1000)</li> <li>• Zone 8 (Berkshires): Sprague Operating Resources (877-689-1880)</li> </ul> <p><i>[Consult the <a href="#">ENE52 Contract User Guide</a> for a full list of towns by zone]</i></p>
<p><b>Price Differentials</b></p>	<p>The price of B10 purchased through ENE52 is based on the average of the high and low wholesale Boston Price as published daily in the Oil Price Daily, plus applicable differential prices (see page 3 of the contract user guide). Price differentials vary depending on the zone and volume of purchase. The cost premium of biofuels over #2 oil on ENE52 may range from \$0.01 to \$0.14 per gallon for small deliveries, and between \$0.01 and \$0.30 per gallon for deliveries &gt;8,000 gallons.</p> <p>As an example, for a facility in Zones 5 through 8 that uses 5,000 gallons per year, the biofuel premium would be between an additional \$100 and a savings of \$150, out of a total estimated fuel cost of \$13,750 (at \$2.75 per gallon). While other Zones may have higher premiums, facilities should consider the overall financial impact (e.g. over the course of a year) when determining fiscal feasibility of B10.</p> <p><i>[Consult the <a href="#">ENE52 Contract User Guide</a> for details on price differentials]</i></p>
<p><b>Performance</b></p>	<p>Eligible liquid biofuels must meet ASTM D6751, ensuring that the product is safe and of high quality. All fuels on ENE52 meet this standard. According to the National Biodiesel Board, MA Energy Marketers Association, and surveys completed by the Brookhaven National Laboratory, when switching to biofuel blends of 20% or lower:</p> <ul style="list-style-type: none"> <li>• Heat exchangers are not subjected to any added stress</li> <li>• Expected life of heat exchangers will remain unchanged</li> <li>• Heat exchangers will provide very similar AFUE performance</li> </ul> <p>As with any combustible liquid heating appliance, annual maintenance is key to ensure reliable operation. Additionally, most manufacturers warranty their equipment with the use of biofuel blends of B20 or lower. Some vendors on ENE52 offer equipment inspections prior to biofuel delivery to ensure equipment is properly maintained and ready to accept biofuels. Facilities can request such services when appropriate, or work with vendors to determine if inspections should be conducted by a third party.</p>
<p><b>Higher Biofuel Blends</b></p>	<p>While EO 594 requires only 10% of heating fuel to be from APS-eligible biofuel sources, the Order directs agencies to “<i>identify opportunities to increase biofuel consumption to as high a level as is practicable.</i>” LBE recommends working with ENE52 vendors to procure fuels with greater than 10% biofuel to reduce greenhouse gas emissions even further. As per LBE guidelines, these higher bio-blends should still meet APS eligibility requirements. However, if higher blends with only APS eligible fuels cannot be procured due to cost or lack of availability, agencies may work with suppliers to procure biofuels that provide at least a 50% reduction in greenhouse gas emissions over #2 fuel oil and that are certified by the <a href="#">EPA Renewable Fuel Standard</a>. Note that even in such a case, at least 10% of the biofuel by volume must still be APS-eligible.</p>

The Leading by Example program works collaboratively with state agencies and public colleges and universities to advance clean energy and sustainable practices that reduce the environmental impacts of state government operations.

**Learn More:**

- [Leading by Example: Executive Order 594](#)
- [Leading by Example Guideline for EO594 Section 4D and 5D: Liquid Biofuels](#)
- [Operational Services Division: ENE52 Contract User Guide](#)