House Research

Short Subjects

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Biofuel Use Mandates

What is a biofuel?

A biofuel is a transportation fuel derived from plants or other renewable biological resources. The most widely used biofuels are ethanol produced from corn and biodiesel produced primarily from soybean oil. Ethanol is a substitute for gasoline; biodiesel is a substitute for diesel fuel. In contrast, gasoline and diesel are referred to as "fossil fuels" because they are created by processing nonrenewable petroleum. A biofuel-blended fuel is a fossil fuel mixed with biofuel.

Researchers and companies are actively developing new biofuels and new feedstocks for ethanol and biodiesel. In May 2012, a company opened the first commercial-scale biobutanol plant in Luverne.

What is a biofuel use mandate?

A biofuel use mandate is a law that requires transportation fuel suppliers and retailers to sell biofuel-blended fuel. As the result of Minnesota's biofuel mandates, in general all motorists who fuel up in Minnesota purchase biofuel-blended fuel. Regular gasoline and diesel are not typically available at gas stations.

How do the biofuel use mandates work?

Minnesota has two biofuel use mandates—one for gasoline and another for diesel fuel. Both laws require fuel blenders to incorporate a specific amount of biofuel in most transportation fuel sold in the state.

What is the requirement for gasoline?

Prior to July 1, 2013, state law required a 10 percent blend of ethanol in nearly every gallon of gasoline. This blend of 10 percent ethanol and 90 percent gasoline is commonly referred to as "E10." As the result of a law enacted during the 2013 legislative session, fuel sellers now have an option—they may sell either E10 or gasoline blended with 10 percent biobutanol, cellulosic ethanol, or any other biofuel approved by the U.S. Environmental Protection Agency (EPA) as a gasoline substitute.

By law, the E10 option could change if the EPA authorizes greater ethanol blends. In that case, fuel sellers who choose the ethanol option would be required to sell E15, E20, or any other blend approved by EPA for use in all light-duty vehicles. However, if EPA allows the use of new ethanol blends only in certain vehicles, the law's ethanol option will remain at E10. For example, EPA recently approved E15. However, Minnesota's ethanol mandate did not increase correspondingly because EPA authorized E15 use only in 2001 and newer vehicles.

What is the requirement for diesel?

The biodiesel mandate law currently requires a 10 percent blend of biodiesel ("B10") in most diesel fuel sold in Minnesota. Unlike ethanol, the EPA has already approved all diesel-biodiesel blends. The law calls for an increase to B20 on May 1, 2018. However, this target date is subject to change based on certain conditions specified in the law. For example, the scheduled increase from B5 to

B10 in May 2012 did not happen because executive branch agencies—as required by law and in consultation with nongovernmental stakeholders—determined that certain regulatory and supply issues were not sufficiently resolved. However, in the September 30, 2013, issue of the State Register, the same agencies posted notice that the statutory conditions had been met. As a result, the mandate increased from B5 to B10 on July 1, 2014. The B10 mandate is in effect April through September. October through March, the mandate level temporarily reverts to B5 due to concerns about B10's performance in cold weather.

The law also authorizes the executive branch to suspend the use mandate for a limited period of time if there is not enough biodiesel fuel available or if the wholesale price of biodiesel is so high relative to diesel fuel that the mandate would cause economic hardship for gas stations and other diesel fuel sellers who may lose business to competitors located outside of the state.

What exemptions exist?

The legislature granted specific exemptions from the mandates for certain vehicles, equipment, and fuels. The exemptions reflect stakeholder concerns about the suitability of biofuel-blended fuels for their vehicles and other gasoline- or diesel-powered equipment. For a list of exemptions, see the table below.

Biofuel Mandates, Implementation Dates, and Exemptions

	Diesel	Gasoline
Mandate Level	10 percent biodiesel per gallon April through September; otherwise 5 percent. Scheduled to increase to 20 percent April through September in 2018 and thereafter	Option of (1) the highest ethanol blend approved by the U.S. EPA for all vehicles, or (2) 10 percent of another EPA-approved biofuel
Initial Implementation	2005	2003*
Exemptions	Nuclear plants, trains, off-road mining and logging equipment, generator manufacturers, Coast Guard boats and certain boats subject to Coast Guard inspection. Number 1 diesel fuel is exempt entirely until May 1, 2020	Aircraft, resorts, marinas, houseboat companies, recreational vehicle manufacturers, riparian landowners, motor sport racing events, collector vehicles, offroad vehicles, motorcycles, boats, snowmobiles, and small engines

^{*}The legislature required E10 use statewide in 2003. From 1997 to 2003, the law effectively required E7.7 statewide.

For more information: For mandate compliance information, contact the Minnesota Department of Commerce, Weights and Measures Division, at 651-215-5821. For more detail on the mandates, see the following reports from the Minnesota Department of Agriculture: *Legislative Report on Ethanol – Review of E20* (January 2011) and *Biodiesel Annual Report to the Legislature* (January 2014), available at www.mda.state.mn.us/renewable.aspx. For legislative issues, contact legislative analyst Colbey Sullivan at 651-296-5047.

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