




Senate Fiscal Agency
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BILL ANALYSIS

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Senate Bills 1074, 1075, 1078, and 1079 (as enrolled)
Senate Bill 1362 (as enrolled)
House Bills 5181, 5752, and 5754 (as enrolled)
Sponsor: Senator Jud Gilbert, II (S.B. 1074 & 1362)
Senator Wayne Kuipers (S.B. 1075)
Senator Bruce Patterson (S.B. 1078)
Senator Cameron S. Brown (S.B. 1079)
Representative Jeff Mayes (H.B. 5181)
Representative Tom Casperson (H.B. 5752)
Representative Neal Nitz (H.B. 5754)

Senate Committee: Technology and Energy
House Committee: Energy and Technology

Date Completed: 3-27-07

RATIONALE

Environmental concerns, economics, and geopolitical factors have contributed to increased interest in alternative energy sources. As demand for oil increases globally, access to it is threatened by conflicts in the Middle East and elsewhere, as well as natural disasters such as the 2005 hurricanes in the Gulf of Mexico. From an environmental perspective, the pollution caused by burning petroleum products calls for cleaner fuel sources. Many people are particularly interested in the development of alternative energy, such as hydrogen fuel cells and fuels containing nonfossil organic material, to power motor vehicles. (For more information on these alternative fuels, please see **BACKGROUND**.) The future of these technologies, however, faces a number of challenges, including a lack of infrastructure and public awareness. It was suggested that the State take steps to encourage the use of alternative automobile fuels.

CONTENT

Senate Bill 1074 amended the Motor Fuel Tax Act to do the following:

- Reduce the tax on certain alternative fuels to 12 cents per gallon for 10 years or less.

PUBLIC ACTS 268-271 of 2006
PUBLIC ACT 346 of 2006
PUBLIC ACTS 272-274 of 2006

- Require an annual determination of the difference between the amount of revenue collected under the bill and the amount that would have been collected under the regular tax rates.
- Require the Legislature to appropriate the amount of the difference to the Michigan Transportation Fund (MTF).
- Allow a person to claim a refund for the difference between the taxes imposed under the regular rates and the reduced rates on alternative fuels held in storage outside of the bulk transfer/terminal system on the bill's effective date.
- Require all facilities that produce motor fuel and distribute it from a rack to obtain a terminal operator license, and require all position holders in such facilities to obtain a supplier license.

Senate Bill 1362 amended the Motor Carrier Fuel Tax Act to do the following:

- Provide for the taxation of diesel fuel containing at least 5% biodiesel at the rate of 12 cents per gallon, rather than 15 cents per gallon, for 10 years or less.

- Require the State Treasurer annually to determine the difference between the amount of revenue collected under the bill and under Senate Bill 1074 and the amount that would have been collected under the regular tax rates.
- Require the Legislature annually to appropriate the amount of the difference to the Michigan Transportation Fund.

Senate Bill 1075 amended the Management and Budget Act to require the Director of the Department of Management and Budget, by January 1, 2007, to install the necessary fueling infrastructure, or contract with a supplier to supply alternative fuels (i.e., E85 fuel and biodiesel fuel blends), at all State motor transport facilities so that all State-owned vehicles capable of using alternative fuels are able to use them.

Senate Bill 1078 amended the Michigan Renaissance Zone Act to allow the State Administrative Board to designate up to 10 additional renaissance zones for renewable energy facilities.

House Bill 5752 amended the Michigan Renaissance Zone Act to define "renewable energy facility" and "forest products processing facility", and revise the definition of "agricultural processing facility".

Senate Bill 1079 amended the Motor Fuels Quality Act to extend to diesel and specified alternative fuels regulations concerning the quality, storage, manufacture, delivery, and sale of gasoline; require distributors and retail dealers of diesel and alternative fuels to obtain a license for each retail outlet; and require firms selling hydrogen in Michigan to register with and be approved by the Michigan Department of Agriculture (MDA).

House Bill 5181 created the "Renewable Fuels Commission Act" to establish the Renewable Fuels Commission within the MDA; and require the Commission to investigate and make recommendations to the Governor and the Legislature regarding alternative fuels. The Act will be repealed on January 1, 2010.

House Bill 5754 amended the Michigan Strategic Fund Act to require the Fund to create and administer matching grant programs to provide incentives to service station owners and operators, and bulk plant owners and operators, to convert existing fuel delivery systems, and create new fuel delivery systems, designed to provide E85 fuel and biodiesel blends.

Senate Bills 1074 and 1362 took effect on September 1, 2006. All of the other bills took effect on July 7, 2006. Senate Bill 1074 was tie-barred to Senate Bill 1079. All of the bills, except Senate Bill 1075, are described below in further detail.

Senate Bill 1074

Under the Motor Fuel Tax Act, a tax of 19 cents per gallon on gasoline and 15 cents per gallon on diesel fuel must be imposed on motor fuel imported into or sold, delivered, or used in this State. The bill makes an exception to these tax rates for gasoline that is at least 70% ethanol and diesel that contains at least 5% biodiesel, respectively. Under the bill, the tax on those fuels is 12 cents per gallon.

Beginning on the bill's effective date, the State Treasurer annually must determine the difference between the amount of motor fuel tax collected and the amount of motor fuel tax that would have been collected but for the differential rates established under the bill. The 12-cent tax rate will no longer be effective the earlier of 10 years after the bill's effective date, or the first day of the first month that is at least 90 days after the State Treasurer certifies that the total cumulative rate differential from the bill's effective date is greater than \$2.5 million.

The Legislature annually must appropriate to the MTF the amount determined as the rate differential certified by the State Treasurer for the 12-month period ending on May 1 of the calendar year in which the fiscal year begins. The 12-cent tax will no longer be effective beginning in January of any fiscal year in which the required annual appropriation is not made by the first day of the fiscal year.

If the tax on gasoline containing at least 70% ethanol or diesel fuel containing at least 5% biodiesel held in storage outside of

the bulk transfer/terminal system on the bill's effective date had previously been paid at the regular rates, the person who paid the tax could claim a refund for the difference between those rates and the rates imposed by the bill. A refund request had to be filed within 60 days after the last day of the month in which the bill took effect. The refund applied only to previously taxed gasoline containing at least 70% ethanol or diesel fuel containing at least 5% biodiesel in excess of 3,000 gallons held in storage by an end user; and previously taxed gasoline containing at least 70% ethanol or diesel fuel containing at least 5% biodiesel held for sale in excess of dead storage.

A taxpayer had to provide documentation required by the Department of Treasury in order to verify the refund request. A person who claimed a refund had to do all of the following:

- By 12 a.m. on the bill's effective date, take an inventory of gasoline containing at least 70% ethanol or undyed diesel fuel containing at least 5% biodiesel.
- Deduct 3,000 gallons if the person claiming the refund was an end user.
- Deduct the number of gallons in dead storage if the applicable fuel was held for subsequent sale.

Under the bill, blenders of ethanol and gasoline and blenders of biodiesel and diesel fuel outside of the bulk transfer terminal system must obtain a blender's license and are subject to the blender reporting requirements under the Act. A licensed supplier who blends ethanol and gasoline or biodiesel and diesel fuel also must obtain a blender's license.

The bill requires that bills of lading and invoices identify the blended product and the correct fuel product code. The motor fuel tax rate for each product must be listed separately on each invoice. Licensees must report the correct fuel product code for the blended product as required by the Department of Treasury. When fuel is blended below the terminal rack, new bills of lading and invoices must be generated and submitted to the Department upon request. All bills of lading and invoices must meet the requirements under the Act.

The bill specifies that, notwithstanding any other provision of the Act, all facilities in

Michigan that produce motor fuel and distribute it from a rack for purposes of the Act are terminals and must obtain a terminal operator license and comply with all of the Act's terminal operator reporting requirements. All position holders in these facilities must be licensed as suppliers and comply with all of the Act's supplier requirements.

Senate Bill 1362

Under the Motor Carrier Fuel Tax Act, a motor carrier must pay a road tax of 15 cents per gallon on motor fuel consumed in qualified commercial motor vehicles on the public roads or highways within the State. Under the bill, the tax rate for diesel fuel containing at least 5% biodiesel is 12 cents per gallon.

The bill requires the State Treasurer, beginning September 1, 2006, to determine annually, for the 12-month period ending May 1 and for any additional times that the Treasurer may determine, the difference between the amount of motor fuel tax collected and the amount that would have been collected but for the differential rates on motor fuel under the bill and the Motor Fuel Tax Act (pursuant to Senate Bill 1074).

The 12-cent rate will no longer be effective the earlier of September 1, 2016, or the first day of the first month that is at least 90 days after the State Treasurer certifies that the total cumulative rate differential due to the differential rates under the bill and the Motor Fuel Tax Act from September 1, 2006, is greater than \$2.5 million.

The bill requires the Legislature annually to appropriate to the MTF the amount determined as the rate differential certified by the State Treasurer for the 12-month period ending on May 1 of the calendar year in which the fiscal year begins. The 12-cent rate will not be effective beginning January of any fiscal year for which the appropriation has not been made by the first day of the fiscal year.

Senate Bill 1078

Under the bill, the State Administrative Board may designate up to 10 additional renaissance zones for renewable energy facilities upon the recommendation of the Michigan Strategic Fund board in one or

more cities, villages, or townships if the municipality or combination of municipalities consents to the creation of a renaissance zone for a renewable energy facility within its boundaries. Each renaissance zone designated for a renewable energy facility must be one continuous distinct geographic area.

The State Administrative Board may revoke the designation of all or part of a renaissance zone designated under the bill if the Board determines that the facility fails to commence operation, ceases operation, or fails to commence construction or renovation within one year from the date the zone is designated.

When designating a renaissance zone for a renewable energy facility, the Board must consider all of the following:

- The economic impact on local suppliers who supply raw materials, goods, and services to the renewable energy facility.
- The creation of jobs relative to the employment base of the community, rather than the static number of jobs created.
- The viability of the project.
- The economic impact on the community in which the facility is located.
- All other things being equal, giving preference to a business entity already located in Michigan.
- Whether the renewable energy facility can be located in an existing renaissance zone.

The State Administrative Board must require a development agreement between the Michigan Strategic Fund and the renewable energy facility. As used in this provision, "development agreement" means a written agreement between the Michigan Strategic Fund and the renewable energy facility that includes a requirement that the facility comply with all State and local laws, as well as a requirement that the facility report annually to the Michigan Strategic Fund on all of the following:

- The amount of capital investment made at the facility.
- The number of individuals employed at the facility at the beginning and end of the reporting period, as well as the number of individuals transferred to the

facility from another facility owned by the renewable energy facility.

- The percentage of raw materials purchased in Michigan.

In addition, the development agreement must include any other conditions or requirements reasonably required by the Michigan Strategic Fund.

Until the maximum number of additional renaissance zones for renewable energy facilities is met, if the State Administrative Board designates a renaissance zone under the bill or other sections of the Act for a facility that is a forest products processing facility or an agricultural processing facility and that also meets the definition of a renewable energy facility, the Board must designate that renaissance zone only as a renaissance zone for a renewable energy facility under the bill.

House Bill 5752

The bill defines "renewable energy facility", under the Michigan Renaissance Zone Act, as a system that creates energy from a process using residue from agricultural products, forest products, paper products industries, and food production and processing; trees and grasses grown specifically to be used as energy crops; and gaseous fuels produced from solid biomass, animal waste, municipal waste, or landfills.

The bill defines "forest products processing facility" as one or more facilities or operations that transform, package, sort, recycle, or grade forest or paper products into goods that are used for intermediate or final use or consumption or for the creation of biomass or alternative fuels through the use of forest products or forest residue, and surrounding property. The term does not include an existing facility or operation located in Michigan that relocates to a renaissance zone for a forest products processing facility, or a facility or operation that engages primarily in retail sales.

The bill also excludes forest products from the definition of "agricultural processing facility". The term means one or more facilities or operations that transform, package, sort, or grade livestock or livestock products, agricultural commodities, or plants or plant products into goods that are used for immediate or final consumption.

Senate Bill 1079

Standards

The Motor Fuels Quality Act requires the MDA Director to establish standards to ensure the purity and quality of gasoline sold or offered for sale in Michigan, and standards for the amount and type of additives that may be included in gasoline. Under the bill, the MDA Director must establish similar standards for diesel fuel.

The bill defines "gasoline" as a volatile mixture of liquid hydrocarbons generally containing a small amount of additives suitable for use in spark-ignition internal combustion engines. Previously, the term referred to any fuel sold in Michigan suitable for that use.

The bill defines "diesel fuel" as any liquid other than gasoline that is suitable for use as a fuel or a component of a fuel in a compression-ignition internal combustion diesel engine.

Licensure

The Act requires a distributor or retail dealer to obtain a license from the MDA for each retail outlet the person operates before transferring, selling, or dispensing gasoline or offering it for sale. The license fee is \$100 per year. Under the bill, the license requirement also applies to a distributor or retail dealer of diesel fuel, biodiesel, biodiesel blend, or hydrogen fuel.

The bill defines "biodiesel" as a fuel composed of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, and, in accordance with standards specified for by the American Society for Testing and Materials, designated B100, and meeting the requirements of D-6751, as approved by the MDA. "Biodiesel blend" means a fuel composed of a blend of biodiesel fuel with petroleum-based diesel fuel, suitable for use as a fuel in a compression-ignition internal combustion diesel engine.

The bill defines "retail outlet" as an establishment at which motor fuel is sold or offered for sale to the public. Previously, the term referred to gasoline rather than motor fuel.

Hydrogen Fuel Registration

The bill requires any firm offering hydrogen fuel for sale in this State first to register with and obtain approval from the MDA. Registration must include a complete list of the fuel specifications the product is to meet and the sites where the product is offered for sale to the general public.

The bill defines "hydrogen fuel" as a substance containing the chemical formula H_2 that exists as a colorless, odorless, and highly flammable gas except at low cryogenic temperatures or when highly compressed that is gaseous or liquefied and suitable for use in a fuel cell or hydrogen fuel vehicle.

Retail Storage Tanks

The Act requires a retail dealer periodically to test a storage tank at a retail outlet to ensure that the tank does not have more than two inches of water or water-alcohol at the bottom. If there is more than two inches, gasoline may not be sold to a consumer from that tank until the water or water-alcohol level is reduced to a level of less than two inches. Under the bill, these provisions also apply to tanks storing diesel fuel, biodiesel, or biodiesel blend.

Fuel Manufacture, Distribution, & Sale

Under the Act, except as provided by Federal law or regulation, in the manufacture of gasoline at any Michigan refinery, a refiner may not manufacture gasoline unless it meets the standards established by the MDA Director. The bill extends this regulation to the manufacture of diesel or hydrogen fuel.

The Act prohibits a distributor from selling or transferring to any distributor, retail dealer, or bulk purchaser-end user any gasoline, unless it meets the standards established by the Director, except as provided by Federal law or regulation. The bill includes diesel fuel, biodiesel, biodiesel blend, and hydrogen fuel in this provision. Also, under the bill, the gasoline or other fuel must be suitable for its intended purpose.

Under the Act, a person may not knowingly sell, dispense, or offer for sale gasoline, unless it meets the MDA Director's

standards. The bill extends this prohibition to diesel, biodiesel, biodiesel blend, and hydrogen fuel.

Fuel Carrier

The Act prohibits a carrier or an employee or agent of a carrier, whether operating under contract or tariff, from causing gasoline tendered to the carrier for shipment or transfer to another carrier, distributor, or retail dealer to fail to comply, at the time of the delivery, with the standards established by the Director. Under the bill, this prohibition also applies to a carrier of diesel fuel, biodiesel, biodiesel blend, or hydrogen fuel.

Fuel Delivery

The Act prohibits a refiner or distributor from transferring, selling, or dispensing gasoline or offering it for sale in Michigan unless the refiner or distributor indicates on each bill, invoice, or other instrument evidencing a gasoline delivery the name of the wholesale distributor who received delivery of the gasoline. The bill includes diesel fuel, biodiesel, biodiesel blend, and hydrogen fuel in this provision.

Previously, a distributor or refiner could not transfer, sell, or dispense gasoline or offer it for sale in Michigan to a retail dealer unless the distributor indicated on each bill, invoice, or other instrument evidencing a delivery of gasoline, the name and license number issued under the Act of the retail dealer who received the delivery. The bill, instead, prohibits a distributor or refiner from transferring, selling, or dispensing gasoline, diesel fuel, biodiesel, biodiesel blend, or hydrogen fuel or offering it for sale in Michigan to a retail dealer unless the retail dealer has a valid retail gasoline outlet license under the Act.

Under the Act, a bill, invoice, or other instrument evidencing a delivery of gasoline issued by a refiner or distributor for gasoline deliveries to purchasers who are not required to hold a license under the Act or the Motor Fuel Tax Act must indicate clearly the name and address and other information necessary to identify the purchaser. Under the bill, this requirement also applies to a delivery of diesel fuel, biodiesel, biodiesel blend, or hydrogen fuel.

Sediments

The bill includes diesel fuel, biodiesel, and biodiesel blend in a provision prohibiting a refiner, distributor, bulk purchaser-end user, or retail dealer from transferring, selling, dispensing, or offering for sale gasoline unless it is visibly free of undissolved water, sediments, and other suspended matter.

Document Storage & Use

Under the Act, if the MDA Director has reason to believe that a violation of Section 5 of the Motor Fuels Quality Act or rules promulgated under it has occurred, he or she may require a refiner, distributor, storage facility, blender, bulk purchaser-end user, or retail dealer to provide to the MDA the original documents pertaining to the receipt, transfer, delivery, storage, or sale of gasoline, and to allow the documents to remain the Department's possession. Under the bill, this provision also applies to documents pertaining to diesel fuel, biodiesel, biodiesel blend, or hydrogen fuel. (Section 5 contains the requirements and prohibitions regarding fuel manufacture, transfer, sale, and dispensation.)

The Act requires a refiner, distributor, bulk purchaser-end user, blender, or retail dealer to preserve for three years information regarding the receipt, transfer, delivery, or sale of gasoline, including loading tickets, bills of lading, drop tickets, meter tickets, invoices, and billings. The bill includes information regarding the storage of gasoline in this requirement, and requires sales reports also to be kept for three years.

The Act requires a retail outlet to retain on its premises the original drop tickets and invoices for one month before transfer to another location. The bill extends this requirement to bills of lading. Previously, the requirement did not apply if the storage location was easily accessible from the retail outlet and the original records were delivered to the retail outlet for receipt by the MDA within 24 hours after the retail outlet had been given a written request for the records. The bill deleted that exception.

House Bill 5181

Under the Renewable Fuels Commission Act, which the bill enacted, the Renewable Fuels Commission must investigate and

recommend strategies that the Governor and the Legislature may implement to promote the use of alternative fuels and encourage the use of vehicles that use alternative fuels. The Commission also must identify mechanisms that promote alternative fuel research.

Additionally, the Commission must identify mechanisms that promote effective communication and coordination of efforts between the State and local governments, private industry, and institutes of higher education concerning the investigation of, research into, and promotion of alternative fuels.

The Commission may review any State regulation that might hinder the use, research, and development of alternative fuels and vehicles able to use them, and may recommend changes to the Governor.

The Commission must consist of the following members, appointed by the Governor within 90 days of the Act's effective date:

- The MDA Director or his or her designee.
- One member representing the Michigan Economic Development Corporation.
- One member representing the Department of Labor and Economic Growth.
- At least one member from the largest organization in the State representing corn producers exclusively.
- At least one member from the largest organization in the State representing soybean producers exclusively.
- One representative of automotive fuel blenders in Michigan.
- One representative of retail petroleum sellers in Michigan.
- One representative of biodiesel producers.
- One representative of ethanol producers.
- One representative of environmental organizations.
- Three representatives of the automotive manufacturing industry.
- Three representatives of Michigan colleges and universities engaged in alternative fuel research.
- Any other member whom the Governor concludes is necessary to further the Commission's purposes.

The MDA Director must serve as the chair of the Commission.

Within one year after the Act's effective date, the Commission must issue to the Legislature and the Governor a written report on its investigation and recommendations. Follow-up reports must be issued at least annually, and may be issued more frequently if the Commission deems it advisable.

House Bill 5754

The bill requires the Michigan Strategic Fund to create and administer separate matching grant programs to provide incentives to service station and bulk plant owners and operators to convert existing fuel delivery systems, and create new fuel delivery systems, designed to provide E85 fuel and biodiesel blend. The Fund initially must fund the matching grant programs with a combined amount of \$500,000, which may include Federal sources, to be distributed by September 30, 2007.

(Under the bill, "facility" means an establishment at which gasoline is sold or offered for sale to the public. "Bulk plant" means a motor fuel storage and distribution facility that is not a terminal and from which motor fuel may be withdrawn by a tank wagon, a transport truck, or a marine vessel. "E85 fuel" means a fuel blend containing between 70% and 85% denatured fuel ethanol and gasoline suitable for use in a spark-ignition engine and that meets ASTM D-5798 specifications.)

A service station grant may not exceed 75% of the costs to convert an existing fuel delivery system to provide E85 fuel or biodiesel blend, not to exceed \$3,000 per facility. A grant may not exceed 50% of the new construction costs to create a fuel delivery system, not to exceed \$12,000 per facility for E85 fuel and \$4,000 per facility for biodiesel blend.

A bulk plant grant may not exceed 50% of the costs to convert an existing fuel delivery system to provide biodiesel blend, not to exceed \$2,000 per facility; or 50% of the new construction costs to create a fuel delivery system, not to exceed \$15,000 per facility.

The programs must provide for a contractual requirement that the recipient repay a portion of the grant if the recipient stops using the system to provide the alternative fuel within three years of receiving the grant, as determined by the Fund. The portion to be repaid must be calculated by multiplying the amount of the grant by a fraction, the numerator of which is the number of days that the fuel delivery system was not used to provide E85 or biodiesel blend during the three-year period and the denominator of which is 1,095.

Under each program, not more than 15% of the total amount of grants awarded each year may be awarded to a single business entity. The total amount of grants awarded each year to facilities located in the same county may not exceed 15% of the total amount of grants.

MCL 207.1008 (S.B. 1074)
18.1213 (S.B. 1075)
125.2688e (S.B. 1078)
290.642 et al. (S.B. 1079)
207.212 & 207.214 (S.B. 1362)
290.581-290.586 (H.B. 5181)
125.2683 (H.B. 5752)
125.2078 (H.B. 5754)

BACKGROUND

Ethanol

Ethanol is produced by fermenting and distilling starch crops (traditionally corn) that have been converted into simple sugars, and can be blended with gasoline to increase octane and improve emissions quality. Ethanol has been used more frequently in recent years as a replacement for the additive MTBE, which many states have banned due its propensity to contaminate groundwater. According to the Corn Marketing Program of Michigan, all automobile manufacturers approve the use of gasoline containing 10% ethanol ("E10") in all of their vehicles, and E10 is widely available throughout the State. Some manufacturers offer Flexible Fuel Vehicles (FFVs) that can run on traditional gasoline or ethanol blends of up to 85%. In a 2005 study, the American Coalition for Ethanol (ACE) found that the fuel economy of ethanol was lower than that of gasoline, and decreased as the percentage of ethanol increased. The ACE also found, however, that the cost per mile to operate a vehicle

using ethanol was lower than the cost per mile for gasoline.

Biodiesel

Biodiesel can be made from various organic materials such as vegetable oils, animal fats, and recycled restaurant grease. The fuel typically is made from soybean oil, due to the low cost and abundance of soybeans. Blends of up to 20% biodiesel ("B20") can be used in a standard diesel engine. Higher blends, up to B100, may require certain engine modifications. Biodiesel is biodegradable and has been shown to reduce most air pollutants. Additionally, it results in increased lubricity. Biodiesel performance generally is consistent with that of diesel, although cold weather has been shown to cause problems in blends of greater than 20%.

Hydrogen

As the most abundant element on the planet, hydrogen has been identified as a potential replacement for fossil fuels. With the use of a device called a fuel cell, hydrogen can power vehicles and small electronic devices, or produce electricity for entire buildings, while generating water vapor as the only emission. Hydrogen does not exist on its own in nature, however; it must be extracted from hydrocarbons or separated from water, which both require heat from the burning of fossil fuels or other sources.

ARGUMENTS

(Please note: The arguments contained in this analysis originate from sources outside the Senate Fiscal Agency. The Senate Fiscal Agency neither supports nor opposes legislation.)

Supporting Argument

Many people agree that dependence on gasoline to run vehicles is problematic in that oil is a finite resource and will one day become scarce. Further, many agree that the burning of this fuel over a period of time has polluted the air, increased global warming and caused a number of other environmental problems. Though opinions vary widely concerning the length of time existing resources will last and the degree of environmental damage to date, given the widespread belief that increased use of nonrenewable fuels is unwise, and likely damaging, numerous individuals, private

concerns, and governments have spent many years and millions of dollars searching for and researching alternative energy sources. While the development of alternative energy technologies has advanced, none has replaced traditional transportation fuel on a mass scale. Nevertheless, some believe that the conversion from fossil fuel dependence to alternative energy sources may be near.

Although hydrogen has received much attention as a potential replacement for fossil fuels, it is unclear when it could become commercially viable. The required technology and the lack of infrastructure pose significant challenges to the widespread adoption of hydrogen as an automotive fuel. The bills focus on increasing awareness of and retail access to ethanol and biodiesel, fuels that already are available commercially, and, due to Federal subsidies, competitive in price with gasoline. According to the Corn Marketing Program of Michigan, there are approximately 6 million FFVs on the nation's roads today; many FFV drivers, however, are unaware that their vehicles can run on ethanol blends.

The various incentives under the bills for fuel producers, retailers, and consumers should help to encourage more use of alternative fuels and increase confidence in their potential to replace traditional energy sources. Additionally, the bills will provide an economic boost to the State's largest industries--agriculture and manufacturing. Ethanol and biodiesel and their manufacturing byproducts add value to farmers' commodities, and production facilities add jobs to rural communities. Increased retail access might encourage more people to purchase FFVs made by Michigan-based automobile companies. Other states have made significant investments in biofuels. Reportedly, before the legislation was passed, there were more than 100 E85 pumps in Illinois and approximately 200 in Minnesota, while there were only four in Michigan. It is estimated that, under the grant programs required by House Bill 5474, as many as 1,000 pumps could be converted to provide alternative fuel over the next few years. With its strong manufacturing and agricultural traditions, Michigan has the potential to take a leadership role in the development and proliferation of alternative fuels.

Response: More people might be encouraged to purchase biofuels if the fuel tax breaks were larger than those enacted by Senate Bills 1074 and 1362, or if the tax on alternative fuels were eliminated completely for a period of time. In some cases, the State temporarily forgoes the collection of particular taxes to attract certain businesses, with the expectation of long-term economic gain.

Opposing Argument

Ethanol and biodiesel do not represent a cost-effective solution to the pollution caused by fossil fuels, dependence on foreign petroleum-based products, or potentially dwindling oil supplies. According to a 2005 study by Cornell University and the University of California-Berkeley, both ethanol and biodiesel made from a variety of organic materials generate less energy than is used in their production processes. The study noted that manufacturers actually burn fossil fuels to make ethanol, which does nothing to reduce pollution or alleviate the need to import fuel.

Federal subsidies already have lowered the price of biofuels to consumers; implementing incentives at the State level will serve only to prop up fuels that motorists would not adopt naturally in the marketplace. Given that increased use of biofuels will not mitigate pollution significantly, reduce this nation's reliance on foreign oil, or provide a viable alternative for fossil fuels, the use of the various mechanisms under the bills is unwise.

Response: According to the Corn Marketing Program of Michigan, ethanol currently produces 67% more energy than is required to manufacture it. According to the National Biodiesel Board, biodiesel generates the most energy of any alternative transportation fuel in relation to the energy needed to produce it. Taking into account the planting and harvesting of raw material, production, and transportation to the end user, for every unit of energy spent in the process, 3.2 units reportedly are gained.

Legislative Analyst: Julie Cassidy

FISCAL IMPACT

Senate Bills 1074 and 1362

Senate Bill 1074 will reduce fuel tax receipts by an indeterminate amount associated with

the tax on gasoline containing at least 70% ethanol, commonly referred to as "E70". All fuel tax revenue is deposited in the Michigan Transportation Fund (MTF), pursuant to the Michigan Constitution. Annual revenue to the MTF will be reduced based on the amount of E70 sold in Michigan. Currently, there are no data to indicate the amount of E70 sold in Michigan. Under the bill, all E70 fuel sold in Michigan will be taxed at 12 cents per gallon, as opposed to 19 cents per gallon. The MTF revenue reduction will expand as E70 sales increase.

Similarly, Senate Bills 1074 and 1362 will reduce MTF deposits associated with the tax imposed on diesel fuel containing at least 5% biodiesel, commonly referred to as "B5". Under the bills, all B5 will be taxed at 12 cents per gallon, as opposed to 15 cents per gallon. Currently, there are no data to indicate the amount of B5 sold in Michigan; therefore, the impact on the MTF is indeterminate.

Under Public Act 51 of 1951, which governs the Michigan Transportation Fund, MTF revenue is distributed in the following manner, after certain statutory deductions: 10% to the Comprehensive Transportation Fund, 35% to the State Trunkline Fund, 35% to county road commissions, and 20% to city and village road agencies. Any reduction to MTF revenue resulting from the bills will be allocated by the same percentages.

The legislation caps the cumulative MTF revenue reduction resulting from the new fuel tax rates for E70 and B5 at \$2.5 million. The new tax rates will no longer be effective 10 years after the bills' effective date or when the \$2.5 million cap is reached, whichever is earlier. Due to the lack of data on E70 and B5 sales in Michigan, it is unknown when the cap will be reached.

The bills require the Legislature annually to appropriate to the MTF the amount of lost fuel tax revenue, resulting from the taxes imposed on E70 and B5. The bills do not specify how this appropriation will be funded. It is important to note that current restrictions in Section 10 of Public Act 51 of 1951 (MCL 247.660) prevent the MTF from receiving deposits from other funds. Therefore, the appropriation provisions contained in the bills appear to conflict with statutory language restricting MTF deposits.

Senate Bill 1074 requires additional individuals or facilities to acquire a blender's license (\$100), a terminal operator's license (\$2,000), or a supplier's license (\$2,000), as applicable. The additional revenue will depend on how many new licenses are required.

Senate Bill 1075

The bill will result in an estimated cost to the State of \$140,000 to \$150,000 for the installation of fueling infrastructure to supply alternative fuels. The State currently has one State motor transport facility located at the Secondary Complex. Since alternative fuel (E85) is 20% less fuel efficient, the Department of Management and Budget estimates increased annual fuel costs of approximately \$15,000.

Senate Bill 1078

The bill will reduce State and local revenue by an unknown amount. The impact of the bill will depend on a number of factors, including where the additional renaissance zones are located, the economic and tax characteristics of the renewable energy facilities that are developed in each of these zones, whether other businesses move their existing operations into a renaissance zone to become eligible for the various tax exemptions granted in these zones, and whether the zones are drawn to include property other than renewable energy facility property.

In the near future, the fiscal impact of the bill is likely to be minimal. Few, if any, facilities that meet the definition of a renewable energy facility currently exist in the State. Furthermore, it will take some time for businesses to expand or relocate into the new zones and the fiscal impact of the bill largely depends upon the value of the investments made in the property within the zones.

In future years, the bill will reduce revenue to both the State and local units and increase State expenditures from the General Fund. Most local property taxes previously levied in renaissance zones are not reimbursed by the State, leaving local units to deal with reduced revenue. However, the General Fund reimburses lost revenue to public libraries, intermediate school districts, local school districts,

community colleges, and the School Aid Fund. Local school districts are able to levy 18 mills upon nonhomestead property, and the State education tax levies 6 mills on all property. Tax levies for the other reimbursed components can vary widely, although it is not uncommon for schools to levy an additional 6 to 12 mills in more rural areas, where these facilities may be more likely to be established. If \$100 million of investments eventually were made in the new zones, the bill would increase State General Fund expenditures by at least \$1.5 million per year, a portion of which would represent lost School Aid Fund revenue. Revenue losses, such as under the single business tax and individual income tax, are not reimbursed and are not included in this example; nor are local unit revenue losses that will not be reimbursed.

Senate Bill 1079

The bill will result in increased costs in excess of \$800,000 annually to the Michigan Department of Agriculture associated with the establishment and enforcement of fuel standards for certain fuels. This estimate was provided by the Department and does not include any capital investment associated with laboratory conversions/modifications required to regulate certain fuels. These additional costs will have to be borne by existing resources as the bill does not provide for any new revenue.

House Bills 5181 and 4752

The bills will have no fiscal impact on State or local government.

House Bill 5754

Under the bill, the matching grants are limited to \$2,000, \$5,000, or \$15,000 per grant, with the total of grants awarded not to exceed \$500,000 in FY 2006-07. No fund source is identified by the bill. The Michigan Strategic Fund signed a memorandum of understanding with the Department of Labor and Economic Growth to administer this program, proposing the use of grant funding provided by the U.S. Department of Energy.

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This analysis was prepared by nonpartisan Senate staff for use by the Senate in its deliberations and does not constitute an official statement of legislative intent.