House
Legislative
Analysis
Section

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NEXT ENERGY PACKAGE

House Bill 6071 as enrolled
Public Act 512 of 2002
Sponsor: Rep. Gene DeRossett

House Bill 6074 as enrolled
Public Act 549 of 2002
Sponsor: Rep. Randy Richardville

Senate Bill 1316 as enrolled
Public Act 593 of 2002
Sponsor: Sen. Bev Hammerstrom

Senate Bill 1322 as enrolled
Public Act 531 of 2002
Sponsor: Sen. Joanne G. Emmons

Second Analysis (10-31-02)
House Committee: Energy and Technology
Senate Committee: Finance

THE APPARENT PROBLEM:

Demand for energy is high, proven fossil fuel resources are finite and dwindling, and unless other sources of energy and technologies compatible with those sources are researched, developed, tested, manufactured, and made widely available, people—especially those who inhabit the more highly industrialized nations of the world—are in for a change of lifestyle. Since September 11, Americans have developed a richer understanding of what some environmentalists have perhaps too luridly diagnosed as the United States' gasoline addiction and some economists have perhaps too stoically described as the U.S.'s high level of energy consumption. Once exotic places and obscure acronyms such as Kyoto, ANWR, and CAFE have entered the vernacular, and the debate between environmentalists and economists is beginning to look quaint to some people. Consumers want inexpensive solutions, but they are increasingly asking for dependable, secure, efficient, clean solutions, and although it may be premature to declare an emerging consensus, many people are convinced that so-called "alternative energies" should and will play a major role in meeting the world's energy needs in the 21st century.

There is no standard definition of "alternative energy", but at its most general level, the term refers to sources of energy that are not petroleum based, including photovoltaics (solar electricity), wind and water energy, methanol and ethanol, and others. Making use of alternative energies often requires the modification of existing technologies or development of new technologies that are compatible with the alternative energy source. At the same time that people are looking to new sources of energy, experts are revisiting the question of where energy should be generated. For the last hundred years or so, most electricity has been produced at large, centrally located plants that transmit and distribute the electricity to their customers over power lines. Many experts believe that the future of energy technology lies in distributed generation (DG)—i.e., the relatively small-scale production of energy on the site where it is consumed. Some DG technologies—such as standby generators—have existed for years, while others such as internal combustion engines fueled by natural gas or renewable fuels and incorporating systems that capture and use waste heat have only recently begun to emerge. The "NextEnergy" legislation uses the term "alternative energy system" to refer to alternative energy systems that generate or release up to ten megawatts; although the legislation does not specifically refer to "distributed generation", the definition of "alternative energy system" more or

less refers to alternative energies as they would be used in distributed generation technologies.

These days the alternative energy system creating the loudest buzz among experts on energy, technology, and the environment is the fuel cell. As described by the United States Department of Energy's (DOE) report *Green Power: Fuel Cells*, a fuel cell is an energy conversion device that uses fuel and oxygen to produce electricity, water, and heat. When pure hydrogen is used as the fuel, water and heat are the only "byproducts", making fuel cells a very "clean" and thus an extremely attractive option for meeting future energy needs. The basic cell consists of an anode, cathode, and electrolyte. Like batteries, fuel cells produce direct current (DC) electricity, use chemical reactions instead of burning fuel, and have no moving parts. Unlike batteries, however, fuel cells do not run down or require recharging, and they do require fuel. Fuel cells operate by converting chemical energy directly into electrical energy. While an individual fuel cell generates a relatively small amount of electricity, the cells may be "stacked" to create a higher electrical output. Fuel cells have been around in one form or other since the mid-19th century, when Sir William Grove, a British physicist and lawyer, understanding that electricity could split water into hydrogen and oxygen, reversed the reaction by combining hydrogen and oxygen to produce electricity and water. In the late 1950s NASA began using fuel cells in its space exploration program, and their success encouraged industry to look into possible commercial applications. Currently, industry is researching, developing, manufacturing, and testing different technologies in the hopes that they can eventually make mass production and commercialization of fuel cells viable and affordable.

Experts believe that fuel cells have strong potential for stationary applications, such as powering and heating individual homes, businesses, or even business parks and industrial facilities, portable applications, such as powering a laptop computer or a cell phone, and vehicular applications. It is far less clear whether fuel cells will ever pose a real threat to the central power plant and electric grid. Within the next few years fuel cells may prove an attractive solution for short-term power outages, for residents as well as businesses, and a business that uses a lot of high-tech equipment might prefer fuel cells and other DG technologies because of the relatively high quality of the electricity that they generate. Some businesses and other customers might even "play the electricity market" by using fuel cells and other DG technologies to generate power when electricity prices are high and then plugging in to the grid when prices are low. Still, the United States enjoys a remarkably reliable and inexpensive supply of electricity, and no one is sounding the death knell of the centralized electric system just yet. While many experts believe that fuel cells and other DG technologies will contribute to the diversification of the energy industry in the foreseeable future, they also suggest that there will still be plenty of room for fossil fuels while they last, nuclear power for those who support it, and renewable "green" energies.

In Michigan, the future of energy sources and technologies takes on added significance given the pivotal role that the automobile industry has played in the state's economy throughout the 20th century and into the 21st. The DOE's Office of Transportation Technologies has supported research and development of fuel cell technology since 1984, and many experts predict that fuel cells will surpass, if not wholly replace, the internal combustion engine in cars, trucks, and other vehicles. In vehicles the internal combustion engine converts chemical energy to thermal energy and then to the mechanical energy which spins the wheels. Fuel cells are more efficient because they convert chemical energy directly into electrical energy. The promise of increased efficiency may help consumers, businesses, and governments in the United States and elsewhere wean themselves from their dependence on foreign energy sources. Since the only "byproducts" of the process are heat and water (when pure hydrogen is used as the fuel), fuel cells are far more environmentally friendly than the traditional internal combustion engine. Further, because fuel cells themselves have no moving parts and do not even vibrate, they require little maintenance and operate very quietly. While reduced noise levels may not be a major selling point for people who drive themselves to work everyday, a representative of a company that developed fuel cell systems for three buses used on Chicago's public bus routes testified that some passengers let the regular buses pass by while they waited for a fuel cell bus. Fuel cell buses, it turns out, are more conducive to sleeping and reading than the regular Chicago Transit Authority buses.

Despite their clear benefits and enthusiastic reception by many people, fuel cells have yet to overcome several important technological and economic barriers to mass production and mass marketability. Many of these barriers stem from difficulties involved in switching from a carbon-based energy system to the "hydrogen economy". It may seem quite logical to move towards a pure hydrogen-based energy system insofar as hydrogen is the most

abundant element in the universe. Also, as the DOE's fuel cell report explains, the historical trends in energy sources from wood to coal to oil to natural gas indicate a shift from dependence on energy sources with high amounts of carbon and low amounts of hydrogen to sources with lower amounts of carbon and higher amounts of hydrogen. To many, logic and history seem to be converging on technologies fueled by pure hydrogen, a (seemingly) unlimited resource. Nevertheless, hydrogen does present some problems. To begin with, it rarely appears apart from other elements, and thus must be manufactured. While hydrogen can be derived from gasoline, methanol, and natural gas, doing so involves emitting some carbon dioxide and potentially nitrogen oxides and sulfur dioxide. The need to manufacture hydrogen also raises questions of whether improved internal combustion engines or hybrid vehicles that combine the internal combustion engine with an electric motor might prove more efficient than fuel cells. For automotive applications, it remains unclear whether such fuels should be reformulated on board or whether the hydrogen should be manufactured in central facilities. If the latter, it is unclear how the hydrogen should be stored in the vehicle. Further, creating a hydrogen infrastructure across the country allowing fuel cell vehicles to refuel would be extremely expensive.

Researchers and developers are also still exploring different options for the composition of fuel cells and exploring how to make fuel cells compatible with other elements of the automotive power system. Although fuel cell vehicles exist, fuel cells remain expensive, largely due to the dearth of compatible applications and thus lack of demand, but also due to difficulties with mass production and other technical issues. Even fuel cells' staunchest supporters acknowledge that hybrid vehicles and vehicles powered by improved internal combustion engines will play a crucial role until developers and manufacturers work out all of the problems involved with fuel cell vehicles. As they iron out these kinks, competing technologies will gain crucial time and market penetration.

Finally, while fuel cells clearly have the potential to solve some energy needs, the relative merits of other energy sources and technologies for specific applications, including stationary and portable non-vehicular applications, remains a very open question. Clearly many people are excited about fuel cells, and amidst all the hoopla, it is easy to forget that fuel cells are ultimately just one of several alternative energy systems that offer strong promise to help governments, businesses, and individuals meet their energy needs. Photovoltaics, solar-thermal energy, wind, combined heat and power systems, micro- and miniturbines, Stirling cycle engines, battery cells, methanol and ethanol systems, electricity storage devices, such as supercapacitors, and other energy systems all have their virtues, and many people see a future in which these systems complement one another.

In short, the jury is still out on what role fuel cells and other alternative energy systems will play in meeting future energy needs. Many people agree, however, that these systems and technologies compatable with them need to be further researched, developed, manufactured, and commercialized. At the North American International Auto Show in early January, Secretary of Energy Spencer Abraham and executives of the "Big Three" automakers announced the new "FreedomCAR" program, which Secretary Abraham described as a public-private initiative "to promote the development of hydrogen as a primary fuel for cars and trucks". Under the program, "the government and the private sector will fund research into advanced, efficient fuel cell technology which uses hydrogen to power automobiles without creating any pollution". In his 2002 State of the State Address, Governor Engler argued that the state must become a leader in promoting alternative energy systems and technologies and fuel cells in particular. Although other states have already undertaken initiatives to promote alternative energy technologies—most notably California and New York—many people believe that Michigan can greatly benefit by being a "fast follower". According to committee testimony from the Michigan Economic Development Corporation, with careful planning, the state may avoiding some of the mistakes that other states have made, and companies working on alternative energy systems and technologies might thrive on a good dose of "Midwestern sanity". While promoting the broadband legislation enacted earlier this year, the governor cited its potential to create up to 500,000 jobs here in the state. In his *NextEnergy* report, the governor suggested that Michigan's historic prominence as the hub of automobile manufacturing in the United States will be at risk—in concrete terms, up to 200,000 jobs—unless the state becomes a locus of work on alternative energy systems and technologies. Although much of the discussion of the "NextEnergy" plan has focused on the potential automotive applications for fuel cells, the plan's proponents endorse a broad strategy including not only stationary and portable applications of fuel cell technology, but also other energy sources and technologies that may eventually

compete with and/or exist comfortably alongside fuel cells.

In a separate matter, Public Act 115 of 1999 instituted a 23-year phaseout of the single business tax (SBT). At the time, the tax rate was 2.3 percent, and the act reduces the tax rate by 1/10th of 1 percent each year, with the expectation that the rate will reach zero on January 1, 2021. (The act also provides, however, that a scheduled rate reduction will not take place in any year in which the amount in the Budget Stabilization Fund, or "rainy day fund", is at $250 million or less. This is likely to be the case in the next few fiscal years.) Critics of the SBT have described the tax as onerous, unfairly applied, overly complicated, and anti-competitive, and the phaseout was enacted in response to those criticisms and to criticisms that business taxes are too high in Michigan relative to other states. Some critics, however, complain that the phaseout will take too long and they urge an earlier elimination.

The SBT is seen by some critics as particularly burdensome for small businesses. While the act excludes the smallest of enterprises from the tax, those with gross receipts of $250,000 or less, it still imposes costly compliance and tax burdens on other small businesses. Raising the gross receipts threshold would provide tax relief to more small businesses.

Legislation has been introduced to position Michigan as the center of research, development, manufacturing, and commercialization of alternative energy systems and technologies. The legislation would also speed up the phaseout of the SBT by eliminating the tax for tax years beginning after 2009 and raise the act's gross receipts threshold to $350,000.

THE CONTENT OF THE BILLS:

Senate Bills 1316 and 1322 and House Bills 6071 and 6074 would create a series of tax credits, exemptions, and deductions for certain businesses engaged in the research, development and manufacturing of "alternative energy technologies", as defined in the bills. Senate Bill 1316 would create the "Michigan Next Energy Authority Act" to establish the Michigan Next Energy Authority as a public body within the Department of Management and Budget. Generally speaking, the authority, or "MNEA", would be responsible for promoting and increasing the research, development, and manufacturing of alternative energy technologies and for certifying businesses and their property as eligible for tax benefits allowed under the other bills. Senate Bill 1322 would amend the Single Business Tax Act to create two new SBT credits—a nonrefundable credit for "qualified business activity" and a refundable payroll credit. House Bill 6074 would amend the General Property Tax Act to create a tax exemption for "alternative energy personal property" from personal property taxes, subject to certain restrictions that could be imposed by the local school district and the local tax collecting unit in which the property was located. House Bill 6071 would allow the Michigan Strategic Fund to designate a renaissance zone as an alternative energy zone and would specify that the alternative energy zone could have renaissance zone status for up to 20 years. Businesses that located in the zone would be eligible for tax exemptions, deductions and credits conferred by renaissance zone status. More specifically, the bills would do the following:

Senate Bill 1316. The bill would create the Michigan Next Energy Authority for the purpose of promoting and increasing the research, development, and manufacturing of alternative energy technology. Under the bill, the MNEA would be required to certify eligibility and provide proof of certification of eligibility for the various tax credits and exemptions proposed by Senate Bill 1322 and House Bill 6074. The bill is described in more detail below.

Powers. In addition to exercising powers normally granted to state authorities, MNEA *could*:

- research and publish studies, investigations, surveys, and findings on the development and use of "alternative energy technology";

- promote research, development, and manufacturing of alternative energy technology; and

- do anything else necessary to promote and increase the research, development, and manufacturing of alternative energy technology and to otherwise achieve MNEA's objectives and purposes.

Certification of eligible taxpayers and qualified business activity. MNEA would have to certify taxpayers as eligible taxpayers for the purpose of claiming the nonrefundable credit for "qualified business activity" provided under a section of the Single Business Tax Act that would be added by Senate Bill 1322. MNEA would also have to certify and provide proof of certification of the qualified business activity.

Certification of alternative energy technology business. MNEA would have to certify (eligible) businesses as alternative energy technology businesses and provide proof of such certification to the assessor of the local tax collecting unit in which the business was located. (House Bill 6074 would provide a personal property tax exemption for the tangible personal property of an alternative energy technology business.)

Certification of alternative energy personal property. MNEA would have to certify all of the following personal property and provide proof of certification to the assessor of the local tax collecting unit in which the property was located:

- alternative energy marine propulsion systems, alternative energy systems and alternative energy vehicles;

- tangible personal property of an alternative energy technology business; and

- tangible personal property of a business that was not an alternative energy technology business, if the property was used solely for the purpose of researching, developing or manufacturing an alternative energy technology.

To qualify for certification, the personal property could not have been previously subject to the collection of taxes under the General Property Tax Act. Further, it could not have been previously exempt from the collection of taxes under that act, except if the exemption fell under Sections 9c or 9i. Section 9c provides a personal property tax exemption for "inventory", as defined there, and Section 9i is the section that would be added to the act by House Bill 6074. (As described below, House Bill 6074 would exempt the personal property listed above—except for alternative energy marine propulsion systems—from personal property taxes.)

Prohibited activities. The MNEA could not operate an alternative energy technology business or otherwise engage in the manufacturing of commercial products.

Definitions. Senate Bill 1316 contains a long list of definitions of terms used in all the bills. Some of the key terms are defined as follows:

"Alternative energy technology" would be defined as equipment, component parts, materials, electronic devices, testing equipment, and related systems that are solely related to the following:

- the storage or generation of hydrogen for use in an alternative energy system;

- the process of generating and putting into a usable form the energy generated by an alternative energy system;

- a microgrid—i.e., the lines, wires, and controls to connect two or more alternative energy systems.

The term would not include the component parts of an alternative energy system that are required regardless of the energy source.

"Alternative energy system" would refer to the "small-scale" (i.e., up to two megawatts, in the case of a single energy system, or up to ten megawatts, in the case of an integrated system) generation or release of energy from one, or any combination, of the following types of energy systems and storage system (each of which is defined more fully in the bill):

- fuel cell energy system;

- photovoltaic energy system;

- solar-thermal energy system;

- wind energy system;

- CHP ("combined heat and power") energy system;

- microturbine energy system;

- macroturbine energy system;

- Stirling cycle energy system;

- battery cell energy system;

- clean fuel energy system; and

- electricity storage system.

An "alternative energy technology business" would be defined as a business engaged solely in the research, development, or manufacturing of an alternative energy technology.

"Alternative energy vehicle" would refer to a motor vehicle that was propelled by an alternative energy system and that was manufactured by an original equipment manufacturer that did both of the following: (1) fully warranted and certified that the vehicle met federal motor vehicle safety standards for its class of vehicles as defined by the Michigan

Vehicle Code, and (2) certified that the vehicle met local emissions standards. It would include the following types of vehicles, each of which is defined more fully in the bill: alternative fueled vehicles, fuel cell vehicles, electric vehicles, hybrid vehicles, solar vehicles, and hybrid electric vehicles.

An "alternative energy zone" would be a renaissance zone designated as an alternative energy zone by the board of the Michigan Strategic Fund, as would be allowed by House Bill 6071.

Authority. MNEA would exercise its prescribed powers, duties, and functions independently of the director of the DMB, but the director would supervise and direct its budgeting, procurement, and related administrative functions. MNEA could contract with the DMB for the purpose of maintaining its rights and interests. MNEA's accounts could be subject to annual financial audits by the auditor general, and its records would have to be maintained according to generally accepted accounting principles.

Board. MNEA would be governed by a board consisting of the eight members of the Michigan Economic Growth Authority (MEGA). (The eight members of MEGA are: the director of the Michigan Jobs Commission (or his or her designee), the state treasurer (or designee), the director of the DMB (or designee), the director of the state Department of Transportation (or designee), and four appointees of the governor.) The board would be responsible for organizing and adopting its own policies, procedures, schedule of regular meetings, and a regular meeting place and time. The board would have to hold all meetings in compliance with—and give public notice of the time, date, and place of each meeting as required by—the Open Meetings Act. Writings prepared, owned, used, in the possession of, or retained by the board in the performance of an official function would have to be made available to the public in accordance with the Freedom of Information Act.

The board could act only by resolution. A majority of members then in office, or a majority of the members of any committee, would constitute a quorum for the transaction of business. The board could employ legal and technical experts, private consultants, accountants and other agents or employees for rendering necessary professional and technical assistance and advice. MNEA would determine the qualifications, duties and compensation of its employees.

Property tax exemption for MNEA. The MNEA would be exempt from and would not be required to pay taxes on any real or personal property that it owned, as long as the property was used for a public purpose. The bill would also specify that the MNEA's property was "public property devoted to an essential public and governmental function and purpose."

Interpretation of act. The bill contains the following statement: "This act shall be construed liberally to effectuate the legislative intent and its purposes. All powers granted shall be cumulative and not exclusive and shall be broadly interpreted to effectuate the intent and purposes and not as a limitation of powers.

Senate Bill 1322 would amend the Single Business Tax Act (MCL 208.39e) to allow a taxpayer to claim one or both of two new single business tax (SBT) credits. The bill would create a refundable payroll credit equal to the total salaries and wages of qualified employees of a qualified alternative energy entity—i.e., a business that works on alternative energy and is located in an alternative energy zone—multiplied by the income tax rate for that year. (A refundable credit means that even if the credit exceeds tax liability, the amount of the credit in excess of the liability is returned to the taxpayer.) The bill would also create a nonrefundable credit for qualified business activity, which would be equal, generally speaking, to a taxpayer's increase in tax liability in the current tax year over the tax liability in 2001 attributable to research, development, and manufacturing of alternative energy marine propulsion systems, alternative energy systems, vehicles, and technologies, and renewable fuels. The SBT credits are described in detail below.

Senate Bill 1322 would also amend the SBT act to exempt persons whose apportioned or allocated gross receipts were less than $350,000 for a tax year beginning after December 31, 2002 from filing a return under the act and from paying the SBT. Currently, the threshold for filing a return and paying the SBT is at $250,000. Further, the bill would repeal the SBT act effective for tax years beginning after December 31, 2009. Currently, the act could be repealed as early as 2021.

Refundable payroll credit for qualified alternative energy entity. For tax years beginning after December 31, 2002, an SBT taxpayer that was a "qualified alternative energy entity"—i.e., a taxpayer located in an alternative energy zone, which could be created under the Michigan Next Energy Authority Act—could claim a credit for the taxpayer's

"qualified payroll amount". "Qualified payroll amount" would mean an amount equal to the taxpayer's "payroll"—i.e., total salaries and wages before deducting personal and dependency exemptions—attributable to employees who are working on alternative energy related research, development, and manufacturing in the tax year for which the credit was being claimed, multiplied by the income tax rate for that year. A taxpayer could claim the credit after claiming all allowable nonrefundable credits under the SBT act, and if the credit exceeded the taxpayer's tax liability for the tax year, the portion of the credit that exceeded the tax liability would be refunded.

Nonrefundable credit. For tax years beginning after December 31, 2002, an SBT taxpayer that was certified as eligible under the proposed Michigan Next Energy Authority Act could claim a nonrefundable credit equal to the amount by which the taxpayer's "tax liability attributable to qualified business activity" for the tax year exceeded the taxpayer's 2001 tax liability attributable to qualified business activity. "Qualified business activity" would mean research, development, or manufacturing of an alternative energy marine propulsion system, an alternative energy system, an alternative energy vehicle, alternative energy technology, or "renewable fuels", including biodiesel, biodiesel blends containing at least 20 percent biodiesel, and biomass. "Tax liability attributable to qualified business activity" would mean the taxpayer's tax liability multiplied by the average of the following two ratios:

- the ratio of the value of the taxpayer's property used for qualified business activity and located in the state but outside of a renaissance zone to the value of all of the taxpayer's property located in the state, and

- the ratio of the taxpayer's payroll for qualified business activity performed outside of a renaissance zone to all of the taxpayer's payroll in the state.

A taxpayer could not claim the credit for any tax year in which the taxpayer's tax liability attributable to qualified business activity did not exceed the 2001 baseline liability attributable to qualified business activity. An affiliated group, a controlled group of corporations, or an entity under common control could not take the credit unless the qualified business activity of the group or entity was consolidated. A taxpayer that claimed the credit would have to attach a copy of each of the following to the annual return required under the SBT act for each year in which the taxpayer claimed the credit:

- proof of certification that the taxpayer is an eligible taxpayer for the tax year;

- proof of certification of the taxpayer's tax liability attributable to qualified business activity for the tax year; and

- proof of certification of the taxpayer's baseline tax liability attributable to qualified business activity.

House Bill 6074 would amend the General Property Tax Act (MCL 211.9i) by adding a section that would exempt "alternative energy personal property" certified by MNEA from the collection of personal property taxes under the act. The exemption would apply to taxes levied after December 31, 2002 and before January 1, 2013. Local school districts and local tax collecting units could adopt resolutions disallowing exemptions for certain taxes. Specifically, the school board for the local school district in which MNEA-certified alternative energy personal property was located could, with the written concurrence of the district superintendent, adopt a resolution to not exempt the property from the following taxes:

- tax levied in the district under Section 1212 of the Revised School Code (which allows a school district to levy up to 5 mills for up to 20 years for a sinking fund to acquire building sites and for construction or repair of school buildings); and

- tax levied in the district under the Revised School Code for the purpose of retiring outstanding bonded indebtedness.

And the governing body of a local tax collecting unit could adopt a resolution to not exempt MNEA-certified alternative energy personal property from any taxes collected in the unit, except for the following:

- tax collected under Sections 1211 (which allows school districts to levy taxes for school operating purposes) and 1212 of the Revised School Code;

- tax levied under the Revised School Code for the purpose of retiring outstanding bonded indebtedness; and

- tax levied by the state under the State Education Tax Act.

"Alternative energy personal property" would mean all of the following: an alternative energy system, an alternative energy vehicle, all personal property of an

alternative energy technology business, and the personal property of a business that was not an alternative energy technology business that was used solely for the purpose of researching, developing, or manufacturing an alternative energy technology. (The bill would not exempt any *real* property from taxes, and it would not restrict the allowed personal property tax exemptions to taxpayers located in an alternative energy zone. Also, House Bill 6074 would not exempt alternative energy marine propulsion systems from personal property taxes, even though the MNEA would be required to certify such systems.)

Procedures. If the MNEA certified alternative energy property as eligible for exemption from the tax, it would have to forward a copy of the certification both to the secretary of the local school district and to the treasurer of the local tax collecting unit in which the personal property was located. Within 60 days after receiving the certification, the local school district board, with the written concurrence of the district superintendent, could adopt a resolution not to exempt the alternative energy personal property from the taxes levied in the local school district under Section 1212 or a tax levied to retire outstanding bonded indebtedness. If a resolution was adopted, the district would have to forward copies to the MNEA, the treasurer of the local tax collecting unit, and the state treasurer. If a resolution was not adopted, the alternative energy personal property would be exempt from taxes as specified above.

Also, within 60 days after receiving the MNEA's certification, the governing body of the local tax collecting unit in which the property was located could adopt a resolution not to exempt the alternative energy personal property from the taxes collected in the local unit, except as specified above. The clerk of the local unit would have to give written notice both to the assessor of the local unit in which the alternative energy personal property was located and to the legislative body of each taxing unit that levied property taxes in that local unit. Notice of a meeting at which the resolution would be considered would have to be provided as required under the Open Meetings Act. Before acting on the resolution, the governing body of the local tax collecting unit would have to give the assessor and a representative of the affected taxing units an opportunity for a hearing. If a resolution was adopted, the local tax collecting unit would have to forward copies to the MNEA and to the state treasurer. If a resolution was not adopted, the personal property would be exempt from the taxes collected in that local tax collecting unit.

House Bill 6071 would amend the Michigan Renaissance Zone Act (MCL 125.2688a) to allow the board of the Michigan Strategic Fund to designate one of the five renaissance zones which it may create under the act as an alternative energy zone. (The act states that the strategic fund may designate up to five renaissance zones with the state in one or more cities, villages, or townships with the consent of the city, village, or township.) An alternative energy zone, which would promote and increase the research, development, and manufacturing of alternative energy technology (as defined by Senate Bill 1316), could have renaissance zone status for a period not exceeding 20 years, as determined by the strategic fund.

The Renaissance Zone Act exempts residents and businesses of renaissance zones from certain taxes, and in general, businesses that promoted alternative energy technologies and were located in an alternative energy zone would enjoy the tax benefits of the renaissance zone. However, the bill would specifically exclude commercial real property located in the alternative energy zone from the renaissance zone tax exemptions, deductions, or credits, if MNEA determined, with the concurrence of the assessor of the local tax collecting unit, that the property was not used to directly promote and increase the research, development, and manufacturing of alternative energy technology.

BACKGROUND INFORMATION:

CAR/MEDC report. In August 2001, the Michigan Economic Development Corporation and the Michigan Automotive Partnership released a report written on their behalf by a senior industry analyst at the Center for Automotive Research. The report, titled, *Positioning the State of Michigan as a Leading Candidate for Fuel Cell and Alternative Powertrain Manufacturing*, outlines both the promise of and the substantial barriers to mass producing automotive applications of fuel cell technology. Exceeding beyond its original scope, which was to advise the state as to how it could become a "prime location for fuel cell manufacturing investment", the report issued five recommendations for how the state can "better position itself as a leader in alternative powered vehicle technology, and concomitantly, a viable candidate for fuel cell manufacturing":

- establish the "Michigan Advanced Automotive Powertrain Technology Alliance" as "an umbrella organization whose mission is to assist the industry in charting the course for widespread commercialization

of advanced powertrain vehicles in the new millenium";

• investigate the feasibility of creating a power electronics "Center of Excellence" to respond to the "significant challenge" of increasing the number of "power-electronics-proficient people" in the state;

• establish a "Michigan Hydrogen Infrastructure Working Group" to help the state "become a leader in understanding the infrastructure issues " that the "hydrogen economy" will present;

• become a leader in the demonstration and testing of prototype fuel cell vehicle development and commercialization of fuel cells for advanced vehicles and stationary applications; and

• conduct an economic study to determine the most appropriate financial incentives for the development and commercialization of fuel cell and other advanced technology vehicles.

In April Governor Engler unveiled a "blueprint" of his "NextEnergy proposal", which offers environmental as well as economic reasons for making Michigan the premier site for work on fuel cells and other alternative energy technologies. The blueprint describes the proposal as a "bold approach to ensure the economic future for generations to come in Michigan while also contributing to the national efforts to reduce our dependence on foreign oil". The blueprint further states that "Most industry experts believe that fuel cells are America's long-term answer to its energy needs. NextEnergy is designed to dramatically accelerate the commercialization of this technology, while also supporting interim alternative energy strategies to transition our economy to this solution". Finally, the blueprint outlines several major components of the proposed initiative as follows:

• establish the NextEnergy Center;

• designate a Michigan NextEnergy Zone to build an *industry cluster*;

• obtain a commitment from the federal government to establish a federal research facility within the NextEnergy Center;

• provide incentives to alternative energy technology companies that locate within Michigan;

• adopt state policies that spur demand for alternative energy technologies;

• appoint a Michigan NextEnergy Leadership Council;

• construct alternative energy technologies demonstration microgrids in Michigan;

• implement an alternative energy technologies business development program; and

• market Michigan as the location for the alternative energy technologies industry.

The full report and the Governor's NextEnergy report are available online at: www.nextenergy.org.

FISCAL IMPLICATIONS:

According to the Senate Fiscal Agency, House Bill 6071 would have no fiscal impact compared with current law, since the bill would allow one of the currently authorized renaissance zones to be designated as an alternative energy zone, rather than creating a new zone entirely. (7-31-02)

According to the Senate Fiscal Agency, the personal property tax exemption proposed by House Bill 6074 would reduce property taxes as follows: state education property tax revenue would be reduced an estimated $0.6 million in fiscal year 2002-2003 and $1.2 million in fiscal year 2003-2004; the local school district 18-mill tax revenue would be reduced $1.7 million in fiscal year 2002-2003 and $3.5 million in fiscal year 2003-2004; intermediate school district property taxes would be reduced $0.3 million in fiscal year 2002-2003 and $0.6 million in fiscal year 2003-2004, and all other local government property taxes would be reduced an estimated $3.0 million in fiscal year 2002-2003 and $6.3 million in fiscal year 2003-2004. The loss in state education property tax revenue would affect the School Aid Fund and the loss in local school district 18-mill tax revenue would automatically increase School Aid Fund expenditures by the same amount. As a result, this bill would have a negative fiscal impact on the School Aid Fund of an estimated $2.3 million in fiscal year 2002-2003 and $4.7 million in fiscal year 2003-2004. These estimates assume that local governments and schools would grant this personal property tax exemption. (7-31-02)

According to the House Fiscal Agency, the overall fiscal impact of Senate Bill 1322 cannot be determined. Because the tax credits are new, there is no way to estimate the extent to which they will be applied. Raising the SBT filing threshold from $250,000 to $350,000 will reduce SBT revenue by an

estimated $18.5 million in fiscal year 2002-2003. (7-8-02)

The Senate Fiscal agency reports that according to the current SBT reduction schedule, the SBT rate, which is currently 1.9 percent, would equal 1.1 percent in 2010. In current dollars (not adjusting for inflation or economic growth), the repeal of the SBT in 2010 would equate to a loss in revenue of about $1.1 billion. (7-15-02)

The Senate Fiscal Agency estimates that the refundable payroll tax credit proposed by Senate Bill 1322 would have no fiscal impact in fiscal year 2002-2003, but would reduce single business tax revenue an estimated $0.2 million in fiscal year 2003-2004. It is estimated that the proposed nonrefundable business activity tax credit would reduce revenue an estimated $0.2 million in fiscal year 2002-2003 and fiscal year 2003-2004. The loss in revenue from both of these credits would affect the state's general fund/general purpose budget. (7-31-02)

Fiscal information on Senate Bill 1316 is not available.

ARGUMENTS:

For:

Senate Bill 1316, in conjunction with Senate Bill 1322 and House Bills 6071 and 6074, proposes a solid economic development plan for the state by encouraging research into, development of, manufacturing of, and ultimately purchase of alternative energy systems, technologies, and vehicles. Given the United States' high level of energy consumption, and given the projected growth of domestic and worldwide consumption, the energy industry needs to find alternatives to fossil fuels. Pursuing alternative energy strategies makes sense not only because known oil reserves are dwindling, but also because alternative energies promise to be better for the environment. While pundits promote incremental efficiency and emissions gains, the "Next Energy" legislation promises to make leaps and bounds.

With so many government and industry officials convinced that fuel cells are the next revolution in automotive technology, the state needs to take steps to create a cluster of fuel cell activity in the state. Experts contend that fuel cell factories are more like chemical factories than auto plants, which means that workers who are trained to work with current drive train technology are not necessarily qualified to work on automotive applications of fuel cell technology. As Governor Engler said in his 2002 State of the State address, "Michigan cannot sit back and assume that being home to the auto industry is our birthright." And as an auto analyst quoted in an April 18, 2002 New York Times article stated: "if some day fuel cells replace the internal combustion engine, it would be a disaster for the state if these new engines were made somewhere else." Unless Michigan wants to lose the 200,000 jobs connected with current technology, the state needs to assert itself as an innovator.

Despite fuel cells' promise of virtually unlimited clean and relatively efficient power production, there are technological barriers to their development that must be overcome. In the meantime, there are other alternative energy technologies worth exploring. Currently, research, development, and manufacturing of fuel cells and other alternative energy technologies is scattered throughout the U.S. and the world, and many people believe that the development of alternative energy would be greatly helped by creating a central location for these various operations and activities. The "Next Energy" proposal represents a unique collaborative effort, uniting the state's world class universities with the Big Three's automotive excellence under the aegis of a state government fully committed to help where it can.

Response:

Senate Bill 1316 would create a state authority, the Michigan Next Energy Authority, with various powers to promote research and development of alternative energy systems, technologies, and vehicles. The MNEA's primary responsibility, as set forth in the bill, would be to certify businesses and property as eligible for the various tax credits, exemptions and deductions proposed by the other bills, yet the bill offers little guidance for how exactly MNEA will make its determination. Supporters appear to regard this as a simple determination of whether a given technology that is being researched, developed, or manufactured is included in the bills' definitions. Some people, however, believe that the bills do not focus enough on encouraging truly significant innovation in the field of alternative energy. While Senate Bill 1316 would, for example, direct the MNEA to certify tax exemptions for certain new personal property, it fails to distinguish between technologies that are merely new and technologies that represent a true innovation. Without requiring alternative energy technologies and applications to meet high performance-based standards, it is not clear that the legislation is really providing an incentive to create the most efficient, cleanest

technologies possible. The bill should also provide guidelines for improving standards for the "non-alternative energy" vehicles that most people currently drive and that they will likely continue to drive throughout the next decade and beyond. Characterizing emissions standards such as "CAFÉ" as incremental or passe ignores the importance of incorporating interim solutions into long-term plans.

Finally, it is not altogether clear what effect, if any, the Next Energy act and related legislation would have on business activity. Some businesses currently located in the state are already working on fuel cells and other alternative energy technologies, and they would probably continue to do so regardless of whether the bills were enacted. Moreover, some people question whether the proposed tax incentives would really be decisive for businesses currently located in other areas of the country or for individuals considering various locations for new businesses.

Reply:

It would be foolish to try to "micromanage" MNEA. Rather, the state should create a flexible framework for MNEA to engage university and industry officials in collaborative efforts, and the fruits will flow from their endeavors. Clearly, many supporters of the package are thinking about its potential to stimulate work on fuel cell vehicle technology, but the bills would encourage MNEA to promote a wide range of alternative energy technologies and applications.

For:

Although Senate Bill 1316 is clearly focused on spurring new work on alternative energy technologies and, in conjunction with House Bill 6071 and Senate Bill 1322, would concentrate that effort in the "alternative energy zone", the bills would also help existing Michigan businesses that are currently working on alternative energy technologies, whether or not they wished to relocate, and would help communities throughout the state attract alternative energy businesses. For instance, the personal property tax exemption created by House Bill 6074 would be available to businesses in Michigan that are currently working on alternative energy technologies, and not only to businesses that relocated to Michigan or started such work after the bills were enacted. This would help ensure that Michigan's current "cutting edge" alternative energy businesses are not punished for their foresight and innovation.

For:

When the SBT phaseout was first enacted, some critics question why, if it is such a burdensome, overly complex tax, the SBT should be allowed to stay in place for two more decades. They argued that the phaseout should be sped up. Senate Bill 1322 would repeal the SBT for tax years beginning after 2009, more than 10 years before it would otherwise disappear. (It would not, however, speed up rate reductions; it would simply end the tax, regarding of what the rate is at that point.) This would provide sufficient time for state policymakers to adjust to the eventual elimination of the tax. By raising the gross receipts threshold, the bill would also eliminate all SBT liability for nearly 14,000 additional small businesses with relatively little impact on total revenues. Some companies have complained that the cost of complying with this complex tax outstrips the eventual tax liability.

Response:

Fiscal analysts say that in the first year after the SBT disappears, state revenues will decrease by over $1 billion! This means that either replacement revenues will be needed or that the size and scope of state government will have to be reduced substantially. It should also be noted that the new earlier date for the elimination of the SBT makes the tax breaks less valuable as a means of attracting business and adds uncertainty about what the state's tax system will look like in the future. The immediate elimination of the SBT for thousands of small business will have an immediate negative impact of more than $18 million on state revenues at a time when the state budget is under extraordinary stress. Moreover, the additional exemptions make the tax even less fair: already only 35 percent of the state's businesses must pay this tax and reportedly 75 percent of all SBT revenues come from just 5 percent of the state's firms.

Against:

The bills offer another opportunity for the state to pick winners and losers in the private sector, by giving special tax breaks to certain portions of certain industries. Under Senate Bill 1316, the MNEA would have to certify the eligibility of alternative energy systems, products and businesses for various tax exemptions and credits, meaning that an entity created by the state would choose which businesses and which products would receive tax breaks. Some do not consider this to be a legitimate function of government. Instead of creating a structure designed to pick favorites, the state should direct its efforts toward improving the business climate for all industries, thus encouraging overall economic growth.

Response:

Senate Bill 1322 would raise the threshold for paying the SBT from $250,000 to $350,000 and speed up the SBT phaseout for all businesses, large or small.

Thus, the bill reaches an effective compromise between creating a better business climate generally and promoting alternative energy technology specifically

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■This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.