Legislative Analysis

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WIND ENERGY

House Bill 4647 as introduced
Sponsor: Rep. John Moolenaar

House Bills 4648 and 4649 as introduced
Sponsor: Rep. Howard Walker
Committee: Government Operations

First Analysis (11-7-05)

BRIEF SUMMARY: House Bill 4647 would provide a credit against the Single Business Tax to taxpayers that own and operate a small wind turbine. House Bill 4648 and 4649 would amend the Township and County Zoning Acts to permit wind energy conversion systems in all zoning classification, with certain restrictions.

FISCAL IMPACT: Because the number and dollar amount of credits that will be claimed is not known, the corresponding reduction in SBT revenue cannot be determined. At least initially, however, the revenue loss should be fairly small. All SBT revenue accrues to the general fund.

THE APPARENT PROBLEM:

According to a recent article by the Michigan Land Use Institute, Michigan is the 14th windiest state, with the potential to generate 7,460 megawatts of electricity and power 1.7 million of the 3.7 million homes in the state. While there is a tremendous opportunity to harness the wind's energy and use it as a source of electricity, it currently produces less than one percent of the state's electricity. The use of wind energy is limited, in part, because efforts to construct wind turbines are confounded by a patchwork of local zoning ordinances (where they exist) and a lack of incentives. Most local communities do not have ordinances related to the construction of wind turbines, but where they do exist, they do not typically encourage them. The ordinances in some communities are so restrictive that they effectively prohibit the construction of wind turbines. It has been suggested that the state provide uniform zoning regulations and certain tax incentives as a means of encouraging the development of wind energy as a source of electricity in the state.

THE CONTENT OF THE BILLS:

House Bill 4647 would amend the Single Business Tax Act (MCL 208.35b) to provide taxpayers that own and use a small wind turbine with a credit against the tax. The credit would be available for tax years beginning after December 31, 2006 and before January 1, 2017. The credit would not be refundable but any excess could be carried forward to offset future tax liability for up to 10 years or until the excess is exhausted, whichever occurs first. The credit would be equal to one-and-one-half cents per kilowatt hour

generated in the tax year. A small wind turbine would be a wind turbine that has a maximum electrical generating capacity of two megawatts.

House Bills 4648 and 4649 would amend the Township Zoning Act (MCL 125.286j) and the County Zoning Act (MCL 125.216j), respectively, to permit wind energy conversion systems in all zoning classifications, subject to certain restrictions.

A system would have to meet the following requirements: (1) be built at a distance from all property lines not owned or leased by the owner at a distance at least equal to its height (including the blade); (2) have a minimum vertical clearance from the end of the blade of at least 20 feet; (3) not generate a sound level in excess of 60 decibels (DBA) at the closest property line not served by the system; and (4) comply with applicable construction, electrical, and aviation regulations. A township or county could grant a variance from the above requirements. Interconnected systems would also have to comply with all applicable requirements set forth by the Public Service Commission and the owner's electric supplier. An owner would not be considered a nuisance if the system complies with the requirements of the bill.

BACKGROUND INFORMATION:

Wind Energy Siting Guidelines

The Department of Labor and Economic Growth's Energy Office is in the process of developing siting guidelines to assist local governments in developing their own siting requirements for wind energy systems. The guidelines for utility grid systems, as drafted on October 12, 2005, are as follows:

- Property Set-Back: The distance between a utility grid wind energy system and the property lines of adjacent non-leased properties, including public rights of way, shall be at least the height of wind energy system tower including the top of the blade in its vertical position.

- Sound Pressure Level: The sound pressure level generated by a utility grid wind energy system shall not exceed 55 dB(A) measured at the property lines between leased and non-leased property. Exceptions to this requirement are allowed with the written consent of property owners. This sound pressure level shall not be exceeded for more than three minutes in any hour of the day.

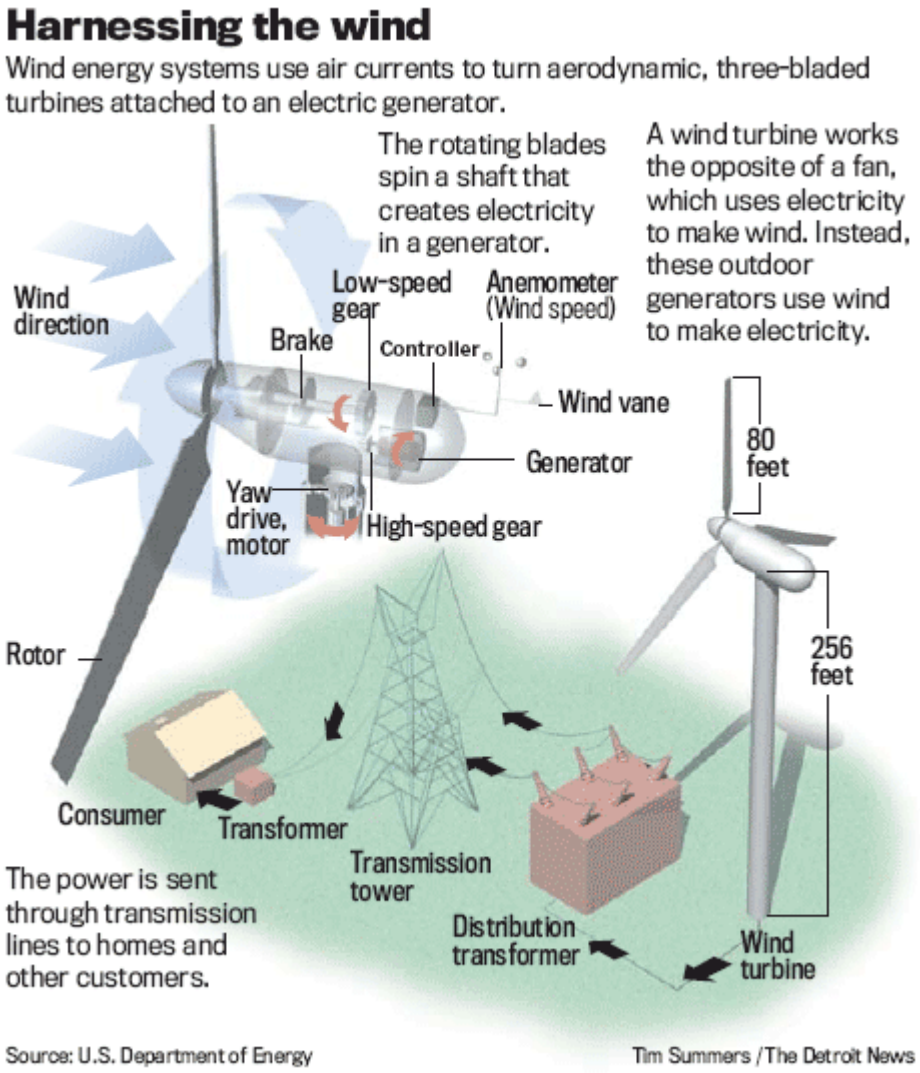
- Construction Codes, Towers, and Interconnection Standards: Utility grid wind energy systems, including towers, shall comply with all applicable state construction and electrical codes and local building permit requirements. Utility grid systems shall comply with Federal Aviation Administration requirements, the Michigan Airport Zoning Act, the Michigan Tall Structures Act, and local jurisdiction airport overlay zone regulations. Utility grid wind energy systems shall also comply with applicable utility, Michigan Public Service Commission, and Federal Energy Regulatory Commission interconnection standards.

- Safety: Among other safety requirements, the minimum vertical blade tip clearance shall be 20 feet for a wind energy system employing a horizontal axis rotor.

The siting guidelines also contain standards regarding environmental impact, avian and wildlife impact, visual impact, electromagnetic interference, shadow flicker, decommissioning, and complaint resolution. A copy of the guidelines is available through the website of the Department of Labor and Economic Growth, Energy Office.

Electricity Generation Process

The following picture, taken from a July 10, 2005 article appearing in the *Detroit News*, illustrates the process of how wind energy is converted into electrical energy. The article is available on the internet at www.detnews.com/2005/metro/0507/10/D01-242564.htm.



Capacity Need Forum

In October 2004, the Public Service Commission initiated the Michigan Electric Capacity Need Forum (CNF) to assess the state's electric power needs. In a July 1, 2005 status report, the CNF forecasts that statewide electricity demands will increase 1.8 percent annually between 2005 and 2025, from 113,782 GWh to 163,411 GWh. The report and other information regarding the CNF is available through the Public Service Commission is available at www.cis.state.mi.us/mpsc/electric/capacity/cnf.

Federal Renewable Energy Production Tax Credits

The federal Internal Revenue Code (26 U.S.C. 45), provides companies building new renewable energy production facilities with a nonrefundable credit against the federal income tax. The credit is available for facilities placed in service after December 31, 1993 and before January 1, 2008, and may be claimed for first 10 years of production. For 2005, the credit for wind energy facilities is equal to 1.9¢/kWh. The credit was first made available under the federal Energy Policy Act of 1992, and was subsequently reauthorized on several occasions, most recently with the enactment of the federal Energy Policy Act of 2005 (H.R. 6/P.L. 109-58).

Related Legislation

In mid-April, Representative Kahn (R-94th District) introduced House Bill 4608, which creates a new act to require the Public Service Commission to establish a renewable energy portfolio standard for each electricity provider. The portfolio standard would require providers to generate or acquire electricity from renewable energy systems utilizing biomass, geothermal energy, solar thermal energy, or wind energy. As currently drafted, the bill would require that in 2006, at least four percent of the total amount of electricity sold by a provider to retail customers in Michigan be from renewable energy sources. The percentage would increase to at least five percent for 2007 – 2009, at least six percent for 2010 – 2012, and at least seven percent for 2013 and each year thereafter. The bill is currently pending before the House Committee on Energy and Technology.

ARGUMENTS:

For:

The development of wind energy as a source of electricity in Michigan has many positive benefits for the state. Much of the state's electrical energy is generated through the burning of coal and other nonrenewable sources, which raises concerns about increased air pollution. The potential environmental impact of these plants, particularly in Southeast Michigan as it struggles to meet National Ambient Air Quality Standards, is a significant barrier toward constructing new plants. Indeed, it has been 20 years since a new coal-fired central generating unit has been placed in service in the state. The potential for constructing new plants is limited because new generating units must meet strict state and federal emissions limits and air permitting requirements, and because many communities are hesitant about approving new plants given their potential impact

on the environment. Wind energy, by contrast, is a clean, low-cost renewable source of energy that results in no air pollution. Additionally, the use of wind energy diversifies the state's electricity sources, and lessens the reliance (and market demands) on nonrenewable sources, including natural gas. Further, wind energy can be an important source of income for farmers willing to permit the placement of wind turbines on their land, as royalties can be between $2,000 and $5,000 for each turbine. Finally, recent studies have shown that the development of wind energy in the state can have a tremendous economic impact. According to a September 2004 study by the Renewable Energy Policy Project, the development of wind energy on a large, national scale has the potential to create more than 8,500 jobs and $2.85 billion in investment in Michigan. The report states, "[w]hile the economic benefits produced by the construction and operation phases of wind development are important and significant, a substantial portion of the benefits from the investment will result from manufacturing the equipment and will flow to those states and localities that either have or can develop the firms to supply the subcomponents." To the extent that the industry develops on a more local or regional basis, the jobs and investment will not be as great, although there is that potential.

Notwithstanding the apparent benefits of wind energy, the industry faces at least two key problems in Michigan that impede its growth and development. First, local ordinances, if they exist at all, are often written to effectively exclude the construction of wind turbines (a series of them is known as a "wind farm"). One resident of Mason County testified in committee that the county's zoning ordinances—which include requirements that land be classified as agricultural, have a population density of no more than 12 homes per square mile, a property set-back distance of twice the height of the turbine, and a maximum noise level of 45 decibels—effectively prohibited her from placing wind turbines on her land. Additionally, with over 1,200 townships and 83 counties, energy companies willing to invest in wind energy will have a difficult time navigating through a maze of zoning ordinances. Companies constructing wind turbines that cross township or county lines may be confronted with conflicting ordinances, so that what is permissible in one county may not be permissible in an adjacent county. This added complexity serves to discourage investment in wind energy in the state. Second, the state lacks financial incentives to encourage companies to construct wind turbines. A July 2003 study by the National Renewable Energy Laboratory notes, "[s]tate tax and financial incentives…can and do have an important effect on wind energy development." The bills address these issues by establishing uniform wind energy zoning requirements for township and county zoning ordinances and by providing a credit against the Single Business Tax.

Response:

Efforts to expand the use of wind energy in the state could be furthered along significantly if the state were to enact renewable portfolio standards as provided for under House Bill 4608. The July 2003 study of by the National Renewable Energy Laboratory states, "RPS policies or purchase mandates are the most powerful tool that a state can use to promote wind energy. So far, these have been particularly important for driving wind energy investment in Texas, Minnesota, and Iowa, where more than 1,700 MW of new capacity has been developed to meet the requirements of just these three states." The study further notes that some portfolio standards have led to the development of wind energy in neighboring states.

Rebuttal:

House Bill 4647 takes a more appropriate approach to encourage the development of wind energy in the state, compared to the government mandate imposed by House Bill 4608. A renewable portfolio standard may require the construction of costly facilities where it may not be necessary or appropriate. Moreover, the RPS could require the use of renewable sources where it is not economically feasible, thus increasing costs for consumers.

Against:

The state is currently considering major revisions to the Single Business Tax. Any consideration of additional SBT credits, as provided under HB 4647, should be included in the larger discussion of changes to the SBT, and not be undertaken separately.

Against:

The bill takes away control away from townships and counties over zoning ordinances concerning wind turbines. By and large, zoning ordinances are developed by local communities as a means of protecting property owners and property values from uses of property that could lower values, cause environmental damage, or have other adverse impacts. Local ordinances are developed by local residents and represent the community's standards for permissible property uses. Many property owners are concerned over the proliferation of wind farms amid concern that they are unsightly, adversely impact wildlife, and create other nuisances and lower property values. These are legitimate concerns of local communities, and local officials should retain the power draft zoning ordinances that take these concerns into consideration.

Response:

Wind isn't confined to the township or county borders, and many local communities have crafted overly-restrictive ordinances or conflicting ordinances that hinder the development wind energy on a statewide basis. If wind energy is to fully develop in Michigan, state action is necessary. The state has, in certain limited circumstances, taken similar action to that proposed by House Bills 4648 and 4649. For example, the state, through its power of eminent domain, can obtain parcels of land necessary for the construction of a railroad track, as the track could not reasonably traverse the state and avoid property of individuals or local governments unwilling to allow the track to be built. Similarly, the Public Service Commission has authority to issue regulations pertaining to the siting of electric transmission lines. If a "not in my backyard" (NIMBY) attitude were to rule the day, it would seem that much the state's utilities, and other essential infrastructure, such as roads, would not have been built.

Rebuttal:

Rather than amending the local zoning authorizing acts, the Public Service Commission or the Department of Labor and Economic Growth should have regulatory authority over the siting of wind turbines. Currently, DLEG's Energy Office is developing siting guidelines, which are much more detailed, than the regulations considered in House Bills 4648 and 4649. At the very least, the legislature should let the Michigan Wind Working Group and the Energy Office issue its proposed siting guidelines, before acting on this legislation.

POSITIONS:

DTE Energy supports House Bill 4647 (10-25-05)

The Michigan Farm Bureau supports House Bill 4647. (10-25-05)

The Michigan Environmental Council supports all of the bills. (10-25-05)

The Department of Treasury opposes House Bill 4647. (10-25-05)

The Michigan Townships Association opposes House Bills 4648 and 4649. (10-25-05)

The Michigan Association of Counties opposes House Bills 4648 and 4649. (10-25-05)

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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.