



Ohio Legislative Service Commission

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Fiscal Note & Local Impact Statement

Bill: Sub. H.B. 113 of the 128th G.A.

Date: June 25, 2009

Status: As Reported by House Alternative Energy

Sponsor: Reps. Foley and Blessing

Local Impact Statement Procedure Required: Yes

Contents: Requires that Ohio school districts with student enrollment of 5,000 or more install one or more renewable energy systems, including solar, wind, and geothermal energy systems, on district property and set up renewable energy demonstration modules for use in the districts' curricula

State Fiscal Highlights

STATE FUND	FY 2010	FY 2011	FUTURE YEARS
School Facilities Commission Fund (Fund 5E30) – School Facilities Commission			
Revenues	- 0 -	- 0 -	- 0 -
Expenditures	Potential increase as a result of contracting out for solar, wind, and geothermal energy consultants and for other administrative costs as a result of the Energy Conservation Program expansion		
Advanced Energy Fund (Fund 5M50) – Department of Development			
Revenues	- 0 -	- 0 -	- 0 -
Expenditures	Potential increase in grants awarded to school districts		

Note: The state fiscal year is July 1 through June 30. For example, FY 2010 is July 1, 2009 – June 30, 2010.

- According to the School Facilities Commission (SFC), SFC may incur additional costs as a result of having to hire outside consultants to assist in overseeing the expansion of the Energy Conservation Program to include solar, wind, and geothermal energy systems for schools.
- By requiring that school districts with student enrollment of 5,000 or more install renewable energy systems within three years of the bill's effective date, the bill may increase the number of school districts applying for, and receiving, grant awards from the Advanced Energy Fund (Fund 5M50).
- The Department of Development (ODOD) may incur minimal additional administrative costs for the development of an annual status report on the renewable energy schools pilot program.

Local Fiscal Highlights

LOCAL GOVERNMENT	FY 2010	FY 2011	FUTURE YEARS
School Districts			
Revenues	- 0 -	- 0 -	- 0 -
Expenditures	Increase in costs for adapting buildings to electricity produced from solar, wind, or geothermal energy and purchasing and maintaining a renewable energy system or contracting with a third-party provider; these costs may be offset by grants and reduction in the amount of electricity purchased from traditional sources <hr/> Increase in costs for setting up renewable energy demonstration modules for use in the school curriculum		

Note: For most local governments, the fiscal year is the calendar year. The school district fiscal year is July 1 through June 30.

- Districts with student enrollment of 5,000 or more may incur costs for modifications to their school buildings or other buildings or facilities belonging to the district to accommodate renewable energy systems to provide electricity produced from solar, wind, or geothermal energy and for setting up renewable energy demonstration modules for use in the school curriculum.
- The cost of purchasing a renewable energy system could be between \$0.25 million and \$4.0 million depending on the size and location of the project, and the renewable energy source. Districts purchasing systems will also have ongoing maintenance costs. In lieu of purchasing a system outright, districts may contract with a third-party provider that owns and maintains the system.
- If a district chooses to purchase a system, it may partly offset the cost with state or federal grant funds. The district will also reduce future expenditures by purchasing less electricity from traditional sources. If a district opts to host a system through a third-party provider, the district may pay lower electricity rates over the life of the contract than they pay to their current electricity providers.

Detailed Fiscal Analysis

The bill expands the School Facilities Commission's (SFC) Energy Conservation Program to include renewable energy generation measures and, under the renewable energy schools pilot program, requires that Ohio school districts with student enrollment of 5,000 or more install one or more renewable energy systems on district property within three years of the bill's effective date. These provisions are discussed in greater detail below.

Expansion of Energy Conservation Program

The Energy Conservation Program allows school districts with older facilities to borrow funds to make energy-saving facilities improvements without seeking voter approval. Projects include a variety of energy conservation measures, such as insulation, storm window, and door installation. Since the program's inception in 1985, it has been used for 952 projects in approximately 557 districts, with estimated savings of over \$100.1 million. The bill expands the type of projects allowed under the program to include renewable energy generation measures, such as solar, wind, and geothermal energy systems. Under continuing law, districts must receive SFC approval before undertaking a project. SFC currently does not have expertise in the area of renewable energy generation measures. According to a spokesperson, SFC anticipates needing to hire consultants specializing in these types of projects to assist them in approving proposed school projects. The cost of these consultants will depend on the number of projects that need to be approved.

Under current law, the cost of the Energy Conservation Program improvements may not exceed the savings in energy, operating, and maintenance costs over a 15-year period. In addition, the entire cost must be paid within 15 years and any securities issued for the improvements may not have maturity periods of more than 15 years. For renewable energy generation measures only, the bill extends these three time constraints to 30 years. This extension may allow higher cost renewable energy generation projects to qualify for the program.

Installation of renewable energy systems in schools

The bill requires that Ohio school districts with student enrollment of 5,000 or more ensure that one or more renewable energy systems is installed on district property within three years of the bill's effective date. School districts with 5,000 to 10,000 students enrolled must install renewable energy systems equal to a minimum total of 250 kilowatts. Districts with enrollment greater than 10,000 must install systems equal to a minimum total of 500 kilowatts. Under the bill, a district can meet these energy requirements in two ways: through direct ownership of a renewable energy system or through a power purchase agreement with a third-party operator that owns, operates, and maintains the system. Renewable energy systems installation contracts or power purchase agreements must also include as a condition of the contract a provision for a

renewable energy demonstration module for every school at which a renewable energy system is installed for use in the school's curriculum. If a renewable energy system is installed on a building other than a school, then the district is to determine the location of the demonstration module.

According to a private firm contacted for this analysis, the cost of a solar energy system in Ohio ranges from \$6,000 to \$8,000 per kilowatt. Additional research suggests the cost of wind energy systems ranges from \$1,000 to \$3,000 per kilowatt, and the cost of geothermal energy systems ranges from \$2,000 to \$5,000 per kilowatt. The bill requires each school district with enrollment of 5,000 to 10,000 to install a system to generate at least 250 kilowatts. Therefore, at a minimum each solar energy system may cost from \$1.5 million ($\$6,000 \times 250$) to \$2.0 million ($\$8,000 \times 250$); each wind energy system from \$0.25 million ($\$1,000 \times 250$) to \$0.75 million ($\$3,000 \times 250$); and each geothermal energy system from \$0.5 million ($\$2,000 \times 250$) to \$1.25 million ($\$5,000 \times 250$). School districts with enrollment greater than 10,000 are required to install a system to generate at least 500 kilowatts. Therefore, at a minimum each solar energy system may cost from \$3.0 million ($\$6,000 \times 500$) to \$4.0 million ($\$8,000 \times 500$); each wind energy system from \$0.5 million ($\$1,000 \times 500$) to \$1.5 million ($\$3,000 \times 500$); and each geothermal energy system from \$1.0 million ($\$2,000 \times 500$) to \$2.5 million ($\$5,000 \times 500$). The cost and effectiveness of the renewable energy source is highly dependent on the location of the project within the state. In addition, districts may need to update the buildings' current electrical systems to operate with, and prepare a location for, the new renewable system. This could include structural changes to accommodate solar panels, wind turbines, or geothermal wells. Once the system is in place, the electricity generated is free; however, districts will incur ongoing maintenance costs. For districts opting to purchase systems outright, state and federal grants, including those from the Ohio Department of Development's Advanced Energy Program, could help lower costs.¹ Districts will also save through purchasing less electricity from traditional sources.

Instead of purchasing a system outright, districts may opt for hosting a renewable energy system owned by a third-party provider. If a district chooses this option, the bill requires it to enter into a power purchase agreement with the third-party provider to supply the designated school with the electricity generated by the system. Under this type of an agreement, the third-party provider secures funding for the project, maintains and monitors the energy production, and sells the electricity to the host at a contractual price for the term of the contract, which generally ranges between

¹ According to the Department of Development's Ohio Energy Office's web site, to qualify for the Advanced Energy Grant Program, projects must be located in Ohio and in the service territories of one of four participating electric distribution companies: American Electric Power, Duke Energy, Dayton Power and Light, and First Energy. The program was appropriated \$17.0 million in FY 2009 to provide loans and grants for residential, small business, local government, nonprofit, agricultural, and other entities for the adoption and installation of renewable and efficient energy sources.

5 and 25 years, but may be no longer than the written warranty for the renewable energy system as provided by the bill. The third-party provider will likely be able to take advantage of tax credits and tax depreciation unavailable to the school district if the district purchases the system outright. As a result, the provider may be able to offer lower electricity rates than the district's current electric provider. Under this option, districts may still be responsible for any costs related to upgrading their electrical systems and preparing a site to accommodate the system.

If within 90 days of submitting a request for proposals a district receives no proposals allowing compliance with the requirement that the 30-year cost of the electricity produced from solar, wind, or geothermal energy is economic relative to the reasonably forecasted retail rate of electricity, the bill permits districts to either install renewable energy systems with a lower generating capacity to comply as closely as possible with the goal of 250 kilowatts for districts with 5,000 to 10,000 students and 500 kilowatts for districts with more than 10,000 students, or withdraw the request for proposals and elect not to participate in the program. In addition, the bill specifies that any funds received from the Advanced Energy Program by a district are in addition to the funds received from the state for its SFC-assisted project. Therefore, recipients of the grants should not have their SFC project funding affected.

Program evaluation

The bill requires each third-party provider that has contracted with a district participating in the renewable energy schools pilot program to annually submit a status report to the Ohio Energy Office within ODOD. The Office is then directed to annually submit a status report of the renewable energy schools pilot program, which may include its recommendations regarding the program, including whether or not the program should be expanded, to the General Assembly. ODOD will likely incur minimal administrative costs as a result of the bill's reporting requirement.