Department of Legislative Services

Maryland General Assembly
2012 Session

FISCAL AND POLICY NOTE
Revised

House Bill 1237 (Delegate Morhaim)
Health and Government Operations Budget and Taxation

School Buildings - Solar Technology - Design Development Documents

This bill requires the Board of Public Works (BPW) to adopt regulations requiring that a specified evaluation of the use of solar technologies, based on life cycle costs, be included in the design development documents for the construction of new school buildings or the improvement of existing buildings submitted by a local board of education to the Interagency Committee on School Construction (IAC). If an evaluation determines that solar technologies are not appropriate, a report that explains why the use of the technology is not appropriate must also be submitted. By December 31 of each year, IAC must submit a report to the Governor and the General Assembly on the number of public school construction and renovation projects in each jurisdiction that use solar technologies.

The bill takes effect June 1, 2012.

Fiscal Summary

State Effect: Overall State expenditures for school construction do not increase; however, to the extent the bill causes solar technologies to be incorporated in school construction or renovation projects, at additional cost, where such technologies otherwise would not be utilized, the bill could result in delays for other projects due to less money being available for those projects. Drafting of regulations, review of solar technology evaluations and any reports explaining why the use of such technology is not appropriate for a particular project, as well as the bill's reporting requirement, can be handled with existing resources.

Local Effect: Local boards of education may incur additional expenditures in the range of $5,000 to $10,000 per project to conduct the required evaluation of solar technologies. To the extent the bill causes a local board of education to include solar technologies in a

project, at additional cost, where it otherwise would not, board expenditures increase. A local board, however, may recover those costs, or realize a net savings, as a result of cost savings over the life of the solar technology installed in comparison to other energy sources. **This bill may impose a mandate on a unit of local government.**

Small Business Effect: Potential meaningful.

Analysis

Current Law/Background:

Public School Construction

IAC is composed of the State Superintendent of Schools, the Secretary of Planning, the Secretary of General Services, a member of the public appointed by the President of the Senate, and a member of the public appointed by the Speaker of the House. The committee supports BPW in the administration of the Public School Construction Program and coordinates the activities of school construction employees in the Maryland State Department of Education (MSDE), the Maryland Department of Planning, and the Department of General Services (DGS). The committee also assists all local school systems and local government bodies in planning, designing, and constructing primary and secondary educational facilities.

The State pays at least 50% of eligible costs of school construction and renovation projects, based on a funding formula that takes into account numerous factors including each local school system's wealth and ability to pay. The awarding of State funds for school construction is a project-based process managed by IAC and its staff and subject to the final approval of BPW. Approved projects become part of the State capital improvement program. BPW regulations require a local education agency to submit certain documents to IAC or its designee for review and approval for projects approved in the State capital improvement program, specifically, schematic designs, design development documents, and construction documents.

High-performance Building Requirement for School Construction

Pursuant to Chapter 124 of 2008, a new school that receives State public school construction funds must be constructed to be a high-performance building, which could involve the use of solar or other renewable energy technologies. "High-performance building" is defined as meeting or exceeding the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) Silver rating or a comparable rating. A local education agency,

however, may request a waiver from the requirement from IAC based on the achievement of high-performance certification not being practicable.

Solar Energy Pilot Program

A solar energy pilot program, originally established in 2000 (Chapter 300) to provide grants for the installation of solar energy systems in schools, exists in State law. IAC is charged with administering the program, but the program has not been funded, at least not in recent years.

School Solar Energy Systems

The Maryland Energy Administration (MEA) has been involved in encouraging the installation of solar energy systems on school facilities through its programs, including Project Sunburst, which has used federal American Recovery and Reinvestment Act funding to lower the cost of power purchase agreements for the installation of renewable energy systems on public buildings. Funding was awarded for installations at a number of school facilities, including both county public schools and higher education institutions. Public school facilities in Frederick, Harford, Montgomery, and St. Mary's counties are among those that have received awards under Project Sunburst or otherwise have solar installations.

State Fiscal Effect: It is not clear to what extent the bill may cause local boards of education to include solar energy systems in new school construction or improvements to existing school buildings, at additional cost, where such systems otherwise would not be included. Since the level of State school construction funding is fixed each year in the State capital budget as introduced by the Governor and approved by the General Assembly, State expenditures for school construction would not increase if additional costs were incurred as a result of the bill. Additional expenditures on certain projects, however, could result in delays for other projects due to less money being available for those projects.

Additional work involved in the review and approval of design development documents as a result of an evaluation of the use of solar technologies being included would be handled by DGS and MSDE staff with existing resources. Drafting of regulations and reporting annually on the number of public school construction and renovation projects in each jurisdiction that use solar technologies can be handled by IAC with existing resources.

Local Fiscal Effect: Local boards of education may incur additional expenditures to conduct the required evaluation of solar technologies. Additional design fees to design a solar energy system and conduct a life cycle cost analysis may be in the range of $5,000

to $10,000. Design costs are not an eligible cost for State funding and would be borne by the local boards of education.

As mentioned above under State Fiscal Effect, it is not clear to what extent the bill may cause local boards of education to include solar energy systems in new school construction or improvements to existing school buildings, at additional cost, where such systems otherwise would not be included. To the extent the bill does cause a board of education to include solar technologies in a project, at additional cost, where it otherwise would not, the board's expenditures increase. The State would share at least 50% of the cost, depending on the jurisdiction. **Exhibit 1** shows the State share of eligible school construction costs for all Maryland jurisdictions for fiscal 2012 through 2015.

For illustrative purposes, the average total project cost for solar photovoltaic installations that have received funding under MEA's Commercial Clean Energy Grant Program since the beginning of fiscal 2011 has been approximately $234,400, with an average electricity generating capacity of 49 kilowatts (kW) and an average cost per kW of capacity of approximately $4,750. A solar energy system installed on a given school could be on a larger scale, however. The project awards for public schools under MEA's Project Sunburst were for 500-kW and 750-kW systems. The cost per kW of capacity for a solar energy system generally decreases the larger a system is.

A local board of education, however, may effectively recover the additional costs for the installation of the system, if not realize a net savings, through savings in energy, maintenance, and/or other costs over the life of the system in comparison to other energy sources. The evaluation of solar technologies for school construction or renovation projects under the bill is required to be based on life cycle costs and presumably solar technologies would only be incorporated in a school construction renovation project if the technology was expected to be a lower cost option over the life of the system than other energy sources.

Small Business Effect: To the extent the bill increases the number of school construction and renovation projects that incorporate solar technologies, small businesses in the solar industry, such as installers, may be meaningfully impacted. Any such impact, however, is uncertain.

Exhibit 1
State Share of Eligible School Construction Costs
Fiscal 2012-2015

County	FY 2012	FY 2013	FY 2014	FY 2015
Allegany	91%	93%	93%	93%
Anne Arundel	50%	50%	50%	50%
Baltimore City	94%	93%	93%	93%
Baltimore	50%	50%	50%	50%
Calvert	61%	56%	56%	56%
Caroline	86%	81%	78%	78%
Carroll	61%	58%	58%	58%
Cecil	75%	70%	69%	69%
Charles	77%	72%	67%	63%
Dorchester	71%	69%	69%	69%
Frederick	72%	67%	62%	60%
Garrett	59%	54%	50%	50%
Harford	59%	63%	63%	63%
Howard	61%	60%	60%	60%
Kent	50%	50%	50%	50%
Montgomery	50%	50%	50%	50%
Prince George's	73%	68%	63%	62%
Queen Anne's	55%	50%	50%	50%
St. Mary's	75%	70%	65%	64%
Somerset	88%	83%	82%	82%
Talbot	50%	50%	50%	50%
Washington	73%	71%	71%	71%
Wicomico	87%	96%	96%	96%
Worcester	50%	50%	50%	50%

Source: Public School Construction Program

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Maryland Energy Administration; Maryland State Department of Education; Department of General Services; Maryland Department of Planning; Public School Construction Program; Anne Arundel, Baltimore, Howard, and Montgomery counties; Department of Legislative Services

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