

# Evaluation and Intended Use of Solar Technologies

Education Article, Section 5-319(b)

Interagency Commission on School Construction

January 25, 2024



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The Honorable Wes Moore  
Governor  
State House  
100 State Circle  
Annapolis, MD 21401

The Honorable Bill Ferguson  
President  
Senate of Maryland  
State House, H-107  
Annapolis, MD 21401

The Honorable Adrienne A. Jones  
Speaker  
Maryland House of Delegates  
State House, H-101  
Annapolis, MD 21401

**Re: Report required by Education Article § 5-319 (MSAR #11572) - Report on the Evaluation and Intended Use of Solar Technologies**

Dear Governor Moore, President Ferguson, and Speaker Jones,

Education Article § 5-319, HB 1783/Chapter 14, 2018 requires that:

- (A) *The Interagency Commission shall adopt regulations that require the design development documents for the construction or major renovation of school buildings submitted by a county board to the Interagency Commission to include:*
- (1) *An evaluation of the use of solar technologies, including photovoltaic or solar water heating, based on life cycle costs; and*
  - (2) *If an evaluation determines that solar technologies are not appropriate for a construction or major renovation project, a report that explains why the use of the technology is not appropriate.*
- (B) *On or before December 31 of each year, the Interagency Commission shall submit a report on the number of public school construction and major renovation projects in each jurisdiction that use solar technologies to the Governor and, in accordance with §2-1246 of the State Government Article, the General Assembly.*

The Maryland Department of General Services (MDGS) or the Maryland State Department of Education (MSDE) reviews the required evaluations and reports during the course of design review for school-construction projects. Comments on the inclusion of the evaluations are a standard component of the review letters for new construction and major renovation projects. The primary limitation cited for determining that solar technologies are not appropriate is the lengthy and therefore financially less advantageous payback period for roof-mounted photovoltaic panels.<sup>1</sup> Power production from facility-mounted solar arrays is calculated to be low

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<sup>1</sup> Some LEAs have been able to utilize power purchase agreements (PPAs). Typically, these are attractive to industry only when an LEA installs solar panels at a number of locations as the power generation by an array on a single school is limited. In PPAs, the space for

relative to the requirements of a school because even school facilities with highly efficient systems can require more power at times than can be generated on site. The evaluation requirement of the statute keeps solar technologies at the forefront of design thinking and use of solar is one potential component in ongoing efforts to improve the performance of school facilities.

The school systems have performed evaluations in accordance with the statute, and MDGS and MSDE have reviewed the evaluations. This report covers the period from the effective date of the statute through December 31, 2023.

The report only covers projects subject to the provisions of the statute, and reflects the evaluation of solar technologies as expressed in the design development submissions. It therefore does not include solar installations on schools designed prior to the effective date of the statute, or solar projects undertaken independently of construction or renovation projects. For instance, Caroline, Dorchester, and Kent Counties have major ground-mounted (exceeding 2 acres per installation) solar photovoltaic projects that provide significant power for some of their schools. Harford and Montgomery Counties have pursued roof mounted photovoltaic projects independent of construction or renovation projects.

Number of Projects with Solar Technologies in Design Development Document Submissions												
LEA	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Allegany	N/A	1	N/A	N/A	1							
Anne Arundel	N/A	N/A	N/A	0	N/A	N/A	N/A	0	0	0	0	0
Baltimore City	N/A	N/A	1	2	0	0	0	0	0	0	0	3
Baltimore	0	2	0	1	0	0	0	0	0	2 <sup>2</sup>	1	6
Calvert	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	0
Caroline**	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	0	0
Carroll	N/A	0	0	N/A	N/A	0						
Cecil	0	0	0	N/A	N/A	0	N/A	N/A	N/A	N/A	0	0
Charles	N/A	N/A	N/A	0	N/A	0	N/A	N/A	0	0	0	0
Dorchester**	N/A	N/A	1	N/A	N/A	1						
Frederick***	N/A	1	2	N/A	N/A	0	0	N/A	0	0	0	3
Garrett	N/A	0	0									
Harford*	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	1
Howard	0	1	0	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	1
Kent**	N/A	N/A	0									
Montgomery*	0	0	0	0	0	0	0	0	0	0	2	2
Prince George's	0	N/A	N/A	N/A	0	0	0	N/A	0	0	N/A	0

solar panels is leased to someone else, in which case they are not owned by the LEA and are not reported to the IAC in the scope of this report. However, the IAC recommends that LEAs review and carefully consider opportunities for PPAs and their costs and benefits.

<sup>2</sup> Deer Park Elementary School Replacement project did not have solar technology in their design document submissions but was included in their construction document submission as a bid alternative with solar panels on the building roof and parking canopy.

LEA	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Queen Anne's	N/A	0										
St. Mary's	N/A	0	N/A	N/A	0							
Somerset	N/A	N/A	N/A	0	N/A	0						
Talbot	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	0	0
Washington	0	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0
Wicomico***	N/A	N/A	N/A	1	N/A	0	N/A	N/A	0	0	0	1
Worcester	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0
Maryland School for the Blind	0	N/A	N/A	0	N/A	N/A	N/A	N/A	0	0	N/A	0

N/A = No major construction projects reviewed

\* School system has instituted solar projects independent of construction and renovation projects

\*\* School system has major ground mounted solar photovoltaic installation

\*\*\* Solar water heating

Any questions can be directed to MDGS Program Manager of Public Schools & Community Colleges Craig Curtis at [craig.curtis@maryland.gov](mailto:craig.curtis@maryland.gov) or (410) 767-3615 or MSDE Office of School Facilities Director Jillian Storms at [jillian.storms@maryland.gov](mailto:jillian.storms@maryland.gov) or (410) 767-0615.

Best Regards,



Alex Donahue  
Executive Director  
Interagency Commission on School Construction

cc: Sarah Albert, Department of Legislative Services (5 copies)