Evaluation and Intended Use of Solar Technologies and Alternative Energy Systems

Interagency Commission on School Construction

Due Date: December 31, 2025

Pursuant to: Education Article §§ 5-319(b), 5-325(c)

Maryland
Interagency Commission
on School Construction

Wes Moore | Governor
Edward J. Kasemeyer | Chair
Alex Donahue | Executive Director

Solar and Alternative Energies Report – December 31, 2025

Re: Report required by Education Article § 5-319 (MSAR #11572) - Report on the Evaluation and Intended Use of Solar Technologies, and report required by Education Article § 5-325 (MSAR #15027) - Report on Alternative Energy Systems

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.[1] Power production from facility-mounted solar arrays is calculated to be low 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, 2025.

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

[1] 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 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.

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	**2021**	**2022**	**2023**	**2024**	**2025**	**Total**
Allegany				0		0
Anne Arundel	0	0	0	0	0	0
Baltimore City	0	0	0	0	0	0
Baltimore	0	2[2]	1	0	0	3
Calvert	0			0		0
Caroline**			0	0		0
Carroll	0			0	0	0
Cecil			0			0
Charles	0	0	0	0	0	0
Dorchester**						0
Frederick	0	0	0	0	0	0
Garrett			0	0		0
Harford*	0	0	0	0	0	0
Howard				0	0	0
Kent**					0	0
Montgomery*	0	0	2	1	0	3
Prince George's	0	0	0	0	0	0
Queen Anne's						
St. Mary's	0			0	0	0
Somerset				0		0
Talbot			0	0		0
Washington				0		0
Wicomico	0	0	0	0	1	1
Worcester				0	0	0
Maryland School for the Blind	0	0		0		0
Totals	**0**	**2**	**3**	**1**	**1**	**7**

Grayed cells indicate 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.

Since 2024, the IAC has also been asked to provide a report on the use of Alternative Energy Systems in school facilities. Due to the similarities between these two reports, IAC staff used a combined report on Solar and

[2] The 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.

Alternative Energies for the 2024 reporting period, and believes that this combined report continues to be the most efficient means of accomplishing the goal of this data reporting.

Education Article § 5-325, Annotated Code of Maryland, requires:

> *(c) On or before December 31 each year, the Interagency Commission shall report to the General Assembly, in accordance with § 2-1257 of the State Government Article, on the number of public school construction and major renovation projects in each jurisdiction that use alternative energy systems.*

IAC staff has interpreted this to include solar, as outlined above, as well as other alternative energy systems. To date the only other source of alternative energy in school construction in the State of Maryland is ground source heat pump systems, otherwise known as geothermal.

The below table outlines how many of each type of alternative energy system is utilized by LEAs, and the total utilization of these systems by both LEA and system type.

Number of Projects with Alternative Energy Systems			
LEA	**Ground Source Heat Pumps**	**Solar Energy**	**Total**
Allegany	0	0	0
Anne Arundel	2	0	2
Baltimore City	0	0	0
Baltimore	0	0	0
Calvert	0	0	0
Caroline**	0	0	0
Carroll	1	0	1
Cecil	0	0	0
Charles	0	0	0
Dorchester**	0	0	0
Frederick	0	0	0
Garrett	0	0	0
Harford*	0	0	0
Howard	0	0	0
Kent**	1	0	1
Montgomery*	3	1	4
Prince George's	2	0	2
Queen Anne's	0	0	0
St. Mary's	0	0	0
Somerset	0	0	0
Talbot	0	0	0
Washington	0	0	0
Wicomico	1	1	2
Worcester	0	0	0
Maryland School for the Blind	0	0	0
Total	**10**	**2**	**12**

* School system has instituted solar projects independent of construction and renovation projects
** School system has major ground mounted solar photovoltaic installation

Any questions can be directed to MDGS Program Manager of Public Schools & Community Colleges Craig Curtis at craig.curtis@maryland.gov or (410) 767-3615, MSDE Office School Facilities Executive Director Jillian Storms at jillian.storms@maryland.gov or (410) 767-0615, or IAC Executive Director Alex Donahue at alex.donahue@maryland.gov.