

<b>LFC Requester:</b>	<b>Liu</b>
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**AGENCY BILL ANALYSIS  
2023 REGULAR SESSION**

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*{Include the bill no. in the email subject line, e.g., HB2, and only attach one bill analysis and related documentation per email message}*

**SECTION I: GENERAL INFORMATION**

*{Indicate if analysis is on an original bill, amendment, substitute or a correction of a previous bill}*

*Check all that apply:*

Original        Amendment      
Correction        Substitute   

Date 2/1/2023

Bill No: SB60

**Sponsor:** Soules, William P.  
**Short Title:** Photovoltaic Systems In New Public Schools

**Agency Name and Code Number:** New Mexico Public School Facilities Authority 940

**SECTION II: FISCAL IMPACT**

**APPROPRIATION (dollars in thousands)**

Appropriation		Recurring or Nonrecurring	Fund Affected
FY23	FY24		

(Parenthesis ( ) Indicate Expenditure Decreases)

**REVENUE (dollars in thousands)**

Estimated Revenue			Recurring or Nonrecurring	Fund Affected
FY23	FY24	FY25		

(Parenthesis ( ) Indicate Expenditure Decreases)

**ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)**

	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>3 Year Total Cost</b>	<b>Recurring or Nonrecurring</b>	<b>Fund Affected</b>
<b>Total</b>						

(Parenthesis ( ) Indicate Expenditure Decreases)

Duplicates/Conflicts with/Companion to/Relates to:  
Duplicates/Relates to Appropriation in the General Appropriation Act

**SECTION III: NARRATIVE**

**BILL SUMMARY**

Amendment:

The amendment to SB60 makes minor changes to paragraph M. The first of which changes the word “proposed” to “awarded,” which will make this bill only apply to future PSCOC Standards-based awards that have not yet started the planning and design phase. Secondly, the amendment adds language to alter the bill’s intent for the photovoltaic system to meet the energy needs of the school in full, to meet the “majority” of the energy needs, indicating at least 51% of the school’s energy consumption needs must be provided by the photovoltaic system.

Original Synopsis:

SB 60 proposes to amend the Public School Capital Outlay Act relating to photovoltaic systems.

At Section 1, SB 60 proposes to amend the Public School Capital Outlay Act to include photovoltaic systems as a “building system.” It defines, “photovoltaic system” to mean a “power system designed to supply usable solar power, for the public school for which it is designed, including enough power for electric vehicle charging stations, which may be a grid-tied, grid-hybrid or off-grid system.”

At Section 2, the bill proposes that any new school to be constructed after July 1, 2023 using funds from Public School Capital Outlay Fund shall include “a photovoltaic system sufficient to meet the energy needs of the public school.”

**FISCAL IMPLICATIONS**

Funding has not been appropriated for this bill. Since the first year of Standards-based awards in 2004, photovoltaic systems have not been eligible for state funding through Public School Capital Outlay Council (PSCOC) programs. During the first years of the program, the Standards-based program only funded construction or renovation of educational spaces. Since 2004, funding through the Standards-based program has evolved, with funding now eligible for non-educational space project types, such as teacher housing on school sites, and building systems not necessarily required for educational programs, such as electromagnetic door locks. Funding participation in photovoltaic systems would allow state capital funding for a building system that may lower the operating cost of the school over the 25 year warrantied life of the photovoltaic system, with electrical production credits and lower monthly electrical bills. Utility costs are the second largest expenditure for most school districts, behind salaries and benefits for personnel.

Implementing SB 60 would increase the total project cost of PSCOC funded Standards-based

projects for new and replacement public schools, and would therefore increase the potential state funding obligation for these projects in the future.

A typical photovoltaic array costs approximately \$3 to \$5 per watt of produced energy, based on current market rate conditions. The overall design and installation of a photovoltaic system typically increases the total project cost to plan, design and construct a public school by 1 to 3%, depending on the size of the school and type of installation (roof-mount or ground-mount).

<b>School Size</b>	<b>Gross Square Feet</b>	<b>Percent of Total Project Cost</b>	<b>Cost for Photovoltaic System</b>
Small	less than 100,000 GSF	0.5 to 1%	Less than \$550,000
Medium	100,000 to 200,000 GSF	1 to 3%	\$550,000 to \$1,500,000
Large	200,000+ GSF	1 to 3 %	\$1,500,000 to \$2,000,000

As an example, the 2022-2023 PSCOC Standards-based projects awarded in 2022 assume a potential future state funding obligation up to \$109 million for the construction phase. These projects are currently in the planning and design phase, and will be awarded construction phase funding following the completion of the designs. If this bill is implemented, these projects would be required to include photovoltaic systems since construction will commence after July 1, 2023. Additional funds will be needed for the construction phase to accommodate this new requirement. This may increase the necessary funding per project up to 3%, resulting in a potential \$3.3 million increase in state funding. The estimated local match may also increase up to 3%, up to \$2.2 million. Additional funding would also be needed for the design of the photovoltaic system itself.

### **SIGNIFICANT ISSUES**

In some cases, photovoltaic systems cannot meet 100% of the electricity needs of a school. School districts implementing large photovoltaic systems at school facilities typically plan for production capability to 65% to 80% of annual electricity consumption. The decision to design photovoltaic systems to produce slightly less than the annual electricity needs of the school is based on 2 factors; first, restrictions on maximum allowable permitted photovoltaic system size by some utility providers, and second, lower \$/watt for production credits for commercial systems larger than 1 MW, extending the “payback” for larger systems, lowering the incentive to produce more than 1 MW.

Schools with photovoltaic systems achieve annual savings from producing electricity on-site, receiving credits from the local utility for each watt produced on-site and delivered to the electrical grid, and lowering the amount of electricity that would otherwise be generated off-site and purchased from utility providers. Districts that have installed photovoltaic systems typically recuperate the cost of installation in 10 to 15 years of annual credits and savings from lower monthly utility bills.

If a Standards-based project is awarded with limited scope for new construction, for instance a new building on an existing school campus, with existing buildings that will remain on site, the cost of the photovoltaic system associated with the new construction could be higher, relative to the total cost of the awarded scope.

Many school districts may not have the expertise or capability to maintain the photovoltaic

systems. Districts may require additional training for district staff, or consider maintenance contracts with photovoltaic vendors.

## **PERFORMANCE IMPLICATIONS**

## **ADMINISTRATIVE IMPLICATIONS**

## **CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP**

## **TECHNICAL ISSUES**

Amendment:

The SB60 amendment addresses PSFA’s concerns regarding the ability for a photovoltaic system to meet the energy consumption needs for a school in its entirety. Requiring the photovoltaic system to meet the “majority” of the energy needs for a public school indicates at least 51% of the school’s energy consumption shall be provided via the photovoltaic system. This requirement is a more reasonable goal and requirement to achieve.

The amendment also changes the word “proposed” to “awarded.” This change does not fully address PSFA’s concerns regarding the need to apply this requirement only to future Standards-based awards that have not yet started the planning and design phase, and negate the need for redesign. The PSCOC awards Standards-based projects in two phases; phase 1 is for planning and design funding, and phase 2 is for construction funding. As this amendment is written, it will apply to all PSCOC standards-based awards for new schools that will be constructed after July 1, 2023, which still includes existing planning and design projects that have yet to be awarded construction funding. PSFA proposes amending the language to “any new school *awarded to be constructed* after July 1, 2023 with grant assistance from the fund shall include a photovoltaic system...” which would only apply to future Standards-based awards that have not yet started the planning and design phase.

Original Bill:

Photovoltaic systems often do not fully produce the total annual energy needs of a school facility. Consider amending the requirement of “shall include a photovoltaic system sufficient to meet the energy needs of the public school,” with “shall include a photovoltaic system sufficient to meet the majority of the energy needs of the public school.”

At Section 2, the bill proposes that “any new school proposed to be *constructed* after July 1, 2023 with grant assistance from the fund shall include a photovoltaic system...” This is problematic for Standards-based projects that have already been awarded by the PSCOC, and are in the planning and design phase. Adding a photovoltaic system to a design that is complete or nearing completion would require redesign. This redesign effort would require additional funding and time. PSFA proposes changing the language to “any new school *awarded* after July 1, 2023 with grant assistance from the fund shall include a photovoltaic system,” which would only apply to future Standards-based awards that have not yet started the planning and design phase, negating the need to redesign.

## **OTHER SUBSTANTIVE ISSUES**

## **ALTERNATIVES**

## **WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL**

The requirement for photovoltaics to be included on all newly constructed public schools using grant assistance will not be implemented.

## **AMENDMENTS**