



# Senate

General Assembly

**File No. 240**

January Session, 2023

Substitute Senate Bill No. 961

*Senate, March 28, 2023*

The Committee on Environment reported through SEN. LOPES of the 6th Dist., Chairperson of the Committee on the part of the Senate, that the substitute bill ought to pass.

***AN ACT CONCERNING CARBON-FREE SCHOOL REQUIREMENTS FOR NEW SCHOOL CONSTRUCTION AND ESTABLISHING OTHER SCHOOL CONSTRUCTION AND PUBLIC HEALTH REQUIREMENTS FOR SCHOOL DISTRICTS.***

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. (NEW) (*Effective from passage*) (a) For the purposes of this  
2 section:

3 (1) "Net-zero energy" means a public school building design that  
4 maximizes such building's energy efficiency and on-site renewable  
5 energy production in an effort to produce as much energy as such  
6 building will use.

7 (2) "Class I renewable energy source" has the same meaning as  
8 provided in section 16-1 of the general statutes.

9 (3) "Superintendent" means a superintendent, as described in section  
10 10-157 of the general statutes.

11 (4) "Workforce development program" means an apprenticeship  
12 program that is registered with the United States Department of Labor  
13 or a federally recognized state apprenticeship agency that actively trains  
14 employees, has functioning training facilities and regularly graduates  
15 apprentices to journeyperson status who are placed in employment or  
16 preapprenticeship training that enables students to qualify for training  
17 in such an apprenticeship program.

18 (5) "Cost-effective" means improvements that generate savings equal  
19 to or greater than the initial cost of such improvements over the useful  
20 life of such improvements.

21 (6) "Solar power feasibility study" means a report that determines if a  
22 proposed solar power system is cost-effective and that is created by a  
23 qualified professional who estimates the costs, savings and greenhouse  
24 gas emissions reductions for a solar power system designed for a  
25 building's available rooftops, parking lots or other areas while including  
26 a financial plan with sources and uses of funding, including federal  
27 incentives.

28 (7) "Energy efficiency feasibility study" means a report created by a  
29 qualified professional that estimates the costs, savings and greenhouse  
30 gas emissions reductions for energy-efficiency improvements identified  
31 by an energy audit and that includes a financial plan with sources and  
32 uses of funding, including federal incentives.

33 (8) "Energy audit" means an inspection or survey of a building's  
34 current energy systems and an analysis of current energy consumption  
35 and production.

36 (9) "Improvements" means new solar power systems and energy  
37 efficiency improvements as identified by a solar power feasibility study  
38 and energy efficiency feasibility study.

39 (10) "Qualified professional" means a trained and certified energy  
40 professional.

41 (11) "Journeyperson" means a person who has completed a trade

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42 apprenticeship or is recognized or classified as a skilled person and who  
43 possesses a valid journey person card or occupational license.

44 (12) "Project labor agreement" means an agreement that: (A) Binds all  
45 contractors and subcontractors on the covered project to the project  
46 labor agreement through the inclusion of specifications in all relevant  
47 solicitation provisions and contract documents; (B) allows all  
48 contractors and subcontractors to compete for contracts and  
49 subcontracts on the project without regard to whether such contractors  
50 or subcontractors are otherwise parties to collective bargaining  
51 agreements; (C) establishes uniform terms and conditions of  
52 employment for all construction labor employed on such projects; (D)  
53 guarantees against strikes, lockouts and similar job disruptions; (E) sets  
54 forth mutually binding procedures for resolving labor disputes arising  
55 during the project labor agreement; (F) requires contractors to partner  
56 with a preapprenticeship program; and (G) includes any other  
57 provisions as negotiated by the parties to promote successful delivery  
58 of the covered project.

59 (13) "Environmental justice community" has the same meaning as  
60 provided in section 22a-20a of the general statutes.

61 (14) "Extension" and "replacement" have the same meanings as  
62 provided in section 10-282 of the general statutes.

63 (b) On and after July 1, 2024, any new construction, replacement or  
64 extension of a public school building shall be net-zero energy. The  
65 Commissioner of Administrative Services shall require applications  
66 submitted for such construction, replacement and extensions, on and  
67 after July 1, 2023, for grants for such school construction projects under  
68 section 10-283 of the general statutes to demonstrate how the project will  
69 achieve net-zero energy to the greatest extent practicable.

70 (c) Each public school district shall commission a solar power  
71 feasibility study for each building owned by the district and submit the  
72 study results to the Connecticut Green Bank not later than July 1, 2024.

73 (d) If the proposed solar power system is determined to be cost-  
74 effective, the superintendent shall secure the relevant permits and  
75 contracts for such project not later than January 1, 2028. Any cost of  
76 repairing, upgrading or replacing the building's roof may be included  
77 in the determination of a solar power system's cost-effectiveness.

78 (e) Each superintendent shall prioritize projects under this section by  
79 greenhouse gas emissions reductions and cost-effectiveness and first  
80 undertake the project that offers the best combination of such factors.

81 (f) If the solar power feasibility study determines that the solar power  
82 system is not cost-effective due to the costs of repairing, upgrading or  
83 replacing the building's roof, the superintendent shall make a good faith  
84 effort to ensure that the next scheduled roof replacement or major roof  
85 repair project for such building will allow the roof to support a solar  
86 power system. When implementing such roof replacements or major  
87 roof repair projects, the school district shall determine whether the  
88 replacement or repair will allow the roof to support a solar power  
89 system. Whenever the roof of such a building can support a solar power  
90 system or major roof repair, the superintendent shall cause a solar  
91 power system to be installed not later than two years after the date of  
92 such determination.

93 (g) Any school district that undertakes improvements pursuant to  
94 this section shall pay each construction employee employed for such  
95 improvements wages and benefits that are not less than the prevailing  
96 wage and fringe benefit rates prescribed in section 31-53 of the general  
97 statutes for the corresponding classification in which such employee is  
98 employed.

99 (h) Any energy cost savings generated pursuant to an improvement  
100 undertaken pursuant to this section shall, to the extent possible, be  
101 retained by the school district undertaking such improvement.

102 (i) Not later than July 1, 2025, each superintendent shall commission  
103 an energy efficiency feasibility study for each building owned by the  
104 school district and submit the report to the Connecticut Green Bank.

105 Such study shall include an energy audit to identify opportunities for  
106 improvements that would result in energy cost savings and greenhouse  
107 gas emissions reductions.

108 (j) Whenever energy efficiency improvements are determined to be  
109 cost-effective pursuant to an energy efficiency feasibility study  
110 conducted pursuant to subsection (i) of this section, the superintendent  
111 shall begin the process to make such improvements and place such  
112 energy-efficient improvements in service not later than July 1, 2028. If  
113 such study determines that such improvements will only be cost-  
114 effective as a replacement of older equipment at the end of such  
115 equipment's useful life, the superintendent shall make arrangements to  
116 replace such older equipment with energy-efficient equipment when  
117 such older equipment becomes inoperative. Each superintendent shall  
118 monitor conditions and expiration dates of such older equipment and  
119 make necessary preparations to replace such equipment upon its  
120 expiration or breakdown, including the upgrading of circuit panels to  
121 allow for a heat pump to be installed. The requirements of this  
122 subsection shall not apply to emergency replacements and instances of  
123 economic hardship.

124 (k) Any school district that undertakes an improvement pursuant to  
125 subsection (j) of this section shall pay each construction employee  
126 employed for such improvements wages and benefits that are not less  
127 than the prevailing wage and fringe benefit rates prescribed in section  
128 31-53 of the general statutes for the corresponding classification in  
129 which the employee is employed.

130 (l) Any energy cost savings associated with an improvement  
131 undertaken pursuant to subsection (j) of this section shall, to the extent  
132 possible, be retained by the school district that undertakes such  
133 improvement.

134 (m) (1) For any existing maintenance workers at a public school  
135 building, the superintendent shall make available training on the  
136 operations and management of such solar power system or energy  
137 efficiency system installed pursuant to this section.

138 (2) For any such project described in this section that receives a loan  
139 from the Net-Zero Schools Loan Program established in subsection (p)  
140 of this section, contractors shall be enrolled in an apprenticeship  
141 program that is registered with the United States Department of Labor  
142 or a federally recognized state apprenticeship agency and shall partner  
143 with a workforce development program in which newly hired  
144 employees and already hired employees that are residents located in the  
145 same municipality as the school project, and individuals with barriers  
146 to employment, including people who have been incarcerated and  
147 people who have been traditionally underrepresented in the relevant  
148 employment, are given the opportunities for skill development that will  
149 enable such persons to qualify for higher paying jobs in their field.

150 (n) The Connecticut Green Bank shall: (1) Supervise a program that  
151 provides technical assistance to school districts that seek to develop  
152 solar power system and energy efficiency projects for public schools  
153 pursuant to this section, (2) administer the Net-Zero Schools Loan  
154 Program established pursuant to subsection (p) of this section, (3)  
155 supervise a program that offers technical assistance, project  
156 development, public education and training for officials of public school  
157 districts involved in developing solar power and energy efficiency  
158 projects, (4) supervise energy audits, solar power feasibility studies and  
159 energy efficiency feasibility studies undertaken pursuant to this section,  
160 (5) evaluate the success of the overall program and make  
161 recommendations concerning improvements to the program, and (6)  
162 employ a staff of engineers, policy analysts, financial experts,  
163 community liaisons or other experts as needed to perform the  
164 Connecticut Green Bank's responsibilities.

165 (o) (1) There is established the Public Schools Solar and Energy  
166 Efficiency Fund within the Connecticut Green Bank. Such fund shall be  
167 a nonlapsing fund that shall be available for the purpose of providing  
168 loans to school districts in furtherance of the provisions of this section,  
169 except that the unspent balance of the fund shall revert to the General  
170 Fund thirty years after the establishment of such fund. Such fund shall  
171 consist of any funds required to be deposited in such account, including,

172 but not limited to, any funds appropriated to the fund, repayment of all  
173 funds related to loans made from the fund, investment gains from the  
174 fund and any funds donated or gifted to the fund.

175 (2) Such fund shall be capitalized with four hundred million dollars  
176 from the Connecticut Green Bank and one hundred million dollars from  
177 the issuance of bonds of the state or capital funds. From such funding,  
178 four hundred million dollars shall be allocated to the Net-Zero Schools  
179 Loan Program established pursuant to subsection (p) of this section.  
180 Seventy-five million dollars of such funding shall be used to enhance  
181 the creditworthiness of public school districts. Twenty-five million  
182 dollars of such funding shall be allocated to the Connecticut Green Bank  
183 grants for audits and feasibility studies, program oversight, public  
184 education, training of school district officials and providing technical  
185 assistance for project development. Resources expended from such fund  
186 shall be supplemental to and not in lieu of any other funding that is  
187 designated for public school districts for school facility improvements  
188 construction.

189 (p) There is established the Net-Zero Schools Loan Program to  
190 provide low-interest or no-interest loans to public school districts in the  
191 state for energy efficiency or renewable energy projects that generate  
192 energy cost savings.

193 (1) Eligible projects under such program include, but are not limited  
194 to, the installation of on-site Class I renewable energy sources, energy-  
195 efficient lighting upgrades, building control upgrades, insulation or  
196 building envelope upgrades, heating, ventilating and air conditioning  
197 repair or replacement, planting and maintenance of native species of  
198 shade trees that reduce energy consumption and renovations for  
199 strategic daylighting.

200 (2) Eligible project costs under such program shall include: The  
201 reasonable costs of construction, alterations or renovations of public  
202 school buildings, associated site preparation and development,  
203 equipment and furnishing for the site or public school building,  
204 architectural, engineering or construction management charges,

205 commissioning of building systems and training staff to maintain public  
206 school building systems; and any associated ordinary and reasonable  
207 legal fees.

208 (3) Any loan provided to a public school district under such program  
209 shall be for a fixed loan period. Loans may be used to satisfy non-federal  
210 match requirements for federal grants.

211 (4) (A) Sixty per cent of the initial amount of funding for the Net-Zero  
212 Schools Loan Program shall be allotted to all public school districts in  
213 the state according to a formula to be determined by the Connecticut  
214 Green Bank. Such formula shall consider need as determined by any  
215 feasibility study conducted pursuant to this section.

216 (B) Forty per cent of the initial amount of funding for such loan  
217 program shall be allotted to public school districts located in  
218 environmental justice communities on a competitive basis.

219 (5) After the third year of operation of such loan program, any  
220 allotted portion of such fund that is not loaned to a school district shall  
221 be available to any public school district in the state on a competitive  
222 basis.

223 (6) Each recipient of a loan from such program shall pay each  
224 construction employee employed for such improvements wages and  
225 benefits that are not less than the prevailing wage and fringe benefit  
226 rates prescribed in section 31-53 of the general statutes for the  
227 corresponding classification in which the employee is employed on  
228 improvements covered by such loan. Any such recipient shall  
229 additionally negotiate a project labor agreement in good faith if the total  
230 project cost is greater than ten million dollars. For the purposes of this  
231 section, improvements completed at the same building in accordance  
232 with the provisions of this section shall not be segmented to avoid the  
233 requirements of this subdivision.

234 (q) (1) Each public school district shall notify the Department of  
235 Administrative Services' Office of School Construction Grants and



236 Review of such district's intention to undertake solar power and energy  
237 improvements projects. Such school district shall demonstrate to such  
238 office the cost-effectiveness of any such project and identify available  
239 sources of money from local and federal governments for such project.  
240 In calculating the amount of expenses eligible for reimbursement for  
241 such project, the school district shall deduct any federal funds or state  
242 and local funds other than education aid. Energy improvements  
243 associated with any such project shall be presumed to be eligible for  
244 capital reimbursement consistent with the existing reimbursement  
245 formula for such district.

246 (2) The Department of Administrative Services' Office of School  
247 Construction Grants and Review may challenge a proposed energy  
248 improvement project not later than thirty days after receipt of  
249 notification pursuant to subdivision (1) of this subsection. If no such  
250 challenge is made within such period of time, the proposal shall be  
251 deemed approved.

252 (r) (1) Each public school district shall measure and report annually  
253 to the Connecticut Green Bank on the district's energy consumption,  
254 solar generation and subsequent greenhouse gas emissions using  
255 Energy Star Portfolio Manager or an equivalent platform. The  
256 Connecticut Green Bank shall make data on each public school district's  
257 energy consumption, solar generation and greenhouse gas emissions  
258 available on a publicly accessible Internet web site.

259 (2) Each superintendent shall publish annual reports on the state of  
260 the solar power and energy efficiency systems in each public school  
261 building of such school district. The Connecticut Green Bank shall  
262 publicize any shortcomings concerning such solar power and energy  
263 efficiency systems and work with the superintendent to overcome  
264 obstacles to making improvements. Each consumer, employee or  
265 taxpayer of the state, including, but not limited to, labor unions, may  
266 request a report on the state of the solar and energy efficiency projects  
267 in a public school building from such superintendent. Not later than  
268 thirty days after any such request, the superintendent shall cause to be

269 published a report on such solar and energy efficiency projects.

270 (s) Each public school district shall include climate change impacts,  
271 such as flooding, sea level rise and increased storm surges, as risks in  
272 such district's real property asset assessment and management.

273 (t) Not later than January 1, 2024, the Department of Public Health  
274 shall develop an informational poster on the health impacts of emissions  
275 from idling vehicles. Each public school shall display such  
276 informational poster in the school lobby or other visible space not later  
277 than February 1, 2024. Each public school shall post anti-idling signs in  
278 student pick-up and drop-off areas of such school and other areas where  
279 vehicles frequently idle not later than February 1, 2024.

280 (u) On and after January 1, 2025, occupied classrooms in any public  
281 school shall be heated to a temperature of not less than sixty-five degrees  
282 and not greater than seventy-two degrees during cold weather periods  
283 and cooled to not greater than seventy-eight degrees and not less than  
284 seventy degrees during hot weather periods.

285 (v) Not later than January 1, 2024, the Commissioner of Public Health  
286 shall adopt regulations, in accordance with the provisions of chapter 54  
287 of the general statutes, to require all public school districts to (1)  
288 periodically test water samples from all taps used for drinking or  
289 cooking in each school facility for the presence of lead; and (2) remediate  
290 sources of lead contamination when lead is detected. Said department  
291 shall publish the water test results from each public school facility on a  
292 publicly accessible Internet web site and share the results with the  
293 school district's water utility if served by a public water system.

294 (w) Notwithstanding any provision of the general statutes, any grant  
295 for new public school construction submitted to the Department of  
296 Administrative Services on or after January 1, 2024, shall include a  
297 requirement for the installation of a school kitchen with a dishwasher  
298 and shall indicate the manner in which solid waste, including recycling  
299 and food scraps, will be sorted and collected at such facility. Before any  
300 such new school is constructed, the applicable public school district

301 shall create a waste management plan that implements waste  
302 prevention, recycling and composting.

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>from passage</i>	New section

**Statement of Legislative Commissioners:**

In Section 1, the definitions of the terms "net zero energy building" and "fossil fuel infrastructure" were deleted as unused terms, "renewable energy source" was deleted for redundancy with the definition of "Class I renewable energy source"; in Section 1(p)(1), reference to renewable energy sources was changed to Class I renewable energy sources; in Section 1(e), "under this section" was added for clarity; in Section 1(m), "installed pursuant to this section" was added for clarity; and in Section 1(o), "in perpetuity" and "such funds shall not be subject to reversion" were deleted as redundant with the use of the term "nonlapsing".

**ENV**      *Joint Favorable Subst.*

The following Fiscal Impact Statement and Bill Analysis are prepared for the benefit of the members of the General Assembly, solely for purposes of information, summarization and explanation and do not represent the intent of the General Assembly or either chamber thereof for any purpose. In general, fiscal impacts are based upon a variety of informational sources, including the analyst's professional knowledge. Whenever applicable, agency data is consulted as part of the analysis, however final products do not necessarily reflect an assessment from any specific department.

**OFA Fiscal Note**

**State Impact:**

Agency Affected	Fund-Effect	FY 24 \$	FY 25 \$
Treasurer, Debt Serv.	GF - Cost	Significant	Significant
Department of Administrative Services; CGB; Public Health, Dept.	Various - Cost	See Below	See Below

Note: Various=Various; GF=General Fund

**Municipal Impact:**

Municipalities	Effect	FY 24 \$	FY 25 \$
Local and Regional School Districts	STATE MANDATE <sup>1</sup> - Cost	None	Significant

**Explanation**

The bill results in significant costs to local and regional school districts and to the state. The costs to local and regional school districts are due to several new requirements relating to school building construction and maintenance. The costs to the state include a significant increase in debt service due to the expansion of the state's bond-funded school construction reimbursement program, the fund capitalization requirements specified in the bill, and administrative costs associated with various programs established or expanded in the bill. These costs are detailed below.

<sup>1</sup> State mandate is defined in Sec. 2-32b(2) of the Connecticut General Statutes, "state mandate" means any state initiated constitutional, statutory or executive action that requires a local government to establish, expand or modify its activities in such a way as to necessitate additional expenditures from local revenues.

### **Local and Regional School Districts Impact**

The bill results in significant costs to local and regional school districts by establishing several new mandates relating to school building construction and maintenance. The bill requires districts to do the following:

- Ensure that new construction, replacement, or extension of a school building after July 1, 2024 is net-zero energy. To the extent that this requires such projects to use more expensive materials, additional equipment, or more labor than otherwise would have occurred, the bill increases the cost of these projects. Some costs associated with these provisions may be partially offset by increased School Construction reimbursements. The bill also establishes a low-or-no-interest loan program administered by the Connecticut Green Bank to assist with these costs.
- Conduct a solar power feasibility study in FY 24 and an energy efficiency study by FY 25 for each district building. The bill requires districts to take additional steps, depending on the results of the studies. It is anticipated that districts do not currently have the resources to conduct such studies and will have to hire consultants to complete them. Consultant costs can be significant, over \$100,000 per district. Subsequent steps required based on the results of the studies will also result in increased school construction and maintenance costs. The costs of these required studies may be defrayed by financing offered by the Connecticut Green Bank.
- Test each cooking and drinking water tap in each school for lead and remediate any sources of lead contamination. The impact of this will vary widely by district, the number of taps tested, and the extent to which lead contamination is discovered. The timing and magnitude of the costs will be dependent on the regulations adopted by DPH. Larger districts with older infrastructure will likely incur significant

costs.

- Sets temperature parameters for occupied classrooms in all schools beginning January 1, 2025. To the extent that this requires districts to install air conditioning systems or upgrade existing HVAC systems, there are significant costs in FY 24 and FY 25. Additionally, there may be increased operating costs beginning in FY 25.
- Include in any grant for new public school construction submitted to the Department of Administrative Services beginning January 1, 2024 (1) the installation of a school kitchen with a dishwasher, and (2) indication of how solid waste, including recycling and food scraps, will be sorted and collected. To the extent that new public school construction projects do not currently include these provisions, the bill increases the costs of such projects.
- Establish project-labor agreements for projects that exceed \$10 million and that are at least partially financed with loans from the Connecticut Green Bank. The impact of this provision on affected school construction projects will depend on the terms of the project-labor agreements.

Costs in the bill to local and regional school districts are potentially, partially offset by savings associated with reduced energy needs.

### **State Impact**

#### ***Public Schools Solar and Energy Efficiency Fund Capitalization and Implementation***

The bill establishes the Public Schools Solar and Energy Efficiency Fund within the Connecticut Green Bank. The bill stipulates that such fund be "capitalized with four hundred million dollars from the Connecticut Green Bank and one hundred million dollars from the issuance of bonds of the state or capital funds." The \$400 million figure from the Connecticut Green Bank is well in excess of the net assets of the

Green Bank and would not be achievable without an identifiable revenue source. Likewise, no bonds of the state are authorized for the purpose specified in the bill, either under current law or within the bill itself.

To the extent the fund is capitalized, the bill specifies various eligibility requirements and uses, which would partially determine, along with local district participation, the recipients of such loans and grants. It also specifies that any "unspent balance" of the Public Schools Solar and Energy Efficiency fund, presumably including any repayment of loans, "shall revert to the General Fund" in FY 53 (thirty years after bill passage). This represents a potential revenue gain to the General Fund in FY 53.

Administration of the fund and associated programs is expected to require at least 10 employees at a total cost of salary plus fringe of at least \$2 million from the resources of the Green Bank annually, as the bill does not specify that administrative costs of the program could be paid from the resources of the fund. It is not anticipated these costs would be incurred until and unless capitalization funds are provided.

### *School Construction Program*

The school construction program is funded using General Obligation (GO) bonds, in two large tracts: priority list projects (i.e., larger projects approved in legislation) and non-priority list projects. Non-priority list projects currently include emergency items, such as fire or catastrophe damage, leaking roofs, and code violations, as well as installation of photovoltaic panels and wind generation systems.

Non-priority list projects are generally allowed at the discretion of the Commissioner of Administrative Services within available resources of the program. The bill states that specified project applications must be challenged by the Department of Administrative Services (DAS) within 30 days of receipt or be deemed approved. The bill requires school districts to pursue solar panel installations, which is expected to lead to a significant expansion in the number and amount of local

district photovoltaic panel projects seeking reimbursement through the non-priority list portion of the school construction program.

The increase in school building project application processing will increase the administrative costs of the school construction program, as a result of DAS needing to hire at least 5 employees, at a total cost of at least \$ 725,000 annually for salary plus fringe from the General Fund.

Priority list projects must be approved through legislation prior to state reimbursement. The bill requires that school building projects classified as new construction, replacement and extensions must be net-zero energy beginning in FY 25, regardless of whether those projects are part of the school construction reimbursement program. It also requires demonstration of efforts to be net-zero in applications received for the school construction reimbursement program beginning in FY 24. To the extent the net-zero requirements increase eligible construction costs for school building projects, there will be an increase in state reimbursements under the school building projects program.

The bill also includes several requirements regarding specified types of school construction projects, including use of project labor agreements, prevailing wage mandates, participation in workforce development programs, hiring of municipality-specific labor, and development of a solid waste management plan and presence of a kitchen and dishwasher. To the extent any of these requirements increase project cost, there would be a commensurate increase in state reimbursements and state debt service costs.

Specific costs for eligible projects, including the marginal increase from the requirements of the bill, can only be determined as project expenses are incurred by municipalities and state reimbursements are sought and offered. The costs of future priority list projects will be shown when projects are considered in future legislation.

As of March 1, 2023, the unallocated bond balance available under the school construction authorization is \$836 million. The bill is expected to result in an increase in the use of GO bond funds for both



non-priority list and priority list reimbursable expenses, which would expedite anticipated debt service from existing bond authorizations.

The bill does not change GO bond authorizations relevant to the school construction program. However, those funds are necessary to support both priority list and non-priority list projects. The most recent estimate by the DAS indicated approximately \$2.5 billion worth of outstanding long-term liability for current grant commitments, to be paid over the next several years.<sup>2</sup> The expanded use of current authorizations through the non-priority list program will necessitate increased bond authorizations for the program in the future, which will increase long-term debt service costs. Likewise, expected cost increases for new construction, replacement, and extension projects are expected to lead to greater reimbursement levels, which will be paid through increased bond authorizations resulting in an increase in long-term debt service costs to the state and increased revenue to participating municipalities.

### ***Other Impacts***

The bill requires the Department of Public Health (DPH) to adopt certain regulations and publish water test results from each public school on a website, results in a one-time consultant cost of up to \$75,000 in FY 24 to draft regulations, develop procedures for test result reporting by schools, and establish procedures to track test result data.

The bill also requires DPH to develop an informational poster on the health impacts of emissions from idling vehicles which does not result in fiscal impact to the agency.

### ***The Out Years***

The annualized ongoing fiscal impact identified above would continue into the future subject to inflation.

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<sup>2</sup>Source: 2022 Series F General Obligation Bonds Official Statement

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**OLR Bill Analysis****sSB 961*****AN ACT CONCERNING CARBON-FREE SCHOOL REQUIREMENTS FOR NEW SCHOOL CONSTRUCTION AND ESTABLISHING OTHER SCHOOL CONSTRUCTION AND PUBLIC HEALTH REQUIREMENTS FOR SCHOOL DISTRICTS.*****SUMMARY**

This bill requires, beginning July 1, 2024, public school building new construction, replacement, or extension to be “net-zero energy,” meaning that the building design maximizes energy efficiency and on-site renewable energy production to try to produce as much energy as the building will use.

It requires school districts and superintendents to commission solar power and energy efficiency feasibility studies, respectively, to determine the cost-effectiveness of solar power systems and energy efficiency improvements. If determined to be cost effective, the bill requires energy efficiency projects to be in-service by January 1, 2028, and solar projects to be permitted and contracted for by the same date.

The bill additionally (1) establishes a low- to no-interest loan program for these projects; (2) creates a fund within the Connecticut Green Bank to fund these loans; and (3) capitalizes the fund with \$500 million, principally from the Green Bank, of which 80% (i.e., \$400 million) must be for loan issuance with the remainder for things like school district credit enhancement, audit and feasibility study grants, and training.

Under the bill, school districts must measure and report annually on energy consumption, solar generation, and greenhouse gas (GHG) emissions. The bill correspondingly expands the Green Bank’s authority and responsibilities to, among other things, administer the loan program, supervise the feasibility studies and energy audits prescribed

by the bill, and hire certain experts to fulfill its new role.

The bill also separately requires the following:

1. each public school district to include climate change impacts (e.g., flooding, sea level rise, increased storm surge) as risks in its real property asset assessment and management;
2. beginning January 1, 2025, occupied classrooms in public schools to be heated to between 65 and 72 degrees during cold weather periods and cooled to between 78 and 72 degrees during hot weather periods; and
3. beginning January 1, 2024, any grant for new public school construction submitted to the Department of Administrative Services (DAS) to (1) include a requirement for installing a school kitchen with a dishwasher and (2) indicate how solid waste, including recycling and food scraps, will be sorted and collected (and, before the school construction begins, the school district must create a waste management plan to implement waste prevention, recycling, and composting).

Lastly, the bill requires the Department of Public Health (DPH) to (1) adopt certain lead testing, remediation, and notification requirements for public schools and (2) create a poster on the effects of idling cars, which public schools must post in certain locations.

EFFECTIVE DATE: Upon passage

### **NET-ZERO ENERGY REQUIREMENTS**

To meet the bill's net-zero requirement, the bill requires the DAS commissioner to require grant applications for new public school construction, replacement, or extensions, beginning July 1, 2023, to show how the project will achieve net-zero energy to the greatest extent practicable.

The bill establishes several requirements for public school districts and superintendents to attain the net-zero requirement, both in terms of

solar power and energy efficiency (see below). The bill also requires that school districts be able to retain, to the greatest extent possible, any energy cost savings achieved from undertaking new solar power system projects or energy efficiency improvements.

### ***Solar Power***

The bill requires each school district to commission a solar power feasibility study for each building it owns and submit the study's results to the Connecticut Green Bank by July 1, 2024.

Under the bill, this feasibility study is a report determining whether a proposed solar power system is cost-effective (i.e., the savings from an improvement equal or exceed the improvement's initial cost over its useful life) and may consider the costs to repair, upgrade, or replace a building's roof. The study must (1) be created by a trained and certified energy professional (i.e., a "qualified professional") who estimates the costs, savings, and GHG emissions reductions for a solar power system on a building's available rooftops, parking lots, and other areas and (2) include a financial plan with funding sources and uses, including federal incentives.

If a proposed solar power system is determined to be cost effective, the superintendent must secure the relevant permits and contracts for it by January 1, 2028. The bill requires superintendents to prioritize projects based on their GHG emissions reductions and cost-effectiveness, undertaking projects with the best combination of the two factors first.

If the feasibility study determines that a solar power system is not cost-effective (i.e., because of roof repair, upgrade, or replacement costs), the bill requires the (1) superintendent to make a good faith effort to ensure that the building's next scheduled roof replacement or major roof repair project will allow the roof to support a solar power system and (2) school district to determine if the replacement or repair will allow for the system. And when it is determined that a roof can support a system, the bill requires the superintendent to have it installed within

two years after this determination.

### **Energy Efficiency**

The bill establishes a process for energy efficiency projects similar to its process for determining if solar power projects are feasible and for pursuing those projects.

Under the bill, each superintendent must commission an energy efficiency feasibility study for each building owned by their respective school district and submit the study results to the Connecticut Green Bank by July 1, 2025. An “energy efficiency feasibility study” is a report created by a qualified professional (see *Solar Power*, above) that (1) includes a financial plan with sources and uses of funding, including federal incentives and (2) estimates costs, savings, and GHG emissions reductions for energy efficiency improvements identified in an energy audit (i.e., an inspection or survey of a building’s energy systems and an analysis of current energy consumption and production). The energy audit must also identify opportunities for improvements that would yield energy cost savings and GHG emissions reductions.

If a feasibility study determines that energy efficiency improvements are cost-effective, the bill requires the superintendent to begin making the improvements and have them in service by July 1, 2028.

However, if improvements will only be cost-effective upon the replacement of older equipment at the end of the equipment’s useful life, the bill requires the superintendent to arrange for the equipment’s replacement with energy-efficient equipment when the older equipment no longer works. Superintendents must monitor conditions and expiration dates of the older equipment and make the necessary preparations to replace it when it expires or breaks down, including to upgrade circuit panels to allow for the installation of a heat pump.

The bill exempts from these requirements replacements done on an emergency basis and for cases of financial hardship.

### **Labor Costs**

The bill requires school districts that undertake the solar power system and energy efficiency improvement projects to pay each associated construction employee wages and benefits of at least the prevailing wage and fringe benefits required in state law for the corresponding classification of the employee's work.

### ***Maintenance Worker Training***

The bill requires superintendents to make training available to current maintenance workers on how to operate and manage a solar power or energy efficiency system installed under the bill's provisions.

### **DAS SCHOOL CONSTRUCTION NOTICE**

The bill requires each school district intending to undertake solar power and energy improvement projects to notify DAS' Office of School Construction Grants and Review. The district must show the cost-effectiveness of a project and identify available local and federal government funding sources for it.

The bill allows DAS's office to challenge a proposed project, but it must do so within 30 days after receiving notice of it. If unchallenged, the proposal is deemed approved.

Under the bill, these projects' energy improvements are presumed to be eligible for capital reimbursement consistent with the district's existing reimbursement formula. When calculating the amount of project expenses that are eligible for reimbursement, the bill requires the district to subtract any government funds other than education aid.

### **NET-ZERO SCHOOLS LOAN PROGRAM**

The bill establishes a "Net-Zero Schools Loan Program" to make low- or no-interest loans to public school districts for energy efficiency or renewable energy projects that yield energy cost savings. It provides \$400 million for the program from a new "Public Schools Solar and Energy Efficiency Fund" the bill establishes (see below).

Under the bill, program loans must be for a fixed period and allow them to satisfy non-federal match requirements for federal grants.

**Eligible Projects**

Under the bill, program-eligible projects include things like:

1. installing on-site Class I renewable energy sources (e.g., solar or wind), energy efficient lighting or building control upgrades, insulation or building envelope upgrades;
2. making heating, ventilation, and air condition repairs or replacements;
3. planting and maintaining native shade tree species that reduce energy consumption; and
4. renovating for strategic daylighting.

Eligible program costs include the reasonable costs to construct, alter, or renovate public school buildings; associated site preparation and development; site or building equipment and furnishing; architectural, engineering, or construction management charges; commissioning of building systems and training staff to maintain them; and associated ordinary and reasonable legal fees.

**Program Funding**

The bill allocates the loan program funding as follows:

1. 60% of the initial funding for the program must be for all school districts in the state and allotted according to a Connecticut Green Bank-determined formula, which must consider need determined by any solar power or energy efficiency feasibility study;
2. 40% of the program's initial funding must be allocated, on a competitive basis, for school districts in environmental justice communities (see BACKGROUND); and
3. after the program's third year operating, any amount that has not been loaned is available to any school district on a competitive basis.

**Labor Costs**

Under the bill, each loan program recipient must pay construction employees hired for the loan-funded school improvements wages and benefits that are at least equal to the state's prevailing wage and fringe benefit rates for the corresponding classification in which they are employed. Loan recipients must also negotiate a project labor agreement in good faith if a project's total cost exceeds \$10 million. The bill specifies that improvements at the same building may not be segmented to avoid these requirements.

Under the bill, a "project labor agreement" is an agreement that:

1. binds all contractors and subcontractors on a covered project to the agreement by including specifications in all relevant solicitation provisions and contract documents;
2. allows contractors and subcontractors to compete for project contracts and subcontracts regardless of whether they are parties to collective bargaining agreements;
3. sets uniform employment terms and conditions for all construction labor hired on the projects;
4. guarantees against strikes, lockouts, and similar disruptions;
5. includes mutually binding procedures for resolving labor disputes;
6. requires contractors to partner with a preapprenticeship program; and
7. includes any other negotiated provisions to promote successful delivery of the covered project.

**Apprentice and Workforce Development Requirement**

The bill requires that the contractors hired for a project receiving a program loan be enrolled in an apprenticeship program registered with the federal Department of Labor (U.S. DOL) or a federally recognized



state apprenticeship agency. They must also partner with a workforce development program in which the following individuals are given opportunities for skill development that will enable them to qualify for higher paying jobs:

1. employees who are residents of the same municipality as the school project and
2. individuals with employment barriers such as prior incarceration or who have been traditionally underrepresented in the relevant job.

A “workforce development program” under the bill is an apprenticeship program registered with the U.S. DOL or a federally recognized state agency that actively trains employees, has functioning training facilities, and regularly graduates apprentices to journey person status who are placed in jobs or preapprenticeship training.

#### **PUBLIC SCHOOLS SOLAR AND ENERGY EFFICIENCY FUND**

The bill establishes a 30-year nonlapsing “Public Schools Solar and Energy Efficiency Fund” within the Connecticut Green Bank to make loans to public schools for projects authorized under the bill. It capitalizes the fund with \$400 million from the Green Bank and \$100 million from bonds of the state or capital funds. (The bill does not specify the mechanism by which the Green Bank will produce these funds.)

From this \$500 million, \$400 million must be used for the Net-Zero Schools Loan Program the bill establishes (see above); \$75 million must be used to enhance public school districts’ creditworthiness; and \$25 million must be allocated to the Green Bank for audit and feasibility study grants, program oversight, public education, school district official training, and technical assistance for project development. The bill specifies that these funds supplement and do not replace other funding for school districts to construct school facility improvements.

Under the bill, this fund consists of any funds required to be

deposited into it (e.g., appropriated funds, repayment of all loans related to loans made from the fund, fund investment gains, and donations or gifts). After the 30 years, the fund's unspent balance reverts to the General Fund.

### **ANNUAL SCHOOL DISTRICT REPORTING**

Under the bill, each public school district must annually measure and report to the Connecticut Green Bank on its energy consumption, solar generation, and subsequent GHG emissions using Energy Star Portfolio Manager or an equivalent platform. The Green Bank must then make this data publicly available online.

The bill also requires (1) each superintendent to publish annual reports on the state of solar power and energy efficiency systems in each public school in his or her school district and (2) the Green Bank to publicize any shortcomings of the systems and work with the superintendent to overcome obstacles to making improvements.

It allows any consumer, employee, or taxpayer of the state (e.g., labor unions) to request a report on the state of solar and energy efficiency projects in a public school building from the superintendent, which must be published in a report within 30 days after the request.

### **NEW GREEN BANK RESPONSIBILITIES**

The bill correspondingly expands the Connecticut Green Bank's authority and responsibilities by requiring it to do the following:

1. supervise a program giving technical assistance to school districts seeking to develop solar power system and energy efficiency projects under the bill's provisions;
2. supervise a program giving technical assistance, project development, public education, and training for public school district officials who are involved in developing solar power and energy efficiency projects;
3. administer the bill's new Net-Zero Schools Loan Program (see

above);

4. supervise energy audits and the solar power and energy efficiency feasibility studies the bill requires;
5. evaluate the program's success and recommend improvements to it; and
6. hire a staff of engineers, policy analysts, financial experts, and community liaisons, or other experts needed to perform its responsibilities.

## **DPH REQUIREMENTS**

### ***Lead Testing***

Under the bill, the DPH commissioner must adopt regulations by January 1, 2024, requiring all public school districts to (1) periodically test water samples for lead from all taps used for drinking or cooking in each school facility and (2) remediate lead contamination sources when there is lead (presumably, only if the source is part of school district property).

The bill requires DPH to (1) publish these lead water test results on a publicly accessible website and (2) share the results with the school districts' water utility if it is served by a public system.

### ***Vehicle Idling***

The bill requires DPH, by January 1, 2024, to develop an informational poster on the health impacts of idling vehicle emissions. It requires public schools, by February 1, 2024, to (1) display the poster in the school lobby or another visible space and (2) post anti-idling signs in student pick-up and drop-off areas and other locations where vehicles frequently idle.

## **BACKGROUND**

### ***Environmental Justice Communities***

By law, an "environmental justice community" is (a) any U.S. census block group, as determined by the most recent census, for which at least

30% of the population consists of low-income people who are not institutionalized and have an income below 200% of the federal poverty level or (b) a distressed municipality (CGS § 22a-20a).

The Department of Economic and Community Development annually designates distressed municipalities, based on high unemployment and poverty, aging housing stock, and low or declining rates of job, population, and per capita income growth (CGS § 32-9p). The current (2022) distressed municipalities are Ansonia, Bridgeport, Bristol, Chaplin, Derby, East Hartford, East Haven, Griswold, Groton, Hartford, Meriden, Montville, New Britain, New London, North Stonington, Norwich, Plainfield, Putnam, Sprague, Sterling, Torrington, Waterbury, West Haven, Winchester, and Windham.

Towns with current applicable census blocks (that are not also distressed municipalities) are Bethel, Bloomfield, Branford, Brooklyn, Canaan, Clinton, Columbia, Coventry, Cromwell, Danbury, East Haddam, East Lyme, East Windsor, Ellington, Enfield, Essex, Fairfield, Farmington, Glastonbury, Greenwich, Haddam, Hamden, Killingly, Ledyard, Lisbon, Manchester, Mansfield, Middletown, Milford, Naugatuck, New Fairfield, New Haven, New Milford, Newington, North Canaan, Norwalk, Plainville, Portland, Preston, Ridgefield, Rocky Hill, Sharon, Shelton, Simsbury, Southington, Stafford, Stamford, Stonington, Stratford, Thomaston, Thompson, Vernon, Wallingford, Waterford, Watertown, West Hartford, Wethersfield, Willington, Windsor Locks, and Windsor.

**COMMITTEE ACTION**

Environment Committee

Joint Favorable Substitute  
Yea 22 Nay 10 (03/10/2023)