

118TH CONGRESS
1ST SESSION

H. R. 4270

To amend the Energy Policy and Conservation Act to authorize State energy conservation plans to include programs to provide grants for planning, designing, and installing green roofs on elementary school and secondary school buildings, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 21, 2023

Ms. VELÁZQUEZ (for herself, Ms. CLARKE of New York, Mr. LYNCH, Ms. BARRAGÁN, Mr. THOMPSON of Mississippi, Ms. SCHRIER, Ms. CROCKETT, Mr. BOWMAN, Ms. STRICKLAND, Mrs. WATSON COLEMAN, Mr. CARSON, and Mrs. RAMIREZ) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To amend the Energy Policy and Conservation Act to authorize State energy conservation plans to include programs to provide grants for planning, designing, and installing green roofs on elementary school and secondary school buildings, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Public School Green
5 Rooftop Program”.

1 **SEC. 2. FINDINGS.**

2 Congress finds the following:

3 (1) The Department of Energy recognizes green
4 roof technology is an effective, practical way to in-
5 crease the energy performance of buildings.

6 (2) The Environmental Protection Agency ac-
7 knowledges green roofs can reduce building energy
8 use compared to conventional roofs.

9 (3) Greater weatherization and insulation of-
10 fered by green roofs reduce the demand for electrical
11 power needed to moderate the temperature of a
12 building, as roofs can be the source of the greatest
13 heat loss in the winter and heat gain in the summer
14 in buildings.

15 (4) Green roofs can produce greater energy effi-
16 ciency on elementary school and secondary school
17 buildings than on other structures because the di-
18 mensions of school buildings are unique and often
19 have a significantly greater width than height.

20 (5) The General Services Administration recog-
21 nizes green roofs can last 40 years or more before
22 requiring replacement compared to 10 to 15 years
23 for a conventional roof.

24 (6) The General Services Administration
25 (GSA), Department of Energy, and Environmental
26 Protection Agency all recognize the integral role of

1 maintenance in a green roof's continued energy effi-
2 ciency benefits and cost savings, and the GSA Public
3 Buildings Service accordingly provides ongoing
4 maintenance training to maximize the benefits of
5 green roofs.

6 (7) Green roofs can provide economic benefits,
7 including decreased energy costs, water use,
8 stormwater runoff, landfill waste, and building oper-
9 ating expenses that can save taxpayers money.

10 (8) Green roofs can provide annual cost savings
11 per square foot of the roof's surface.

12 (9) Green roofs on educational facilities can
13 provide accessible sites to teach students at all levels
14 of education about various subjects including
15 science, technology, engineering, and math (STEM),
16 biodiversity, ecology, urban agriculture, stormwater
17 management, sustainability, art, technology, and
18 more.

19 (10) Planning, designing, installing, and main-
20 taining green roofs can generate employment oppor-
21 tunities for properly trained personnel, while special-
22 ized green roofs can also provide employment oppor-
23 tunities for urban agriculture operations.

24 (11) The Environmental Protection Agency, in
25 collaboration with Green Roofs for Healthy Cities,

1 acknowledges landscape architects as leaders in
2 planning and designing green roofs.

3 (12) Green roofs can help stabilize neighbor-
4 hoods by providing community-wide benefits, includ-
5 ing those that address public health, food security,
6 urban development, and economic growth.

7 (13) By improving air and water quality and
8 mitigating excess heat, among other benefits, green
9 roofs can improve public health and lessen
10 healthcare system stressors.

11 (14) Green roofs can help reduce the impacts of
12 climate change, including extreme heat and poor air
13 quality, by sequestering harmful carbon and other
14 pollutants in the atmosphere.

15 (15) Green roofs can reduce the urban heat is-
16 land effect and city-wide ambient temperatures by
17 up to 5°F because green roof temperatures can be
18 30 to 40°F lower than those of conventional roofs.

19 (16) The National Aeronautics and Space Ad-
20 ministration determined indoor summer building
21 temperatures were cooler for buildings with green
22 roofs.

23 (17) As living systems, green roofs retain rain-
24 water in the soil, plants, and drainage layer and
25 therefore can reduce stormwater runoff rates by up

1 to 65 percent and delay the time at which runoff oc-
2 curs, resulting in decreased stress on sewer systems
3 and streams at peak flow periods and decreased pol-
4 lution in United States waterways.

5 (18) Green roofs can enhance environmental
6 justice by addressing the disproportionate impacts of
7 excess heat and adding much-needed green space to
8 the built environment in underserved communities.

9 (19) Green roofs can enhance biodiversity by
10 providing and creating habitats for various plants
11 and wildlife such as pollinators and migratory birds.

12 **SEC. 3. GREEN ROOF GRANT PROGRAMS.**

13 Section 362 of the Energy Policy and Conservation
14 Act (42 U.S.C. 6322) is amended—

15 (1) in subsection (d)—

16 (A) in paragraph (17), by striking “; and”
17 and inserting a semicolon;

18 (B) by redesignating paragraph (18) as
19 paragraph (19); and

20 (C) by inserting after paragraph (17) the
21 following:

22 “(18) in accordance with subsection (h), pro-
23 grams to provide financial assistance, including
24 grants, for planning, designing, installing, maintain-

1 ing, and monitoring green roofs on elementary
2 school and secondary school buildings; and”;

3 (2) by adding at the end the following:

4 “(h) GREEN ROOF GRANT PROGRAMS.—

5 “(1) GRANTS FOR PLANNING ASSISTANCE.—

6 “(A) GRANT PROGRAMS.—Under a pro-
7 gram to provide financial assistance as provided
8 for under subsection (d)(18), a State may make
9 grants to eligible entities to pay the costs of
10 planning and design assistance for a green roof
11 as described in subparagraph (B).

12 “(B) ALLOWABLE USE OF FUNDS FOR
13 GRANTS FOR PLANNING ASSISTANCE.—An eligi-
14 ble entity receiving a grant pursuant to sub-
15 paragraph (A) may use the grant for any of the
16 following purposes:

17 “(i) Identification of opportunities to
18 use green roofs on elementary school and
19 secondary school buildings, including per-
20 forming site analyses for locating green
21 roofs.

22 “(ii) Determination of, and plans to
23 obtain, permits relating to a green roof on
24 an elementary school or secondary school
25 building.

1 “(iii) Architectural, landscape archi-
2 tectural, and engineering analysis for a
3 green roof on an elementary school or sec-
4 ondary school building, including—

5 “(I) plans for assessing the
6 structural loading capacity of the ele-
7 mentary school or secondary school
8 building, accounting for vegetation;
9 and

10 “(II) design services, including
11 the creation of design plans and con-
12 struction documents for a green roof
13 on the elementary school or secondary
14 school building.

15 “(iv) Cost estimation of the planning,
16 designing, installing, and maintaining of a
17 green roof on an elementary school or sec-
18 ondary school building, including an energy
19 savings analysis.

20 “(v) Administrative costs, including
21 reimbursement for grant writing services
22 used to obtain a grant under this para-
23 graph.

24 “(2) PUBLIC SCHOOL GREEN ROOF INSTALLA-
25 TION GRANT PROGRAM.—

1 “(A) PUBLIC SCHOOL GREEN ROOF IN-
2 STALLATION PROGRAM.—Under a program to
3 provide financial assistance as provided for
4 under subsection (d)(18), a State may award
5 grants, on a competitive basis, to eligible enti-
6 ties to carry out projects to install a green roof
7 on an elementary school or secondary school
8 building.

9 “(B) APPLICATION.—To receive a grant
10 pursuant to subparagraph (A), an eligible entity
11 shall submit to a State an application—

12 “(i) at such time, and in such man-
13 ner, as the State may require;

14 “(ii) that includes—

15 “(I) a strategy for increasing en-
16 ergy efficiency and reducing heat re-
17 flection of the applicable elementary
18 school or secondary school building;

19 “(II) a description and method-
20 ology of the eligible entity’s plan for
21 the installation, operation, and main-
22 tenance of a green roof on an elemen-
23 tary school or secondary school build-
24 ing, including a plan to meet the re-
25 quirements of title III of the Ameri-

1 cans with Disabilities Act of 1990 (42
2 U.S.C. 12101 et seq);

3 “(III) a letter of compliance from
4 each applicable local regulatory body
5 that documents the green roof is
6 planned and designed, and will be
7 constructed in accordance with local
8 standards and regulations, including
9 occupancy, fire, stormwater compli-
10 ance, and building codes;

11 “(IV) cost estimation of the plan-
12 ning, designing, installing, and main-
13 taining of the green roof on the ele-
14 mentary school or secondary school
15 building, including an energy savings
16 analysis; and

17 “(V) the hiring criteria and
18 qualifications for personnel to design,
19 construct, install, and maintain the
20 green roof, including a plan for hir-
21 ing—

22 “(aa) local workforce train-
23 ees;

24 “(bb) at least one Green
25 Roof Professional as accredited

1 by the Green Roof Industry As-
2 sociation, or a professional li-
3 censed by a State or an appro-
4 priate accreditation; and

5 “(cc) low-income individuals,
6 individuals registered with a one-
7 stop center, and returning citi-
8 zens.

9 “(C) PRIORITY.—In awarding grants pur-
10 suant to subparagraph (A), a State shall give
11 priority to—

12 “(i) projects to install a green roof on
13 buildings of elementary schools and sec-
14 ondary schools in which not fewer than 30
15 percent of students are from households
16 with incomes below the poverty line;

17 “(ii) projects that meet minimum per-
18 formance and nationally recognized stand-
19 ards for green roofs and walls, including—

20 “(I) the Living Architecture Per-
21 formance Tool;

22 “(II) The Sustainable SITES
23 Initiative®; and

24 “(III) other nationally recognized
25 standards; and

1 “(iii) projects to install a green roof
2 on buildings of elementary schools and sec-
3 ondary schools located in a nonattainment
4 area (as defined in section 171(2) of the
5 Clean Air Act (42 U.S.C. 7501(2))).

6 “(D) INSTALLATION.—Not later than 4
7 years after receiving a grant pursuant to sub-
8 paragraph (A), an eligible entity shall complete
9 installation of a green roof.

10 “(E) MAINTENANCE AND MONITORING OF
11 INFRASTRUCTURE.—Under a program de-
12 scribed in subparagraph (A), in addition to re-
13 ceiving a grant under to install a green roof
14 under such program, each eligible entity that
15 meets the installation requirements of subpara-
16 graph (D) may receive additional funding for a
17 5-year period for maintenance and monitoring
18 activities relating to the green roof, which ac-
19 tivities may include the following:

20 “(i) Monitoring and evaluating energy
21 performance and cost savings of the green
22 roof.

23 “(ii) Monitoring and evaluating air
24 temperature of the green roof.

1 “(iii) Conducting routine inspections
2 throughout the year to assess the condition
3 of the green roof, including plant health
4 and replanting alternatives in consultation
5 with a landscape architect, horticulturalist,
6 agronomist, or other landscape professional
7 as appropriate.

8 “(3) DEFINITIONS.—In this subsection:

9 “(A) ELEMENTARY SCHOOL.—The term
10 ‘elementary school’ has the meaning given the
11 term in section 8101 of the Elementary and
12 Secondary Education Act of 1965 (20 U.S.C.
13 7801).

14 “(B) ELIGIBLE ENTITY.—The term ‘eligi-
15 ble entity’ means—

16 “(i) a public elementary school or sec-
17 ondary school;

18 “(ii) a local educational agency; or

19 “(iii) a partnership between a non-
20 profit organization and an entity described
21 in clause (i) or (ii).

22 “(C) GREEN ROOF.—The term ‘green roof’
23 means a layer of vegetation planted over a wa-
24 terproofing system or waterproof management
25 practice that is installed on top of a flat or

1 slightly-sloped roof that may support plant
2 growth, including—

3 “(i) an extensive green roof with a
4 growing media layer that is up to 6 inches
5 thick; or

6 “(ii) an intensive green roof with a
7 growing media layer that is 6 to 48 inches
8 thick.

9 “(D) LOCAL EDUCATIONAL AGENCY.—The
10 term ‘local educational agency’ has the meaning
11 given the term in section 8101 of the Elemen-
12 tary and Secondary Education Act of 1965 (20
13 U.S.C. 7801).

14 “(E) LOW-INCOME INDIVIDUAL.—The
15 term ‘low-income individual’ means, with re-
16 spect to any calendar year, any individual who
17 lives in a household that has a gross income
18 that does not exceed 300 percent of the poverty
19 line.

20 “(F) NONPROFIT ORGANIZATION.—The
21 term ‘nonprofit organization’ means an organi-
22 zation described in section 501(c)(3) of the In-
23 ternal Revenue Code of 1986 which is exempt
24 from taxation under section 501(a) of such
25 Code.

1 “(G) ONE-STOP CENTER.—The term ‘one-
2 stop center’ has the meaning given such term in
3 section 3 of the Workforce Innovation and Op-
4 portunity Act (29 U.S.C. 3102).

5 “(H) POVERTY LINE.—The term ‘poverty
6 line’ has the meaning given the term in section
7 8101 of the Elementary and Secondary Edu-
8 cation Act of 1965 (20 U.S.C. 7801).

9 “(I) SECONDARY SCHOOL.—The term ‘sec-
10 ondary school’ has the meaning given the term
11 in section 8101 of the Elementary and Sec-
12 ondary Education Act of 1965 (20 U.S.C.
13 7801).”.

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