

MAINE STATE LEGISLATURE

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125th MAINE LEGISLATURE

FIRST REGULAR SESSION-2011

Legislative Document

No. 1527

H.P. 1121

House of Representatives, April 28, 2011

An Act To Encourage the Creation of Jobs through Development of Maine's Solar Industry

Reference to the Committee on Energy, Utilities and Technology suggested and ordered printed.

A handwritten signature in cursive script that reads "Heather J.R. Priest".

HEATHER J.R. PRIEST
Clerk

Presented by Representative RUSSELL of Portland.

1 **Be it enacted by the People of the State of Maine as follows:**

2 **Sec. 1. 10 MRSA §9722, sub-§6, ¶J,** as enacted by PL 2007, c. 699, §6, is
3 amended to read:

4 J. In the adoption and amendment of the Maine Uniform Building and Energy Code,
5 ensure that nontraditional or experimental construction, including but not limited to
6 straw bale and earth berm construction, is permissible under the code; ~~and~~

7 **Sec. 2. 10 MRSA §9722, sub-§6, ¶K,** as enacted by PL 2007, c. 699, §6, is
8 amended to read:

9 K. In the adoption and amendment of the Maine Uniform Building and Energy Code,
10 ensure that building materials from local sawmills, including but not limited to
11 nongraded lumber, are permissible under the code;

12 **Sec. 3. 10 MRSA §9722, sub-§6, ¶L** is enacted to read:

13 L. In the adoption and amendment of the Maine Uniform Building and Energy Code,
14 include standards for installation of solar photovoltaic systems and solar thermal
15 systems in new and existing buildings; and

16 **Sec. 4. 10 MRSA §9722, sub-§6, ¶M** is enacted to read:

17 M. By March 1, 2012, adopt a model ordinance for the permitting of solar
18 photovoltaic and solar thermal systems in existing buildings to promote uniformity in
19 solar permitting among municipalities in the State.

20 **Sec. 5. 35-A MRSA §3210-F** is enacted to read:

21 **§3210-F. Improvement of energy efficiency and usage of distributed renewable**
22 **technology in state-funded construction**

23 **1. Definitions.** As used in this section, unless the context otherwise indicates, the
24 following terms have the following meanings.

25 A. "Qualifying" as applied to solar electric generation means solar electric
26 generation that:

- 27 (1) Is generated within the State;
28 (2) Has one megawatt or less capacity; and
29 (3) Was installed after January 1, 2012.

30 B. "Solar alternative compliance payment" means a payment of a certain dollar
31 amount per megawatt-hour that a competitive electricity provider may make in lieu of
32 complying with the solar electric generation requirements in subsection 2.

33 C. "Solar electric generation" means creation of electricity using a system that
34 employs solar radiation to produce energy that powers an electric generator. "Solar
35 electric generation" includes technologies that use the photovoltaic effect.

1 D. "Solar renewable energy credit" means a type of renewable energy credit issued
2 by the commission that represents the environmental benefits or attributes of one
3 megawatt-hour of solar electric generation.

4 E. "Total cost of solar incentives" means the sum of the following for a reporting
5 year, except that any particular cost that is within more than one of the categories
6 listed below may not be counted twice:

7 (1) The total amount of financial assistance for qualifying solar electric
8 generation paid from the charge established under section 10112-A;

9 (2) The total cost incurred by all competitive electricity providers in the State for
10 solar renewable energy credits used for compliance with the solar set-aside
11 requirements under subsection 2; and

12 (3) The total revenue from solar alternative compliance payments.

13 **2. Solar set-aside requirements.** Portfolio requirements for solar electric
14 generation are governed by this subsection.

15 A. Beginning January 1, 2015, as a condition of licensing pursuant to section 3203,
16 each competitive electricity provider in this State must demonstrate in a manner
17 satisfactory to the commission that the percentage of its portfolio of supply sources
18 for retail electricity sales in this State accounted for by new cost-effective qualifying
19 solar electric generation pursuant to standards established by the Efficiency Maine
20 Trust Board is as follows:

21 (1) For the period from January 1, 2015 to December 31, 2015, 0.01%;

22 (2) For the period from January 1, 2016 to December 31, 2016, 0.017%;

23 (3) For the period from January 1, 2017 to December 31, 2017, 0.0393%;

24 (4) For the period from January 1, 2018 to December 31, 2018, 0.0817%;

25 (5) For the period from January 1, 2019 to December 31, 2019, 0.16%;

26 (6) For the period from January 1, 2020 to December 31, 2020, 0.221%;

27 (7) For the period from January 1, 2021 to December 31, 2021, 0.305%;

28 (8) For the period from January 1, 2022 to December 31, 2022, 0.394%;

29 (9) For the period from January 1, 2023 to December 31, 2023, 0.497%;

30 (10) For the period from January 1, 2024 to December 31, 2024, 0.621%;

31 (11) For the period from January 1, 2025 to December 31, 2025, 0.765%;

32 (12) For the period from January 1, 2026 to December 31, 2026, 0.928%;

33 (13) For the period from January 1, 2027 to December 31, 2027, 1.118%;

34 (14) For the period from January 1, 2028 to December 31, 2028, 1.333%;

35 (15) For the period from January 1, 2029 to December 31, 2029, 1.572%;

36 (16) For the period from January 1, 2030 to December 31, 2030, 1.836%; and

1 (17) For the period from January 1, 2031 to December 31, 2031, 2%.

2 B. Qualifying solar electric generation resources used to satisfy the requirements of
3 paragraph A may also be used to satisfy the requirements of section 3210, subsection
4 3-A.

5 C. The commission shall adopt rules setting the minimum percentages of qualifying
6 solar electric generation required beginning January 1, 2032 and for each subsequent
7 year with rules going into effect no less than 2 years after adoption. These minimum
8 percentages must be no lower than those required during 2031 pursuant to paragraph
9 A, as adjusted pursuant to subsection 5.

10 **3. Compliance.** A competitive electricity provider may demonstrate compliance
11 with the solar set-aside under subsection 2 using solar renewable energy credits or direct
12 supply of qualifying solar electric generation or through a solar alternative compliance
13 payment.

14 **4. Solar renewable energy credits.** In carrying out this section, the commission
15 shall take account of solar electric generation investors' need for a predictable market by:

16 A. Awarding long-term solar renewable energy credit contracts for qualifying solar
17 electric resources;

18 B. Allowing fractional solar renewable energy credits to carry over to the next
19 calendar year;

20 C. Promoting aggregation of fractional solar renewable energy credits; and

21 D. Adopting rules clarifying solar renewable energy credit ownership.

22 **5. Cap on solar incentives; suspension of requirements.** Caps on the total cost of
23 solar incentives, resulting in the suspension of scheduled increases in solar set-aside
24 requirements under subsection 2, are governed by this subsection.

25 A. If the commission determines that the total cost of solar incentives for a calendar
26 year exceeds 1% of the total retail cost of electricity for that year, then the percentage
27 of solar electric generation required under subsection 2, paragraph A for the calendar
28 year in which the commission makes its determination continues to be the percentage
29 required in each subsequent year until the limitation ends pursuant to paragraph B.

30 B. If the limitation in paragraph A is triggered, the limitation ends after the
31 commission determines that the total cost of solar incentives for a calendar year did
32 not exceed 1% of the total retail cost of electricity for that year.

33 C. For the next calendar year after the limitation ends under paragraph B, the
34 percentage of qualifying solar electric generation required is the percentage in
35 subsection 2, paragraph A for the calendar year immediately following the reporting
36 year in which the limitation was triggered. Thereafter, the percentage of solar electric
37 generation increases each reporting year as set out in subsection 2, paragraph A until
38 it reaches 2% or the greatest percentage adopted under subsection 2, paragraph C.

39 **6. Solar alternative compliance payment.** The commission shall allow a
40 competitive electricity provider to satisfy the solar set-aside requirements under

1 subsection 2 through a solar alternative compliance payment mechanism pursuant to this
2 subsection.

3 A. To comply with this subsection, a competitive electricity provider shall submit to
4 the commission one solar alternative compliance payment for each megawatt-hour of
5 qualifying solar electric generation required.

6 B. The commission shall collect solar alternative compliance payments and shall
7 deposit all funds collected under this subsection in the solar and wind energy rebate
8 program fund established pursuant to section 10112-A.

9 C. For 2015, the solar alternative compliance payment is 200% of the average
10 market value of solar renewable energy credits sold during that year. The ratio of the
11 solar alternative compliance payment to the average market value of solar renewable
12 energy credits sold during a calendar year must decrease 8 percentage points each
13 subsequent year, until 2025, when the solar alternative compliance payment is 120%
14 of the average market value of solar renewable energy credits sold in that calendar
15 year.

16 D. The commission shall adopt rules setting the solar alternative compliance
17 payment beginning January 1, 2026 and for each subsequent year, but in no event
18 may the solar alternative compliance payment be higher than 120% of the average
19 market value of solar renewable energy credits sold during the previous calendar
20 year.

21 E. By February 1st of each year, the commission shall release an updated study of
22 the State's solar energy market and shall identify any needed changes to the cost
23 associated with the solar alternative compliance payment.

24 7. Rules. Rules adopted to implement this section are routine technical rules as
25 defined in Title 5, chapter 375, subchapter 2-A.

26 **Sec. 6. 35-A MRSA §10112-A** is enacted to read:

27 **§10112-A. Solar and wind energy rebate program**

28 **1. Definitions.** As used in this section, unless the context otherwise indicates, the
29 following terms have the following meanings.

30 A. "Qualified solar energy system" means a solar photovoltaic system or a solar
31 thermal system.

32 B. "Qualified solar thermal water system installer" means a person who has been
33 certified by the trust to install solar thermal systems designed to heat water and who
34 holds a current license from the State as a master plumber, as a master oil burner
35 technician or as a propane and natural gas technician or has been certified as a type II,
36 type III or universal heating, ventilation and air conditioning refrigeration technician
37 through a certification program approved by the United States Environmental
38 Protection Agency.

39 C. "Qualified wind energy system" means any device, such as a wind charger,
40 windmill or wind turbine and associated facilities, with a peak generating capacity of

1 100 kilowatts or less that converts wind energy to electrical energy for use primarily
2 in a residence, public facility or place of business that is located in an area with
3 demonstrated wind power potential.

4 D. "Solar photovoltaic system" means a solar energy device with a peak generating
5 capacity of 100 kilowatts or less used for generating electricity for use in a residence
6 or place of business.

7 E. "Solar thermal system" means a configuration of solar collectors and a pump, heat
8 exchanger and storage tank or fans designed to heat water or air for the purpose of
9 space heating, domestic water heating or both space and domestic water heating.
10 Solar thermal system types include, but are not limited to, forced circulation, integral
11 collector storage, thermosyphon and self-pumping systems.

12 The trust may by rule expand the definitions in paragraphs A, C, D and E to
13 accommodate changes in technology and if statutory changes are needed shall notify the
14 joint standing committee of the Legislature having jurisdiction over energy, utilities and
15 technology matters.

16 **2. Solar and wind energy rebate program.** To the extent that funds are available
17 in the fund established in subsection 6 and the requirements of subsection 4 are satisfied,
18 an owner or tenant of residential or commercial property located in the State is entitled to
19 a rebate for a qualified solar energy system or qualified wind energy system that is
20 installed in accordance with this subsection after January 1, 2012 and that will be
21 connected to the electrical grid. The trust shall set rebate levels for qualified solar energy
22 systems and qualified wind energy systems. In setting rebate levels, the trust may
23 consider market demand for qualified solar energy systems and qualified wind energy
24 systems, program implementation experience and other factors relevant to the solar and
25 wind energy rebate program.

26 A. To qualify for a rebate, a solar photovoltaic system must be installed by a master
27 electrician who has been certified by a North American board of certified energy
28 practitioners or by a master electrician working in conjunction with a person who has
29 been certified by a North American board of certified energy practitioners.

30 B. To qualify for a rebate, a solar thermal system designed to heat water must be
31 installed by a qualified solar thermal water system installer and, if the solar thermal
32 system is designed to heat potable water, it must be installed by a qualified solar
33 thermal water system installer who holds a current license as a master plumber or by
34 a qualified solar thermal water system installer working in conjunction with a master
35 plumber.

36 C. To qualify for a rebate, the electrical components of a qualified wind energy
37 system must be installed by a master electrician or by a factory-trained and approved
38 dealer for the qualified wind energy system working under the supervision of a
39 master electrician.

40 In the case of a newly constructed residence, the rebate must be available to the original
41 owner or occupant.

42 **3. Solar rebate amounts.** The rebate for a qualified solar energy system under this
43 section may be no less than 50% of the installed cost of qualified solar energy systems

1 with 15 kilowatts or less of installed capacity. The rebate may be no less than 25% of the
2 installed cost of qualified solar energy systems with greater than 15 kilowatts of installed
3 capacity. The trust may amend the solar rebate amounts by rule. In amending rebate
4 amounts, the trust shall consider market demand for qualified solar energy systems,
5 program implementation experience and other factors relevant to the solar energy rebate
6 program.

7 **4. Energy audit requirement; solar photovoltaic system.** To qualify for a rebate
8 for a solar photovoltaic system under this section, an owner or tenant of residential or
9 commercial property located in the State must demonstrate to the satisfaction of the trust
10 that an energy audit has been completed.

11 **5. Limitation to residents of State.** Participation in the solar and wind energy
12 rebate program established in this section is limited to residents of the State.

13 **6. Funding.** The commission shall assess transmission and distribution utilities to
14 collect funds for the solar and wind energy rebate program established in this section.
15 The amount of all assessments by the commission under this subsection must result in
16 total program expenditures by each transmission and distribution utility that do not
17 exceed .02 cent per kilowatt-hour. To the extent practicable, the commission shall
18 establish and collect the assessment in a manner that is consistent with the assessment
19 made under section 10110.

20 **7. Fund established.** There is established a solar and wind energy rebate program
21 fund to be used by the trust solely for the purposes of this section. All assessments made
22 under this section must be transferred to the solar and wind energy rebate program fund.
23 Any interest on funds in the fund must be credited to the fund. Funds not spent in any
24 fiscal year remain in the fund to be used for the purposes of this section. The trust shall
25 determine the allotment of the fund in each fiscal year between solar photovoltaic system
26 rebates, solar thermal system rebates and qualified wind energy system rebates. A
27 maximum of 5% of the fund may be allotted to wind energy system rebates, and a
28 minimum of 50% of the fund must be provided to solar photovoltaic system rebates.

29 SUMMARY

30 This bill promotes development of Maine's solar industry. It requires the Maine
31 Uniform Building and Energy Code to include standards for solar installations in new and
32 existing buildings, and requires the Technical Building Codes and Standards Board to
33 adopt a model municipal ordinance for solar permitting. The bill also creates a solar set-
34 aside within Maine's existing renewable portfolio standard. The bill also revives the solar
35 and wind energy rebate program.