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Legislative Document

No. 1494

S.P. 457

In Senate, April 4, 2019

An Act To Reform Maine's Renewable Portfolio Standard

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

DAREK M. GRANT Secretary of the Senate

Presented by Senator VITELLI of Sagadahoc.
Cosponsored by Representative PLUECKER of Warren and
Senators: BREEN of Cumberland, CARPENTER of Aroostook, CHIPMAN of Cumberland,
MILLETT of Cumberland, POULIOT of Kennebec, SANBORN, H. of Cumberland,
SANBORN, L. of Cumberland, WOODSOME of York.

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

Sec. 1. 35-A MRSA §3210, as amended by PL 2017, c. 291, §1, is further amended to read:

§3210. Renewable resources

- 1. Policy. In order to ensure an adequate and reliable supply of electricity for Maine residents and to encourage the use of renewable, efficient and indigenous resources, it is the policy of this State to encourage the generation of electricity from renewable and efficient sources and to diversify electricity production on which residents of this State rely in a manner consistent with this section.
- **2. Definitions.** As used in this section, unless the context otherwise indicates, the following terms have the following meanings.
 - A. "Efficient resource" means a source of electrical generation that:
 - (1) Qualifies as a qualifying cogeneration facility under the Federal Energy Regulatory Commission rules, 18 Code of Federal Regulations, Part 292, Subpart B, as in effect on January 1, 1997, was constructed prior to January 1, 1997 and meets the following efficiency standard:
 - (a) During any calendar year, the sum of the useful power output and the useful thermal energy output of the facility is no less than 60% of the total energy input to the facility.

For purposes of this paragraph, the term "useful power output" means the electrical or mechanical energy made available for use, exclusive of any energy used in the power production process. For purposes of this paragraph, the term "useful thermal energy" means thermal heat energy made available to an industrial or commercial process, net of any heat contained in condensate return and makeup water, used in a heating application or used in a space cooling application.

- A-1. "Alternative compliance payment rate" means a certain dollar amount per kilowatt-hour set by the commission that a competitive electricity provider may pay to the commission to satisfy the portfolio requirements of subsection 3-A.
- B. "Eligible resource" means a source of electrical generation that:
 - (1) Generates power that can physically be delivered to the control region in which the New England Power Pool, or its successor as approved by the Federal Energy Regulatory Commission, has authority over transmission, or to the Maritimes Control Area; and
 - (2) Is either a renewable resource or an efficient resource.
- B-2. "Renewable energy credit" means a tradable instrument that represents an amount of electricity generated from eligible resources or renewable capacity resources.
- B-3. "Renewable capacity resource" means a source of electrical generation:

1 2	(1) Whose total power production capacity does not exceed 100 megawatts and relies on one or more of the following:
3	(a) Fuel cells;
4	(b) Tidal power;
5	(c) Solar arrays and installations;
6	(d) Geothermal installations;
7 8	(e) Hydroelectric generators that meet all state and federal fish passage requirements applicable to the generator;
9 10	(f) Biomass generators that are fueled by wood, wood waste or landfill gas; or
11 12	(g) Anaerobic digestion of by-products of waste from animals or agricultural crops, food or vegetative material, algae or organic refuse; or
13	(2) That relies on wind power installations or solar power installations.
14 15 16	B-4. "New" as applied to any a renewable capacity resource that is a hydroelectric generator means qualified hydroelectric output only. "New" as applied to any other renewable capacity resource means a renewable capacity resource that:
17	(1) Has an in-service date after September 1, 2005;
18	(2) Was added to an existing facility after September 1, 2005;
19 20 21 22	(3) For at least 2 years was not operated or was not recognized by the New England independent system operator as a capacity resource and, after September 1, 2005 but before September 1, 2019, resumed operation or was recognized by the New England independent system operator as a capacity resource; or
23 24 25 26	(4) Was refurbished after September 1, 2005 and is operating beyond its previous useful life or is employing an alternate technology that significantly increases the efficiency of the generation process. Received certification from the commission:
27 28 29	(a) Before September 1, 2019 that it is operating beyond its previous useful life or employing an alternate technology that significantly increases the efficiency of the generation process; or
30 31 32 33	(b) On or after September 1, 2019 that it is operating beyond its previous useful life as evidenced by a finding that the facility would be reasonably likely to cease operation if not for substantial capital investment made after September 1, 2018.
34 35 36 37 38	For the purposes of this paragraph, "capacity resource" has the same meaning as in section 3210-C, subsection 1, paragraph A. For the purposes of this paragraph, "to refurbish" means to make an investment in equipment or facilities, other than for routine maintenance and repair, to renovate, reequip or restore the renewable capacity resource.

1	B-5. "Qualified hydroelectric output" means the following annual percentages of the
2	total electrical output of a hydroelectric generator licensed by the Federal Energy Regulatory Commission that is a renewable capacity resource and that on January 1,
3 4	2019 had a total nameplate capacity of at least 25 megawatts, as specified in the
5	license issued by the Federal Energy Regulatory Commission, is located outside of
6	the critical habitat designated for the Gulf of Maine distinct population segment of
7	Atlantic salmon by the National Oceanic and Atmospheric Administration, National
8	Marine Fisheries Service in 74 Federal Register, 29299 (2009), and is interconnected
9	to an electric distribution system located in the State:
10	(1) In 2020, 40%;
11	(2) In 2021, 50%;
12	(3) In 2022, 60%;
13	(4) In 2023, 70%;
14	(5) In 2024, 80%;
15	(6) In 2025, 90%; and
16	(7) In 2026 and each year thereafter, 100%.
17	C. "Renewable resource" means a source of electrical generation:
18	(1) That qualifies as a small power production facility under the Federal Energy
19	Regulatory Commission rules, 18 Code of Federal Regulations, Part 292, Subpart
20	B, as in effect on January 1, 1997; or
21 22	(2) Whose total power production capacity does not exceed 100 megawatts and that relies on one or more of the following:
23	(a) Fuel cells;
24	(b) Tidal power;
25	(c) Solar arrays and installations;
26	(d) Wind power installations;
27	(e) Geothermal installations;
28	(f) Hydroelectric generators;
29 30	(g) Biomass generators that are fueled by wood or wood waste, landfill gas or anaerobic digestion of agricultural products, by-products or wastes; or
31	(h) Generators fueled by municipal solid waste in conjunction with
32	recycling.
33	D. "Thermal energy" means heat, steam, hot water or another form of thermal
34	energy:
35 36	(1) Generated by a new renewable capacity resource that begins operation after June 30, 2019, as certified by the commission;
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37 38	(2) Delivered to an end user in the State in a manner that can be verified by metering or other means certified by the commission;

(3) Used for heating, cooling, humidity control, process use or other end use to 1 2 meet a need of the end user that would otherwise be met using another energy source such as electricity or an on-site thermal energy system; and 3 (4) Generated or delivered in accordance with any efficiency performance 4 standards established by the commission. 5 E. "Thermal renewable energy credit" means a tradable instrument that represents an 6 amount of thermal energy equivalent to a unit of electricity. A thermal renewable 7 8 energy credit of one megawatt represents 3,412,000 British thermal units of thermal energy, as verified by the commission. 9 The commission shall establish by rule or order standards and procedures necessary to 10 11 implement any definition under this subsection, including but not limited to certifications and performance and verification standards necessary for purposes of paragraphs B-4, D 12 and E. Rules adopted under this subsection are routine technical rules pursuant to Title 5, 13 14 chapter 375, subchapter 2-A. **3. Portfolio requirements.** As a condition of licensing pursuant to section 3203, 15 each competitive electricity provider in this State must demonstrate in a manner 16 satisfactory to the commission that no less than 30% of its portfolio of supply sources for 17 retail electricity sales in this State is accounted for by eligible resources. If a competitive 18 19 electricity provider represents to a customer that the provider is selling to the customer a portfolio of supply sources that includes more than 30% eligible resources, the resources 20 necessary to supply more than 30% of that customer's load may not be applied to meet the 21 aggregate 30% portfolio requirement. Rules adopted under this subsection are major 22 substantive rules pursuant to Title 5, chapter 375, subchapter H-A 2-A. 23 24 Portfolio requirements; new renewable capacity resources. Portfolio 25 requirements for new renewable capacity resources are governed by this subsection. A. Except as provided in paragraph B, beginning January 1, 2008, as a condition of 26 licensing pursuant to section 3203, each competitive electricity provider in this State 27 must demonstrate in a manner satisfactory to the commission that the percentage of 28 its portfolio of supply sources for retail electricity sales in this State accounted for by 29 new renewable capacity resources is as follows: 30 31 (1) One percent for the period from January 1, 2008 to December 31, 2008; (2) Two percent for the period from January 1, 2009 to December 31, 2009; 32 33 (3) Three percent for the period from January 1, 2010 to December 31, 2010; 34 (4) Four percent for the period from January 1, 2011 to December 31, 2011; (5) Five percent for the period from January 1, 2012 to December 31, 2012; 35 (6) Six percent for the period from January 1, 2013 to December 31, 2013; 36 37 (7) Seven percent for the period from January 1, 2014 to December 31, 2014;

38 39 (8) Eight percent for the period from January 1, 2015 to December 31, 2015;

(9) Nine percent for the period from January 1, 2016 to December 31, 2016; and

(10) Ten percent for the period from January 1, 2017 to December 31, 2022. 1 2 2019; 3 (11) Fourteen percent for the period from January 1, 2020 to December 31, 4 2020: 5 (12) Seventeen percent for the period from January 1, 2021 to December 31, 2021: 6 (13) Twenty percent for the period from January 1, 2022 to December 31, 2022; (14) Twenty-three percent for the period from January 1, 2023 to December 31, 8 2023: 9 10 (15) Twenty-six percent for the period from January 1, 2024 to December 31, 2024; 11 (16) Twenty-nine percent for the period from January 1, 2025 to December 31, 12 2025: 13 (17) Thirty-three percent for the period from January 1, 2026 to December 31, 14 15 2026; 16 (18) Thirty-seven percent for the period from January 1, 2027 to December 31, 2027; 17 (19) Forty-one percent for the period from January 1, 2028 to December 31, 18 19 2028; (20) Forty-five percent for the period from January 1, 2029 to December 31, 20 2029: and 21 (21) Fifty percent for the period from January 1, 2030 to December 31, 2030 and 22 each year thereafter. 23 24 New renewable capacity resources used to satisfy the requirements of this paragraph 25 may not be used to satisfy the requirements of subsection 3. B. Suspensions of scheduled increases in the portfolio requirements as provided in 26 paragraph A are governed by this paragraph. 27 (1) If by March 31st of the years 2010, 2012, 2014 and 2016 the commission 28 determines that investment in new renewable capacity resources in the preceding 29 2 calendar years has not been sufficient for competitive electricity providers to 30 31 meet the portfolio requirements under paragraph A and that the resulting use of renewable energy credits pursuant to subsection 8 or the alternative compliance 32 payment mechanism pursuant to subsection 9, or both of these methods, has 33 34 burdened electricity customers in the State without providing the benefits of new renewable capacity resources, the commission may suspend all or some of the 35 future scheduled increases in the portfolio requirements under paragraph A. 36 37 (2) If the commission finds that alternative compliance payments are made pursuant to subsection 9 in 3 consecutive calendar years, the commission shall 38 temporarily suspend all or some of the future scheduled increases in the portfolio 39 40 requirements under paragraph A.

- (3) If the commission suspends any scheduled increases in the portfolio requirements under paragraph A pursuant to subparagraph (1) or (2), the commission may resume increases, limited to no more than one percentage point per year over the previous year, in the portfolio requirements after a minimum of one year.
 - C. No later than March 31, 2008 and annually thereafter, the commission shall submit a report regarding the status of new renewable capacity resources in the State and compliance with the portfolio requirements under paragraph A to the joint standing committee of the Legislature having jurisdiction over utilities and energy matters. The report must include, but is not limited to, a description of new renewable capacity resources available to meet the portfolio requirements under paragraph A, documentation of the loss of any existing renewable generation capacity in the State, the status of implementation of the new renewable capacity resources portfolio requirements under paragraph A, including any suspensions pursuant to paragraph B, and recommendations to stimulate investment in new renewable capacity resources. If the commission has reliable information about benefits and costs of the portfolio requirements under paragraph A, over both the short and long terms with respect to the State's economy, environmental quality or electricity consumers, the commission shall include that information in the report.
 - D. Retail electricity sales pursuant to a supply contract or standard-offer service arrangement executed by a competitive electricity provider that is in effect on the effective date of this subsection is exempt from the requirements of this subsection until the end date of the current term of the supply contract or standard-offer service arrangement.
 - The commission shall adopt rules to implement this subsection. Rules adopted under this subsection are routine technical rules pursuant to Title 5, chapter 375, subchapter 2-A.
- 3-B. Portfolio requirements; thermal renewable energy credits. Each competitive electricity provider must, in addition to meeting the other portfolio requirements of subsections 3 and 3-A, demonstrate in a manner satisfactory to the commission that it has purchased thermal renewable energy credits in an amount at least equal to the following percentages of its portfolio of supply sources for retail electricity sales in this State:
- A. For calendar year 2020, 0.4%;
- 34 B. For calendar year 2021, 0.8%;

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- 35 C. For calendar year 2022, 1.2%;
- 36 D. For calendar year 2023, 1.6%;
- 37 E. For calendar year 2024, 2%;
- 38 F. For calendar year 2025, 2.4%;
- 39 G. For calendar year 2026, 2.8%;
- 40 H. For calendar year 2027, 3.2%;
- 41 I. For calendar year 2028, 3.6%; and

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- 4. Report. In view of property tax benefits, developments in other states and the development of a market for tradable credits for satisfying eligible resource requirements, the commission shall review the 30% portfolio requirement and make a recommendation for any change to the joint standing committee of the Legislature having jurisdiction over utilities and energy matters no later than 5 years after the beginning of retail competition.
- 7. **Information.** To the extent that funding is available, the commission shall inform electricity consumers in this State of the benefits of electricity generated in this State using renewable resources and of the opportunities available in this State to purchase electricity that is generated using those resources, including, but not limited to, the green power offer and other green power supply products and renewable energy credit products certified under section 3212-A. The commission may not promote any renewable resources over others. The commission may apply for, receive and expend grant money from the United States Department of Energy and other government agencies for this purpose. The commission may create or cause to be created a brand or logo to identify Maine renewable resources, including the green power offer and other green power supply products and renewable energy credit products certified under section 3212-A, to consumers. The commission shall register any mark or logo created pursuant to this subsection with the United States Patent and Trademark Office or in accordance with Title 10, chapter 301-A, or both. Any brand or logo created pursuant to this subsection may only be used in accordance with the purposes of this subsection as approved by the commission.
- **8.** Credit trading. The commission shall allow competitive electricity providers to satisfy the portfolio requirements of subsections 3 and 3-A through the use of renewable energy credits if the commission determines that a reliable system of electrical attribute trading exists. When renewable energy credits are used to satisfy the portfolio requirements of subsections 3 and 3-A, the value of a renewable energy credit for electricity generated by a community-based renewable energy project, as defined in section 3602, that is participating in the community-based renewable energy pilot program established in section 3603 and elects the renewable energy credit multiplier under section 3605 is 150% of the amount of the electricity.
- 9. Alternative compliance payment; portfolio requirements for new renewable capacity resources. The commission shall allow competitive electricity providers to satisfy the portfolio requirements for new renewable capacity resources under subsection 3-A through an alternative compliance payment mechanism in accordance with this subsection
 - A. The commission shall set the alternative compliance payment rate by rule and shall publish the alternative compliance payment rate by January 31st of each year. In setting the rate, the commission shall take into account prevailing market prices, standard-offer service prices for electricity, reliance on alternative compliance payments to meet the requirements of subsection 3-A and investment in new renewable capacity resources in the State during the previous calendar year.

B. The commission shall collect alternative compliance payments made by competitive electricity providers and shall deposit all funds collected under this paragraph in the Energy Efficiency and Renewable Resource Fund established under section 10121, subsection 2 to be used to fund research, development and demonstration projects relating to renewable energy technologies and to fund rebates for cost-effective renewable energy technologies.

The commission shall adopt rules to implement this subsection. Rules adopted under this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

Sec. 2. 35-A MRSA §3210-G is enacted to read:

§3210-G. Renewable portfolio standard procurement

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 The commission shall direct investor-owned transmission and distribution utilities to enter into one or more contracts for energy or renewable energy credits from new renewable capacity resources in accordance with this section. For purposes of this section, "new renewable capacity resource" and "renewable energy credit" have the same meanings as in section 3210.

- 1. Competitive procurement. The commission shall conduct competitive solicitations in order to choose new renewable capacity resources for contracts under this section.
 - A. Beginning in 2019, the commission shall conduct competitive solicitations under this section for an amount of energy or renewable energy credits from new renewable capacity resources in each calendar year that is at least equal to 1/2 of the total portfolio of new renewable capacity resources required in that year under section 3210, subsection 3-A, as determined by the commission.
 - B. To the extent sufficient resources are available, 75% of the energy or renewable energy credits contracted under this section must come from new renewable capacity resources that begin commercial operations after June 30, 2019 and 25% must come from new renewable capacity resources that began commercial operations on or prior to June 30, 2019. The first competitive solicitation for energy or renewable energy credits from new renewable capacity resources that began commercial operations on or prior to June 30, 2019 must occur within 3 months of the effective date of this paragraph. Competitive solicitations for energy or renewable energy credits from new renewable capacity resources that begin commercial operations after June 30, 2019 must occur at least 3 times before January 1, 2024, unless the 75% requirement under this paragraph is met through fewer solicitations.
 - C. In conducting a solicitation and choosing new renewable capacity resources for contracts under this section, the commission shall weigh for each new renewable capacity resource the benefits to ratepayers and the benefits to the State's economy as follows:
 - (1) A weight of 70% must be given to the benefits to ratepayers; and
 - (2) A weight of 30% must be given to benefits to the economy, which may include, but are not limited to:

1	(a) Capital investments by the new renewable capacity resource to improve
2	long-term viability of an existing facility;
3	(b) Payments by the new renewable capacity resource for the harvest of
4	wood fuel;
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5	(c) Employment resulting from the new renewable capacity resource;
6	(d) Payments by the new renewable capacity resource to a host community,
7	whether or not required by law or rule;
8	(e) Excise, income, property and sales taxes paid by the new renewable
9	capacity resource;
10	(f) Purchases of goods and services by the new renewable capacity resource;
11	and
	
12 13	(g) Avoided emissions resulting from the operation of the new renewable capacity resource.
13	capacity resource.
14	2. Contract terms. A contract entered into pursuant to this section must be for a
15	term of 20 years, unless the commission finds a contract for a longer term to be prudent.
16	If a new renewable capacity resource offers to sell capacity, the commission may allow a
17	contract with that resource to include the purchase of such capacity, but the commission
18	may not require any new renewable capacity resource to offer or sell capacity in order to
19	participate in any solicitation or contract under this section.
20	3. Report. No later than March 31, 2023 and biennially thereafter, the commission
21	shall submit a report regarding the status of contracts for new renewable capacity
22	resources under this section to the joint standing committee of the Legislature having
23	jurisdiction over utilities and energy matters. The report must include, but is not limited
24	to, a description of new renewable capacity resources participating in competitive
25	solicitations, information about the resources selected for contracts and the selection
26	process, the benefits and costs of the contracts and recommendations about how to further
27	stimulate investment in new renewable capacity resources or achieve ratepayer benefits
28	from new renewable capacity resources. The report may include information about
29	benefits and costs of the contracts to the State's economy, environmental quality or
30	electricity consumers over both the short and long terms. Any analysis of the benefits or
31	costs of the contracts must be based on a forecast of all avoided costs resulting from the
32	contracts that is transparent and balanced over the long term.
33	SUMMARY
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This bill increases the percentage of supply sources for retail electricity sales in the State that must be accounted for by new renewable capacity resources from 10% to 50% by 2030. It also makes several changes to resource eligibility to meet these requirements. The bill also creates a renewable portfolio standard for thermal energy resources.

 The bill also directs the Public Utilities Commission to procure long-term contracts for an amount of renewable capacity resources that is equal to 1/2 the amount of the

- portfolio requirements for these resources. The bill requires the commission to conduct annual competitive solicitations for the long-term contracts. 1
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