THE GENERAL ASSEMBLY OF PENNSYLVANIA

SENATE BILL

No. 600

Session of 2019

INTRODUCED BY HAYWOOD, KILLION, SANTARSIERO, LEACH, FARNESE, HUGHES, SCHWANK, COSTA, COLLETT, FONTANA, TARTAGLIONE, KEARNEY, BLAKE, MUTH, STREET, A. WILLIAMS, SABATINA AND DINNIMAN, APRIL 29, 2019

REFERRED TO CONSUMER PROTECTION AND PROFESSIONAL LICENSURE, APRIL 29, 2019

AN ACT

- Amending the act of November 30, 2004 (P.L.1672, No.213), entitled, "An act providing for the sale of electric energy 2 generated from renewable and environmentally beneficial 3 sources, for the acquisition of electric energy generated 4 from renewable and environmentally beneficial sources by 5 electric distribution and supply companies and for the powers 6 and duties of the Pennsylvania Public Utility Commission," further providing for definitions and for alternative energy 8 portfolio standards, providing for solar photovoltaic 9 technology requirements, for contract requirements for solar 10 photovoltaic energy system sources, for renewable energy 11 storage report, for energy storage deployment targets and for 12 contracts for solar photovoltaic technologies by Commonwealth 13 agencies and further providing for portfolio requirements in other states; and making a related repeal. 14 15
- 16 The General Assembly of the Commonwealth of Pennsylvania
- 17 hereby enacts as follows:
- 18 Section 1. The definition of "reporting period" in section 2
- 19 of the act of November 30, 2004 (P.L.1672, No.213), known as the
- 20 Alternative Energy Portfolio Standards Act, is amended and the
- 21 section is amended by adding definitions to read:
- 22 Section 2. Definitions.
- 23 The following words and phrases when used in this act shall

- 1 have the meanings given to them in this section unless the
- 2 context clearly indicates otherwise:
- 3 * * *
- 4 "Deploy" or "deployment." To install a renewable energy
- 5 storage system through a variety of mechanisms, including
- 6 <u>utility procurement, customer installation methods or other</u>
- 7 processes.
- 8 * * *
- 9 <u>"Renewable energy storage system." A commercially available</u>
- 10 technology, including, but not limited to, any electrochemical,
- 11 thermal and electromechanical technology, that is capable of
- 12 <u>absorbing and storing electrical energy for a period of time for</u>
- 13 use at a later time, with all of the following characteristics:
- 14 (1) The system is co-located behind the meter with a
- Tier I alternative energy source or behind the point of
- interconnection of a Tier I alternative energy source.
- 17 (2) The system is owned or operated by any of the
- 18 <u>following:</u>
- (i) A customer-generator.
- 20 (ii) An electric generation supplier.
- 21 (iii) An electric distribution company.
- 22 (iv) A third party that is jointly owned by two or
- 23 <u>more entities specified under subparagraphs (i), (ii) and</u>
- 24 <u>(iii)</u>.
- 25 (3) The system is able to demonstrate that the energy
- the system discharges at all hours in a given reporting year
- 27 <u>comes from the storage of electrical energy produced by the</u>
- 28 co-located Tier I alternative energy source.
- 29 ["Reporting period."] "Reporting period or reporting year."
- 30 The 12-month period from June 1 through May 31. A reporting year

1 shall be numbered according to the calendar year in which it

2 begins and ends.

3 * * *

4 Section 2. Section 3(a)(3), (b), (f) and (g)(2) of the act

5 are amended and the section is amended by adding a subsection to

6 read:

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

- 7 Section 3. Alternative energy portfolio standards.
- 8 (a) General compliance and cost recovery.--

9 * * *

- (3) All costs for:
 - (i) the purchase of electricity generated from alternative energy sources, including the costs of the regional transmission organization, in excess of the regional transmission organization real-time locational marginal pricing, or its successor, at the delivery point of the alternative energy source for the electrical production of the alternative energy sources; and
 - (ii) payments for alternative energy credits, in both cases that are voluntarily acquired by an electric distribution company during the cost recovery period on behalf of its customers shall be deferred as a regulatory asset by the electric distribution company and fully recovered, with a return on the unamortized balance, pursuant to an automatic energy adjustment clause under 66 Pa.C.S. § 1307 (relating to sliding scale of rates; adjustments) as a cost of generation supply under 66 Pa.C.S. § 2807 (relating to duties of electric distribution companies) in the first year after the expiration of its cost-recovery period. After the cost-recovery period, any direct or indirect costs for the

1 purchase by electric distribution companies of resources 2 to comply with this section, including, but not limited 3 to, the purchase of electricity generated from alternative energy sources, payments for alternative 4 5 energy credits, cost of credits banked, payments to any 6 third party administrators for performance under this act 7 and costs levied by a regional transmission organization 8 to ensure that alternative energy sources are reliable, 9 shall be recovered on a full and current basis pursuant 10 to an automatic energy adjustment clause under 66 Pa.C.S. 11 § 1307 as a cost of generation supply under 66 Pa.C.S. § 12 2807.

- 13 (b) Tier I and solar photovoltaic shares <u>through the 15th</u>
 14 <u>reporting year.--</u>
- 15 Two years after the effective date of this act, at 16 least 1.5% of the electric energy sold by an electric 17 distribution company or electric generation supplier to 18 retail electric customers in this Commonwealth shall be 19 generated from Tier I alternative energy sources. Except as 20 provided in this section, the minimum percentage of electric 21 energy required to be sold to retail electric customers from 22 alternative energy sources shall increase to 2% three years 23 after the effective date of this act. The minimum percentage 24 of electric energy required to be sold to retail electric 25 customers from alternative energy sources shall increase by 26 at least 0.5% each year so that at least 8% of the electric 27 energy sold by an electric distribution company or electric 28 generation supplier to retail electric customers in that 29 certificated territory in the 15th reporting year after the effective date of this subsection is sold from Tier I 30

- 1 alternative energy resources.
- 2 (2) [The] Through the 15th reporting year ending May 31,
- 3 <u>2021, the</u> total percentage of the electric energy sold by an
- 4 electric distribution company or electric generation supplier
- 5 to retail electric customers in this Commonwealth that must
- 6 be sold from solar photovoltaic technologies is:
- 7 (i) 0.0013% for June 1, 2006, through May 31, 2007.
- 8 (ii) 0.0030% for June 1, 2007, through May 31, 2008.
- 9 (iii) 0.0063% for June 1, 2008, through May 31,
- 10 2009.
- 11 (iv) 0.0120% for June 1, 2009, through May 31, 2010.
- 12 (v) 0.0203% for June 1, 2010, through May 31, 2011.
- 13 (vi) 0.0325% for June 1, 2011, through May 31, 2012.
- 14 (vii) 0.0510% for June 1, 2012, through May 31,
- 15 2013.
- 16 (viii) 0.0840% for June 1, 2013, through May 31,
- 17 2014.
- 18 (ix) 0.1440% for June 1, 2014, through May 31, 2015.
- 19 (x) 0.2500% for June 1, 2015, through May 31, 2016.
- 20 (xi) 0.2933% for June 1, 2016, through May 31, 2017.
- (xii) 0.3400% for June 1, 2017, through May 31,
- 22 2018.
- 23 (xiii) 0.3900% for June 1, 2018, through May 31,
- 24 2019.
- 25 (xiv) 0.4433% for June 1, 2019, through May 31,
- 26 2020.
- 27 (xv) 0.5000% for June 1, 2020, [and thereafter.]
- 28 through May 31, 2021.
- 29 (3) Upon commencement of the beginning of the 6th
- 30 reporting year, the commission shall undertake a review of

Τ	the compliance by electric distribution companies and
2	electric generation suppliers with the requirements of this
3	act. The review shall also include the status of alternative
4	energy technologies within this Commonwealth and the capacity
5	to add additional alternative energy resources. [The
6	commission shall use the results of this review to recommend
7	to the General Assembly additional compliance goals beyond
8	year 15.] The commission shall work with the department in
9	evaluating the future alternative energy resource potential.
10	(b.1) Tier I and solar photovoltaic shares beginning in the
11	16th reporting year
L2	(1) Each electric distribution company and electric
13	generation supplier shall purchase, at a minimum, an amount
14	of Tier I alternative energy credits equal to the percentage
15	of electric energy required to be sold by an electric
16	distribution company or electric generation supplier to
L 7	retail electric customers from Tier I alternative energy
18	sources for that reporting year and as provided under this
19	subsection. Beginning in the 16th reporting year commencing
20	on June 1, 2021, the minimum percentage of electric energy
21	required to be sold by an electric distribution company or
22	electric generation supplier to retail electric customers in
23	this Commonwealth from Tier I alternative energy sources for
24	<pre>each reporting year is:</pre>
25	(i) 10.444% for June 1, 2021, through May 31, 2022.
26	(ii) 12.888% for June 1, 2022, through May 31, 2023.
27	(iii) 15.332% for June 1, 2023, through May 31,
28	<u>2024.</u>
29	(iv) 17.776% for June 1, 2024, through May 31, 2025.
30	(v) 20.220% for June 1, 2025, through May 31, 2026.

1	(vi) 22.664% for June 1, 2026, through May 31, 2027.
2	(vii) 25.108% for June 1, 2027, through May 31,
3	<u>2028.</u>
4	(viii) 27.552% for June 1, 2028, through May 31,
5	<u>2029.</u>
6	(ix) 30% for June 1, 2029, through May 31, 2030, and
7	thereafter.
8	(2) (i) Beginning in the 16th reporting year commencing
9	on June 1, 2021, the minimum percentage of the electric
10	energy sold by an electric distribution company or
11	electric generation supplier to retail electric customers
12	in this Commonwealth that must be sold from solar
13	photovoltaic technologies that are owned and operated by
14	<pre>customer-generators is:</pre>
15	(A) 0.65% for June 1, 2021, through May 31,
16	<u>2022.</u>
17	(B) 0.82% for June 1, 2022, through May 31,
18	<u>2023.</u>
19	(C) 0.98% for June 1, 2023, through May 31,
20	<u> 2024.</u>
21	(D) 1.13% for June 1, 2024, through May 31,
22	<u>2025.</u>
23	(E) 1.30% for June 1, 2025, through May 31,
24	<u>2026.</u>
25	(F) 1.5% for June 1, 2026, through May 31, 2027.
26	(G) 1.78% for June 1, 2027, through May 31,
27	<u>2028.</u>
28	(H) 2.11% for June 1, 2028, through May 31,
29	<u>2029.</u>
30	(I) 2.5% for June 1, 2029, through May 31, 2030,

Τ	and thereafter.
2	(ii) For purposes of the requirements under
3	subparagraph (i), solar photovoltaic technologies that
4	are owned and operated by customer-generators shall
5	include any of the following:
6	(A) Solar photovoltaic technologies that were
7	certified before or on May 31, 2021, under subsection
8	(b)(2) and qualify to generate solar alternative
9	energy credits in accordance with section 3.1.
10	(B) Solar photovoltaic technologies that qualify
11	as customer-generators certified under subsection (b)
12	<u>(2).</u>
13	(3) Beginning in the 16th reporting year commencing on
14	June 1, 2021, and each reporting year thereafter, a solar
15	photovoltaic system that is certified before or on May 31,
16	2021, provided the system meets the requirements under
17	section 3.1, shall be included in the percentage of the
18	required solar photovoltaic energy systems owned and operated
19	by customer-generators under paragraph (2).
20	(4) A solar photovoltaic energy system owned and
21	operated by a customer-generator in accordance with paragraph
22	(2) shall remain eligible to receive solar alternative energy
23	credits for no more than 15 years beginning on June 1, 2021,
24	or 15 years beginning on the date of the solar photovoltaic
25	energy system's certification if the certification occurs
26	after June 1, 2021. Upon expiration of the 15-year period
27	specified under this paragraph, the solar photovoltaic energy
28	system shall be eligible for alternative energy credits
29	provided for Tier I alternative energy sources under
30	paragraph (1).

1	(5) Beginning in the 16th reporting year commencing on
2	June 1, 2021, the minimum percentage of the electric energy
3	sold by an electric distribution company or electric
4	generation supplier to retail electric customers in this
5	Commonwealth that must be sold from solar photovoltaic
6	technologies from non-customer-generators is:
7	(i) 0.94% for June 1, 2021, through May 31, 2022.
8	(ii) 1.88% for June 1, 2022, through May 31, 2023.
9	(iii) 2.81% for June 1, 2023, through May 31, 2024.
10	(iv) 3.75% for June 1, 2024, through May 31, 2025.
11	(v) 4.50% for June 1, 2025, through May 31, 2026.
12	(vi) 5.25% for June 1, 2026, through May 31, 2027.
13	(vii) 6.00% for June 1, 2027, through May 31, 2028.
14	(viii) 6.75% for June 1, 2028, through May 31, 2029.
15	(ix) 7.5% for June 1, 2029, through May 31, 2030,
16	and thereafter.
17	(6) No later than one year after the effective date of
18	this subsection, the commission shall establish regulations
19	to ensure diversification across all customer-generators
20	under paragraph (2), including, but not limited to, solar
21	photovoltaic systems that are interconnected at residential
22	or commercial locations or customer-generators whose systems
23	are for virtual meter aggregation.
24	(7) This subsection shall not apply to the certification
25	of a solar photovoltaic energy system with a contract for the
26	sale and purchase of alternative energy credits derived from
27	solar photovoltaic energy sources entered into before or on
28	May 31, 2021, provided that the system meets the requirements
29	under section 3.1.
30	(8) This subsection shall apply to a contract for the

- 1 sale and purchase of alternative energy credits derived from
- solar photovoltaic energy sources entered into or renewed for 2
- reporting years commencing after May 31, 2021. 3
- * * * 4

6

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

- 5 (f) Alternative compliance payment. --
- At the end of each program reporting year, the 7 program administrator shall provide a report to the commission and to each covered electric distribution company showing their status level of alternative energy acquisition.
 - The commission shall conduct a review of each determination made under subsections (b), (b.1) and (c). If, after notice and hearing, the commission determines that an electric distribution company or electric generation supplier has failed to comply with subsections (b), (b.1) and (c), the commission shall impose an alternative compliance payment on that <u>electric distribution</u> company or <u>electric generation</u> supplier.
 - (3) [The] Through May 31, 2021, the alternative compliance payment, with the exception of the solar photovoltaic share compliance requirement set forth in subsection (b)(2), shall be \$45 times the number of additional alternative energy credits needed in order to comply with subsection (b) or (c).
 - [The] Through May 31, 2021, the alternative compliance payment for the solar photovoltaic share required under subsection (b)(2) shall be 200% of the average market value of solar renewable energy credits sold during the reporting period within the service region of the regional transmission organization, including, where applicable, the levelized up-front rebates received by sellers of solar

1	[renewable] <u>alternative</u> energy credits in other jurisdictions
2	in the PJM Interconnection, L.L.C. transmission organization
3	(PJM) or its successor.
4	(4.1) Beginning June 1, 2021, the alternative compliance
5	payment, with the exception of the customer-generator solar
6	photovoltaic share compliance requirement specified under
7	subsection (b.1)(2), shall be \$45 multiplied by the number of
8	additional alternative energy credits needed in order to
9	comply with subsection (b.1) or (c).
10	(4.2) Beginning June 1, 2021, the alternative compliance
11	payment for the customer-generator solar photovoltaic share
12	compliance requirement specified under subsection (b.1)(2)
13	shall be as follows:
14	(i) An amount equal to the product of \$125
15	multiplied by the number of additional alternative energy
16	credits required to comply with subsection (b.1)(2) from
17	June 1, 2021, through May 31, 2026.
18	(ii) An amount equal to the product of \$100
19	multiplied by the number of additional alternative energy
20	credits required to comply with subsection (b.1)(2) from
21	June 1, 2026, through May 31, 2030.
22	(iii) Beginning with the reporting year commencing
23	on June 1, 2030, and each reporting year thereafter, the
24	alternative compliance payment required for solar
25	<pre>photovoltaic energy systems under subsection (b.1)(2)</pre>
26	shall decrease by \$5 from the previous reporting year
27	until the alternative compliance payment is
28	<u>\$45.</u>
29	(5) The commission shall establish a process to provide
30	for, at least annually, a review of the alternative energy

- 1 market within this Commonwealth and the service territories
- 2 of the regional transmission organizations that manage the
- 3 transmission system in any part of this Commonwealth. The
- 4 commission will use the results of this study to identify any
- 5 needed changes to the cost associated with the alternative
- 6 compliance payment program. If the commission finds that the
- 7 costs associated with the alternative compliance payment
- 8 program must be changed, the commission shall present these
- 9 findings to the General Assembly for legislative enactment.
- 10 (g) Transfer [to sustainable development funds] of
- 11 <u>alternative compliance payments.--</u>
- 12 * * *
- 13 (2) The alternative compliance payments shall be
- utilized solely for [projects] any of the following:
- 15 <u>(i) Projects</u> that will increase the amount of
- 16 electric energy generated from alternative energy
- 17 resources for purposes of compliance with subsections
- 18 (b), (b.1) and (c).
- 19 (ii) Workforce development programs to train workers
- in renewable energy industries.
- 21 * * *
- 22 Section 3. The act is amended by adding sections to read:
- 23 Section 3.1. Solar photovoltaic technology requirements.
- 24 (a) System requirements. -- Notwithstanding section 4, in
- 25 order to qualify as an alternative energy source eligible to
- 26 meet the solar photovoltaic share of the compliance requirements
- 27 under section 3, a solar photovoltaic system must do one of the
- 28 following:
- 29 (1) Directly deliver the electricity that the solar
- 30 photovoltaic system generates to a retail customer of an

1	electric distribution company or to the distribution system
2	operated by an electric distribution company operating in
3	this Commonwealth and currently obligated to meet the
4	compliance requirements specified under section 3.
5	(2) Directly connect to the electric system of an
6	electric cooperative or municipal electric system operating
7	in this Commonwealth.
8	(3) Directly connect to the electric transmission system
9	at a location within the service territory of an electric
10	distribution company operating in this Commonwealth.
11	(b) Construction
12	(1) Nothing under this section or section 4 shall be
13	construed to affect any of the following:
14	(i) A certification originating in this Commonwealth
15	and granted before the effective date of this section of
16	a solar photovoltaic energy generator as a qualifying
17	alternative energy source eligible to meet the solar
18	<pre>photovoltaic share of this Commonwealth's alternative</pre>
19	energy portfolio compliance requirements under section 3.
20	(ii) A certification of a solar photovoltaic system
21	with a binding written contract for the sale and purchase
22	of alternative energy credits derived from solar
23	photovoltaic energy sources entered into before October
24	<u>30, 2017.</u>
25	(2) This section shall apply to contracts entered into
26	or renewed on or after October 30, 2017.
27	Section 3.2. Contract requirements for solar photovoltaic
28	<pre>energy system sources.</pre>
29	(a) Low-cost procurement for non-customer-generators
30	(1) To assure the lowest-cost procurement, two-thirds of

1	the annual total percentage requirement from solar
2	photovoltaic sources as specified under section 3(b.1)(5)
3	shall be procured through contracts of no less than 12 years
4	and no more than 20 years for both energy and alternative
5	energy credits required under this subsection. Energy
6	procured to satisfy the requirements of this subsection may
7	not be used to satisfy the procurement requirement under
8	subsection (b).
9	(2) An electric distribution company with more than one
10	million annual megawatt hours of retail load shall:
11	(i) procure energy and alternative energy credits
12	based on the total electric energy sold to all customers
13	in the electric distribution company's service territory,
14	without regard to whether the supplier of the retail
15	sales is the electric distribution company or an electric
16	<pre>generation supplier;</pre>
17	(ii) issue annual requests for proposals for
18	competitive long-term procurement of solar energy and
19	alternative energy credits and enter into contracts in
20	compliance with this subsection in accordance with
21	regulations established by the commission; and
22	(iii) be entitled to a presumption of prudency and
23	full cost recovery in distribution rates of payments for
24	competitive procurements made under this subsection at a
25	levelized price over the term of the contract of less
26	than one-half of the applicable alternative compliance
27	payment.
28	(3) For purposes of any true-up required under this
29	subsection, the following apply:
30	(i) If contracts executed to meet the requirements

Τ	of this section fail to deliver the quantities required
2	in any given year, the electric distribution company
3	shall procure alternative energy credits during the true-
4	up period established under section 3(e)(5).
5	(ii) Electric generation suppliers in the territory
6	of the electric distribution company shall not have an
7	obligation to purchase alternative energy credits for the
8	share of the requirements under this section and shall
9	not be responsible for true-up or the payment of any
10	penalty for failure to comply with this section.
11	(4) No later than December 1, 2020, the commission shall
12	establish regulations to implement the requirements under
13	this subsection and provide for the issuance and execution of
14	the first competitive procurement contracts for the supply of
15	alternative energy credits beginning with the reporting year
16	commencing on June 1, 2021. The regulations shall address,
17	but not be limited to, all of the following:
18	(i) Competitive contract procurement.
19	(ii) Alternative energy credit retirement.
20	(iii) Guidance on the prudency of proposed
21	purchases, including a presumption of prudence if the
22	annualized cost of alternative energy credits is less
23	than one-half of the applicable alternative compliance
24	payment.
25	(iv) Competitiveness review using standard industry
26	practices to ensure that each solicitation is competitive
27	and providing for the prompt re-issuance of a
28	solicitation deemed to be uncompetitive.
29	(v) Cost recovery for electric distribution
30	companies for prudent and competitive contracts.

Τ	(V1) Alternative energy credit true-up of
2	procurement shortfalls in subsequent year contract
3	procurements.
4	(b) Low-cost procurement for Tier I resources
5	(1) No later than December 1, 2020, the commission shall
6	establish regulations providing for competitive procurement
7	of at least one-sixth of the Tier I alternative energy
8	required under section 3(b.1)(1), except for energy procured
9	under subsection (a), under contracts with a term of no less
10	than 10 years and no more than 15 years beginning with the
11	reporting year commencing on June 1, 2021. The competitive
12	procurements under this subsection shall result in contracts
13	for both energy and alternative energy credits for Tier I
14	alternative energy resources for the purpose of satisfying
15	the requirements under section
16	(3) (b.1) (1). The requirements under this paragraph shall not
17	apply to the solar photovoltaic share requirements under
18	<u>section 3(b.1)(2) or (5).</u>
19	(2) In establishing regulations under paragraph (1), the
20	commission shall collaborate with stakeholders, including,
21	but not limited to, the department, energy generation
22	suppliers, renewable energy developers and electric
23	distribution companies, and determine the benefit to electric
24	customers in this Commonwealth based on the following
25	<pre>factors:</pre>
26	(i) The savings to electric customers resulting from
27	the procurement of alternative energy credits under this
28	section.
29	(ii) The preference for new generation resources
30	with reduced emissions as determined by the department.

1	(iii) The parties to the contracts.
2	(iv) The design of the competitive procurement
3	process.
4	(v) The terms to be included in the contracts based
5	on commercial reasonableness for the parties to the
6	contracts.
7	Section 3.3. Renewable energy storage report.
8	(a) Report No later than one year after the effective date
9	of this section, the commission, in consultation with the PJM
10	Interconnection, L.L.C. transmission organization (PJM) or its
11	successor and stakeholders, including, but not limited to,
12	third-party electric generation suppliers and electric
13	utilities, shall conduct a renewable energy storage analysis and
14	submit a report to the Governor and General Assembly concerning
15	renewable energy storage needs and opportunities and costs and
16	benefits in this Commonwealth.
17	(b) Contract The commission shall contract with an
18	independent consultant selected through a competitive request
19	for proposal process to produce the report under this section.
20	(c) ReportAt a minimum, the commission shall compile the
21	report in the following manner:
22	(1) Use 2,000 megawatt hours of renewable energy storage
23	as a benchmark target goal.
24	(2) Identify and measure the potential costs and
25	benefits of deployment based on all of the following factors:
26	(i) Deferred investments in generation, transmission
27	and distribution facilities.
28	(ii) Reduced ancillary services costs.
29	(iii) Reduced transmission and distribution
30	<pre>congestion.</pre>

1	(iv) Reduced peak power costs and capacity costs.
2	(v) Reduced costs for emergency power supplies
3	during outages.
4	(vi) Curtailment of nonrenewable energy generators
5	to meet peak demand.
6	(vii) Reduced greenhouse gas emissions.
7	(3) Analyze and estimate all of the following:
8	(i) The ability to integrate renewable energy
9	resources with energy storage systems.
10	(ii) The benefits of coupling the storage to meet
11	peak demand.
12	(iii) The impact of renewable energy storage on grid
13	reliability and power quality.
14	(iv) The impact on retail electric rates over the
15	useful life of a renewable energy storage system compared
16	to the same services using other facilities or resources.
17	(4) Consider whether the implementation of renewable
18	electric energy storage systems would promote the use of
19	electric vehicles in this Commonwealth and the potential
20	impact on renewable energy production in this Commonwealth.
21	(5) Analyze the types of renewable energy storage
22	technologies currently being implemented in this Commonwealth
23	and other states.
24	(6) Consider the benefits and costs to retail electric
25	customers in this Commonwealth, political subdivisions and
26	electric public utilities associated with the development and
27	implementation of additional renewable energy storage
28	technologies.
29	(7) Determine the optimal amount of renewable energy
30	storage that should be added in this Commonwealth during the

|--|

- 2 <u>electric customers in this Commonwealth.</u>
- 3 (8) Determine the optimum points of entry into the
- 4 <u>electric distribution system for distributed energy</u>
- 5 resources.
- 6 (9) Calculate the cost to retail electric customers in
- 7 <u>this Commonwealth of adding the optimal amount of renewable</u>
- 8 <u>energy storage</u>.
- 9 <u>Section 3.4. Energy storage deployment targets.</u>
- 10 (a) Determination. -- No later than 90 days after completion
- 11 of the report under section 3.3, the commission shall determine
- 12 appropriate energy storage deployment targets that each electric
- 13 <u>distribution company needs to achieve by December 31, 2025,</u>
- 14 including any interim targets. In making the determination, the
- 15 <u>commission</u> shall consider all of the following:
- 16 (1) The contents of the report under section 3.3.
- 17 (2) Adopting specific subcategories of deployment by
- 18 point of interconnection.
- 19 <u>(3) Adopting requirements or processes for all of the</u>
- 20 following:
- 21 (i) The competitive deployment of energy storage
- 22 services from third parties.
- 23 (ii) The direct purchase of storage devices.
- 24 (4) Appropriate accountability mechanisms, including
- 25 reporting requirements, for investor-owned electric utilities
- to procure energy storage in sufficient quantities to meet
- the targets established by the commission.
- 28 (5) If advised by the report under section 3.3, creating
- a renewable peak standard that would set targets for meeting
- 30 peak demand with renewable energy co-located with storage,

4			C . 1		
	including	all	ot the	†011	OWING:

(i) Demand response technology or energy storage

that is paired solely with a Tier I alternative energy

source that generates, dispatches or discharges energy to

an electric distribution system during seasonal peak

periods as determined by the commission or reduce load on

the system.

7

8

9

10

11

12

13

(ii) Renewable energy storage systems that can be co-located with the Tier I alternative energy sources or paired virtually, as long as the storage facility is within the boundaries of the same electric distribution company's service territory and specifically located to reduce peak demand.

14 (b) Definitions. -- As used in this section, the term

15 "procure" shall mean to acquire by ownership a renewable

16 <u>energy storage system or a contractual right to use the energy</u>

17 from, or the capacity of, a renewable energy storage system.

18 Section 3.5. Contracts for solar photovoltaic technologies by

19 Commonwealth agencies.

- 20 (a) Public works. -- Except as provided under subsection (b),
- 21 a Commonwealth agency shall require that a contract for the
- 22 construction, reconstruction, alteration, repair, improvement or
- 23 maintenance of public works contain a provision that, if any
- 24 solar photovoltaic technologies to be used or supplied in the
- 25 performance of the contract, only solar photovoltaic
- 26 technologies manufactured in the United States shall be used or
- 27 <u>supplied in the performance of the contract or any subcontracts</u>
- 28 under the contract.
- 29 (b) Exception. -- The requirement under subsection (a) shall
- 30 not apply if the head of the Commonwealth agency, in writing,

- 1 <u>determines that the solar photovoltaic technologies are not</u>
- 2 manufactured in the United States in sufficient quantities to
- 3 meet the requirements of the contract.
- 4 (c) Definitions. -- As used in this section, the term "public"
- 5 work" shall have the same meaning given to it in section 2(5) of
- 6 the act of August 15, 1961 (P.L.987, No.442), known as the
- 7 Pennsylvania Prevailing Wage Act.
- 8 Section 4. Section 4 of the act is amended to read:
- 9 Section 4. Portfolio requirements in other states.
- 10 If an electric distribution [supplier] company or electric
- 11 generation [company] supplier provider sells electricity in any
- 12 other state and is subject to [renewable] <u>alternative</u> energy
- 13 portfolio requirements in that state, they shall list any such
- 14 requirement and shall indicate how it satisfied those
- 15 [renewable] <u>alternative</u> energy portfolio requirements. To
- 16 prevent double-counting, the electric distribution [supplier]
- 17 <u>company</u> or electric generation [company] <u>supplier</u> shall not
- 18 satisfy Pennsylvania's alternative energy portfolio requirements
- 19 using alternative energy used to satisfy another state's
- 20 portfolio requirements or alternative energy credits already
- 21 purchased by individuals, businesses or government bodies that
- 22 do not have a compliance obligation under this act unless the
- 23 individual, business or government body sells those credits to
- 24 the electric distribution company or electric generation
- 25 supplier. Energy derived from alternative energy sources inside
- 26 the geographical boundaries of this Commonwealth shall be
- 27 eligible to meet the compliance requirements under this act.
- 28 Energy derived from alternative energy sources located outside
- 29 the geographical boundaries of this Commonwealth but within the
- 30 service territory of a regional transmission organization that

- 1 manages the transmission system in any part of this Commonwealth
- 2 shall only be eligible to meet the compliance requirements of
- 3 electric distribution companies or electric generation suppliers
- 4 located within the service territory of the same regional
- 5 transmission organization. For purposes of compliance with this
- 6 act, alternative energy sources located in the PJM
- 7 Interconnection, L.L.C. regional transmission organization (PJM)
- 8 or its successor service territory shall be eligible to fulfill
- 9 compliance obligations of all Pennsylvania electric distribution
- 10 companies and electric generation suppliers. Energy derived from
- 11 alternative energy sources located outside the service territory
- 12 of a regional transmission organization that manages the
- 13 transmission system in any part of this Commonwealth shall not
- 14 be eligible to meet the compliance requirements of this act.
- 15 Electric distribution companies and electric generation
- 16 suppliers shall document that this energy was not used to
- 17 satisfy another state's [renewable] <u>alternative</u> energy portfolio
- 18 standards.
- 19 Section 5. Repeals are as follows:
- 20 (1) The General Assembly declares that the repeal under
- 21 paragraph (2) is necessary to effectuate the addition of
- section 3.1 of the act.
- 23 (2) Section 2804 of the act of April 9, 1929 (P.L.177,
- No.175), known as The Administrative Code of 1929, is
- 25 repealed.
- 26 Section 6. This act shall take effect immediately.