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## THE GENERAL ASSEMBLY OF PENNSYLVANIA

## SENATE BILL

No. 25

Special Session No. 1 of 2007-2008

INTRODUCED BY WAUGH, PUNT, GREENLEAF, MUSTO, COSTA, M. WHITE, WOZNIAK, STOUT, MELLOW, ARMSTRONG, FOLMER, MADIGAN, ROBBINS, SCARNATI, VANCE, REGOLA AND RHOADES, OCTOBER 16, 2007

AS AMENDED ON THIRD CONSIDERATION, DECEMBER 4, 2007

## AN ACT

Amending the act of November 30, 2004 (P.L.1672, No.213), entitled, "An act providing for the sale of electric energy generated from renewable and environmentally beneficial sources, for the acquisition of electric energy generated from renewable and environmentally beneficial sources by electric distribution and supply companies and for the powers 6 and duties of the Pennsylvania Public Utility Commission," 7 further defining "alternative energy sources" and "Tier II alternative energy source. "SOURCE"; AND FURTHER PROVIDING 9 FOR ALTERNATIVE ENERGY PORTFOLIO STANDARDS. 10 11 The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows: 12 The definitions of "alternative energy sources"

13

14 and "Tier II alternative energy source" in section 2 of the act

of November 30, 2004 (P.L.1672, No.213), known as the 15

16 Alternative Energy Portfolio Standards Act, are amended to read:

17 Section 2. Definitions.

18 The following words and phrases when used in this act shall

19 have the meanings given to them in this section unless the

20 context clearly indicates otherwise:

21

- 1 "Alternative energy sources." The term shall include the
- 2 following existing and new sources for the production of
- 3 electricity:
- 4 (1) Solar photovoltaic or other solar electric energy.
- 5 (2) Solar thermal energy.
- 6 (3) Wind power.
- 7 (4) Large-scale hydropower, which shall mean the
- 8 production of electric power by harnessing the hydroelectric
- 9 potential of moving water impoundments, including pumped
- 10 storage that does not meet the requirements of low-impact
- 11 hydropower under paragraph (5).
- 12 (5) Low-impact hydropower consisting of any technology
- that produces electric power and that harnesses the
- 14 hydroelectric potential of moving water impoundments,
- provided such incremental hydroelectric development:
- 16 (i) does not adversely change existing impacts to
- 17 aquatic systems;
- 18 (ii) meets the certification standards established
- 19 by the Low Impact Hydropower Institute and American
- 20 Rivers, Inc., or their successors;
- 21 (iii) provides an adequate water flow for protection
- of aquatic life and for safe and effective fish passage;
- 23 (iv) protects against erosion; and
- 24 (v) protects cultural and historic resources.
- 25 NOTWITHSTANDING THE PROVISIONS OF SUBPARAGRAPH (II), THE TERM
- 26 <u>"LOW-IMPACT HYDROPOWER" SHALL ALSO INCLUDE A HYDROELECTRIC</u>
- 27 DEVELOPMENT WHICH HAS A NAMEPLATE CAPACITY OF 21 MEGAWATTS OR
- 28 LESS AND HAS A LICENSE ISSUED BY THE FEDERAL ENERGY
- 29 <u>REGULATORY COMMISSION FOR THE HYDROPOWER SOURCE ON OR PRIOR</u>
- 30 TO JANUARY 1, 1984, AND WAS HELD IN WHOLE OR IN PART BY A

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- 2 <u>ELECTRIC COOPERATIVE WHOLLY WITHIN THIS COMMONWEALTH ON JULY</u>
- 3 1, 2007.

- (6) Geothermal energy, which shall mean electricity produced by extracting hot water or steam from geothermal reserves in the earth's crust and supplied to steam turbines that drive generators to produce electricity.
  - (7) Biomass energy, which shall mean the generation of electricity utilizing the following:
    - (i) organic material from a plant that is grown for the purpose of being used to produce electricity or is protected by the Federal Conservation Reserve Program (CRP) and provided further that crop production on CRP lands does not prevent achievement of the water quality protection, soil erosion prevention or wildlife enhancement purposes for which the land was primarily set aside; or
    - (ii) any solid nonhazardous, cellulosic waste material that is segregated from other waste materials, such as waste pallets, crates and landscape or right-of-way tree trimmings or agricultural sources, including orchard tree crops, vineyards, grain, legumes, [sugar] sugars, lignins and other crop by-products or residues.

      BIOMASS ENERGY SHALL ALSO MEAN THE GENERATION OF ELECTRICITY UTILIZING BY-PRODUCTS OF THE PULPING PROCESS
- 26 AND WOOD MANUFACTURING PROCESS, INCLUDING BARK, WOOD

  27 CHIPS, SAWDUST AND LIGNINS IN SPENT PULPING LIQUORS,

  28 PROVIDED THE ELECTRICITY IS GENERATED WITHIN THIS
- 29 <u>COMMONWEALTH.</u>
- 30 (8) Biologically derived methane gas, which shall

- 1 include methane from the anaerobic digestion of organic
- 2 materials from yard waste, such as grass clippings and
- leaves, food waste, animal waste and sewage sludge. The term
- 4 also includes landfill methane gas.
- (9) Fuel cells, which shall mean any electrochemical device that converts chemical energy in a hydrogen-rich fuel directly into electricity, heat and water without combustion.
- 8 (10) Waste coal, which shall include the combustion of 9 waste coal in facilities in which the waste coal was disposed 10 or abandoned prior to July 31, 1982, or disposed of 11 thereafter in a permitted coal refuse disposal site 12 regardless of when disposed of, and used to generate 13 electricity, or such other waste coal combustion meeting
- 15 Facilities combusting waste coal shall use at a minimum a

alternate eligibility requirements established by regulation.

- 16 combined fluidized bed boiler and be outfitted with a
- 17 limestone injection system and a fabric filter particulate
- 18 removal system. Alternative energy credits shall be
- 19 calculated based upon the proportion of waste coal utilized
- 20 to produce electricity at the facility.
- 21 (11) Coal mine methane, which shall mean methane gas 22 emitting from abandoned or working coal mines.
- 23 (12) Demand-side management consisting of the management 24 of customer consumption of electricity or the demand for
- 25 electricity through the implementation of:
- 26 (i) energy efficiency technologies, management 27 practices or other strategies in residential, commercial,
- institutional or government customers that reduce
- electricity consumption by those customers;
- 30 (ii) load management or demand response

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- 1 technologies, management practices or other strategies in
- 2 residential, commercial, industrial, institutional and
- 3 government customers that shift electric load from
- 4 periods of higher demand to periods of lower demand; or
- 5 (iii) industrial by-product technologies consisting
- of the use of a by-product from an industrial process,
- 7 including the reuse of energy from exhaust gases or other
- 8 manufacturing by-products that are used in the direct
- 9 production of electricity at the facility of a customer.
- 10 (13) Distributed generation system, which shall mean the
- 11 small-scale power generation of electricity and useful
- 12 thermal energy.
- 13 \* \* \*
- "Tier II alternative energy source." Energy derived from:
- 15 (1) Waste coal.
- 16 (2) Distributed generation systems.
- 17 (3) Demand-side management.
- 18 (4) Large-scale hydropower.
- 19 (5) Municipal solid waste.
- 20 <del>[(6)</del> Generation of electricity utilizing by-products of <—
- 21 the pulping process and wood manufacturing process, including
- 22 bark, wood chips, sawdust and lignin in spent pulping
- 23 <del>liquors.]</del> LIQUORS <u>IF THE ELECTRICITY IS GENERATED OUTSIDE OF</u>
- 24 THIS COMMONWEALTH.
- 25 (7) Integrated combined coal gasification technology.
- 26 \* \* \*
- 27 SECTION 2. SECTION 3(B) OF THE ACT, AMENDED JULY 17, 2007
- 28 (P.L.114, NO.35), IS AMENDED TO READ:
- 29 SECTION 3. ALTERNATIVE ENERGY PORTFOLIO STANDARDS.
- 30 \* \* \*

- 1 (B) TIER I AND SOLAR PHOTOVOLTAIC SHARES.--
- 2 (1) TWO YEARS AFTER THE EFFECTIVE DATE OF THIS ACT, AT
- 3 LEAST 1.5% OF THE ELECTRIC ENERGY SOLD BY AN ELECTRIC
- 4 DISTRIBUTION COMPANY OR ELECTRIC GENERATION SUPPLIER TO
- 5 RETAIL ELECTRIC CUSTOMERS IN THIS COMMONWEALTH SHALL BE
- 6 GENERATED FROM TIER I ALTERNATIVE ENERGY SOURCES. EXCEPT AS
- 7 PROVIDED IN THIS SECTION, THE MINIMUM PERCENTAGE OF ELECTRIC
- 8 ENERGY REQUIRED TO BE SOLD TO RETAIL ELECTRIC CUSTOMERS FROM
- 9 ALTERNATIVE ENERGY SOURCES SHALL INCREASE TO 2% THREE YEARS
- 10 AFTER THE EFFECTIVE DATE OF THIS ACT. THE MINIMUM PERCENTAGE
- 11 OF ELECTRIC ENERGY REQUIRED TO BE SOLD TO RETAIL ELECTRIC
- 12 CUSTOMERS FROM ALTERNATIVE ENERGY SOURCES SHALL INCREASE BY
- 13 AT LEAST 0.5% EACH YEAR SO THAT AT LEAST 8% OF THE ELECTRIC
- 14 ENERGY SOLD BY AN ELECTRIC DISTRIBUTION COMPANY OR ELECTRIC
- 15 GENERATION SUPPLIER TO RETAIL ELECTRIC CUSTOMERS IN THAT
- 16 CERTIFICATED TERRITORY IN THE 15TH YEAR AFTER THE EFFECTIVE
- 17 DATE OF THIS SUBSECTION IS SOLD FROM TIER I ALTERNATIVE
- 18 ENERGY RESOURCES.
- 19 (1.1) IN ADDITION TO ANY INCREASE UNDER PARAGRAPH (1),
- 20 THE COMMISSION SHALL ANNUALLY INCREASE THE PERCENTAGE SHARE
- 21 OF TIER I ALTERNATIVE ENERGY SOURCES REQUIRED TO BE SOLD BY
- 22 AN ELECTRIC DISTRIBUTION COMPANY OR ELECTRIC GENERATION
- 23 SUPPLIER UNDER PARAGRAPH (1), BY AN AMOUNT EQUAL TO THE
- 24 <u>AMOUNT OF ADDITIONAL TIER I ALTERNATIVE ENERGY CREDITS</u>
- 25 <u>CREATED UNDER THE PROVISIONS OF THE ACT ADDING THIS</u>
- 26 <u>PARAGRAPH</u>.
- 27 (2) THE TOTAL PERCENTAGE OF THE ELECTRIC ENERGY SOLD BY
- 28 AN ELECTRIC DISTRIBUTION COMPANY OR ELECTRIC GENERATION
- 29 SUPPLIER TO RETAIL ELECTRIC CUSTOMERS IN THIS COMMONWEALTH
- 30 THAT MUST BE SOLD FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES IS:

- 1 (I) 0.0013% FOR JUNE 1, 2006, THROUGH MAY 31, 2007. 2 (II) 0.0030% FOR JUNE 1, 2007, THROUGH MAY 31, 2008. 3 (III) 0.0063% FOR JUNE 1, 2008, THROUGH MAY 31, 4 2009. 5 (IV) 0.0120% FOR JUNE 1, 2009, THROUGH MAY 31, 2010. (V) 0.0203% FOR JUNE 1, 2010, THROUGH MAY 31, 2011. 6 (VI) 0.0325% FOR JUNE 1, 2011, THROUGH MAY 31, 2012. 7 8 (VII) 0.0510% FOR JUNE 1, 2012, THROUGH MAY 31, 9 2013. (VIII) 0.0840% FOR JUNE 1, 2013, THROUGH MAY 31, 10 11 2014. (IX) 0.1440% FOR JUNE 1, 2014, THROUGH MAY 31, 2015. 12 13 (X) 0.2500% FOR JUNE 1, 2015, THROUGH MAY 31, 2016. (XI) 0.2933% FOR JUNE 1, 2016, THROUGH MAY 31, 2017. 14 15 (XII) 0.3400% FOR JUNE 1, 2017, THROUGH MAY 31, 2018. 16 (XIII) 0.3900% FOR JUNE 1, 2018, THROUGH MAY 31, 17 18 2019. (XIV) 0.4433% FOR JUNE 1, 2019, THROUGH MAY 31, 19 20 2020. (XV) 0.5000% FOR JUNE 1, 2020, AND THEREAFTER. 21 22 (3) UPON COMMENCEMENT OF THE BEGINNING OF THE 6TH 23 REPORTING YEAR, THE COMMISSION SHALL UNDERTAKE A REVIEW OF 24 THE COMPLIANCE BY ELECTRIC DISTRIBUTION COMPANIES AND 25 ELECTRIC GENERATION SUPPLIERS WITH THE REQUIREMENTS OF THIS 26 ACT. THE REVIEW SHALL ALSO INCLUDE THE STATUS OF ALTERNATIVE 27 ENERGY TECHNOLOGIES WITHIN THIS COMMONWEALTH AND THE CAPACITY
- 30 TO THE GENERAL ASSEMBLY ADDITIONAL COMPLIANCE GOALS BEYOND

TO ADD ADDITIONAL ALTERNATIVE ENERGY RESOURCES. THE

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COMMISSION SHALL USE THE RESULTS OF THIS REVIEW TO RECOMMEND

- 1 YEAR 15. THE COMMISSION SHALL WORK WITH THE DEPARTMENT IN
- 2 EVALUATING THE FUTURE ALTERNATIVE ENERGY RESOURCE POTENTIAL.
- 3 \* \* \*
- 4 Section  $\frac{2}{3}$ . This act shall take effect in 60 days.