

**Alternative Energy Portfolio Standards  
HB 2250  
DRAFT Amendment – October 16, 2004**

Section 2. Definitions.

The following words and phrases when used in this act shall have the meanings given to them in this section unless the context clearly indicates otherwise:

“Alternative Energy Credit.” – Means a tradable instrument that is used to establish, verify, and monitor compliance with the provisions of this act. A unit of credit shall equal 1 kilowatt-hour of electricity generated from an alternative energy source.

“Alternative Energy Portfolio Standards.” -- Standards establishing that a certain amount of energy production from alternative energy sources is included as part of the sources of electric generation by electric utilities within this Commonwealth.

“Alternative Energy Sources.” -- Shall include the following production sources:

- (1) Solar photovoltaic energy
- (2) Solar thermal energy
- (3) Wind power
- (4) Low-impact hydropower, which means technologies that harness the hydroelectric potential of water impoundments provided such incremental hydroelectric development does not adversely change existing impacts to aquatic systems; meets the certification standards established by the Low Impact Hydropower Institute, and American Rivers Inc., and provides an adequate water flow for protection of aquatic life, provides for safe and effective fish passage, protects against erosion; and protects cultural and historic resources.
- (5) Geothermal Energy
- (6) Biomass energy which means the generation of electricity utilizing the following:
  - (a) organic material from a plant that is planted exclusively for the purpose of being used to produce electricity, provided that such plant is produced on land that was in crop production on the date of enactment of this act 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;
  - (b) any solid non-hazardous, cellulosic waste material that is segregated from other waste materials and which is derived from either waste pallets, crates, and drainage, and landscape or right-of-way tree trimmings, agricultural sources including orchard tree crops, vineyards, grain, legumes, sugar, and other crop by-products or residues.
- (7) Biologically derived methane gas. This shall include methane from the anaerobic digestion of organic materials from yard waste (grass clippings, and leaves), food waste, animal waste, sewage sludge, and shall also include landfill methane gas.
- (8) Fuel cells shall mean an electrochemical device that converts chemical energy in a hydrogen-rich fuel directly into electricity, heat and water without combustion. The hydrogen or hydrogen-rich fuel shall be obtained from sources contained in Tier I, sections 1 through 5.

(9) Waste coal shall include the combustion of waste coal in facilities in which the waste coal was disposed or abandoned prior to July 31, 1982 or disposed thereafter in a permitted coal refuse disposal site regardless of when disposed, and used to generate electricity; or such other waste coal combustion meeting alternate eligibility requirements established by regulation. Facilities combusting waste coal shall use at a minimum a combined fluidized bed boiler and be outfitted with a limestone injection system and a fabric filter particulate removal system. Alternative energy credits shall be calculated based upon the amount of waste coal utilized to produce electricity at the facility.

(10)Municipal solid waste. This will include energy from waste to energy facilities that began operation before July 1, 1988 and where the Department of Environmental Protection has determined that such a facility is in compliance with current environmental standards and minimizes any impacts to the environment and local communities.

“Alternative Energy System.” -- means a facility or energy system that uses a form of alternative energy to generate electricity; and transmits or distributes the electricity it generates from alternative energy by:

- (i) a power line which is dedicated to the transmission or distribution of electricity generated from alternative energy and which is connected to a facility or system owned, operated, or controlled by an electric distribution company; or
- (ii) a power line which is shared with not more than one facility or energy system generating electricity from non-renewable energy and which is connected to a facility or system owned, operated, or controlled by an electric distribution company.

“Coal Mine Methane” – shall mean methane gas emitting from abandoned or working coal mines.

“Commission.” – The Pennsylvania Public Utility Commission.

"Customer-Generator" means a non-utility owner or operator of a net metered distributed generation system that is not larger than 50 kilowatts if installed at a residential service or not larger than 1000 kilowatts at other customer service locations, except for customers whose systems are above 1 megawatt and up to 2 megawatts who make their systems available to operate in parallel with the electric utility during grid emergencies as defined by the Commission, or where an independent micro grid is in place for the purpose of maintaining critical infrastructure, such as homeland security assignments emergency services facilities, hospitals, traffic signals, waste water treatment plants, or telecommunications facilities, provided that technical rules for operating generators interconnected with isolated portions of an electric utility have been promulgated by the Institute of Electrical and Electronic Engineers and the Commission.

“Demand Side Management.” – The management of customer demand through the implementation of energy efficiency and load management devices in the premises of residential, commercial, industrial, institutional and government customers.

“Department” – means the Department of Environment Protection of the Commonwealth.

“Distributed Generation System.” – The small-scale power generation of electricity using an alternative energy source at a site closer to, or on the premises of, an end user within the transmission and distribution system of an electric distribution company.

“Electric Distribution Company.” – An incorporated entity that receives electric power from an electric generator and distributes that power to retail customers.

“Electric Generation Supplier.” – An incorporated entity that generates and supplies electric power.

“Energy Efficiency”. - The use of technologies, management practices or other strategies that reduce electricity consumption by residential, commercial or industrial customers.

“Force Majeure”- Means an extended True-Up Period to allow response time for extreme deviations in expected renewable generation resulting from events that are impossible to control.

“Load Management”- The use of technologies, management practices or other strategies to shift electric load from periods of higher demand to periods of lower demand.

"Net metering". A means of measuring the difference between the electricity supplied by an electric utility and the electricity generated by a Customer-Generator, when the renewable energy generating system is intended primarily to offset part or all of the Customer-Generator's requirements for electricity.

"Net metering system". A system that uses a single, bi-directional, non-ratcheting meter to measure the difference between the electricity supplied by an electric utility and the electricity generated by a Customer-Generator interconnected and operated in parallel with an electric utility.

“PJM Interconnection, L.L.C. (PJM ISO).” – Means the Independent System Operator that operates the power exchange in sections of Pennsylvania, New Jersey, Maryland, and Virginia, and all of Delaware and the District of Columbia and which is recognized by the North American Electric Reliability Council or its successor, as the PJM Control Area.

“Reporting Period.” Means the twelve-month period from July 1 through June 30. A reporting year shall be numbered according to the calendar year in which it begins and ends.

“Retail Customer.” – Means an end-use customer that purchases electricity for consumption in the Commonwealth including the Commonwealth itself, a political subdivision, agency, or instrumentality of the Commonwealth when it purchases electricity at retail; a residential, commercial, or industrial end-use customer that purchases electricity for consumption; a landlord of a mobile home park; or a landlord who pays for electricity that is delivered through a master meter and who distributes or resells the electricity to one or more tenants for consumption.

Tier I “Alternative Energy Source.” – Energy derived from:

- (i) solar photovoltaic energy
- (ii) wind power
- (iii) low-impact hydropower
- (iv) geothermal energy
- (v) biologically derived methane gas
- (vi) coal mine methane gas
- (vii) fuel cells

Tier II “Alternative Energy Source.” – Energy derived from:

- (1) waste coal
- (2) municipal solid waste
- (3) energy efficiency and load management technologies. This will include solar thermal and pump storage technologies.
- (4) distributed generation systems

“True-Up Period”. Means the period each year from the end of the reporting year until October 1.

### Section 3. Alternative Energy Portfolio Standards.

General rule.-- from the effective date of this act through and including the fifteenth year after enactment of this act, and each year thereafter, the electric energy sold by an electric distribution company or electric generation supplier to retail customers in this Commonwealth shall be comprised of electricity generated from alternative energy sources, and in the percent amounts as described under subsection (a) and as described under subsection (b). Electric distribution companies and electric generation suppliers shall satisfy both requirements set forth in subsection (a) and subsection (b) of this section.

Phase-In.--

(a) Tier I Share –One year after the effective date of this Act, at least 1.5% of the electric energy sold by an electric distribution company or electric generation supplier to retail customers in this Commonwealth shall be generated from Tier I Alternative Energy Sources.

Except as provided herein, the minimum percentage of electric energy required to be generated from alternative energy sources shall increase to 2%, two years after the effective date of this act. The minimum percentage of electric energy required to be generated from alternative energy sources shall increase by at least 0.5% each year so that at least 15% of the electric energy sold by an electric distribution company or electric generation supplier to retail customers in that certificated territory in the fifteenth year after the effective date of this subsection is generated from Tier I Alternative Energy Resources. As part of the Tier I share the minimum percentage to be generated from solar photovoltaic energy shall be at least 0.75% by the fifteenth year.

Upon commencement of the beginning of the tenth reporting year the commission shall undertake a review of the compliance by electric distribution companies with the requirements of this act. The review shall also include the status of alternative energy technologies within the Commonwealth and the capacity to add additional alternative energy resources. The Commission shall use the results of this review to set additional compliance goals beyond year 15. The Commission shall work with the DEP in evaluating the future alternative energy resource potential.

(b) Tier II Share.—Of the electrical energy required to be generated from alternative energy sources identified in Tier II, the percentage that must be from these technologies is: Year 1 – 2.27%; Year 2 – 2.27%; Year 3 – 2.27%; Year 4 – 2.40%; Year 5 – 2.40%; Year 6 – 2.50%; Year 7 – 2.50%; Year 8 – 2.81%; Year 9 – 2.81%; Year 10 2.99%; Year 11 – 3.20%; Year 12 – 15 - 3.20% and thereafter.

(c) Alternative Energy Credits.

- (1) The commission shall establish an alternative energy tradable credits program as needed to implement this act. The provision of services pursuant to this section shall be exempt from the competitive procurement procedures of the Commonwealth Procurement Code, Title 62 P.C.S.
- (2) The commission shall approve an independent entity to serve as the alternative energy credits program administrator. The administrator shall have those powers and duties assigned by commission regulations. Such powers and duties shall include, but not be limited to, the following:
  - (i) to create and administer an alternative energy tradable credits certification, tracking and reporting program. This program should include at a minimum a process for qualifying alternative energy systems, and determining the manner credits can be created, accounted for, transferred and retired.
  - (ii) to submit reports to the commission at such times and in such manner as the commission shall direct.
- (3) All qualifying alternative energy systems must include a qualifying meter to record the cumulative electric production to verify the advanced energy credit value; qualifying meters will be approved by the commission, as defined in (4) of this subsection.
  - (4) (i) An electric distribution company or electric generation supplier shall comply with the applicable requirements of this section by purchasing sufficient alternative energy credits and submitting documentation of compliance to the program administrator.
  - (ii) For purposes of this subsection, one alternative energy credit shall represent one kilowatt hour of qualified alternative electric generation, whether self-generated, purchased along with the electric commodity or separately through a tradable instrument and otherwise meeting the requirements of commission regulations and the program administrator.
- (5) The alternative energy trading credits program shall include provisions requiring a reporting period as defined in Section 2 for all covered entities under this act. The Alternative Energy Credit Program shall also include a True-Up Period as defined in Section 2 of this act. The True-Up Period shall provide entities covered under this act the ability to obtain the required number of alternative energy credits or to make-up any shortfall of the alternative energy credits they may be required to obtain to comply with the provisions of this act. A Force Majeure provision shall also be provided for under the True-Up Period provisions.
- (6) Credit Banking. An electric distribution company and electric generation supplier may bank or place in reserve alternative energy credits produced on one year for compliance in either or both of the two subsequent calendar years, subject to the limitations set forth in this subsection; and provided that the electric distribution company and electric generation supplier is in compliance for all previous years. In addition, the electric distribution company and electric generation supplier shall demonstrate to the satisfaction of the commission that such credits:
  - (a) were in excess of the alternative energy credits needed for compliance in the year in which they were generated, and that such excess credits have not previously been used for compliance under this act;

- (b) do not exceed thirty (30) percent of the credits needed by the electric distribution company and electric generation supplier for compliance in the year they were generated;
  - (c) were produced by the generation of electrical energy by alternative energy sources and sold to retail customers during the year in which they were generated; and,
  - (d) have not otherwise been, nor will be sold, retired, claimed or represented as part of satisfying compliance with alternative or renewable energy portfolio standards in other states.
- (7) The Commission or it's designee shall develop a registry of pertinent information regarding all available alternative energy credits, credit transactions among electric distribution companies and electric generation suppliers, the number of alternative energy credits sold or transferred, and the price paid for the sale or transfer the credits. The registry shall provide current information to electric distribution companies, electric generation suppliers, and the general public on the status of Alternative Energy Credits created, sold, or transferred within the Commonwealth.
- (8) The Commission may impose an administrative fee on an Alternative Energy Credit transaction. The amount of this fee may not exceed the actual direct cost of processing the transaction by the Alternative Energy Credits administrator. The Commission is authorized to utilize up to 5% of the Alternative Compliance Fees generated under Section 3 paragraph d for administrative expenses directly associated with this act.
- (9) Tier II facilities with negotiated power purchase agreements under the Public Utilities Regulatory Policy Act of 1978, shall not be eligible to participate as a qualified alternative energy source during their term of the Power Purchase Agreement Upon expiration of the Power Purchase Agreement Tier II facilities will then be eligible to be counted as an Alternative Energy Source and will be eligible to participate under the Alternative Energy Credits Program as defined in subsection (c).
- (10)The Commission shall establish regulations governing the verification and tracking of energy efficiency and demand side management measures pursuant to this Act, which will include benefits to all utility customer classes. When developing regulations, the commission must give reasonable consideration to existing and proposed regulations and rules in existence in the PJM region. All verified reductions shall accrue credits starting with the passage of this act.
- (11) The benefits of each credit will follow a depreciation schedule for a five year period. The schedule for this shall be: each megawatt (MW) of verified electrical savings would receive 100% credit in the first year after savings have been verified by the Commission; .80 or 80% in the second year; .60 or 60% in the third year; .40 or 40% in the four year; .20 or 20% in the fifth year; and 0% in the sixth year.
- (12) The Commission shall within 90 days of the effective date of this act develop the standards for tracking and verifying savings from energy efficiency and demand side management measures. The Commission shall allow for a 60 day public comment period and shall issue final standards within 30 days of the close of the public comment period.

(d) Alternative Compliance Payment.

- (1) At the end of each program year, the program administrator shall provide a report to the commission and to each covered electric distribution company showing their status level of alternative energy acquisition.
- (2) The commission shall conduct a review of each determination made under Section 3, subsection (a) and (b). If, after notice and hearing, the commission determines that an electric distribution company or electric generation supplier has failed to comply with Section 3 subsections (a) and (b), the commission shall impose an Alternative Compliance Payment on that company or supplier.

The alternative compliance payment shall be sixty dollars times the number of additional alternative energy credits needed in order to comply with Section 3, subsections (a) and (b).

- (3) The Commission shall establish a process to provide for, at least annually, a review of the alternative energy market within the Commonwealth and the PJM Interconnection service territory. The Commission will use the results of this study to identify any needed changes to the costs associated with the Alternative Compliance Payment Program. The Commission may raise the cost of the alternative compliance payments to maintain the integrity of the payments program and to ensure that it is not used to meet compliance with this act in lieu of acquiring energy from actual alternative energy sources as defined in this act. If the commission finds that the costs associated with the Alternative Compliance Program must be lowered the commission shall present these findings to the General Assembly for legislative enactment.

(h) Transfer to Sustainable Development Funds.—

- (1) Notwithstanding the provisions of 66 Pa.C.S. §§ 511 (relating to disposition, appropriation and disbursement of assessments and fees) and 3315 (relating to disposition of fines and penalties), Alternative Compliance Payments imposed pursuant to this act shall be paid into the Sustainable Development Funds, created under the commissions restructuring orders under Act 138 of 1996, 66 PA C.S. 28. Alternative Compliance Payments will be paid into the appropriate fund based upon which electric distribution company or electric generation supplier incurred the Alternative Compliance Payment.
- (2) The Alternative Compliance Payments shall be utilized solely for projects that will increase the amount of electric energy generated from alternative energy resources for purposes of compliance with Section 3 subsections (a) and (b).

Section 5. Cost Recovery.

The commission shall allow an Electric Distribution Company as defined in Section 2803 of Title 66 to recover on a full and current basis, all of the reasonable and justifiable incremental costs that it incurs to comply with the requirements of this provision, including but not limited to the acquisition of above market energy from alternative energy resources, incremental payments for alternative energy credits and payments to any 3<sup>rd</sup> party administrator for the conduct of activities under this act. Costs incurred to comply with this requirement shall be collected through a charge placed on distribution and transmission rates paid by customers who are purchasing electric generation from an electric distribution company.

The commission shall allow each electric distribution company to recover compliance costs through an automatic adjustment clause as defined in Section 1307 of Title 66, as soon as any previously ordered distribution and transmission rate cap expires for each utility. The commission shall allow each electric distribution company to establish a tracking account to recover any compliance costs plus carrying costs established by the commission, incurred by the electric distribution company, after the effective date of this act and prior to the expiration of any previously ordered distribution and transmission rate cap.

#### Section 6. Portfolio Requirements in other states

If an electric distribution supplier or electric generation company provider sells electricity in any other state and is subject to renewable energy portfolio requirements in that state, they shall list any such requirement and shall indicate how it satisfied those renewable energy portfolio requirements. To prevent double-counting the electric distribution supplier or electric generation company shall not satisfy Pennsylvania's alternative energy portfolio requirements using alternative energy used to satisfy another state's portfolio requirements. Energy derived only from alternative energy sources inside the geographical boundaries of the Commonwealth or within the PJM service territory shall be eligible to meet the compliance requirements under this act. Electric distribution companies and electric generation suppliers shall document that this energy was not used to satisfy another states renewable energy portfolio standard.

#### Section 7. Interconnection Standards for Customer-Generator Facilities.

The Commission shall develop technical interconnection rules for Customer-Generators intending to operate renewable on-site generators in parallel with the electric utility grid, consistent with rules defined in other states within the PJM region. The commission shall develop these standards within six (6) months of the effective date of this act.

#### Section 8. Net Metering

- (a) An electric utility:
- (1) Shall offer to make net metering available to Customer-Generators.
  - (2) Shall allow net metering facilities to be interconnected using a single standard kilowatt-hour meter that is capable of registering the flow of electricity in two directions with a bidirectional, non-ratcheting meter or comparable technology.
  - (3) May, at its own expense and with the Customer-Generator's consent, install one or more additional meters to monitor the flow of electricity in each direction.
  - (4) Shall offer to the Customer-Generator a tariff or contract that is identical, in energy rates, rate structure, and monthly charges to the contract or tariff that the customer would be assigned if the customer were not an eligible Customer-Generator.
  - (5) Shall not charge the Customer-Generator any transmission, distribution, competitive transition charges, or other service fee or charge for any electricity other than the net electricity supplied by the electric utility to the Customer-Generator as determined according to subsection (b) of this section, nor shall an electric utility charge the Customer-Generator any additional standby or capacity charge for systems under 50 kilowatts.



- (6) Shall allow the Customer-Generator to receive generation services and sell excess energy to an electric generating supplier other than the electric distribution company.
  - (7) Shall not require a Customer-Generator to surrender or convey any marketable environmental attributes related to the renewable or other qualities of their generation. Marketable environmental attributes include, but are not limited to, green tags, renewable energy certificates and generation used to meet state or federal renewable portfolio standards.
- (b) Net Energy Measurement and Billing. Consistent with the other provisions of this Act, the net energy measurement must be calculated in the following manner:
- (1) For a Customer-Generator, an electric utility shall measure the net electricity produced or consumed during the billing period in accordance with normal metering practices of customers in the same rate class.
  - (2) If the electricity supplied by the electric utility exceeds the electricity generated by the Customer-Generator during the billing period, the Customer-Generator shall be billed for the net electricity supplied by the electric utility in accordance with normal metering practices of customers in the same rate class.
  - (3) If the electricity generated by the Customer-Generator exceeds the electricity supplied by the electric utility during the billing period, the Customer-Generator shall be billed for the appropriate customer charges for that billing period, and shall be credited for the excess kilowatt-hours generated during the billing period, with this kilowatt-hour credit applied to the following billing period. The kilowatt-hour credit shall be valued at the same price per kilowatt-hour as the utility would charge for retail kilowatt-hour sales during that same billing period. Any excess kilowatt-hour credits shall be granted to the utility when a customer closes their account or switches electricity suppliers.
  - (4) For all eligible Customer-Generators taking service under tariffs employing “time of use” rates, any net monthly consumption of electricity shall be calculated according to the terms of the contract or tariff to which the same customer would be assigned or be eligible for if the customer was not an eligible Customer-Generator. When those same Customer-Generators are net generators during any discrete time of use period, the net kilowatt-hours produced shall be valued at the same price per kilowatt-hour as the utility and would charge for retail kilowatt-hour sales during that same time of use period. Any monetary surplus is credited to the following billing period.
  - (5) The utility shall designate a specific point of contact responsible for working with the Customer-Generator on net-metering issues.

(c) Net Metering Systems.

- (1) On the customer’s side of the meter, a net metering system used by a Customer-Generator shall include, at the Customer-Generator's own expense, all equipment necessary to meet applicable safety, power quality and interconnection requirements established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and a Nationally Recognized Testing Laboratory such as Underwriters Laboratories.

- (2) An electric utility may not require a Customer-Generator whose net metering system meets the standards in subsection (1) of this section to comply with additional safety or performance standards, perform or pay for additional tests, or purchase liability insurance.
- (3) An electric utility shall not be liable directly or indirectly for permitting or continuing to allow an attachment of a net metering system, or for the acts or omissions of the Customer-Generator that cause loss or injury, including death, to any third party.
- (4) An electric utility may require a Customer-Generator to enter into an interconnection agreement prior to the commissioning of a Customer-Generator's facility. If required, the utility shall file with the Commission a simplified standard form interconnection agreement for systems located at a residential or small commercial service.

If the provider acquires electricity from an alternative energy source pursuant to a contract with another party:

1. The term of the alternative energy contract must be not less than 10 years, unless the other party agrees to a renewable energy contract with a shorter term; and
2. The terms and conditions of the alternative energy contract must be just and reasonable, as determined by the commission. If the provider is a public utility and the commission approves the terms and conditions of the renewable energy contract between the provider and the other party, the alternative energy contract and its terms and conditions shall be deemed to be a prudent investment and the provider may recover all just and reasonable costs associated with the alternative energy contract.
3. The commission shall adopt regulations for the determination of just and reasonable terms and conditions for alternative energy contracts that a provider of electric service must enter into to comply with its portfolio standard.

## Section 10. Local Land Use Preemption

The siting and construction of facilities designed to produce energy from alternative energy sources as defined under this act shall not be prohibited or otherwise regulated by any ordinance, home rule, charter provision, resolution, rules or regulation of any political subdivision or any local or state instrumentality or authority that relates to zoning or land use. This act supersedes and preempts any municipal ordinance to the contrary.

## Section 11. Health and Safety Standards

The department shall cooperate with the Department of Labor and Industry as necessary in developing health and safety standards, as needed regarding facilities generating energy from alternative energy sources. The department shall establish appropriate and reasonable health and safety standards to ensure uniform and proper compliance with this act by owners and operators of facilities generating energy from alternative energy sources as defined in this act.

## Section 12. Interagency Responsibilities

- (1) The Commission will carry out the responsibilities delineated within this act. The commission also shall, in cooperation with the department, conduct an on-going alternative energy resources planning assessment for the Commonwealth. This assessment will at a minimum identify current and operating alternative energy facilities, the potential to add future alternative energy generating capacity, and the conditions of the alternative energy marketplace.
- (2) The assessment will identify needed methods to maintain or increase the relative competitiveness of the alternative energy market within the Commonwealth.
- (3) The department shall ensure that all qualified alternative energy sources meet all applicable environmental standards.
- (4) The commission and the department shall work cooperatively to monitor the performance of all aspects of this act and will provide an annual report to the Majority and Minority chairman of the Environmental Resources and Energy Committee of the House of Representatives and the Majority and Minority chairman of the Environmental Resources and Energy Committee of the Senate of Pennsylvania. The report shall include at a minimum: a) the status of the compliance with the provisions of this act by electric distribution companies and electric generations suppliers; b) current costs of alternative energy on a per kilowatt hour basis for all alternative energy technology types; c) costs associated with the Alternative Energy Credits Program under this act, including the number of Alternative Compliance Payments; d) the status of the alternative energy marketplace within Pennsylvania; e) recommendations for program improvements.

## Section 13. Rural Electrical Cooperatives

- (1) Each rural electric cooperative operating within the Commonwealth shall offer to its retail customers a voluntary program of energy efficiency and demand side management programs, as a means to satisfy compliance with the requirements of this act.