Amendment to SB 1030, P.N. 1419

Section 1. Short title. – This act shall be known and may be cited as the Alternative Energy Portfolio Standards Act.

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 megawatt-hour of electricity generated from an alternative energy source.
- "Alternative Energy Portfolio Standards." Means standards establishing that a certain amount of energy sold from alternative energy sources is included as part of the sources of electric generation by electric utilities within this Commonwealth.
- "Alternative Energy Sources." -- Shall <u>includemean</u> the following sources for the production of electricity:
 - (1) Solar photovoltaic energy
 - (2) Solar thermal energy
 - (3) Wind power
 - (4) Low-impact hydropower, which shall mean technologies producing less than 40 megawatts of electric power and that harness the hydroelectric potential of moving 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., or their successors, 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) Ocean or lake energy which means energy generated from waves, tides, currents and thermal differences.
 - (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:
 - (a) organic material from a plant that is grown exclusively for the purpose of being used to produce electricity orelectricity, 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, dunnage, and landscape or right-of-way tree trimmings, vegetative agricultural sources including orchard tree crops, vineyards, grain, legumes, sugar, and other cropby-by-products or residues.

The term shall not include the use of genetically modified organisms, plants or trees used in phytoremediation projects, plants or trees which have been exposed to sewage sludge or other wastes used as fertilizer or plants or trees which have been exposed to pesticides or herbicides that are formulated with halogens or heavy metals.

- (7)Biologically derived methane gas, which shall includemean 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) waste and sewage sludge. The term shall also mean combustion of methane from the anaerobic digestion of animal wastes, provided that the digester has a nameplate capacity of no more than 150 kilowatts and that the animal waste processed does not originate from a confined animal feeding operation or an animal feeding operation established after January 1, 2003;
- (9) Combustion of landfill gas that has been filtered to remove halogenated contaminants and mercury and where these contaminants are filtered into a solid medium not destined for thermal treatment or incineration.
- (8)(10) 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. The hydrogen or hydrogen-rich fuel shall be obtained from sources contained in Tier I, sections 1 through 6.
- (9)(11) Waste coal, which shall includemean 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 proportion of waste coal utilized to produce electricity at the facility.
- (10)(12) Coal mine methane, which shall mean methane gas emitting from abandoned or working coal mines, which are abandoned or working as of the effective date of this Act.
- (11) Energy Efficiency, which shall mean the use of technologies, management practices or other strategies that reduce electricity consumption by residential, commercial or industrial customers. This shall include solar thermal, combined cycle technology, the recovery and re-use of energy from exhaust gasses, and other efficiency improvements that result in higher levels of electricity production without the use of additional fuel.
- (12) Load Management, which shall mean the use of technologies, management practices or other strategies to shift electric load from periods of higher demand to periods of lower demand. The term shall include pump storage technologies. not include hydroelectric pumped storage technologies.
- (13) Demand Side Management, which shall mean 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 and the installation of remote equipment that directly supports on-site control of customer demand.
- (14) Distributed Generation System, which shall mean the small-scale power generation of electricity using an alternative energy source at a site that does not use the facilities of an Electric Distribution Company or a Regional Transmission Organization to supply an end user.

The term does not include municipal solid, industrial, residual or any hazardous waste burned for the generation of electric energy.

"Alternative Energy System." - Means a facility or energy system that uses a form of alternative energy source to generate electricity and delivers the electricity it generates to the distribution system of an Electric Distribution Company or to the transmission system operated by a Regional Transmission Organization.

"Commission." – Means the Pennsylvania Public Utility Commission.

"Cost recovery period" – Means the period during which Competitive Transitions Charges under 66 Pa.C.S. Sec. 2808 or Intangible Transition Charges under 66 Pa.C.S. Sec. 2812 are recovered or the period during which an electric distribution company operates under a Commission-approved generation rate plan that has been approved prior to the effective date of this act, but in no case shall the cost recovery period under this act extend beyond December 31, 2010.

"Customer-Generator" - Means a non-utility owner or operator of a net metered distributed generation system with a nameplate capacity of not greater 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 Regional Transmission Organization, or where a 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 facilities of an Electric Distribution Company, electric cooperative or municipal electric system have been promulgated by the Institute of Electrical and Electronic Engineers and the Commission.

"Department" – Means the Department of Environmental Protection of the Commonwealth.

"Electric Distribution Company." – The term shall have the same meaning given to it in act of December 3, 1996, know as the "Electricity Generation Customer Choice and Competition Act," (P.L. 802, No. 138).

"Electric Generation Supplier." – The term shall have the same meaning given to it in act of December 3, 1996, know as the "Electricity Generation Customer Choice and Competition Act," (P.L. 802, No. 138).

"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.

"Microgrid" – Means a local distribution circuit that has the ability to operate safely when disconnected from the Electric Distribution Company's facilities or from the facilites managed by a Regional Transmission Organization.

"New generation." – Means electricity generated from alternative energy sources produced at a facility that did not produce electricity from an alternative energy sources before January 1, 2003. An increase

in generating capacity after January 1, 2003, from a facility that produced electricity prior to January 1, 2003 shall be considered new generation provided that this new generation is produced from alternative energy sources.

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

"Regional Transmission Organization" – Means an entity approved by the federal Energy Regulatory Commission (FERC) that is created to operate and manage the electrical transmission grids of the member electric transmission utilities as required under FERC Order 2000, Docket No. RM99-2-000, FERC Chapter 31.089 (1999) or any successor organization approved by the FERC.

"Reporting Period." Means the twelve-month period from June 1 through May 31. A reporting year shall be numbered according to the calendar year in which it begins and ends.

"Retail Electric Customer." – The term shall have the same meaning given to it in act of December 3, 1996, know as the "Electricity Generation Customer Choice and Competition Act," (P.L. 802, No. 138).

"Tier I Alternative Energy Source." – Means energy derived from:

- (1) solar photovoltaic energy
- (2) wind power
- (3) low-impact hydropower
- (4) geothermal energy
- (5) (5)—biologically derived methane gas
- (6) (6) coal mine methane gasocean or lake energy
- (7) fuel cells

"Tier II Alternative Energy Source." – Means energy derived from:

- (1) waste coal
- (2) coal mine methane gas
- (3) energy efficiency
- (3)(4) load management technologies.
- (5) distributed generation systems
- (6) (5) demand side management

"True-Up Period". Means the period each year from the end of the reporting year until September 1.

Section 3. Alternative Energy Portfolio Standards.

- (a) 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 electric customers in this Commonwealth shall be comprised of electricity generated from alternative energy sources, and in the percentage amounts as described under subsection (b) and as described under subsection (c). Electric distribution companies and electric generation suppliers shall satisfy both requirements set forth in subsection (b) and subsection (c) of this section. Any cost for the purchase of resources to comply with this section shall be considered cost of generation supply by the Commission, including the cost of generation supply to meet the obligation under Section 2807 of Title 66, by the Commission.
- (b)(1) 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 electric 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 sold to retail electric customers 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 sold to retail electric customers from alternative energy sources shall increase by at least 0.5% each year so that at least 12% of the electric energy sold by an electric distribution company or electric generation supplier to retail electric customers in that certificated territory in the fifteenth year after the effective date of this subsection is sold from Tier I Alternative Energy Resources.

At least 70% of the Tier I Share shall consist of new generation.

- _ (2) Solar photovoltaic share Of the electric energy required to be sold from Tier I sources, the percentage that must be sold from solar photovoltaic technologies is: By Year 1 0.0013%; by Year 5 0.0203%; By Year 10 0.2500%; By Year 15 and thereafter 0.5000%.
- (3) Upon commencement of the beginning of the tenth reporting year the commission shall undertake a review of the compliance by electric distribution companies and electric generation suppliers 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 Department in evaluating the future alternative energy resource potential.
- (c) 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 and thereafter 3.20%.
- (d) Exemption during cost recovery period Compliance with subsections (a), (b) and (c) shall not be required for any electric distribution company that has not reached the end of its cost recovery period or for electric generation supplier sales in the service territory of an electric distribution company that has not reached the end of its cost recovery period. At the conclusion of an electric distribution company's cost recovery period this exception shall no longer apply and compliance shall be required at the percentages in effect at that time. Electric distribution companies and electric generation suppliers whose sales are exempted under this subsection and who voluntarily sell electricity generated from Tier I and Tier II sources during the cost recovery period may bank credits consistent with subsection (e)(7)
- (e) 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 megawatt 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 in one reporting year for compliance in either or both of the two subsequent reporting 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 reporting years. In addition, the electric distribution company and electric generation supplier shall demonstrate to the satisfaction of the commission that such credits:
 - (i) 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;
 - (ii) 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;

- (iii) 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,
- (iv) 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) Credit Banking During Cost Recovery Period. An electric distribution company or an electric generation supplier with sales that are exempted under subsection (d) may bank credits for retail sales of electricity generated from Tier I and Tier II sources made prior to the end of the cost recovery period and after the effective date of this act. Bankable credits shall be limited to credits associated with electricity sold from Tier I and Tier II sources during a reporting year which exceeds the volume of sales from such sources by an electric distribution company or electric generation supplier during the 12 month period immediately preceding the effective date of this act. All credits banked under this subsection shall be available for compliance with subsections (b) and (c) for no more than two reporting years following the conclusion of the cost recovery period.
 - (8) The Commission or its designee shall developshall establish and maintain 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 of the credits. The Commission may contract with a for-profit or a nonprofit entity to assist in the administration of the electricity trading system. 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. Commonwealth. Registry information shall be available by computer network access through the Internet. The registry shall include the current status of credits as they're generated, specifying the facility that generated the credit, the fuel type, location and owner of the facility; current holder of the credit and information on transfers of credits from any parties generating credits from Pennsylvania facilities or transferring credits with a company regulated by the Act.
- (9) 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.
- (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 Regional Transmission Organizations that manage the transmission system in any part of the Commonwealth. All verified reductions shall accrue credits starting with the passage of this act.
- (11) An electric distribution company or electric generation supplier that subsidizes the energy efficiency improvements made by a customer may count the electric energy saved by those improvements toward the energy efficiency and demand side management measures contained in this Act. The electric distribution company or electric generation supplier may count the entire energy

savings regardless of the amount of its financial support, i.e., if the subsidy is 20% of the incremental cost of installing an energy efficient technology, the electric distribution company or electric generation supplier may count 100% of the electricity savings.

(12) Each alternative energy credit, created through a demand side management, energy efficiency or load management program, shall 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)(13) The Commission shall within 90 days of the effective date of this act develop the standards for tracking and verifying savings from energy efficiency, load management 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.

(14) 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 (e).

- (f) 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 (b) and (c). 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 (b) and (c), the commission shall impose an Alternative Compliance Payment on that company or supplier.
 - (3) The alternative compliance payment, with the exception of the solar photovoltaic share compliance requirement set forth in subsection (b)(2), shall be sixty dollars (\$60) times the number of additional alternative energy credits needed in order to comply with subsections (b) or (c).
 - (4) The alternative compliance payment for the solar photovoltaic share shall be <u>onethree</u> hundred dollars (\$100)(\$300) times the number of additional alternative energy credits needed in order to comply with subsection (b)(2).
 - (5) The Commission shall establish a process to provide for, at least annually, a review of the alternative energy market within the Commonwealth and the service territories of the Regional Transmission Organizations that manage the transmission system in any part of the Commonwealth. 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.

- (g) Transfer to Sustainable Development Funds.

 Clean Energy Fund.—The Clean Energy Fund is established as a separate fund in the State Treasury.
 - (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 Clean Energy Fund.
 - 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 (b) and (c).
 - (2) The commission shall use the fund for the following purposes:
 - (a) To make grants to municipal and county governments and public school districts in this Commonwealth for the installation of solar photovoltaic systems.
 - (b) To administer this section.

Section 5. Portfolio Requirements in other states Consumer Protections from Double-Counting

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 service territory of any Regional Transmission Organizations that manage the transmission system in any part of the Commonwealth 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 standards.

An electric distribution supplier or electric generation company shall not satisfy Pennsylvania's alternative energy portfolio requirements using alternative energy that has been marketed at a premium as an environmentally preferable energy product; that has been or is in the process of being recovered in the rate-base of a regulated utility in another state; or where the carbon or other environmental attributes have been separately sold into credit trading markets for such attributes.

Section 6. Interconnection Standards for Customer-Generator Facilities.

The Commission shall develop technical and net metering 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 service region of the Regional Transmission Organization. The Commission shall convene a stakeholder process to develop statewide technical and net metering rules for customer generators. The commission shall develop these rules within six (6) months of the effective date of this act.

Section 7. 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 8. 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 9. Rural Electrical Cooperatives - 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.