

AN ACT relating to economic development.

Be it enacted by the General Assembly of the Commonwealth of Kentucky:

➔SECTION 1. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

The intent of Sections 1 to 12 of this Act is to create new jobs, training, business, and investment opportunities in the Kentucky energy sector by:

(1) Encouraging greater energy efficiency, conservation, and the use of renewable resources;

(2) Promoting energy independence and security;

(3) Diversifying the portfolio of energy sources used for generating electricity for Kentucky electric customers; and

(4) Stabilizing long-term energy prices and reducing economic risks to electric utility customers in Kentucky.

➔SECTION 2. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

As used in Sections 1 to 12 of this Act:

(1) "Anaerobic digestion" means the process by which microorganisms break down the following biodegradable material in the absence of oxygen to produce electricity:

(a) Waste paper;

(b) Grass clippings or other yard waste;

(c) Leftover food;

(d) Sewage and animal waste; and

(e) Low-impact biomass;

(2) "Cabinet" means, except as otherwise indicated, the Energy and Environment Cabinet;

(3) "Combined heat and power" (CHP) means a system that:

- (a) Uses the same energy source for simultaneous or sequential generation of electricity or mechanical power or both, in combination with the generation of steam or other useful thermal energy, including heating and cooling applications;
- (b) Produces at least twenty percent (20%) of its total useful energy in the form of thermal energy, and at least fifteen percent (15%) of its total useful energy in the form of electricity or mechanical power, or a combination thereof;
- (c) Has a net effective heat rate of no more than seven thousand five hundred (7,500) British thermal units per kilowatt-hour, calculated on a higher heating value basis;
- (d) Is designed for continuous operation; and
- (e) If generating electricity, provides the electricity primarily for use by a facility or group of facilities located near the point where electricity is generated and from which net wholesale sales of electricity do not exceed fifty percent (50%) of total annual generation;
- (4) "Commission" means the Public Service Commission;
- (5) "Decoupling" means the disassociation of a utility's net income from its sales of the energy commodity, such as electricity or natural gas;
- (6) "Eligible electric generating facility" means:

 - (a) A facility generating electricity using, in whole or in part, solar energy, wind energy, hydro power, anaerobic digestion, low-impact biomass, landfill gas, geothermal energy, or any combination thereof;
 - (b) A centralized facility generating electricity using, in whole or in part, solar energy, wind energy, hydro power, anaerobic digestion, low-impact biomass, landfill gas, geothermal energy, or any combination thereof; or
 - (c) A facility generating electricity using, in whole or in part, solar energy,

wind energy, hydro power, anaerobic digestion, low-impact biomass, landfill gas, geothermal energy, or any combination thereof that is fed into the distribution system or transmission grid;

(7) "Geothermal energy" means a system that uses the heat of the earth for electric generation or for direct use, including but not limited to space heating and cooling, food preparation, or industrial processes;

(8) "Hydro power" means:

(a) Hydro power capacity placed into service after January 1, 1992; and

(b) Additional capacity installed or efficiency improvements made to existing hydro power capacity and certified by the Federal Energy Regulatory Commission;

(9) "Kentucky retail sales" means electricity generated or purchased by a retail electric supplier and sold to retail electric customers in Kentucky;

(10) "Low-impact biomass" means any nonhazardous organic material that is available on a renewable basis and that is produced and harvested in a sustainable manner within the Commonwealth, including but not limited to:

(a) Renewable plant material, such as agricultural commodities, forest products, dedicated energy crops, and algae;

(b) Vegetative waste material, such as agricultural residues, woody debris, wood, or residues from wood, paper, or paper products facilities;

(c) Food waste;

(d) Yard waste; and

(e) Landfill gas or biogas produced from organic matter, wastewater, anaerobic digesters, or municipal solid waste.

Low-impact biomass does not include electricity generated from direct combustion of mixed municipal waste or wood that has been chemically treated;

(11) "Low-income residential energy efficiency program" means a program designed

to achieve cost-effective residential energy savings for families with income less than two hundred percent (200%) of the federal poverty level, and may include:

(a) Home energy efficiency improvements;

(b) Funding replacement of inefficient substandard housing stock, including mobile and manufactured homes;

(c) Programs to upgrade energy efficiency in rental properties;

(d) Demand-side management programs;

(e) Education programs; and

(f) Other efficiency measures;

(12) "Renewable energy" means electricity generated from solar energy, geothermal energy, wind energy, low-impact biomass, hydro power, anaerobic digestion, combined heat and power from renewable sources, or landfill gas;

(13) "REP" means the renewable energy portfolio requirements as provided in subsection (1) of Section 4 of this Act;

(14) "Retail electric supplier" has the same meaning as in KRS 278.010;

(15) "Solar energy" means electricity generated from a solar photovoltaic system, or heat from a solar thermal water heating system or concentrating solar thermal collector; and

(16) "Wind energy" means electricity generated by a turbine or machine that:

(a) Is certified as meeting the United States Wind Industry Consensus Standards developed by the American Wind Energy Association in partnership with the United States Department of Energy;

(b) Is covered by a manufacturer's warranty of not less than five (5) years;

(c) Is in compliance with all relevant building codes, height restriction variances, other special code requirements, and zoning ordinances;

(d) Has been installed in accordance with all building design codes and all permits received prior to the start of construction and installation;

- (e) Is in compliance with all applicable Federal Aviation Administration regulations;
- (f) Meets all requirements of Article 705 of the National Electrical Code for electrical components and installations; and
- (g) Is rated and listed by Underwriters Laboratories.

➔SECTION 3. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

(1) The cabinet, in consultation with the Kentucky Department of Agriculture, the Kentucky Environmental Quality Commission, the Governor's Office of Agricultural Policy, and the United States Forest Service, shall promulgate administrative regulations in accordance with KRS Chapter 13A by December 1, 2015, for determining what constitutes sustainable production and harvesting of biomass, which criteria will be used by the commission or cabinet in evaluating whether a process utilizing biomass for generating electricity is eligible for inclusion as low-impact biomass meeting the REP requirements. At a minimum, the administrative regulations shall:

- (a) Utilize a life-cycle analysis in assessing biomass production and harvesting sustainability;
- (b) Include consideration of available reports from the United States Department of Energy's National Renewable Energy Laboratory, the United States Environmental Protection Agency, the United States Department of Agriculture, and the final report of the Governor's Biomass and Biofuels Task Force;
- (c) Require that air emissions from a facility using biomass meet Best Available Control Technology requirements, and that water consumption requirements and wastewater discharges not interfere with water quality or existing water usage and withdrawal requirements; and

(d) Be developed following input from a wide range of stakeholders, including organizations representing public health and environmental concerns, agricultural and forestry organizations, businesses, and industries, as well as input from the general public in all parts of the Commonwealth.

➔SECTION 4. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

(1) Each retail electric supplier shall be subject to the requirements of this section and shall, by the end of the calendar year specified, achieve the requirement for renewable energy for that year, as follows:

(a) In calendar year 2017, two and one-quarter percent (2.25%) of the average of Kentucky retail sales for 2015 and 2016 shall be from renewable energy purchased or generated by that retail electric supplier, of which at least one-quarter of one percent (0.25%) shall be from solar energy;

(b) In calendar year 2020, five and one-half percent (5.5%) of the average of 2018 and 2019 Kentucky retail sales shall be from renewable energy purchased or generated by that retail electric supplier, of which at least one-half of one percent (0.5%) shall be from solar energy;

(c) In calendar year 2023, nine and one-quarter percent (9.25%) of the average of 2021 and 2022 Kentucky retail sales shall be from renewable energy purchased or generated by that retail electric supplier, of which at least three-quarters of one percent (0.75%) shall be from solar energy; and

(d) In calendar year 2025 and thereafter, twelve and one-half percent (12.5%) of the average of 2023 and 2024 Kentucky retail sales shall be from renewable energy purchased or generated by that retail electric supplier, of which at least one percent (1%) shall be from solar energy.

(2) No certificate of public convenience and necessity authorizing the construction of new or expanded generating capacity shall be granted to a retail electric supplier,

except as necessary to facilitate compliance with subsection (1) of this section, unless the commission finds that the retail electric supplier is in compliance with the requirements of subsection (1) or (3) of this section.

(3) For any year in which the retail electric supplier does not meet the REP requirement, that retail electric supplier may request that the commission approve an alternative plan by which the shortfall in meeting the requirement can instead be met by offsetting one and one-quarter (1.25) times that amount of energy in reductions in energy usage through additional energy measures pursuant to Section 8 of this Act.

➔SECTION 5. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

(1) Electricity generated from one (1) or more types of renewable energy may be utilized to satisfy the REP requirements of subsection (1) of Section 4 of this Act.

(2) If electric generation employs multiple energy sources, only that portion of the electricity produced that is attributable to renewable energy may be used to comply with the REP requirement.

(3) Electricity attributable to renewable energy that is generated or purchased by the retail electric supplier from a generating facility that became operational before the effective date of this Act may be used to comply with the renewable portfolio standard requirement for that supplier.

➔SECTION 6. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

By January 1, 2016, and on January 1 biennially thereafter, each retail electric supplier shall file an implementation plan with the commission, describing the manner in which that supplier will comply with the REP requirements of Section 4 of this Act.

➔SECTION 7. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

- (1) Commencing on January 1, 2018, and on January 1 of each year thereafter, each retail electric supplier shall submit to the commission an annual report that provides information relating to the actions taken by the utility during the previous calendar year to comply with the REP standard in Section 4 of this Act.
- (2) The commission shall promulgate administrative regulations pursuant to KRS Chapter 13A regarding the form, submission, and information to be contained in each annual report. At a minimum, the annual report shall include the following:
- (a) The total number of megawatt-hours sold to retail electric customers in Kentucky;
- (b) The total number of megawatt-hours of electricity sold to retail customers in Kentucky that qualifies as renewable energy;
- (c) The percentage of the electric utility's total Kentucky retail sales that the amount set forth under paragraph (b) of this subsection represents;
- (d) The total number of megawatt-hours of electricity sold to retail electric customers in Kentucky that qualifies as solar energy under Section 2 of this Act;
- (e) The percentage of the electric utility's total retail sales that the amount in paragraph (d) of this subsection represents;
- (f) A summary demonstrating how compliance with Section 4 of this Act has been achieved; and
- (g) A certification by the retail electric supplier that it has sole and exclusive title to the renewable energy purchased or generated and that this power has not been used to meet renewable portfolio requirements or to satisfy other emission reduction requirements in any other state or jurisdiction, except for a federal renewable portfolio standard.
- (3) (a) Concurrent with the submission of each report under this section, each retail electric supplier shall make a copy of the report available on its Web

site.

(b) Beginning September 1, 2023, and on September 1 of every fifth year thereafter, the commission shall file with the Legislative Research Commission a report that includes all of the following information:

1. A summary of data collected under this section;
2. The status of renewable energy in Kentucky;
3. For the total renewable energy portfolio, the cost of renewable energy compared to the average cost of electricity in Kentucky;
4. An evaluation of the change in electricity rates as a result of Sections 2 to 12 of this Act; and
5. A description of the impact that the adoption of the REP requirements has had on employment in Kentucky. The commission shall consult with other appropriate agencies, including the Cabinet for Economic Development, the Finance and Administration Cabinet, and the Labor Cabinet, in the development of this information.

➔SECTION 8. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

(1) (a) For each calendar year, beginning in 2017, all retail electric suppliers shall take energy efficiency measures and implement energy efficiency programs that achieve incremental and cumulative electricity savings equivalent to the applicable percentages in paragraph (b) of this subsection. Cumulative electricity savings are the savings reflected in a particular year from measures installed during that year, in combination with measures installed in earlier years and still in use and are measured against a rolling baseline that is the average of the previous two (2) years' sales.

(b) The incremental and cumulative electricity savings shall be:

1. In calendar year 2017, the incremental electricity savings requirement

- shall be one-quarter of one percent (0.25%);
2. In calendar year 2018, the incremental electricity savings requirement shall be one-half of one percent (0.5%) and the cumulative savings achieved shall be three-quarters of one percent (0.75%);
 3. In calendar year 2019, the incremental electricity savings requirement shall be three-quarters of one percent (0.75%) and the cumulative savings achieved shall be one and one-half percent (1.5%);
 4. In calendar year 2020, the incremental electricity savings requirement shall be one percent (1%) and the cumulative savings achieved shall be two and one-half percent (2.5%);
 5. In calendar year 2021, the incremental electricity savings requirement shall be one and one-quarter percent (1.25%) and the cumulative savings achieved shall be three and three-quarters percent (3.75%);
 6. In calendar year 2022, the incremental electricity savings requirement shall be one and one-quarter percent (1.25%) and the cumulative savings achieved shall be five percent (5%);
 7. In calendar year 2023, the incremental electricity savings requirement shall be one and one-half percent (1.5%) and the cumulative savings achieved shall be six and one-half percent (6.5%);
 8. In calendar year 2024, the incremental electricity savings requirement shall be one and three-quarters percent (1.75%) and the cumulative savings achieved shall be eight and one-quarter percent (8.25%); and
 9. In calendar year 2025, the incremental electricity savings requirement shall be two percent (2%) and the cumulative savings achieved shall be ten and one-quarter percent (10.25%).
- (2) A portion of the incremental electricity savings achieved from energy efficiency programs in any year shall be obtained through low-income residential energy

efficiency programs. The portion shall be at least ten percent (10%) of the incremental energy savings multiplied by the percentage of total electricity sales from each utility that comes from residential customers. The programs shall be developed in coordination with programs provided by the Kentucky Housing Corporation and implemented by the utility through providers of low-income weatherization and housing programs within each utility service area.

(3) The baseline for incremental electricity savings under this section shall be the average of the total kilowatt-hours that the retail electric supplier sold to Kentucky retail customers during the preceding two (2) calendar years.

(4) A retail electric supplier may meet the requirements of this section by any one (1) or more of the following, alone or in combination:

(a) End-use efficiency savings measures at customer facilities located in Kentucky and installed after January 1, 2015; or

(b) Combined heat and power installations, subject to the following conditions:

1. The installation or upgrade to an existing installation was put into operation after January 1, 2015;

2. Savings from upgrades to existing combined heat and power systems can qualify only to the extent the savings exceed what was achieved with the prior system;

3. The total claimed savings from combined heat and power installations can account for no more than thirty percent (30%) of the utility's annual savings requirement; and

4. The combined heat and power system is not also counted as renewable generation under the state REP standard in Section 4 of this Act.

➔SECTION 9. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

(1) On January 1, 2016, and on January 1 biennially thereafter, each retail electric

supplier shall file with the commission an energy efficiency plan which shall:

- (a) Propose a set of energy efficiency programs, including average and peak demand reduction programs, which include offerings for each customer class, including low-income residential customers within the residential class. The commission shall allow suppliers flexibility to tailor the relative amount of effort devoted to each customer class based on the specific characteristics of their service territory;
- (b) Specify necessary funding levels for proposed energy efficiency programs;
- (c) Demonstrate that the proposed efficiency programs and the funding are sufficient to ensure the achievement of applicable energy efficiency performance standards under Section 8 of this Act;
- (d) Demonstrate that the utility's proposed energy efficiency program will be cost-effective, providing savings in electricity usage within each class of customers greater than the cost of implementation of the program;
- (e) Provide for efficient and effective administration of the proposed efficiency programs. A utility's energy efficiency programs may be administered at the utility's option, by the utility, alone or jointly with other utilities, by a state agency, or by an appropriate, experienced organization selected after a competitive bidding process, provided that the comprehensive low-income energy efficiency program shall be administered as provided in Section 8 of this Act;
- (f) Include a process for measurement and verification of calendar year energy savings for each energy efficiency program. A report on calendar year energy savings from each efficiency program shall be filed with the commission at the end of each calendar year commencing with January 1, 2018;
- (g) Allow for the coordination of energy efficiency measures and programs

with the energy efficiency measures and programs of other utilities, where the commission finds that coordination would increase savings to the customers of all participating utilities; and

(h) Include any other information that the commission determines is necessary.

(2) An energy efficiency plan may provide for the electric utility to facilitate third-party loans to customers to finance energy efficiency measures with on-bill financing.

(3) On receipt of an energy efficiency plan, the commission shall open a case in order to allow review of the proposed plan. The plan may be submitted in conjunction with the REP implementation plan required under Section 6 of this Act.

(4) In approving an energy efficiency plan, the commission shall require that the plan:

(a) Include provisions for the definition, measurement, and third-party verification of electricity savings proposed to be achieved under the plan;

(b) Require that energy consumption estimates for customer facilities or portions of facilities in the applicable base time periods used for estimating savings be adjusted, as appropriate, to account for changes in weather, level of production, and building area;

(c) Account for the useful life of electricity savings measures;

(d) Allow for the use of deemed savings for specific, commonly used efficiency measures;

(e) Allow for savings from a program to be estimated based on a statistical sample of participating customers and extrapolated to all participating customers within a customer class; and

(f) For the comprehensive low-income energy efficiency program component, provide additional benchmarks for anticipated cost savings to ratepayers

associated with a reduction in utility shut-offs and reconnections, the savings in energy usage, and the health, safety, and any other benefits for the customers to be served by the program.

➔SECTION 10. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

(1) Each retail electric supplier shall submit an annual report to the commission on September 1, 2018, and on September 1 of each year thereafter. The commission shall promulgate administrative regulations in accordance with KRS Chapter 13A regarding the form, submission, and information to be contained in each annual report. At a minimum, the annual report shall include the following:

(a) The estimated total annual electricity savings achieved by the utility through energy efficiency programs provided during the reporting period for each class of ratepayers, and the estimated savings in each class;

(b) The estimated incremental peak reduction achieved through peak demand reduction programs during this reporting period;

(c) Total expenditures made on energy efficiency and peak demand reduction programs, and expenditures made on energy efficiency and peak demand reduction programs for each class of ratepayers;

(d) The cost-effectiveness of the implemented programs for each class of ratepayers; and

(e) Any other information that the commission determines is necessary.

(2) Concurrent with the submission of each report under this section, each utility shall make a copy of the report available on its Web site.

(3) Beginning September 1, 2023, and on September 1 of every fifth year thereafter, the commission shall produce, file, and present to a meeting of the Legislative Research Commission a report that includes:

(a) A summary of data collected under this section, including the required

annual reports;

(b) The status of energy efficiency in Kentucky;

(c) For the total portfolio of energy efficiency programs, the cost of energy efficiency compared to the average cost of electricity in the state;

(d) An evaluation of whether Sections 1 to 12 of this Act have been cost-effective;

(e) A description of the impact Sections 1 to 12 of this Act have had on employment in the state. The commission shall consult with appropriate agencies, including the Cabinet for Economic Development, the Finance and Administration Cabinet, and the Labor Cabinet in the development of this information; and

(f) Any recommendations the commission may have concerning amendments to this section.

(4) No certificate of public convenience and necessity authorizing construction of new or expanded generating capacity shall be granted to a retail electric supplier unless the commission finds that the retail electric supplier is in compliance with the requirements of this section.

➔SECTION 11. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

A retail electric supplier shall recover the full costs of commission-approved plans under Sections 1 to 12 of this Act, revenues lost by implementing those plans, and incentives if appropriate. The commission shall consider decoupling as one (1) possible method to enable the recovery of lost revenue when it designs, amends, or approves rate schedules. Recovery of program costs, lost revenue, and incentives may be reviewed and approved by the commission as part of a proceeding for approval of new rate schedules pursuant to KRS 278.190 or in a separate proceeding initiated pursuant to this section.

➔SECTION 12. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

(1) By January 1, 2016, the commission shall develop guidelines for a tariff to be filed by each retail electric supplier establishing the interconnection procedures and rate at which an eligible electric generating facility will be compensated for renewable electricity generated and fed into the distribution system or transmission grid of that retail electric supplier.

(2) The guidelines developed under subsection (1) of this section shall, at a minimum:

(a) Develop a standard contract that shall be offered by each retail electric supplier for the purchase of electricity generated by the facility, including the duration of the contract; and

(b) Require the retail electric supplier to enter into a contract, upon request of an eligible electric generating facility, to purchase electricity from that facility at a rate that is not less than the renewable energy rate established by the commission pursuant to subsection (3) of this section that applies with respect to the particular renewable resource used by the eligible electric generating facility.

(3) The commission shall determine, and adjust as appropriate on a biennial basis, the rate to be paid for each kilowatt-hour of renewable electricity purchased under the contract, and the term of the contract. The renewable energy rate and contract term shall be established for each generation technology used by an eligible electric generating facility. Rates and terms shall be established to allow for recovery of costs and a reasonable rate of return on investment in the facility, considering these factors:

(a) Investment costs for development of a facility, including material costs, capital costs, and those costs associated with comparable projects utilizing

that technology;

(b) Permitting, licensing and interconnection costs, including necessary improvements in order to allow grid interconnections;

(c) Operation and maintenance costs;

(d) Fuel costs;

(e) Decommissioning costs; and

(f) Available federal or state financial incentives, including tax incentives.

(4) The commission, pursuant to subsection (3) of this section, may establish rates within a class of technology based on the size or capacity of an eligible electric generating facility where it finds that the size or capacity significantly affects the total costs for facility development and operation.

(5) Electric generating systems and interconnection equipment used by the eligible electric generating facility shall meet all applicable safety and power quality standards established by the National Electrical Code (NEC), Institute of Electrical and Electronics Engineers (IEEE), and accredited testing laboratories such as Underwriters Laboratories.

(6) Any upgrade of the interconnection between the retail electric supplier and the eligible electric generating facility that is required by commission-approved tariffs for the purposes of allowing the feed-in of electricity to the distribution system or transmission grid shall be made at the expense of the eligible electric generating facility.

(7) The difference between the cost of electricity under subsection (4) of this section pursuant to a commission-approved tariff, and the avoided generation costs for that retail electric supplier may be recovered as part of a proceeding initiated pursuant to this section, which shall be limited to a review of the purchase contracts and amount of electricity purchased under the renewable energy tariff during the period for which cost recovery is sought.

(8) Beginning on January 1, 2018, and on January 1 every two (2) years thereafter, the commission shall review the tariffs for each technology for which a tariff has been established and the interconnection guidelines, and shall adjust the rates and guidelines as necessary in order to effectuate the purposes of Sections 1 to 12 of this Act.