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## Draft State Legislation: Agricultural Energy Net Metering & Power Purchasing

Samuel C. Kessler

*Commonwealth Policy Coalition, University of Louisville Chapter, sckess01@louisville.edu*

Austin Gabhart

*University of Louisville Chapter, Adjunct Associate via Georgia Tech, austin.gabhart@gmail.com*

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# **Sustainable Ag-Energy Proposal**

Draft 3: March 2019

Provision:

“Agricultural Net Metering & PPA Standards for Producers”

**Contact(s):**

Samuel Kessler (Taylor County), University of Louisville; [sckess01@louisville.edu](mailto:sckess01@louisville.edu).

John McClean (Taylor County), MAC Farms; [johnmclean76@msn.com](mailto:johnmclean76@msn.com)

Austin Gabhart (Anderson County), University of Alabama Huntsville; [austingabhart@gmail.com](mailto:austingabhart@gmail.com).

Callie Freeman (Jefferson County), University of Virginia; [cad7ez@virginia.edu](mailto:cad7ez@virginia.edu).

Caleb Stickney (Estill County), Harvard University

# Sustainable Agricultural Energy Net Metering Example State Bill Draft



*The Future of the Commonwealth, For the Commonwealth.*

## Drafted by the Commonwealth Policy Coalition

A draft PROVISION relating to producers and agricultural energy production. This draft provision may be provided to appropriate state-level legislative staff responsible for drafting bill language appropriate for codification, for their use of this draft as a template.

### **Proposal Contents:**

#### **Executive Summary**

#### **Section 1-Definitions**

- Definition of agricultural producer as eligible-consumer generator
- Definition of agricultural electric-generating facility

#### **Section 2- Ag-Energy Net-Metering Standards For Producers**

- Definition of Ag-Energy standards for net metering
  - (1) Producer projects as qualified entity
  - (2) Mandated KPSC-determined contracts for Ag-energy, 3-tier spot market model, sliding caps and precautions, contract review
  - (3) Rules as dollar-denominated bill credit, rollovers as lesser cash rebate

#### **Section 3- Adoption of Net-Metering Standards For Producers**

- Amendment to KRS 278:
  - Exceptions in Agricultural energy production provided by Sustainable Ag-Energy Act of 2020.

#### **Section 4-Act Subject to Study**

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## **SECTION 1 : DEFINITIONS**

- "producer" is defined to include producer as defined in Sec. 9011 (a)(6) of the federal Farm Security and Rural Investment Act of 2002 ([7 U.S.C. 8111](#)) including "project sponsor" or owner of BCAP project area under the same act, otherwise including any farmland owner or entity who is a producer qualified as an eligible applicant under the federal Energy Policy Act of 2005, agricultural business, or similar business in alternative fertilizer production.

- "Ag-Energy" is defined as production of energy from eligible materials and eligible materials relating to agriculture. This may include anaerobic digestion with eligible material, combined heat and power with eligible material, production of biodiesel from low-impact biomass that is an eligible material, production of bio-coal from totalfied or non-totalfied biomass that is an eligible material; where:

- "Low-impact biomass" is defined as a non-hazardous organic material, available on a renewable basis, and 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 residues from hemp-production, agricultural vegetative residues; woody debris, wood, or residues from wood, paper, or paper products facilities;
- (c) Food waste;
- (d) Agricultural manures, hay byproducts, hay-manure mix, and aquaculture sludge harvested for purposes of composting, vermiculture, biodigestion or other Ag-Energy.
- (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 chemically treated wood;

## **SECTION 2: AG-ENERGY NET METERING STANDARDS FOR PRODUCERS**

The electric generating facility of an entity defined as a producer under this act who is also an "eligible customer generator", which may also include an electric generating facility powered by biodiesel and materials sourced from the same producer, shall be subject to the following conditions, as provided herein:

- (1) The retail electric supplier to an entity identified as a producer under the Sustainable Ag-Energy Act of 2020 who is also an eligible customer-generator of an electric generating facility (which may include any eligible electric generating facility in a BCAP project area under Sec. 9011 (b)(2) of the federal Farm Security and Rural Investment act of 2002,

where otherwise the eligible customer-generator may be any owner of an eligible electric generating facility on land of in current farm production or land which has ceased farm production for a period no greater than 10 years) using “Ag-Energy” as defined by the Sustainable Ag-Energy Act of 2020, shall be provided an established net metering contract by this mandate which shall be designed by the KPSC under rules and standards defined in section (2). Such contracts are an exception not to be considered by the supplier in assessing cumulative generating power of net metering systems and one hour peak-load, and may extend to agricultural electric generating facilities with capacity up to 1 megawatt, however it shall not overload the electric distribution transformer beyond the manufacturer or nameplate ratings unless the customer reimburses the electric distribution company for its cost to modify any facilities needed to accommodate the interconnection. This contract may be amended by KPSC review as described in section (2) to uphold standard of justness and reasonableness and avoidance of consumer rate hikes.

- (2) Beginning January 1, 2021, 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 as described in this subsection. The KPSC shall 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 which may also correlate with a status as producer under the Sustainable Ag-energy Act of 2020; and require the retail electric supplier to enter into a contract, upon request of an eligible electric generating facility owned by a producer, 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 (1) of this section.
- (1) The commission shall determine, and adjust as appropriate on a triennial basis, the rate of each kilowatt-hour of Ag-Energy electricity purchased under the contract from an eligible customer generator defined as a producer under the Sustainable Ag-energy Act of 2020, and the term of the contract. The rate shall be established by the commission to reflect an annual market price of Ag-Energy electricity. Rates and terms shall be adjusted to costs of generation while avoiding possibility of rate hikes by adjustment of ceilings where applicable. Rates applied shall be as determined in subsection 3. In evaluating benefits to the consumer, the KPSC in coordination with the KY commissioner of Agriculture may further consider in general the economic status of the agricultural industry, costs of agricultural production attributed to energy, costs of agricultural product attributed to energy costs, and the General Assembly’s purpose of this section in reasonable agricultural assistance. The KPSC may amend rates via responsive cap degression or floor increase, on a monthly basis, with biennial review of caps and floors. In establishing these, the KPSC may further consider:
  - (a) Facility type and size, as described in subsection (3).

- (b) Investment costs in project, including material and capital costs, of development of a facility, considering those costs associated with comparable projects utilizing that technology;
  - (c) Permitting, licensing and interconnection costs, including necessary improvements in order to allow grid interconnections;
  - (d) Operation and maintenance costs;
  - (e) Fuel costs;
  - (f) Decommissioning costs; and
  - (g) Available federal or state financial incentives, including tax incentives, excluding sustainable material tax incentives as defined in the Sustainable Ag-energy Act of 2020, excluding any federal grants associated with a BCAP project area under Sec. 9011 (b)(2) of the federal Farm Security and Rural Investment act of 2002, USDA Rural Energy for America, CAPE, or NRCS programs.
- (2) In response to rates for eligible electric facilities described in subsection (1) of this section, a retail-electric supplier may not increase consumer rates; though with appeal to the commission for purposes pursuant to this subsection, or in seeking cost recovery, the retail electric supplier may be granted a commission review of a request for increase in consumer rates, pursuant to this section. The commission shall consider such instances in review for adjusting rates under section (1) and consumer rates in contexts of fairness, justness, and reasonableness as defined in KRS 154.27-020(2) and KRS 278.271, and likewise interest in modifying contract as described in this section.
- (3) The commission, pursuant to subsection (1) of this section, shall establish rates within a class of technology based on the size, capacity, and type of an eligible electric generating facility, as described in subsection:
- (a) For an eligible electric facility that produces energy via biomass, biodigestion, or biodiesel manufactured by the same producer, the rate paid to the eligible customer generator who is a producer shall include a sliding-premium based upon the market price of electricity, also called a spot-market premium, which shall be jointly determined by the KPSC with approval by the KY Commissioner of Agriculture on an annual basis. If joint approval does not occur, the previous premium shall remain in place. The commission shall determine a cap value for such spot-market premium, and upon monthly review may decrease such cap dynamically in order to avoid consumer rate hikes if necessary. The commission shall determine a guaranteed and static floor to this spot-market premium, based on the previous year average or predicted average of market price of electricity.
  - (b) For an eligible electric facility that produces Ag-Energy, as described in the Sustainable Ag-Energy act of 2019, and not included in subsection (a), the rate paid to the eligible customer generator who is a producer

shall be based upon the market price and guaranteed floor determined by the commission, based on the market price of Ag-Energy electricity as the commission may determine. The commission, with approval by the KY Commissioner of Agriculture, may increase such floor amount in purposes consistent with subsection (1).

- (c) The commission shall determine a spot-market rate at discounted value from market price of electricity, which shall also serve as cash rebate as described in subsection 7(c).
  - (d) The size of the facility in terms of energy production shall determine eligibility to receive rates as described in (a), (b), or (c). The commission shall determine margins of eligibility, based upon amount of electricity produced over amount consumed.
    - (i) Where the net-metered difference, being difference in production and consumption, is less than or equal to a commission determined margin, the eligible customer generator shall be subject to rates in the contract in (a) if qualifying by type, else the contract in (b).
    - (ii) Where the net-metered difference is greater than the minimum margin determined in (i) but less or equal to a medium margin having a maximum ceiling to qualify for the guaranteed floor in (a) and (b), as shall be determined by the commission, the eligible customer generator shall be subject to rates of the contract in (b) regardless of type.
    - (iii) Where the net-metered difference is greater than the margin described in (ii), the eligible customer generator shall be subject to rates of the contract in (c) regardless of type.
- (4) 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.
- (5) Any upgrade of the interconnection between the retail electric supplier and the eligible electric generating facility that is required by commission-approved contracts 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.
- (6) The difference between the cost of electricity under subsection (2) of this section pursuant to any commission-approved contract, 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 applicable energy contract during the period for which cost recovery is sought.

- (7) Beginning on January 1, 2021, and on January 1 every three (3) years thereafter, the commission shall review the contracts for each technology for which such contract has been established, and the interconnection guidelines, and shall adjust the rates and guidelines as necessary in order to effectuate the purposes of Section 5 through 7 of this Act.
- (3) The following rules shall apply to the billing of net electricity where section 5 of this act applies:
- (a) The net electricity produced or consumed during a billing period shall be read, recorded, and measured in accordance with metering practices prescribed by the commission;
  - (b) The customer-generator shall be credited for kilowatt hours in accordance with sections (1) and (2). This electricity credit shall appear on the customer-generator's bill, where a procedure for credits and credits in excess of the customer-generator's bill is as described in (c).
  - (c) Each billing period, compensation provided to an eligible customer-generator shall be in the form of a dollar-denominated bill credit. If an eligible customer generator's bill credit exceeds the amount to be billed to the customer in a billing period, the amount of the credit in excess of the customer's bill shall be paid as a cash rebate, by the spot-market cash rebate as described in section 2 subsection 3 (c). Excess bill credits shall not be transferable between customers or premises. If an eligible customer-generator closes their account, no cash refund for accumulated credits shall be paid.

### **SECTION 3: ADOPTION OF NET METERING STANDARDS FOR PRODUCERS**

**KRS CHAPTER 278.465 - .466 IS AMENDED TO READ AS FOLLOWS:**

“

AN ACT relating to net metering.

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

\*Section 1. KRS 278.465 is amended to read as follows:

As used in KRS 278.465 to 278.468:

(1) "Eligible customer-generator" means a customer of a retail electric supplier who owns and operates an electric generating facility that is located on the customer's premises, for the primary purpose of supplying all or part of the customer's own electricity requirements.

(2) "Eligible electric generating facility" means an electric generating facility that:



- (a) Is connected in parallel with the electric distribution system;
- (b) Generates electricity using:
  - 1. Solar energy;
  - 2. Wind energy;
  - 3. Biomass or biogas energy; or
  - 4. Hydro energy;
- (c) Has a rated capacity of not greater than thirty (30) kilowatts.
- (3) "Kilowatt hour" means a measure of electricity defined as a unit of work of energy, measured as one (1) kilowatt of power expended for one (1) hour.
- (4) "Net metering" means[ measuring] the difference between the:

**(a)** The difference in electricity supplied by the electric grid and the electricity generated by an eligible customer-generator that is fed back to the electric grid over a billing period **and priced as prescribed in Section 2 of this Act; and**

**(b) Dollar value of all electricity consumed by the eligible customer-generator over the same billing period and priced using the applicable contract of the retail electric supplier.**

278.466 Availability of net metering -- Type, expense, and installation of meter -- Calculation of electricity billed – **Net Metering with Ag-Energy**--Rules applicable to billing -- Safety and power quality standards -- Transferability of installation

- (1) Each retail electric supplier shall make net metering available to any eligible customer-generator that the supplier currently serves or solicits for service. If the cumulative generating capacity of net metering systems reaches one percent (1%) of a supplier's single hour peak load during the previous year, the obligation of the supplier to offer net metering to a new customer-generator may be limited by the commission.
- (2) Each retail electric supplier serving a customer with eligible electric generating facilities shall use a standard kilowatt-hour meter capable of registering the flow of electricity in two (2) directions. Any additional meter, meters, or distribution upgrades needed to monitor the flow in each direction shall be installed at the customer-generator's expense. If additional meters are installed, the net metering calculation shall yield the same result as when a single meter is used.
- (3) The amount of electricity billed to the eligible customer-generator using net metering shall be calculated by taking the difference between the electricity supplied by the retail electric supplier to the customer and the electricity generated and fed back by the customer. If time-of-day or time-of-use metering is used, the electricity fed back to the electric grid by the eligible customer-generator shall be net-metered and accounted for at the specific time it is fed back to the electric grid in accordance with the time-of-day or time-of-use billing agreement currently in place.

(4) Each net metering contract or tariff shall be identical, with respect to energy rates, rate structure, and monthly charges, to the contract or tariff to which the same customer would be assigned if the customer were not an eligible customer generator, ***unless net metering contract standards for producers apply as stated in the Sustainable Ag-Energy Act of 2020.***

(8) ***Unless otherwise suggested in section 4,*** the following rules shall apply to the billing of net electricity:

(a) The net electricity produced or consumed during a billing period shall be read, recorded, and measured in accordance with metering practices prescribed by the commission;

(b) If the electricity supplied by the retail electric supplier exceeds the electricity generated and fed back to the supplier during the billing period, the customer generator shall be billed for the net electricity supplied in accordance with subsections (3) and (4) of this section;

(c) If the electricity fed back to the retail electric supplier by the customer generator exceeds the electricity supplied by the supplier during a billing period, the customer-generator shall be credited for the excess kilowatt hours in accordance with subsections (3) and (4) of this section. This electricity credit shall appear on the customer-generator's next bill. Credits shall carry forward for the life of the customer-generator's account;

(d) If a customer-generator closes his account, no cash refund for residual generation-related credits shall be paid; and

(e) Excess electricity credits are not transferable between customers or locations.

(9) Electric generating systems and interconnecting equipment used by eligible customer-generators 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.

(10) An eligible customer-generator installation is transferable to other persons or service locations upon notification to the retail electric supplier and verification that the installation is in compliance with the applicable safety and power quality standards in KRS 278.467 and in subsection (6) of this section.

(11) Any upgrade of the interconnection between the retail electric supplier and the customer-generator that is required by commission-approved tariffs for the purpose of allowing net metering shall be made at the expense of the customer-generator. Effective: July 15, 2008.

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#### **SECTION 4: ACT SUBJECT TO STUDY**

The KPSC, in coordination with the KY Dept. of Agriculture, shall develop a research team to assess the economic impact of this act in agricultural development and energy economy, amongst agricultural producers, Ag-Energy producers, as well as “eligible customer generators”, “retail electric suppliers”, and “consumers” as defined in KRS chapter 278, over an eleven (11) year period.

**SECTION 5: ACT SUBJECT TO PUBLIC COMMENT, EFFECTIVE DATE**

This act shall be submitted to the energy and environment cabinet for approval, after opportunity for public comment.