

# KySES

The Kentucky Solar Energy Society  
2056 S. Preston St.  
Louisville, KY 40217  
502-634-1004

April 20, 2013

Chairman David L. Armstrong  
Kentucky Public Service Commission  
211 Sower Blvd.  
Frankfort, KY 40601

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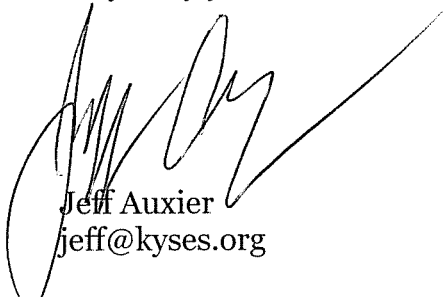
Matter of:       Application of Jackson Energy  
                  Case No. 2013-0004

RE: Comments of Kentucky Solar Energy Society

Dear Chairman Armstrong:

Enclosed for filing in the above docket are an original and ten copies of the Comments of Kentucky Solar Energy Society.

Very truly yours,



Jeff Auxier  
jeff@kyses.org

/ja  
encs.

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PUBLIC SERVICE  
COMMISSION

**COMMONWEALTH OF KENTUCKY**

**BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

<b>TARIFF FILING OF JACKSON ENERGY</b>	)	<b>Case No.</b>
<b>COOPERATIVE CORPORATION TO REVISE</b>	)	<b>2013-00004</b>
<b>ITS NET METERING TARIFF</b>	)	

**COMMENTS OF KENTUCKY SOLAR ENERGY SOCIETY**

The Kentucky Solar Energy Society (KySES) promotes efficiency, conservation and renewable energy. KySES respectfully comments regarding Jackson Energy Cooperative Corporation's request to alter its net metering tariff.

**SUMMARY**

Jackson Energy seeks to impose mandatory liability insurance limits between \$500,000 and \$1 million for net-metered distributed generation energy systems installed in Kentucky. The proposed liability limits are excessive and unnecessary.

KySES has concerns as to Jackson Energy's use of the term "licensed installer." KySES has no objection to the change of the word "inspection" to the word "examination."

## DISCUSSION

Jackson Energy's proposed liability insurance requirements are excessive and unnecessary because:

1. The standard "Interconnection and Net Metering Guidelines – Kentucky" (hereinafter "Net Metering Guidelines") already provide ample and redundant protection against harm;
2. The equipment used in the vast majority of systems has an excellent safety record;
3. The proposed liability insurance limits exceed those adopted by other jurisdictions;
4. The proposed liability insurance limits impose unnecessary and unduly burdensome expense.

### **Present Tariff Provides Protection**

KRS 278.466(6) states that net-metered energy systems "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."

These standards include the Institute of Electrical and Electronic Engineers (IEEE) Standard 1547, "Standard for Interconnecting Distributed

Resources with Electric Power Systems.” The Federal Energy Policy Act of 2005 adopted IEEE Standard 1547 as the standard for interconnecting distributed generation resources into the electric power system. IEEE Standard 1547 ensures functionality and safety of any new distributed generation energy system.

IEEE 1547 has been integrated and harmonized with Underwriter Laboratories (UL) Section 1741. UL 1741 pertains to the design and manufacture of inverters and other components. UL 1741 addresses the important issue of “islanding” and requires that distributed power generation equipment stop feeding the grid in the event of centralized grid power failure. New inverters are required to meet UL 1741. They are also required to meet UL 1699B, which addresses arc-faults and fire safety.

Jackson Energy’s present net metering tariff requires compliance with IEEE 1547 and UL 1741. Both of these standards provide ample safety and protection against harm.

Underwriters’ Laboratories also certifies the other components of distributed energy generation systems, including mounting hardware, cables, modules, trackers, batteries, junction boxes, fuses, combiner boxes and connectors. Exhibit A. These certifications provide “a comprehensive review of important safety issues such as electrical shock, fire hazards, and even performance when it's inherent to a product operating safely.”<sup>1</sup>

KRS 278.466(6), Section 2701.1 of the Kentucky Building Code (KBC) and the Commission's standard Net Metering Guidelines also require that any installation of a distributed generation energy system comply with the provisions of the National Electrical Code. Again, this is a requirement "to ensure safety." KBC 2701.1. A customer-generator must also obtain an electrical permit before any distributed generation energy system can be installed. KBC 2703.1. A permit assures inspection by a state electrical inspector. This inspection adds yet another layer of safety.

Jackson Energy also reserves the right to inspect or "examine" any newly installed Level 1 or Level 2 systems to confirm compliance with applicable standards and codes as well as its own requirements. Again, another layer of safety.

Jackson Energy can also require an external disconnect. This is a redundant measure, as inverters now automatically disconnect from the grid when they detect grid failure. An external disconnect nonetheless provides another layer of protection.

In short, the Commission's standard Net Metering Guidelines together with existing laws and codes provide many and ample layers of safety.

## **Equipment and Systems Have Excellent Safety Record**

Jackson Energy has had no liability claims arising from net-metered energy systems tied to its grid.<sup>2</sup> KySES knows of no such claims arising anywhere in the United States and believes that no such claims have arisen anywhere in the United States. See, Exhibit B, (50,000+ systems and no claims).

Existing equipment standards and installation procedures have and will continue to ensure safety.

## **Proposed Requirements Exceed Other Jurisdictions'**

KRS 278.465(2)(c) limits Kentucky's net-metered distributed generation energy systems to 30kw in size. Given this limitation, Jackson Energy's proposed requirements of \$500,000 to \$1 million for Level 1 systems and \$1 million for Level 2 systems significantly exceed those of most other jurisdictions.

Keyes and Fox, LLP examined insurance requirements in 2009 and determined that at least twelve states prohibited insurance requirements. Exhibit B. KySES's own research reveals the following:

1. Oklahoma allows renewable energy and combined heat and power net-metered systems up to 100kw in size. Oklahoma prohibits the imposition of any additional insurance requirements by a utility.<sup>3</sup>
2. New York allows net-metered systems of up to 2 MW in size. For neither inverter based nor non-inverter based systems is liability insurance required, per Section VII of the state's newly issued April 1, 2013 Standard Interconnection Agreement. The NY PSC does, however, "encourage" system owners to obtain insurance.<sup>4</sup> Kentucky's existing rules do at least the same.
3. Missouri requires \$100,000 of liability insurance for systems larger than 10kw and no liability insurance for systems 10kw or less.<sup>5</sup>
4. So long as systems meet UL, NEC, IEEE and PSC requirements, utilities in Maryland cannot impose liability insurance requirements on the owners of net-metered distributed generation energy systems.<sup>6</sup>
5. Kansas prohibits utilities from requiring additional liability insurance.<sup>7</sup>
6. Pennsylvania allows all different kinds of net-metered distributed generation systems up to 5MW in size and prohibits any requirement for "additional" insurance.<sup>8</sup>

The undersigned inquired to his homeowner's insurer Liberty Mutual Insurance and a licensed Louisville insurance broker and learned that the standard minimum homeowner's liability limit in Kentucky is \$100,000, and commercial policies carry higher limits. Kentucky's standard \$100,000 liability limit accords with the liability insurance requirements imposed by other jurisdictions.

## **Proposed Insurance Requirements Are Excessive and Unduly Burdensome**

Jackson Energy's proposed requirements would impose significant additional costs on customer-generators in Jackson Energy's service area. Jackson Energy suggests these costs would be \$50 per year. \$50 per year on a 4kw system reduces return on investment (ROI) by about 10%. On a 2kw system, \$50 per year reduces ROI by 20%.

In rate case after rate case, utilities fight hard for an additional percentage point or two on their ROI. Individual ratepayers likewise value their returns. Given existing multi-layered safety measures, the costs imposed by the additional insurance requirements are not warranted.

## **Adopting Proposed Liability Requirements May Be Unlawful 278.466(4) and Chapter 13A**

KRS 278.466(4) requires the same rate structure for customer-generators as for those who are not customer-generators. Increased liability limits, however, mean increased charges for customer-generators, resulting in a different rate structure for them. This violates KRS 278.466(4).

Further, Jackson Energy's requests to:



1. require \$500,000 to \$1,000,00 of enhanced (as opposed to standard) liability limits;
2. define the term “licensed installer;”
3. require more insurance for installations done by “licensed” versus “non-licensed” installers, and;
4. require that installers carry liability insurance,<sup>9</sup>

if granted, would seem to contradict the Commission’s present Net Metering Guidelines, in violation of KRS 278.467(3). These requests might also invoke the need for formal rulemaking. See, e.g., KRS 13A-010(2); 13A-270.

### **“Licensed” Versus “Non-Licensed” Issue**

If the Commission determines it can in this case distinguish between “licensed” and “non-licensed” installers, it would be important to list each type of person that Jackson Energy would consider a “licensed installer.” The term “licensed installer” carries weight and significance that might be misinterpreted.

KySES believes homeowners and those with adequate training should be included as types of “licensed installers.”

Therefore, if any use of the phrase “licensed installer” is appropriate, KySES suggests clarifying that:

“A ‘licensed installer’ is an installer who is:

- a. a licensed electrician
- b. an electrical engineer
- c. certified by the North American Board of Certified Energy Practitioners, or
- d. has significant experience with or training regarding the installation of electrical facilities in net metering installations, or
- e. who owns the property upon which the system is to be installed.”

Jackson Energy also seeks to impose an insurance requirement on the installer. Requiring an installer to carry insurance is unnecessary. Some jurisdictions require a contractor to carry insurance and some do not - it is a matter for the local jurisdiction.

## **CONCLUSION**


Jackson Energy’s proposed liability limits are excessive and unnecessary and KySES asks the Commission reject them.

Use of the term “licensed installer” is of such importance and significance that it may constitute rulemaking and merits close examination and debate. KySES asks that the Commission reject this change for now, also. If the Commission disagrees, KySES urges a plain statement of the types of persons who would be a “licensed installer” and ask the Commission to incorporate its suggestions.

Changing “inspection” to “examination” does not seem significant, given the rationale asserted by Jackson Energy. Thus, KySES has no objection.

**Respectfully submitted** on behalf of and in consultation with the Board and members of the Kentucky Solar Energy Society this 20th day of April, 2013

By



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<sup>1</sup> <http://www.ul.com/global/eng/pages/offerings/businesses/productsafety/>

<sup>2</sup> *Jackson Energy's Response to Commission Staff's Initial Data Request, No. 6.*, (March 11, 2013)

<sup>3</sup> [http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=OK01R](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=OK01R)

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<sup>4</sup>[http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/dcf68efca391ad6085257687006f396b/\\$FILE/Final%20SIR%204-1-13.pdf](http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/dcf68efca391ad6085257687006f396b/$FILE/Final%20SIR%204-1-13.pdf)

<sup>5</sup> <http://www.bizjournals.com/kansascity/stories/2009/07/13/daily49.html>

<sup>6</sup> <http://energy.gov/savings/net-metering-15>

<sup>7</sup> <http://solarpowerrocks.com/kansas/>

<sup>8</sup> [http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=PA07R&re=0&ee=0](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=PA07R&re=0&ee=0)

<sup>9</sup> *Jackson Energy's Response to Commission Staff's Initial Data Request, No. 3.*, (March 11, 2013)

Energy

- Alternative Fuels
- Energy Verification Services
- Gas and Oil
- Large Batteries
- Power Generation

Renewable Energies

- Listed DG Categories
- Photovoltaics
  - Additional Resources
  - Balance of Systems & Standards
  - Getting Started
  - Global Technology Centers
  - Performance Standards
  - Product Categories
  - Test Program
  - Useful Links

Wind

- Events
- Resources - Literature and Links
- IEC General Meeting

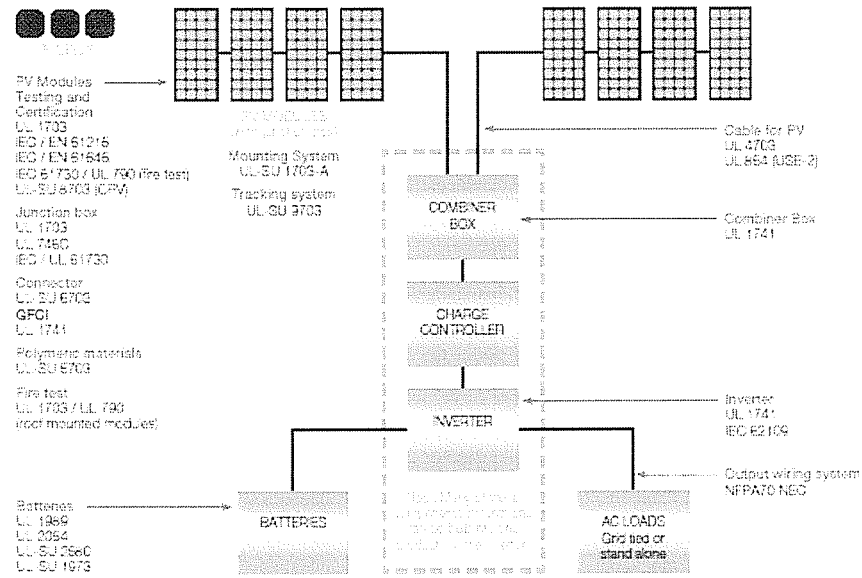
Home > Industries > Energy > Renewable Energies > Photovoltaics > Balance of Systems & Standards

## Balance of system and applicable Standards

The market access requirements for PV equipment are segmented in two main areas - safety and performance - that are integral to each other in the overall construction. The focus of the UL standards is in providing requirements for materials, construction and the evaluation of the potential electrical shock and fire safety hazards. The focus of the IEC requirements is in terms and symbols, testing, design qualification and type approval.

UL certifies that PV equipment complies with the safety, environmental and other performance requirements of the appropriate standards. UL supports manufacturers with the compliance to both the UL and the IEC requirements utilizing a combined project or if needed, as individual evaluations.

In addition, UL provides balance of systems equipment certification to the standards identified in the diagram. These certifications include materials (such as polymerics for backsheets, encapsulants, and adhesives), components (like junction boxes and connectors) and end-products (for example, inverters and meters).



Photovoltaic modules and panels

IEC 61215 (crystalline)  
 IEC 61646 (thin film)  
 IEC 61730

EN 61215 and EN 61730

EN 61646 and EN 61730



# Exhibit A

# Five “Hot” Topics in Net Metered Solar Energy

Jason B. Keyes  
Keyes & Fox, LLP

NARUC Winter Conference  
Washington, D.C.  
February 16, 2009



# Topic 3: Insurance for Small Systems

- Restrictive approach: A solar facility might cause damages and if the owner is underinsured, ratepayers will be forced to cover the costs. Therefore, all owners should carry adequate insurance and name the utility as an additional insured on any policy.
- The alternative: Recognize that there has been no reported damage with 50,000+ solar facilities installed, there is no special insurance package for small systems, and existing insurance is very likely to cover any losses. Therefore, don't require insurance.
- Leading insurers polled – existing homeowner policies would cover traditional net metered solar facilities. However, payments to owners for net excess generation could lead an insurer to rely on exclusion for home-based businesses.
- Leading solar insurance broker concludes that rider to add utility as an additional insured would be impractical.

# Approaches to Insurance

- Twelve states prohibit insurance requirements for most net metered systems, including most leading solar states: CA, NJ, NV and AZ.
- Two states in past year set high bar for insurance requirement: IL set bar at 1 MW, NM set limit at 200 kW. This approach is functional because project developers install systems of this size and have specialized insurance already.
- Several states require proof of insurance while not requiring specific amount or naming of utility as an additional insured. This approach is functional, but adds an administrative burden on the utility and the customer with no benefit to date.