

## Supplemental Photovoltaic Procurement “Revenue-Quality” Metering Accuracy Standard and Acceptable Technologies

In its Order approving the IPA’s Supplemental Photovoltaic Procurement Plan, the Illinois Commerce Commission “decline[d] to adopt a specific metering standard,” and instead directed that the IPA determine what accuracy range needed to be met for “revenue-quality” measurement and which technologies may be sufficient to meet that standard. Through this posting, the Agency publishes its final determination on this issue.

### **Systems registered in M-RETS**

All systems registered with M-RETS must utilize an ANSI C.12 certified revenue quality meter as specified in M-RETS Operating Procedure 7.2. The IPA will not accept any metering less stringent than that required by M-RETS.

### **Systems registered in GATS**

#### ***Systems 25 kW and above***

Systems of 25 kW and above registered with GATS must utilize a new meter that meets ANSI C.12 standards.

#### ***Systems over 10 kW and less than 25 kW***

Systems over 10 kW and less than 25 kW in size registered with GATS must utilize a meter that meets ANSI C.12 standards. Meters that are refurbished (and certified by the meter supplier) are allowed. Examples of sources for refurbished meters include:

- Hialeah Meter (<http://www.hialeahmeter.com/siphwame.html>)
- Solar Home (<http://www.solarhome.org/itroncentrondigitalmetertypec1sfm2s240vcl200remfg.aspx?gclid=COylr-XvqsUCFdgJgQodOJ8A-A>)
- Vision Metering (<http://www.visionmetering.com/products/refurbished-electric-meters/>)

*Note: this listing does not constitute an endorsement of any vendor by the Illinois Power Agency, and there may be other vendors who can provide refurbished meters.*

#### ***Systems up to 10 kW***

Systems of 10kW in size and below registered with GATS must utilize either a meter that is accurate to +/- 5% (including refurbished and certified meters), or an inverter that is specified by the manufacturer to be accurate to +/-5%. The inverter must be UL-certified and must include either a digital or web-based output display.

### ***Grandfather Clause – Systems under 25 kW energized on or after January 21, 2015 with tracking system registration application submitted to GATS on or prior to May 27, 2015***

For systems installed, energized, and registered prior to the IPA having published its metering standards, the IPA will allow the measurement process included in the GATS registration process. Systems will not be required to add new hardware. However, any system energized on or after January 21, 2015 that has not had its registration submitted to GATS prior to May 27, 2015 will still be required to meet the metering requirements listed in accordance with the size categories above.

### **Additional Notes**

In no circumstance is the use of production estimates allowed. All output used to create RECs must be measured.

The standards listed above apply only to the Illinois Power Agency’s supplemental procurement process under Section 1-56(i) of the Illinois Power Agency Act (20 ILCS 3855/1-56(i)), and do not guarantee compliance with future SREC procurements by the Illinois Power Agency, or with the standards required for the sale of SRECs in other state or utility SREC procurement programs. After the conclusion of the five-year contracts from this supplemental photovoltaic procurement, other metering accuracy standards may apply to future potential sales and system owners may need to incur additional costs to comply the requirements for those potential future sales.

Should tracking system REC generation standards change (for example should GATS change procedures and no longer allow for the use of inverter readings), such standards may be subject to change by the Illinois Power Agency. The IPA will provide notice of any change in metering standards to potential bidders and contractual counterparties. Should changes in metering standards apply to any systems with RECs already under contract with the Agency; the IPA will endeavor to allow for reasonable time for system compliance.

**Policy Guidance**

In its Order approving the IPA's Supplemental Photovoltaic Procurement Plan, the Illinois Commerce Commission "decline[d] to adopt a specific metering standard," and instead "direct[ed] the IPA to replace references to 'utility-grade' meters" in its Supplemental Plan with references to "revenue-quality metering." The Commission further declined to define the term "revenue-quality metering," instead stating:

The Commission understands that use of the term "revenue quality metering" in the PV Plan does not necessarily mean requiring separate meters capable of meeting all ANSI C-12 requirements; instead, "revenue-quality metering" is measurement capable of achieving accuracy ranges that the IPA determines are necessary to receive SRECs in the applicable utility's service territory. If meeting this level of accuracy requires a "production meter" capable of such measurement, then that is a reasonable requirement; but if it can be demonstrated that the output from an inverter, PV Watts forecasts, simple forecasts using the standard capacity factor, other estimated reading methodologies, or some other approach can provide that level of accuracy, then that would also be acceptable.

Through this directive, the IPA was left to determine the following issues:

- 1) The "accuracy ranges . . . necessary to receive SRECs in the applicable utility's service territory;" and
- 2) The measurement techniques or technologies that the Agency believes safely and reliably meet the Agency's published accuracy standard.

The IPA appreciates feedback received on this subject through its contract comment process and workshop. Comments received have deepened the Agency's understanding of the potential benefits and pitfalls of various approaches. In crafting this standard, the IPA has attempted to develop a standard that provides necessary clarity to potential participants while cost-effectively ensuring the likelihood that Renewable Energy Credits ("RECs") created will match the energy created during the life of the contract.

To the Agency, the purpose for requiring "revenue-quality" measurement for the Supplemental Photovoltaic Procurement is to ensure that the State of Illinois only buys Renewable Energy Credits ("RECs") associated with energy that is actually produced from photovoltaic systems. However, while the Agency would prefer the best possible metering for all systems (and recognizes that the ANSI C-12 standards are indeed the industry standard for many REC programs, and required by M-RETS for all systems), for the smallest participating systems, there may not be a meaningful difference between having a  $\pm 2\%$  standard per ANSI and a  $\pm 5\%$  standard as reflected by typical inverter readings. As the smallest participating systems will produce far fewer RECs over the life of the Agency's 5-year contract, the incremental cost (labor and materials) of requiring a separate revenue-grade meter is likely to be much greater than the value of any potentially incorrectly measured RECs for the purpose of this procurement. This is reflected in the IPA's development of an approach allowing for a less stringent measurement standard for systems 10 kW in size and below, and compliance through refurbished revenue-grade meters for systems above 10 kW and below 25 kW in size.

[Published May 14, 2015]