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<p>IN THE MATTER OF THE APPLICATION OF UNS ELECTRIC, INC. FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON FAIR VALUE OF THE PROPERTIES OF UNS ELECTRIC, INC DEVOTED TO ITS OPERATIONS THROUGHOUT THE STATE OF ARIZONA AND FOR RELATED APPROVALS.</p>	<p>DOCKET NO. E-04204A-15-0142</p> <p>Public Comment</p>
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Introduction

It is clearly time to address the shortcomings of the current net metering policy (A.A.C. R14-2-2306). Generally, the criticism of the present policy relates to a question of fairness: are the residential PV array owners (DG customers) covered by this policy “paying their fair share”? What UNSE has proposed in their pending rate case essentially eliminates the value accounting features of the current net metering policy. However, the value accounting method they propose to be applied to future DG customers (i.e. those who submit a completed application for interconnection to UNSE Electric’s grid facilities after June 1, 2015) is far from fair and appropriate. What is needed is *a new value accounting method* that fairly addresses the issues. What is proposed below (call it *Net Billing*) builds on the qualitative features of what UNSE has submitted, but takes into account a more balanced evaluation of the value of DG solar-generated electricity produced by the DG customer.

Discussion – Beyond Net Metering

In accordance with the net metering accounting system detailed in (A.A.C. R14-2-2306):

1. Exported and imported kWhs are exchanged over a monthly billing time period.
2. If, at the end of a monthly billing period, there is a net amount of imported electricity, then the residential DG array site is billed (in \$) on that net amount of kWhs at the standard rate.
3. If, at the end of the monthly billing period, there is a net amount of exported electricity, then the residential DG array site receives an energy credit (in kWhs) that can be carried over in an energy credit “account” into subsequent billing months.
4. Once each year any energy credit (in kWhs) remaining in the “account” is exchanged into dollars at the avoided cost rate (typically in the range of \$0.030 to \$0.059 per kWh across the industry).

Of these four elements that describe the current net metering rules, effectively none are part of the UNSE proposal for billing new DG.

In order to ensure fairness, a new value accounting method is required. The employment of any value accounting method for accommodating residential PV DG will include the following elements:

Imported Electricity is Electricity *delivered* by the Utility to the residential DG.

Self-Consumed Electricity is Solar PV Electricity generated by the residential solar PV Distributed Generator (DG) and directly consumed on the DG site.

Exported Electricity is Solar PV Electricity generated by the residential DG and *received* by the Utility.

The cost and value accounting for each of these elements are:

Imported Electricity has an associated cost.

Self-Consumed Electricity has value *only* to the DG.

Exported Electricity has an associated value.

In the *Net Billing* value accounting method, the *imported electricity cost rate* would be the same one that applies to all non-DG residential customers. It is important to note that a residential DG array site, designed to produce the annual total consumption of electricity for that site, typically provides 70% of that site's solar-generated electricity to the utility (and correspondingly, purchases 70% of the electricity it consumes on an annual basis from that utility). This implies that with the *net billing* the DG customer is paying the same fee rate, like all other non-solar residential customers, on 70% of what he annually consumed before having the residential PV solar array.

DG customers by virtue of their *self-consumed electricity* are no longer using 30% of what they formerly consumed. In this regard this 30% savings for DG customers is not unlike the savings that are realized by any customer employing LED or CFL lighting instead of incandescent bulbs, or that they realize with the acquisition of a more energy efficient air-conditioner, refrigerator, clothes dryer, washing machine or dishwasher.

The issue then reduces to making a fair determination of the value of the *exported electricity*. UNSE proposes employing a Renewable Credit Rate, which would be reset annually. This rate would compensate the DG owners for any excess energy their DG system produces and delivers to UNSE with bill credits at a rate that reflects the current cost of utility-scale solar energy (presently this rate is \$0.0584 per kWh). It is not clear what *indirect* fixed costs associated with the transmission and distribution of the electricity from such a utility-scale solar electricity generator are included in that rate.

A more fair and transparent method is to track the annual costs at each step along the way from the delivery of fuel (coal, natural gas or sunlight) through electricity generation, then subsequent transmission and distribution. These annual itemized costs can be used to determine the volumetric cost rate (\$/kWh) at each step based on the planned total annual volumetric production of electricity. This approach will yield an itemized cost rate (in \$/kWh) each for generation, transmission and distribution. Thus alternative electricity generators can be

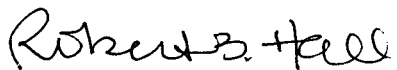
compensated for their delivery of electricity based on what parts of the total delivery system they utilize: for utility scale solar, both transmission and distribution; for DG, only distribution.

Conclusion

To be fair and transparent it is necessary to replace the present Net Metering Policy with a new accounting method (*Net Billing*) for new DG customers that appropriately accounts for the value of the electricity that the DG exports to UNSE. Given the need to accomplish this, coupled with several other developments in the electricity production/storage marketplace, it is now time to change the accounting method by which commercial electricity providers cover their fixed costs. The fixed-charge-per-billing-period (month, year) is clearly no longer effective, or fair. It is time to do what is necessary to employ volumetric accounting (\$/kWh) to cover fixed costs. The implementation of volumetric accounting (\$/kWh) for all charges, other than a \$10.00 per month service charge to cover *direct* fixed costs (metering and billing) for distribution, will lead to fairness among customer classes, and will facilitate a more equitable determination of the value of new alternatives for providing electricity to the grid.

It is hoped that the Commission will pursue productive discussion of a fair and equitable compensation method for both the DG and UNSE to replace the current net metering method.

RESPECTFULLY SUBMITTED this 1st day of February, 2016



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