September 2, 2016

WEC Energy Group Draft Comments on NARUC manual

WEC Energy Group appreciates the opportunity to comment on the National Association of Regulatory Utility Commissioners' Draft Manual on Distributed Energy Resources Compensation ("Manual"). WEC Energy Group consists of several electric and gas utilities in Wisconsin, Illinois, Michigan and Minnesota. WEC Energy Group's two electric utilities, Wisconsin Public Service Corp. ("WPSC") and Wisconsin Electric Power Company ("WEPCO"), are members of the Edison Electric Institute ("EEI") and support EEI's comments on the Manual.

WEC Energy Group is offering its own comments to show support for specific concepts addressed in the Manual and to offer utility-specific examples for consideration when finalizing the Manual.

Appropriate Time for Change

The Manual is correct about the increasing importance of distributed energy resources ("DER"), and agrees with EEI that the time to reconsider rate designs is now. Customers are making investments in DER based on assumptions about payback periods based on existing fixed and variable price signals from the utility. Historically, both WPSC and WEPCO have recognized the fact that some customers made their investments based on inaccurate price signals and have grandfathered specific sections of the net metering tariffs to accommodate these customers. Customers are eventually transitioned to the new tariffs, but grandfathering does create administrative issues and different prices within the same class of customers during this transition.

Although some advocates argue that there is no need for change if the level of adoption of DER within a jurisdiction is low, WEC Energy Group disagrees and believes that this is the *best* time for rate design changes. Sending the appropriate price signals to customers allows them to make good investment decisions, minimizes the number of grandfathered tariffs and reduces price and size differences between customers based on the time of DER investment. In short, precisely because widespread adoption of DER will implicate all of the issues discussed in the Manual, the best time to account for those issues in price signals (i.e., rates) is *before* adoption becomes widespread.

Indeed, grandfathering itself is best viewed as a problem resulting from waiting too long to calibrate appropriate price signals for customers interested in implementing DER. For example, WPSC now has multiple layers of grandfathering within its PG-4 net metering tariff. This is due to multiple changes in rate design and varying price signals over multiple rate cases. Customers that sign up for the PG-4 net metering tariff today can own generators that do not exceed 20 KW and such customers are compensated for their excess generation at a market-based rate. Two grandfathering provisions include:

- The 20 KW cap does not apply if the customer made installations between January 13, 2011 and January 1, 2014. During this time, customers were allowed to install generators up to 100 KW, and those generators may remain on the tariff today.
- Customers taking service on the PG-4 tariff prior to March 31, 2011 and customers with signed applications which were submitted to WPSC prior to that date with less than 20 KW name plate capacity may continue to be paid for their net monthly excess generation at their full retail rate until December 31, 2021. New customers are paid only the avoided cost.

Both companies have parallel generation rates that are closed to new customers, and which arguably sent inefficient price signals when they were in force, incentivizing financially inefficient investment by customers. For WPSC, these include customers on the PG-Solar rate, which was available to the first 300 KW of generation capacity, and the PG-BioGas rate, which was available to customers from April of 2010 to January of 2013.

WEPCO also has closed customer generation tariffs that offer different pricing and rules to different subsets of customers. These include:

- CGS1, available to customers with generating systems over 20 KW
    - Available to customers on the rate schedule prior to October 7, 2014; closed to new accounts.
- CGS2, available to customers with generating systems less than 20 KW
    - Available to customers on the rate schedule prior to the creation of CGS6; closed to new accounts.
    - Compensates excess generation at the full retail rate.
- CGS3, available to customers with generating systems 300 KW or more, closed to new accounts.
- CGS4, for Wind Generating systems of 20 KW to 100 KW
    - Experimental rate that expired on December 31, 2011.
    - Compensated excess generation at the full retail rate.
- CGS5, for Biogas Generating systems for generators 2000 KW or less
    - Experimental rate that expired on December 31, 2011.
- CGS6, for renewable generating systems 20 KW or less
    - Available to customers on the rate schedule prior to the creation of CGS8; closed to new accounts.
    - Compensates excess generation at the full retail rate.
- CGS8, available to customers with generating systems 20 KW or less
    - Available to customers on the rate schedule prior to October 7, 2014; closed to new accounts.
    - Compensates excess generation at specific tariff rates.
    - Allows netting on a 12-month basis
- Solar PV
    - Experimental rate offered to 1 MW of generating capacity.

- Closed to new accounts.

Cross Subsidy Issues

WPSC, WEPCO and the Public Service Commission of Wisconsin have taken steps to reduce the cross-subsidies caused by inefficient pricing. Recently, with Commission approval, both utilities increased the fixed charge and lowered the volumetric charges for residential customers.

WPSC Fixed and Volumetric Charges		
Date	**Fixed Charge ($/mo)**	**Volumetric Charge ($/kWh)**
1/1/2014	$10.40	$0.11143
1/1/2015	$19.00	$0.10267
1/1/2016	$21.00	$0.09950

WEPCO Fixed and Volumetric Charges		
Date	**Fixed Charge ($/mo)**	**Volumetric Charge ($/kWh)**
1/1/2014	$9.13	$0.13945
1/1/2015	$16.00	$0.13111

Neither WPSC nor WEPCO has seen a decline in DER installations due to these rate changes. The following table shows the trend in customer-owned PV generation installations from 2014 to 2016 YTD.

Customer-Owned PV Generation System Installations		
Year	**WPSC Installations**	**WEPCO Installations**
2014	21	108
2015	73	96
2016	107 applications YTD 42 completed YTD	109 applications YTD 49 completed YTD

WEC Energy Group agrees with the statement in the Manual at page 34:

> Often DER owning customers are higher income customers who can make investments that lower income customer cannot make. Reducing intra-class subsidies would minimize lower income ratepayers from subsidizing higher income ratepayers.

This is true not only for the cross-subsidies related to DER but also those resulting from misalignment of the fixed and variable (i.e., volumetric) charges. There is a common misconception that low income

customers are low use customers. The average monthly consumption of customers that receive energy assistance across the WPSC service territory is at or slightly higher than the average consumption of all customers across the service territory. This is also true for WEPCO. A 2010 study entitled, "Myths of Low-Income Energy Efficiency Programs: Implications for Outreach" by Serj Berelson of Opower discusses the effects of energy efficiency programs for low income customers and compares some basic characteristics of low income and non-low income households.

The Berelson study examines the low income population in different areas of the country. Looking just at the Midwestern utilities, the study shows that the housing characteristics and demographics for low income populations are not uniform. A common misconception of low income customers is that they live in multi-family housing units and therefore use less electricity. A chart on page 7-34 of the study illustrates that among Midwestern utilities, the percentage of both the low income and non-low income population living in single family homes is within a range of approximately 65% - 70%. The chart on page 7-35 of the study shows home ownership among low income customers of Midwestern utilities to be greater than 50%.

The study also points out that consumption for low income customers varies across the population. At one Midwestern utility, low income customers used 26% more energy than non-low income customers. At another Midwestern utility, low income customers use 22% less energy than the non-low income population. As stated on page 2 of the Opower study, "Compared to average households, low-income households are less likely to have compact fluorescent bulbs, and low-flow showerheads, but 25% more likely to have energy-intensive space heaters and 50% more likely to rely on window air conditioning units."

As recognized in the Manual, some rates are designed to reduce the burden on low-income customers. This should not be done by keeping the rate designs at status quo. The misconception that low-income customers are low-use customers can actually harm low-income customers when designing rates with inflated volumetric pricing.

All of this is to say that the question of cross-subsidies is at least as important in the context of fixed and volumetric charges as it is within the more limited context of DER. And as utilities continue to innovate in the area of fixed, volumetric, and even demand charges for residential customers, many of the old assumptions are being challenged by new data.

Given all of this, the second paragraph on page 34 of the draft Manual seems unnecessarily hostile to utilities and out of place in what is otherwise a reasonably balanced discussion. The currently predominant two-part residential rate model, which attempts to recover a significant portion of fixed costs through a variable or volumetric charge, is inefficient. Utilities' attempts to identify and rectify that inefficiency are more nuanced than a blunt "attempt to get increases in fixed charges." In addition to adjusting this language, we suggest that the Manual include a paragraph or two discussing the economic inefficiencies inherent in a rate design that attempts to collect fixed costs through usage, and the resulting potential windfall to customers inherent in that traditional design.