ENERKNOL RESEARCH

North America

Alternative Energy | Solar Power

Arizona Rate Case Decision Delays Solar Tariff Revisions

State and Utility Investigations Crucial for Balancing Fair Tariffs with Growing Solar

August 24, 2016

Policy Brief

Author

Erin Carson
Chief Policy Strategist

Janis Kreilis
Analyst

Contact

(212) 537.4797
info@enerknol.com
www.enerknol.com

Key Takeaways:

- In approving new rates for UNS Electric, the Arizona Corporation Commission delayed a decision on net energy metering (NEM) tariff and demand charges for residential solar until the completion of its Value of Solar (VOS) study
- The decision reflects the importance of data-driven decisions to prevent adverse impacts to the growing solar industry
- Growing share of distributed generation calls for rate structures that meet customers' evolving usage patterns, reduce cross-subsidies, and enhance recovery of fixed costs

Entities Mentioned:

- Arizona Corporation Commission
- Arizona Public Service
- El Paso Electric
- Nevada Public Utility Commission
- Oklahoma Gas and Electric
- Tucson Electric Power
- UNS Electric
- Xcel Energy

Related Research

New York Electric Utilities and Solar Companies Partner to Revalue Solar

New York Green Bank Highlights Role of Innovation in Solar Financing

This report is for industry information only and we make no investment recommendations whatsoever with respect to any of the companies cited, mentioned, or discussed herein. Please refer to the end of this report for analyst certification(s) and other important disclosures.

Insight for Industry – New Rate Plan for Arizona's UNS Electric Postpones NEM Reforms and Demand Charges until Value of Solar Study is Complete

On August 12, 2016, the Arizona Corporation Commission (AZ CC) approved new rates for UNS Electric, raising the basic service charge and delaying a decision on net energy metering (NEM) tariff and demand charges for residential solar until the Commission's study on Value of Solar (VOS) is complete.

In its rate design proposal, UNS sought to raise the basic service charge for all customers, impose demand charges on new solar customers, and compensate NEM customers with bill credits that reflect the costs of current utility-scale solar.

AZ CC approved Phase I of the rate design, valid from September 1, 2016 and estimated to increase the average monthly residential bill by $4.20. Under the plan, the basic charge for residential customers will increase from $10 to $15 per month. However, for customers who transition to the optional Time-of-Use rate, which varies between peak and off-peak demand periods, the monthly charge will rise to only $12. Phase II of the proceeding will consider net metering tariffs and rate options for distributed generation (DG) customers after issuing an order in the VOS docket – expected in October – to have adequate information for future rate changes involving solar.

The AZ CC decision is in contrast to a December 2015 decision by the Nevada Public Utility Commission (NV PUC), which increased fixed charges and decreased compensation for excess energy delivered to the system, applying retroactively to existing solar customers, thereby prompting major solar companies to leave the state.

The UNS rate case has revived Arizona's NEM policy debate which began in 2013, when Arizona Public Service (APS), the state's investor-owned utility, requested approval to impose extra charges on DG customers to avoid unfair shifting of fixed costs to non-DG customers. In a subsequent decision, prompted by APS' 2015 request to reset solar fees, AZ CC decided to investigate the value and cost of DG in a generic docket, declining the request as a short term fix. However, while the VOC docket was underway, UNS filed its rate case (Docket No E-04204A-15-0142) 2015, restaging the debate.

The AZ CC decision marks a significant step forward in resolving disparities between solar customers and utilities over NEM

The AZ CC observed that the decision marks a significant step forward in resolving disparities between solar customers and utilities over NEM. As such, the UNS rate case has been under scrutiny for its potential to affect similar proceedings from Arizona's larger utilities. UNS Electric, a subsidiary of UniSource Energy Services, serves approximately 95,000 customers in Santa Cruz and Mohave Counties.

NEM is a billing mechanism for electric utility customers with grid-connected DG, allowing customer generators to exchange excess generation for kWh and/or financial credits. While solar advocates are focused on preserving NEM, which has helped expand solar energy through on-site generation, utilities have voiced concerns that DG customers do not bear a fair share of grid maintenance costs and therefore sought to alleviate the bias through demand charges and similar means. Since Arizona ranks among the top three states by solar capacity in the U.S., decisions in the Grand Canyon State will be closely followed by the nation's solar industry.

Phase I of UNS Electric Rate Plan Raises Basic Service Charge, Incentivizes Shift to Time of Use Rate

The new UNS rate design incentivizes customers to shift from a standard two-part rate to a TOU plan. The AZ CC voted 4-1 to approve Phase I of the UNS rate case, raising the basic service charge to $15 – lower than UNS request of $20 – from $10 for residential customers. Customers who opt for a TOU rate or demand rate will pay reduced basic service charges of $12, an incentive intended to encourage use of the new plans. The utility is required to educate customers on managing bills and saving money using TOU options. In addition, the Commission approved an interim meter charge of $1.58 for a DG customers who require an additional meter.

The UNS rate design proposal sought increased basic service charge for all customers and a three-part rate structure (monthly service charge, demand component, and volumetric energy component) with a mandatory demand charge for new solar customers, while leaving it optional for non-solar customers. The proposal supported grandfathering customers who installed solar prior to June 1, 2015 under the current NEM plan. The utility also proposed to compensate NEM customers with bill credits that reflect the costs of current utility-scale solar.

Under the new rate design, a three-part rate, which includes the demand charge, will be optional for customers. According to UNS, the new plans will provide residential and small commercial customers with four options, namely, traditional rate, demand rate, TOU rate, and TOU demand rate. TOU rates impose higher charges for consumption during peak usage periods, while demand rates combine lower energy (per-kWh) charges with a demand charge based on the customer's highest hourly energy consumption.

TOU rates impose higher charges for consumption during peak usage periods, while demand rates combine lower energy (per-kWh) charges with a demand charge based on the customer's highest hourly energy consumption

Phase II of the proceeding will consider net metering tariffs and rate options for DG customers after the Commission issues an order in the VOS proceeding (Docket No. E-00000-J-14-0023). The VOS docket is expected to guide towards adopting rate designs that are reasonable to both DG and non-DG customers.

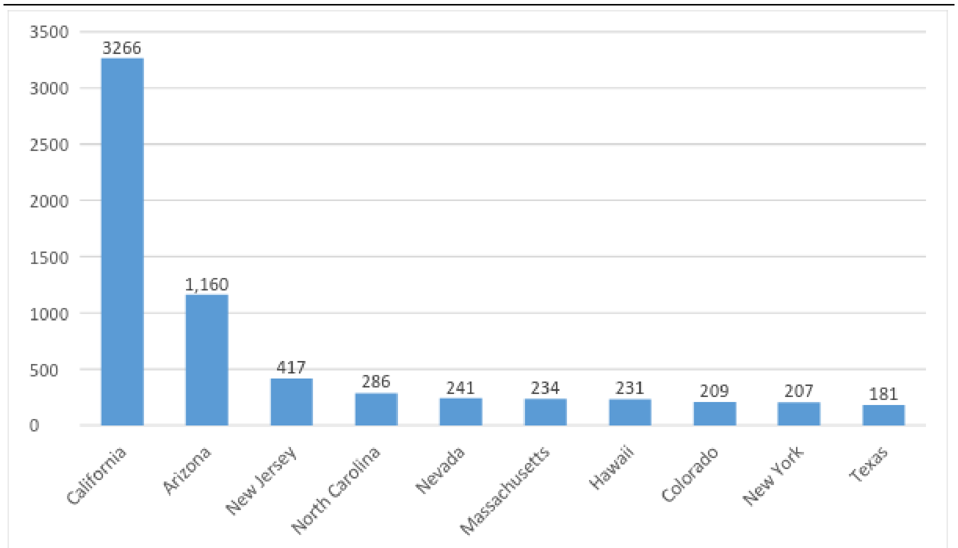
UNS Rate Case Restages NEM Debate Prompting Data-Driven Response from the AZ CC, Contrary to Nevada Decision

The AZ CC decision is in contrast to a December 2015 decision by the Nevada Public Utility Commission (NV PUC), which increased fixed charges and decreased compensation for excess energy delivered to the system. Importantly, the decision applied retroactively to existing solar customers, thereby prompting major solar companies to leave the state. Furthermore, on

August 4, the Nevada Supreme Court rejected a solar industry-backed ballot initiative led by the Bring Back Solar Alliance, which would have allowed voters to overturn the 2015 NV PUC decision that terminated the state's retail rate NEM program. While Nevada's solar industry continues to face uncertainty, the AZ CC decision reflects the importance of data-driven decisions to prevent harming the state's growing solar industry (Figure 1). Solar advocates commended the AZ CC decision, and Vote Solar acclaimed the Commission's commitment to reason, stakeholder input, and public interest regarding the future of solar energy.

While Nevada's solar industry continues to face uncertainty, the AZ CC decision reflects the importance of data-driven decisions to prevent harming the state's growing solar industry

Figure 1- Top 10 States for Installed Solar Capacity in 2015 (MW)



Source: SEIA

The 2015 NV PUC order (15-07041) implemented new solar net metering rate that compensates NV Energy's NEM customers at the wholesale market rate, replacing the current practice of compensating at the retail rate. According to NV PUC, the cost-based ratemaking approach will transition the state to a new NEM framework that will facilitate a subsidy-free rooftop solar industry and eliminate discriminatory rate design that benefits NEM customers at the expense of other ratepayers. In a February order, NV PUC rejected requests to approve a 20-year grandfathering period for existing solar customers and set a 12-year time frame for all NEM customers to transition to the new rates.

The UNS rate case revived Arizona's NEM policy debate which began in November 2013, when APS requested (Docket No. E-01345A-13-0248) approval to impose extra charges on DG customers saying that its existing rate design allowed DG customers to avoid paying fixed costs (approximately $67 per month), ultimately borne by non-DG customers. The ACC approved the APS' proposal to impose extra charges (approximately $5 per month for a 7kW system) to customers installing rooftop solar, effective January 2014. As part of that decision, the Commission ordered that a generic docket be opened on net metering. In January 2014, AZ CC staff initiated the generic docket (Docket

EnerKnol, Inc. All rights reserved.

No. E-00000-J-14-0023) to investigate value and costs of DG. In April 2015, APS requested to reset the solar fees (approximately $21/month for a 7 kW system) to address the increasing cost shift to non-solar customers, stating that since the November 2013 decision, 7,800 DG systems had been installed in APS's service territory – more than in any year – increasing the cost shift by $6.3 million. However, the AZ CC declined the request as a short term fix and decided to address the rate design issue holistically.

The UNS rate case has been under scrutiny for its potential to affect similar proceedings from Arizona's larger utilities Tucson Electric Power (TEP) and APS. In November 2015, TEP proposed a rate plan (Docket No. E-01933A-15-0322) with lower NEM rates, higher fixed charges, and demand charges for solar customers. Pending dockets on state utilities considering additional charges for solar customers include:

- **Tucson Electric Power (Arizona)** – Docket No. E-01933A-15-0322, initiated in November 2015, proposed a mandatory three-part structure with a monthly service, demand, and volumetric energy charges for partial requirements customers – those who utilize only some of the utility's services, including new solar users; this rate design is optional for standard residential customers.
- **Oklahoma Gas and Electric (Oklahoma)** – Docket No. 201500274, initiated in July 2015, proposed a new demand charge for its residential TOU tariff, which applies to residential customers who became DG customers after October 31, 2014.
- **El Paso Electric (Texas)** – Docket No. 44941, initiated in May 2015, proposed a new tariff for residential solar customers, including a customer charge, demand charge, and usage charge.

Arizona's Fact-Based Approach Aims at Fair Tariff Revisions that Accommodate Growing Solar, Joining a Nationwide Trend

The AZ CC action draws attention for its prudent approach towards gathering adequate data to make informed decisions that will properly value solar, while fostering its growth

As states and utilities continue to review their NEM policies, the AZ CC action draws attention for its prudent approach towards gathering adequate data to make informed decisions that will properly value solar, while fostering its growth. In approving Phase I of the UNS rate case, the AZ CC observed that innovative amendments had been passed to expedite the VOS docket, some of which could be reviewed and adjusted in Phase II of the proceeding. These include grandfathering current DG customers with no retroactive increases prior to a Commission decision, phasing in NEM rates for new solar customers, adding a rate option to compensate solar customers, and considering whether credit applies to all solar production or only solar exports.

Several states and utilities are reviewing their NEM policies or seeking alternative DG tariffs to ensure that consumer-generators cover a reasonable share of infrastructure costs. At the same time, several states are increasing their renewable generation portfolio, highlighting the importance of proper methodologies for DG valuation. For example, most recently, on July 25 Washington DC enacted the B21-0650 (Renewable Portfolio Standard

Expansion Act of 2016), which increases the District's renewable portfolio standard (RPS) from 20 percent by 2020 to 50 percent by 2032, with a 5 percent solar carve-out. The legislation places Washington DC among states with the most ambitious RPS: Hawaii (100 percent by 2045), Vermont (75 percent by 2032), California and New York (both 50 percent by 2030), and Oregon (50 percent by 2040).

Utility actions in Colorado and New York already demonstrate that solar industry and utilities can find practical alternatives to solar grid charges

Importantly, utility actions in Colorado and New York already demonstrate that solar industry and utilities can find practical alternatives to solar grid charges:

Colorado
On August 16, the Public Service Company of Colorado (subsidiary of Xcel Energy) and solar interests reached a settlement agreement (16AL-0048E) under which the utility would withdraw its proposed grid use charge and institute time-of-use rates on a trial basis for potential use as default rate design for residential customers. The agreement seeks to consolidate the utility's three separate proceedings – electric rate-case proceeding, implementation of its *Solar*Connect* program, and 2017-2019 Renewable Energy compliance plan. The settlement parties include Colorado Public Utilities Commission (CO PUC) Staff and several clean energy and consumer groups including the Solar Energy Industries Association and Office of Consumer Counsel.

New York
On April 18, the coalition of New York utilities and solar companies formed a "Solar Progress Partnership" to propose a DG compensation model that continues to support solar development in the state, while addressing customer cost sharing issues. Under the proposal, solar developers would pay utilities for community solar and remote solar projects connected to the grid, while preserving utility bill savings for customers. The proposal would generally retain the current mechanism until January 1, 2020, with options for transitioning to a new formula that provides a more accurate compensation for the value of the electricity exported to the grid.

Other state actions in 2016 on DG expansion and compensation mechanisms include:

- In July, the Minnesota Public Utility Commission (MN PUC) adopted (Docket No 13-867) a Value of Solar Tariff (VOST) for Xcel Energy's community solar program and also approved (Docket No 15-825) a utility controlled community solar program for Minnesota Power, creating new options for utility customer and requiring the utility to file VOST (which decouples DG payments from retail rates) calculation based on Minnesota's approved methodology.
- In June, the Maryland Public Service Commission (MD PSC) approved final regulations to establish a community solar pilot program pursuant to HB 1087 (Docket No RM 56).

- In June, Rhode Island enacted HB 8354 enabling virtual net metering and third-party ownership of solar.
- In April, Massachusetts enacted S 1979 (An Act providing for the establishment of a comprehensive adaptation management plan in response to climate change), which raised NEM caps by 3 percent.
- In April, New Hampshire passed HB 1116, (An Act Relative to Net Metering) which doubled the state's NEM cap to 100 MW and also requires the state utility regulator to initiate a proceeding to develop alternative NEM tariffs.
- In January, California Public Utilities Commission (CA PUC) approved a NEM successor tariff, keeping many of the basic features of retail NEM in place through 2019 (R1407002).

Increasing solar penetration will likely require customer generators to pay additional fees or accept lesser compensation for excess generation exported to the grid

Moving forward, increasing solar penetration will likely require customer generators to pay additional fees or accept lesser compensation for excess generation exported to the grid. Utilities will continue to seek rate structures that meet customers' evolving usage patterns, reduce cross-subsidies among DG and non-DG customers, and enhance recovery of fixed costs. In this environment, investigations and studies by state legislatures and utility regulators to address even state-specific issues, such as the proceeding in Arizona, will continue informing and shaping future NEM policy developments and successor programs nationwide.

Disclosures Section

RESEARCH RISKS

Regulatory and Legislative agendas are subject to change.

AUTHOR CERTIFICATION

By issuing this research report, **Erin Carson** as author of this research report, certifies that the recommendations and opinions expressed accurately reflect her personal views discussed herein and no part of the author's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

IMPORTANT DISCLOSURES

This report is for industry information only and we make no investment recommendations whatsoever with respect to any of the companies cited, mentioned, or discussed herein. EnerKnol Inc. is not a broker-dealer or registered investment advisor.

Information contained herein has been derived from sources believed to be reliable but is not guaranteed as to accuracy and does not purport to be a complete analysis of the company, industry or security involved in this report. This report is not to be construed as an offer to sell or a solicitation of an offer to buy any security or to engage in or refrain from engaging in any transaction. Opinions expressed are subject to change without notice. The information herein is for persons residing in the United States only and is not intended for any person in any other jurisdiction.

This report has been prepared for the general use of the wholesale clients of EnerKnol Inc. and must not be copied, either in whole or in part, or distributed to any other person. If you are not the intended recipient you must not use or disclose the information in this report in any way. If you received it in error, please tell us immediately by return e-mail to info@enerknol.com and delete the document. We do not guarantee the integrity of any e-mails or attached files and are not responsible for any changes made to them by any other person. In preparing this report, we did not take into account your investment objectives, financial situation or particular needs. Before making an investment decision on the basis of this (or any) report, you need to consider, with or without the assistance of an adviser, whether the advice is appropriate in light of your particular investment needs, objectives and financial circumstances. We accept no obligation to correct or update the information or opinions in it. No member of EnerKnol Inc. accepts any liability whatsoever for any direct, indirect, consequential or other loss arising from any use of this report and/or further communication in relation to this report. For additional information, please visit enerknol.com or contact management team at (212) 537-4797.

Copyright EnerKnol Inc. All rights reserved. No part of this report may be redistributed or copied in any form without the prior written consent of Enerknol Inc.