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BEFORE THE ARIZONA CORPORATION COMMISSION

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Arizona Corporation Commission

DOCKETED

MAY 11 2016

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16 IN THE MATTER OF THE APPLICATION
17 OF UNS ELECTRIC, INC. FOR THE
18 ESTABLISHMENT OF JUST AND
19 REASONABLE RATES AND CHARGES
20 DESIGNED TO REALIZE A
21 REASONABLE RATE OF RETURN ON
THE FAIR VALUE OF THE PROPERTIES
OF UNS ELECTRIC, INC. DEVOTED TO
ITS OPERATIONS THROUGHOUT THE
STATE OF ARIZONA, AND FOR
RELATED APPROVALS.

DOCKET NO. E-04204A-15-0142

**ARIZONA PUBLIC SERVICE
COMPANY'S REPLY BRIEF**

22
23 "Staff is confident of the ability of customers to learn and understand demand
24 rates, energy usage and conservation, and the effects on bills." Staff's Opening Brief at
25 14:11-13. APS's three-decade history of a residential demand rate is proof of this. The
26 record in this case establishes that universal demand rates are appropriate in the UNS
27 Electric service territory if the Company and the Commission choose to go that route.
28

1 Three-part rates reduce intra-class subsidies, better track cost of service, improve the
2 efficient use of the grid, and encourage new behind-the-meter technologies.

3 Even if, however, universal demand rates are not ultimately adopted for UNS
4 Electric in this case—it does not mean that demand rates are not appropriate—especially
5 for rooftop solar customers. Nor does it mean that universal demand rates should not be
6 implemented in other utility service territories. The evidence in this case showed that
7 demand rates are a fair and equitable rate design that is far superior to the two-part
8 volumetric rates traditionally employed for residential customers. *See* Rebuttal Test. of
9 C. Jones at 30:19-20; Rebuttal Test. of H.E. Overcast at 27:10-11; Surrebuttal Test. of
10 A. Faruqui at 2:19-26.

11 **I. THREE-PART RATES ARE JUST AND REASONABLE**

12 **A. Customers Can Respond to Demand Rates.**

13 Concerns about customers' abilities to understand and respond to demand rates
14 have been grossly overstated. And the hysteria and misinformation propagated by
15 opponents of three-part rates are extremely unfortunate. *See* Initial Post-Hearing Brief
16 of UNS Electric, Inc. at 17-19 (discussing public comment); Rejoinder Test. of D.
17 Hutchens at 3:3-8. APS has had residential demand rates for over thirty years. Direct
18 Test. of C. Miessner at 6:19. APS has more than 117,000 customers who voluntarily
19 participate in a three-part demand rate with a time-of-use feature. Direct Test. of C.
20 Miessner at 6:17. By all accounts an unprecedented level of participation for a
21 voluntary rate. *See* Faruqui, Hearing Tr. at 3117:21-25. An analysis performed by APS
22 on 1,000 customers who had recently switched from APS's two-part time-of-use rate, to
23 its demand rate with a time-of-use feature found that about 60% of those customers who
24 switched to a demand rate saved on their demand and energy. *See* Direct Test. of C.
25 Miessner at 7:22-24. In addition, APS found that those customers who actively
26 managed their demand "achieved demand savings of 10% - 20% or more." *Id.* at 7:24-
27 25. On average, customers in the study "reduce[d] their monthly demand by 3% to 4%

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1 depending on the season.” *Id.* at 7:26-8:1. This shows that customers are able to
2 respond to the price signals in demand rates and that demand rates are not as divisive or
3 onerous as the opponents would like the Administrative Law Judge, the Commissioners
4 and the public to believe. In fact, if you can drive a car, you can understand demand.
5 The mathematical relationship between demand and kWh usage is precisely the same as
6 the relationship between speed and distance driven – a relationship people understand
7 well enough to drive a car nearly every day of their adult lives. It is time to move all
8 Arizona utilities toward this clearly superior rate design option. The comprehensive
9 proposals put forth in this case by Staff and UNS Electric “would give UNSE rate
10 stability through a demand charge, provide customers with a significant degree of
11 control of their utility bills going forward, and reduce subsidies to the extent possible.”
12 *See* Staff’s Opening Brief at 6:1-2.

13 **B. Demand Rates Should At a Minimum Be Required for Rooftop Solar**
14 **Customers.**

15 There is substantial evidence in the record to support treating customers who
16 make the choice to install rooftop solar on their homes as a separate rate class. Rooftop
17 solar customers are unique from customers without rooftop solar. It is reasonable,
18 appropriate, and non-discriminatory to design a tariff that takes those differences into
19 account. The principle of nondiscrimination only prohibits undue discrimination and
20 “does not preclude distinctions based on reasonable business classifications.” *Mt. States*
21 *Tel. & Tel. Co.*, 827 F.2d 1291 (9th Cir. 1987); *see also* A.R.S. § 40-334 (“No public
22 service corporation shall establish . . . any unreasonable differences as to rates, charges
23 or service . . . between classes of service.”). Here, there are significant factual
24 distinctions between customers with and without rooftop solar and it is not unduly
25 discriminatory to limit their rate plan choices. *Id.*

26 Unlike residential customers who do not generate electricity, rooftop solar
27 customers are partial requirements customers. *See* Huber, Hearing Tr. at 2267:4-5.

28

1 RUCO witness Lon Huber explained “why it is prudent to treat solar folks a little bit
2 differently” and why doing so is not discriminatory. *See id.* at 2274:1-5. First, rooftop
3 solar customers “can mask their load and their true demand for power.” *Id.* at 2274:6-7.
4 Thus, to the utility it can at times look like the solar customer is not using any capacity
5 or energy and then “all of a sudden, randomly [the customer’s] power demands spike as
6 if they had no [solar] PV.” *Id.* at 2274:9-10. This is unique and occurs without warning
7 to the utility, which can cause increased costs if the utility has to start a generating unit
8 or is required to procure energy on the spot market to meet this intermittent demand.
9 *See id.* at 2274:7-11. No other utility customers have this same profile or use the grid in
10 this fashion. *Id.* Second, rooftop solar customers “export electrons onto the distribution
11 system.” *Id.* at 2274:24. No other residential customers do this and it is fundamentally
12 different than energy efficiency efforts.¹ *See id.* at 2274:24-2275:5. These unique
13 characteristics of rooftop solar customers are what causes the cost shift discussed in
14 these proceedings. *See* Rebuttal Test. of H.E. Overcast at 14:10-20:16 (discussing the
15 cost shift); Rebuttal Test. of C. Tilghman at 19:3-5.

16 **C. UNS Electric’s NEM Reforms Should Be Adopted.**

17 As discussed in APS’s Opening Brief, the time is right to address the challenges
18 caused by rooftop solar and the cost shift. *See* APS’s Opening Brief at 7:14-8:15. A
19 three-part rate with a modest demand charge as proposed here will help mitigate this
20 cost shift. However, demand rates alone are not enough to address the cost shift. It is
21 also important to address the subsidy embedded in the net metering scheme. This
22 subsidy was never cost-based, but was a policy decision at the time to encourage the
23 fledgling rooftop solar industry—now a multi-billion dollar industry. *See* Surrebuttal
24

25 _____
26 ¹ Customers engaging in extensive conservation and energy efficiency don’t export
27 energy and typically not cause any large demand spikes. *See* Huber, Hearing Tr. at
28 2274:24-2275:5.

1 Test. of A. Brown at 7:25-8:3. This policy decision has outlived its usefulness and must
2 be revisited. *See* Brown, Hearing Tr. at 1008:9-21.

3 APS supports UNS Electric's proposal to modify (not eliminate) net energy
4 metering (NEM). Specifically, APS supports the elimination of "banking" and netting
5 against future usage, the excess energy produced by the rooftop solar customer.
6 Currently, rooftop solar customers are allowed to bank the energy they export to the grid
7 and use those exports to offset future energy usage. In essence, the rooftop solar
8 customer is using the utility as a free (to them) battery and is receiving the full retail rate
9 for exported energy.

10 UNS Electric proposes, and APS supports, replacing banking with a mechanism
11 that gives the rooftop solar customer an immediate bill credit for any exported energy.
12 In addition, as discussed in APS's Opening Brief, APS supports the implementation of a
13 Renewable Credit Rate to compensate rooftop solar customers for export energy. The
14 current NEM rate grossly over compensates rooftop solar customers for the value of
15 their exported energy and does so on the backs of the non-rooftop solar customers who
16 must pay the retail rate for these exports. The Renewable Credit Rate option proposed
17 by UNS Electric is a reasonable step forward when coupled with demand rates for
18 rooftop solar customers to minimize both parts of the cost shift.

19 **D. The Solar Industry's Concerns Are Overstated.**

20 There has been strong opposition to demand rates put forth by the solar advocacy
21 groups. They allege, without credible evidence, that requiring demand rates for solar
22 will kill they solar industry. Indeed, APS need not cite to the Commission how many
23 times the solar industry has made that same claim after every \$0.50 drop in the per kW
24 up-front incentive. The Navigant Study and the testimony of Cory Welch, cast serious
25 doubt on the veracity of this claim. The study concluded the following specific to the
26 UNS Electric service territory:

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- 1 • Third party solar leasing providers have experienced declining
2 installation costs and improved federal tax subsidies, and yet at that same
3 time they have increased the prices they charge customers. *See* Welch,
4 Hearing Tr. at 3144:17-19.
- 5 • Third party solar leasing providers experienced project returns of 40
6 percent in 2015, which is expected to increase to 80 percent in 2016. *See*
7 Surrebuttal Test. of C. Welch at 5:24-6:1.
- 8 • Third party solar leasing “providers have headroom to adjust to some
9 changes in rate structures while maintaining project returns.” *Id.* at 4:16-
10 17.

11 In any event, weighed against the rooftop solar industry’s anecdotal claims about
12 potential risks, there are real, substantiated consequences for customers without rooftop
13 solar. Rates for this group of customers are increasing in this case, and will increase in
14 the future, unless and until progress is made on more fairly allocating fixed cost
15 responsibility. The rooftop solar industry is but one stakeholder in this proceeding. And
16 when viewed in light of the Commission’s responsibility to protect the public interest, it
17 is not clear how much emphasis a decision in this proceeding should be determined by a
18 single industry seeking the perpetuation of subsidies paid for by customers.

19 **II. CONCLUSION**

20 For these and other reasons, APS supports the deployment of demand rates for all
21 residential customers. Alternatively, APS supports UNS Electric’s proposal to deploy a
22 voluntary residential demand rate and require rooftop solar customers to take service
23 under the demand rate. APS also supports UNS Electric’s proposal to modify NEM to
24 eliminate banking and credit exported energy at a reasonable rate less than the retail rate,
25 such as the proposal contained in UNS Electric’s proposed Rider R-11.

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RESPECTFULLY SUBMITTED this 11th day of May 2016.

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