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BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE - Chairman
BOB STUMP
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IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR THE ESTABLISHMENT OF JUST AND REASONABLE RATES AND CHARGES DESIGNED TO REALIZE A REASONABLE RATE OF RETURN ON THE FAIR VALUE OF THE PROPERTIES OF TUCSON ELECTRIC POWER COMPANY DEVOTED TO ITS OPERATIONS THROUGHOUT THE STATE OF ARIZONA AND FOR RELATED APPROVALS.	Docket No. E-01933A-15-0322 Docket No. E-01933A-15-0239 **VOTE SOLAR REPLY BRIEF**

Arizona Corporation Commission
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INTRODUCTION

Although solar rate design and net metering issues have been deferred to Phase 2, a solar meter fee and the RPS Credit Option remain at issue in Phase 1. The Commission should also defer these proposals to Phase 2 so it can comprehensively analyze all of the solar proposals in one proceeding. But if the Commission nevertheless wishes to implement a meter fee or the RPS Credit Option at this time, it should significantly improve the proposals to reflect actual costs and to provide the greatest benefits for solar customers, non-solar customers, and Tucson Electric Power Company ("TEP").

While Vote Solar supports TEP's commitment to fully grandfather existing residential solar customers from harmful rate design changes, grandfathering remains an issue for many existing commercial solar customers. Under TEP's proposal, existing SGS solar customers who are forced to move to the MGS class would not be fully grandfathered. And even more troubling, existing SGS solar customers who move to the LGS class would not be grandfathered at all. To avoid this inequitable outcome, all existing SGS solar customers should be fully grandfathered onto the SGS rate.

TEP's proposals to increase the basic service charge and eliminate the upper two residential tiers should also be rejected. The Commission should not approve these proposals because they would discourage rooftop solar and energy efficiency, and they would also have a regressive impact on low-usage and low-income customers.

ARGUMENT

I. THE COMMISSION SHOULD NOT REQUIRE NEW SOLAR CUSTOMERS TO PAY A METER FEE.

TEP and the Residential Utility Consumer Office ("RUCO") have proposed meter fees for new solar customers that would range from $6 per month to $9.13 per month. These meter fees would be far greater than the $1.58 per month meter fee

recently approved in the UNS Electric ("UNSE") rate case. Because these proposals implicate solar rate design issues and would significantly increase new solar customers' monthly bills, the Commission should defer approving any meter fee until it considers the other solar proposals in Phase 2.[1]

If the Commission nonetheless wishes to implement a meter fee in Phase 1, it should reject TEP's and RUCO's proposals in favor of a reduced meter fee that is based on the actual incremental costs for a bidirectional meter. Importantly, neither TEP's nor RUCO's proposal is based on the actual incremental costs TEP incurs when it installs an additional meter on a new solar customer's premises. Instead, their proposals are based on improper and inaccurate proxy charges and the illogical assumption that all administrative expenses double when TEP installs an additional meter for a solar customer.[2] Unlike TEP's and RUCO's proposals, a meter fee should be based on the actual incremental capital and labor costs for a bidirectional meter. These one-time costs are $142.95 for residential customers and $23.74 for small commercial customers. Customers should have the option of paying these metering costs in one up-front payment or on a monthly basis. Under the monthly payment option, the initial meter fee should be no more than $2.05 per month for residential customers and $0.34 per month for small commercial customers.[3]

TEP argues the meter fee should recover the costs of the "second meter" the Company installs on a solar customer's premises, because an additional meter is necessary for TEP to comply with various regulatory requirements and provide billing quality data.[4] But TEP's generalized discussion about the costs for a "second meter" highlights the fundamental flaw in its proposal: its proposed meter fee would not reflect the <u>actual</u> incremental metering costs TEP incurs when a customer installs

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1 Vote Solar Initial Post-Hearing Br. 3:1–5:5 (Oct. 31, 2016).
2 *Id.* at 5:16–9:2.
3 *Id.* at 9:3–10:9.

rooftop solar. As TEP witness Craig Jones explained during the hearing, when a customer installs rooftop solar TEP replaces the customer's standard "AMR-based" meter with a bidirectional meter and a production meter.[5] Yet TEP's proposal would not recover the actual incremental costs of either the bidirectional meter or the production meter. Instead, the meter fee would generically recover the costs associated with a "second" meter. The evidence shows the actual incremental metering costs TEP incurs for a bidirectional meter are far less than TEP's and RUCO's proposals.[6] As a result, the Commission should not implement a meter fee based on proxy charges and generic assumptions that allow TEP to unreasonably inflate the fee.

TEP and RUCO also maintain the meter fee should be based on the marginal costs of a second meter, rather than embedded costs.[7] TEP claims the meter fee should be based on marginal costs because the fee would only apply to new solar customers and would recover incremental costs.[8] However, as Energy Freedom Coalition of America ("EFCA") witness Mark Garrett explained, when utilities design rates they "do not use marginal costs for new assets and embedded costs for old ones," and "the costs that are ultimately collected from ratepayers must be the embedded costs of the utility."[9] Furthermore, to the extent that marginal costs are generally useful for sending price signals to customers, that benefit would not exist here. The proposed meter fees would be an unavoidable fixed charge for new solar customers, and thus a meter fee would have no impact on solar customers' behavior after they install solar.[10]

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4 TEP Initial Post-Hearing Br. 39:20–40:18 (Oct. 31, 2016).
5 Vote Solar Initial Post-Hearing Br. 5:7–15.
6 *See, e.g.*, Ex. Vote Solar-6.
7 TEP Initial Post-Hearing Br. 39:14–17; RUCO Closing Br. 9:20–11:18 (Oct. 31, 2016).
8 TEP Initial Post-Hearing Br. 39:15–17.
9 Mark Garrett Suppl. Test. 4:12–13, 4:16–17 (Sept. 15, 2016) (Ex. EFCA-11).
10 *Id.* at 4:17–20.

TEP's and RUCO's proposals to base the meter fee on marginal costs would also be inconsistent with the UNSE meter fee, which is based on embedded costs.[11] RUCO begins its meter fee discussion by calling for consistency with the UNSE decision—it even claims in the title of the discussion that its proposal is "consistent with what the Commission did in the recent UNSE matter."[12] Yet RUCO then immediately proceeds to argue the Commission should not follow the embedded cost approach used in the UNSE case.[13] In order to maintain consistency with the UNSE meter fee—which RUCO claims is important—a TEP meter fee should also be based on embedded costs.

Moreover, RUCO is incorrect when it claims the Commission should depart from the UNSE embedded cost approach because here "we have the benefit of hindsight, we have a marginal cost study, and we know the actual hard costs (administrative, meter reading, hardware) of the second meter."[14] Contrary to RUCO's claim, TEP has admitted in discovery and at the hearing that it does not have data on the actual administrative costs or meter reading costs attributable to rooftop solar customers, and it has never analyzed these costs for solar customers.[15]

In any event, regardless of whether the meter fee is based on embedded costs or marginal costs, TEP's and RUCO's inflated meter fee proposals should be rejected under either approach. If the Commission were to employ the embedded cost approach used in the UNSE case, the meter fee should be $1.64 per month.[16] And if the Commission used the marginal cost approach, the monthly meter fee should be no

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[11] Vote Solar Initial Post-Hearing Br. 6:5–18.

[12] RUCO Closing Br. 9:4.

[13] *Id.* at 10:6–11:18.

[14] *Id.* at 11:1–3.

[15] Vote Solar Initial Post-Hearing Br. 8:12–9:2; Ex. Vote Solar-3; Tr. 1993:3–1994:13 (Jones Test.).

[16] Vote Solar Initial Post-Hearing Br. 6:16–18. RUCO mistakenly claims Vote Solar's position is that the meter fee should be $0.32 per month using the UNSE embedded cost approach. RUCO Closing Br. 10:4. While Vote Solar witness Briana Kobor did initially testify

more than $2.05 per month for residential customers and $0.34 per month for small commercial customers.[17] Either way, TEP's and RUCO's meter fee proposals of $6 to $9.13 per month are unreasonably high and should not be approved.

Finally, TEP and RUCO are mistaken when they claim their meter fees are conservative because the charge would only reflect the costs for a traditional meter, rather than a more expensive bidirectional meter.[18] As Mr. Jones admitted at the hearing, this is incorrect because TEP's marginal cost study did in fact reflect the costs for a bidirectional meter.[19] Specifically, TEP's and RUCO's proposals are based on a $216 capital cost for the second meter.[20] And as TEP's marginal cost study ultimately shows, this $216 capital cost reflects the total installed cost of a "TOU, bi-directional" meter.[21] Accordingly, TEP and RUCO are simply wrong when they assert their proposals are conservative because they "only include[] the costs associated with the production meter, and not the more expensive bi-directional meter."[22]

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to this effect, she later amended her testimony in light of an error in TEP's data and updated her estimate to $1.64 per month. Tr. 2115:19–2116:16 (Kobor Test.).

17 Vote Solar Initial Post-Hearing Br. 9:3–10:9.

18 TEP Initial Post-Hearing Br. 39:17–19; RUCO Closing Br. 9:16–18, 11:4–7.

19 Vote Solar Initial Post-Hearing Br. 6:19–7:6; Tr. 1982:19–1987:9 (Jones Test.); *see also* Tr. 1987:7–9 (Jones Test.) ("So based on what you've shown me here, I may have misstated, that the cost is in fact a bidirectional meter cost.").

20 Ex. Vote Solar 2 (CAJ-1, Schedule 2, line 5).

21 *Id.* (TEP Marginal Cost Study 10-30-2015, Meter Cost, line 9, column D) (emphasis added).

22 RUCO Closing Br. 11:5–6. RUCO's brief also contains other inaccuracies and misstatements. For example, RUCO claims the meter fee proposals should be considered in Phase 1, rather than Phase 2, "[g]iven the relatively short time since the Commission decided th[e] [UNSE] case (October 18, 2016)." *Id.* at 9:6–7. But the Commission issued the UNSE decision on August 18, 2016, not October 18. In addition, RUCO repeatedly refers to Vote Solar as "the solar industry." *E.g., id.* at 9:8–9, 9:20–21. However, Vote Solar does not represent the solar industry. Vote Solar is a non-profit organization whose members consist of individuals who support solar; it is not a trade group and it does not have corporate members. Briana Kobor Direct Test. 1:8–14 (June 24, 2016) (Ex. Vote Solar-4); Tr. 2132:12–24 (Kobor Test.).

II. THE COMMISSION SHOULD NOT APPROVE RUCO'S RPS CREDIT OPTION.

RUCO has also proposed an RPS Credit Option that would be an alternative to net metering for new solar customers. The Commission should also consider this proposal alongside the other solar proposals in Phase 2, so it can comprehensively analyze all of the pending solar proposals in one proceeding, rather than on a piecemeal basis. Yet if the Commission wishes to approve the RPS Credit Option now, it should improve the specifics of RUCO's proposal. While the RPS Credit Option's general structure has merit, there are two primary flaws in RUCO's proposal: the final compensation rate of 2.5¢ per kilowatt-hour ("kWh") is unreasonably low and the tranches would fill unpredictably.[23] The RPS Credit Option should be improved by (1) increasing the final compensation rate to at least 7.9¢/kWh, (2) increasing each tranche size to 28 megawatts ("MW") to reflect current annual installation rates, and (3) clarifying that all new rooftop solar capacity would count toward the tranche capacity limits.[24]

RUCO makes no effort in its brief to defend the specifics of its proposal, which were subject to detailed analysis and criticism by multiple parties.[25] RUCO also offers no response to Vote Solar's and EFCA's proposals to improve the RPS Credit Option by adjusting the final compensation rate and the tranche sizes.[26]

Instead, RUCO delivers a play-by-play of how the Commission approved the RPS Credit Option in the UNSE Open Meeting.[27] But this detailed history of the UNSE proceeding provides very little insight, if any, into whether the specifics of

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23 Vote Solar Initial Post-Hearing Br. 11:6–15.

24 *Id.* at 12:1–17:21.

25 *E.g.*, Briana Kobor Surrebuttal Test. 10:19–11:25 (Aug. 25, 2016) ("Kobor Surrebuttal") (Ex. Vote Solar-5); Tr. 2106:7–2113:3 (Kobor Test.); Thomas Beach Suppl. Test. 5:7–8:21 (Sept. 15, 2016) ("Beach Suppl. Test.") (Ex. EFCA-12).

26 *See* Kobor Surrebuttal 10:7–12:15 (Ex. Vote Solar-5); Beach Suppl. Test. 8:23–9:11 (Ex. EFCA-12).

RUCO's proposal are sound, or whether the option should be improved as Vote Solar and EFCA have recommended. Essentially, RUCO's position appears to be that the Commission should rubberstamp the RPS Credit Option in this case because it approved the option in the UNSE Open Meeting. The RPS Credit Option, however, has been subject to far more scrutiny and analysis in the pre-filed testimony and evidentiary hearing in this proceeding.[28] This review has highlighted the flaws in RUCO's final compensation rate and tranche structure, and parties have offered alternative proposals to improve the option. Consequently, the Commission can make a more informed decision on the RPS Credit Option in this proceeding, and it should not approve RUCO's proposal here just because it was approved in the UNSE case on a less developed evidentiary record. In fact, elsewhere in its brief regarding the meter fee, RUCO states the Commission should "not be hamstrung . . . by the facts of the UNSE case"[29] when a proposal was "hardly vetted" and "only given cursory attention" prior to the Open Meeting.[30] RUCO's statements apply equally to the RPS Credit Option. Based on the facts of this case, the Commission should either defer the RPS Credit Option to Phase 2 or significantly improve it.

RUCO also attempts to clarify the earlier confusion in this case regarding what types of solar installations would count toward the tranche capacity limits under its proposal.[31] As Vote Solar also explained, Ms. Kobor initially interpreted RUCO's proposal so that all new solar installations would count toward the tranche capacity limits, but at the hearing RUCO clarified that only solar installed pursuant to the RPS Credit Option would count toward the capacity limits.[32] While RUCO's clarification

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27 RUCO Closing Br. 5:11–6:10.

28 *See, e.g.*, Kobor Surrebuttal 8:20–12:15 (Ex. Vote Solar-5); Beach Suppl. Test. *passim* (Ex. EFCA-12); Tr. 1509:3–1534:3 (Huber Test.).

29 RUCO Closing Br. 11:16–17.

30 *Id.* at 10:20.

31 *Id.* at 6:22–8:6.

32 Vote Solar Initial Post-Hearing Br. 15:15–16:12.

does help minimize concerns about the tranches filling too quickly, it creates an entirely new concern because it means the tranches would fill unpredictably. RUCO has acknowledged that under this structure, it is impossible to predict how quickly each tranche would fill.[33] A far superior approach providing greater predictability and gradualism would be to count all new rooftop solar installations toward the tranche capacity limits and size each tranche to approximate annual installation rates. As previously detailed, the Commission could do so by establishing four tranches with 28 MW of capacity per tranche.[34]

III. THE COMMISSION SHOULD FULLY GRANDFATHER EXISTING SOLAR CUSTOMERS FROM ANY RATE DESIGN CHANGES OR CHARGES.

Fully grandfathering existing solar customers from harmful changes to rate design and net metering ensures customers are treated equitably and fairly. Vote Solar supports the Commission's recognition of this important principle in the UNSE rate case, and TEP's updated position on grandfathering in this case.[35]

Yet despite TEP's recent commitment to grandfather residential solar customers, important grandfathering issues remain in this case for TEP's existing SGS customers with rooftop solar.[36] While TEP announced in its brief that it will allow existing SGS solar customers who move to the MGS class to remain on the two-part MGS transitional rate, this is inadequate for several reasons.[37] First, TEP would apparently provide no grandfathering for existing SGS solar customers that are forced to move to the LGS class, as the Company only discusses SGS customers who move to the MGS class. According to SOLON, approximately 440 existing SGS customers

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33 Tr. 1524:14–1525:5, 1530:12–22 (Huber Test.).
34 Vote Solar Initial Post-Hearing Br. 16:13–17:13.
35 *Id.* at 18:1–13.
36 *See* SOLON Initial Post-Hearing Br. 13:15–15:13 (Oct. 31, 2016); EFCA Opening Br. 13:3–15:14 (Oct. 31, 2016).
37 TEP Initial Post-Hearing Br. 33:4–10.

would thus receive no grandfathering because they would move to the LGS class.[38] The impacts on these customers may be severe. For example, SOLON identifies (1) a health care facility that installed solar in 2015 and would experience an annual bill increase of 3,654%, or $52,803 annually; and (2) a church that installed solar in 2011 and would experience an annual bill increase of 420%, or $58,477 annually.[39]

Second, even for SGS customers who move to the MGS class, TEP's proposal would not fully grandfather these customers. The MGS rate includes a much higher fixed charge of $40 per month, which would significantly harm the economics of their rooftop solar investment. To provide full grandfathering, existing SGS solar customers should instead be grandfathered onto the SGS rate. In addition to treating these customers fairly, this would also be simpler to administer because it would not require TEP to create numerous grandfathered tariffs for a limited number of customers. Existing SGS solar customers who would be forced to move to the LGS class should be similarly fully grandfathered onto the SGS rate, as the LGS class has an even greater $950 fixed charge.

IV. THE COMMISSION SHOULD NOT INCREASE THE BASIC SERVICE CHARGE.

TEP proposes to significantly increase the basic service charge for all residential and small commercial customers. Specifically, TEP proposes a $15 basic service charge for residential customers on standard two-part rates, and a $12 charge for customers who select optional time-of-use ("TOU") or three-part rates. For small commercial customers, TEP proposes a $27 charge for customers on standard two-part rates, and a $22 charge for customers who select optional TOU or three-part rates. The Commission should reject these increased fixed charges because they would create a disincentive for rooftop solar and energy efficiency by decreasing the volumetric rate

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38 SOLON Initial Post-Hearing Br. 10:9.

and giving customers less control over their bills. These fixed charge increases would also be regressive and disproportionately harm low-usage and low-income customers. Instead, the Commission should approve a $10 basic service charge for residential customers on standard two-part rates, and a $7 charge for residential customers who select the optional TOU and three-part rates. For small commercial customers, the basic service charge should be $17.50 for customers on standard two-part rates, and $14.50 for customers selecting the optional TOU or three-part rates.[40]

TEP claims increasing the basic service charge will not create a disincentive for rooftop solar and energy efficiency because volumetric rates will still increase slightly due to the revenue requirement increase.[41] However, this argument sidesteps the important fact that under TEP's proposal, the Company would recover a greater proportion of the revenue requirement increase through fixed charges, rather than volumetric rates. Volumetric rates would thus be lower than they would be if the current basic service charge remained in place, and this creates a disincentive for energy conservation. Southwest Energy Efficiency Project witness Brendon Baatz has described how increasing the percentage of a customer's bill that is recovered through fixed charges reduces customer control and discourages energy conservation.[42]

RUCO has opposed TEP's fixed charge proposals due to their regressive impact and disincentive for energy conservation, and Vote Solar largely agrees with RUCO's testimony on this issue.[43] Yet RUCO nonetheless proposes its own fixed charge increase. Specifically, RUCO proposes to increase the residential basic service charge to $13 for customers on standard two-part rates, and to maintain the current $10

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39 *Id.* at 14:9–20.
40 Vote Solar Initial Post-Hearing Br. 18:14–22:2.
41 TEP Initial Post-Hearing Br. 23:20–24:2.
42 Brendon Baatz Surrebuttal Test. 10:13–11:12 (Aug. 25, 2016) (Ex. SWEEP/WRA-2).
43 *See, e.g.*, Vote Solar Initial Post-Hearing Br. 19:8–18.

charge for customers who select the optional TOU or three-part rates.[44] RUCO's proposal runs counter to its own testimony that "there is no evidentiary basis for a fixed charge higher than $10."[45] RUCO intends to create an incentive for customers to select the optional TOU and three-part rates, but it is unclear how many customers will do so and successfully avoid the $13 basic service charge. After all, RUCO also testified that "most customers tend to stay on their default rate plan."[46] Because RUCO acknowledges there is no evidentiary basis for increasing the basic service charge and doing so would be regressive and discourage energy conservation, the better option is to maintain the current $10 charge for customers on standard two-part rates and create a $7 charge for customers who select the optional rates.

V. THE COMMISSION SHOULD NOT ELIMINATE THE UPPER TWO RESIDENTIAL TIERS.

TEP also proposes to eliminate the third and fourth residential tiers, which require high-usage customers to pay higher volumetric rates. The Commission should reject this proposal because it would discourage rooftop solar and energy efficiency, and it would also disproportionately harm low-usage and low-income customers.[47]

TEP suggests its proposal would not discourage rooftop solar or energy efficiency because most customers would pay a higher volumetric rate if the Commission eliminates the upper tiers.[48] This is because the average- and low-usage customers that make up the majority of TEP's customer base will pay a higher volumetric rate if high-usage customers no longer pay more for their energy under the upper two tiers. But while that may mean volumetric rates increase for many customers, the customers with the highest consumption will in fact pay reduced

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44 RUCO Closing Br. 12:17–20.
45 Lon Huber Surrebuttal Test. 5:2 (Aug. 25, 2016) (emphasis added) (Ex. RUCO-11).
46 Lon Huber Direct Test. 28:8 (June 24, 2016) ("Huber Direct") (Ex. RUCO-10).
47 Vote Solar Initial Post-Hearing Br. 21:8–22:2.
48 TEP Initial Post-Hearing Br. 25:7–9.

volumetric rates. As RUCO explained, high-usage customers "will actually experience a decrease in the marginal price per kWh consumed," and "RUCO is concerned about this because it will reduce the price signal to save energy for the group of customers with the highest consumption."[49] Consequently, TEP's proposal would create a disincentive for energy conservation for the very customers who are "likely to have the greatest discretion over their energy usage."[50]

CONCLUSION

For the reasons stated above and in Vote Solar's Initial Post-Hearing Brief, the Commission should reject the proposed meter fees and RPS Credit Option for new solar customers or significantly improve them. The Commission should also fully grandfather all existing solar customers from harmful rate design changes, including existing SGS solar customers who would be forced to move to the MGS or LGS classes. Finally, the Commission should reject TEP's proposals to increase the basic service charge and eliminate the upper two residential tiers.

DATED November 14, 2016.

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[49] Huber Direct 26:10–12.
[50] *Id.* at 27:1.

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