

ORIGINAL



0000172611

BEFORE THE ARIZONA CORPORATION COMMISSION

**COMMISSIONERS**

DOUG LITTLE, CHAIRMAN  
BOB STUMP  
BOB BURNS  
TOM FORESE  
ANDY TOBIN

IN THE MATTER OF THE APPLICATION OF )  
TRICO ELECTRIC COOPERATIVE, INC., AN )  
ARIZONA NONPROFIT CORPORATION, FOR )  
A DETERMINATION OF THE CURRENT FAIR )  
VALUE OF ITS UTILITY PLANT AND )  
PROPERTY AND FOR INCREASES IN ITS )  
RATES AND CHARGES FOR UTILITY )  
SERVICE AND FOR RELATED APPROVALS. )

Docket No. E- 01461A-15-0363

**NOTICE OF FILING REPLY  
TESTIMONY IN SUPPORT OF  
SETTLEMENT AGREEMENT**

Trico Electric Cooperative, Inc. submits Reply Testimony of Vincent Nitido and David Hedrick in support of the Settlement Agreement.

RESPECTFULLY SUBMITTED this 15<sup>th</sup> day of August, 2016.

Arizona Corporation Commission

DOCKETED

AUG 15 2016

DOCKETED BY

SNELL & WILMER, L.L.P

By

Michael W. Patten  
Jason D. Gellman  
One Arizona Center  
400 East Van Buren Street  
Phoenix, Arizona 85004

Attorneys for Trico Electric Cooperative, Inc.

Original and 13 copies of the foregoing filed this 15<sup>th</sup> day of August, 2016, with:

Docket Control  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

RECEIVED  
AZ CORP COMMISSION  
DOCKET CONTROL  
2016 AUG 15 P 12:35

1 Copy of the foregoing hand-delivered  
2 this 15<sup>th</sup> day of August, 2016 to:

3 Belinda A. Martin  
4 Administrative Law Judge  
5 Hearing Division  
6 Arizona Corporation Commission  
7 1200 West Washington Street  
8 Phoenix, Arizona 85007

9 Janice M. Alward, Esq.  
10 Chief Counsel, Legal Division  
11 Arizona Corporation Commission  
12 1200 West Washington Street  
13 Phoenix, Arizona 85007

14 Thomas M. Broderick  
15 Director, Utilities Division  
16 Arizona Corporation Commission  
17 1200 West Washington Street  
18 Phoenix, Arizona 85007

19 C. Webb Crockett  
20 Patrick Black  
21 Fennemore Craig, PC  
22 2394 East Camelback Road, Suite 600  
23 Phoenix, Arizona 85016

24 Kevin Higgins  
25 Energy Strategies, LLC  
26 215 South State Street, Suite 200  
27 Salt Lake City, Utah 84111

Robert B. Hall, Ph.D  
4809 Pier Mountain Place  
Marana, Arizona 85658  
[Solar\\_Bob@msn.com](mailto:Solar_Bob@msn.com)

**Consented to Service by Email**

Barbara LaWall  
Charles Wesselhoft  
Pima County Attorney's Office  
32 North Stone Ave., Suite 2100  
Tucson, Arizona 85701  
[Charles.Wesselhoft@pcao.pima.gov](mailto:Charles.Wesselhoft@pcao.pima.gov)

**Consented to Service by Email**

26

27

1 Court S. Rich  
2 Rose Law Group, pc  
3 7144 E. Stetson Dr., Suite 300  
4 Scottsdale, Arizona 85251  
5 crich@roselawgroup.com  
6 hslaughter@roselawgroup.com  
7 **Consented to Service by Email**

8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
By     *Jaclyn Howard*

1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2 **COMMISSIONERS**

3 DOUG LITTLE - CHAIRMAN  
4 BOB STUMP  
4 BOB BURNS  
5 TOM FORESE  
5 ANDY TOBIN

6 IN THE MATTER OF THE APPLICATION OF ) DOCKET NO. E-01461A-15-0363  
7 TRICO ELECTRIC COOPERATIVE, INC., AN )  
8 ARIZONA NONPROFIT CORPORATION, FOR )  
9 A DETERMINATION OF THE CURRENT FAIR )  
10 VALUE OF IT UTILITY PLANT AND )  
11 PROPERTY AND FOR THE ESTABLISHMENT )  
12 OF JUST AND REASONABLE RATES AND )  
13 CHARGES DESIGNED TO REALIZE A )  
14 REASONABLE RATE OF RETURN ON THE )  
15 FAIR VALUE OF THE PLANT AND )  
16 PROPERTIES AND FOR RELATED )  
17 APPROVALS. )

18  
19  
20  
21 Reply Testimony of Vincent Nitido

22  
23 In Support of Settlement Agreement

24  
25 on Behalf of

26  
27 Trico Electric Cooperative, Inc.

August 15, 2016

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

## TABLE OF CONTENTS

I.	Introduction.....	1
II.	Trico’s circumstances are unique and do not lend themselves to EFCA’s proposals .....	2
III.	The increased customer charge set forth in the settlement agreement is an appropriate measure to mitigate the fixed cost shifts resulting from a rapid increase in rooftop solar deployment in Trico’s service area .....	8
IV.	The DG Energy Export Tariff agreed to by Trico and Commission Staff provides a fair and reasonable subsidy that will continue to promote the development of solar resources in Trico’s service territory at a reduced cost to non-DG members.....	12
V.	The grandfathering provisions in the settlement agreement are fair, reasonable and consistent with past regulatory practice .....	14
VI.	Introduction of a demand rate with a \$0.00/kW charge, in combination with member outreach, education and analysis is a reasonable means of assessing whether demand charges are a fair and appropriate means of allocating fixed cost in future rate cases .....	18
VII.	Trico has the technical capability to fairly and effectively implement a demand-rate component.....	22
VIII	Freezing the current residential time-of-use (“TOU”) option is appropriate.....	24
IX.	Other Issues.....	25

### **EXHIBITS**

Exhibit VN-1	Member Acknowledgement
Exhibit VN-2	Disclaimer

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

**I. INTRODUCTION.**

**Q. Please state your name and business address.**

A. My name is Vincent Nitido and my business address is 8600 West Tangerine Road, Marana, Arizona, 85658

**Q. Did you file Direct Testimony in Support of the Settlement Agreement on behalf of Trico Electric Cooperative, Inc. (“Trico or “Cooperative”) on July 29, 2016?**

A. Yes.

**Q. What will you be addressing in your Responsive Testimony?**

A. First, I will again discuss Trico’s status as a rural electric cooperative, and how that impacts our ability to withstand the continued escalation of lost and shifted fixed grid costs. I believe that is necessary because EFCA and its consultants continue to ignore the disparate impact of cost shifts associated with distributed solar generation (DG) on a Member owned electric distribution cooperative, and instead are proposing the imposition of rates and requirements geared to much larger vertically-integrated utilities.

Second, I will support the proposal in the Settlement Agreement dated July 8, 2016 between Trico and Commission Staff (Settlement Agreement) for the Cooperative to recover a portion of its fixed costs through an increased customer charge that all Trico Members pay, including Members with DG. The proposed charge provides a more equitable means for recovering certain fixed costs that each Member requires for service. The increased customer charge combined with the proposed lower energy charge also is a revenue neutral means of reducing the monthly subsidy for DG systems, while preserving the ability of DG Members to offset their own energy usage at the full retail rate.

1 Third, I will defend the DG Energy Export Tariff of \$0.077 per kWh proposed under the  
2 Settlement Agreement as a reasonable and necessary means of addressing the immediate  
3 issue of escalating shifts in fixed grid costs to Trico's non-DG Members. I will explain  
4 why EFCA's proposal to delay addressing the issue further pending a second phase of the  
5 Commission's Value of Solar Proceeding, while grandfathering all new DG systems in the  
6 meantime, will result in significantly higher levels of subsidized fixed costs and higher  
7 rates for Trico's non-DG Members.

8  
9 Finally, I will again discuss the Cooperative's proposal to provide demand information to  
10 its Member-owners, along with education and outreach to its Member-owners regarding  
11 the use of demand rates and how to utilize them to reduce their monthly bills. I will also  
12 discuss the utilization of demand data obtained in the period prior to the Cooperative's  
13 next rate case, as a reasonable, relevant and measured approach to determine if and how  
14 the implementation of demand charges is appropriate to Trico's specific circumstances.

15  
16 **II. TRICO'S CIRCUMSTANCES ARE UNIQUE AND DO NOT LEND**  
17 **THEMSELVES TO EFCA'S PROPOSALS.**

18  
19 **Q. What are the circumstances unique to Trico that make EFCA's proposals difficult to**  
20 **accept?**

21 **A.** As I discussed in my Direct Testimony, Trico is a non-profit rural electric distribution  
22 cooperative. Trico is governed by a 7-Member Board of Directors that are themselves  
23 Cooperative Members elected by their fellow Cooperative Members. The Cooperative  
24 serves what is essentially the rural ring around metropolitan Tucson, which is served by  
25 Tucson Electric Power Company (TEP). Trico provides distribution services only to its  
26 39,000 Members, 95% of whom are residential Members. Generation and transmission are  
27 acquired from third-party providers under wholesale contracts, and the costs are passed

1 through to the Cooperative's Members without markup. All of that presents particular  
2 issues for Trico with respect to the current net metering of DG within its service territory.

3  
4 For example, as a non-profit cooperative, Trico has no investors that receive a return on  
5 their investment, nor does it have anyone to share the financial impact of lost and shifted  
6 fixed grid costs. Those costs by definition must be paid by other Trico Members, though  
7 higher rates. That direct impact requires the Trico Board to assess and maintain a balance  
8 between the need to promote the development of solar resources within the service  
9 territory against the cost to Trico's Members, and to do so in a way that is fair and  
10 equitable to all Trico Members.

11  
12 As I have discussed previously, because Trico serves an area that is not economically  
13 viable for investor owned utilities to serve, Trico's fixed grid costs are necessarily higher  
14 than those of utilities serving more densely populated areas. That translates to  
15 significantly higher rates for Trico's residential Members compared to TEP's residential  
16 customers, for example. Which means that DG provides more comparative value to  
17 installers in Trico's service territory, and as a result, a higher amount of lost and shifted  
18 fixed grid costs to Trico Members. Trico's proximity to TEP essentially makes the  
19 Cooperative a more lucrative target for giant solar installers such as SolarCity that have the  
20 ability to mobilize a huge sales force and marketing effort within the Tucson area.  
21 Consequently, Trico has experienced an unprecedented and disproportionately large flood  
22 of applications for residential rooftop DG interconnection. The ability of large solar  
23 installers to accelerate the volume of DG interconnections is the reason this rate case was  
24 filed, the reason Trico needs immediate relief from the severe cost shifts associated with  
25 that acceleration, and why a "grandfathering" date beyond that proposed in the Settlement  
26 Agreement will not work under Trico's circumstances. We need to stop the bleeding now.

27

1 I think it's also important to reiterate that because Trico acquires wholesale transmission  
2 and generation from third-party providers at fixed prices, it does not receive a price signal  
3 based on the time of day, and consequently does not benefit from its current time of use  
4 tariff. That issue is exacerbated by the fact that because the Cooperative serves a load that  
5 is 95% residential, its monthly distribution system peaks occur most often on the weekend.

6  
7 For those reasons, I think it is misplaced for EFCA and its consultants to continue to rely  
8 on studies, surveys and selected data from larger investor owned utilities like San Diego  
9 Gas & Electric Company (SDG&E) to support recommendations for a Member owned and  
10 governed rural electric cooperative.

11  
12 **Q. EFCA has now submitted testimony from Mr. Quinn, who alleges that because there**  
13 **is no formal consumer advocate in this case, he is representing the consumer**  
14 **viewpoint. Do you agree?**

15 **A.** No. Again, like other electric cooperatives formed to provide electricity to areas that for-  
16 profit investor owned utilities could not or would not serve economically, Trico is a non-  
17 profit, Member owned cooperative. That means Trico is governed by the Members we  
18 serve. Our 39,000 Members elect a Board of Directors from among themselves, and the  
19 Members that constitute the Board of Directors are charged with running the Cooperative  
20 in the best interest of all of its Members. That is the reason, for example, that Mr. Quinn's  
21 former employer, Residential Utility Consumers Organization (RUCO), does not receive  
22 funding from Cooperative Members or participate in Cooperative rate cases. So Mr.  
23 Quinn's assertion that he is the only "consumer advocate" in Trico's rate case is  
24 disingenuous at best. Trico is governed by a Board of "consumer advocates," and it is the  
25 decision of that Board of Trico Members that the Settlement Agreement strikes a fair and  
26 appropriate balance among Trico Members who wish to participate in distributed  
27 generation, against the costs to be borne by non-participating Trico Members. Mr. Quinn's

1 alter ego, Arizona Utility Ratepayers Alliance, has been funded by solar interests and he is  
2 appearing on behalf of EFCA in this docket. EFCA's largest Member is SolarCity, which  
3 happens to be the largest vendor of rooftop solar generation in the country (and in Trico's  
4 service territory). He is hardly in a position to claim that he is an "advocate" of anyone  
5 other than solar interests. It is neither reasonable nor appropriate for him to swoop in at  
6 the behest of SolarCity's advocacy organization in order to substitute his judgment for that  
7 of a Member elected Board of Directors.

8  
9 **Q. Is Trico's situation different from those of Sulphur Springs Valley Electric**  
10 **Cooperative (SSVEC) or UNS Electric, Inc. (UNSE)?**

11 A. Yes, as I have discussed, Trico has and is still experiencing an unprecedented flood of  
12 applications for DG interconnection, and a corresponding escalation of lost and shifted  
13 fixed grid costs. Even after announcing its proposed changes in the compensation for net  
14 metered DG, Trico received 404 applications in 2015 (458 installs) and received 293  
15 applications through July of 2016. Again, I believe this is largely because of Trico's  
16 proximity to TEP and its status as a comparatively lucrative opportunity for SolarCity.  
17 My understanding is that SSVEC which is a similarly sized cooperative, is now receiving  
18 significantly fewer applications (only 121 installs in 2015 and 35 installs to date in 2016),  
19 so while SSVEC has the same issue with respect to lost and shifted fixed costs associated  
20 with DG, it is not escalating as rapidly. Like Trico, SSVEC does not receive a time of day  
21 price signal from its power and transmission suppliers, consequently it does not benefit  
22 from implementing a residential time of use rate. But while Trico now has more than  
23 2,500 Members on its residential time of use rate, SSVEC has very few. Finally, unlike  
24 Trico, SSVEC does not currently have the metering capability to implement demand rates,  
25 and appropriately, is not seeking to implement a program to educate its Members about  
26 such rates or to collect demand data for its Members to analyze.

27

1 The difference between Trico and UNSE's situations are even more pronounced. UNSE is  
2 for all intents and purposes a much larger vertically-integrated investor owned utility with  
3 entirely different demographics from Trico. Trico does not have an integrated distribution,  
4 transmission and power supply in one company like UNSE. Trico is billed through several  
5 contracts for its power based on a single monthly energy rate and a fixed dollar charge for  
6 capacity. With respect to power supply Trico currently gets no benefit from usage at  
7 different times of the day or week.

8  
9 Trico currently purchases transmission from Arizona Public Service Company (APS),  
10 Tucson Electric Power Company (TEP) and Arizona Electric Power Cooperative  
11 (AEPCO). Some of these transmission service agreements are point to point with a set  
12 reserve capacity cost which does not differ if we use less, however the majority of the  
13 transmission service agreements are for network service which is billed based on Trico's  
14 load ratio share of each system's total cost at the time of each of the system peaks. These  
15 transmission systems peak at different times, and it would be virtually impossible to design  
16 an effective retail rate signal based on a transmission load ratio share charge. In an  
17 integrated utility like UNSE, a single system peak occurs at the same time for the entire  
18 system which, if reduced, could potentially save or defer the need for new generation  
19 and/or transmission facilities. In a small distribution cooperative like Trico, where we  
20 acquire power supply and transmission from other large integrated utilities, it is much  
21 more difficult to quantify or even have any impact on the systems of others (e.g. even if  
22 Trico did reduced costs for APS's transmission system, it is very unlikely that Trico would  
23 ever directly see any of those savings which could then be passed through to the Trico  
24 retail Members).

25  
26 In addition, because Trico load is 95% residential, its distribution system peaks most often  
27 on the weekends rather than during the week as is the case for most urban utilities with

1 more substantial commercial load. This would make an effective distribution system time  
2 of use rate difficult for residential Members who would typically want to have weekends  
3 as off-peak times.

4  
5 For those reasons, I do not believe it appropriate to compare the positions or proposals of  
6 UNSE, SSVEC and Trico in their respective rate cases, or to cite a *Recommended Opinion*  
7 *and Order* in one case as precedent or support for a position taken by the solar industry in  
8 any other case. Trico's facts and circumstances stand on their own.

9  
10 **Q. Can you explain further why it is important to take action now given Trico's unique**  
11 **circumstances?**

12 **A.** Yes. Trico had 551 residential DG Members at the beginning of the 2014 test year (this  
13 includes all DG Members in Trico's area from 2005 to 2014 or 9 years). As of February  
14 28, 2015, Trico had 1,262 DG Members. As of the end of July 2016, including  
15 applications pending installation, Trico now has approximately 1,700 DG Members. Thus,  
16 since the start of the test year, the DG in Trico's service area has expanded from just over  
17 1% to **over 4% of Trico's total Members.**

18  
19 Based on our current rate design and net metering, most of those 4% are paying only a  
20 small portion of the fixed costs allocated to them and are avoiding paying almost \$2  
21 million of fixed costs annually. Those avoided costs are shifted to the other Members. If  
22 those cost shifts are locked in through grandfathering over 20 years, you are looking at \$40  
23 million to be shifted to fewer than 40,000 members. Further delay and further  
24 grandfathering will only increase those numbers.

25  
26 The settlement agreement provisions will help mitigate the increasingly inequitable  
27 recovery of Trico's fixed costs (and related cost shift). Trico has been attempting to

1 address this issue since the beginning of 2015. Given the exponentially increasing levels  
2 of DG in its service area, consideration of the settlement agreement cannot wait.

3  
4 **III. THE INCREASED CUSTOMER CHARGE SET FORTH IN THE SETTLEMENT**  
5 **AGREEMENT IS AN APPROPRIATE MEASURE TO MITIGATE THE FIXED**  
6 **COST SHIFTS RESULTING FROM A RAPID INCREASE IN ROOFTOP SOLAR**  
7 **DEPLOYMENT IN TRICO'S SERVICE AREA.**

8  
9 **Q. Mr. Monsen asserts the increase in Trico's fixed customer charge represents "a**  
10 **significant change in rates." Do you agree?**

11 **A.** No. Again, the increase in the residential customer charge is offset by a reduction in the  
12 energy rates and the introduction of block rates that further reduce the energy rate for the  
13 first 800 kWh, producing a revenue neutral shift in some of the fixed costs of service from  
14 the volumetric energy rate to the customer charge. Residential Members using the average  
15 of 837 kWh would experience an overall increase in their monthly bill in the amount of  
16 approximately \$2.05 or 1.75% over current rates.

17  
18 It is true that Members who use significantly lower energy will see a higher percentage  
19 increase in their monthly bill because of the increased customer charge. The customer  
20 charge represents a portion of the direct access *average* cost to serve a residential Member.  
21 For that reason, Trico believes the use of appropriately designed demand rates would likely  
22 be a better means of recovering fixed costs, and Trico has agreed to provide demand  
23 information and begin education and outreach to its Members regarding demand rates,  
24 while collecting and analyzing demand data, pending consideration of demand charges in  
25 the Cooperative's next rate case.

1 I think it is important to reiterate that low usage Members are not necessarily low income  
2 Members. As I have noted in my previous testimony, the average Trico Member seeking  
3 help through low-income assistance programs uses significantly more energy than the  
4 average residential usage of 837 kWh. The overall impact of the proposed rates on such  
5 low income Members would be lower than for the average Member on a percentage basis.  
6

7 **Q. Mr. Monsen argues that the increased customer charge proposed under the**  
8 **Settlement Agreement is inconsistent with the principle of “gradualism.” How do you**  
9 **respond?**

10 **A.** As Trico has set forth – and EFCA has not disputed – the basic service costs for Trico’s  
11 residential Members is almost \$32 per month, which is the cost of having Trico’s  
12 infrastructure, the service connection, in place to serve the minimum load before any  
13 energy is provided to the Member. The \$24 per month customer charge still covers only  
14 two-thirds of this cost. In an effort to recover an equitable amount of fixed costs from its  
15 Members, the increase in the monthly charge moves halfway between the current charge of  
16 \$15 and the actual fixed costs it is intended to cover. Moreover, Trico has added a tier in  
17 its volumetric rates to mitigate the increase for lower usage Members. I believe this is a  
18 fair balance and results in a gradual bill impact for the vast majority of Trico Members.  
19

20 Further, not to be flippant, but I wish Mr. Monsen had spoken with his client and its  
21 member, SolarCity, about gradualism a few years ago. Trico has been dealing with an  
22 unprecedented flood of applications for DG interconnections since the latter part of 2014,  
23 when SolarCity began the heavy marketing of leased residential rooftop DG systems in  
24 Trico’s service area. That explosive growth occurred and is continuing, notwithstanding  
25 the reduction and eventual elimination of up-front incentives for DG systems. Under the  
26 current net metering tariff, given the specifics of Trico’s circumstances, Trico’s non-DG  
27 Members subsidize \$89.91 per month in fixed grid costs for each interconnected DG

1 system. That equates to an annual subsidy of \$1.75 million annually as of May 31, 2016,  
2 the proposed grandfathered date under the Settlement Agreement, and it increases with  
3 every new DG interconnection. That is an issue that *must* be addressed -- it will continue  
4 to escalate unless we do. What Trico and Commission Staff have agreed to is a  
5 compromise measure that begins to address the issue. That measure includes a revenue  
6 neutral shift in some of the fixed grid costs from the volumetric energy charge to the fixed  
7 customer charge, so that all residential Members, including those with DG, contribute to  
8 the fixed grid costs incurred by all of those residential Members. This in conjunction with  
9 the DG Energy Export Tariff reduces the DG subsidy from \$89.91 per month to about  
10 \$60.00. As I noted previously, the net impact of that measure to the average non-DG  
11 residential Member is a bill increase of less than 2 percent. In light of the extraordinary  
12 circumstances we are dealing with, I would submit that the rate proposal agreed to by  
13 Commission Staff and Trico is clearly consistent with the principle of gradualism.

14  
15 **Q. In his Direct Testimony, William A. Monsen recommends that, in lieu of an increased**  
16 **customer charge, Trico adopt a “minimum monthly bill that is trued up annually for**  
17 **residential Members that is revenue neutral relative to its current fixed charge.”**  
18 **Would that adequately address the issues of unrecovered fixed grid costs and cost**  
19 **shifts to Trico’s non-DG Members?**

20 **A.** No. In support of his recommendation, Mr. Monsen cites the testimony of B. Thomas  
21 Beach on behalf of the Alliance for Solar Choice in the Commission’s Value of Solar  
22 docket (Docket No. E-00000J-14-0023). In his testimony, Mr. Beach concedes that “[cost-  
23 shift] impacts on non-participants are most likely to be a concern in the residential market,  
24 because residential solar systems export a higher percentage of their output and because  
25 most of the residential cost of service is recovered through volumetric rates.” As Mr.  
26 Monsen notes, one of the solutions to that issue proposed by Mr. Beach is to “adopt a  
27 monthly minimum bill to recover customer-related costs, thus ensuring that all Members

1 make a minimum contribution to the costs of the utility infrastructure that serves them  
2 (*e.g., metering, billing, and customer accounts service*).” [Monsen testimony p. 21, citing  
3 Beach testimony pp. 26-27, *parenthetical added by Mr. Monsen*]. Mr. Beach indicates that  
4 “a minimum bill can be set to assure recovery from all Members of customer related costs  
5 which do not vary with usage.” [Beach testimony p. 27]. Again, Trico’s Cost of Service  
6 set forth in Schedule G-6.0 demonstrates that Trico’s fixed customer related costs  
7 including line extension, metering and meter reading, customer records and service equate  
8 to \$31.83 per month for each residential Member. Trico’s proposed customer charge under  
9 the Settlement Agreement is \$24 per month. Thus, even under the Cooperative’s proposal,  
10 it will not fully recover the full amount of fixed customer related costs, the balance of  
11 which must be recovered through the Cooperative’s volumetric energy rate. Adopting  
12 instead a minimum bill that is “revenue neutral” relative to Trico’s current customer charge  
13 of \$15 would exacerbate the fixed cost recovery and cost shift issues, not address them.  
14 Mr. Hedrick addresses the minimum monthly bill concept further in his testimony.  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

1 IV. THE DG ENERGY EXPORT TARIFF AGREED TO BY TRICO AND  
2 COMMISSION STAFF PROVIDES A FAIR AND REASONABLE SUBSIDY THAT  
3 WILL CONTINUE TO PROMOTE THE DEVELOPMENT OF SOLAR  
4 RESOURCES IN TRICO'S SERVICE TERRITORY AT A REDUCED COST TO  
5 NON-DG MEMBERS.

6  
7 Q. Do you agree with EFCA's position that Trico's proposed compensation for excess  
8 energy is inadequate?

9 A. No. Mr. Monsen incorrectly implies that the proposed DG Energy Export rate of  
10 \$0.077/kWh was calculated simply as a halfway point between Trico's avoided cost and  
11 retail rate. While the rate was derived through settlement discussions and not through  
12 pricing analysis, as Section 8.1 of the Settlement Agreement explicitly states, the  
13 proposed rate represents the "equivalent of Trico's power supply portion of the energy  
14 charge for the first tier of the proposed RS1 Tariff." The "power supply portion of the  
15 energy charge" includes all the variable and fixed costs of the power supply and all the  
16 fixed cost of the transmission system, not just "brown wholesale energy." See Schedule  
17 H-2.1.

18  
19 I believe the \$0.077/kWh rate proposed in the Settlement Agreement represents a  
20 reasonable balance of the Cooperative's goal of promoting the sustainable growth of solar  
21 energy in its service territory against the cost to non DG Members of subsidizing that  
22 growth. As I noted in previous testimony, the Settlement Agreement produces an  
23 average energy credit from base rates of \$0.091417/kWh, utilizing the \$0.077/kWh  
24 export rate. That is higher than TEP's current full net metering retail credit, which  
25 appears to work for TEP's DG customers. It is also higher than the \$0.09/kWh solar  
26 lease rate assumed by Mr. Monsen in his analysis. Mr. Monsen's adoption of the  
27 testimony of other witnesses in the Commission's Value of Solar Docket and the UNS

1 Electric rate case regarding *potential* benefits of DG in order to assess the *actual* value of  
2 exported energy to Trico is at best an esoteric exercise that ignores the difference  
3 between an electric distribution cooperative and vertically-integrated investor owned  
4 utilities.

5  
6 **Q. Do you agree with Mr. Monsen's assertion that Trico's proposed excess energy  
7 buyback rate forces DG customers to take unreasonable price risk?**

8 A. No. In his Direct Testimony, Mr. Monsen states that "Trico's buyback rate could change  
9 significantly each year. This would cause great economic uncertainty for Members who  
10 are considering long-term investments in solar DG systems." [Monsen June 1, 2016  
11 Direct Testimony, p. 25] Under the Settlement Agreement, the DG Energy Export Tariff  
12 is set at \$0.077/kWh. Changes in the DG Energy Export Tariff may be made only in  
13 conjunction with a continuation of this rate case (for up to 18 months) with opportunity  
14 for all parties to participate following the completion of the Commission's Value of Solar  
15 Proceeding, or in a future rate case, which is based on a test year and as a practical matter  
16 cannot be conducted "each year." Mr. Monsen has also asserted that "it is unlikely that a  
17 developer of utility-scale solar systems would be willing to enter into a long-term Power  
18 Purchase Agreement with Trico that had such a highly uncertain purchase price.  
19 However, Trico appears to believe that solar DG Members should be forced to accept  
20 risks that other owners of solar projects would not accept." [Monsen Direct Testimony, p.  
21 25] That is a strikingly inapt analogy which ignores that fact that unlike rooftop DG  
22 which is compensated at tariffed rates, utility scale solar contracts are market-based  
23 agreements resulting from arms-length negotiations between the parties. Those arms-  
24 length negotiations typically produce energy prices that are much less than half of the  
25 current cost of rooftop solar DG to the utilities. Trico's DG Energy Export Tariff rate of  
26 \$0.077/kWh under the Settlement Agreement is still significantly higher than the current  
27

1 market price of long-term power purchase agreements associated with utility scale solar  
2 projects.

3 **V. THE GRANDFATHERING PROVISIONS IN THE SETTLEMENT AGREEMENT**  
4 **ARE FAIR, REASONABLE AND CONSISTENT WITH PAST REGULATORY**  
5 **PRACTICE.**

6  
7 **Q. Mr. Monsen asserts that Trico's grandfathering proposal should apply to all net**  
8 **metering Members with existing DG systems and those who submit a completed**  
9 **interconnection application within 30 days after the decision in this docket becomes**  
10 **unappealable. Is this a recommendation Trico can support?**

11 A. No. While Mr. Monsen utilizes national industry data and cost model assumptions to  
12 analyze the potential impact of the Settlement Agreement on the continued development of  
13 rooftop DG in Trico's service territory, the reality is that the volume of DG interconnection  
14 applications to Trico is controlled to a very large extent by the marketing efforts of  
15 SolarCity, the only EFCA Member that does business in the Trico service area. By way of  
16 illustration, on February 26, 2015, Trico filed an application to modify its net metering  
17 tariff on substantially the same terms as proposed in its original Application in this docket,  
18 proposing a grandfathering deadline of February 28, 2015. In the next two days, Trico  
19 received 99 applications for rooftop DG interconnections, 76 of which were SolarCity  
20 systems. After February 28, 2015, SolarCity announced that it would cease doing business  
21 in Trico's service territory, and interconnection applications dropped to 10-15 per month,  
22 approximately the volume experienced by the Cooperative prior to the marketing of the  
23 leased solar model in its service territory by Solar City. In November of 2015, SolarCity  
24 advised Trico it would resume activity in the Cooperative's territory, and applications for  
25 DG interconnections increased to over 50 per month. That volume of applications is  
26 resulting in the acceleration of unrecovered and shifted fixed grid costs, and is  
27 unsustainable for Trico.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

The bottom line is that there is a very high probability that grandfathering applications received at a date in the future will result in a flood of applications before that date, locking in an additional large amount of unrecovered and shifted grid costs for an extended period of time. In the Settlement Agreement Trico agreed to grandfather net metering for Members who submitted applications on or before May 31, 2016, including an additional 359 Members within the grandfathered group over that proposed in Trico’s original application in this docket of 1,262 grandfathered Members. I believe that is both reasonable and appropriate, given that all Members who file applications for DG interconnections are provided with and required to acknowledge receipt of notice of the current rate proceeding before their application is completed. A sample of the form of acknowledgement is attached as **Exhibit VN-1**. To put this in perspective, Trico’s cost of service study filed with this application included 551 residential DG Members at the beginning of the 2014 test year (this includes all DG Members in Trico’s area from 2005 to 2014 or 9 years’). Trico’s original grandfather date for DG Members as of February 28, 2015 reflected 1,262 DG Members as of that date, and including applications pending installation, Trico now has almost 1,700 DG Members. The DG in Trico’s service area has expanded *over the course of this proceeding* from just over 1% to over 4% of Trico’s total Members.

**Q. Mr. Monsen asserts that the language of the Settlement Agreement opens the door to the elimination of all grandfathering in the next Trico rate case. How do you respond?**

A. Trico has committed in the Settlement Agreement to support continuing the grandfathering for the remaining term of the member’s interconnection agreement or for 20 years, whichever is shorter. However, neither Trico nor the Commission Staff can bind future Commissions, through a Settlement Agreement or otherwise.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

**Q. EFCA has asserted that “grandfathering” Members on the net metering tariff as of a date prior to a final decision in this docket constitutes “retroactive ratemaking,” and appears to be illegal. Would you agree with that?**

A. Absolutely not. To the contrary, it is typical in rate cases before the Commission to apply new rates to *all* Members of the affected class. If new rates were to be applied in this docket in the way rates are typically adjusted following a rate case, all DG Members would be subject to the new rates going forward. In this case, the Trico Board of Directors determined that Members who applied for DG interconnections prior to Trico’s original application to modify its net metering tariff on February 26, 2015 should be “grandfathered” under the existing net metering tariff, because they had likely acquired and sized their DG systems based on the net metering tariff at the time without knowledge of the proposed changes. Accordingly, Trico proposed an exception to the usual ratemaking practice for those Members with applications on file prior to March 1, 2015. As part of the Settlement Agreement, Trico agreed to extend that exception to Members with applications accepted on or before May 31, 2016, thereby including an additional 359 Members within that exception. While all Members applying for DG interconnections after February 28, 2015 have been explicitly advised of Trico’s request to modify the net metering tariff for applications filed after that date, the Trico Board of Directors believed it appropriate to include the additional Members in large part because many of them had been incorrectly advised by their solar vendor that the Commission could not legally change the net metering tariff as of the effective date of a decision in this docket for anyone installing a DG system before the decision.

It is important to reiterate, that under the Settlement Agreement, while the existing net metering tariff is frozen after May 31, 2016, *all* DG Members will remain on the existing net metering tariff until after the effective date of a Commission decision in the docket.

1           Thereafter, DG Members with applications filed after May 31, 2016 will be subject to the  
2           new DG Energy Export Tariff in lieu of the current net metering tariff. There would be  
3           no application of the DG Energy Export Tariff to DG Members for any period prior to the  
4           Commission decision in this docket, because *that* would be retroactive ratemaking.  
5

6           **Q.    Is “freezing” a tariff prior to the date of a Commission decision unprecedented?**

7           A.    No. In fact freezing a current tariff so that it will be unavailable as of a date certain subject  
8           to final Commission decision has been used by utilities and accepted by the Commission  
9           as a way to mitigate unintended issues with an existing tariff pending a determination of an  
10          appropriate resolution of the issues by the Commission. Perhaps the most pertinent  
11          example of that is the reduction and eventual elimination over time by Trico and other  
12          Arizona utilities of up-front subsidies for rooftop solar in response to rapid increases in  
13          rooftop solar deployment. Trico as well as the other Arizona regulated utilities, reduced its  
14          up-front incentives over a period of about five years. Once the incentive dollars budgeted  
15          for in the REST plan were exhausted Trico would notice its Members and solar contractors  
16          that new DG applications would receive the up-front incentives as approved in the next  
17          Trico REST plan. In each case, notice was provided to Members of Trico’s intent to  
18          reduce the up-front subsidies as of a date certain, and Trico received subsequent approval  
19          of those reductions from the Commission in its REST plans.  
20

21          **Q.    Mr. Monsen also asserts that Trico must grandfather the rate design for DG**  
22          **Members. Do you agree?**

23          A.    No. We are treating all Members the same with respect to rate design and the rates  
24          charged for service. No Members should expect that rates and rate design will remain  
25          unchanged in perpetuity. Indeed, the Commission has urged utilities across Arizona to  
26          include such a notice in net metering materials provided to DG Members. Trico has done  
27          so since February 2014. **See Exhibit VN-2.**

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

Moreover, it is unclear what Mr. Monson means by grandfathering rate design. His arguments could be construed to suggest that even the monthly customer charge should never be increased for DG Members.

In effect, Mr. Mosen is asking that DG Members be treated as a separate customer class. This is at odds with EFCA's position in other dockets that DG Members cannot and should not be treated differently than other Members.

**VI. INTRODUCTION OF A DEMAND RATE WITH A \$0.00/kW CHARGE, IN COMBINATION WITH MEMBER OUTREACH, EDUCATION AND ANALYSIS IS A REASONABLE MEANS OF ASSESSING WHETHER DEMAND CHARGES ARE A FAIR AND APPROPRIATE MEANS OF ALLOCATING FIXED COSTS IN FUTURE RATE CASES.**

**Q. Why does Trico believe it is important to introduce the concept of a demand charge to its Members now?**

A. In its initial filing, Trico did not seek to introduce the concept of demand charges, but rather to partially address the issue of lost and shifted grid costs by raising the fixed customer charge and reducing the compensation for exported DG from the retail energy rate to avoided cost. Trico believed then that properly designed demand rates are the most accurate and equitable way to allocate the fixed costs of building, maintaining and financing the electric grid, but elected not to introduce a new element of rate design to its Membership without sufficient opportunity to collect and analyze Member demand data, conduct adequate Member education and outreach and ensure the rates have no unanticipated negative effects. As I indicated in prior testimony, activity in various Commission proceedings regarding rate design issues and net metering led us to believe

1 that if the Cooperative intended to implement demand rates in a subsequent rate case, it  
2 would be critical to begin the process of educating our Members and analyzing the  
3 potential impact of demand rates well beforehand. With that in mind, Trico has now  
4 agreed under the Settlement Agreement to implement a demand rate at a \$0.00/kW charge  
5 on residential and small commercial Member bills for the purpose of providing Members  
6 with monthly peak demand information. That information, combined with a Member  
7 Education Program as provided in the Settlement Agreement, will serve as a platform from  
8 which to propose well designed demand charges in a future rate case.

9  
10 **Q. How soon could that future rate case occur?**

11 A. Under the Settlement Agreement, Trico has agreed its next test year will end no earlier  
12 than June 30, 2018. It typically takes several months following the end of a test year to  
13 prepare and file a rate case, and in excess of one year to complete the case once filed. It is  
14 therefore unlikely that new rates could be in effect before January 1, 2020.

15  
16 **Q. Are there any limits on the imposition of demand charges in the Cooperative's next  
17 rate case?**

18 A. Yes. Trico has agreed to proposed demand rates for residential and small commercial  
19 Members no higher than \$2/kW, reflecting a portion of the distribution-demand component  
20 of Trico's cost of service. The parties to the Settlement Agreement have also agreed that  
21 alternative options may need to be considered in the next rate case.

22  
23 **Q. What is the purpose of having a \$0.00/kW demand rate in place? Why not simply  
24 provide education to Members regarding demand rates?**

25 A. The purpose of including a \$0.00/kW demand rate on Member bills is to assist in the  
26 education of Members about demand rates, and to include the rate in the Cooperative's  
27 billing system in order to provide Trico the necessary time to ensure that all Members are

1 metered appropriately and the billing systems are in place to effect the billing of demand to  
2 each Member. In addition, having demand information in the billing system will facilitate  
3 Trico's ability to analyze demand data for rate design and Member education. For  
4 example, Trico anticipates that ultimately it will be able to utilize the collected demand  
5 information to provide billing comparisons to Members enabling, them to assess the  
6 impact of any future demand rate proposals.

7  
8 **Q. Both Messrs. Monsen and Quinn assert that demand charges should not be**  
9 **implemented before a comprehensive education plan regarding the nature and use of**  
10 **demand rates is developed and provided to Members. Is that a fair position to take?**

11 A. Yes. That is why we are proposing to implement a \$0.00/kW demand charge in this rate  
12 case. The \$0.00 charge serves to include the rate in the Cooperative's billing system in  
13 order to collect and analyze demand information in conjunction with an extensive and  
14 well-planned Member education plan on demand rates. Once the Settlement Agreement is  
15 approved, the Cooperative will invest the time and expense of developing such a plan, so  
16 that it is in place and effective well before the Cooperative's next rate case. In that way,  
17 parties to any future rate case will have an opportunity to assess the analysis conducted by  
18 the Cooperative and effectiveness of the Cooperative's comprehensive education plan  
19 regarding the nature and use of demand rates, before demand charges are implemented.

20  
21 **Q. Why not develop a demand-billing pilot program as Mr. Monsen suggests on page**  
22 **36 of his July 29 testimony?**

23 A. As we have discussed, including the demand rate element in our billing system allows  
24 Trico to fully and accurately study every Member's demand and make better decisions  
25 about whether and how to implement actual demand rate charges in the future. Solar  
26 entities, such as EFCA, have argued that utilities have not adequately studied various  
27 aspects of demand rates or other DG related topics. And, ironically, they now argue

1 against Trico implementing a robust and more thorough and accurate way to study and  
2 assess demand rates. A demand-billing pilot program would essentially allow a limited  
3 subset of Members to self-select participation, based on a Member's assessment of whether  
4 the program would benefit that particular Member's usage and situation. Trico does not  
5 believe that would provide a complete analysis of Member demand for the entire Trico  
6 system, or would provide as good an opportunity to conduct outreach and education  
7 regarding demand rates for the entire Trico Membership.

8  
9 **Q. Mr. Monsen argues at page 31 that "Where a demand charge was implemented, there**  
10 **was a significant drop-off of applications for DG facilities." What is your response?**

11 **A.** Mr. Monsen makes that statement after discussing Salt River Project's recent adoption of a  
12 demand charge for DG Members. What Mr. Monsen does not provide in his testimony is  
13 that the SRP demand charge is as high as \$17.52 per kW for summer months. Mr.  
14 Monsen's assertion is deceptive at best and completely ignores the specifics of the  
15 Settlement Agreement's demand rate proposal. There is no basis for an assumption that  
16 the introduction of a \$0.00/kW demand charge for the purpose of collecting and analyzing  
17 demand information and conducting education and outreach will result in a drop off of  
18 applications for DG interconnection.

19  
20 **Q. In your initial Direct Testimony, you indicated that Trico was not proposing demand**  
21 **rates for DG Members. Why does Trico now believe it is appropriate to implement a**  
22 **\$0.00/kW demand charge for its DG Members?**

23 **A.** Trico believed then and now, that properly designed demand rates are the most accurate  
24 and equitable way to allocate the fixed costs of building, maintaining and financing the  
25 electric grid, but elected not to introduce a new element of rate design to its Membership  
26 without sufficient opportunity to collect and analyze Member demand data, conduct  
27

1 adequate Member education and outreach and ensure the rates have no unanticipated  
2 negative effects.

3 Trico's original filing proposed an increased customer charge, declining block energy  
4 rate, and a change in the net metering tariff to eliminate netting and pay for exported DG  
5 at Trico's avoided cost rate. Members who applied for DG interconnection before March  
6 1, 2015 would be grandfathered under the existing net metering tariff. Trico still believes  
7 that creating a demand charge only for DG Members would not be appropriate, and is  
8 proposing to implement a \$0.00/kW demand charge for all residential and small  
9 commercial Members, including those with DG, in order to obtain and study demand  
10 data; conduct Member outreach and education; and determine whether to propose  
11 demand rates for all residential and small commercial Members in the Cooperative's next  
12 rate case as an appropriate recovery mechanism for fixed grid costs.

13  
14 **VII. TRICO HAS THE TECHNICAL CAPABILITY TO FAIRLY AND EFFECTIVELY**  
15 **IMPLEMENT A DEMAND-RATE COMPONENT.**

16  
17 **Q. Mr. Monsen asserts that Trico lacks the technical capability to provide useful**  
18 **information to residential Members about demand charges and the potential impact**  
19 **to their bills. Do you agree?**

20 **A.** No. Of Trico's total 46,086 active meters, approximately 97% are currently capable of  
21 measuring and recording demand (and are in fact now recording demand). With some  
22 additional configuration of the Trico billing software, Trico can capture the demand data to  
23 provide to its Members and to utilize for analysis. Trico has approximately 1,350 meters  
24 on its system that currently cannot be configured to measure and record demand. Trico has  
25 proposed to replace these 1,350 meters and make the necessary modifications to its billing  
26 software within six months of the approval of the effective date of the Commission's  
27 decision approving the Settlement Agreement.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

**Q. Do you agree with Mr. Mosen that billing demand on one peak interval would be asking its Members to monitor and adjust their behavior based on 3,000 15-minute intervals each month?**

A. No. Interval demand data is not necessary for Members to have the ability to minimize peak demand. After the fact interval data could actually be confusing and overwhelming, as a Member would need to remember what appliances were on at any given time rather than simply being mindful of reducing their peak demand by avoiding simultaneous use of major appliances. Most Members would not find historical interval data to be a useful tool. Instead, by simply avoiding using the washing machine, clothes dryer, dishwasher, stove/oven at the same time, a Member will create a lower peak demand than by running all the appliances at the same time. Many appliances have timers that could be set to assist in coordinating the use of the appliances to avoid simultaneous use. Many energy reduction measures can also help to lower peak demand such as washing clothes in cold water, setting the hot water heater temperature down, installing energy-efficient compact fluorescent bulbs, etc. Other new technologies also exist to assist with demand and energy management such as battery storage equipment.

Trico believes that the education and analysis of the impacts will be the most important factors on the success of a demand reduction program. Trico does have interval data available for about 30% of its existing meters and Trico plans to utilize this data in its analysis of the impacts of a demand rate on Members and also to help it to formulate its education program.

1 **VIII. FREEZING THE CURRENT RESIDENTIAL TIME-OF-USE (“TOU”) OPTION**  
2 **IS APPROPRIATE.**

3  
4 **Q. Do you believe that the current time of use tariff is effective for Trico’s residential**  
5 **Members? Please explain.**

6 A. No. Currently Trico’s long term wholesale power contracts charge Trico based on a  
7 single monthly energy rate which does not differ by time of day or day of the week. This  
8 means that when Members on the TOU rate receive an overall reduction in energy costs  
9 by reducing peak usage, Trico does not receive a corresponding reduction in its energy  
10 costs. Thus, in effect, the reduction in costs to the TOU Members is subsidized by other  
11 Members. With respect to the fixed cost of wholesale power Trico pays a fixed dollar  
12 amount that does not change based on usage or the time of that usage. Until such time as  
13 Trico can get time of use price signals from its power suppliers, it will not be possible for  
14 Trico to have an effective TOU tariff.

15  
16 **Q. Does Trico intend to propose a new TOU tariff for its residential Members? If yes,**  
17 **please explain. Will that tariff be effective with a demand charge? Please explain.**

18 A. Not as this time. Unless and until such time as Trico’s long term wholesale power  
19 contracts provide more granularity at least with respect to energy charges Trico does not  
20 believe that a TOU tariff will be effective.

21  
22 Trico does not believe that the existing TOU tariff would be effective with a demand  
23 charge. The demand charge proposed in the Settlement Agreement for the residential and  
24 small commercial is to provide a signal to the Member of their use of the Trico  
25 distribution facilities which corresponds to their highest monthly demand (the size of the  
26 distribution facilities needed to serve their peak demand). Because this highest demand  
27 can happen any time, it could result in causing a peak to occur at a time when the

1 Member is trying to shift its energy usage to off-peak hours under the TOU tariff. This  
2 could result in the TOU Member having two signals that work against each other.

3  
4 **IX. OTHER ISSUES.**

5  
6 **Q. Why does Trico plan to revise its DG interconnection agreements for leased and**  
7 **owned systems to incorporated language that Members may be charged a return**  
8 **trip fee for a return trip to inspect installations of DG interconnections?**

9 A. Trico charges a return trip fee for all its other services such as for interruptions caused by  
10 the Member, for reconnection of service after disconnect for non-payment, for response  
11 to power interruptions where the Member's equipment is at fault, etc. However, Trico  
12 currently does not charge a fee for a return trip to inspect installations of DG  
13 interconnections, when the Member or solar contractor is at fault. I would note that the  
14 return trip fee does not cover the entire cost of the return trip but rather provides a cost  
15 signal to deter return trips from occurring. The most common reasons for requiring a  
16 return trip to inspect DG facilities include: inverter malfunctions, incorrect wiring and  
17 bent meter socket jaws. Trico does not have a significant number of return trips for DG  
18 interconnection inspections. For example Trico completed 98 inspection trips for DG in  
19 the last half of 2015. Only five of those inspection trips were return trips. As in the case  
20 of any fee, if a Member believes it has been improperly assessed, Trico Members would  
21 have recourse to challenge the fee directly to Trico and by complaint to the Commission.

22  
23 **Q. Mr. Quinn expresses concern that Trico "continues to modify its proposed rates and**  
24 **structure to be more harmful to ratepayers while sticking them with the bill." Do**  
25 **you have a response?**

26 A. Certainly. Trico's original budget for expenses in this rate case was preliminarily  
27 estimated at \$150,000, based on historic expenses in previous rate cases. Trico's last rate

1 case, based on a 2007 test year, was completed in 2009, at a cost of approximately  
2 \$200,000. That case involved issues relating to the Cooperative's revenue requirement,  
3 time of use rates and line extension policy. The Commission hearing on that rate case  
4 took approximately two hours. The hearing for *this* rate case is scheduled to last at least  
5 3 full days. The reason for that, and for the increase in rate case expense to \$450,000 is  
6 not because Trico "continues to modify its proposed rates." Trico would have accepted  
7 the terms proposed in its original rate filing. Rather, it is because Trico's Member-  
8 elected Board of Member-directors sought to reduce, not eliminate, the subsidy for the  
9 benefit of solar DG paid by non-DG Members at a time when the Cooperative is being  
10 overrun with applications for DG interconnection. As has been the case in other dockets  
11 involving attempts to mitigate cost shifts associated with DG, SolarCity through its  
12 advocacy fronts, has fiercely contested nearly every element of the Cooperative's rate  
13 case, filed voluminous data requests relating to things like the "final official results of the  
14 last election in which [each Trico Board Member] participated," and has continued to  
15 advocate maintaining the status quo at best.

16  
17 Trico's Members are its Member-owners, and the Cooperative's Member-elected Board  
18 of directors makes decisions based on the best interest of all of its Member-owners. In  
19 this case, the Board determined that the Settlement Agreement represents an equitable  
20 balance of the need to continue the sustainable development of solar resources within  
21 Trico's service area, against the cost of doing so to its Members. That judgment should  
22 not be second-guessed by the Nation's largest vendor of rooftop solar who stands to gain  
23 from every dollar of subsidy paid by Trico Members.

24  
25 **Q. Does that conclude your Settlement Testimony?**

26 A. Yes,

27

**Exhibit VN – 1**



A Touchstone Energy® Cooperative



February 22, 2016

**RE: TRICO SUNWATTS PV PROGRAM INTERCONNECTION APPLICATION**

Dear Trico Member:

Trico Electric Cooperative, Inc. (Trico) has received your Photovoltaic (PV) Interconnection Application. Before we conduct a review of your Application and provide you with the authorization to begin the installation of your proposed PV system, we want you to be aware of a couple of items that will likely impact the savings calculation promised to you by your solar installer with the installation of your PV system.

There is currently a generic proceeding, being led by the Arizona Corporation Commission (ACC), to determine the value and cost of solar. The final outcome of this proceeding may have an impact on what Trico will pay you for the energy generated by your PV system. Other proceedings are also taking place in which different proposals are being made by various parties including the ACC Staff.

Additionally, on October 23, 2015, Trico filed a rate case with the ACC. In this filing, Trico requested to modify its current net metering tariff. If approved by the ACC, Trico's new net metering tariff will mean that any power not immediately consumed by your household will be paid to you at the avoided cost rate of \$0.03662 per kilowatt hour, on each monthly bill. You will no longer be allowed to roll any excess energy over within the month or to the next month's bill to use when your system is unable to produce enough energy to meet your needs, such as at night or on a cloudy day.

***Trico strongly suggests that you incorporate the current ACC generic proceeding and Trico's proposed new net metering rate structure into your decision-making process and savings/costs calculations.***

If Trico's proposal is approved by the ACC, the average Trico solar member with a PV system installed after February 28, 2015, will pay approximately **\$42** per month more on their monthly bill than under the existing net metering tariff. We do not know what additional impact the generic ACC proceeding may have on your bill at this time.

Neither Trico's proposed net metering tariff nor the February 28, 2015, implementation date has been approved by the ACC at this time. In the Trico rate case, the ACC Utilities Division Staff and/or intervenors may propose different modifications to the net metering

tariff which may affect your bill in other ways. The ACC is not bound by any party's proposal, and may accept, reject, or modify any proposed rate, charge or term of service.

It is Trico's hope that your solar contractor has communicated the possible impacts to you, pending a decision by the ACC to the generic proceeding on the value and cost of solar and Trico's rate case. However, we have found that many of our Members have not been adequately advised of what is happening with this issue.

In addition, the Arizona legislature has passed Arizona Revised Statute (A.R.S.) § 44-1763, effective January 1, 2016, in an effort to ensure that you are advised of what you are agreeing to when you decide to install a PV system. Members buying, financing or leasing a solar distributed energy generation system (System) must receive certain disclosures from the manufacturer and solar installers regarding warranties, payment obligations, performance data and major System components as set forth in A.R.S § 44-1763.

As part of the installer's interconnection application process for the purchase or lease of a System, members must acknowledge on the form enclosed that they have had the opportunity to review their contract documentation to ensure that it contains all the required information set forth in the attached A.R.S. § 44-1763.

If after reviewing the enclosed information you still wish to move forward with the installation of your PV system, please sign below and return the signed acknowledgement to Trico. Upon receipt, Trico will proceed with its review of your PV Interconnection Application. Trico will reject interconnection applications which do not include a signed copy of this acknowledgement.

Due to a large increase in the number of Applications at the end of 2015 and beginning of 2016, Trico's application review and interconnection of new PV systems will be delayed. Trico is reviewing Applications on a first-come, first-served basis and will contact you or your solar installer once your Application has been reviewed. Please DO NOT install your PV system until you receive written confirmation that your Application has been reviewed and approved by Trico for installation.

Thank you for your interest in Trico's renewable energy programs. If you have any questions, please contact Trico's Sunwatts Desk, at (520) 744-2944, ext. 1524 or via email at [sunwatts@trico.coop](mailto:sunwatts@trico.coop).

**MEMBER ACKNOWLEDGEMENT  
FINANCING, SALE OR LEASE AGREEMENTS FOR DISTRIBUTED GENERATION  
ADHERENCE TO A.R.S. § 44-1763**

I, Member:

- Have read and understand that there is a generic proceeding to evaluate the value and cost of solar and that Trico has proposed modifications to its net metering tariff through its rate case proceeding that may have a significant impact on distributed generation (including rooftop solar) savings.
- Have read the attached A.R.S. § 44-1763 requirements.
- Have been given the opportunity to review the contract documentation for the purchase or lease of my System to ensure that it contains all the required information set forth on the attached A.R.S. § 44-1763.

\_\_\_\_\_  
Member Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Member Printed Name

\_\_\_\_\_  
Address, City, State, Zip

\_\_\_\_\_  
Trico Account #

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Email Address

Note: Trico will reject interconnection applications which do not include a signed copy of this acknowledgement.

## Arizona Revised Statute (A.R.S.) § 44-1763

### **44-1763. Distributed energy generation system agreements; disclosures; exception**

- A. An agreement governing the financing, sale or lease of a distributed energy generation system to any person or a political subdivision of this state must:
1. Be signed by the person buying, financing or leasing the distributed energy generation system and must be dated. Any agreement that contains blank spaces affecting the timing, value or obligations of the agreement in a material manner when signed by the buyer or lessee is voidable at the option of the buyer or lessee until the distributed energy generation system is installed.
  2. Be in at least ten-point type.
  3. Include a provision granting the buyer or lessee the right to rescind the financing, sale or lease agreement for a period of not less than three business days after the agreement is signed by the buyer or lessee and before the distributed energy generation system is installed.
  4. Provide a description, including the make and model of the distributed energy generation system's major components or a guarantee concerning energy production output that the distributed energy generation system being sold or leased will provide over the life of the agreement.
  5. Separately set forth the following items, if applicable:
    - a. The total purchase price or total cost to the buyer or lessee under the agreement for the distributed energy generation system over the life of the agreement.
    - b. Any interest, installation fees, document preparation fees, service fees or other costs to be paid by the buyer or lessee of the distributed energy generation system.
    - c. If the distributed energy generation system is being financed or leased, the total number of payments, the payment frequency, the amount of the payment expressed in dollars and the payment due date.
  6. Provide a disclosure in the sale and financing agreements, to the extent they are used by the seller or marketer in determining the purchase price of the agreement, identify all current tax incentives and rebates or other state or federal incentives for which the buyer may be eligible and any conditions or requirements pursuant to the agreement to obtain these tax incentives, rebates or other incentives.

7. Identify the tax obligations that the buyer or lessee may be required to pay as a result of buying, financing or leasing the distributed energy generation system, including:
  - a. The assessed value and the property tax assessments associated with the distributed energy generation system calculated in the year the agreement is signed.
  - b. Transaction privilege taxes that may be assessed against the person buying or leasing the distributed energy generation system.
  - c. Any obligation of the buyer or lessee to transfer tax credits or tax incentives of the distributed energy generation system to any other person.
8. Disclose whether the warranty or maintenance obligations related to the distributed energy generation system may be sold or transferred to a third party.
9. Include a disclosure, the receipt of which shall be separately acknowledged by the buyer or lessee, if a transfer of the sale, lease or financing agreement contains any restrictions pursuant to the agreement on the lessee's or buyer's ability to modify or transfer ownership of a distributed energy generation system, including whether any modification or transfer is subject to review or approval by a third party. If the modification or transfer of the distributed energy generation system is subject to review or approval by a third party, the agreement must identify the name, address and telephone number of, and provide for updating any change in, the entity responsible for approving the modification or transfer.
10. Include a disclosure, the receipt of which shall be separately acknowledged by the buyer or lessee, if a modification or transfer of ownership of the real property to which the distributed energy generation system is or will be affixed contains any restrictions pursuant to the agreement on the lessee's or buyer's ability to modify or transfer ownership of the real property to which the distributed energy generation system is installed or affixed, including whether any modification or transfer is subject to review or approval by a third party. If the modification or transfer of the real property to which the distributed energy generation system is affixed or installed is subject to review or approval by a third party, the agreement must identify the name, address and telephone number, and provide for updating any change in, the entity responsible for approving the modification or transfer.
11. Provide a full and accurate summary of the total costs under the agreement for maintaining and operating the distributed energy generation system over the life of the distributed energy generation system, including financing, maintenance and construction costs related to the distributed energy generation system.
12. If the agreement contains an estimate of the buyer's or lessee's future utility charges based on projected utility rates after the installation of a distributed energy generation system, provide an estimate of the buyer's or lessee's estimated utility charges during the same period as impacted by potential utility rate changes ranging from at least a five

percent annual decrease to at least a five percent annual increase from current utility costs. The comparative estimates must be calculated based on the same utility rates.

13. Include a disclosure, the receipt of which shall be separately acknowledged by the buyer or lessee, that states:

- a. Utility rates and utility rate structures are subject to change. These changes cannot be accurately predicted. Projected savings from your distributed energy generation system are therefore subject to change. Tax incentives are subject to change or termination by executive, legislative or regulatory action.
- b. Before the maintenance or warranty obligation of a distributed energy generation system under an existing lease, financing or purchase agreement is transferred, the person who is currently obligated to maintain or warrant the distributed energy generation system must disclose the name, address and telephone number of the person who will be assuming the maintenance or warranty of the distributed energy generation system.
- c. If the seller's or marketer's marketing materials contain an estimate of the buyer's or lessee's future utility charges based on projected utility rates after the installation of a distributed energy generation system, the marketing materials must contain an estimate of the buyer's or lessee's estimated utility charges during the same period as impacted by potential utility rate changes ranging from at least a five percent annual decrease to at least a five percent annual increase from current utility costs.
- d. This section does not apply to an individual or company, acting through its officers, employees or agents, that markets, sells, solicits, negotiates or enters into an agreement for the sale, financing or lease of a distributed energy generation system as part of a transaction involving the sale or transfer of the real property to which the distributed energy generation system is or will be affixed.

**Exhibit VN – 2**

# Attachment A

## DISCLAIMER

### POSSIBLE FUTURE RULES and/or RATE CHANGES AFFECTING YOUR PHOTOVOLTAIC (PV) SYSTEM

The following is a supplement to the On-Grid PV Interconnection Enrollment Form with Trico Electric Cooperative, Inc. (Trico).

1. Your PV system is subject to the current rates, rules and regulations established by the Arizona Corporation Commission (Commission). The Commission may alter its rules and regulations and/or change rates in the future. If this occurs, your PV system is subject to those changes and you will be responsible for paying any future increases to electricity rates, charges or service fees from Trico.
2. Trico's electricity rates, charges and service fees are determined by the Commission and are subject to change based upon the decision of the Commission. These future adjustments may positively or negatively impact any potential savings or the value of your PV system.
3. Any future electricity rate projections which may be presented to you are not produced, analyzed or approved by Trico or the Commission. They are based on projections formulated by external third parties not affiliated with Trico or the Commission.
4. Trico proposed a new net metering tariff in the rate case it filed with the Arizona Corporation Commission (Commission) on October 23, 2015 in Docket No. E-01461A-15-0363. Trico requested that the proposed new Net Metering Tariff apply to Interconnection Applications received after February 28, 2015. Neither the proposed tariff nor the February 28, 2015 implementation date has been approved by the Commission at this time. In Trico's rate case, the Commission's Utilities Division Staff and/or intervenors may propose different modifications to the Net Metering Tariff which may affect your bill in other ways. The Commission is not bound by any party's proposal, and may accept, reject, or modify any proposed rate, charge or term of service. For further information, please visit Trico's website at [www.trico.coop](http://www.trico.coop).

By signing below, you acknowledge that you have read and understand the above disclaimer. Please return to Trico.

\_\_\_\_\_  
(Member's Printed Name)

\_\_\_\_\_  
(Member's Signature)

\_\_\_\_\_  
(Member's Service Address) City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

\_\_\_\_\_  
(Date)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

**BEFORE THE ARIZONA CORPORATION COMMISSION**

**COMMISSIONERS**  
DOUG LITTLE - CHAIRMAN  
BOB STUMP  
BOB BURNS  
TOM FORESE  
ANDY TOBIN

IN THE MATTER OF THE APPLICATION ) DOCKET NO. E-01461A-15-0363  
OF TRICO ELECTRIC COOPERATIVE, )  
INC., AN ARIZONA NONPROFIT )  
CORPORATION, FOR A DETERMINATION )  
OF THE CURRENT FAIR VALUE OF IT )  
UTILITY PLANT AND PROPERTY AND )  
FOR THE ESTABLISHMENT OF JUST AND )  
REASONABLE RATES AND CHARGES )  
DESIGNED TO REALIZE A REASONABLE )  
RATE OF RETURN ON THE FAIR VALUE )  
OF THE PLANT AND PROPERTIES AND )  
FOR RELATED APPROVALS. )

Reply Testimony of David Hedrick

In Support of Settlement Agreement

on Behalf of

Trico Electric Cooperative, Inc.

August 15, 2016

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

**INDEX TO TESTIMONY OF DAVID W. HEDRICK**

<b>TOPIC</b>	<b>Page</b>
DISCUSSION OF EFCA WITNESS MONSEN'S PROPOSED MINIMUM BILL RATE DESIGN .....	1
DISCUSSION OF EFCA WITNESS MONSEN'S TESTIMONY REGARDING THE PROPOSED DEMAND RATE .....	3
DEMAND RATES FOR OTHER COOPERATIVES .....	6
DISCUSSION OF ROBERT HALL'S ISSUES.....	7
<b>EXHIBITS</b>	
DWH-R1      COMPARISON OF FIXED DISTRIBUTION COST RECOVERY FOR THE RESIDENTIAL RATE – EXISTING, SETTLEMENT AND EQUIVALENT MINIMUM BILL RATE	

1  
2  
3 **BACKGROUND AND PURPOSE**

4 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

5 A. My name is David W. Hedrick and my business address is 5555 North Grand  
6 Boulevard, Oklahoma City, Oklahoma 73112-5507.

7 **Q. ARE YOU THE SAME DAVID HEDRICK THAT PROVIDED DIRECT**  
8 **TESTIMONY IN THIS PROCEEDING?**

9 A. Yes, I am.

10  
11 **Q. WHAT IS THE PURPOSE OF YOUR REPLY TESTIMONY?**

12 A. I will provide additional testimony on behalf of Trico with regard to:

- 13 1. The testimony provided by EFCA witness Monsen regarding a minimum  
14 bill rate design;
- 15 2. The testimony provided by EFCA witness Monsen regarding the proposed  
16 demand rate;
- 17 3. The concerns raised by intervener Mr. Hall; and
- 18 4. A discussion of demand rates at other electric cooperatives.

19  
20 **Q. EFCA WITNESS MONSEN RECOMMENDS THE COMMISSION**  
21 **REJECT THE PROPOSED SETTLEMENT AND DIRECT TRICO TO**  
22 **ADOPT A "MINIMUM MONTHLY BILL THAT IS TRUED UP**  
23 **ANNUALLY FOR RESIDENTIAL CUSTOMERS THAT IS REVENUE**  
24 **NEUTRAL RELATIVE TO ITS CURRENT FIXED CHARGE.**  
25 **ALTERNATIVELY, THE COMMISSION SHOULD DIRECT TRICO TO**  
**REDUCE ITS MONTHLY FIXED CHARGE TO**

1           **\$10/CUSTOMER/MONTH AS RECOMMENDED BY SWEEP.” WHAT IS**  
2           **YOUR RESPONSE?**

3           A.    Mr. Monsen’s recommendation entirely ignores the evidence by Trico in this  
4           proceeding. That evidence includes:

- 5           1.    A fixed distribution wires customer cost component for the Residential  
6           class of \$31.83/customer/month as reflected on Schedule G-6.0, Page 1 of  
7           8. The fixed distribution wires customer component is discussed in both  
8           my direct testimony and testimony provided in support of the settlement.
- 9           2.    The significant level of lost fixed cost recovery from DG customers caused  
10          in part by an existing fixed charge that is too small and an existing energy  
11          charge that includes too much of the fixed costs of providing service. The  
12          lost fixed cost recovery issue was addressed in my direct testimony and my  
13          testimony provided in support of the settlement.

14  
15          One of the major objectives of Trico in this rate proceeding was to address the lost  
16          fixed cost recovery issue and to provide more equitable recovery of those fixed  
17          costs. Trico’s originally proposed rate design and ultimately the rates reflected in  
18          the settlement agreement, address the lost fixed cost issue by increasing the  
19          recovery of fixed cost with a larger customer charge and a lower energy charge.  
20          Mr. Monsen’s minimum bill recommendation would increase rather than decrease  
21          the level of lost fixed costs by reducing the amount of fixed costs recovered in the  
22          fixed component of the rate and increasing the amount of fixed costs recovered in  
23          the energy charge.

1 The minimum bill approach is a step backward with regard to rate design. Most  
2 utilities are seeking to structure their rates to decouple the commodity component  
3 of cost from the fixed component of cost, and this is particularly important for  
4 rural utilities with higher fixed costs of service. However, Mr. Monsen  
5 recommends that Trico do the opposite and include more of the fixed costs in the  
6 energy charge of the rate. The effect of such a rate design is to significantly  
7 reduce the amount of fixed distribution costs recovered from lower use customers  
8 and shift that recovery of costs to customers with higher consumption.

9  
10 Attached as Exhibit DWH –R1 is a comparison of the billing for the Residential  
11 class under the Existing rate, the Settlement rate and an equivalent Minimum Bill  
12 rate as proposed by Mr. Monsen at various consumption levels. The equivalent  
13 Minimum Bill rate produces the same revenue for an average customer at 837  
14 kWh. The analysis shows that while the Settlement rate provides for an increase  
15 in the contribution to fixed distribution costs at the lower consumption levels, the  
16 minimum bill rate approach significantly reduces the recovery of fixed distribution  
17 costs at the lower consumption levels. The minimum bill approach would also  
18 significantly lower the overall bill for lower consumption level customers. It is  
19 clear that a minimum bill rate design does not provide an appropriate and  
20 equitable recovery of costs and would increase the level of lost fixed costs  
21 resulting from a higher level of fixed costs included in the energy rate.

1 Q. DO YOU AGREE WITH MR. MONSEN'S CONTENTION THAT THE  
2 PROVISION OF 15-MINUTE INTERVAL DATA TO THE CUSTOMER IS  
3 NECESSARY TO IMPLEMENT A DEMAND RATE FOR TRICO?

4 A. No. First and foremost, the demand rate structure's purpose is to provide the most  
5 equitable and appropriate recovery of fixed demand related costs in a rate  
6 component that is based on a customer's contribution to those demand related  
7 costs. Those demand related costs are most equitably recovered based on a  
8 customer's peak demand contribution. Demand rates with a billing demand based  
9 on the maximum non-coincident peak (NCP) kW in a monthly billing period have  
10 been utilized by utilities (including Trico) for commercial and industrial customers  
11 for decades and have been very effective in recovering demand related costs and  
12 providing the appropriate price signal to the customer. Demand rates have not  
13 been utilized for Residential primarily because the metering was not in place to  
14 provide the monthly NCP kW. That is no longer the case as Trico now has  
15 metering to capture the required NCP kW data.

16  
17 The Settlement Agreement reflects a very reasonable proposal to transition to a  
18 three-part Residential rate which includes a demand charge based on the  
19 maximum demand established by the customer in a monthly billing period. The  
20 15-minute interval used for metering is the same interval used for all of Trico's  
21 other demand billed customers. While the initial charge for demand is set at \$0.00  
22 per kW, the customer will be provided the billing demand data on the monthly bill  
23 showing the maximum demand kW reading for the month as well as the date and  
24 time that it occurred. In Trico's next rate case, the billing demand data for a full  
25 twelve-month period will be used to calculate a demand charge to provide a partial

1 recovery of the demand related costs of providing service should the analysis  
2 reflect that a demand rate is prudent. The Settlement Agreement includes a  
3 provision that the monthly demand charge in the next case, if Trico proposes to  
4 include a demand charge, will be no greater than \$2 per kW. Again, the intent of  
5 the rate is to recover demand related costs based on the maximum demand  
6 established by the customer.

7  
8 While the primary objective of transitioning to a three-part rate with a demand  
9 component is the fair and equitable recovery of fixed costs, the demand rate  
10 structure does provide opportunity for customers to exercise efficient energy  
11 consumption and reduce the maximum monthly demand. As part of the program  
12 to educate members on the purpose and operation of the demand rate, customers  
13 will be advised that their maximum monthly billing demand is the sum of all  
14 energy consuming devices for the peak hour in the month. For individual  
15 residential customers, the highest peak demand in a monthly billing period will  
16 occur at the time when the major energy consuming devices in the household are  
17 operating simultaneously. One of the first steps to reducing the monthly peak  
18 demand is to stagger the use of major energy consuming devices such as air  
19 conditioning, dishwashers, clothes dryers and other devices to the extent possible.  
20 Providing the member with after the fact 15-minute interval demand data for all  
21 hours of the month as recommended by Mr. Monsen is not needed for the  
22 customer to make a determination which of its major energy consuming devices  
23 are operating at the same time.

1 The transition to a demand rate as proposed in the Settlement Agreement provides  
2 the opportunity to educate members on how the demand rate works and how  
3 members can efficiently utilize their use of the distribution grid that Trico is  
4 providing. The proposed demand rate is not a time differentiated demand rate nor  
5 is intended to be utilized as a peak shaving program. The demand rate is intended  
6 to recover a portion of the distribution wires capacity costs which are a fixed cost  
7 of providing service based on the capacity required to provide service. Trico's  
8 wholesale (power and transmission) capacity costs are also fixed and do not vary  
9 based on consumption. Therefore, there is no cost basis for designing a demand  
10 rate that differentiates the cost based on time. To the extent a member can manage  
11 the operation of the major energy consuming devices in their household they can  
12 achieve a reduction in their demand billing.

13  
14 **Q. COULD RESIDENTIAL MEMBERS WITH INSTALLED DG BENEFIT**  
15 **FROM A THREE PART DEMAND RATE?**

16 A. Yes. To the extent that a member with installed DG reduces the maximum  
17 monthly peak demand by the use of their DG system, the member would see a  
18 lower demand billing under at three-part demand rate. Given the continued  
19 arguments made by EFCA and other solar advocates that the capacity value of  
20 solar DG is not being adequately recognized, it is hard to understand why these  
21 groups are working so hard to deny DG customers the ability to utilize a demand  
22 rate structure that would provide them the ability to avoid fixed demand costs  
23 through the use of their DG facility.

24  
25

1 **Q. HAVE OTHER COOPERATIVES ACROSS THE COUNTRY**  
2 **IMPLEMENTED DEMAND RATES?**

3 A. Yes. Several cooperatives across the country have implemented demand rates and  
4 others are in the process of implementing demand rates. The following list is not  
5 meant to be all-inclusive, but provides known cooperatives that currently have a  
6 residential demand rate in effect:

7 Butler Rural Electric Cooperative Association, Inc., Kansas  
8 Cobb Electric Membership Corporation, Georgia  
9 Grayson Rural Electric Cooperative, Inc., Kentucky  
10 Howard Electric Cooperative, Inc., Missouri  
11 Intermountain Rural Electric Association, Colorado  
12 Mid Carolina Electric Cooperative, Inc., South Carolina  
13 Sun River Electric Cooperative, Inc., Montana  
14 Traverse Electric Cooperative, Inc., Minnesota

15 In addition to the list above there are a few others that I am aware of that are in  
16 various stages of evaluation and proposing residential demand rates:

17 Central Rural Electric Cooperative, Inc., Oklahoma (Effective: January 2017)  
18 Kay Electric Cooperative, Inc., Oklahoma  
19 Platte-Clay Electric Cooperative, Inc., Missouri (Effective: November 2016)

20 **Q. HOW DO YOU RESPOND TO MR. MONSEN'S RECOMMENDATION**  
21 **THAT TRICO DEVELOP A DEMAND BILLING PILOT PROGRAM**  
22 **BEFORE IMPLEMENTING A DEMAND CHARGE?**

23 A. The Settlement Agreement reflects a transition to a demand rate structure that  
24 provides all of the components that Mr. Monsen identifies for a pilot program but  
25 is applicable to all customers. The intent is to transition a to rate structure that is  
applicable to all customers but do so in a manner that provides ample opportunity  
to educate members and minimize customer impact. There is no need for a pilot

1 program to assess customer acceptance and provide member education as those  
2 will be accomplished in the transition plan proposed in the Settlement.  
3

4 **Q. MR. MONSEN CONTENDS IN HIS TESTIMONY THAT THE \$0.077 PER**  
5 **KWH EXPORT RATE DOES NOT INCLUDE TRANSMISSION COSTS.**  
6 **IS THIS CORRECT?**

7 A. No. The \$0.077 per kWh export rate is the **total** power supply component for the  
8 first block of the proposed settlement Residential rate. As an electric distribution  
9 cooperative that purchases all of its wholesale power, the power supply component  
10 includes both the power supply capacity and energy costs as well as the  
11 transmission costs. The export rate reflects the full amount of transmission costs  
12 incurred by Trico to provide service  
13

14 **Q. MR. ROBERT HALL RECOMMENDS MAINTAINING A \$15**  
15 **CUSTOMER CHARGE BASED ON HIS UNDERSTANDING OF THE**  
16 **COST COMPONENTS THAT SHOULD BE INCLUDED IN THE RATE.**  
17 **HOW DO YOU RESPOND?**

18 A. Mr. Hall correctly states on page 8 beginning on line 4, "Bonbright defines basic  
19 customer costs as those operating and capital costs found to vary with the number  
20 of customers regardless, or almost regardless, of power consumption." However,  
21 Mr. Hall does not include all of the customer related costs that are generally  
22 recognized components of the customer charge. Schedule G-6.0 of the Cost of  
23 Service Study reflects the following monthly customer cost components:

Distribution Customer Costs	\$17.20
Metering	\$ 5.23

Meter Reading	\$ 0.98
Customer Records	\$ 6.33
Customer Service	\$ 1.27
Revenue Related	\$ 0.82
Total Customer Costs	\$31.83

1  
2  
3  
4  
5 Mr. Hall does not include the distribution customer costs in his calculation of the  
6 justifiable customer charge, yet these are fixed operating and capital costs that  
7 vary with the number of customer regardless of the power consumption. The  
8 distribution customer costs are recognized as customer related costs. These costs  
9 are reflected in more detail on Schedule G-6.1, page 3 of the Cost of Service  
10 Study. The distribution customer costs consist of 60% of the 1-Phase extension  
11 line costs, a portion of the transformer costs and a portion of the service drop  
12 costs. These are the costs of having Trico's infrastructure in place to serve the  
13 customer's minimum load before any energy is provided to the customer.

14  
15 The proposed Residential customer charge of \$24 per month included in the  
16 Settlement Agreement is still well below the customer cost of providing service of  
17 \$31.83 identified in the cost of service study.

18  
19 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

20 A. Yes.

21  
22  
23  
24  
25

## **Exhibit DWH – R1**

TRICO ELECTRIC COOPERATIVE, INC.

COMPARISON OF FIXED DISTRIBUTION COST RECOVERY FOR THE RESIDENTIAL RATE - EXISTING, SETTLEMENT AND EQUIVALENT MINIMUM BILL RATE

	Rate	Monthly kWh Consumption								
		0	50	100	300	500	837	1000	3000	
<b>Existing Rate</b>										
Customer Charge	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00
Power Supply (Including WPCA)	\$ -	\$ 4.15	\$ 8.31	\$ 24.92	\$ 41.54	\$ 69.53	\$ 83.07	\$ 83.07	\$ 83.07	\$ 249.22
Distribution	\$ -	\$ 1.93	\$ 3.86	\$ 11.58	\$ 19.30	\$ 32.31	\$ 38.60	\$ 38.60	\$ 38.60	\$ 115.80
Total	\$ 15.00	\$ 21.08	\$ 27.17	\$ 51.50	\$ 75.84	\$ 116.84	\$ 136.67	\$ 136.67	\$ 136.67	\$ 380.02
Total Contribution to Fixed Distribution Costs	\$ 15.00	\$ 16.93	\$ 18.86	\$ 26.58	\$ 34.30	\$ 47.31	\$ 53.60	\$ 53.60	\$ 53.60	\$ 130.80
<b>Settlement Rate</b>										
Customer Charge	\$ 24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
Power Supply (Including WPCA)	\$ 0.07700	3.85	7.70	23.10	38.50	64.45	61.60	61.60	61.60	61.60
Excess kWh	\$ 0.08700	-	-	-	-	3.22	17.40	17.40	17.40	191.40
All kWh	\$ 0.03593	1.80	3.59	10.78	17.97	30.07	35.93	35.93	35.93	107.79
Total	24.00	29.65	35.29	57.88	80.47	121.74	138.93	138.93	138.93	384.79
Total Contribution to Fixed Distribution Costs	24.00	25.80	27.59	34.78	41.97	54.07	59.93	59.93	59.93	131.79
<b>Equivalent Minimum Bill Rate</b>										
Power Supply (Including WPCA)	\$ 0.07700	-	3.85	7.70	23.10	38.50	61.60	61.60	61.60	61.60
Excess kWh	\$ 0.08700	-	-	-	-	-	17.40	17.40	17.40	191.40
All kWh	\$ 0.06459	-	3.23	6.46	19.38	32.30	64.59	64.59	64.59	193.77
Minimum Bill	\$ 15.00	15.00	7.92	0.84	-	-	-	-	-	-
Total	15.00	15.00	15.00	42.48	70.80	121.73	143.59	143.59	143.59	446.77
Total Contribution to Fixed Distribution Costs	15.00	11.15	7.30	19.38	32.30	54.06	64.59	64.59	64.59	193.77