

OPEN MEETING AGENDA ITEM



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BEFORE THE ARIZONA CORPORATION COMMISSION

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2014 NOV 10 P 4: 06

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ARIZONA CORPORATION COMMISSION  
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**COMMISSIONERS**

BOB STUMP - CHAIRMAN  
GARY PIERCE  
BRENDA BURNS  
BOB BURNS  
SUSAN BITTER SMITH

IN THE MATTER OF THE APPLICATION OF )  
TUCSON ELECTRIC POWER COMPANY FOR )  
APPROVAL OF ITS 2015 RENEWABLE )  
ENERGY STANDARD IMPLEMENTATION )  
PLAN. )  
)

DOCKET NO. E-01933A-14-0248

**TUCSON ELECTRIC POWER  
COMPANY'S RESPONSE TO  
TASC OPPOSITION**

**ORIGINAL**

Tucson Electric Power Company ("TEP" or the "Company"), through undersigned-counsel, hereby, responds to certain legal issues raised in The Alliance for Solar Choice's ("TASC") Opposition to TEP's proposed rooftop solar program.

**Introduction**

TEP filed the application for its 2015 Renewable Energy Standard Implementation Plan ("REST Plan") on July 1, 2014. As part of its REST plan, the Company included its proposed Rooftop Solar Program (the "Program"). TASC waited almost five months to file any specific opposition. Much of TASC's filing essentially addresses policy issues about whether third party solar providers should be the *exclusive* providers of rooftop solar facilities used to meet the Commission's REST standard. At the end of its comments, TASC raised several issues that assert the Commission lacks the authority to approve the Program. As more fully discussed below such assertions are unfounded as the Commission has full authority to approve programs, including the Program, to allow TEP to meet the Commission's REST standard and to further encourage the deployment of renewable energy in Arizona by providing customers with more choices than they have today.

As set forth in the Company's application, and in the Staff Report, the Program provides numerous benefits. In particular, the Program will provide for further deployment of solar resources

1 without increasing the REST surcharge to customers. It will also mitigate a significant portion of the  
2 cost shift resulting from net metering that the Commission has acknowledged in Decision No. 74202  
3 (December 3, 2013). Moreover, it will offer more opportunities for deployment of rooftop solar,  
4 including opportunities for customers who are precluded from purchasing or leasing rooftop systems  
5 from third party providers.

6 Additionally, the Program will provide the Company with additional Renewable Energy Credits  
7 ("RECs") to demonstrate compliance not only with the Commission's REST Rules, but potentially with  
8 federal compliance obligations currently proposed under Rule 111(d). It will further provide the  
9 Company with operational benefits such as load balancing, and voltage and frequency control which  
10 benefits all customers.

11 TEP is proposing a limited initial roll out of the Program with a budget of \$10 million that is  
12 anticipated to provide 3.5 MW of distributed generation.<sup>1</sup> The Company is proposing this pilot program  
13 as part of its REST Plan subject to the analysis performed for such REST programs. The Program is not  
14 a new utility service that is typically being proposed through a rate case. The legal arguments set forth  
15 in TASC's Opposition are unfounded as the Commission has the authority to approve the Program under  
16 the REST.

17 TEP supports the Commission Utilities Division ("Staff") Staff Report ("Staff Report") and  
18 Proposed Order that recommends approval of the TEP rooftop solar program as a pilot program. TEP  
19 agrees with the Staff Report's findings that the proposed program provides many benefits to TEP's  
20 customers. TEP also agrees with Staff's recommendations that will provide the Commission the  
21 opportunity to closely monitor the Program to determine whether it should be continued, modified or  
22 discontinued in the future.

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<sup>1</sup> To put this in context, TEP has had over 16.8 MW (2319 systems) of residential rooftop installations and  
reservations so far in 2014. All of these systems will be net metered.

1 **Specific Responses to TASC's Legal Assertions**

2 1. The Commission Can Approve a fixed REST Program Rate for 25 Years.

3 The Arizona Constitution grants this Commission broad power to set rates. See Arizona  
4 Constitution, Article 15, Section 3. Contrary to this broad authority, TASC argues that the Commission  
5 lacks the power to approve a fixed rate or bind a future Commission. But if that were true, no  
6 Commission could approve fixed rates.<sup>2</sup>

7 There is existing precedent for setting a long-term fixed rate for a REST program. For example,  
8 TEP's Bright Tucson Community Solar Program, as approved by the Commission, contains a rate that is  
9 fixed for 20 years,<sup>3</sup> and the program has never received any opposition or legal challenge. The 20-year  
10 rate for buying a block of energy output from a solar system was urged by Staff and adopted by the  
11 Commission in approving the Bright Tucson Program.

12 Here, the 25-year rate is tied to the anticipated life of the rooftop system (and the warranty  
13 offered by the manufacturer of the panels). Once the system is installed, it should remain on the roof  
14 and operating for 25 years. This period is also similar to the term of the solar leases offered by third  
15 party solar providers.

16 Moreover, as noted by Staff, this Program assists TEP in meeting its REST obligations. In order  
17 to attract participation in the Program, the customer must receive some benefit from allowing TEP to  
18 place a rooftop solar system on the customer's house. Therefore a fixed rate for an extended period of  
19 time is necessary to attract customers to the Program. Additionally, the 25-year arrangement benefits  
20 the Company and its other customers through long-term operational stability on the grid.

21 Finally, even though the Commission has the authority to establish a rate for 25 years, should a  
22 future Commission decide to terminate the Program and not grandfather existing Program participants,  
23 such participants will have the ability to terminate their participation at no cost.

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<sup>2</sup> Longer term fixed rates are common in special contracts, although this is not being submitted as a customer-  
specific special contract, but rather as a tariffed REST program.

27 <sup>3</sup> Decision No. 71835 (August 10, 2010)(See Finding of Fact No. 20(C)).

1           2.       The Commission Can Approve a REST Program Rate Outside of a General Rate Case.

2           TASC argues that the rate cannot be approved outside of a general rate case. This argument is  
3 highly ironic coming from TASC, given that TASC's members have greatly benefited from the funds  
4 collected under electric utility REST tariffs and net metering tariffs. These tariffs were approved outside  
5 of general rate cases.<sup>4</sup> What the Constitution requires is that the Commission set rates that are "just and  
6 reasonable". Moreover, the overall impact on TEP's revenues and fair value rate of return is *de*  
7 *minimus*. This modest pilot program has a \$10 million budget, while TEP's fair value rate base in its  
8 most recent rate order was over \$2.2 billion.<sup>5</sup> TEP estimates that 500 to 600 solar systems will be  
9 installed under the Program.<sup>6</sup> Overall, TEP has over 400,000 customers. The 3.5 MW of generation  
10 involved is also *de minimus*.<sup>7</sup>

11           In short, general rate cases are not required to set rates in every instance. Special contracts and  
12 REST Tariffs are all approved without general rate cases.

13           3.       The Proposed Fixed Rate is Just and Reasonable.

14           TASC also argues that there is not sufficient information to determine that the new rate is just  
15 and reasonable. Notably, this is not a monopoly service rate. Customers will only seek participation if  
16 they find this rate to be more advantageous than the standard residential rate approved in TEP's last rate  
17 case and are willing to host TEP's solar facilities on their home for an extended term. Moreover, as  
18 noted above, the sums involved are *de minimus* with respect to TEP's overall operations – as would be  
19 expected with a pilot program. Finally, as set forth below, the proposed rate for participating in the  
20 Program is just and reasonable given the nature of the Program and its related costs and benefits.  
21 Indeed, an average residential customer will pay approximately the same monthly amount under the  
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23           <sup>4</sup> See A.A.C. R14-2-1808(B)(information required for REST tariff application)

24           <sup>5</sup> See Decision No. 73912 (July 27, 2013) at page 70, Finding of Fact No. 35.

25           <sup>6</sup> See Staff Report at 6; TEP Response to Staff Data Request STF 1.07 (excerpts of TEP's Responses to Staff's  
26 data requests are attached as Exhibit 1). TEP would note that TASC eventually served data requests on TEP on  
27 October 14, 2014. However, TASC has never request copies of the TEP responses to Staff's data requests.

<sup>7</sup> See Decision No. 74000 (July 30, 2013)(City of Tucson) (finding that the 1 to 10 MW of community solar  
capacity at issue would have a *de minimus* impact on TEP's fair value rate of return); Decision No. 73652 (Feb. 6,  
2013)(Pima County) (similar).

1 tariff as that customer pays today. At the same time, TEP can cover much of its fixed costs and mitigate  
2 revenues lost through net metering.

3 As explained in the Staff Report, TEP identified the costs attributed to the participants in the  
4 Program. Specifically, the Program participants' monthly payments would cover the costs typically  
5 recovered through the \$10 fixed monthly customer charge, as well as the participants' fixed cost of  
6 \$30.80, and the capital costs of the solar facility.<sup>8</sup> Staff indicates in its report that the Program will  
7 significantly lessen the cost shift to non-participants in comparison with a customer who currently  
8 purchases or leases a rooftop system.<sup>9</sup> Consequently, these participants avoid shifting their fixed-cost  
9 burden onto non-participating customers through the Lost-Fixed Cost Recovery mechanism ("LFCR").<sup>10</sup>  
10 Because participants are covering their fixed costs (the costs shift), this justifies Program participants'  
11 exemption from the LFCR and other charges TEP proposes to waive for them.

12 Moreover, as TEP explained and Staff verified, the average residential customer would require a  
13 6kW rooftop system to meet their energy needs.<sup>11</sup> Under the proposed tariff, the monthly charge to the  
14 average residential customer would be \$99 (\$16.50 per watt X 6kW).<sup>12</sup> This charge is roughly  
15 equivalent to what the average residential customer is currently paying.<sup>13</sup>

16 Finally, the proposed rate will not result in an increase in TEP's fair value rate of return as  
17 established by the Commission in the last rate case. First, the participating customers will transition to a  
18 tariff that will not result in increased revenues for TEP. Second, TEP's rate base will not change as a  
19 result of the Program until the next rate case. Third, as explained above, this pilot program will have a  
20 *de minimus* impact on TEP's overall revenues and rate base.

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<sup>8</sup> Staff Report at 6; TEP Response to Staff Data Request STF 1.02.

24 <sup>9</sup> Staff Report at 7; see TEP Response to Staff Data Request STF 1.15.

25 <sup>10</sup> Staff Report at 7; TEP Response to Staff Data Request STF 1.02.

26 <sup>11</sup> TEP indicated that such a customer would need a 6 kW to achieve "net zero" status under the current net  
metering rules if installed by a third party. TEP proposed 2015 REST Implementation Plan (July 1, 2014) at 8.

27 <sup>12</sup> Staff Report at 6; TEP proposed 2015 REST Implementation Plan (July 1, 2014) at 8.

<sup>13</sup> Staff Report at 6; TEP proposed 2015 REST Implementation Plan (July 1, 2014) at 8.

1 TEP has provided ample justification why the proposed rate is just, reasonable and appropriate  
2 for residential participants in the Program. The Program is a novel and cost-effective way for TEP to  
3 help meet its REST obligations while at the same time providing operational benefits to TEP and  
4 financial benefits to TEP's customers as compared to third party rooftop installations. The proposed  
5 charge allows for recovery of fixed costs and helps to reduce the cost shift, while providing customers  
6 an additional opportunity to participate in residential distributed generation without increasing their  
7 monthly bill.

8 4. *This Pilot Program Does Not Discriminate in the Treatment of Residential Customers.*

9 In general, this pilot program will be available to all TEP's customers who meet the  
10 qualifications of the Program, including roof condition, orientation and location of the customers' house.  
11 Once customers become participants in the Program, they are no longer similarly situated with other  
12 residential customers as they have agreed to host TEP's solar facilities for an extended period of time.  
13 Moreover, TASC ignores not all customers are suited for all tariffs offered by a utility. For example, not  
14 all customers qualify for net metering. Finally, this is a pilot program which by nature is limited in its  
15 availability.

16 5. *The Rooftop Systems Are Not Dedicated to Private Use.*

17 TASC mistakenly believes that the rooftop systems will only serve the house on which it is  
18 located. To the contrary, the generation produced by the solar systems under this Program is TEP  
19 generation that will benefit all customers. Further, and in concert with TEP's new systems  
20 communications network under development, TEP will be able to communicate and control inverters on  
21 participant systems – which will provide voltage and frequency support to the grid.<sup>14</sup> These types of  
22 ancillary benefits do serve more than just a “private purpose” despite TASC's mischaracterization of  
23 both the Program and the standard for inclusion in rate base. TEP also will target specific areas of its  
24 distribution system where the installations can optimally benefit the grid and utility operations, and will  
25 not install systems in locations resulting in more harm than good.<sup>15</sup> One of the benefits to non-

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27 <sup>14</sup> Staff Report at 7; TEP Response to Staff Data Request STF 1.21.

<sup>15</sup> TEP Response to Staff Data Request STF 1.12.

1 participants will be lower cost for grid management services, because TEP will incorporate a  
2 distribution management system to utilize the smart inverters for participant systems.<sup>16</sup> In short, TEP's  
3 Program is being coordinated with other developments to provide benefits to all of its customers.<sup>17</sup>  
4 Unlike leased and customer-owned systems that are installed for private use, the solar systems under  
5 TEP's Program are designed for public benefit, a fundamental tenet of a regulated utility such as TEP.

6 Moreover, TASC's assertion regarding participant systems being excluded from rate base is  
7 premature and is an issue that will be decided by the Commission in the Company's next rate case. TEP  
8 is not requesting inclusion of its \$10 million program investment in its rate base in this proceeding, and  
9 it is not requesting cost recovery through its 2015 REST Plan.<sup>18</sup> TEP intends to seek cost recovery in its  
10 next rate case as part of its overall cost of service, while crediting back the revenues generated by the  
11 participating customers as an offset to the required revenue requirement.

12 Even so, the standard to be used to determine whether to include assets in rate base is whether  
13 the plant is used and useful. Capital expenditures in plant are presumed to be prudently invested,  
14 although the Commission will analyze and make recommendations for inclusion in the next general rate  
15 case.<sup>19</sup> As Staff indicates, it will have the ability to review the prudence in TEP's next rate case and  
16 protect ratepayer interests.<sup>20</sup>

17 6. The Program Does Not Restrict Trade.

18 TASC's assertion that TEP will illegally restrict trade is wholly unfounded. TEP is utilizing a  
19 traditional vendor solicitation to identify qualified local companies to install solar facilities, but all  
20 vendors who meet TEP's specified requirements are eligible to participate in the solicitation.<sup>21</sup> Even so,  
21 TEP is not requesting that the Commission sanction its procurement process. Staff notes how installers  
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23 <sup>16</sup> TEP Response to Staff Data Request STF 1.15.

24 <sup>17</sup> TEP Responses to Staff Data Requests STF 1.01, 1.15.

25 <sup>18</sup> Staff Report at 6.

26 <sup>19</sup> See A.A.C. R14-2-103.

27 <sup>20</sup> Staff Report at 7.

<sup>21</sup> See Staff Report at 7; TEP proposed 2015 REST Implementation Plan (July 1, 2014) at 8-9. Indeed, SolarCity was invited to participate in the vendor solicitation process but chose not to.

1 will be procured, but does not issue any recommendation regarding such procurement.<sup>22</sup> TEP will select  
2 qualified installers based on its current procurement process and in a manner consistent with all  
3 applicable laws.

4 **Conclusion**

5 The legal arguments brought forth by TASC are a smoke screen to confuse a situation grounded  
6 in Commission precedent and policy. The Commission has the legal authority to approve this pilot  
7 REST Program and has in fact approved other programs with similar characteristics such as the Bright  
8 Tucson Community Solar. The pilot Program will produce more customer choice and allow more  
9 customers to participate in rooftop solar. For the reasons set forth herein, the Company requests that the  
10 Commission approve this pilot Program under TEP's 2015 REST Plan.

11  
12 RESPECTFULLY SUBMITTED this 10th day of November, 2014.

13 TUCSON ELECTRIC POWER COMPANY

14  
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26  
27 <sup>22</sup> See Staff Report at 13 (recommending simply that the Commission approve TEP's proposal for utility-owned residential distributed generation up to \$10 million.)

1 Original and 13 copies of the foregoing  
2 filed this 10th day of November, 2014, with:

3 Docket Control  
4 Arizona Corporation Commission  
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6 Phoenix, Arizona 85007

7 Copies of the foregoing hand-delivered/mailed  
8 this 10th day of November, 2014, to the following:

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By *Jaclyn Howard*

## **Exhibit-1**

**TUCSON ELECTRIC POWER COMPANY'S RESPONSE TO  
STAFF'S FIRST SET OF DATA REQUESTS REGARDING  
THE APPLICATION FOR ITS 2015 RENEWABLE ENERGY STANDARD  
IMPLEMENTATION PLAN  
DOCKET NO. E-01933A-14-0248  
AUGUST 22, 2014**

**Questions on the Utility-Owned Distributed Generation Program.**

**STF 1.01**

Were there other structures for a utility-owned program that TEP considered? Please identify them and indicate why the proposed program is preferable.

**RESPONSE:**

Yes, TEP considered other utility-owned programs such as a rooftop leasing program, per kilowatt-hour charge program, and cash financing programs. All of these programs, in TEP's opinion, are inferior solutions to TEP's proposed Residential Solar – Company Owned Systems program (the "Program"). The primary benefits of this program over the other options are:

1. Provides customer choice and for believe to be a superior alternative to traditional cash purchase or third-party owned solar systems;
2. Mitigates the cost-shifting associated with existing rate design and net metering;
3. Providing opportunities for customers that may not otherwise qualify from a credit or other standpoint and therefore are precluded from participation in rooftop solar;and
4. Allows TEP to provide local generation in locations to better maintain grid stability.

These benefits are not exclusive to TEP, as many have been discussed in detail through a number of associated dockets; including value of distributed generation ("DG"), net-metering, rate design, and emerging technologies. TEP understands that as a utility it must evolve to the "next generation" utility to meet the needs of our customers, regulators, and shareholders while maintaining a safe, affordable, reliable grid.

The fundamental problem of the other types of programs is that they do not take the first step at creating an alternative rate structure that is not dependent on volumetric sales, which TEP believes will be a key component of future rate design. They also do not appropriately balance the cost of utilizing the grid through net-metering or lease payments with the associated rate increases passed on to non-participating customers.

TEP believes its Program affords the greatest benefit to all parties while promoting renewable energy, maintaining grid stability, and moving towards the next generation of regulated utility services.

**RESPONDENT:**

Carmine Tilghman

**Defined Terms:**

Arizona Corporation Commission ("Commission")

Renewable Energy Standard Implementation Plan ("RES IP" or the "Plan")

Tucson Electric Power Company ("TEP" or the "Company")

UNS Electric, Inc. ("UNS Electric")

UNS Energy Corporation ("UNS")

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AUGUST 22, 2014**

**STF 1.02**

Please provide any economic analysis TEP has conducted regarding the costs and benefits of the proposed program for the utility and a participating customer.

**RESPONSE:**

TEP performed several economic analyses in creating the structure for the Program, using the three following concepts as the basis for the analysis:

1. View the Program from the perspective of a customer going to a 3<sup>rd</sup> party as "net-zero";
2. View the cost of the Program and the associated cost to non-participating customers; and
3. Internal rate of return on a cash flow basis relative to the cost of the system.

Viewed from the perspective of the customer going to a 3<sup>rd</sup> party and being net-zero, the Company used the average customer with a usage of 11,400 kWh annually. This equates to \$93 per month (sans taxes and surcharges) broken down as:

Customer charge -	\$10.00
Delivery Margin -	\$20.20
Fixed Costs -	\$30.80
Fuel -	\$32.00

A net-zero customer would only pay \$10 per month, resulting in: fuel savings of \$32; lost delivery margin and revenues of \$20.20; and an eventual shift of \$30.80 to the Lost Fixed Cost Recovery mechanism ("LFCR") which would be recovered from non- net-zero customers.

Under the Program, customers would pay \$99 per month, retaining the customer charge of \$10.00, allowing the customer to pay their fixed costs of \$30.80 and not shift to the LFCR. The remainder of the revenue would be utilized to pay for the capital costs of the solar facility.

As mentioned above, when viewed from a cost-shift perspective, the solar customer under the Program would pay their own fixed costs rather than having those costs picked up by the non-participating customers through the LFCR.

A number of variables affect the possible cash basis Internal Rate of Return ("IRR"), such as actual cost per watt, actual system installed, and the year in which tax credit is captured; however, the rate of return continues to remain positive between 2%-8% under all scenarios.

**RESPONDENT:**

Carmine Tilghman

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AUGUST 22, 2014**

**STF 1.07**

Please explain how TEP came to the estimate that the \$10 million would result in approximately 3.5 MW of DG capacity. How many systems does this represent?

**RESPONSE:**

The \$10 million is an initial expenditure cap that TEP placed on the program. With an expected installed cost per watt between \$2.85 – \$3.00, the Company expects to be able to procure and install between 3 to 3.5 MW of solar.

Based on the average system size of 6 kW, this equates to approximately 500-600 systems (depending on actual size).

**RESPONDENT:**

Carmin Tilghman

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**STF 1.12**

How will TEP target any of the installations under this program to areas where installations would be more beneficial to TEP's system? Would some portion of systems be targeted or is there some other way of directing where installations go?

**RESPONSE:**

TEP does, in fact, intend to target specific areas of the distribution system where the installations can benefit the grid and the utility operations the most. As this Program has an inherent participation limitation, TEP must achieve the greatest benefit possible from the installations.

TEP's Distribution Planning and Engineering department will provide input as to which areas of our distribution system could benefit the most from the installations, and alternatively, in which portions of our distribution we should limit installations due to existing high penetrations.

TEP will retain all rights to limit installations in those parts of the system where it is expected that the installation would do more harm to grid operations than good.

**RESPONDENT:**

Carmine Tilghman

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AUGUST 22, 2014**

**STF 1.15**

Please describe any benefits and drawbacks TEP sees resulting from this program for non-participating customers.

**RESPONSE:**

TEP sees the following as benefits to non-participating customers ("NP Customers"):

- NP Customers would not have to pay LFCR charges associated with Program participants as such participants would not be net-metered customers;
- NP Customers would pay lower costs associated with grid management services as TEP will incorporate distribution management system to actually utilize smart inverters;
- NP Customers would be exposed to minimal future rate impacts due to cost shifting and lost revenue because participating customers are paying a significant portion of fixed costs;
- Continued health and strength of local utility; and
- Local economic business development and support.

TEP sees the drawback to the NP Customers would be that participation in the Program is limited.

**RESPONDENT:**

Carmine Tilghman

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**STF 1.21**

Please provide greater detail regarding the distribution management program TEP would use to control the inverters, etc. and the benefits it provides TEP.

- a. What costs are there for this system and are they part of the \$10 million budget? If not, how would these costs be recovered?
- b. Has TEP used this type of system to date? If so, please discuss.

**RESPONSE:**

Even though most solar installations have smart inverters that possess the capability to provide grid management services such as VAR and frequency support, they are not utilized. The primary reason (beyond the fact that traditional net-metered customers are only concerned about production due to the structure of net-metering) is that any system designed to control the inverters must have a communications system (preferably secure).

As the grid operator and utility responsible for providing all energy services (and not simply kWh), TEP is currently planning on the acquisition of an area-wide systems communications network that will designate communication frequency whereby Company-owned inverters will be able to send and receive signals from TEP's balancing authority's energy management system ("EMS").

This project is underway to facilitate the Company's growing communications needs irrespective of this program, and as such, will be paid for and recovered through traditional utility rate-making procedures.

It is this system that will allow the utility to incorporate a distribution management system, which to date we have not had available to the Company.

**RESPONDENT:**

Carmine Tilghman

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