OPEN MEETING AGENDA ITEM

UniSource Energ

0000119912

UniSource Energy Corporation
One South Church, Suite 2030
Tucson, Arizona 85701

RECEIVED ORIGINAL

Philip J. Dion
Vice President, Legal and
Environmental Services

Direct Line (520) 884-3708
Fax: (520) 545-1471

2010 NOV -9 P 4: 30

AZ CORP COMMISSION
DOCKET CONTROL

November 9, 2010

Kristin K. Mayes, Chairman
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007-2996

Re: **2011 REST Implementation Plans; Request for additional information in advance of November workshop; Docket Nos. E-04204A-10-0265.**

Dear Chairman Mayes:

Thank you for your recent correspondence regarding Tucson Electric Power Company's ("TEP") and UNS Electric, Inc.'s ("UNS Electric") (collectively, the "Companies") 2011 Renewable Energy Standard and Tariff ("REST") Implementation Plans. In response to your request for additional information, the Companies respond as follows:

Residential Distributed Energy Programs

The Companies agree that interest in solar among Arizona residential consumers has taken off. And like Arizona Public Service Corporation ("APS"), TEP and UNS Electric have proposed incentive step-downs in their 2011 REST Implementation Plans. TEP proposed to lower residential incentives from $2.00 per watt to $1.75 per watt if reservation totals exceed 60% of the projected annual budget by June 30, 2011. Similarly, UNS Electric proposed to reduce residential incentives from $1.75 per watt to $1.50 per watt if 65% of funds have been reserved by June 30, 2011. The Companies believe that the use of both budgetary and temporal components in their trigger mechanisms is essential to obtaining an accurate level of demand in the residential distributed energy ("DE") market.

Regarding whether additional information could be considered in setting incentive step-down levels and triggers, the Companies believe it is possible. Doing so, however, would require the flexibility necessary to adjust incentive levels during plan years. The Companies are supportive of this type of flexibility should the Arizona Corporation Commission ("Commission") decide to grant it. In the absence of such flexibility, the Companies believe that their proposed trigger mechanisms provide a good proxy for being able to consider the effects of market factors during plan years.

Arizona Corporation Commission
DOCKETED
NOV - 9 2010
DOCKETED BY

Rapid Reservation Programs

With regard to the $1.00 per watt rapid reservation pricing issue, neither TEP nor UNS Electric has proposed such a mechanism. TEP presently has no waiting list for reservations, thus there is no need for such a system. And though UNS Electric has a waiting list, the Company's incentive levels are priced such that a $1.00 per watt (or higher) rapid reservation system would have little impact. UNS Electric's current incentive level is $1.75 per watt and the proposed trigger is at $1.50 per watt. Moreover, the Companies are concerned that this type of reservation system may promote installation of low quality systems that would not produce the estimated number of RECs, which could lead to more expensive RECs or non-compliance. Thus, the Companies have not offered a rapid reservation program for customers.

Commercial Performance Based Incentive Programs

Please see the attached Exhibit A for a detailed assessment of the status of TEP's commercial performance based incentive ("PBI") programs. In general, TEP has installed 49 non-residential DE systems for a total of 7,371.77 MW since the onset of the REST.

Schools Program

TEP experienced great success in the schools with its Green Watts Program. Currently, 11 schools representing 83.5 kilowatts ("kW") of solar power were able to utilize TEP's Green Watts Program, as shown in Table 1. TEP's 2011 REST Plan proposes additional performance based and up-front incentives for schools. Currently, one school has installed a 9.45 kW system through the up-front incentive ("UFI") program, and six other projects have reservations representing an additional 1,765 kW of solar power, as shown in Table 2. TEP is hoping to increase the exposure of solar photovoltaics ("PV") to high schools through its proposed schools program in the 2011 REST Implementation Plan, which will provide ten to fourteen solar systems ranging in size from four to seven kW to eligible schools.

Table 1. School Installed Solar Systems

School	System Size in kW	Program Installed Through
Civano Vail	3.0	Green Watts
Davidson	9.6	Green Watts
Doolen	6.0	Green Watts
Hohokam	4.2	Green Watts
La Cima	9.2	Green Watts
Los Ranchitos	9.2	Green Watts
Palo Verde	4.8	Green Watts
Project MORE	15.0	Green Watts
Safford	4.8	Green Watts
Tanque Verde	10.2	Green Watts
Vail Empire	7.5	Green Watts
Vail Academy	9.45	Small Commercial UFI

Table 2. School Reserved Solar Systems

School	System Size in kW	Program Reserved Through
Sopori #1	55.08	Small Commercial UFI
Sopori #2	75.52	Small Commercial UFI
Sopori #3	226.8	Large Commercial PBI
TUSD New School	90.85	Small Commercial UFI
Salpointe	40.95	Small Commercial UFI
Sahuarita	1,276.6	Large Commercial PBI

Expanding the Residential Solar Market

1. Budgeting Flexibility and the REST

TEP and UNS Electric have consistently advocated for REST Plan flexibility and would welcome the opportunity to incorporate flexibility into future plans. The Companies especially support the ability to transfer like funds between classes. This was done recently when the Commission approved TEP moving money from its small commercial UFI budget to its residential UFI budget (Decision No. 71844 (August 25, 2010)). The Companies strongly favor flexibility of this sort (i.e., funds transferred to like funds - UFI to UFI and PBI to PBI).

TEP and UNS Electric would caution against moving funds from any unused or available funding from any REST budget or program and into the residential programs. The budgets and incentive programs for UFI and PBI programs are designed very differently. Shifting unused funds between can lead to shortfalls in both funding and compliance. For this reason, the Companies support the ability to transfer like funds only.

2. Unused Renewable Generation Funds in 2011

TEP and UNS Electric are not aware of any unused renewable generation funds that will exist for 2011. Neither are the Companies aware of any renewable generation projects that will no longer move forward in 2011. Therefore, the Companies are not aware of any extra funds available for residential programs.

3. Increasing the REST Surcharge

TEP has no residential backlog, thus no increase to the adjustor mechanisms is necessary. UNS Electric incorporated its 2010 residential program waiting list into its 2011 budget, so again, no additional funding should be necessary. It is impossible to predict when demand will outstrip funds, but the Companies believe that their incentives and accompanying step-down levels will address any future issues in this area.

4. Filling Utility-Scale Gaps with Residential Projects

Neither TEP nor UNS Electric has any gaps created by the potential failure of utility-scale projects. Both Companies have utility scale Renewable Energy Credits ("REC") banked and scheduled for delivery such that gaps from failed projects should not be an issue. Additionally, the Companies create a buffer against these gaps by building attrition rates into future plans. By planning for the inevitability of project failures, the Companies are able to prevent utility-scale gaps. Because of this, the Companies do not believe that money should be shifted away from utility-scale projects.

Additionally, renewable energy can be purchased from Qualified Renewable Generators through the wholesale market at significantly lower prices than small-scale distributed systems. This allows the utilities to reduce their fossil fuel consumption and emissions at a much lower cost to customers. For example, the average REC price that TEP paid for wholesale renewable energy purchases in 2010 was just over three cents ($0.03) per kWh.

Distributed Energy Small Generation

Regarding the concerns over allowing large distributed projects to be counted towards non-residential DE compliance targets, the Companies do not believe this is an issue. TEP structured its PBI programs to give smaller projects priority over the larger mega-distributed projects by splitting the PBI budgets into monthly segments. Because of this, awards are based on the REC price and available funding that the month will allow (typically 550 kW or less). Under this system larger systems can only receive a reservation if the previous month's budget is not reserved.

To date, the Companies have only had two non-residential installations larger than 1 MW (Soaring Heights and Pima Wastewater). Going forward, only one project above 1 MW is in the reservation stage. Please see Table 3 for the installed large commercial projects since the inception of the REST and Table 4 for the reserved large commercial projects.

Table 3. Installed Large Commercial Projects

Project	System Size in kW
Global Solar	750.00
Haley Aldrich	51.60
City of Tucson - PSTA	473.00
City of Tucson - El Pueblo	98.00
City of Tucson- El Rio	24.00
City of Tucson - HU Water Treatment Facility, 2	230.00
City of Tucson - IT	35.00
City of Tucson - Parks Purchasing Warehouse	47.00
City of Tucson - Roger Road Reclamation, BSTR 3	110.00
City of Tucson - Sun Tran Bus	84.00
Union Distributing	90.00
Pima County - Roger Road Wastewater	1,000.00
Soaring Heights - Groundmount	3,400.00
SOLON - Parking Shade	75.00
National Bank of Arizona	402.60

Table 4. Reserved Large Commercial Projects

Project	System Size in kW
UofA	670.00 kW
Pima County Abrams	204.00
Pima County – Silverlake Roof	80.00
Pima County – Silverlake Ground	600.00
Pima County – Camino de la Tierra	350.00
Kohls – Southeast	386.00
Kohls – Marana	340.00
Kohls – Oro Valley	380.00
Town of Oro Valley	356.00
Granite Construction	159.00
Plaza del Sol	630.00
City of Tucson – Multi-Service Center	200.00
City of Tucson – Evidence Center	150.00
City of Tucson – Westside Police Station	150.00
City of Tucson – Police Crime Lab	150.00
City of Tucson – Convention Center	300.00
City of Tucson – Thomas O'Price Center	200.00
Sopori Elementary School	226.80
Sahuarita High School	1,276.56

Viability and Security Deposits

To date, neither TEP nor UNS Electric has had an issue with a project winning a request for proposal ("RFP") only to fall out later for lack of financial backing. For this reason, neither Company has proposed the use of a security deposit. The early rationale for not requiring security deposits was that they may favor the larger entities, may stifle competition, and could ultimately result in the ratepayers unnecessarily over-paying for projects. However, as the industry matures and more projects are being awarded, the Companies would have no objection to implementing a process that requires a nominal deposit following short-list notification. For large-scale PBI projects (greater than 1 MW), the Companies believe that some type of deposit should be submitted with the application.

Utility-Scale Generation

TEP and UNS Electric recognize that not every project will reach completion. Because of this, the Companies contract for 25% more utility-scale generation than is needed for REST compliance. By planning for these contingencies, the Companies are able to avoid impacts to their ability to achieve REST compliance. In the unlikely event that all projects reach completion, the Companies would simply be ahead of the curve.

The Companies' Plan B would be their willingness to invest in utility-owned projects to expand the generation portfolio, like the Solar Buildout Plan described in the Companies' REST Plans. Additionally, utilities have the option of procuring renewable energy in the wholesale market to bridge any gaps that may occur from project delays or failure. The Companies believe that aggressively priced projects deserve the opportunity to succeed; indeed, their success would set

the bar for other Arizona projects. Fostering this sort of competition is ultimately what will make solar more affordable for Arizona.

Feed-In Tariff Proposals (Wholesale Distributed Generation)

TEP designed its Feed-In Tariff ("FIT") Pilot Program in response to Commission workshops on FITs. TEP's Pilot Program was intended to balance the needs of projects that cannot typically take advantage of existing programs with the need for competitive REC pricing. As mentioned in the workshops, the best way to achieve this balance is by setting a maximum acceptable price and then utilizing a competitive process to allow the market to determine the REC price threshold. TEP did this by modeling its FIT after the California model presented in the FIT Workshop. The Companies strive to be good stewards of their REST dollars and the FIT as proposed furthers this aim. Its design also avoids potential Federal Energy Regulatory Commission jurisdictional issues.

The Companies believe that an increase to the FIT budget is unnecessary at this time as there have been no problems with REST program participation or under-subscription of programs. The Companies' DE programs are fully subscribed and very successful and non-DE project development and purchases have resulted in exceeding REST compliance. Because of the successes of existing DE and utility-scale programs, the proposed FIT Pilot Program budget does not need to be increased.

Various Studies

The Companies would welcome the commissioning of a Renewable Energy Cost-Benefit Study associated with increasing the RES as well as a re-constitution of the Cost Evaluation Working Group. TEP and UNS Electric believe such studies would be a fair use of REST funds. While the Companies also support studying the costs and benefits of exporting renewable energy, funding for such a study should be sponsored by the developer community. Having Arizona ratepayers fund a study to determine the costs of exporting power to other states is not a fair use of REST funds.

Research and Development/Studies

The Companies are an active participant in various research and development projects. The Companies agree that these projects have clear near and long term benefits for Arizona ratepayers. TEP and UNS Electric will present detailed descriptions of these projects at the 2011 REST Open Meeting, but have summarized them here for review. In addition to the projects described below, the Companies are actively engaged in a comprehensive energy storage technology review to study the different technologies of energy storage and assess where each technology is today. Moreover, TEP is partnering with Solon and AzRise in 2011 for a battery and compressed air energy project with flywheel storage.

To date, the Companies are involved in the following research and development projects:

- 1.6MW Photovoltaic ("PV") Tracker Project with battery back-up and small-scale compressed air energy storage system ("CAES") in association with SOLON and the University of Arizona Science & Technology Park ("UASTP");

- Springerville Generating Station Solar Expansion Project with Gloria Solar to design and install a 1.8MW PV system at Springerville Generating Station; infrastructure for 1.35MW is already in place;
- Subscription and REST funding of Electric Power Research Institute's Programs PS84, 173.006, and 174A, which will provide essential study information for integration of renewables into TEP's transmission and distribution system;
- Solar City / Davis Monthan Air Force Base Feeder Study to review impact of high density PV and how intermittencies affect distribution feeders and substations for 2MW capacities and greater;
- Grid Stability Analysis Study to model future PV penetration into TEP's system, including major capacity additions and assessment of control area operations to incorporate large renewable generators;
- DE Commercial Rooftop PV Program where TEP will contract to install multi-kW PV systems on large commercial buildings using a partnered approach to lease rooftop space and receive energy and RECs directly from facility owners on long term contracts;
- TEP will continue to purchase systems and monitor the performance of various PV and concentrated PV ("CPV") products for small demonstration applications at its test sites to determine the highest performing products;
- TEP will continue its AzRise Partnership to evaluate DE on technical and economic levels, and for utility-scale solar performance, including predictive weather models and PV degradation; and
- TEP will install a 6.5 MWe concentrated solar plant with a Linear Fresnel Lens solar thermal project rated at 20MWth.

The Companies look forward to participation in the workshops on the 2011 REST Plans. Thank you for the opportunity to provide more detail on these matters.

Sincerely,

Philip J. Dion
Vice President, Public Policy

cc: Commissioner Gary Pierce
Commissioner Sandra Kennedy
Commissioner Paul Newman
Commissioner Bob Stump
Ernest Johnson
Steve Olea
Janice Alward
Lyn Farmer
Rebecca Wilder

EXHIBIT A

Tucson Electric Power Company's ("TEP") and UNS Electric Inc.'s ("UNS Electric") (collectively the "Companies") Commercial program installations and reservations since the inception of the Renewable Energy Standard and Tariff's ("REST") implementation appear below.

Tucson Electric Power Company's
Small Commercial Up-Front Incentive Installations & Reservations

Year	Projects Installed	Kilowatts	Projects Reserved	Kilowatts Reserved
2006	2	13.2		
2007	1	7.5		
2008	9	139.92		
2009	14	130.09		
2010	9	214.06	56	2,756

Tucson Electric Power Company's
Large Commercial Performance Based Incentive Installations & Reservations

Year	Projects Installed	Kilowatts	Projects Reserved	Kilowatts Reserved
2008	1	750		
2009	9	1,242	8	3,010
2010	4	4,875	11	4,201

The Companies' REST compliance numbers, including installations and reservations, appear below. The Companies' total kilowatt hours toward compliance are 25,595,302 or 108%.

For 2009

Compliance Kilowatt Hours	14,258,000
Installed Kilowatt Hours	3,880,607
Reserved Kilowatt Hours	5,117,000

For 2010

Compliance Kilowatt Hours	23,636,000
Installed Kilowatt Hours	8,651,402
Reserved Kilowatt Hours	16,943,900

The Companies' total up-front incentive budget for commercial programs is $9,735,000. This includes $7,223,790.75 in reserved projects, which makes up 74% of the total budget.

The Companies' total performance based incentive budget for commercial programs is $1,662,982. This includes $1,198,006 in reserved projects, which makes up 72% of the total budget.