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AZ CORP COMMISSION
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October 3, 2011

Arizona Corporation Commission
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Hand Delivered
Commissioner Brenda Burns
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Re: Response to REST Questions
Docket Nos. E-01933A-11-0269

Dear Commissioner Burns:

Tucson Electric Power Company ("TEP") and UNS Electric, Inc. ("UNS Electric") (collectively "Companies") are in receipt of the questions docketed on September 2, 2011, that you posed to both companies regarding their respective 2012 Renewable Energy Standard Tariff ("REST") Implementation Plans. This letter provides the Companies' responses to those questions as follows:

1. **At the end of 2011, what, in terms of percentage and megawatts, will the following companies have reached on renewable energy output?**

TEP has a total of approximately 105 megawatts ("MW") of installed capacity between utility-scale solar and wind and distributed generation, representing approximately 3.5% of its annual retail sales.

UNS Electric has a total of approximately 22 MW of installed capacity between utility-scale solar and wind and distributed generation, representing approximately 3.0% of its annual retail sales.

2. **Are there any projects that are in process, through the end of 2011, which will increase the percentage in the next year, or a following year?**

TEP has another 136 MW of solar under contract in various stages of development that is expected to be completed between 2011 and 2013. If all of these projects are completed, this additional energy will bring TEP's total percentage derived from renewable energy resources up to approximately 8% of TEP's 2013 annual sales.

UNS Electric has another 11 MW of solar that will be developed by the end of 2012. If all projects are completed, this additional energy will bring UNS Electric's total percentage derived from renewable energy resources up to approximately 7% of its 2012 annual sales.

3. If there were no REST, would you be investing in Renewable Energy?

a. If yes, how different would your individual company's investment plan be than the one-size-fits-all approach of the REST?

Both TEP and UNS Electric believe that the Companies would be investing in renewable energy if there were no REST. In the absence of a state-mandated renewable energy standard, the Companies would most likely develop a renewable energy investment strategy that focused on cost-effective integration of renewable energy into their respective systems, coupled with energy efficiency investments, similar to the approach that Salt River Project has adopted. These strategies would be designed to balance the Companies' resource portfolio, reduce emissions and the Companys' exposure to future emissions-related investments, charges or taxes, and defer the need for additional infrastructure.

4. If the REST required you to reach percentages in terms of renewable energy output, per year, but didn't carve out specific requirements how would you allocate the resources as an individual company?

a. Therefore, what is the most economic and efficient way, from the ratepayer's position, of reaching the required REST percentages?

Both TEP and UNS Electric would favor cost-effective utility-scale renewable projects with a preference for those that are located within each Company's distribution system. This would allow each utility to take advantage of larger, lower cost projects while also getting the benefits associated with local generation, such as reducing the distribution loading, limiting the transmission and distribution losses, and avoiding distribution upgrades. This would lead to the most economic and efficient way to meet the REST percentages by reducing the overall cost of compliance. It would also allow those costs to be borne equally by all customers, rather than shifting costs and benefits between customer classes which presently occurs as a result of the Distributed Generation ("DG") requirement and the State's Net Metering Rule.

5. In what year do you anticipate that incentives will no longer be necessary?

It is difficult to speculate when utility incentives will no longer be needed, as the incentives are dependent on many factors, most importantly the actual cost of the system. While the Companies are aware that system costs are dropping dramatically, the Companies cannot

predict when the cost of a renewable system becomes low enough for a consumer to purchase without incentives.

However, under the current REST Rules' DG requirement, some type of incentive will be required indefinitely due to the requirement that utilities show compliance through the acquisition and subsequent retirement of DG Renewable Energy Credits ("RECs"). Although the REST is designed to have the utilities serve a percentage of their retail sales through the use of renewable resources (thereby reducing the use of fossil fuels), the Companies must incentivize the customer to assign their DG RECs to the utilities for compliance. Therefore, as long as the utilities have a DG requirement and must show compliance through the retirement of RECs, the Companies will still need to provide some incentive to the end user to acquire their RECs.

6. For APS: The rapid reservation rate is $1.00, why not apply that across the board?

This question applies only to Arizona Public Service Company.

7. PBI / UFI: please compare and contrast the differences and attributes of PBI and UFI.

a. Which is more expensive, in the long-term, for the ratepayer?

Recognizing that utilities could not provide Up-Front Incentives ("UFI") to projects of all sizes, a Production Based Incentive ("PBI") was designed to be roughly equal to the economic benefit of the UFI. The PBI was supposed to more accurately pay customer incentives over time since it pays according to actual performance, as opposed to an estimate. The chart below shows the cost comparison between the UFI and PBI. The PBI column is compared against the equivalent UFI, assuming a discount rate of 8.17%. Assuming the 8.17% discount rate is representative of the Companies' customers' time value of money, this chart shows economically equivalent PBI's and UFI's. The PBI prices are based on a 20-year fixed payout per kilowatt hour ("kWh") of energy produced. The UFI is based on installed capacity (measured in Watts-dc).

PBI (per kWh)	UFI (per Watt-dc)
$ 0.182	$ 3.00
$ 0.175	$ 2.88
$ 0.170	$ 2.80
$ 0.160	$ 2.64
$ 0.150	$ 2.47
$ 0.140	$ 2.31

$ 0.130	$ 2.14
$ 0.120	$ 1.98
$ 0.110	$ 1.81
$ 0.100	$ 1.65
$ 0.090	$ 1.48
$ 0.080	$ 1.32
$ 0.070	$ 1.15

b. Are there are pros and cons to both incentive types?

The UFI provides the same amount for all systems, regardless of system performance. The annual average system performance for a photovoltaic ("PV") system in the TEP service territory, across all technologies installed from years 2008 to 2011, is approximately 1700 kWh/kW. However, there are differences of up to 20% between the best and worst performing panels in TEP's system. This type of incentive can promote the use of cheaper, lower-producing systems to maximize profit margins. The PBI alleviates this issue while ensuring the ratepayer does not over-subsidize poor performing systems. However, while the UFI requires a one-time payment, the PBI requires a significantly greater administrative burden to process payments for the life of the customer contracts, which is typically 20 years.

8. When considering only on-going contracts in effect at the end of 2011, how much are they budgeted to cost in each year of the next 5 years?

For TEP, the budgeted costs shown below represent the Company's committed PBI contracts, as well as future utility-scale purchase power agreements ("PPAs"):

2012	2013	2014	2015	2016
$ 19,520,627	$ 24,149,165	$ 29,622,018	$ 32,995,632	$ 32,194,390

For UNS Electric, the budgeted costs shown below represent the Company's committed PBI contracts, as well as future utility-scale PPAs:

2012	2013	2014	2015	2016
$ 2,004,441	$ 2,391,772	$ 2,661,853	$ 2,566,966	$ 2,524,101

a. What surcharge would they require each of the next *5* years?

For TEP, the estimated monthly residential surcharge required for on-going contracts only, using current per kWh charge of $0.007121 and proportional charges for other customer classes, would be as follows:

2012	2013	2014	2015	2016
$1.76	$2.37	$3.20	$3.77	$3.62

For UNS Electric, the estimated monthly residential surcharge required for on-going contracts only, using current per kWh charge of $0.008315 and proportional charges for other customer classes, would be as follows:

2012	2013	2014	2015	2016
$0.65	$0.80	$0.93	$0.88	$0.86

9. If your company has budgeted a REST plan for each of the next *5* years, how much is the anticipated total surcharge residential cap going to be *5* years from now?

For TEP, the current charge per kWh is $0.007121 with a cap of $4.50. Assuming proportional increases to all rate classes and a per-kWh charge of $0.007750, the residential surcharge cap for 2016 will be approximately $5.60. TEP anticipates the following REST budgets (as of July, 2011) as the basis for the $5.60-cap estimate in 2016:

2012	2013	2014	2015	2016
$39,108,326	$41,676,568	$39,833,831	$40,671,217	$41,662,354

For UNS Electric, the current charge per kWh is $0.008315 with a cap of $5.00. Assuming proportional increases to all rate classes and a per kWh charge of $0.007750, *and no additional utility-scale projects are added and UNS Electric uses banked credits to meet compliance,* the residential surcharge cap for 2016 will be approximately $4.45. UNS Electric anticipates the following REST budgets (as of July 2011) as the basis for the $4.45-cap estimate in 2016:

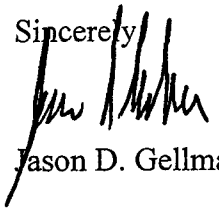
2012	2013	2014	2015	2016
$9,476,716	$7,747,571	$7,972,584	$8,351,517	$7,832,147

10. How much have you budgeted next year for marketing and advertising? How much of a percentage of the total budget is marketing and advertising?

For TEP:	$700,000 or 1.59% of the total budget
For UNS Electric:	$100,000 or 1.08% of the total budget

Please do not hesitate to contact me if you have questions or would like any additional information.

Sincerely,



Jason D. Gellman

cc: Chairman Pierce
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Commissioner Kennedy
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Janice Alward, Chief Counsel
Teena Jibilian, Administrative Law Judge
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