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BEFORE THE ARIZONA CORPORATION COMMISSION

TOM FORESE
Chairman
BOB BURNS
Commissioner
DOUG LITTLE
Commissioner
ANDY TOBIN
Commissioner
BOYD DUNN
Commissioner

Arizona Corporation Commission
DOCKETED
MAR 22 2017
DOCKETED BY
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IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR APPROVAL OF ITS 2017 RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN.	DOCKET NO. E-01933A-16-0235 DECISION NO. 76024 ORDER

Open Meeting
February 7 and 8, 2017
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. Tucson Electric Power Company ("TEP" or "Company") is certificated to provide electric service as a public utility in Arizona.

Background

2. On July 1, 2016, Tucson Electric Power Company ("TEP" or "Company") filed for Arizona Corporation Commission ("Commission") approval of its 2017 Renewable Energy Standard and Tariff ("REST") Implementation Plan. TEP's filing requests approval of various REST plan components, including a budget, a proposed REST surcharge, customer class caps, various program details, and compliance matters.

3. On October 31, 2016, the Energy Freedom Coalition of America, LLC was granted intervention in this Docket. On December 21, 2016, the Residential Utility Consumer Office ("RUCO") was granted intervention in this Docket.

4. TEP's 2017 REST Plan is designed to achieve the goal of providing seven (7) percent of its retail sales from renewable generating sources as required by the Commission's REST Rules.

The estimated cost to implement the 2017 Plan is approximately $53.7 million, approximately $3 million less than the 2016 Plan budget. To fund the 2017 Plan, TEP is proposing to recover approximately $52.3 million through the REST tariff and to apply approximately $1.4 million of carryover funds from the 2015 REST budget.

5. TEP is not proposing any new incentives for residential or non-residential solar distributed generation or solar water heating. TEP's 2017 Plan provides for renewable generation sufficient to meet the 2017 annual compliance requirement, except for the residential portion of the annual Distributed Renewable energy requirement set forth in A.A.C. R14-2-1805. However, in Decision No. 75560 dated May 13, 2016, the Commission ordered that a waiver be granted prospectively for the 2017 calendar year for the residential DG increment. Therefore, TEP is not requesting any additional waivers for 2017.

TEP's Five Year Projection of Energy, Capacity, and Costs

6. Table No. 1 below shows TEP's forecast for energy and costs for its annual REST plans from 2017 through 2021. Staff notes that TEP has lowered its sales forecast by approximately 8 to 10 percent for years 2017 through 2020 based on production forecasts from one of TEP's large industrial customers.

Table No. 1
TEP Energy, Capacity and Cost Forecast

TEP Energy, Capacity and Cost Forecast					
	2017	**2018**	**2019**	**2020**	**2021**
Forecast Retail Sales	8,383,682	8,483,665	8,567,267	8,859,992	9,388,729
% Renewable Energy Required	7.0%	8.0%	9.0%	10.0%	11.0%
Overall Renewable Requirement MWh	586,858	678,693	771,054	885,999	1,032,760
Utility-Scale Requirement MWh	410,800	475,085	539,738	620,199	722,932
DG Requirement MWh	176,057	203,608	231,316	265,800	309,828
Res DG Requirement MWh	88,029	101,804	115,658	132,900	154,914
Non-Res DG Requirement	88,029	101,804	115,658	132,900	154,914
Total Cumulative Required MW	309	357	406	466	544
Total Program Cost	$52,269,444	$50,209,039	$49,350,143	$47,509,081	$46,656,460

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TEP's REST Experience Under 2016 REST Plan

7. The Commission-approved implementation plan for 2016 contemplated total spending of $56,645,849 and total recoveries through the REST surcharge of $47,836,529.

8. Regarding installations and reservations, Table No. 2 below summarizes installations and reservations for installations through September 2016 by TEP.

Table No. 2
DG System Installations and Reservations

Residential	Photovoltaics		Solar Hot Water	
	Number of Systems	kW	Number of Systems	kWh
2016 Installations	2,336	17,051	0	0
Reservations	2,779	20,049	0	0

Non-Residential	Photovoltaics		Solar Hot Water	
	Number of Systems	kW	Number of Systems	kWh
2016 Installations	86	12,603	0	0
Reservations	11	1,170	0	0

Systems That Do Not Take a Utility Incentive

9. The following Table No. 3 shows the number, kW, and kWh of systems that have been installed in TEP's service territory that have not taken an incentive from TEP and thus TEP has not used the associated renewable energy credits ("RECs") to achieve compliance under the REST rules.

Table No. 3
DG System Installations Without Incentives

Residential	Number of Projects	kW	Approximate kWh
2012	2	4	7,465
2013	52	401	702,048
2014	1,875	13,461	21,743,879
2015	1,834	13,290	21,153,414
2016[1]	2,336	17,051	30,691,800
Non-Residential			
2012	3	179	321,894
2013	8	5,011	9,020,250

[1] Through September 2016

2014	37	8,000	14,399,640
2015	39	8,250	14,850,135
2016[1]	86	12,603	22,685,400

Leased Versus Non-Leased Systems

10. TEP indicates that a significant majority of applications for residential systems were leased in 2016 (1,597 leased systems versus 482 non-leased systems). TEP indicates that 7 non-residential systems are non-leased in 2016, with one system leased.

Bright Tucson Solar Buildout Plan

11. In recent years, the Commission has approved continuation of TEP's buildout program at a rate of up to $28 million annually. However, TEP has indicated that it will no longer seek approval of Bright Tucson Solar Buildout Plan funding through the REST plan. Instead TEP will invest in renewable energy projects and seek recovery of related costs via traditional methods, such as in a general rate proceeding. Thus, TEP's buildout plan related costs the Company is seeking to recover through the REST budget are costs related to projects from past years' REST plans that are not yet being recovered through base rates. The following Table No. 4 shows the Bright Tucson Buildout Plan funding from the REST Budget.

Table No. 4
Bright Tucson Buildout Plan Funding from REST Budget

Line Item	2017	2018	2019	2020
Carrying Costs	$424,123	$287,836	$166,312	$0
Book Depreciation	$600,000	$600,000	$600,000	$0
Property Tax Expense	$0	54,859	$54,027	$0
Operations and Maintenance	$66,000	$67,320	$68,666	$0
Total	$1,090,123	$1,010,015	$889,005	$0

2016 Funds Carried Forward to 2017 REST Budget

12. TEP's 2017 REST Implementation Plan budget reflects the carryforward of $1,405,878 in unspent funds from TEP's 2016 REST budget. The unspent funds from TEP's 2016 REST Plan budget are due to the following issues:

- Purchased Renewable Energy – Over-collection was due to the following:

PPAs

- Avalon Phase II- 17.22 MW Solar PV PPA: Delays in construction and interconnection caused this project to be commercially operational in March 2016, rather than December 2015, as expected.

TEP-Owned

- Ft. Huachuca Phase II 4 MW Solar PV: Significant delays from non-compliant design and work created a requirement for engineering redesign. Fort Huachuca was responsible for providing this work prior to TEP being able to commence work. The contractor's work was unsatisfactory for construction and had to be reworked. Therefore Phase II was not completed by the end of 2015, as forecasted. Due to the delays in Ft. Huachuca Phase II, TEP was not able to realize the authorized return on investment, and depreciation for the original time period anticipated.

13. These projects qualified for FERC-required accruals for Allowance for Funds Used During Construction ("AFUDC") in lieu of a return on investment on construction expenditures collected through the REST in 2015. The accrued AFUDC will be recovered over the useful lives of the projects through depreciation expense.

- Metering – Under-collection was due to Residential Distributed Renewable Energy ("DRE") being considerably more active in 2015 than was anticipated in the 2015 Implementation plan.
- Performance-Based Incentives ("PBI") – The Company requested a lower PBI budget to account for lower payments in prior years.
- Up-Front Incentives – There were a few Solar Hot Water Systems installed in 2016 which were reserved in 2015.

14. The TEP REST budget proposal discussed herein reflects this carryforward of unspent 2016 REST funds which reduces the amount of money required to be recovered through the 2017

REST surcharge. This treatment is consistent with how the Commission has treated funds carried forward in the past.

New Budget Line Items

15. TEP's 2017 REST Plan budget contains several new line item expenses. These new line items have been added under the Heading of "Renewable Energy Balancing, Integration, and Field Testing". The new budget line items are as follows:

- Grid Integration Penetration Study – This study will help TEP to understand the potential impacts of increasing installations of distributed solar generation on the distribution grid, specifically focusing on how high penetration levels of solar DG will affect grid operations and future infrastructure investments. The proposed budget is $240,000.

16. Staff believes this study is appropriate for inclusion in the 2017 REST plan budget, because increased penetration of variable resources may have significant operational impacts to the distribution system.

- Customer DG Demand Rate Platform Design and Testing – This initiative will identify and test tools and applications helpful to residential customers to understand usage patterns and their effect on bills, and to demonstrate the benefit of new utility rate structures. The proposed budget is $250,000.

17. Based on recent Commission Decisions regarding the use of demand rates in residential rate design, Staff does not believe that the proposed Customer DG Demand Rate Platform Design and Testing initiative is appropriate for inclusion in the 2017 REST Plan budget.

- Solar Resources for Distribution Optimization – This demonstration project will use a system of local feeder voltage and power controls, enabled by (1) substation controllers utilizing phasor-based measurements, and (2) coordination with centralized utility distribution management. The proposed system provides local measurement and control of electricity distribution, operating real-time, at utility scale. This study will commence as soon as possible in 2017, pending a matching-funds grant award from the Department of Energy ("DOE"). TEP states that it has received notification from the DOE that TEP's grant request has been shortlisted for funding. However, in the event that TEP is not awarded the DOE grant, TEP will conduct the study anyway, albeit at a considerably reduced scope. The proposed budget is $1,750,000.

18. Staff believes this study is appropriate for inclusion in the 2017 REST plan budget because distribution-level automation and telemetry studies have great potential for harnessing the locational benefit of distributed generation resources.

19. In the event TEP is successful in receiving a grant award of matching funding from the DOE for the Solar Resources for Distribution Optimization program, TEP shall file a copy of its final report to the DOE on the results of the program in this Docket. TEP shall file a letter in this docket with the results of the DOE grant process, including what funding was received by TEP, if any.

- <u>Modeling and Simulation of DER Hosting Capacity</u> – This study will develop the methodology and requirements to model and simulate the hosting capacity for Distributed Energy Resources on individual distribution feeders. The proposed budget is $200,000.

20. Staff believes this study is appropriate for inclusion in the 2017 REST Plan budget because feeder-level optimization studies have great potential for harnessing the locational benefit of distributed generation resources.

Proposed TEP 2017 REST Budget

21. TEP's REST implementation plan for 2017 proposes total spending of $53,675,322 (versus 56,645,849 in 2016) and total recoveries through the REST surcharge of $52,269,444 (versus $47,836,529 in 2016). Staff has reviewed the budget proposal contained in TEP's proposed 2017 REST plan and agrees with TEP's proposed budget, except for the "Customer DG Demand Rate Platform Design and Testing" line item. Table No. 5 below summarizes the budgets being proposed by TEP and Staff.

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Table No. 5
TEP and Staff Proposed Budgets

	Approved 2016	Proposed 2017	Staff's Proposed 2017
Total REST Budget & Tariff Collection:	**$ 47,836,529**	**$ 52,269,444**	**$ 52,019,444**
Utility Scale Energy			
Above Market Cost of Conventional Generation	$ 38,002,919	$ 41,041,220	$ 41,041,220
Net TEP owned	$ 9,366,025	$ 1,090,123	$ 1,090,123
Total	**$ 47,368,944**	**$ 42,131,342**	**$ 42,131,342**
Customer Sited Distributed Renewable Energy:			
Residential PV Up-Front Incentive (UFI)	$ -	$ -	$ -
Non-Residential UFI	$ -	$ -	$ -
Annual Performance-Based Incentive (PBI)	$ 7,192,720	$ 7,192,720	$ 7,192,720
Residential/Non-Residential Solar Water Heating UFI	$ -	$ -	$ -
Annual meter reading cost	$ 35,363	$ 37,131	$ 37,131
Consumer Education and Outreach	$ 100,000	$ 100,000	$ 100,000
Total	**$ 7,328,083**	**$ 7,329,851**	**$ 7,329,851**
TEP internal and contractor training costs	**$ 85,000**	**$ 95,000**	**$ 95,000**
Information Systems Integration Costs	**$ 75,000**	**$ 84,000**	**$ 84,000**
Metering: Direct material cost for DG production	**$ 697,975**	**$ 960,560**	**$ 960,560**
Program Labor and Administration			
Internal Labor	$ 556,944	$ 217,568	$ 217,568
External Labor	$ 216,903	$ 163,000	$ 163,000
Materials, Fees and Supplies	$ 60,000	$ 60,000	$ 60,000
AZ Solar website	$ 4,000	$ 4,000	$ 4,000
Total	**$ 837,847**	**$ 444,569**	**$ 444,569**
Renewable Energy Balancing, Integration, and Field Testing			
Grid Integration/Penetration Study	$ -	$ 240,000	$ 240,000
Customer DG Demand Rate Platform	$ -	$ 250,000	$ -
Department of Energy Matching Grant Monies	$ -	$ 1,750,000	$ 1,750,000
Renewable Integration and Operations Study	$ 38,000	$ -	$ -
Solar Test Yard Maintenace and Equipment	$ 50,000	$ 50,000	$ 50,000
Field and Lab PV Component Degradation Analysis	$ 50,000	$ 50,000	$ 50,000
Solar and Wind Operation Forecasting	$ 100,000	$ 75,000	$ 75,000
Modeling and Simulation of DER Hosting Capacity	$ -	$ 200,000	$ 200,000
UWIG, SEPA, AWEA membership dues	$ 15,000	$ 15,000	$ 15,000
Total	**$ 253,000**	**$ 2,630,000**	**$ 2,380,000**
Program Cost Subtotal	**$ 56,645,849**	**$ 53,675,322**	**$ 53,425,322**
Carry forward General REST Funds	$ 8,809,321	$ 1,405,878	$ 1,405,878
Grand Total to be Collected in Tariff	**$ 47,836,529**	**$ 52,269,444**	**$ 52,019,444**

22. Staff notes that the line item entitled "Net TEP Owned" is the cumulative value of previously authorized TEP expenditures for utility owned facilities. These ACC authorized expenditures allowed the Company to recover certain carrying costs in-between rate cases. These

costs included authorized rate of return, depreciation, O&M, and property taxes. Although the Company stopped asking the Commission for this special treatment several years ago, there is one remaining project that was authorized under this treatment that has not yet been placed into base rates.

23. The line items entitled "Internal labor" and "External Labor" under the "Program Labor and Administration" heading has also shown a dramatic decrease from the approved 2016 budget. TEP states that the decrease in Internal Labor is due to expense for several full-time TEP employees being included in base rates (traditional employee expense recovery). The REST budget is only used for core employee labor expenses in between rate cases. The decrease in external labor is the reduction of labor force that was originally utilized for the Company's residential program.

Recovery of Funds through 2017 REST Charge

24. TEP's application proposes two alternate REST fund recovery plans. TEP's Plan A maintains the currently approved REST surcharge, but proposes higher customer class caps. TEP's Plan B maintains the existing REST surcharge and customer class caps. Under TEP's Plan A, the REST fund would be over-collected at the end of 2017 by approximately $22,686. Under TEP's Plan B, the REST fund would be under-collected by approximately $4,289,488. TEP requests approval of Plan A because of the large under-collection in Plan B.

25. Staff is proposing a revision to the customer class caps as proposed by TEP. Staff recommends that the cap for the Industrial & Mining class be increased to $16,650, thereby allowing the residential class cap to be reduced to $5.10.

26. Table No. 6 below shows the proposed surcharge per kWh and associated customer class monthly caps for TEP's Plan A and Plan B, and Staff's proposed plan, in comparison to what is currently in effect for 2016.

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Table No. 6
Proposed REST Surcharge

CUSTOMER RATES AND CAPS				
	2016 Approved	2017 Company Proposed PLAN A	2017 Company Proposed PLAN B	2017 Staff Proposed
Rate per kWh	$0.013000	$0.013000	$0.013000	**$0.013000**
Residential	$4.76	$5.25	$4.76	$5.10
Small Commercial	$130.00	$160.00	$130.00	$160.00
Large Commercial	$1,300.00	$1,600.00	$1,300.00	$1,600.00
Industrial & Mining	$15,000.00	$16,000.00	$15,000.00	$16,650.00
Lighting (PSHL)	$130.00	$140.00	$130.00	$140.00

27. The cost recovery by customer class for TEP's proposed 2017 REST plan are shown in Table No. 7 below. The Plan B portion of Table No. 7 depicts recovery under TEP's approved 2016 REST Plan. Staff's Proposed 2017 plan is also included in this table. The table below shows the average REST charge by customer class as well as the percentage of customers at the cap for each customer class.

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Table No. 7
REST Plan Cost Recovery by Customer Class

2017 Company Proposed PLAN A						
Customer Class	**Total Revenue**	**Percent of Revenue**	**Average Bill**	**Monthly Cap**	**Percent of Bills at Cap**	**Percentage to Total Load**
Residential	$21,154,896	40.50%	$4.53	$5.25	70.20%	41.10%
Small Commercial	$16,524,889	31.60%	$32.40	$160.00	7.40%	23.50%
Large Commercial	$8,689,963	16.60%	$1,260.64	$1,600.00	49.10%	13.10%
Industrial & Mining	$5,508,066	10.50%	$16,000.00	$16,000.00	100.00%	22.00%
Lighting (PSHL)	$414,316	0.80%	$18.66	$140.00	1.12%	0.40%
Total	$52,292,130	100.00%				100.00%
2017 Company Proposed PLAN B						
Customer Class	**Total Revenue**	**Percent of Revenue**	**Average Bill**	**Monthly Cap**	**Percent of Bills at Cap**	**Percentage to Total Load**
Residential	$19,520,467	40.70%	$4.18	$4.76	73.70%	41.10%
Small Commercial	$15,304,632	31.90%	$29.95	$130.00	9.00%	23.50%
Large Commercial	$7,579,495	15.80%	$1,099.38	$1,300.00	58.50%	13.10%
Industrial & Mining	$5,163,812	10.80%	$15,000.00	$15,000.00	100.00%	22.00%
Lighting (PSHL)	$411,550	0.90%	$18.53	$130.00	1.40%	0.40%
Total	$47,979,956	100.00%				100.00%
2017 Staff Proposed Plan						
Customer Class	**Total Revenue**	**Percent of Revenue**	**Average Bill**	**Monthly Cap**	**Percent of Bills at Cap**	**Percentage to Total Load**
Residential	$20,662,724	39.7%	$4.42	$5.10	71.2%	41.1%
Small Commercial	$16,524,889	31.8%	$32.40	$160.00	7.4%	23.5%
Large Commercial	$8,689,963	16.7%	$1,260.64	$1,600.00	49.1%	13.1%
Industrial & Mining	$5,731,831	11.0%	$16,650.00	$16,650.00	100.00%	22.0%
Lighting (PSHL)	$414,316	0.8%	$18.66	$140.00	1.12%	0.4%
Total	$52,023,723	100.0%				100.0%

Compliance Issues

28. Having reviewed the Company's compliance report filed with the Commission in April 2016, the proposed 2017 REST plan filed in July 2016, and other applicable information, Staff concludes that TEP has not used any non-utility owned RECs to comply with the Commission's REST rules in 2015. Staff has reviewed TEP's revised Purchased Power and Fuel Adjustment Clause Plan of Administration and finds it to be consistent with the Decision No. 75560 dated May 13, 2016. The Plan of Administration now lists the appropriate Federal Energy Regulatory Commission account

in which the various energy storage-related costs approved under Decision No. 75560 would be included. Therefore, Staff recommends that the Commission approve TEP's revised PPFAC Plan of Administration.

Staff Recommendations

29. Staff has recommended that the Commission approve Staff's Proposed 2017 Plan budget and customer class caps reflecting a REST surcharge of $0.01300 per kWh, and related caps of $5.10 for the residential class, $160.00 for the small general service class, $1,600.00 for the large general service class, $16,650.00 for the industrial and mining class, and $140.00 for the lighting class. This includes total spending of $53,425,322 and a total amount to be recovered through the REST surcharge of $52,019,444.

30. In the event TEP is successful in receiving a grant award of matching funding from the DOE for the Solar Resources for Distribution Optimization program, TEP shall file a copy of its final report to the DOE on the results of the program in this Docket. TEP shall file a letter in this docket with the results of the DOE grant process, including what funding was received by TEP, if any.

31. Staff has further recommended that the Commission approve TEP's revised PPFAC Plan of Administration.

32. Staff has further recommended that Tucson Electric Power file the REST-TS1 tariff, consistent with the Decision in this case, within 15 days of the effective date of the Decision.

CONCLUSIONS OF LAW

1. TEP is an Arizona public service corporation within the meaning of Article XV, Section 2, of the Arizona Constitution.

2. The Commission has jurisdiction over TEP and over the subject matter of the application.

3. The Commission, having reviewed the application and Staff's Memorandum dated January 24, 2017, concludes that it is in the public interest to approved TEP's 2017 REST Plan as discussed herein.

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ORDER

IT IS THEREFORE ORDERED that Tucson Electric Power Company's 2017 REST Plan, as modified by Staff's budget and customer class caps, reflecting a REST surcharge of $0.01300 per kWh, and related caps of $5.10 for the residential class, $160.00 for the small general service class, $1,600.00 for the large general service class, $16,650.00 for the industrial and mining class, and $140.00 for the lighting class, with total spending of $53,425,322 and a total amount to be recovered through the REST surcharge of $52,019,444, is hereby approved.

IT IS FURTHER ORDERED that in the event Tucson Electric Power Company is successful in receiving a grant award of matching funding from the DOE for the Solar Resources for Distribution Optimization program, Tucson Electric Power Company shall file a copy of its final report to the DOE on the results of the program in this Docket. Tucson Electric Power Company shall file a letter in this docket with the results of the DOE grant process, including what funding was received by Tucson Electric Power Company, if any.

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IT IS FURTHER ORDERED that Tucson electric Power Company's revised PPFAC Plan of Administration is hereby approved.

IT IS FURTHER ORDERED that Tucson Electric Power Company shall file the REST-TS1 tariff, consistent with the Decision in this case, within 15 days of the effective date of this Decision.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION

CHAIRMAN FORESE	COMMISSIONER DUNN

COMMISSIONER TOBIN	COMMISSIONER LITTLE	COMMISSIONER BURNS

IN WITNESS WHEREOF, I, TED VOGT, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this 22nd day of March, 2017.

TED VOGT
EXECUTIVE DIRECTOR

DISSENT: __________________________

DISSENT: __________________________

EOA:RBL:red/RRM

Tucson Electric Power Company
Docket No. E-01933A-16-0235

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