ORIGINAL

OPEN MEETING

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MEMORANDUM

TO: THE COMMISSION

FROM: Utilities Division

DATE: October 25, 2011

RE: TUCSON ELECTRIC POWER COMPANY. - APPLICATION FOR APPROVAL OF ITS 2012 RENEWABLE ENERGY STANDARD AND TARIFF IMPLEMENTATION PLAN (DOCKET NO. E-01933A-11-0269)

On July 1, 2011, Tucson Electric Power Company ("TEP" or "Company") filed for Arizona Corporation Commission ("Commission") approval of its 2012 Renewable Energy Standard and Tariff ("REST") Implementation Plan. On July 15, 2011, TEP filed a REST plan summary and a set of PowerPoint slides summarizing its REST plan. On July 29, 2011, TEP filed a Notice of Errata, updating its REST plan and related exhibits.

The following parties have filed for intervention in this docket: The Solar Alliance on August 9, 2011; SolarCity Corporation ("SolarCity") on August 2, 2011; Freeport McMoRan Copper and Gold Inc./Arizonans for Electric Choice and Competition ("Freeport"); Western Resource Advocates ("WRA) on August 23, 2011; the Residential Utility Consumer Office ("RUCO") on August 31, 2011; The Arizona Solar Energy Industries Association ("AriSEIA") on September 29, 2011; Copernicus Energy on September 30, 2011; and Kevin Koch with Technicians For Sustainability ("TFS") on October 3, 2011 and October 17, 2011. Comments have been filed in this proceeding by the following entities: The Solar Alliance on August 12 and 24, 2011; SolarCity on August 15, 2011; Carson Solar Technologies on August 22, 2011; The Solar Store on August 22, 2011; the Southern Arizona Solar Standards Board on September 15, 2011; and Chad Waits with Net Zero Solar on October 5, 2011. Additionally, joint comments were filed on August 15, 2011 by DRH Electric, SunRun Inc., Acro Energy Technologies Corp., SolarCity, RDS Electric, and Indicom Electric. Questions from Commissioners Offices were filed on August 30 and September 7, 2011 from Commissioner Newman's office, and September 2, 2011 from Commissioner Burns' office. TEP filed answers to Commissioner Burns' questions on October 3, 2011 and to Commissioner Newman's questions on October 11, 2011.

TEP's initial filing requests approval of various REST plan components, including a budget, incentive levels, an incentive trigger mechanism, customer class caps, various program details, continuation of the Bright Tucson Solar Buildout Plan, continuation of the School Vocational Program, consideration of Bright Roofs generation as non-residential distribution generation for compliance purposes, and approval of research and development funding for 2011. The initial filing contains two budgets, one which complies with last year's REST plan approval decision (Decision No. 72033, December 10, 2010) requiring maintenance of the

residential distributed generation ("DG") budget at the same level in 2011 as it was at in 2010, and one with a lower residential DG budget that would meet but not exceed residential DG requirements.

TEP REST Experience Under 2011 REST Plan

The Commission-approved implementation plan for 2011 contemplated a budget of $35.9 million. TEP projects spending its entire REST budget in 2011.

Regarding installations and reservations, the table below summarizes installations and reservations for installations through September 30, 2011 by TEP.

Residential	**Photovoltaics**		**Solar Hot Water**	
	Number of Systems	**kW (kWh)**	**Number of Systems**	**kWh**
2011 Installations	430	3,089 3,916,800	302	830,500
Reservations	487	3,436 12,911,500	548	1,506,448

Commercial	**Photovoltaics**		**Solar Hot Water**	
	Number of Systems	**kW (kWh)**	**Number of Systems**	**kW**
2011 Installations	8	109 185,300	5	185,493
Reservations	41	3,660 10,489,000	28	2,634,728

The table below shows TEP's annual required MWh under the REST rules and its installed-annualized and installed-annualized/reserved numbers. Installed annualized numbers reflect systems that are installed and their production is annualized to reflect a full year's production. Installed-annualized/reserved counts both the installed annualized systems and the systems that are reserved, but have not yet been installed.

	Required (MWH)	**Produced/Banked (MWH)**
Residential DG	36,408	27,423 (installed – annualized) 37,093 (installed – annualized/reserved)
Commercial DG	36,408	33,565(installed – annualized) 46,375 (installed – annualized/reserved)
Non-DG	218,445	368,124

School Vocational Program

In 2011 TEP began a new School Vocational Program ("SVP") that involved the deployment of 13 photovoltaic ("PV") systems at high schools within TEP's service territory in 2011. The program also provides assistance to schools in creating vocational training programs at the schools. The program budget in 2011 was $650,000. TEP is proposing to continue the program at a level of $650,000 in 2012. In discussions with TEP, the Company indicated that its budget is based upon installation of systems from 5 kW to 10 kW. The Company has indicated to Staff that all systems installed in 2012 could be installed at a 5 kW size, thus saving some system costs. Staff recommends that the size of systems installed in 2012 be set at 5 kW. TEP's budget includes $55,000 in education and monitoring costs. Staff believes the program is beneficial and recommends continuation of the program. However, Staff is recommending a reduction in the 2012 budget for the SVP program to $350,000, reflecting the smaller size of the installed systems as well as a reduction in educational and monitoring costs.

TEP Derating Chart

During consideration of TEP's 2011 REST plan, there was concern with the then-in-effect derating chart used by TEP. A derating chart estimates the reduction in production by a photovoltaic system due to a number of factors including orientation and shading. During the approval process for the 2011 REST plan, TEP agreed to work with the solar industry and any other interested parties to review and possibly modify the derating chart. TEP held a stakeholder meeting on March 8, 2011, to discuss the derating chart with interested parties. On May 26, 2011, TEP filed a Notice of Filing Derating Chart. This filing contained a new derating chart and related documentation which TEP indicated was the result of its collaborative efforts with interested parties. On June 6, 2011, TEP filed a Notice of Filing Errata – Derate Chart, wherein TEP corrected certain documentation related to the derating chart which it previously filed on May 26, 2011. TEP has indicated to Staff that it is not aware of any opposition to this new derating chart. Staff believes it would be appropriate to consider this new derating chart as part of the Commission's overall consideration of TEP's 2012 REST plan. The new derating chart is included in TEP's proposed 2012 REST plan. Given the collaborative process which produced the new derating chart and the lack of any known opposition to its adoption, Staff recommends approval of TEP's new derating chart as part of the Commission's consideration of TEP's 2012 REST plan.

Bright Tucson Solar Buildout Plan

In TEP's proposal for its 2011 REST plan, TEP requested approval of a four year build-out plan for the Bright Tucson Community Solar program for 7 MW each year of utility scale and utility-owned generation costs at a total cost of $112 million or $28 million per year. Additionally, the Commission approved installation of 3.4 MW of utility-scale and utility-owned renewable generation, consisting of a 1.8 MW expansion of TEP's photovoltaic system at Springerville and a 1.6 MW single axis solar tracker at the Tucson airport. (Decision No. 71640, April 14, 2010).

The Bright Tucson program was approved by the Commission in Decision No. 71835 (August 10, 2010). The program allows TEP customers to purchase blocks of renewable energy via an optional tariff rider. Customers would buy one or more 1 kW pieces of renewable energy, each representing 150 kWh per month, at a $0.02 per kWh premium over the regular tariff rate. Such customers would then have that solar capacity component of their bill fixed for 20 years.

The Commission, in Decision No. 72033 (December 10, 2010), declined to approve the proposed four-year buildout program as proposed by TEP, but rather approved it for one year, stating that TEP may seek approval of additional years for the buildout plan as part of Commission consideration of future REST plans. As proposed by TEP in its 2011 and 2012 REST plans, TEP would recover carrying costs, depreciation, operations and maintenance, and property tax costs through the REST surcharge until such time as TEP files its next rate case, when these costs would be considered for inclusion in TEP's rate base. TEP projects annual recovery through the REST surcharge in upcoming years as shown on Table 4 on Page 7 of the Company's application. This involves collection of $4.2 million in 2012 and $3.8 million in 2013, with these assets then projected to enter TEP's rate base as part of a 2012 rate proceeding. TEP indicates that at this time it estimates that building costs considered in a projected 2012 rate proceeding would result in and of themselves in an annual rate increase of $7.66 million. TEP then projects the buildout plan resulting in new recoveries of $3.5 million in 2014 and $6.7 million in 2015 through the REST charge as a result of on-going buildout plan costs until such costs would be addressed in the following TEP general rate case. For the 2012 REST plan, the buildout plan costs of $4.2 million that TEP is proposing to recover include the line items shown in the following table.

Line Item	**2010 and 2011 Buildout Plan Costs**
Carrying Costs	$1,903,686
Book Depreciation	$2,113,741
Operations and Maintenance	$151,500
Land Leasing	$59,000
Total	$4,227,927

Other generating investments made by TEP between rate cases do not receive similar carrying cost and other recovery treatment prior to their inclusion in rate base in TEP's next rate proceeding. Staff believes that as the renewable energy generation industry matures, it should receive similar treatment to other generation facilities TEP constructs and then seeks recovery of in future rate proceedings. Given that the Commission has approved the treatment requested by TEP in approving the 2010 and 2011 REST plans, Staff believes that a gradual transition is warranted from providing recovery through the REST surcharge to seeking recovery through a general rate proceeding. Thus, Staff recommends that in regard to the 2012 REST plan budget, TEP be allowed to recover half of its requested recovery amount, $2,114,459 through the 2012 REST surcharge. Staff further recommends that in regard to REST plan budgets in 2013 and beyond, that TEP not be allowed to recover costs from the buildout plan, but rather should seek recovery of those costs in its next general rate proceeding. Staff further recommends that the

Commission should approve the buildout program for 2012 as part of TEP's 2012 REST plan, but, consistent with the Commission's decision on TEP's 2011 REST plan, approval should not be granted for additional future years. Rather, TEP should seek approval for future years of the buildout plan as part of the Company's seeking of Commission approval for future annual REST plans. Consistent with the Commission's approval of TEP's 2011 REST plan, Staff further recommends that reasonableness and prudency of buildout plan costs be examined in TEP's next rate case and that any costs determined to be not reasonable and prudent be refunded by the Company.

In discussions with TEP, the Company has indicated that some portion of this buildout program is not necessary to serve the Bright Tucson Community Solar program, but that the Company believes that the buildout program should continue at its projected scale to provide some diversity in its renewable portfolio between utility-owned and 3rd party owned renewable generation. Staff believes that this is a reasonable proposal but that it is confusing to title the program the Bright Tucson Solar Buildout program when all these assets are not necessarily related to providing resources for the Bright Tucson Community Solar program. It should be recognized that this buildout program is fundamentally a program to fund utility-scale generation while recognizing that some portion of the assets built will provide resources for the Bright Tucson Community Solar program.

Marketing Costs

TEP has typically included a marketing budget in its annual REST plan filings. The approved 2011 REST plan included a budget of $750,000. For the proposed 2012 REST plan budget, TEP has proposed $700,000 in funding for marketing. The table below shows a breakout of various forms of marketing and advertising for the proposed 2012 REST plan submitted by TEP.

Line Item	TEP Proposed Funding in 2012 REST Plan
Television Advertisement	$250,000
Billboard Advertisement	$150,000
Radio Advertisement	$150,000
Sponsorships	$75,000
Educational	$50,000
Promotional	$25,000
Total	$700,000

Staff believes that with the significant growth in the renewable energy industry in Arizona in recent years, there are now many venues for publicizing renewable energy technologies and programs, and that the renewable energy industry should bear the primary responsibility for marketing renewable energy in Arizona. Therefore, the need for continued funding of marketing by TEP's ratepayers has declined significantly. Thus, Staff is recommending approval of a marketing budget of $100,000 as part of its 2012 REST plan proposal. Staff further recommends that in future REST plans, the burden of proof will be

borne by TEP to justify the use of ratepayer funds to pay for marketing if TEP proposes the use of ratepayer funds for marketing in future REST plans.

Labor Costs

TEP has a number of employees whose sole function is to work on REST related matters, and the cost of such employees is normally funded as part of the annual REST budget. This includes 11 internal TEP positions, 6 positions with external contractors, and assistance from interns. TEP's labor budget in the approved 2011 REST plan and its proposed 2012 REST plan are shown in the table below.

Line Item	Approved 2011 REST Budget	TEP Proposed 2012 REST Budget
Internal Labor	$1,143,950	$1,185,090
External Labor	$426,050	$468,769
Materials and Supplies	$75,000	$75,000
Total	$1,645,000	$1,728,859

It is difficult in a Staff review of a REST plan to assess in a detailed manner the necessary level of labor costs for a utility such as TEP to achieve its requirements under the REST rules. Staff believes that there are likely reasons why additional labor costs could be incurred, such as continued growth in the REST requirements, but also reasons why labor costs may be reduced, such as the small number of commercial DG systems contemplated in TEP's proposed plan. Staff believes that on balance, it would be reasonable to provide the same labor cost to TEP as was provided in the 2011 REST plan, or a total of $1,645,000.

Research and Development

TEP is requesting approval of funding for a number of research and development ("R&D) projects. The projects include on-going testing and studies at TEP's solar test yard, research in coordination with the Electric Power Research Institute ("EPRI") on the integration of distributed renewable energy and a transmission integration study, and a number of projects through TEP's partnership with the AZRise Global Institute at the University of Arizona ("AZRise").

Staff believes that a reduced amount of R&D funding is reasonable to include in the 2012 REST plan budget, to balance the need for certain R&D work related to TEP's REST efforts, while reducing the cost on TEP's customers in comparison to past years. TEP's approved 2011 R&D budget was $1,065,000.

Specifically, Staff believes continued funding for work at the TEP Solar Test Yard is reasonable at a moderately reduced level and continued funding of the AZ Rise work by the University of Arizona is also reasonable. The EPRI Distributed Integration Study is currently underway in 2011 and the 2012 funding would complete this two year study. Staff believes that

this study should be funded in 2012 for its second year. Staff believes that the second EPRI study on transmission integration should not be funded in 2012, but TEP could consider pursuing funding for it in future years. TEP's proposed R&D budget for 2012 is $956,000. Staff's recommended R&D budget for 2012 is $723,500.

Funding for these projects is as shown in the following table:

Project	2012 Company Proposed Funding	2012 Staff Proposed Funding
TEP Solar Test Yard	$350,000	$275,000
EPRI Distribution Integration Study	$191,000	$191,000
EPRI Transmission Integration Study	$150,000	$0
AZRise Research	$250,000	$250,000
Dues and Fees	$15,000	$7,500
Total	$956,000	$723,500

Information Technology Costs

TEP's proposed 2012 REST plan budget for information technology ("IT") includes a request for $500,000, up from $425,000 that was approved in the 2011 REST plan budget. TEP has indicated to Staff that the Company in 2012 will be in the 2nd year of a major upgrade to its computer systems to track various information related to REST activities. Thus, TEP has stated that this year's requested IT budget is significantly higher than it will be in subsequent years, when TEP has indicated it will be $100,000 or less annually. Staff believes that it is reasonable to fund TEP's IT budget at $500,000 to complete work on the system upgrades in the 2012 REST plan budget, recognizing that in future years IT costs for TEP will be much lower, at $100,000 or less.

Bright Roofs Program

TEP's Bright Roofs Program involves the installation of utility-owned large scale solar systems on rooftops throughout the TEP service territory. TEP would work with various entities to lease rooftop space from them to install grid-tied generation facilities of 250 kW or more. TEP has indicated that to date it has been difficult to procure rooftop space for such installations. For example, TEP had targeted schools for such installations, but due to restrictions in the Arizona Revised Statutes, TEP was prevented from pursuing long term leases with the schools in its service territory. TEP is currently working with other prospective sites for installations under the Bright Roofs program. TEP's July 1, 2011 filing states that it intends to count installations under the Bright Roofs program as non-residential distributed generation for compliance purposes under the REST rules. Staff does not agree that installations under the Bright Roofs Program should be counted toward non-residential distributed generation requirements. Under R14-2-1805.D of the REST rules, an Affected Utility may meet half of its

DG requirements from "non-residential, non-utility applications." Staff believes that installations under the Bright Roofs do not qualify as non-utility applications because under the Bright Roofs Program, the installations are owned by TEP. Thus, Staff recommends that the Commission find that installations under the Bright Roofs Program do not quality as non-residential DG for purposes of compliance with the REST rules.

Bright Tucson Community Solar Program

TEP is not proposing any changes to the Bright Tucson Community Solar Program tariffs. TEP has reported to Staff that in 2011, as of mid-September 2011, customers had signed up for 1,974 blocks of energy, representing 1.974 MW of renewable energy generating capacity.

Maximum Percentage of System Cost Paid Through Utility Rebates

In recent years, TEP's REST plans have included a provision that the maximum percentage of system cost for a customer that could be paid through utility rebates would be 60 percent. The Commission approved a reduction of this percentage in TEP's 2011 REST plan to the 50 percent level. Staff believes that this should be given further consideration. To the extent the maximum percentage can be reduced without significantly impacting the marketplace, such a reduction could result in the most subsidized projects receiving a moderately lower subsidy. This could result in a net increase in the number of projects completed for the same level of total spending. The Company has indicated it did not anticipate that this reduction in the percentage would impact the amount of incentives paid and that TEP does not oppose such a change. Staff believes that a reduction of this level to 40 percent would represent a further modest change, but would be a step toward more efficiently spending REST funds. Staff recommends reducing the maximum percentage of system cost that could be paid through utility rebates to 40 percent for both residential and commercial projects.

Metering Costs

TEP has traditionally included funding in its REST plan budget to pay for TEP-owned meters to monitor actual production from renewable installations under its REST program. For 2012, TEP is proposing a budget of $227,982 to pay for these meters. Arizona Public Service Company ("APS") does not use such meters and does not have a similar budget line item for these meters. Staff believes that while such meters are beneficial in knowing with more specificity what production is actually taking place from renewable energy installations, these meters are not required for TEP to meet its REST requirements and Staff recommends not providing funding for these meters in the 2012 REST plan budget.

Provision of Funds Specifically for Builder-Related Residential DG Projects

At the Commission's October 11, 2011 meeting and through filed comments, parties have expressed an interest in seeing the Commission create a separate amount of residential DG funds specifically for use by new home builders. These builders have indicated that they do not

believe that TEP's current residential DG program is workable for them, as their projects typically take more than the 180 days that TEP gives residential DG projects to complete their project in order to receive their rebate. TEP has not had such a program in the past and has not proposed such a program as part of its proposed 2012 REST plan. Given the limited time Staff has had to consider such a proposal, Staff is not proposing the creation of such a program for TEP's 2012 REST plan. However, Staff believes that this proposal may have merit and Staff recommends that TEP, as part of its proposed 2013 REST plan that will be filed with the Commission on July 1, 2012, either propose a set-aside fund specifically for builder-related DG

2012 REST Budget Proposals and DG Incentive Levels

TEP Proposed Budgets

TEP's July 1, 2011 filing contained two budgets, with the only difference in the two budgets being reflected in different amounts of funding for residential DG up-front incentives ("UFIs"). Both budgets reflect a carryover of 2010 REST funds of $4,875,000. The reason for the differential in the two plans is that the Commission, in Decision No. 72033 which approved TEP's 2011 REST plan, required TEP to maintain funding for the residential solar program at the same level it was set for the 2011 plan, $14,358,111. Decision No. 72033 further stated that the Company could argue to decrease this number in its 2012 REST plan. Because TEP is proposing a reduction in the residential DG UFI per watt in its 2012 REST plan in comparison to its 2011 REST plan, maintaining the residential DG UFI budget at the $14,358,111 level would result in TEP overcomplying with the residential DG requirements in the REST rules for 2012.

Thus, TEP filed one budget totaling $43,983,326 in spending and $39,108,326 in cost recovery in 2012, including residential DG UFI funding at a level of $14,358,111.

TEP filed a second budget reflecting a lower residential DG UFI funding level that would meet residential DG compliance for 2012 but would not exceed compliance, resulting in a reduction of the residential DG UFI budget from $14,358,111 to $12,585,213. Thus, the second budget reflects total spending in 2012 of $42,210,427 and total costs to be recovered in 2012 of $37,335,427.

Staff Proposed Budgets

As discussed above regarding various budget line items, Staff is proposing to reduce the 2012 REST plan budget requested by TEP. To provide the Commission with a broad range of possible approaches to TEP's proposed 2012 REST plan budget, Staff will present three possible options in this Staff Report. The three options and their differing characteristics are described below.

2012 Staff Option 1	2012 Staff Option 2	2012 Staff Option 3
Residential DG UFI Funding of $14,358,111	Residential DG UFI funding of $7,689,938	Residential DG UFI funding of $7,689,938
Commercial DG UFI Funding of $1,114,510	Commercial DG UFI Funding of $1,114,510	No Commercial DG UFI Funding
Commercial DG PBI Funding of $5,972,915	Commercial DG PBI Funding of $5,972,915	No Commercial DG PBI Funding Beyond Existing Commitments
Proposed Budget of $35,524,526	Proposed Budget of $28,856,353	Proposed Budget of $27,522,303

Note: The approved 2011 budget is $35,884,324.

The Table below summarizes all of Staff's adjustments to TEP's proposed budgets.

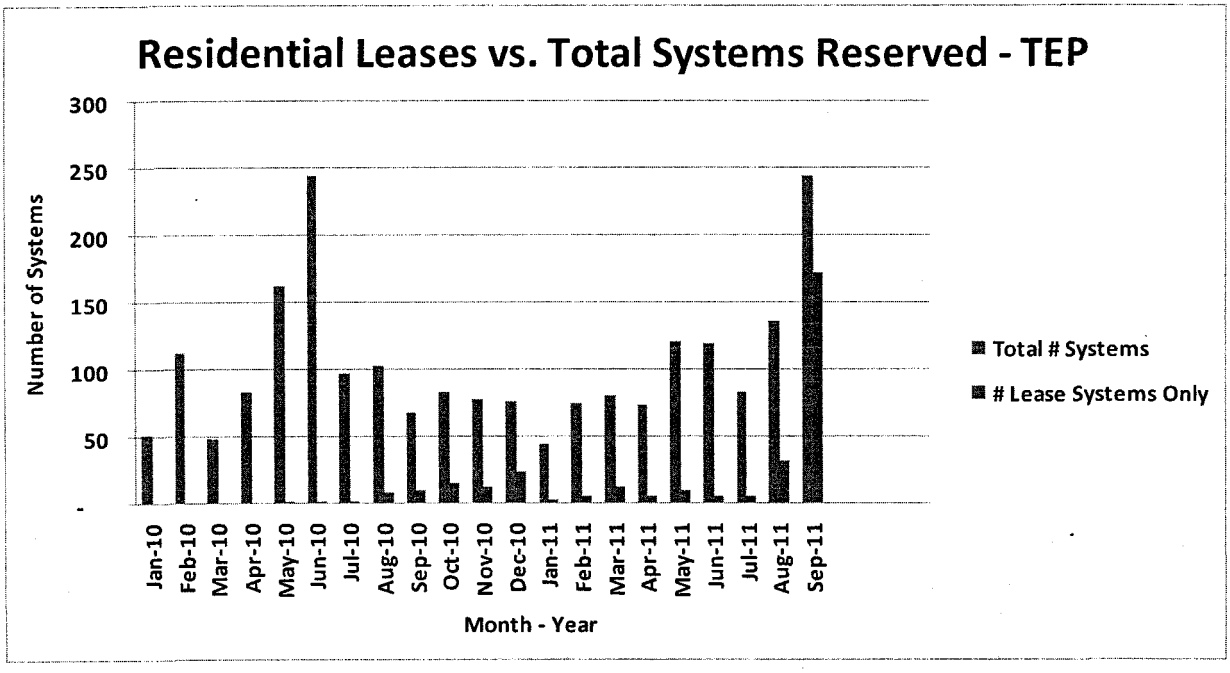
Budget Line Item	TEP 2012 Proposed Budget	Staff 2012 Proposed Budget
TEP Owned Generation	$4,228,918	$2,114,459
Residential UFI	$14,358,111	$14,358,111 (Option 1) $7,689,938 (Options 2 and 3)
Commercial UFI	$1,114,510	$1,114,510 (Options 1 and 2) $0 (Option 3)
Commercial PBI	$5,972,915	$5,972,915 (Options 1 and 2) $5,753,375 (Option 3)
Marketing	$700,000	$100,000
Schools Program	$650,000	$350,000
TEP Training Costs	$100,000	$75,000
Metering	$227,982	$0
Total Labor Costs	$1,728,859	$1,645,000
Solar Test Yard Costs	$350,000	$275,000
EPRI Research	$341,000	$191,000
Dues and Fees	$15,000	$7,500

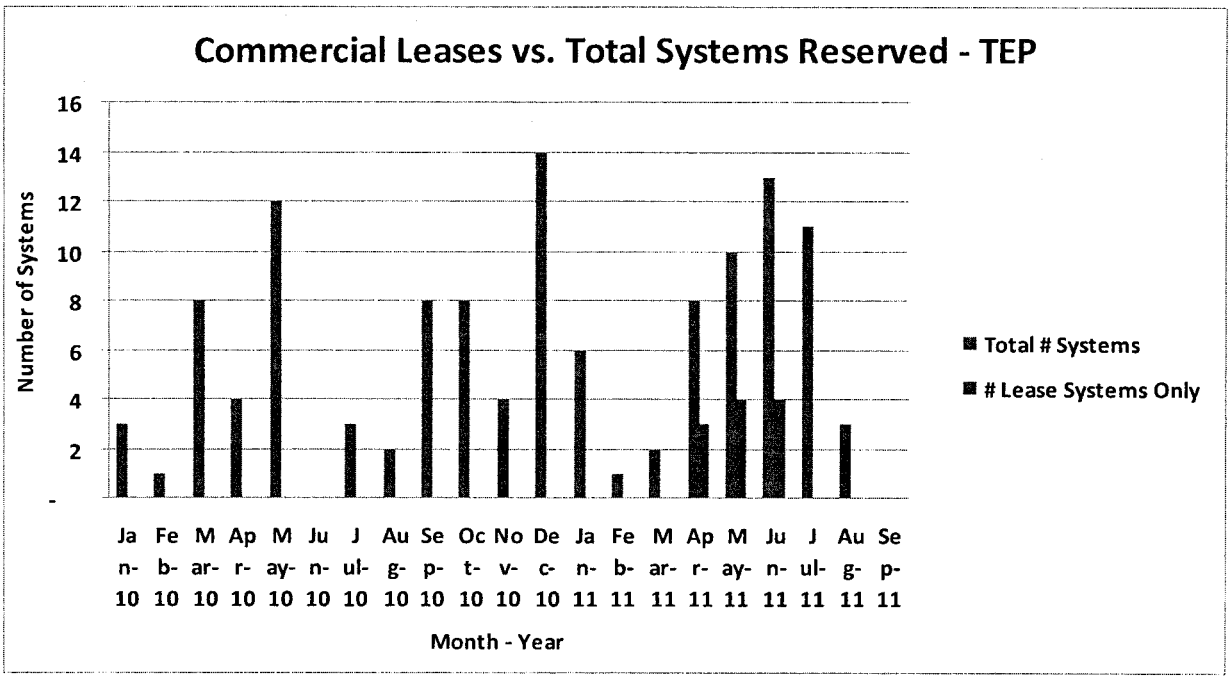
Proposal to Differentiate the Residential DG UFI for Leased and Non-Leased Systems

TEP is proposing in its 2012 REST plan to differentiate its residential DG UFI between leased and non-leased systems. In past years, all residential DG systems were eligible for the same level of UFI. TEP's proposal is to provide a UFI to non-leased residential DG systems of $1.75 per watt and a UFI of $1.00 per watt for leased systems. TEP has indicated to Staff that it believes that this differentiation is necessary due to various tax and accounting advantages leased systems have that non-leased systems do not have. Absent the proposed differentiation, TEP believes that non-leased systems will not be competitive in the residential DG market. TEP also has noted to Staff that its proposed $1.00 per watt incentive level for leased systems matches the current $1.00 per watt incentive provided by APS under its rapid reservation program, with leased systems making up a high percentage of systems under the APS program.

Specifically, TEP has reported to Staff that it derived the $1.00 per watt proposed incentive for leased systems by starting at the $1.50 per watt proposed incentive for commercial DG systems, given leased systems' perceived similarity to commercial projects. TEP then reduced the incentive level $0.30 per watt for the estimated impacts of federal tax incentives available to leased systems, $0.10 per watt for estimated impacts of state tax incentives for leased systems, and $0.10 per watt for depreciation benefits available to leased systems, resulting in the proposed $1.00 per watt leased system UFI. TEP further has cited a concern with leasing companies' inflation of value of their system cost to receive higher tax credits based upon fair market value. Leasing companies have disputed certain representations made by TEP regarding the issue of cost, accounting treatment, and tax benefits of leased versus non-leased systems.

Leased systems had not typically been a significant part of TEP's market until very recently. The graphs below show the number of total and leased systems by month for TEP in 2010 and 2011 for the residential and commercial sectors. Both graphs demonstrate the very recent increase of leased systems in TEP's market, particularly in the residential market.





The graphs above demonstrate that leased systems have in very short order become a major factor in the TEP market. In various venues related to this filing, TEP, leasing companies, and other interested parties have made very different representations as to the cost, accounting treatment, and tax benefits of leased systems versus non-leased systems. In the time available to Staff to review TEP's application, Staff has been unable to reconcile the differing representations made by TEP and other parties regarding leased versus non-leased systems.

At TEP's October 5, 2011 stakeholder/installer meeting, TEP provided the following comparisons of a non-leased residential DG system with a $1.75 per watt incentive level, a pre-paid lease system at a $1.75 per watt incentive level, a conventional lease at a $1.75 per watt incentive level, and a prepaid lease system at a $1.00 per watt incentive level.

Budget Elements for a 10.24 kW system	**Non-leased System at $1.75 per watt**	**Prepaid Lease at $1.75 per watt**	**Conventional Lease at $1.75 per watt**	**Prepaid Lease at $1.00 per watt**
System Cost	$50,598	$50,598	$50,598	$50,598
Initial Payment		$2,802	$0	$10,671
TEP Incentive	-$17,920			
30% Federal Tax Credit	-$15,179			

Income Tax (25%)	$4,480			
AZ State Tax Credit	-$1,000			
Monthly Payment		$0	$50	$0
Early Buy-out (Year 7)		$1,629	$4,144	$1,306
Total Ratepayer Cost	$20,979	$4,431	$8,344	$11,977
Payback Period	10.9 years	2.3 years	3.2 years	6 years

Note: These examples do not capture the time value of money.

Based upon this information, it does appear that leased systems currently have a significant cost advantage over non-leased systems.

For purposes of Staff's recommendations in this memorandum, Staff is not proposing to differentiate incentives for residential DG between leased and non-leased systems. The REST rules do not address the treatment of leased versus non-leased systems. Fundamentally, if leased systems can be pursued with a significantly lower incentive level, as TEP's proposed REST plan and other documents indicate, then TEP can do more residential DG systems for less money if a uniform, lower incentive is applied to both leased and non-leased systems. This could result in a lower overall REST budget and lower REST surcharges for TEP's customers.

It is also worth noting that long term, if incentive levels continue to drop, they may at some point in the future disappear altogether, at which time there would inherently be no differentiation between incentives for leased and non-leased systems. Thus, if a differential is established, it is possible it will only be effective for some limited period of time into the future until incentives disappear.

Commercial DG Compliance and Treatment of Davis-Monthan Air Force Base Project

TEP's commercial DG program has been successful in recent years, resulting in the installation of numerous commercial DG systems, including a very large installation at the Davis-Monthan Air Force Base ("Davis-Monthan") in Tucson. TEP's proposed commercial DG budget for 2012, shown in the table below, is significantly smaller than it was in 2011, in large part due to the success of the program in recent years resulting in overcompliance by TEP in recent years.

TEP 2012 Proposed Commercial DG Budget	**Line Item Budget**
Commercial DG UFI	$1,114,510
Commercial DG PBI – new commitments in 2012	$219,540
Commercial DG PBI – on-going commitments from past years	$5,753,375
Total Commercial DG Budget	$7,087,425

Most of the commercial DG performance-based incentives ("PBI") budget, for on-going commitments from past years, represent long-term commitments made to PBI projects in past years and would be difficult to adjust in any way. The remaining roughly $1.3 million in UFIs and commercial DG PBI new commitments, could be eliminated if the Commission were to seek to only provide funds for TEP to reach compliance and not have TEP achieve over-compliance.

A further complication in assessing compliance and overcompliance for TEP's commercial DG program is how the large project at Davis-Monthan is considered. The Davis-Monthan project is a very large DG project that TEP expects to begin operation in 2012, providing 25,500,000 kWh per year when fully installed. While the Davis-Monthan project is very large, Staff is not aware of anyone involved in this proceeding who disputes that the Davis-Monthan project qualifies as a commercial DG project under the REST rules. When the Commission considered TEP's 2011 REST plan, a number of parties expressed concern whether such a large project would impact the rest of the commercial DG market, leaving little or no additional commercial DG resources in upcoming years. TEP has proposed some funding for commercial DG in 2012, in part due to uncertainty as to whether the Davis-Monthan project will come to fruition, as the Air Force base still must receive funding from Congress for the project to move forward. In Decision No. 72033, the Commission expressed concern with the impact the Davis-Monthan project could have on the rest of the commercial DG market. Specifically, the Commission found that TEP shall:

> "notify the Commission as part of all future REST Implementation Plans, whether the inclusion of the Davis-Monthan AFB project in the Company's commercial DE program has precluded any other non-residential renewable DE systems from receiving utility incentives because Tucson Electric Power Company is already in compliance with its non-residential DE requirements as a result of signing the contract with the Davis-Monthan AFB. If Tucson Electric Power Company finds that commercial DE projects will be or were precluded, the Company should request from the Commission additional funding for the commercial systems that would otherwise be precluded."

TEP's July 1, 2011 filing in this proceeding states that as of the July 1, 2011 filing no projects have specifically been denied due to the Davis-Monthan project, although six commercial projects were unsuccessful in the monthly award allocation process. TEP has indicated to Staff that these six projects were rejected due to being uncompetitively priced in the monthly PBI solicitation process. TEP has further indicated that because Davis-Monthan, a PBI project, has not begun to operate, it has to date taken no PBI funds and all PBI funds have been awarded through TEP's normal monthly process. Thus, TEP has not proposed any additional commercial DG funding specifically due to the above provision in Decision No. 70233. This representation has been disputed by The Solar Alliance in its August 15, 2011 comments, where it indicates it believes projects have been denied due to the Davis-Monthan project and that additional money should thus be made available. It is difficult for Staff to assess with specificity whether any projects have been denied due to the Davis-Monthan project's existence.

It seems likely that there will be disputes every year between TEP and other interested parties regarding whether any other commercial DG projects were precluded due to the Davis-Monthan project. Thus, Staff believes it would be beneficial for the Commission to make a finding regarding treatment of the Davis-Monthan project in regard to whether, or to what extent, it counts towards TEP's commercial DG obligations under the REST rules. Staff believes that it is clear that under the REST rules, the Davis-Monthan project qualifies as a commercial DG project. Thus Staff recommends that TEP report the Davis-Monthan project as a commercial DG project for purposes of compliance with the REST rules. To the extent the Commission wishes to fund additional commercial DG projects in light of the size of the Davis-Monthan project, such commercial DG projects can be given funding, while recognizing that under the REST rules, they are likely to result in overcompliance by TEP in certain years where the Davis-Monthan project is a major factor.

A further consideration regarding whether TEP has met compliance or is overcompliant for commercial DG is Section R14-2-1805.E of the REST rules, which states:

> "An Affected Utility may satisfy no more than 10 percent of its annual Distributed Renewable Energy Requirement from Renewable Energy Credits derived from distributed Renewable Energy Resources that are non-utility owned generators that sell electricity at wholesale to Affected Utilities. This Wholesale Distributed Generation Component shall qualify for the non-residential portion of the Distributed Renewable Energy Requirement."

Thus, 10 percent of the total annual DG requirement, equivalent to 20 percent of the total commercial DG requirement, could be met by such wholesale purchases. To date, TEP has not claimed most of its wholesale distributed generation purchases under this provision, even though it has wholesale purchase contracts that would qualify under this provision. For example, TEP indicates that the 2 MW Amonix project would qualify under this provision and is currently operational, with an annual production estimated at 4,000,000 kWh per year. TEP further estimates that an additional 36 MW of such generation will come online, potentially producing 67,800,000 kWh per year. If these wholesale purchases were counted toward TEP's commercial DG requirements, it would result in TEP reaching the 10 percent level of all DG requirements and being even more overcompliant with the commercial DG requirements under the REST rules. Staff thus recommends that TEP report the allowable amount of wholesale DG as commercial DG for purposes of compliance with the REST rules. To the extent the Commission wishes to fund additional commercial DG projects in light of the size of the wholesale DG component eligible to be counted as commercial DG, such commercial DG projects can be given funding, while recognizing that under the REST rules, they are likely to result in overcompliance by TEP in certain years where the wholesale DG is a major factor.

Against this backdrop of overcompliance issues for TEP in the commercial sector, industry representatives have expressed concern that with the structure of the REST rules, there may be a significant drop in the amount of DG required in upcoming years. This is fundamentally a result of the design of the REST rules, where the percentage of DG required

grows through 2012, increasing from 5 percent in 2007 to 30 percent in 2012 and years thereafter. The solar industry has, in effect, become reliant on the annual 5 percent per year increase in the DG portion of the REST requirements built into the REST rules through 2012, providing a relatively steady opportunity for more DG projects each year.

In comparison, the overall REST requirements increased by 0.25 percent per year through 2009, by 0.5 percent per year from 2010 to 2015, and by 1.0 percent per year from 2016 through 2025. The solar industry's big concern is that the DG component's percentage of overall requirements stops growing before the overall REST component starts growing at the 1.0 percent rate, resulting in a smaller increment of DG requirements from 2013 to 2015. The table below shows the overall REST requirements by year and the DG requirements by year.

Year	**Overall REST Requirement**	**DG Requirement**
2006	1.25%	0
2007	1.50%	5.0%
2008	1.75%	10%
2009	2.0%	15%
2010	2.5%	20%
2011	3.0%	25%
2012	3.5%	30%
2013	4.0%	30%
2014	4.5%	30%
2015	5.0%	30%
2016	6.0%	30%
2017	7.0%	30%
2018	8.0%	30%
2019	9.0%	30%
2020	10.0%	30%
2021	11.0%	30%
2022	12.0%	30%
2023	13.0%	30%
2024	14.0%	30%
After 2024	15.0%	30%

The September 13, 2011 comments from the Southern Arizona Solar Standards Board ("SASSB") contains a graph on the front page which illustrates the dip in commercial DG requirements under the REST rules for the 2013 to 2015 period. The next page of the SASSB comments shows a second graph, reflecting a proposal by SASSB to shift some portion of DG requirements further in the future into the 2013-2015 period to at least partially fill in the dip shown for that period. Concerns with not taking action to fill in the 2013-2015 dip include possibly significant declines in installations and industry activity during that period. Staff would note that this issue has existed since the time the REST rules were created and nobody in past years has proposed scaling back the amount of DG in prior years to save some portion of

those DG requirements to fill in the 2013-2015 dip. Importantly, this is not an issue that impacts the 2012 REST plans, as 2012 sees another 5 percent step up in the DG portion of the full REST requirements. While Staff believes that this is an issue of importance to the solar industry, it is not an issue that needs to be addressed in the Commission's consideration of the 2012 REST plans. Staff thus recommends that TEP, when it files its proposed 2013 REST plan in mid-2012, include a discussion of this issue in its filing and make a proposal as to whether TEP believes the Commission should take action beyond what is required in the REST rules to address the 2013-2015 dip.

As noted above, there are a number of different sources TEP may use to meet its commercial DG requirements under the REST rules, including standard UFI and PBI projects, self-direction of funds such as the City of Tucson, the Davis-Monthan project, and wholesale DG. To date, TEP has not fully used all of these sources in meeting its commercial DG needs. The table below discusses how TEP has accounted for each of these sources in meeting its commercial DG requirements.

Source of Commercial DG RECs	**Treatment to Date for Meeting REST Rule Commercial DG Requirements**
Standard Commercial DG UFI Projects	TEP has counted all of these toward the commercial DG requirements
Standard Commercial DG PBI Projects	TEP has counted all of these toward the commercial DG requirements
Self-Directed Projects, Such as the City of Tucson	TEP has counted all of these toward the commercial DG requirements
Davis-Monthan Project	TEP does not plan to count this project toward meeting the commercial DG requirement. As noted above, the Commission, in approving the 2011 REST plan for TEP, required TEP to ask for further commercial DG funds if the Davis-Monthan project resulted in other commercial DG projects being precluded from receiving commercial DG funds, then TEP should file for additional funding.
Wholesale DG	Only a small portion of eligible resources are counted toward TEP's commercial DG requirements, with the balance being counted toward utility-scale requirements under the REST rules

The table below details the cumulative commercial DG requirement through 2012 and how TEP anticipates meeting the requirement, as being shown in the Company's July 1, 2011 filing for approval of the 2012 REST plan.

Cumulative Commercial DG requirement through 2012	49,845,583 kWh
Existing Commercial DG kWh	46,332,945 kWh

Commercial DG kWh required in 2012	3,512,638 kWh
Commercial DG kWh required in 2012 Met By Small Commercial DG kWh in 2012	1,405,055 kWh (1,124,044 PV, 281,011 solar hot water)
Commercial DG kWh required in 2012 Met By Large Commercial PBI kWh in 2012	1,756,319 kWh
Commercial DG kWh required in 2012 Met By Wholesale DG	351,264 kWh

The table above reflects only commercial DG used to meet the 2012 REST plan requirement for commercial DG. The tables below compare the next five years for commercial DG, with one scenario showing if TEP counted all possible resources toward commercial DG compliance, and the other scenario showing TEP's proposal for considering some but not all possible resources toward commercial DG compliance; particularly from the Davis-Monthan project and additional wholesale DG that could be used toward meeting TEP's commercial DG requirements in 2012 and beyond.

Scenario Based Upon TEP Proposal

	2012	2013	2014	2015	2016
Overall DG kWh Requirement	99,691,165	116,902,090	133,527,796	150,408,794	182,659,034
Non-Residential DG kWh Requirement	49,845,583	58,451,045	66,763,898	75,204,397	91,329,517
Existing Non-Residential kWh Prior to 2012	46,332,945	49,845,583	58,451,045	66,763,898	75,204,397
Incremental Non-Residential DG Requirement	3,512,638	8,605,462	8,312,853	8,440,499	16,125,120
Incremental Non-Residential DG UFI	1,756,319	4,302,731	4,156,427	4,220,249	8,062,560
Incremental Non-Residential DG PBI	1,756,319	4,302,731	4,156,427	4,220,249	8,062,560
10% Allowed kWh from Wholesale DG per R14.2.805 (Only 10 percent of kWh allowed under this provision is taken under TEP's proposal)	-351,264	-860,546	-831,285	-844,050	-1,612,512
Estimated kWh from Davis-Monthan DG Project (0 percent of kWh allowed are taken)	0	0	0	0	0
Total Required kWh Non-Residential DG After Adjustments	3,161,374	7,744,916	7,481,568	7,596,449	14,512,608
Total Non-Residential UFI DG kWh	1,405,055	3,442,185	3,325,141	3,376,200	6,450,048
Total Non-Residential PBI DG kWh	1,756,319	4,302,731	4,156,427	4,220,249	8,062,560

Note: The two bottom lines in this table represent how TEP would proposed to allocate the third line up, Total Required kWh Non-Residential DG After Adjustments, between non-residential UFIs and PBIs.

Scenario Counting All Available Resources Toward REST Commercial DG Compliance

	2012	2013	2014	2015	2016
Overall DG kWh Requirement	99,691,165	116,902,090	133,527,796	150,408,794	182,659,034
Non-Residential DG kWh Requirement	49,845,583	58,451,045	66,763,898	75,204,397	91,329,517
Existing Non-Residential kWh Prior to 2012	46,332,945	46,332,945	46,332,945	46,332,945	46,332,945
Incremental Non-Residential DG Requirement	3,512,638	12,118,100	20,430,953	28,871,452	44,996,572
10% Allowed kWh from Wholesale DG per R14.2.805 (100 percent of kWh allowed under this provision taken	-9,969,117	-11,690,209	-13,352,780	-15,040,879	-18,265,903
Estimated kWh from Davis-Monthan DG Project (100 percent of kWh allowed are taken)	-12,325,000	-24,650,000	-24,650,000	-24,650,000	-24,650,000
Total Required kWh Non-Residential DG After Adjustments	-18,781,479	-24,222,109	-17,571,826	-10,819,427	2,080,669

Note: A negative number in the last line, Total Required kWh Non-Residential After Adjustments, indicates the amount of overcompliance for that year.

For wholesale DG, TEP has indicated that the 2 MW Amonix project is currently generating an annual production of 4,000,000 kWh with an additional 36 MW of resources potentially coming on line in the near term future.

Staff Proposed 2012 UFI Incentive Levels

TEP's initial filing proposed a residential DG UFI of $1.75 for non-leased systems and $1.00 for leased systems. TEP is further proposing a commercial UFI of $1.50 for commercial DG systems. Subsequent to TEP filing its proposed 2012 REST plan, on September 13, 2011, TEP filed a Notice of Suspension of Acceptance of Residential Incentive Applications Under 2011 REST Plan or, Alternatively, Request to Modify 2011 REST Plan, in Docket Number E-01933A-10-0266. This was in response to a flood of applications TEP received around the beginning of September 2011, quickly depleting the residential UFI funds. On September 21, 2011, Staff filed a memorandum and proposed order to address TEP's filing. This filing is discussed in more detail in Staff's September 21, 2011 memorandum. Of note though, Staff recommended providing funds for the rest of 2011 at a residential and commercial UFI level of $0.75 per watt. Staff indicated in that memorandum that one reason to set this lower level of incentive is to test the market to see whether TEP will receive applications for systems at the lower incentive level. The Commission approved Staff's proposal for a lower incentive level, but participation levels will not be known at the lower incentive level for awhile. Staff intends to stay in close communication with TEP regarding participations levels if Staff's proposal is approved by the Commission. Ideally the Commission would have this information to consider what level of UFIs to set for 2012. Thus, Staff is making a proposal in this proceeding, but believes that the Commission may wish to revisit this issue later in 2011, when possible results at the $0.75 per watt incentive level would be known. Staff would also note that, as discussed earlier in the Staff report, Staff is not proposing separate residential UFI levels for leased and non-leased systems.

Information from TEP indicates that leased system applications are now occurring in both the residential and commercial DG sectors. As noted above, APS' Rapid Reservation Program has been having significant participation through 2011 at the $1.00 per watt UFI level. TEP's application in this proceeding contemplates an incentive level of $1.00 per watt for leased residential DG UFI projects. Thus, Staff believes that there are multiple indications that a $1.00 per watt incentive level may result in significant participation in TEP's market in 2012. Thus, Staff is proposing a residential DG UFI level of $1.00 per watt in 2012. Staff is proposing the same $1.00 per watt UFI level for commercial DG projects in TEP's market in 2012. A side benefit of lowering TEP's proposed $1.50 per watt commercial DG UFI to the $1.00 per watt level proposed by Staff is that any funds allocated toward the commercial DG UFI will stretch further, resulting in more commercial DG installations in 2012.

TEP's July 1, 2011 filing contains trigger proposals for the residential and commercial DG UFI incentive levels if participation exceeds 60 percent compliance on or before June 30, 2012, as TEP's 2011 triggers operated. In TEP's initial filing, the residential incentive trigger would result in a reduction to $1.50 per watt if the trigger were reached. The commercial incentive trigger would result in a reduction to $1.25 per watt if the trigger is reached. TEP's 2011 REST plan is the first REST plan to contain such triggers, but neither trigger was reached in 2011. Staff believes that the trigger concept merits continuation, albeit at adjusted levels to reflect Staff's proposed lower UFI levels and with an additional trigger date. Staff believes that the trigger mechanism needs to be more aggressive, given that funds tend to run out later in the year and there may be further reductions in the cost of renewable resources as the year progresses. Staff is proposing three separate triggers.

Thus, under Staff's proposal for residential DG, the UFI would be reduced to $0.85 per watt if 45 percent compliance is reached on or before June 30, 2012. In like manner, for commercial DG, the UFI would be reduced to $0.85 per watt if 45 percent compliance is reached on or before June 30, 2012. The second triggers for both residential and commercial DG would, if the June 30, 2012 trigger had been reached, reduce the incentive to $0.70 per watt if 70 percent or more of the incentive funding is reserved prior to September 30, 2012. If the June 30, 2012 trigger has not been reached, then the second trigger would reduce the incentive to $0.85 per watt. The third trigger would involve a step-down in the incentive level if 90 percent compliance is reached on or before November 30, 2011. The incentive would then be reduced to $0.50 per watt if both previous triggers were reached, $0.70 per watt if one previous trigger was reached, and $0.85 per watt if no previous triggers were reached in 2012. The chart below lays out how the overall trigger mechanism would work.

Date of Trigger	**Compliance Level to Activate Trigger**	**Incentive Level If Trigger Activated**
June 30, 2011	45%	$0.85 per watt
September 30, 2011	70%	$0.85 per watt if June 30 trigger was not activated. $0.70 per watt if June 30 trigger was activated.

November 30, 2011	90%	$0.85 per watt if no previous 2012 triggers activated. $0.70 if one previous 2012 trigger activated. $0.50 per watt if both previous 2012 triggers activated.

On the day that any trigger is activated, TEP will notify the solar industry by e-mail and TEP will provide a similar notice on its website. The mechanics of the residential and commercial triggers would include timely notification to the Commission and installers if the trigger is reached. As well, Staff recommends that TEP post information on its own website, and on the Arizonagoessolar.org website at least every two weeks, regarding its progress toward reaching the triggers.

At the Commission's October 11, 2011 Open Meeting, there was discussion regarding TEP's commitment to providing additional funding at current incentive levels to 75 customers even after the approved budget for residential DG was fully depleted. Staff is concerned that such events could occur again in the future. Thus, Staff recommends that TEP not commit to or expend any further ratepayers funds for UFI or PBI incentives once a given year's approved level of funds is depleted, absent approval from the Commission for such action.

2012 REST Plan Overall Budget Options

The table below shows proposed spending levels by area for TEP's proposed 2012 REST budget options and Staff's proposed 2012 REST budget options.

Budget Components	**2012 TEP Option 1**	**2012 TEP Option 2**	**2012 Staff Option 1**	**2012 Staff Option 2**	**2012 Staff Option 3**
Purchased Renewable Energy					
Above market cost of conventional generation	$12,377,000	$12,377,000	$12,377,000	$12,377,000	$12,377,000
SunEdison	$1,045,500	$1,045,500	$1,045,500	$1,045,500	$1,045,500
TEP Owned	$4,228,918	$4,228,918	$2,114,459	$2,114,459	$2,114,459
Subtotal	*$17,651,418*	*$17,651,418*	*$15,536,959*	*$15,536,959*	*$15,536,959*
Customer Sited Distributed Renewable Energy					
Up-front incentive – residential	$14,358,111	$12,585,213	$14,358,111	$7,689,938	$7,689,938
Up-front incentive – commercial	$1,114,510	$1,114,510	$1,114,510	$1,114,510	$0
Annual Performance-Based Incentive (PBI)	$5,972,915	$5,972,915	$5,972,915	$5,972,915	$5,753,375
Meter Reading	$19,531	$19,531	$19,531	$19,531	$19,531
Marketing	$700,000	$700,000	$100,000	$100,000	$100,000
Subtotal	*$22,165,067*	*$20,392,169*	*$21,565,067*	*$14,896,894*	*$13,562,844*
Technical Training					

Schools Program	$650,000	$650,000	$350,000	$350,000	$350,000
Internal and Contractor Training	$100,000	$100,000	$75,000	$75,000	$75,000
Subtotal	*$750,000*	*$750,000*	*$425,000*	*$425,000*	*$425,000*
Information Systems					
Subtotal	*$500,000*	*$500,000*	*$500,000*	*$500,000*	*$500,000*
Metering					
Subtotal	*$227,982*	*$227,982*	*$0*	*$0*	*$0*
Labor and Administration					
Labor, Materials, Supplies	*$1,728,859*	*$1,728,859*	*$1,645,000*	*$1,645,000*	*$1,645,000*
AZ Solar Website	*$4,000*	*$4,000*	*$4,000*	*$4,000*	*$4,000*
Subtotal	*$1,732,859*	*$1,732,859*	*$1,649,000*	*$1,649,000*	*$1,649,000*
Research and Development					
Solar test yard	$350,000	$350,000	$275,000	$275,000	$275,000
AZRISE	$250,000	$250,000	$250,000	$250,000	$250,000
EPRI Research	$341,000	$341,000	$191,000	$191,000	$191,000
Dues and Fees	$15,000	$15,000	$7,500	$7,500	$7,500
Subtotal	*$956,000*	*$956,000*	*$723,500*	*$723,500*	*$723,500*
Total Spending	*$43,983,326*	*$42,210,427*	*$40,399,526*	*$33,731,353*	*$32,397,303*
Carryover 2010 Funds	*-$4,875,000*	*-$4,875,000*	*-$4,875,000*	*-$4,875,000*	*-$4,875,000*
Total Amount for Recovery	*$39,108,326*	*$37,335,427*	*$35,524,526*	*$28,856,353*	*$27,522,303*

Note: TEP projects that $250,000 will be self-directed by the City of Tucson in 2012. This amount is not reflected in the budget numbers above, as the money paid in REST charges by the City of Tucson to TEP and then is directed back to the City of Tucson for renewable projects and thus is not being recovered through the general REST charge.

Recovery of Funds Through 2012 REST Charge

TEP's proposed caps and per kWh charge are designed to recover TEP's proposed recovery amounts of $39.1 million and $37.3 million for the two options provided by TEP. Staff's proposed caps and per kWh charge are designed to recover Staff's proposed budget of $35.5 million, $28.9 million and $27.5 million for the three options provided by Staff.

The table below shows the proposed surcharge per kWh for each TEP and Staff option as well as the proposed caps under each option, in comparison to what is currently in effect for 2011.

	2011 Approved	**2012 TEP Option 1**	**2012 TEP Option 2**	**2012 Staff Option 1**	**2012 Staff Option 2**	**2012 Staff Option 3**
REST Charge (per kWh)	$0.007121	$0.007914	$0.007578	$0.008051	$0.006875	$0.006733
Class Caps						
Residential	$4.50	$5.00	$4.75	$4.00	$3.00	$2.75
Small Commercial	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00
Large Commercial	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00

Industrial and Mining	$5,500.00	$6,130.00	$5,810.00	$6,500.00	$5,500.00	$5,500.00
Public Authority	$180.00	$200.00	$190.00	$170.00	$135.00	$130.00
Lighting	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00

The cost recovery by customer class for the approved 2011 REST plan and estimates for the TEP and Staff options for the 2012 REST plan are shown in the table below.

	2011 REST Plan	**2012 TEP Option 1**	**2012 TEP Option 2**	**2012 Staff Option 1**	**2012 Staff Option 2**	**2012 Staff Option 3**
Residential	$15,905,157 (44.3%)	$17,621,223 (45.1%)	$16,804,258 (45.0%)	$14,894,973 (41.9%)	$11,393,721 (39.5%)	$10,558,881 (38.4%)
Small Commercial	$10,441,814 (29.1%)	$11,670,521 (29.8%)	$10,944,134 (28,8%)	$11,238,111 (31.6%)	$9,532,947 (33.0%)	$9,286,637 (33.7%)
Large Commercial	$6,781,882 (18.9%)	$6,147,200 (15.7%)	$5,876975 (15.7%)	$5,622,078 (15.8%)	$4,758,361 (16.5%)	$4,529,191 (16.5%)
Industrial and Mining	$1,793,166 (5.0%)	$2,575,100 (6.6%)	$2,440,377 (6.5%)	$2,731,826 (7.7%)	$2,311,308 (8.0%)	$2,311,849 (8.4%)
Public Authority	$729,519 (2.0%)	$826,753 (2.1%)	$788,432 (2.1%)	$763,968 (2.2%)	$626,566 (2.2%)	$607,812 (2.2%)
Lighting	$232,786 (0.7%)	$270,000 (0.7%)	$258,555 (0.7%)	$273,682 (0.8%)	$233,554 (0.8%)	$228,620 (0.8%)
Total	$35,884,324	$39,110,797	$37,335,477	$35,524,639	$28,856,457	$27,522,498

Note: The amount shown for 2011 for the industrial/mining class is that which was provided by TEP to Staff during review of TEP's 2011 REST plan. TEP subsequently discovered that this number did not accurately reflect all the meters billed in this category, as there are multiple billed meters for some customers in this class. The amount of the error in the 2011 estimate is approximately $1,056,000. Thus, the 2011 number is lower than it should have been. This correction does not result in any changes in what any customers were billed, just in how it was shown in the documents provided by TEP during the Commission's review of the 2011 REST plan.

For comparison purposes, the table below shows the projected MWH sales by customer class for 2012.

Customer Class	**2012 Projected Sales (MWH)**
Residential	3,926,054 (37.4%)
Small Commercial	2,022,442 (19.2%)
Large Commercial	2,275,501 (21.7%)
Industrial and Mining	2,041,072 (19.4%)
Public Authority	211,163 (2.0%)
Lighting	33,177 (0.3%)
Total	10,509,408

The table below shows the contribution, per kWh consumed, for each customer class (projected class cost recovery divided by projected class kWh sales). The table thus provides a comparison of the relative contribution to REST funding by each customer class on a per kWh

basis. Staff's proposal for class caps and the per kWh charge is intended to gradually move the customer classes closer to one another in terms of their contribution per kWh consumed in each customer class.

Contribution by Customer Class (per kWh)	2011 REST Plan (per kWh)	2012 TEP Option 1 (per kWh)	2012 TEP Option 2 (per kWh)	2012 Staff Option 1 (per kWh)	2012 Staff Option 2 (per kWh)	2012 Staff Option 3 (per kWh)
Residential	$0.0041	$0.0046	$0.0044	$0.0039	$0.0030	$0.0027
Small Commercial	$0.0059	$0.0057	$0.0057	$0.0055	$0.0046	$0.0045
Large Commercial	$0.0035	$0.0049	$0.0047	$0.0045	$0.0038	$0.0036
Industrial/ Mining	$0.0009	$0.0012	$0.0012	$0.0013	$0.0011	$0.0011
Public Authority	$0.0035	$0.0039	$0.0038	$0.0036	$0.0030	$0.0029
Lighting	$0.0070	$0.0078	$0.0075	$0.0079	$0.0068	$0.0066

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.

	2011 REST Plan	2012 TEP Option 1	2012 TEP Option 2	2012 Staff Option 1	2012 Staff Option 2	2012 Staff Option 3
Residential - Average Bill	$3.59	$3.97	$3.78	$3.35	$2.57	$2.38
Small Commercial - Average Bill	$24.16	$26.38	$25.72	$25.88	$21.95	$21.39
Large Commercial - Average Bill	$897.30	$823.36	$787.17	$753.02	$637.34	$606.64
Industrial and Mining - Average Bill	$4.886.00	$5,975	$5,662	$6,338	$5,363	$5,364
Public Authority - Average Bill	$55.24	$62.11	$59.23	$57.39	$47.07	$45,66
Lighting - Average Bill	$10.76	$12.67	$12.13	$12.84	$10.96	$10.73
Residential – Percent at Cap	42.8%	41.6%	41.7%	71.8%	71.8%	71.8%
Small Commercial – Percent at Cap	4.8%	4.7%	4.7%	4.7%	4.7%	4.7%
Large Commercial – Percent at Cap	70.0%	44.3%	44.3%	50.3%	52.3%	54.1%
Industrial and Mining – Percent at Cap	81.7%	98.6%	98.6%	98.6%	98.6%	98.6%
Public Authority – Percent at Cap	15.4%	16.1%	16.3%	18.6%	19.7%	19.7%
Lighting – Percent at Cap	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%

Estimated customer bill impacts for various monthly consumptions are shown in the table below.

Customer Types	kWh / mo.	2011 REST Plan	2012 TEP Option 1	2012 TEP Option 2	2012 Staff Option 1	2012 Staff Option 2	2012 Staff Option 3
Residence Consuming 400 kWh	400	$2.85	$3.17	$3.03	$3.22	$2.75	$2.69
Residence Consuming 869 kWh	869	$3.59	$5.00	$4.75	$4.00	$3.00	$2.75
Residence Consuming 2,000 kWh	2,000	$4.50	$5.00	$4.75	$4.00	$3.00	$2.75
Dentist Office	2,000	$14.24	$15.83	$15.16	$16.10	$13.75	$13.47
Hairstylist	3,900	$27.77	$30.86	$29.56	$31.40	$26.81	$26.26
Department Store	170,000	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00
Mall	1,627,100	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Retail Video Store	14,400	$102.54	$113.95	$109.13	$115.93	$98.99	$96.95
Large Hotel	1,067,100	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Large Building Supply	346,500	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Hotel/Motel	27,960	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00
Fast Food	60,160	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00
Large High Rise Office Bldg	1,476,100	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Hospital (< 3 MW)	1,509,600	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Supermarket	233,600	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Convenience Store	20,160	$143.56	$159.54	$152.78	$150.00	$125.00	$120.00
Hospital (> 3 MW)	2,700,000	$5,500.00	$6,130.00	$5,810.00	$6,500.00	$5,500.00	$5,500.00
Copper Mine	72,000,000	$5,500.00	$6,130.00	$5,810.00	$6,500.00	$5,500.00	$5,500.00

Staff recommends approval of the proposed Staff Option 2. Staff believes that this recommendation provides adequate funding to more efficiently achieve TEP's 2012 REST goals and even exceed its commercial DG requirement. Staff is cognizant of TEP's uncertainty as to whether the Davis-Monthan project will occur and thus recognizes that for 2012, some level of funding for commercial DG would help ensure that TEP meets its REST requirements even if Davis-Monthan does not move forward with its project. It seems likely that the fate of the Davis-Monthan project will be known by the time the Commission considers TEP's 2013 REST plan next year and can take into account the Davis-Monthan project more fully at that time. Staff Option 2 also provides a reduction in the budget both from the 2011 approved REST plan budget and TEP's proposals for the 2012 REST plan budget. Staff recognizes that the Commission could select Staff Option 3 and still expect to meet the commercial DG requirement for 2012, but Staff believes there is value to providing some level of funding for commercial DG projects, recognizing that during next year's consideration of TEP's 2013 REST plan, there is likely to be further consideration of the dip in new incremental DG required in 2013-2015 as well as commercial DG overcompliance.

Staff's Concerns About REST Plan Formats

The Staff is concerned that the REST Implementation Plans and REST Compliance Reports are so diverse in format and content that it is difficult, if not impossible, for Staff and

the Commissioners to compare the programs and results from one utility to another. Staff believes that, by developing a standardized template format for both the Implementation Plans and Compliance Reports, the Staff, Commissioners, industry stakeholders and the general public will better be able to consider and compare the plans and performance of all Arizona utilities subject to the REST Rules.

In order for the public and the Commission to better understand the Utility Plans and Compliance Reports, Staff believes that the utilities should work cooperatively to develop a template for detailed spreadsheets that viewers can download and work with to explore alternative scenarios. The detailed spreadsheets shall be in native format, including the assumptions used by the utilities and the data to support the utility calculations. Care must be taken to protect competitively confidential information, so that information would be blacked out in the public version.

Staff recommends that the Commission order Tucson Electric Power Company to work with Arizona Public Service Company to jointly lead an effort to establish a REST Format Working Group that would meet periodically with all other utility representatives to develop standardized template formats for both REST Implementation Plans and REST Compliance Reports. Staff recognizes that each utility is unique in a number of ways, so Staff suggests that templates have two parts: mandatory information and optional/other information. The first part would be detailed and identical in format. The second part would be an optional portion with a flexible format that would vary by utility. The Working Group would solicit input, suggestions, and detailed recommendations for stakeholders and the general public. In addition to developing the templates of Implementation Plans and Compliance Reports, the Working Group would develop templates for detailed spreadsheets that would be made available to the public on both the utility website and the ArizonaGoesSolar.org website.

The Working Group should submit to the Commission a report with its recommendations no later than September 1, 2012, for Staff approval. The effective date for usage of the templates would be April 1, 2013, for the 2012 Compliance Reports and July 1, 2013, for the 2014 REST Implementation Plans.

Staff Recommendations

1. Staff recommends that the Commission approve the Staff proposed Option 2 for the 2012 REST plan, reflecting a REST charge of $0.006875 per kWh, and related caps reflected in the Staff proposal. This includes total spending of $33,731,353 and a total budget of $28,857,434.

2. Staff recommends that the residential PV Up-Front Incentive be set at $1.00 per watt on January 1, 2012.

3. Staff recommends that the non-residential Up-Front Incentive be set at $1.00 per watt.

4. Staff recommends that the upper limit for non-residential Production Based Incentives be set at $0.125 per kWh for 70-200 kW systems, $0.105 per kWh for 201-400 kW systems and $0.091 per kWh for 401 kW or higher systems.

5. Staff further recommends approval of the trigger mechanisms for reducing DG incentives as proposed by Staff, with trigger dates of June 30, 2012 (45 percent) September 30, 2012 (70 percent) and November 30, 2012 (90 percent). Incentive levels would then be set at $0.85 per watt after the first trigger occurs, $0.70 per watt after the second trigger occurs, and $0.50 per watt after the third trigger occurs.

6. Staff further recommends approval of TEP's new derating chart.

7. Staff further recommends that in regard to the Bright Tucson Buildout Plan in the 2012 REST plan budget, TEP be allowed to recover half of its requested recovery amount, $2,114,459, through the 2012 REST surcharge.

8. Staff further recommends that in regard to REST plan budgets in 2013 and beyond, that TEP not be allowed to recover costs from the Bright Tucson Buildout Plan, but rather should seek recovery of those costs in the next general rate proceeding.

9. Staff further recommends that the Commission approve the buildout program for 2012 as part of TEP's 2012 REST plan, but, consistent with the Commission's decision on TEP's 2011 REST plan, approval should not be granted for additional future years. Rather, TEP should seek approval for further years of the buildout plan as part of the Company's seeking of Commission approval for future annual REST plans.

10. Staff further recommends that reasonableness and prudency of buildout plan costs be examined in TEP's next rate case and that any costs determined not to be reasonable and prudent be refunded by the Company.

11. Staff further recommends that in future REST plans, the burden of proof will be borne by TEP to justify the use of ratepayer funds to pay for marketing if TEP proposes to use ratepayer funds for marketing in future REST plans.

12. Staff further recommends approval of TEP's proposed research and development projects and funding as discussed herein.

13. Staff further recommends that the Commission find that installations under the Bright Roofs Program do not quality as non-residential DG for purposes of compliance with the REST rules.

14. Staff recommends reducing the maximum percentage of a project that can be paid for with utility incentives to 40 percent.

15. Staff further recommends that TEP, as part of its proposed 2013 REST plan that will be filed with the Commission on July 1, 2012, either propose a set-aside fund specifically for builder-related DG or indicate in its filing why it is not recommending such a program.

16. Staff further recommends that the Commission not differentiate between leased and non-leased systems in setting DG UFIs for TEP's 2012 REST plan.

17. Staff further recommends that TEP report the Davis-Monthan project as a commercial DG project for purposes of compliance with the REST rules.

18. Staff further recommends that TEP report the total allowable amount of wholesale DG as commercial DG for purposes of compliance with the REST rules.

19. Staff further recommends that TEP post information on its own website, and on the Arizonagoessolar.org website at least every two weeks, regarding its progress toward reaching the triggers.

20. Staff further recommends approval of the School Vocational Program, as discussed herein.

21. Staff further recommends that TEP not commit to or expend any further ratepayers funds for UFI or PBI incentives once a given year's approved level of funds is depleted, absent approval from the Commission for such action.

22. Staff further recommends approval of the formation of the REST Format Working Group as discussed herein. TEP and other utilities would submit the Working Group's report and recommendations by September 1, 2012, for Staff approval.

23. Staff recommends that TEP file the REST-TS1, consistent with the Decision in this case, within 15 days of the effective date of the Decision.

Steven M. Olea
Director
Utilities Division

SMO:RGG:lhm\RM

ORIGINATOR: Robert Gray

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE
Chairman
BOB STUMP
Commissioner
SANDRA D. KENNEDY
Commissioner
PAUL NEWMAN
Commissioner
BRENDA BURNS
Commissioner

IN THE MATTER OF TUCSON ELECTRIC POWER COMPANY – APPLICATION FOR APPROVAL OF ITS 2012 RENEWABLE ENERGY STANDARD AND TARIFF IMPLEMENTATION PLAN	DOCKET NO. E-01933A-11-0269 DECISION NO. _____ ORDER

Open Meeting
November 8 and 9, 2011
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. Tucson Electric Power Company ("TEP" or "Company") is engaged in providing electric service within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission.

2. On July 1, TEP filed for Arizona Corporation Commission ("Commission") approval of its 2012 Renewable Energy Standard and Tariff ("REST") Implementation Plan.

3. On July 15, 2011, TEP filed a REST plan summary and a set of PowerPoint slides summarizing its REST plan. On July 29, 2011, TEP filed a Notice of Errata, updating its REST plan and related exhibits.

4. The following parties have filed for intervention in this docket: The Solar Alliance on August 9, 2011; SolarCity Corporation ("SolarCity") on August 2, 2011; Freeport McMoRan Copper and Gold Inc./Arizonans for Electric Choice and Competition ("Freeport"); Western Resource Advocates ("WRA) on August 23, 2011; the Residential Utility Consumer Office

("RUCO") on August 31, 2011; The Arizona Solar Energy Industries Association ("AriSEIA") on September 29, 2011; Copernicus Energy on September 30, 2011; and Kevin Koch with Technicians For Sustainability ("TFS") on October 3, 2011 and October 17, 2011. Comments have been filed in this proceeding by the following entities: The Solar Alliance on August 12 and 24, 2011; SolarCity on August 15, 2011; Carson Solar Technologies on August 22, 2011; The Solar Store on August 22, 2011; the Southern Arizona Solar Standards Board on September 15, 2011; and Chad Waits with Net Zero Solar on October 5, 2011. Additionally, joint comments were filed on August 15, 2011 by DRH Electric, SunRun Inc., Acro Energy Technologies Corp., SolarCity, RDS Electric, and Indicom Electric. Questions from Commissioners Offices were filed on August 30 and September 7, 2011 from Commissioner Newman's office, and September 2, 2011 from Commissioner Burns' office. TEP filed answers to Commissioner Burns' questions on October 3, 2011 and to Commissioner Newman's questions on October 11, 2011.

5. TEP's initial filing requests approval of various REST plan components, including a budget, incentive levels, an incentive trigger mechanism, customer class caps, various program details, continuation of the Bright Tucson Solar Buildout Plan, continuation of the School Vocational Program, consideration of Bright Roofs generatio The initial filing contains two budgets, one which complies with last year's REST plan approval decision (Decision No. 72033, December 10, 2010) requiring maintenance of the residential distributed generation ("DG") budget at the same level in 2011 as it was at in 2010, and one with a lower residential DG budget that would meet but not exceed residential DG requirements.

6. The initial filing contains two budgets, one which complies with last year's REST plan approval decision (Decision No. 72033, December 10, 2010) requiring maintenance of the residential distributed generation ("DG") budget at the same level in 2011 as it was at in 2010, and one with a lower residential DG budget that would meet but not exceed residential DG requirements.

TEP REST Experience Under 2011 REST Plan

7. The Commission-approved implementation plan for 2011 contemplated a budget of $35.9 million. TEP projects spending its entire REST budget in 2011.

8. Regarding installations and reservations, the table below summarizes installations and reservations for installations through September 30, 2011 by TEP.

Residential	Photovoltaics		Solar Hot Water	
	Number of Systems	kW (kWh)	Number of Systems	kWh
2011 Installations	430	3,089 3,916,800	302	830,500
Reservations	487	3,436 12,911,500	548	1,506,448

Commercial	Photovoltaics		Solar Hot Water	
	Number of Systems	kW (kWh)	Number of Systems	kW
2011 Installations	8	109 185,300	5	185,493
Reservations	41	3,660 10,489,000	28	2,634,728

9. The table below shows TEP's annual required MWh under the REST rules and its installed-annualized and installed-annualized/reserved numbers. Installed annualized numbers reflect systems that are installed and their production is annualized to reflect a full year's production. Installed-annualized/reserved counts both the installed annualized systems and the systems that are reserved, but have not yet been installed.

	Required (MWH)	Produced/Banked (MWH)
Residential DG	36,408	27,423 (installed – annualized) 37,093 (installed – annualized/reserved)
Commercial DG	36,408	33,565(installed – annualized) 46,375 (installed – annualized/reserved)
Non-DG	218,445	368,124

School Vocational Program

10. In 2011 TEP began a new School Vocational Program ("SVP") that involved the deployment of 13 photovoltaic ("PV") systems at high schools within TEP's service territory in 2011. The program also provides assistance to schools in creating vocational training programs at the schools. The program budget in 2011 was $650,000. TEP is proposing to continue the

program at a level of $650,000 in 2012. In discussions with TEP, the Company indicated that its budget is based upon installation of systems from 5 kW to 10 kW.

11. The Company has indicated to Staff that all systems installed in 2012 could be installed at a 5 kW size, thus saving some system costs. Staff recommends that the size of systems installed in 2012 be set at 5 kW. TEP's budget includes $55,000 in education and monitoring costs. Staff believes the program is beneficial and recommends continuation of the program. However, Staff is recommending a reduction in the 2012 budget for the SVP program to $350,000, reflecting the smaller size of the installed systems as well as a reduction in educational and monitoring costs.

TEP Derating Chart

12. During consideration of TEP's 2011 REST plan, there was concern with the then-in- effect derating chart used by TEP. A derating chart estimates the reduction in production by a photovoltaic system due to a number of factors including orientation and shading.

During the approval process for the 2011 REST plan, TEP agreed to work with the solar industry and any other interested parties to review and possibly modify the derating chart.

13. TEP held a stakeholder meeting on March 8, 2011, to discuss the derating chart with interested parties. On May 26, 2011, TEP filed a Notice of Filing Derating Chart. This filing contained a new derating chart and related documentation which TEP indicated was the result of its collaborative efforts with interested parties.

14. On June 6, 2011, TEP filed a Notice of Filing Errata – Derate Chart, wherein TEP corrected certain documentation related to the derating chart which it previously filed on May 26, 2011. TEP has indicated to Staff that it is not aware of any opposition to this new derating chart. Staff believes it would be appropriate to consider this new derating chart as part of the Commission's overall consideration of TEP's 2012 REST plan. The new derating chart is included in TEP's proposed 2012 REST plan. Given the collaborative process which produced the new derating chart and the lack of any known opposition to its adoption, Staff recommends approval of TEP's new derating chart as part of the Commission's consideration of TEP's 2012 REST plan.

Bright Tucson Solar Buildout Plan

15. In TEP's proposal for its 2011 REST plan, TEP requested approval of a four year build-out plan for the Bright Tucson Community Solar program for 7 MW each year of utility scale and utility-owned generation costs at a total cost of $112 million or $28 million per year. Additionally, the Commission approved installation of 3.4 MW of utility-scale and utility-owned renewable generation, consisting of a 1.8 MW expansion of TEP's photovoltaic system at Springerville and a 1.6 MW single axis solar tracker at the Tucson airport. (Decision No. 71640, April 14, 2010).

16. The Bright Tucson program was approved by the Commission in Decision No. 71835 (August 10, 2010). The program allows TEP customers to purchase blocks of renewable energy via an optional tariff rider. Customers would buy one or more 1 kW pieces of renewable energy, each representing 150 kWh per month, at a $0.02 per kWh premium over the regular tariff rate. Such customers would then have that solar capacity component of their bill fixed for 20 years.

17. The Commission, in Decision No. 72033 (December 10, 2010), declined to approve the proposed four-year buildout program as proposed by TEP, but rather approved it for one year, stating that TEP may seek approval of additional years for the buildout plan as part of Commission consideration of future REST plans. As proposed by TEP in its 2011 and 2012 REST plans, TEP would recover carrying costs, depreciation, operations and maintenance, and property tax costs through the REST surcharge until such time as TEP files its next rate case, when these costs would be considered for inclusion in TEP's rate base. TEP projects annual recovery through the REST surcharge in upcoming years as shown on Table 4 on Page 7 of the Company's application. This involves collection of $4.2 million in 2012 and $3.8 million in 2013, with these assets then projected to enter TEP's rate base as part of a 2012 rate proceeding. TEP indicates that at this time it estimates that building costs considered in a projected 2012 rate proceeding would result in and of themselves in an annual rate increase of $7.66 million. TEP then projects the buildout plan resulting in new recoveries of $3.5 million in 2014 and $6.7 million in 2015 through the REST charge as a result of on-going buildout plan costs until such costs would be addressed in the

following TEP general rate case. For the 2012 REST plan, the buildout plan costs of $4.2 million that TEP is proposing to recover include the line items shown in the following table.

Line Item	2010 and 2011 Buildout Plan Costs
Carrying Costs	$1,903,686
Book Depreciation	$2,113,741
Operations and Maintenance	$151,500
Land Leasing	$59,000
Total	$4,227,927

18. Other generating investments made by TEP between rate cases do not receive similar carrying cost and other recovery treatment prior to their inclusion in rate base in TEP's next rate proceeding. Staff believes that as the renewable energy generation industry matures, it should receive similar treatment to other generation facilities TEP constructs and then seeks recovery of in future rate proceedings. Given that the Commission has approved the treatment requested by TEP in approving the 2010 and 2011 REST plans, Staff believes that a gradual transition is warranted from providing recovery through the REST surcharge to seeking recovery through a general rate proceeding.

19. Thus, Staff recommends that in regard to the 2012 REST plan budget, TEP be allowed to recover half of its requested recovery amount, $2,114,459 through the 2012 REST surcharge.

20. Staff further recommends that in regard to REST plan budgets in 2013 and beyond, that TEP not be allowed to recover costs from the buildout plan, but rather should seek recovery of those costs in its next general rate proceeding.

21. Staff further recommends that the Commission should approve the buildout program for 2012 as part of TEP's 2012 REST plan, but, consistent with the Commission's decision on TEP's 2011 REST plan, approval should not be granted for additional future years. Rather, TEP should seek approval for future years of the buildout plan as part of the Company's seeking of Commission approval for future annual REST plans.

22. Consistent with the Commission's approval of TEP's 2011 REST plan, Staff further recommends that reasonableness and prudency of buildout plan costs be examined in TEP's next

rate case and that any costs determined to be not reasonable and prudent be refunded by the Company.

23. In discussions with TEP, the Company has indicated that some portion of this buildout program is not necessary to serve the Bright Tucson Community Solar program, but that the Company believes that the buildout program should continue at its projected scale to provide some diversity in its renewable portfolio between utility-owned and 3rd party owned renewable generation. Staff believes that this is a reasonable proposal but that it is confusing to title the program the Bright Tucson Solar Buildout program when all these assets are not necessarily related to providing resources for the Bright Tucson Community Solar program. It should be recognized that this buildout program is fundamentally a program to fund utility-scale generation while recognizing that some portion of the assets built will provide resources for the Bright Tucson Community Solar program.

Marketing Costs

24. TEP has typically included a marketing budget in its annual REST plan filings. The approved 2011 REST plan included a budget of $750,000. For the proposed 2012 REST plan budget, TEP has proposed $700,000 in funding for marketing. The table below shows a breakout of various forms of marketing and advertising for the proposed 2012 REST plan submitted by TEP.

Line Item	TEP Proposed Funding in 2012 REST Plan
Television Advertisement	$250,000
Billboard Advertisement	$150,000
Radio Advertisement	$150,000
Sponsorships	$75,000
Educational	$50,000
Promotional	$25,000
Total	$700,000

25. Staff believes that with the significant growth in the renewable energy industry in Arizona in recent years, there are now many venues for publicizing renewable energy technologies and programs, and that the renewable energy industry should bear the primary responsibility for marketing renewable energy in Arizona. Therefore, the need for continued funding of marketing by TEP's ratepayers has declined significantly.

26. Thus, Staff is recommending approval of a marketing budget of $100,000 as part of its 2012 REST plan proposal.

27. Staff further recommends that in future REST plans, the burden of proof will be borne by TEP to justify the use of ratepayer funds to pay for marketing if TEP proposes the use of ratepayer funds for marketing in future REST plans.

Labor Costs

28. TEP has a number of employees whose sole function is to work on REST related matters, and the cost of such employees is normally funded as part of the annual REST budget. This includes 11 internal TEP positions, 6 positions with external contractors, and assistance from interns. TEP's labor budget in the approved 2011 REST plan and its proposed 2012 REST plan are shown in the table below.

Line Item	Approved 2011 REST Budget	TEP Proposed 2012 REST Budget
Internal Labor	$1,143,950	$1,185,090
External Labor	$426,050	$468,769
Materials and Supplies	$75,000	$75,000
Total	$1,645,000	$1,728,859

29. It is difficult in a Staff review of a REST plan to assess in a detailed manner the necessary level of labor costs for a utility such as TEP to achieve its requirements under the REST rules. Staff believes that there are likely reasons why additional labor costs could be incurred, such as continued growth in the REST requirements, but also reasons why labor costs may be reduced, such as the small number of commercial DG systems contemplated in TEP's proposed plan. Staff believes that on balance, it would be reasonable to provide the same labor cost to TEP as was provided in the 2011 REST plan, or a total of $1,645,000.

Research and Development

30. TEP is requesting approval of funding for a number of research and development ("R&D) projects. The projects include on-going testing and studies at TEP's solar test yard, research in coordination with the Electric Power Research Institute ("EPRI") on the integration of distributed renewable energy and a transmission integration study, and a number of projects . . .

through TEP's partnership with the AZRise Global Institute at the University of Arizona ("AZRise").

31. Staff believes that a reduced amount of R&D funding is reasonable to include in the 2012 REST plan budget, to balance the need for certain R&D work related to TEP's REST efforts, while reducing the cost on TEP's customers in comparison to past years. TEP's approved 2011 R&D budget was $1,065,000.

32. Specifically, Staff believes continued funding for work at the TEP Solar Test Yard is reasonable at a moderately reduced level and continued funding of the AZ Rise work by the University of Arizona is also reasonable. The EPRI Distributed Integration Study is currently underway in 2011 and the 2012 funding would complete this two year study. Staff believes that this study should be funded in 2012 for its second year. Staff believes that the second EPRI study on transmission integration should not be funded in 2012, but TEP could consider pursuing funding for it in future years. TEP's proposed R&D budget for 2012 is $956,000. Staff's recommended R&D budget for 2012 is $723,500.

33. Funding for these projects is as shown in the following table:

Project	**2012 Company Proposed Funding**	**2012 Staff Proposed Funding**
TEP Solar Test Yard	$350,000	$275,000
EPRI Distribution Integration Study	$191,000	$191,000
EPRI Transmission Integration Study	$150,000	$0
AZRise Research	$250,000	$250,000
Dues and Fees	$15,000	$7,500
Total	$956,000	$723,500

Information Technology Costs

34. TEP's proposed 2012 REST plan budget for information technology ("IT") includes a request for $500,000, up from $425,000 that was approved in the 2011 REST plan budget. TEP has indicated to Staff that the Company in 2012 will be in the 2nd year of a major upgrade to its computer systems to track various information related to REST activities. Thus, TEP has stated that this year's requested IT budget is significantly higher than it will be in subsequent years, when

TEP has indicated it will be $100,000 or less annually. Staff believes that it is reasonable to fund TEP's IT budget at $500,000 to complete work on the system upgrades in the 2012 REST plan budget, recognizing that in future years IT costs for TEP will be much lower, at $100,000 or less.

Bright Roofs Program

35. TEP's Bright Roofs Program involves the installation of utility-owned large scale solar systems on rooftops throughout the TEP service territory. TEP would work with various entities to lease rooftop space from them to install grid-tied generation facilities of 250 kW or more. TEP has indicated that to date it has been difficult to procure rooftop space for such installations. For example, TEP had targeted schools for such installations, but due to restrictions in the Arizona Revised Statutes, TEP was prevented from pursuing long term leases with the schools in its service territory. TEP is currently working with other prospective sites for installations under the Bright Roofs program.

36. TEP's July 1, 2011 filing states that it intends to count installations under the Bright Roofs program as non-residential distributed generation for compliance purposes under the REST rules. Staff does not agree that installations under the Bright Roofs Program should be counted toward non-residential distributed generation requirements. Under R14-2-1805.D of the REST rules, an Affected Utility may meet half of its DG requirements from "non-residential, non-utility applications." Staff believes that installations under the Bright Roofs do not qualify as non-utility applications because under the Bright Roofs Program, the installations are owned by TEP. Thus, Staff recommends that the Commission find that installations under the Bright Roofs Program do not quality as non-residential DG for purposes of compliance with the REST rules.

Bright Tucson Community Solar Program

37. TEP is not proposing any changes to the Bright Tucson Community Solar Program tariffs. TEP has reported to Staff that in 2011, as of mid-September 2011, customers had signed up for 1,974 blocks of energy, representing 1.974 MW of renewable energy generating capacity.

Maximum Percentage of System Cost Paid Through Utility Rebates

38. In recent years, TEP's REST plans have included a provision that the maximum percentage of system cost for a customer that could be paid through utility rebates would be 60

percent. The Commission approved a reduction of this percentage in TEP's 2011 REST plan to the 50 percent level. Staff believes that this should be given further consideration. To the extent the maximum percentage can be reduced without significantly impacting the marketplace, such a reduction could result in the most subsidized projects receiving a moderately lower subsidy. This could result in a net increase in the number of projects completed for the same level of total spending. The Company has indicated it did not anticipate that this reduction in the percentage would impact the amount of incentives paid and that TEP does not oppose such a change. Staff believes that a reduction of this level to 40 percent would represent a further modest change, but would be a step toward more efficiently spending REST funds. Staff recommends reducing the maximum percentage of system cost that could be paid through utility rebates to 40 percent for both residential and commercial projects.

Metering Costs

39. TEP has traditionally included funding in its REST plan budget to pay for TEP-owned meters to monitor actual production from renewable installations under its REST program. For 2012, TEP is proposing a budget of $227,982 to pay for these meters. Arizona Public Service Company ("APS") does not use such meters and does not have a similar budget line item for these meters. Staff believes that while such meters are beneficial in knowing with more specificity what production is actually taking place from renewable energy installations, these meters are not required for TEP to meet its REST requirements and Staff recommends not providing funding for these meters in the 2012 REST plan budget.

Provision of Funds Specifically for Builder-Related Residential DG Projects

At the Commission's October 11, 2011 meeting and through filed comments, parties have expressed an interest in seeing the Commission create a separate amount of residential DG funds specifically for use by new home builders. These builders have indicated that they do not believe that TEP's current residential DG program is workable for them, as their projects typically take more than the 180 days that TEP gives residential DG projects to complete their project in order to receive their rebate. TEP has not had such a program in the past and has not proposed such a program as part of its proposed 2012 REST plan. Given the limited time Staff has had to consider

such a proposal, Staff is not proposing the creation of such a program for TEP's 2012 REST plan. However, Staff believes that this proposal may have merit and Staff recommends that TEP, as part of its proposed 2013 REST plan that will be filed with the Commission on July 1, 2012, either propose a set-aside fund specifically for builder-related DG or indicate in its filing why it is not recommending such a program.

2012 REST Budget Proposals and DG Incentive Levels

TEP Proposed Budgets

40. TEP's July 1, 2011 filing contained two budgets, with the only difference in the two budgets being reflected in different amounts of funding for residential DG up-front incentives ("UFIs"). Both budgets reflect a carryover of 2010 REST funds of $4,875,000. The reason for the differential in the two plans is that the Commission, in Decision No. 72033 which approved TEP's 2011 REST plan, required TEP to maintain funding for the residential solar program at the same level it was set for the 2011 plan, $14,358,111. Decision No. 72033 further stated that the Company could argue to decrease this number in its 2012 REST plan. Because TEP is proposing a reduction in the residential DG UFI per watt in its 2012 REST plan in comparison to its 2011 REST plan, maintaining the residential DG UFI budget at the $14,358,111 level would result in TEP overcomplying with the residential DG requirements in the REST rules for 2012.

41. Thus, TEP filed one budget totaling $43,983,326 in spending and $39,108,326 in cost recovery in 2012, including residential DG UFI funding at a level of $14,358,111.

42. TEP filed a second budget reflecting a lower residential DG UFI funding level that would meet residential DG compliance for 2012 but would not exceed compliance, resulting in a reduction of the residential DG UFI budget from $14,358,111 to $12,585,213. Thus, the second budget reflects total spending in 2012 of $42,210,427 and total costs to be recovered in 2012 of $37,335,427.

Staff Proposed Budgets

43. As discussed above regarding various budget line items, Staff is proposing to reduce the 2012 REST plan budget requested by TEP. To provide the Commission with a broad range of possible approaches to TEP's proposed 2012 REST plan budget, Staff will present three

possible options in this Staff Report. The three options and their differing characteristics are described below.

2012 Staff Option 1	2012 Staff Option 2	2012 Staff Option 3
Residential DG UFI Funding of $14,358,111	Residential DG UFI funding of $7,689,938	Residential DG UFI funding of $7,689,938
Commercial DG UFI Funding of $1,114,510	Commercial DG UFI Funding of $1,114,510	No Commercial DG UFI Funding
Commercial DG PBI Funding of $5,972,915	Commercial DG PBI Funding of $5,972,915	No Commercial DG PBI Funding Beyond Existing Commitments
Proposed Budget of $35,524,526	Proposed Budget of $28,856,353	Proposed Budget of $27,522,303

Note: The approved 2011 budget is $35,884,324.

44. The Table below summarizes all of Staff's adjustments to TEP's proposed budgets.

Budget Line Item	TEP 2012 Proposed Budget	Staff 2012 Proposed Budget
TEP Owned Generation	$4,228,918	$2,114,459
Residential UFI	$14,358,111	$14,358,111 (Option 1) $7,689,938 (Options 2 and 3)
Commercial UFI	$1,114,510	$1,114,510 (Options 1 and 2) $0 (Option 3)
Commercial PBI	$5,972,915	$5,972,915 (Options 1 and 2) $5,753,375 (Option 3)
Marketing	$700,000	$100,000
Schools Program	$650,000	$350,000
TEP Training Costs	$100,000	$75,000
Metering	$227,982	$0
Total Labor Costs	$1,728,859	$1,645,000
Solar Test Yard Costs	$350,000	$275,000
EPRI Research	$341,000	$191,000
Dues and Fees	$15,000	$7,500

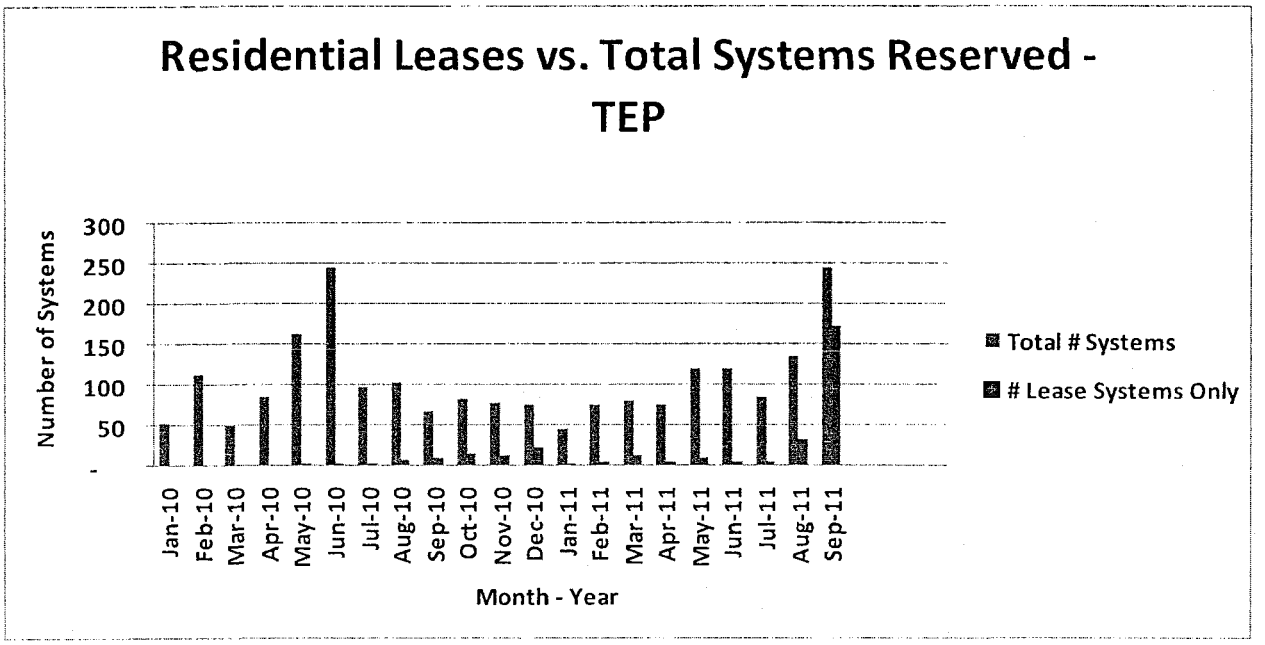
Proposal to Differentiate the Residential DG UFI for Leased and Non-Leased Systems

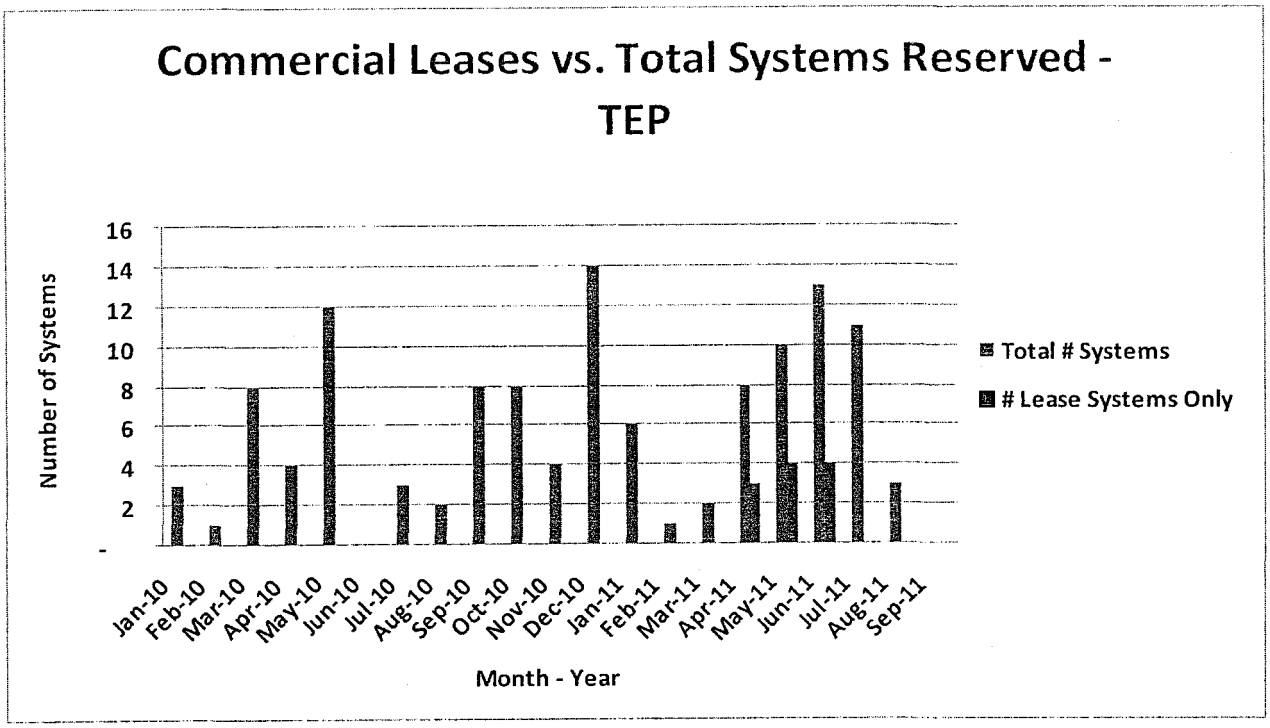
45. TEP is proposing in its 2012 REST plan to differentiate its residential DG UFI between leased and non-leased systems. In past years, all residential DG systems were eligible for the same level of UFI. TEP's proposal is to provide a UFI to non-leased residential DG systems of $1.75 per watt and a UFI of $1.00 per watt for leased systems. TEP has indicated to Staff that it believes that this differentiation is necessary due to various tax and accounting advantages leased systems have that non-leased systems do not have. Absent the proposed differentiation, TEP

believes that non-leased systems will not be competitive in the residential DG market. TEP also has noted to Staff that its proposed $1.00 per watt incentive level for leased systems matches the current $1.00 per watt incentive provided by APS under its rapid reservation program, with leased systems making up a high percentage of systems under the APS program.

46. Specifically, TEP has reported to Staff that it derived the $1.00 per watt proposed incentive for leased systems by starting at the $1.50 per watt proposed incentive for commercial DG systems, given leased systems' perceived similarity to commercial projects. TEP then reduced the incentive level $0.30 per watt for the estimated impacts of federal tax incentives available to leased systems, $0.10 per watt for estimated impacts of state tax incentives for leased systems, and $0.10 per watt for depreciation benefits available to leased systems, resulting in the proposed $1.00 per watt leased system UFI. TEP further has cited a concern with leasing companies' inflation of value of their system cost to receive higher tax credits based upon fair market value. Leasing companies have disputed certain representations made by TEP regarding the issue of cost, accounting treatment, and tax benefits of leased versus non-leased systems.

47. Leased systems had not typically been a significant part of TEP's market until very recently. The graphs below show the number of total and leased systems by month for TEP in 2010 and 2011 for the residential and commercial sectors. Both graphs demonstrate the very recent increase of leased systems in TEP's market, particularly in the residential market.





48. The graphs above demonstrate that leased systems have in very short order become a major factor in the TEP market. In various venues related to this filing, TEP, leasing companies, and other interested parties have made very different representations as to the cost, accounting treatment, and tax benefits of leased systems versus non-leased systems. In the time available to Staff to review TEP's application, Staff has been unable to reconcile the differing representations made by TEP and other parties regarding leased versus non-leased systems.

49. At TEP's October 5, 2011 stakeholder/installer meeting, TEP provided the following comparisons of a non-leased residential DG system with a $1.75 per watt incentive level, a pre-paid lease system at a $1.75 per watt incentive level, a conventional lease at a $1.75 per watt incentive level, and a prepaid lease system at a $1.00 per watt incentive level.

Budget Elements for a 10.24 kW system	**Non-leased System at $1.75 per watt**	**Prepaid Lease at $1.75 per watt**	**Conventional Lease at $1.75 per watt**	**Prepaid Lease at $1.00 per watt**
System Cost	$50,598	$50,598	$50,598	$50,598
Initial Payment		$2,802	$0	$10,671
TEP Incentive	-$17,920			

30% Federal Tax Credit	-$15,179			
Income Tax (25%)	$4,480			
AZ State Tax Credit	-$1,000			
Monthly Payment		$0	$50	$0
Early Buy-out (Year 7)		$1,629	$4,144	$1,306
Total Ratepayer Cost	$20,979	$4,431	$8,344	$11,977
Payback Period	10.9 years	2.3 years	3.2 years	6 years

Note: These examples do not capture the time value of money.

50. Based upon this information, it does appear that leased systems currently have a significant cost advantage over non-leased systems.

51. For purposes of Staff's recommendations in this memorandum, Staff is not proposing to differentiate incentives for residential DG between leased and non-leased systems. The REST rules do not address the treatment of leased versus non-leased systems. Fundamentally, if leased systems can be pursued with a significantly lower incentive level, as TEP's proposed REST plan and other documents indicate, then TEP can do more residential DG systems for less money if a uniform, lower incentive is applied to both leased and non-leased systems. This could result in a lower overall REST budget and lower REST surcharges for TEP's customers.

52. It is also worth noting that long term, if incentive levels continue to drop, they may at some point in the future disappear altogether, at which time there would inherently be no differentiation between incentives for leased and non-leased systems. Thus, if a differential is established, it is possible it will only be effective for some limited period of time into the future until incentives disappear.

Commercial DG Compliance and Treatment of Davis-Monthan Air Force Base Project

53. TEP's commercial DG program has been successful in recent years, resulting in the installation of numerous commercial DG systems, including a very large installation at the Davis-Monthan Air Force Base ("Davis-Monthan") in Tucson. TEP's proposed commercial DG budget . . .

for 2012, shown in the table below, is significantly smaller than it was in 2011, in large part due to the success of the program in recent years resulting in overcompliance by TEP in recent years.

TEP 2012 Proposed Commercial DG Budget	**Line Item Budget**
Commercial DG UFI	$1,114,510
Commercial DG PBI – new commitments in 2012	$219,540
Commercial DG PBI – on-going commitments from past years	$5,753,375
Total Commercial DG Budget	$7,087,425

54. Most of the commercial DG performance-based incentives ("PBI") budget, for on-going commitments from past years, represent long-term commitments made to PBI projects in past years and would be difficult to adjust in any way. The remaining roughly $1.3 million in UFIs and commercial DG PBI new commitments, could be eliminated if the Commission were to seek to only provide funds for TEP to reach compliance and not have TEP achieve over-compliance.

55. A further complication in assessing compliance and overcompliance for TEP's commercial DG program is how the large project at Davis-Monthan is considered. The Davis-Monthan project is a very large DG project that TEP expects to begin operation in 2012, providing 25,500,000 kWh per year when fully installed. While the Davis-Monthan project is very large, Staff is not aware of anyone involved in this proceeding who disputes that the Davis-Monthan project qualifies as a commercial DG project under the REST rules. When the Commission considered TEP's 2011 REST plan, a number of parties expressed concern whether such a large project would impact the rest of the commercial DG market, leaving little or no additional commercial DG resources in upcoming years. TEP has proposed some funding for commercial DG in 2012, in part due to uncertainty as to whether the Davis-Monthan project will come to fruition, as the Air Force base still must receive funding from Congress for the project to move forward. In Decision No. 72033, the Commission expressed concern with the impact the Davis-Monthan project could have on the rest of the commercial DG market. Specifically, the Commission found that TEP shall:

> "notify the Commission as part of all future REST Implementation Plans, whether the inclusion of the Davis-Monthan AFB project in the Company's commercial DE program has precluded any other non-residential renewable DE systems from receiving utility incentives because Tucson Electric Power Company is already in compliance with its non-residential DE requirements as a result of signing the contract with the Davis-Monthan AFB. If Tucson Electric Power Company finds that commercial DE projects will be or were precluded, the Company should request from the Commission additional funding for the commercial systems that would otherwise be precluded."

56. TEP's July 1, 2011 filing in this proceeding states that as of the July 1, 2011 filing no projects have specifically been denied due to the Davis-Monthan project, although six commercial projects were unsuccessful in the monthly award allocation process. TEP has indicated to Staff that these six projects were rejected due to being uncompetitively priced in the monthly PBI solicitation process. TEP has further indicated that because Davis-Monthan, a PBI project, has not begun to operate, it has to date taken no PBI funds and all PBI funds have been awarded through TEP's normal monthly process. Thus, TEP has not proposed any additional commercial DG funding specifically due to the above provision in Decision No. 70233. This representation has been disputed by The Solar Alliance in its August 15, 2011 comments, where it indicates it believes projects have been denied due to the Davis-Monthan project and that additional money should thus be made available. It is difficult for Staff to assess with specificity whether any projects have been denied due to the Davis-Monthan project's existence. It seems likely that there will be disputes every year between TEP and other interested parties regarding whether any other commercial DG projects were precluded due to the Davis-Monthan project. Thus, Staff believes it would be beneficial for the Commission to make a finding regarding treatment of the Davis-Monthan project in regard to whether, or to what extent, it counts towards TEP's commercial DG obligations under the REST rules. Staff believes that it is clear that under the REST rules, the Davis-Monthan project qualifies as a commercial DG project. Thus Staff recommends that TEP report the Davis-Monthan project as a commercial DG project for purposes of compliance with the REST rules. To the extent the Commission wishes to fund additional commercial DG projects in light of the size of the Davis-Monthan project, such commercial DG projects can be given funding, while recognizing that under the REST rules, they are likely to

result in overcompliance by TEP in certain years where the Davis-Monthan project is a major factor.

57. A further consideration regarding whether TEP has met compliance or is overcompliant for commercial DG is Section R14-2-1805.E of the REST rules, which states:

> "An Affected Utility may satisfy no more than 10 percent of its annual Distributed Renewable Energy Requirement from Renewable Energy Credits derived from distributed Renewable Energy Resources that are non-utility owned generators that sell electricity at wholesale to Affected Utilities. This Wholesale Distributed Generation Component shall qualify for the non-residential portion of the Distributed Renewable Energy Requirement."

58. Thus, 10 percent of the total annual DG requirement, equivalent to 20 percent of the total commercial DG requirement, could be met by such wholesale purchases. To date, TEP has not claimed most of its wholesale distributed generation purchases under this provision, even though it has wholesale purchase contracts that would qualify under this provision. For example, TEP indicates that the 2 MW Amonix project would qualify under this provision and is currently operational, with an annual production estimated at 4,000,000 kWh per year.

59. TEP further estimates that an additional 36 MW of such generation will come online, potentially producing 67,800,000 kWh per year. If these wholesale purchases were counted toward TEP's commercial DG requirements, it would result in TEP reaching the 10 percent level of all DG requirements and being even more overcompliant with the commercial DG requirements under the REST rules. Staff thus recommends that TEP report the allowable amount of wholesale DG as commercial DG for purposes of compliance with the REST rules. To the extent the Commission wishes to fund additional commercial DG projects in light of the size of the wholesale DG component eligible to be counted as commercial DG, such commercial DG projects can be given funding, while recognizing that under the REST rules, they are likely to result in overcompliance by TEP in certain years where the wholesale DG is a major factor.

60. Against this backdrop of overcompliance issues for TEP in the commercial sector, industry representatives have expressed concern that with the structure of the REST rules, there may be a significant drop in the amount of DG required in upcoming years. This is fundamentally a result of the design of the REST rules, where the percentage of DG required grows through 2012,

increasing from 5 percent in 2007 to 30 percent in 2012 and years thereafter. The solar industry has, in effect, become reliant on the annual 5 percent per year increase in the DG portion of the REST requirements built into the REST rules through 2012, providing a relatively steady opportunity for more DG projects each year.

61. In comparison, the overall REST requirements increased by 0.25 percent per year through 2009, by 0.5 percent per year from 2010 to 2015, and by 1.0 percent per year from 2016 through 2025. The solar industry's big concern is that the DG component's percentage of overall requirements stops growing before the overall REST component starts growing at the 1.0 percent rate, resulting in a smaller increment of DG requirements from 2013 to 2015. The table below shows the overall REST requirements by year and the DG requirements by year.

Year	Overall REST Requirement	DG Requirement
2006	1.25%	0
2007	1.50%	5.0%
2008	1.75%	10%
2009	2.0%	15%
2010	2.5%	20%
2011	3.0%	25%
2012	3.5%	30%
2013	4.0%	30%
2014	4.5%	30%
2015	5.0%	30%
2016	6.0%	30%
2017	7.0%	30%
2018	8.0%	30%
2019	9.0%	30%
2020	10.0%	30%
2021	11.0%	30%
2022	12.0%	30%
2023	13.0%	30%
2024	14.0%	30%
After 2024	15.0%	30%

62. The September 13, 2011 comments from the Southern Arizona Solar Standards Board ("SASSB") contains a graph on the front page which illustrates the dip in commercial DG requirements under the REST rules for the 2013 to 2015 period. The next page of the SASSB comments shows a second graph, reflecting a proposal by SASSB to shift some portion of DG requirements further in the future into the 2013-2015 period to at least partially fill in the dip

shown for that period. Concerns with not taking action to fill in the 2013-2015 dip include possibly significant declines in installations and industry activity during that period. Staff would note that this issue has existed since the time the REST rules were created and nobody in past years has proposed scaling back the amount of DG in prior years to save some portion of those DG requirements to fill in the 2013-2015 dip. Importantly, this is not an issue that impacts the 2012 REST plans, as 2012 sees another 5 percent step up in the DG portion of the full REST requirements. While Staff believes that this is an issue of importance to the solar industry, it is not an issue that needs to be addressed in the Commission's consideration of the 2012 REST plans. Staff thus recommends that TEP, when it files its proposed 2013 REST plan in mid-2012, include a discussion of this issue in its filing and make a proposal as to whether TEP believes the Commission should take action beyond what is required in the REST rules to address the 2013-2015 dip.

63. As noted above, there are a number of different sources TEP may use to meet its commercial DG requirements under the REST rules, including standard UFI and PBI projects, self-direction of funds such as the City of Tucson, the Davis-Monthan project, and wholesale DG. To date, TEP has not fully used all of these sources in meeting its commercial DG needs. The table below discusses how TEP has accounted for each of these sources in meeting its commercial DG requirements.

Source of Commercial DG RECs	**Treatment to Date for Meeting REST Rule Commercial DG Requirements**
Standard Commercial DG UFI Projects	TEP has counted all of these toward the commercial DG requirements
Standard Commercial DG PBI Projects	TEP has counted all of these toward the commercial DG requirements
Self-Directed Projects, Such as the City of Tucson	TEP has counted all of these toward the commercial DG requirements
Davis-Monthan Project	TEP does not plan to count this project toward meeting the commercial DG requirement. As noted above, the Commission, in approving the 2011 REST plan for TEP, required TEP to ask for further commercial DG funds if the Davis-Monthan project resulted in other commercial DG projects being precluded from receiving commercial DG funds, then TEP should file for additional funding.

Wholesale DG	Only a small portion of eligible resources are counted toward TEP's commercial DG requirements, with the balance being counted toward utility-scale requirements under the REST rules

64. The table below details the cumulative commercial DG requirement through 2012 and how TEP anticipates meeting the requirement, as being shown in the Company's July 1, 2011 filing for approval of the 2012 REST plan.

Cumulative Commercial DG requirement through 2012	49,845,583 kWh
Existing Commercial DG kWh	46,332,945 kWh
Commercial DG kWh required in 2012	3,512,638 kWh
Commercial DG kWh required in 2012 Met By Small Commercial DG kWh in 2012	1,405,055 kWh (1,124,044 PV, 281,011 solar hot water)
Commercial DG kWh required in 2012 Met By Large Commercial PBI kWh in 2012	1,756,319 kWh
Commercial DG kWh required in 2012 Met By Wholesale DG	351,264 kWh

65. The table above reflects only commercial DG used to meet the 2012 REST plan requirement for commercial DG. The tables below compare the next five years for commercial DG, with one scenario showing if TEP counted all possible resources toward commercial DG compliance, and the other scenario showing TEP's proposal for considering some but not all possible resources toward commercial DG compliance; particularly from the Davis-Monthan project and additional wholesale DG that could be used toward meeting TEP's commercial DG requirements in 2012 and beyond.

Scenario Based Upon TEP Proposal

	2012	2013	2014	2015	2016
Overall DG kWh Requirement	99,691,165	116,902,090	133,527,796	150,408,794	182,659,034
Non-Residential DG kWh Requirement	49,845,583	58,451,045	66,763,898	75,204,397	91,329,517
Existing Non-Residential kWh Prior to 2012	46,332,945	49,845,583	58,451,045	66,763,898	75,204,397
Incremental Non-Residential DG Requirement	3,512,638	8,605,462	8,312,853	8,440,499	16,125,120
Incremental Non-Residential DG UFI	1,756,319	4,302,731	4,156,427	4,220,249	8,062,560
Incremental Non-Residential DG PBI	1,756,319	4,302,731	4,156,427	4,220,249	8,062,560

10% Allowed kWh from Wholesale DG per R14.2.805 (Only 10 percent of kWh allowed under this provision is taken under TEP's proposal)	-351,264	-860,546	-831,285	-844,050	-1,612,512
Estimated kWh from Davis-Monthan DG Project (0 percent of kWh allowed are taken)	0	0	0	0	0
Total Required kWh Non-Residential DG After Adjustments	3,161,374	7,744,916	7,481,568	7,596,449	14,512,608
Total Non-Residential UFI DG kWh	1,405,055	3,442,185	3,325,141	3,376,200	6,450,048
Total Non-Residential PBI DG kWh	1,756,319	4,302,731	4,156,427	4,220,249	8,062,560

Note: The two bottom lines in this table represent how TEP would proposed to allocate the third line up, Total Required kWh Non-Residential DG After Adjustments, between non-residential UFIs and PBIs.

Scenario Counting All Available Resources Toward REST Commercial DG Compliance

	2012	**2013**	**2014**	**2015**	**2016**
Overall DG kWh Requirement	99,691,165	116,902,090	133,527,796	150,408,794	182,659,034
Non-Residential DG kWh Requirement	49,845,583	58,451,045	66,763,898	75,204,397	91,329,517
Existing Non-Residential kWh Prior to 2012	46,332,945	46,332,945	46,332,945	46,332,945	46,332,945
Incremental Non-Residential DG Requirement	3,512,638	12,118,100	20,430,953	28,871,452	44,996,572
10% Allowed kWh from Wholesale DG per R14.2.805 (100 percent of kWh allowed under this provision taken	-9,969,117	-11,690,209	-13,352,780	-15,040,879	-18,265,903
Estimated kWh from Davis-Monthan DG Project (100 percent of kWh allowed are taken)	-12,325,000	-24,650,000	-24,650,000	-24,650,000	-24,650,000
Total Required kWh Non-Residential DG After Adjustments	-18,781,479	-24,222,109	-17,571,826	-10,819,427	2,080,669

Note: A negative number in the last line, Total Required kWh Non-Residential After Adjustments, indicates the amount of overcompliance for that year.

66. For wholesale DG, TEP has indicated that the 2 MW Amonix project is currently generating an annual production of 4,000,000 kWh with an additional 36 MW of resources potentially coming on line in the near term future.

Staff Proposed 2012 UFI Incentive Levels

67. TEP's initial filing proposed a residential DG UFI of $1.75 for non-leased systems and $1.00 for leased systems. TEP is further proposing a commercial UFI of $1.50 for commercial DG systems. Subsequent to TEP filing its proposed 2012 REST plan, on September 13, 2011, TEP filed a Notice of Suspension of Acceptance of Residential Incentive Applications Under 2011 REST Plan or, Alternatively, Request to Modify 2011 REST Plan, in Docket Number E-01933A-

10-0266. This was in response to a flood of applications TEP received around the beginning of September 2011, quickly depleting the residential UFI funds. On September 21, 2011, Staff filed a memorandum and proposed order to address TEP's filing. This filing is discussed in more detail in Staff's September 21, 2011 memorandum. Of note though, Staff recommended providing funds for the rest of 2011 at a residential and commercial UFI level of $0.75 per watt. Staff indicated in that memorandum that one reason to set this lower level of incentive is to test the market to see whether TEP will receive applications for systems at the lower incentive level. The Commission approved Staff's proposal for a lower incentive level, but participation levels will not be known at the lower incentive level for awhile. Staff intends to stay in close communication with TEP regarding participations levels if Staff's proposal is approved by the Commission. Ideally the Commission would have this information to consider what level of UFIs to set for 2012. Thus, Staff is making a proposal in this proceeding, but believes that the Commission may wish to revisit this issue later in 2011, when possible results at the $0.75 per watt incentive level would be known. Staff would also note that, as discussed earlier in the Staff report, Staff is not proposing separate residential UFI levels for leased and non-leased systems.

68. Information from TEP indicates that leased system applications are now occurring in both the residential and commercial DG sectors. As noted above, APS' Rapid Reservation Program has been having significant participation through 2011 at the $1.00 per watt UFI level. TEP's application in this proceeding contemplates an incentive level of $1.00 per watt for leased residential DG UFI projects. Thus, Staff believes that there are multiple indications that a $1.00 per watt incentive level may result in significant participation in TEP's market in 2012. Thus, Staff is proposing a residential DG UFI level of $1.00 per watt in 2012. Staff is proposing the same $1.00 per watt UFI level for commercial DG projects in TEP's market in 2012. A side benefit of lowering TEP's proposed $1.50 per watt commercial DG UFI to the $1.00 per watt level proposed by Staff is that any funds allocated toward the commercial DG UFI will stretch further, resulting in more commercial DG installations in 2012.

69. TEP's July 1, 2011 filing contains trigger proposals for the residential and commercial DG UFI incentive levels if participation exceeds 60 percent compliance on or before

June 30, 2012, as TEP's 2011 triggers operated. In TEP's initial filing, the residential incentive trigger would result in a reduction to $1.50 per watt if the trigger were reached. The commercial incentive trigger would result in a reduction to $1.25 per watt if the trigger is reached. TEP's 2011 REST plan is the first REST plan to contain such triggers, but neither trigger was reached in 2011. Staff believes that the trigger concept merits continuation, albeit at adjusted levels to reflect Staff's proposed lower UFI levels and with an additional trigger date. Staff believes that the trigger mechanism needs to be more aggressive, given that funds tend to run out later in the year and there may be further reductions in the cost of renewable resources as the year progresses. Staff is proposing three separate triggers.

70. Thus, under Staff's proposal for residential DG, the UFI would be reduced to $0.85 per watt if 45 percent compliance is reached on or before June 30, 2012. In like manner, for commercial DG, the UFI would be reduced to $0.85 per watt if 45 percent compliance is reached on or before June 30, 2012. The second triggers for both residential and commercial DG would, if the June 30, 2012 trigger had been reached, reduce the incentive to $0.70 per watt if 70 percent or more of the incentive funding is reserved prior to September 30, 2012. If the June 30, 2012 trigger has not been reached, then the second trigger would reduce the incentive to $0.85 per watt. The third trigger would involve a step-down in the incentive level if 90 percent compliance is reached on or before November 30, 2011. The incentive would then be reduced to $0.50 per watt if both previous triggers were reached, $0.70 per watt if one previous trigger was reached, and $0.85 per watt if no previous triggers were reached in 2012. The chart below lays out how the overall trigger mechanism would work.

Date of Trigger	**Compliance Level to Activate Trigger**	**Incentive Level If Trigger Activated**
June 30, 2011	45%	$0.85 per watt
September 30, 2011	70%	$0.85 per watt if June 30 trigger was not activated. $0.70 per watt if June 30 trigger was activated.

November 30, 2011	90%	$0.85 per watt if no previous 2012 triggers activated. $0.70 if one previous 2012 trigger activated. $0.50 per watt if both previous 2012 triggers activated.

71. On the day that any trigger is activated, TEP will notify the solar industry by e-mail and TEP will provide a similar notice on its website. The mechanics of the residential and commercial triggers would include timely notification to the Commission and installers if the trigger is reached. As well, Staff recommends that TEP post information on its own website, and on the Arizonagoessolar.org website at least every two weeks, regarding its progress toward reaching the triggers.

72. At the Commission's October 11, 2011 Open Meeting, there was discussion regarding TEP's commitment to providing additional funding at current incentive levels to 75 customers even after the approved budget for residential DG was fully depleted. Staff is concerned that such events could occur again in the future. Thus, Staff recommends that TEP not commit to or expend any further ratepayers funds for UFI or PBI incentives once a given year's approved level of funds is depleted, absent approval from the Commission for such action.

2012 REST Plan Overall Budget Options

73. The table below shows proposed spending levels by area for TEP's proposed 2012 REST budget options and Staff's proposed 2012 REST budget options.

Budget Components	**2012 TEP Option 1**	**2012 TEP Option 2**	**2012 Staff Option 1**	**2012 Staff Option 2**	**2012 Staff Option 3**
Purchased Renewable Energy					
Above market cost of conventional generation	$12,377,000	$12,377,000	$12,377,000	$12,377,000	$12,377,000
SunEdison	$1,045,500	$1,045,500	$1,045,500	$1,045,500	$1,045,500
TEP Owned	$4,228,918	$4,228,918	$2,114,459	$2,114,459	$2,114,459
Subtotal	*$17,651,418*	*$17,651,418*	*$15,536,959*	*$15,536,959*	*$15,536,959*
Customer Sited Distributed Renewable Energy					

Up-front incentive – residential	$14,358,111	$12,585,213	$14,358,111	$7,689,938	$7,689,938
Up-front incentive – commercial	$1,114,510	$1,114,510	$1,114,510	$1,114,510	$0
Annual Performance-Based Incentive (PBI)	$5,972,915	$5,972,915	$5,972,915	$5,972,915	$5,753,375
Meter Reading	$19,531	$19,531	$19,531	$19,531	$19,531
Marketing	$700,000	$700,000	$100,000	$100,000	$100,000
Subtotal	*$22,165,067*	*$20,392,169*	*$21,565,067*	*$14,896,894*	*$13,562,844*
Technical Training					
Schools Program	$650,000	$650,000	$350,000	$350,000	$350,000
Internal and Contractor Training	$100,000	$100,000	$75,000	$75,000	$75,000
Subtotal	*$750,000*	*$750,000*	*$425,000*	*$425,000*	*$425,000*
Information Systems					
Subtotal	*$500,000*	*$500,000*	*$500,000*	*$500,000*	*$500,000*
Metering					
Subtotal	*$227,982*	*$227,982*	*$0*	*$0*	*$0*
Labor and Administration					
Labor, Materials, Supplies	*$1,728,859*	*$1,728,859*	*$1,645,000*	*$1,645,000*	*$1,645,000*
AZ Solar Website	*$4,000*	*$4,000*	*$4,000*	*$4,000*	*$4,000*
Subtotal	*$1,732,859*	*$1,732,859*	*$1,649,000*	*$1,649,000*	*$1,649,000*
Research and Development					
Solar test yard	$350,000	$350,000	$275,000	$275,000	$275,000
AZRISE	$250,000	$250,000	$250,000	$250,000	$250,000
EPRI Research	$341,000	$341,000	$191,000	$191,000	$191,000
Dues and Fees	$15,000	$15,000	$7,500	$7,500	$7,500
Subtotal	*$956,000*	*$956,000*	*$723,500*	*$723,500*	*$723,500*
Total Spending	*$43,983,326*	*$42,210,427*	*$40,399,526*	*$33,731,353*	*$32,397,303*
Carryover 2010 Funds	*-$4,875,000*	*-$4,875,000*	*-$4,875,000*	*-$4,875,000*	*-$4,875,000*
Total Amount for Recovery	*$39,108,326*	*$37,335,427*	*$35,524,526*	*$28,856,353*	*$27,522,303*

Note: TEP projects that $250,000 will be self-directed by the City of Tucson in 2012. This amount is not reflected in the budget numbers above, as the money paid in REST charges by the City of Tucson to TEP and then is directed back to the City of Tucson for renewable projects and thus is not being recovered through the general REST charge.

Recovery of Funds Through 2012 REST Charge

74. TEP's proposed caps and per kWh charge are designed to recover TEP's proposed recovery amounts of $39.1 million and $37.3 million for the two options provided by TEP. Staff's proposed caps and per kWh charge are designed to recover Staff's proposed budget of $35.5 million, $28.9 million and $27.5 million for the three options provided by Staff.

75. The table below shows the proposed surcharge per kWh for each TEP and Staff option as well as the proposed caps under each option, in comparison to what is currently in effect for 2011.

	2011 Approved	**2012 TEP Option 1**	**2012 TEP Option 2**	**2012 Staff Option 1**	**2012 Staff Option 2**	**2012 Staff Option 3**
REST Charge (per kWh)	$0.007121	$0.007914	$0.007578	$0.008051	$0.006875	$0.006733
Class Caps						
Residential	$4.50	$5.00	$4.75	$4.00	$3.00	$2.75
Small Commercial	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00
Large Commercial	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Industrial and Mining	$5,500.00	$6,130.00	$5,810.00	$6,500.00	$5,500.00	$5,500.00
Public Authority	$180.00	$200.00	$190.00	$170.00	$135.00	$130.00
Lighting	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00

76. The cost recovery by customer class for the approved 2011 REST plan and estimates for the TEP and Staff options for the 2012 REST plan are shown in the table below.

	2011 REST Plan	**2012 TEP Option 1**	**2012 TEP Option 2**	**2012 Staff Option 1**	**2012 Staff Option 2**	**2012 Staff Option 3**
Residential	$15,905,157 (44.3%)	$17,621,223 (45.1%)	$16,804,258 (45.0%)	$14,894,973 (41.9%)	$11,393,721 (39.5%)	$10,558,881 (38.4%)
Small Commercial	$10,441,814 (29.1%)	$11,670,521 (29.8%)	$10,944,134 (28,8%)	$11,238,111 (31.6%)	$9,532,947 (33.0%)	$9,286,637 (33.7%)
Large Commercial	$6,781,882 (18.9%)	$6,147,200 (15.7%)	$5,876975 (15.7%)	$5,622,078 (15.8%)	$4,758,361 (16.5%)	$4,529,191 (16.5%)
Industrial and Mining	$1,793,166 (5.0%)	$2,575,100 (6.6%)	$2,440,377 (6.5%)	$2,731,826 (7.7%)	$2,311,308 (8.0%)	$2,311,849 (8.4%)
Public Authority	$729,519 (2.0%)	$826,753 (2.1%)	$788,432 (2.1%)	$763,968 (2.2%)	$626,566 (2.2%)	$607,812 (2.2%)

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Lighting	$232,786 (0.7%)	$270,000 (0.7%)	$258,555 (0.7%)	$273,682 (0.8%)	$233,554 (0.8%)	$228,620 (0.8%)
Total	$35,884,324	$39,110,797	$37,335,477	$35,524,639	$28,856,457	$27,522,498

Note: The amount shown for 2011 for the industrial/mining class is that which was provided by TEP to Staff during review of TEP's 2011 REST plan. TEP subsequently discovered that this number did not accurately reflect all the meters billed in this category, as there are multiple billed meters for some customers in this class. The amount of the error in the 2011 estimate is approximately $1,056,000. Thus, the 2011 number is lower than it should have been. This correction does not result in any changes in what any customers were billed, just in how it was shown in the documents provided by TEP during the Commission's review of the 2011 REST plan.

77. For comparison purposes, the table below shows the projected MWH sales by customer class for 2012.

Customer Class	**2012 Projected Sales (MWH)**
Residential	3,926,054 (37.4%)
Small Commercial	2,022,442 (19.2%)
Large Commercial	2,275,501 (21.7%)
Industrial and Mining	2,041,072 (19.4%)
Public Authority	211,163 (2.0%)
Lighting	33,177 (0.3%)
Total	10,509,408

78. The table below shows the contribution, per kWh consumed, for each customer class (projected class cost recovery divided by projected class kWh sales). The table thus provides a comparison of the relative contribution to REST funding by each customer class on a per kWh basis. Staff's proposal for class caps and the per kWh charge is intended to gradually move the customer classes closer to one another in terms of their contribution per kWh consumed in each customer class.

Contribution by Customer Class (per kWh)	**2011 REST Plan (per kWh)**	**2012 TEP Option 1 (per kWh)**	**2012 TEP Option 2 (per kWh)**	**2012 Staff Option 1 (per kWh)**	**2012 Staff Option 2 (per kWh)**	**2012 Staff Option 3 (per kWh)**
Residential	$0.0041	$0.0046	$0.0044	$0.0039	$0.0030	$0.0027
Small Commercial	$0.0059	$0.0057	$0.0057	$0.0055	$0.0046	$0.0045
Large Commercial	$0.0035	$0.0049	$0.0047	$0.0045	$0.0038	$0.0036
Industrial/ Mining	$0.0009	$0.0012	$0.0012	$0.0013	$0.0011	$0.0011
Public Authority	$0.0035	$0.0039	$0.0038	$0.0036	$0.0030	$0.0029
Lighting	$0.0070	$0.0078	$0.0075	$0.0079	$0.0068	$0.0066

79. 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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	2011 REST Plan	2012 TEP Option 1	2012 TEP Option 2	2012 Staff Option 1	2012 Staff Option 2	2012 Staff Option 3
Residential - Average Bill	$3.59	$3.97	$3.78	$3.35	$2.57	$2.38
Small Commercial - Average Bill	$24.16	$26.38	$25.72	$25.88	$21.95	$21.39
Large Commercial - Average Bill	$897.30	$823.36	$787.17	$753.02	$637.34	$606.64
Industrial and Mining - Average Bill	$4.886.00	$5,975	$5,662	$6,338	$5,363	$5,364
Public Authority - Average Bill	$55.24	$62.11	$59.23	$57.39	$47.07	$45,66
Lighting - Average Bill	$10.76	$12.67	$12.13	$12.84	$10.96	$10.73
Residential – Percent at Cap	42.8%	41.6%	41.7%	71.8%	71.8%	71.8%
Small Commercial – Percent at Cap	4.8%	4.7%	4.7%	4.7%	4.7%	4.7%
Large Commercial – Percent at Cap	70.0%	44.3%	44.3%	50.3%	52.3%	54.1%
Industrial and Mining – Percent at Cap	81.7%	98.6%	98.6%	98.6%	98.6%	98.6%
Public Authority – Percent at Cap	15.4%	16.1%	16.3%	18.6%	19.7%	19.7%
Lighting – Percent at Cap	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%

80. Estimated customer bill impacts for various monthly consumptions are shown in the table below.

Customer Types	kWh / mo.	2011 REST Plan	2012 TEP Option 1	2012 TEP Option 2	2012 Staff Option 1	2012 Staff Option 2	2012 Staff Option 3
Residence Consuming 400 kWh	400	$2.85	$3.17	$3.03	$3.22	$2.75	$2.69
Residence Consuming 869 kWh	869	$3.59	$5.00	$4.75	$4.00	$3.00	$2.75
Residence Consuming 2,000 kWh	2,000	$4.50	$5.00	$4.75	$4.00	$3.00	$2.75
Dentist Office	2,000	$14.24	$15.83	$15.16	$16.10	$13.75	$13.47
Hairstylist	3,900	$27.77	$30.86	$29.56	$31.40	$26.81	$26.26
Department Store	170,000	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00
Mall	1,627,100	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Retail Video Store	14,400	$102.54	$113.95	$109.13	$115.93	$98.99	$96.95
Large Hotel	1,067,100	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Large Building Supply	346,500	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Hotel/Motel	27,960	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00
Fast Food	60,160	$160.00	$178.00	$170.00	$150.00	$125.00	$120.00
Large High Rise Office Bldg	1,476,100	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Hospital (< 3 MW)	1,509,600	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00

Supermarket	233,600	$1,000.00	$1,110.00	$1,060.00	$950.00	$800.00	$750.00
Convenience Store	20,160	$143.56	$159.54	$152.78	$150.00	$125.00	$120.00
Hospital (> 3 MW)	2,700,000	$5,500.00	$6,130.00	$5,810.00	$6,500.00	$5,500.00	$5,500.00
Copper Mine	72,000,000	$5,500.00	$6,130.00	$5,810.00	$6,500.00	$5,500.00	$5,500.00

81. Staff recommends approval of the proposed Staff Option 2. Staff believes that this recommendation provides adequate funding to more efficiently achieve TEP's 2012 REST goals and even exceed its commercial DG requirement. Staff is cognizant of TEP's uncertainty as to whether the Davis-Monthan project will occur and thus recognizes that for 2012, some level of funding for commercial DG would help ensure that TEP meets its REST requirements even if Davis-Monthan does not move forward with its project. It seems likely that the fate of the Davis-Monthan project will be known by the time the Commission considers TEP's 2013 REST plan next year and can take into account the Davis-Monthan project more fully at that time. Staff Option 2 also provides a reduction in the budget both from the 2011 approved REST plan budget and TEP's proposals for the 2012 REST plan budget. Staff recognizes that the Commission could select Staff Option 3 and still expect to meet the commercial DG requirement for 2012, but Staff believes there is value to providing some level of funding for commercial DG projects, recognizing that during next year's consideration of TEP's 2013 REST plan, there is likely to be further consideration of the dip in new incremental DG required in 2013-2015 as well as commercial DG overcompliance.

Staff's Concerns About REST Plan Formats

82. The Staff is concerned that the REST Implementation Plans and REST Compliance Reports are so diverse in format and content that it is difficult, if not impossible, for Staff and the Commissioners to compare the programs and results from one utility to another. Staff believes that, by developing a standardized template format for both the Implementation Plans and Compliance Reports, the Staff, Commissioners, industry stakeholders and the general public will better be able to consider and compare the plans and performance of all Arizona utilities subject to the REST Rules.

83. In order for the public and the Commission to better understand the Utility Plans and Compliance Reports, Staff believes that the utilities should work cooperatively to develop a

template for detailed spreadsheets that viewers can download and work with to explore alternative scenarios. The detailed spreadsheets shall be in native format, including the assumptions used by the utilities and the data to support the utility calculations. Care must be taken to protect competitively confidential information, so that information would be blacked out in the public version.

84. Staff recommends that the Commission order Tucson Electric Power Company to work with Arizona Public Service Company to jointly lead an effort to establish a REST Format Working Group that would meet periodically with all other utility representatives to develop standardized template formats for both REST Implementation Plans and REST Compliance Reports. Staff recognizes that each utility is unique in a number of ways, so Staff suggests that templates have two parts: mandatory information and optional/other information. The first part would be detailed and identical in format. The second part would be an optional portion with a flexible format that would vary by utility. The Working Group would solicit input, suggestions, and detailed recommendations for stakeholders and the general public. In addition to developing the templates of Implementation Plans and Compliance Reports, the Working Group would develop templates for detailed spreadsheets that would be made available to the public on both the utility website and the ArizonaGoesSolar.org website.

85. The Working Group would submit to the Commission a report with its recommendations no later than September 1, 2012, for Staff approval. The effective date for usage of the templates would be April 1, 2013, for the 2012 Compliance Reports and July 1, 2013, for the 2014 REST Implementation Plans.

Staff Recommendations

86. Staff has recommended that the Commission approve the Staff proposed Option 2 for the 2012 REST plan, reflecting a REST charge of $0.006875 per kWh, and related caps reflected in the Staff proposal. This includes total spending of $33,731,353 and a total budget of $28,857,434.

87. Staff has further recommended that the residential PV Up-Front Incentive be set at $1.00 per watt on January 1, 2012.

88. Staff has further recommended that the non-residential Up-Front Incentive be set at $1.00 per watt.

89. Staff has further recommended that the upper limit for non-residential Production Based Incentives be set at $0.125 per kWh for 70-200 kW systems, $0.105 per kWh for 201-400 kW systems and $0.091 per kWh for 401 kW or higher systems.

90. Staff has further recommended approval of the trigger mechanisms for reducing DG incentives as proposed by Staff, with trigger dates of June 30, 2012 (45 percent) September 30, 2012 (70 percent) and November 30, 2012 (90 percent). Incentive levels would then be set at $0.85 per watt after the first trigger occurs, $0.70 per watt after the second trigger occurs, and $0.50 per watt after the third trigger occurs.

91. Staff has further recommended approval of TEP's new derating chart.

92. Staff has further recommended that in regard to the Bright Tucson Buildout Plan in the 2012 REST plan budget, TEP be allowed to recover half of its requested recovery amount, $2,114,459, through the 2012 REST surcharge.

93. Staff has further recommended that in regard to REST plan budgets in 2013 and beyond, that TEP not be allowed to recover costs from the Bright Tucson Buildout Plan, but rather should seek recovery of those costs in the next general rate proceeding.

94. Staff has further recommended that the Commission approve the buildout program for 2012 as part of TEP's 2012 REST plan, but, consistent with the Commission's decision on TEP's 2011 REST plan, approval should not be granted for additional future years. Rather, TEP should seek approval for further years of the buildout plan as part of the Company's seeking of Commission approval for future annual REST plans.

95. Staff has further recommended that reasonableness and prudency of buildout plan costs be examined in TEP's next rate case and that any costs determined not to be reasonable and prudent be refunded by the Company.

96. Staff has further recommended that in future REST plans, the burden of proof will be borne by TEP to justify the use of ratepayer funds to pay for marketing if TEP proposes to use ratepayer funds for marketing in future REST plans.

97. Staff further recommends approval of TEP's proposed research and development projects and funding as discussed herein.

98. Staff has further recommended that the Commission find that installations under the Bright Roofs Program do not quality as non-residential DG for purposes of compliance with the REST rules.

99. Staff has further recommended reducing the maximum percentage of a project that can be paid for with utility incentives to 40 percent.

100. Staff has further recommended that TEP, as part of its proposed 2013 REST plan that will be filed with the Commission on July 1, 2012, either propose a set-aside fund specifically for builder-related DG or indicate in its filing why it is not recommending such a program.

101. Staff has further recommended that the Commission not differentiate between leased and non-leased systems in setting DG UFIs for TEP's 2012 REST plan.

102. Staff has further recommended that TEP report the Davis-Monthan project as a commercial DG project for purposes of compliance with the REST rules.

103. Staff has further recommended that TEP report the total allowable amount of wholesale DG as commercial DG for purposes of compliance with the REST rules.

104. Staff has further recommended that TEP post information on its own website, and on the Arizonagoessolar.org website at least every two weeks, regarding its progress toward reaching the triggers.

105. Staff has further recommended approval of the School Vocational Program, as discussed herein.

106. Staff has further recommended that TEP not commit to or expend any further ratepayers funds for UFI or PBI incentives once a given year's approved level of funds is depleted, absent approval from the Commission for such action.

107. Staff has further recommended approval of the formation of the REST Format Working Group as discussed herein. TEP and other utilities would submit the Working Group's report and recommendations by September 1, 2012, for Staff approval

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108. Staff has further recommended that TEP file the REST-TS1, 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 October 25, 2011, concludes that it is in the public interest to approve the TEP 2012 Renewable Energy Standard and Tariff Implementation Plan as discussed herein.

ORDER

IT IS THEREFORE ORDERED that the Staff Option 2 for the Tucson Electric Power Company 2012 REST Implementation Plan, reflecting a REST charge of $0.006875 per kWh, and related caps reflected in the Staff proposal be and hereby is approved. This includes total spending of $33,731,353 and a total budget of $28,857,434.

IT IS FURTHER ORDERED that the residential PV Up-Front Incentive be set at $1.00 per watt on January 1, 2012.

IT IS FURTHER ORDERED that the non-residential Up-Front Incentive be set at $1.00 per watt.

IT IS FURTHER ORDERED that the upper limit for non-residential Production Based Incentives be set at $0.125 per kWh for 70-200 kW systems, $0.105 per kWh for 201-400 kW systems and $0.091 per kWh for 401 kW or higher systems.

IT IS FURTHER ORDERED that for residential DG, the UFI be reduced from $1.00 per watt to $0.85 per watt if 45 percent of the incentive funding is reached on or before June 30, 2012. In like manner, for commercial DG, the UFI shall be reduced to $0.85 per watt if 45 percent of the incentive funding is reserved on or before June 30, 2012. The second triggers for both residential and commercial DG shall, if the June 30, 2012 trigger is reached, reduce the incentive to $0.70 per watt if 70 percent or more of the incentive funding is reserved prior to September 30, 2012. If the

June 30, 2012 trigger has not been reached, then the second trigger shall reduce the incentive to $0.85 per watt. The third trigger shall reduce the incentive level if 90 percent of the incentive funding is reserved on or before November 30, 2011. The incentive would then be reduced to $0.50 per watt if both previous triggers are reached, $0.70 per watt if one previous trigger was reached, and $0.85 per watt if no previous triggers are reached in 2012.

IT IS FURTHER ORDERED that Tucson Electric Power Company post information on its own website, and on the Arizonagoessolar.org website at least every two weeks, regarding its progress toward reaching the triggers.

IT IS FURTHER ORDERED that Tucson Electric Power Company's new derating chart be and hereby is approved.

IT IS FURTHER ORDERED that in regard to the Bright Tucson Buildout Plan in the 2012 REST plan budget, Tucson Electric Power Company is allowed to recover $2,114,459 through the 2012 REST surcharge.

IT IS FURTHER ORDERED that in regard to REST plan budgets in 2013 and beyond, that Tucson Electric Power Company not be allowed to recover costs from the Bright Tucson Buildout Plan, but rather may seek recovery of those costs in its next general rate proceeding.

IT IS FURTHER ORDERED that Tucson Electric Power Company's Buildout Program for 2012 be and hereby is approved, but that approval shall not be granted for future years. Tucson Electric Power Company may seek approval for further years of the buildout plan as part of Tucson Electric Power Company's seeking of Commission approval for future annual REST plans.

IT IS FURTHER ORDERED that reasonableness and prudency of buildout plan costs be examined in Tucson Electric Power Company's next rate case and that any costs determined not to be reasonable and prudent be refunded by Tucson Electric Power Company.

IT IS FURTHER ORDERED that in future REST plans, the burden of proof will be borne by Tucson Electric Power Company to justify the use of ratepayer funds to pay for marketing if Tucson Electric Power Company proposes to use ratepayer funds for marketing in future REST plans.

IT IS FURTHER ORDERED that Tucson Electric Power Company's proposed research and development projects and funding be and hereby is approved as discussed herein.

IT IS FURTHER ORDERED that installations under the Bright Roofs Program shall not qualify as non-residential DG for purposes of compliance with the REST rules.

IT IS FURTHER ORDERED that the maximum percentage of a project that can be paid for with utility incentives is 40 percent.

IT IS FURTHER ORDERED that Tucson Electric Power Company, as part of its proposed 2013 REST plan that will be filed with the Commission on July 1, 2012, either propose a set-aside fund specifically for builder-related DG or indicate in its filing why it is not recommending such a program.

IT IS FURTHER ORDERED that the Commission not differentiate between leased and non-leased systems in setting DG UFIs for Tucson Electric Power Company's 2012 REST plan.

IT IS FURTHER ORDERED that Tucson Electric Power Company report the Davis-Monthan project as a commercial DG project for purposes of compliance with the REST rules.

IT IS FURTHER ORDERED that Tucson Electric Power Company report the total allowable amount of wholesale DG as commercial DG for purposes of compliance with the REST rules.

IT IS FURTHER ORDERED that the School Vocational Program be and hereby is approved, as discussed herein.

IT IS FURTHER ORDERED that Tucson Electric Power Company not commit to or expend any further ratepayers funds for UFI or PBI incentives once a given year's approved level of funds is depleted, absent approval from the Commission for such action.

IT IS FURTHER ORDERED that the formation of the REST Format Working Group be and hereby is approved as discussed herein. Tucson Electric Power Company shall submit the Working Group's report and recommendations by September 1, 2012, for Staff approval.

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

IT IS FURTHER ORDERED that this Decision become effective immediately.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION

CHAIRMAN COMMISSIONER

COMMISSIONER COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, ERNEST G. JOHNSON, 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 _____day of _____, 2011.

_____
ERNEST G. JOHNSON
EXECUTIVE DIRECTOR

DISSENT: _____

DISSENT: _____

SMO:RGG:lhm\RM

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