BEFORE THE ARIZONA CORPORATION

COMMISSIONERS
KRISTIN K. MAYES - CHAIRMAN
GARY PIERCE
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR APPROVAL OF ITS RENEWABLE ENERGY STANDARD AND TARIFF IMPLEMENTATION PLAN.	DOCKET NO. E-01933A-09-____ **E-01933A-09-0340**

Tucson Electric Power Company ("TEP" or the "Company"), through undersigned counsel, hereby submits its 2010 Renewable Energy Standard & Tariff ("REST") Implementation Plan (the "Plan") for Arizona Corporation Commission ("Commission") approval, in compliance with Arizona Administrative Code R14-2-1801 *et. seq.* TEP provides the following Plan information:

I. PLAN SUMMARY.

The Plan presents TEP's strategy for meeting the requirements of the REST. The Plan seeks Commission approval of steps TEP is taking to meet the 2010 REST requirements, including modifications to limited aspects of the REST requirements and approvals of multi-year purchase power agreements.

A key feature of the Plan is a diverse renewable portfolio including solar, wind, landfill gas and biomass projects. TEP anticipates that it will enter into purchase power and development agreements, with an emphasis on in-state projects, later this year in order to meet the 2010 REST requirements. TEP will seek Commission approval of these agreements.

It is estimated that the Plan will cost $43.6 million. However, the proposed REST tariff adjustment will recover only $37.1 million of Plan costs. The remaining Plan costs will be

covered by $6.5 million that has already been recovered through the REST tariff. Commission approval of the Plan is a critical step forward for TEP to meet the short-term and long-term goals of the REST.

As the Plan discusses, if meaningful progress is to be made in converting significant portions of TEP's retail sales from conventional resources to renewable energy sources, then the Commission must allow flexibility in this Plan and future plans. TEP's experience with the prior environmental portfolio standard and the 2009 REST implementation plan provide a solid basis to support the flexibility sought in the Plan. For example, TEP is requesting the ability to allocate amounts collected pursuant to the Plan between the Distributed Generation ("DG") funding categories ("residential" and "commercial") rather than be strictly limited to pre-cast percentages. This flexibility will negate the disconnect (and obstacle) that may occur between actual results and estimated forecasts regarding customer participation in DG projects.

TEP's commitment to the REST remains solid as is evidenced by the substantial time and resources it dedicates to the education of its customers regarding renewable energy and the research and development of renewable energy generation in the State of Arizona. TEP believes that the Plan is a realistic strategy for complying with the REST requirements and provides the Commission an important opportunity to approve agreements that will foster the construction of renewable generation for the benefit of Arizona electric service customers.

II. SUMMARY OF RECPP CHANGES.

In Exhibit 5 to its Plan, TEP presents its revised Renewable Energy Credit Purchase Program ("RECPP") which adds clarity to the program and makes it more accessible to all customer sectors interested in developing projects. Information for the RECPP is now organized in modules by technology, and by sector. The proposed language is consistent for all modules regarding PBI, and for the modules relating to Up-Front Incentives ("UFI").

The fundamental content of the RECPP remains consistent with the 2009 plan, with the exception of the following changes:

- Commercial PBI decreases from $0.18/kWh to $0.162/kWh;

- The threshold between small and large commercial projects increases from 20 kWac to 100 kWac;
- The process by which funds for PBI projects are allocated is clarified;
- Specifications for daylighting projects better reflect industry standards;
- Incentives for Residential and Small Commercial ground source heat pump ("GSHP") cooling technology are changed to UFIs, set at $500/ton, not to exceed 30% of the system cost (commercial cap only);
- Incentives for commercial pool-heating PBI (including useful heat/sq. ft. of pool surface) are set at $0.010-$0.011/kWh;
- A Small Commercial Solar Hot Water UFI is added; and
- All Commercial off-grid PV incentives are changed from PBI to UFI.

III. RECOVERY OF LIFETIME COSTS.

TEP requests the recovery of the lifetime costs associated with commercial PBI and utility-scale contracts. TEP estimates the lifetime costs of PBI contracts to be approximately $140.3 million over the next 20 years; the lifetime costs of the utility-scale contracts are unknown at this time.

IV. RESEARCH AND DEVELOPMENT.

In the Plan, TEP is requesting the funding of an EPRI grid management study, a Pima County Solar Map, and proposes the continuation and expansion of the funding of research and development projects with the AzRise Global Institute.

V. CONCLUSION.

WHEREFORE, for the reasons set forth herein, TEP respectfully requests that the Commission issue an Order:

- Approving the Plan;
- Finding that the Plan is in the public interest;
- Finding that the proposed REST Tariff produces just and reasonable rates;

- Providing flexibility in the DG category to allow the transfer of funds between the residential and commercial categories;

- Approving recovery of the entire payment streams of both the commercial Performance-Based Incentive ("PBI") and utility-scale contracts for the full life of such contracts;

- Providing TEP with cost-recovery of lost revenue from net-metering; and

- Providing DG-associated performance incentives.

RESPECTFULLY SUBMITTED this 1st day of July 2009.

TUCSON ELECTRIC POWER COMPANY

By: _____

Philip J. Dion
Michelle Livengood
Tucson Electric Power Company
One South Church Avenue, Suite 200
Tucson, Arizona 85701

and

Michael W. Patten
Roshka DeWulf & Patten, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004

Original and 13 copies of the foregoing
filed this 1st day of July 2009 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Copy of the foregoing hand-delivered/mailed this 1st day of July 2009 to:

Lyn Farmer
Chief Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Janice M. Alward, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Ernest G. Johnson
Director, Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

By: Mary Ippolito

Tucson Electric Power Company's 2010 Renewable Energy Standard & Tariff Implementation Plan

TABLE OF CONTENTS

I. Executive Summary 1

II. 2010 TEP REST Implementation Plan 3

A. The Plan Components 4

1. Existing Generation, Capital Additions and Manufacturing Credits 4

2. PPAs with Third Party Renewable Energy Developers 5

3. Renewable Energy Credit Purchase Program 5

4. Distributed Generation Incentive Programs 6

B. The Plan Budget 7

1. Purchased Renewable Energy 7

2. Customer Sited Distributed Renewable Energy 7

3. Information Systems Integration Costs 7

4. Net Metering Costs 7

5. Reporting Costs 7

6. Outside Coordination and Support Costs 7

7. Renewable Energy hardware Development Costs 8

C. The 2010 REST Tariff 8

D. The Plan's Proposed Modification to the REST 8

1. Regulatory Contract Approval 9

2. REST Funding Flexibility 9

3. REST Tariff and Elimination of the Cap 9

4. Cost Recovery of Net-Metering Losses 10

E. Waivers 10

F. Research and Development 10

1. AzRise R&D Demonstration Project 11

2. TEP Renewable Energy Mapping Project 11

Exhibits

Exhibit 1 Energy and Demand by Technology Forecast
Exhibit 2 REST Budget
Exhibit 3 Definition of Market Cost of Comparable Conventional Generation
Exhibit 4 Above Market Cost of Comparable Conventional Generation by Technology
Exhibit 5 Renewable Energy Credit Purchase Program
Exhibit 6 Builder Credit Purchase Program Description
Exhibit 7 REST – TS1 Tariff
Exhibit 8 REST – TS2 Tariff (Customer Self-Directed)

I. EXECUTIVE SUMMARY.

The 2010 Renewable Energy Standard and Tariff Implementation Plan (the "Plan") presents Tucson Electric Power Company's ("TEP") strategy for meeting the requirements of the Arizona Renewable Energy Standard and Tariff ("REST"). The Plan seeks Arizona Corporation Commission ("Commission") approval of steps TEP is taking to meet the 2010 REST requirements, including modifications to limited aspects of the REST requirements and approvals of multi-year purchase power agreements.

A key feature of the Plan is a diverse renewable portfolio including solar, wind, landfill gas and biomass projects. TEP anticipates that it will enter into purchase power and development agreements, with an emphasis on in-state projects, later this year in order to meet the 2010 REST requirements. TEP will seek Commission approval of these agreements.

It is estimated that the Plan will cost $43.6 million. However, the proposed REST tariff adjustment will recover only $37.1 million of Plan costs. The remaining Plan costs will be covered by $6.5 million that has already been recovered through the REST tariff. Commission approval of the Plan is a critical step forward for TEP to meet the short-term and long-term goals of the REST.

As the Plan discusses, if meaningful progress is to be made in converting significant portions of TEP's retail sales from conventional resources to renewable energy sources, then the Commission must allow flexibility in this Plan and future plans. TEP's experience with the prior environmental portfolio standard and the 2009 REST implementation plan provide a solid basis to support the flexibility sought in the Plan. For example, TEP is requesting the ability to allocate amounts collected pursuant to the Plan between the Distributed Generation ("DG")

funding categories ("residential" and "commercial") rather than be strictly limited to pre-cast percentages. This flexibility will negate the disconnect (and obstacle) that may occur between actual results and estimated forecasts regarding customer participation in DG projects.

TEP's commitment to the REST remains solid as is evidenced by the substantial time and resources it dedicates to the education of its customers regarding renewable energy and the research and development of renewable energy generation in the State of Arizona. TEP believes that the Plan is a realistic strategy for complying with the REST requirements and provides the Commission an important opportunity to approve agreements that will foster the construction of renewable generation for the benefit of Arizona electric service customers.

II. THE PLAN.

Pursuant to the REST (Arizona Administrative Code ("AAC") Rule 14-2-1801, *et seq.*), the annual percentage of TEP's retail sales that must be obtained from renewable resources is 2.5% in 2010, 20% of which must come from DG.

TEP will rely upon (i) existing utility scale renewable generation, capital additions and manufacturing credits, (ii) Purchase Power Agreements ("PPAs") with renewable developers, (iii) Purchases of Renewable Energy Credits, and (iv) DG funding and incentives to meet its obligations under the REST. Exhibit 1, attached hereto and incorporated by reference herein, describes TEP's forecast upon which it has based its utility scale and DG renewable resource requirements under the REST.

The Plan is designed to achieve compliance with the 2010 REST requirements as cost effectively as possible. The cost for the Plan is estimated to be $43.6 million.

The Plan includes modifications to the REST tariff to recover approximately $37.1 million of Plan costs. The difference between the tariff amount of $37.1 million, and the Plan cost of $43.6 million will be covered by $6.5 million of funds previously collected.

Each year TEP will seek approval to adjust the REST tariff to collect the estimated costs for approved programs factoring any true-up of revenue received, and expenses incurred, for prior REST program years.

The Plan also provides TEP the ability to allocate amounts collected pursuant to the Plan between the Distributed Generation ("DG") funding categories ("residential" and "commercial"). This flexibility will negate the disconnect that may occur between actual results and estimated

forecasts regarding customer participation in DG projects.

A summary of the DG costs is included in Exhibit 2, attached hereto and incorporated by reference herein. The estimates contained in Exhibit 2 will be updated each year to determine the necessary level of funding from TEP's customers.

A. The Plan Components.

1. Existing Generation, Capital Additions and Manufacturing Credits.

TEP owns and operates approximately 4.6 MW of solar capacity at its Springerville Generating Station. The Springerville solar array accounts for nearly 9.5% of TEP's utility scale generation requirements. TEP will expand the solar array in early 2010. A build-out of this facility would add nearly 20% of additional solar generation. It is estimated that it will cost approximately $4 million to fund the additional 20% solar generation.

TEP has contracted to purchase 5MW of landfill gas for 2010, which accounts for almost 10% of TEP's utility scale generation requirements.

Pursuant to AAC R14-2-1807, TEP can obtain Renewable Energy Credits ("RECs") resulting from Global Solar Energy, Inc's ("Global Solar") solar panel manufacturing plant located in Tucson, Arizona. The Plan estimates that TEP will utilize manufacturing RECs in 2010, which will account for approximately 5% of TEP's utility scale generation requirements. The value of the manufacturing RECs is estimated to be $1 million in 2010.

2. PPAs with Third Party Renewable Energy Developers.

TEP will enter into PPAs with various renewable developers to meet the remainder of its utility scale obligations under the REST which account for 75% of TEP's utility scale generation requirements.

TEP implemented a competitive procurement process for renewable energy in 2007. TEP uses an Independent Monitor to review the RFP evaluation criteria and process to ensure that a fair and equitable RFP evaluation is performed in comparing bids against one another, as well as against TEP's Market Cost of Comparable Conventional Generation ("MCCCG"). A definition of the MCCCG is set forth in Exhibit 3, attached hereto and incorporated by reference herein. Further, Exhibit 4, attached hereto and incorporated by reference herein, provides the above MCCCG by technology. TEP is issuing a supplemental RFP in 2009, in order to best evaluate renewable energy projects that will capture stimulus funding. TEP estimates that it will cost $11,331,633 to enter into the PPAs. TEP will supplement the Plan by filing with the Commission PPAs for approval.

3. Renewable Energy Credit Purchase Program ("RECPP").

TEP will utilize renewable energy credits pursuant to the RECPP, which will account for 100% of TEP's commercial DG requirement. The cost for TEP to acquire the renewable energy credits is $17.5 million in 2010, or $10.3 million for residential/small commercial up-front incentives ("UFIs") and $7.2 million for large commercial performance-based incentives ("PBIs").

The RECPP is set forth in Exhibit 5, attached hereto and incorporated by reference herein. The following changes in the RECPP from the 2009 submittal are reflected in Exhibit 5:

- Reduced Commercial PBI from $0.18/kWh (20 year contract) to $0.162/kWh;

- Increased the threshold between small and large commercial projects from 20 kWac to 100 kWac;
- Clarified the process for allocating funds for PBI projects;
- Changed specifications for day lighting projects to better reflect industry standards;
- Developed a specific incentive program for ground source heat pumps;
- Altered incentives for Residential and Small Commercial ground source heat pump ("GSHP") cooling technology to be a UFI set at $500/ton, not to exceed 30% of the system cost (commercial cap only);
- Incentives for Commercial pool-heating PBI (including useful heat/sq ft of pool surface) to be at $0.010-$0.011/kWh;
- Added a Small Commercial Solar Hot Water UFI; and
- Awarded all commercial off-grid incentives as a UFI.

4. Distributed Generation Incentive Programs.

TEP will meet a significant portion of its commercial DG and all of its residential DG requirements through third-party installation of solar units at a customer's location. The Plan proposes a DG funding level necessary to support customer-driven demand, thereby allowing for residential/commercial sector flexibility, while still meeting the overall DG requirement of the REST. The Plan estimates a cost for the DG incentive programs of $17.5 million.

TEP's initial DG incentive program budget is described in Exhibit 2 and is based on an estimated 75%-25% commercial-residential allocation.

Annual increases in the program budget are designed to accommodate both an increase in the DG energy target and to account for the increasing levels of commitment to PBIs, which are used primarily for non-residential large-scale DG resources. Three specific allocations are described in the RECPP, including non-residential Up-Front Incentives ("UFIs"), non-residential PBIs, and residential UFIs. The kW threshold for systems that may qualify to receive a UFI has been increased to 100 kW given the necessary market penetration level needed to meet the future REST requirements and the current difficult economic climate that has diminished the disposable

income available to commercial customers interested in installing a roof-top PV system.

B. The Plan Budget.

As previously stated, the cost for the Plan is estimated to be $43.6 million. The Plan budget is set forth in Exhibit 2, attached hereto. The Plan budget provides a detailed breakdown of the cost components for the following categories:

1. Purchased Renewable Energy.

The Plan allocates approximately $12.7 million in order to fund TEP's purchased renewable energy by 2010.

2. Customer Sited Distributed Renewable Energy.

The Plan allocates approximately $22.2 million to customer sited distributed renewable energy.

3. Information Systems Integration Costs.

The Plan allocates approximately $400,000 to information systems integration costs.

4. Net Metering Costs.

The Plan allocates approximately $145,000 to net metering costs.

5. Reporting Costs.

The Plan allocates approximately $250,000 to reporting costs.

6. Outside Coordination and Support Costs.

The Plan allocates approximately $525,000 to outside coordination and support costs.

7. **Renewable Energy Hardware Development Costs.**

The Plan allocates approximately $7.9 million to renewable energy hardware development costs.

C. The 2010 REST Tariff.

The Plan REST Tariff for 2010 will impose a charge of $0.003847/kWh with no customer cap. The 2010 REST Tariff removes the customer cap. The Plan REST Tariff eliminates the existing declining block rate structure. The 2010 REST tariff will result in a lower REST charge on the average customer's bill. The Plan's REST Tariff is set forth in Exhibit 7, attached hereto and incorporated by reference herein. A Customer Self-Directed Tariff is set forth in Exhibit 8, attached hereto and incorporated by reference herein.

D. The Plan's Proposed Modifications to the REST.

As part of the Plan, TEP is requesting that certain provisions of the REST be modified. The requested modifications are warranted based upon the information that has been collected from the past experience with the REST. The requested modifications will increase the likelihood that TEP will continue to make progress in transitioning to the REST requirements in a manner that is in the public interest. The following modifications are part of the Plan and are integral to its success:

1. **Regulatory Contract Approval** – The REST does not expressly provide for TEP and other utilities to obtain Commission approval of PPAs and other REST-related contracts. Such approval is key to obtaining financing for projects on reasonable terms. TEP requests that the Commission approve such contracts and the associated stream of payments over the lifetime

of such contracts. TEP will supplement the Plan by filing PPAs and other REST-related contracts with the Commission for approval. TEP further requests that the Commission order approval of the Plan, acknowledging TEP's requested modification for PPA and other contract approval.

2. **REST Funding Flexibility** – The REST expressly provides that the DG requirement is split evenly between commercial and residential customers. Prior REST plans allocated the applicable DG funds to those customer and residential classes, respectively. However, those plans did not allow for any flexibility to move those DG funds between the commercial and residential budgets. The ability to move REST dollars within the DG funding category is essential to meeting the REST requirements in the most economical manner. Further, since each of those DG budgets are based upon an informed forecast, rather than market realities, it is important that funds can be transferred from one DG category to another to satisfy consumer-driver demand. TEP believes that the ability to move REST adjustor dollars within the distributed generation funding category is essential to meeting the REST requirements in the most economic manner that accounts for consumer-driven demand. Therefore, TEP requests approval of the Plan, acknowledging the need for flexibility in moving dollars between REST DG categories.

3. **REST Tariff and Elimination of the Cap** - Prior REST plans have allocated cost recovery through a tariff that has included a cap. In the Plan, TEP requests that the Commission approve the proposed 2010 REST Tariff without a cap as it eliminates the existing declining block rate structure. Further, the 2010 REST tariff will result in a lower REST charge on the average customer's bill. Therefore, TEP requests approval of the Plan, specifically the REST Tariff with the cap eliminated.

4. **Cost Recovery of Net-Metering Losses** – In this Plan, TEP requests the recovery of losses due to the implementation of the Net Metering rules. While TEP recognizes and supports renewable DG in its service territory, this customer-sited energy generation, along with net-metering, reduces the revenue that TEP derives from energy consumption-based rates, which reduces the opportunity for TEP to recover the costs of, and earn a return on, its fixed assets. Therefore, TEP requests approval of the Plan, allowing recovery of net metering losses.

E. Waivers.

TEP has made great strides in enhancing the residential photovoltaic ("PV") market in its service territory. Last year alone, installation of residential PV DG systems increased approximately 300%, when compared to the average annual Environmental Portfolio Surcharge ("EPS") residential PV implementation in the previous seven years.[1] Even though TEP has made significant progress and seen an increase in the number of residential PV systems installed in its service territory, TEP will not meet this component of the REST and therefore will require a waiver from AAC R14-2-1805.

F. Research and Development.

In order to improve TEP's knowledge of renewable energy, TEP dedicates some of its current REST funding towards research and development. The Plan proposes to continue with TEP's commitment to participate in the following research and development projects:

---

[1] TEP has increased installations from 410 systems at REST start (June 1, 2008) to 590 systems through the first quarter of 2009, a 44% increase in ten months.

1. AzRise R&D Demonstration Project.

The AzRise Global Institute at the University of Arizona ("AzRise") conducts fundamental interdisciplinary solar energy research, backed by accurate and realistic economic analyses, for the deployment and practical implementation of solar energy solutions that TEP believes has direct relevance toward supporting the REST goals. TEP's use of REST dollars spent with AzRise as a research partner helps to further the renewable energy market and helps TEP meet its renewable goals.

In the Plan, TEP proposes to partner with AzRise on a demonstration project. This collaborative project aims to build two pilot renewable energy and storage facilities, as well as incorporate smart grid and micro-grid technologies in order to maximize capacity, efficiency, and integration with the existing grid system. The generation technologies that will be utilized include flat-plate PV, single track axis PV, concentrated solar thermal and concentrated PV, solar trough, and simulated wind. The storage technologies include batteries, super-capacitors, compressed air (above and underground), and other mechanical methods. This project also includes educational and training components.

2. TEP Renewable Energy Mapping Project.

At the recommendation of the Commission, TEP is working on a project to map renewable energy projects in its service territory in order to produce an informative and user-friendly resource. The map, created in partnership with Pima County, will likely utilize Geographic Information System ("GIS") applications, and will provide quick visual information regarding where and when renewable energy technologies are built in the region, color-coded by

technology, and "layered" by sector. This map will be made available on the TEP website, and as a brochure-type option for both customers and developers.

EXHIBIT

"1"

TEP

TEP Exhibit 1 kw and kwh Forecast

	2008	2009	2010	2011	2012	2013	2014
RES Annual Renewable Energy Percentage	1.75%	2.00%	2.50%	3.00%	3.50%	4.00%	4.50%
Energy Sales - MWh Growth @ 1.52%/yr	Seven Months	9,457,814	9,653,820	9,813,592	10,003,633	10,147,800	10,299,385
Expected DSM Program Annual Energy Reductions	5,713,342	63,837	97,308	131,815	167,496	220,257	275,657
Expected DG Program Annual Energy Reductions	31,384	9,943	28,152	47,642	72,256	102,521	117,900
Net Retail Energy Sales in MWh per Year	0	9,384,033	9,528,360	9,634,135	9,763,881	9,825,022	9,905,828
Renewable Energy - MWh	5,681,958						
Utility Scale Renewable							
Minimum Distributed Energy %							
Minimum Distributed Energy MWh	99,434	187,681	238,209	289,024	341,736	393,001	445,762
	89,491	159,529	190,567	216,768	239,215	275,101	312,034
Minimum Residential Distributed Energy %	10.00%	15.00%	20.00%	25.00%	30.00%	30.00%	30.00%
Minimum Residential Distributed Energy MWh	9,943	28,152	47,642	72,256	102,521	117,900	133,729
Maximum Commercial Distributed Energy %	5.00%	7.50%	5.00%	6.25%	7.50%	7.50%	7.50%
Maximum Commercial Distributed Energy MWh	4,972	14,076	11,910	18,064	25,630	29,475	33,432
	5.00%	7.50%	15.00%	18.75%	22.50%	22.50%	22.50%
	4,972	14,076	35,731	54,192	76,891	88,425	100,297

TEP UFI Budget Requirements

	2010	2011	2012	2013	2014
DG kwh required	47,641,800	72,256,014	102,520,750	117,900,264	133,728,681
UFI cumulative required	11,910,450	18,064,004	25,630,188	29,475,066	33,432,170
Existing UFI kwh	4,482,447	11,910,450	18,064,004	25,630,188	29,475,066
UFI kwh required	7,428,003	6,153,554	7,566,184	3,844,878	3,957,104
Res PV %	50.00%	50.00%	50.00%	50.00%	50.00%
Res H20%	12.50%	12.50%	12.50%	12.50%	12.50%
Small Comm PV	25.00%	25.00%	25.00%	25.00%	25.00%
Small Comm H20	12.50%	12.50%	12.50%	12.50%	12.50%
Res PV kwh	3,714,001	3,076,777	3,783,092	1,922,439	1,978,552
Res H2O kwh	928,500	769,194	945,773	480,610	494,638
Small Comm PV kwh	1,857,001	1,538,388	1,891,546	961,220	989,276
Small Comm H20 kwh	928,500	769,194	945,773	480,610	494,638
Res PV kw	2,185	1,810	2,225	1,131	1,164
Res PV systems	546	452	556	283	291
Small Comm PV kw	1,092	905	1,113	565	582
Small Comm PV systems	55	45	56	28	29
Res H20 systems	332	275	338	172	177
Small Comm H20 systems	33	27	34	17	18
Res PV cost	$6,554,120	$5,429,606	$6,676,045	$3,392,540	$3,491,562
Small Comm PV cost	$2,730,883	$2,262,336	$2,781,685	$1,413,558	$1,454,818
Res H20 cost	$497,411	$412,068	$506,664	$257,470	$264,985
Small Comm H20 cost	$497,411	$412,068	$506,664	$257,470	$264,985
Total Cost	**$10,279,825**	**$8,516,079**	**$10,471,058**	**$5,321,037**	**$5,476,349**

TEP PBI Budget Requirements

	2010	2011	2012	2013	2014
DG kwh required	47,641,800	72,256,014	102,520,750	117,900,264	133,728,681
PBI cumulative required	21,731,350	18,460,661	22,698,552	11,534,635	11,871,312
Existing PBI kwh	14,000,000	35,731,350	54,192,011	76,890,563	88,425,198
PBI Required	35,731,350	54,192,011	76,890,563	88,425,198	100,296,510
PBI Cost	$3,520,479	$2,990,627	$3,677,165	$1,868,611	$1,923,153
Max PBI	$0.16	$0.16	$0.16	$0.16	$0.16
Total PBI	**$7,220,479**	**$10,211,106**	**$13,888,271**	**$15,756,882**	**$17,680,035**

Utility-Scale MWH and Budget

Porfolio Percentages based on:	2010	2011	2012	2013	2014
20 MW PV			34,000	34,000	34,000
50 MW Wind			120,000	120,000	120,000
5 MW CSP		13,000	13,000	13,000	13,000
Biogas	28,571	28,571	28,571	28,571	28,571
Sun Edison REC only	5,100	10,200	15,300	15,300	15,300
Springerville Generating Station 4.6 MW	7,820	7,820	7,820	7,820	7,820
Springerville Generating Station '09 .81MW	1,377	1,377	1,377	1,377	1,377
Springerville Genertating Station '10 1 MW	1,700	1,700	1,700	1,700	1,700
WRE 7.5 MW	55,000	55,000	55,000	55,000	55,000
Landfill Gas	18,750	17,813	16,922	16,076	15,272
Total (MWH)	118,318	135,481	293,690	292,844	292,040

TEP Utility-Scale Budget

2010	**$11,331,633**
2011	**$11,724,225**
2012	**$12,157,480**
2013	**$13,486,426**
2014	**$14,370,165**

EXHIBIT

"2"

Exhibit 2

TEP Renewable Energy Standard Tariff
Cost Recovery Factors Definition for 2010

Total REST Budget 2010:	**$**	**37,139,897**

Purchased Renewable Energy:

Above Market Cost of Conventional Generation calculated annually on hourly data per MCCCG Matrix [aa]	$	11,331,633
Transmission direct-use cost [ab]	$	480,000
Transmission line-loss cost	$	-
Grid management ancillary services and day-ahead unit commitment cost	$	-
Grid stability analysis cost allocation, EPRI research, & other RE research costs [ac]	$	200,000
Fuel and maintenance $ assoc. w/ increased CT use and load range ramp cycles to manage over/under scheduled RE	$	-
RFP preparation, issue and evaluation cost [ad]	$	10,000
Independent Auditor cost [ae]	$	25,000
Loss of revenue from off-system sales due to transmission constraints created by transmission alloc. to RE PPA	$	-
Labor overhead allocation cost for purchased renewable power contracts [af]	$	50,000
In-state renewable resource economic development premium payment cost	$	35,000
Total	**$**	**12,131,633**

Customer Sited Distributed Renewable Energy:

Up-front subsidy payment to customers' cost [ba]	$	10,279,825
Annual production-based performance payment to customers' cost [bb]	$	7,220,479
Builder solar energy system program [bc]	$	750,000
Interconnection and net meter application processing labor cost [bd]	$	90,000
Acceptance testing cost [be]	$	180,000
Customer technical support cost [bf]	$	300,000
Annual meter reading cost [bg]	$	92,000
Support tools, materials, transportation and supply cost [bh]	$	75,000
Direct internal labor cost for administration of the customer sited renewable generation program [bi]	$	400,000
Outside services and internal labor for outreach, marketing materials, education and website maintenance cost [bj]	$	500,000
Grid management cost study, EPRI research, and other RE research [bk]	$	500,000
Grid stability analysis and interconnection cost allocation	$	-
Cost-of-service contracts for outside labor for inspections and maintenance [bl]	$	100,000
Loss of revenue from the fixed-cost portion of customer charges displaced by customer self generation	$	1,275,000
Utility Performance Incentives	$	215,398
Customer Self-directed Program	$	210,000
Total	**$**	**22,187,702**

Information Systems Integration Costs:

Annual administrative CC&B cost database upgrades [ca]	$	50,000
Database and customer interface program development and program revision cost	$	-
Capital A&G load allocations for above development work	$	-
CC&B incremental transaction allocation cost for CC&B support [cb]	$	50,000
Work Management System work type and time charging expansion	$	100,000
Geospatial Information System integration	$	100,000
Asset Management System data repository integration	$	100,000
Total	**$**	**400,000**

Net Metering:

Direct material cost for meters [da]	$	64,449
Direct energy credit purchase cost (12 mo. True-up) [db]	$	10,340
Time-of-Use Net Metering Program development cost	$	-
Net Metering data interval recording for load research and program metrics evaluation [dc]	$	70,000
Communications for Net Metering data retrieval	$	-
Total	**$**	**144,789**

Reporting:

Annual Compliance Report and hearing cost [ea]	$	50,000
Annual Planning and Implementation Report and hearing cost [eb]	$	100,000
Annual Tariff review and hearing cost [ec]	$	100,000
Total	**$**	**250,000**

Outside Coordination and Support:		
Support provided to University research projects (eg. AzRise) [fa]	$	250,000
Support through providing information and answering questions of national energy labs cost [fb]	$	25,000
Support through providing information and testing equipment of renewable energy equipment vendors cost [fc]	$	15,000
Responding to renewable energy questions from non TEP customers' cost [fd]	$	10,000
Support of outside service territory renewable energy interest cost [fe]	$	10,000
WREGIS and other renewable energy certification agency fee cost	$	-
Utility Wind Interest Group fee cost [ff]	$	5,000
Solar Electric Power Association fee cost [fg]	$	4,500
Other renewable energy association fees as needed cost [fh]	$	10,000
Training, travel, memberships, periodicals, etc. cost [fi]	$	80,000
Labor allocation cost for outside coordination and support [fj]	$	115,000
Total	**$**	**524,500**
Renewable Energy Hardware Development:		
Technology development projects -- ground source heat pumps, solar test yard, residential wind generation, etc. cost [ga]	$	400,000
Springerville addition 1 MW	$	4,000,000
AzRise matching buildout for Stimulus funds ~ 1MW	$	3,500,000
Energy storage demonstration project cost [gb]	$	-
Operation and maintenance of renewable generation systems cost [gc]	$	50,000
Renewable energy resource monitoring program cost [gd]	$	-
Support of Arizona-wide renewable energy studies cost [ge]	$	-
Up-front funded renewable technology construction cost [gf]	$	-
Development of wind and solar forecasting program costs [gg]	$	-
Development of load-shed systems for managing rapid changes in renewable energy generation levels cost [gh]	$	-
Property taxes, sales taxes and insurance for renewable energy hardware costs [gi]	$	-
Labor overhead, Stores loads, allocation cost for renewable energy hardware development [gj]	$	-
Total	**$**	**7,950,000**
2010 Program Cost	**$**	**43,588,624**
Overcollection of REST Funds from 2008	**$**	**(6,448,727)**
Grand Total	**$**	**37,139,897**

Notes:

aa: 190,567 MWh @ $59.46 per MWH above cost of MCCCG – Purchased Power. Contracts are in addition to existing power purchase contracts, costs are incremental and caused by renewable purchased power contracts.

ab: Cost of acquiring transmission from a third party provider for the 4th quarter of 2010.

ac: Cost of performing annual analysis of hourly delivery intermittencies on grid stability in order to better understand grid impact of intermittent generation sources. Also used to enhance forecasting of renewable development. This reseach is in addition to existing power purchase analysis. Also includes costs for research performed by EPRI and other sources.

ad: Internal development, review, posting, query response, evaluation, contract development and close out – internal TEP personnel, 120 hours. RFPs are in addition to existing power purchase RFPs, costs are incremental and caused by renewable purchased power.

ae: Historic cost basis.

af: Contract administration, settlement review, payment approval, internal overhead – internal TEP personnel, 200 hours. Contracts are in addition to existing power purchase contracts, costs are incremental and caused by renewable purchased power contracts.

ba: Residential & Small Commercial – est. 75% will be PV, 25% will be SDHW. See Exhibit 1

bb: Commercial PBI: Solar PV – 100% * 21.7 GWh/yr/ @ $0.16 = $3.5M. Additional payments from 2008-2009 add $3.7M.

bc: Assumes an incremental .50 /watt DC for 300 homes with an average panel size of 5kWDC.

bd: assume 1 FTE - 601 PV units & 365 hot water/wind @ 1000 units/person/year.

be: assume 2 FTE - 601 PV units & 365 hot water/wind @ 500 units/person/year.

bf: assume 2 FTE - 601 PV units & 365 hot water/wind @ 500 units/person/year + large commercial.

bg: Historic cost basis

bh: Vehicles, small tools, and consumables for 2 mobile units

bi: 3 supervisory/managerial people

bj: Direct-outreach education expense with providers. Includes media purchases, printing, and design.

bk: Study to perform cost/benefit analyis of distributed generation to TEP specific grid characteristics. Will allow TEP to determine location preferences for DG, revenue losses, other costs or benefits. Also includes research performed by EPRI or other sources.

bl: Used for annual inspections, customer support. Based on historic costs extrapolated to 1,200+ customers from $25,000/year for 300 customers.

ca: Estimate – discovery in progress - new programming.

cb: Estimate – discovery in progress - database upgrades.

da: approximately 546 net meters @ $118 incremental cost per meter

db: Estimate based upon approx. 1400 PV systems @ average 148 kWh credit @ $0.05 per kWh

dc: Future One-Quarter time for an energy analyst to collate data, prepare analysis and review cost impacts and effect on lost revenues of net metering.

ea: Historic cost basis, extrapolated to a larger program with more reporting factors.

eb: Historic cost basis, extrapolated to a larger program with more reporting factors.

ec: Historic cost basis, extrapolated to a larger program with more reporting factors.

fa: Funding support for projects to fund renewable research at such entities as AzRise.

fb: Historic cost basis, extrapolated to a larger program with more reporting factors. Program manager level respondent.

fc: Historic cost basis, extrapolated to a larger program with more reporting factors. Program manager level respondent.

fd: Historic cost basis, extrapolated to a larger program with more reporting factors. Administrative level respondent.

fe: Historic cost basis, extrapolated to a larger program with more reporting factors. Administrative level respondent.

ff: AWEA and potential AZ specific wind development

fg: Historic based.

fh: Historic based. Biomass, geothermal, etc.

fi: Historic based

fj: Historic cost basis, extrapolated to a larger program with more reporting factors.

ga: Estimated based on project size and mix.

gb: Estimated based on project size and mix.

gc: Historic based. OH, DAMP and SASS

gd: Historic based.

ge: Historic based.

gf: Operating Headquarters Test Yard

gg: Matching funds for grants in application.

gh: Matching funds for grants in application.

gi: Historic based.

gj: Calculated as 10% of internal labor costs = $0 plus 2% of transaction costs = $0 Total = $0

EXHIBIT

"3"

Exhibit 3

Development of Market Cost of Comparable Conventional Generation for the Renewable Energy Standard and Tariff

Consistent with the Renewable Energy Standard Tariff ("REST") Rules passed by the Arizona Corporation Commission ("Commission"), Tucson Electric Power Company's ("TEP") Renewable Energy Standard and Tariff Implementation Plan contemplates recovery of expenses in excess of the Market Cost of Comparable Conventional Generation ("MCCCG")." The Commission provided guidance on defining MCCCG in the context of its REST Rules and identified the MCCCG as "the Affected Utility's energy and capacity cost of producing or procuring the incremental electricity that would be avoided by the resources used to meet the Annual Renewable Energy Requirement, taking into account hourly, seasonal and long term supply and demand circumstances. Avoided costs include any avoided transmission and distribution costs and any avoided environmental compliance costs." R14-2-1801.11.

The great bulk of Renewable Energy Standard program expenses are expected to be from procurement of renewable energy generation sources, both customer-sited distributed generation and remote utility scale sources through purchased power agreements. There may be some internal renewable generation production sources built if the cost of purchased renewable energy is higher than self built options. The recovery of all expenses through the REST Tariff revenues will, to a very large degree, be affected by the methodology used to derive the MCCCG amount, expected to be an annual number. This document is intended to define the methodology for purchased power or for internally owned renewable generation sources. It may also be used as a comparison point for customer-sited distributed renewable generation resource cost recovery.

The proposed method assumes that an annual revenue requirement figure will build up as a sum from a series of 8,760 (8,784 in a leap year) hourly figures comparing actual renewable generation resource costs for each renewable energy resource purchased or self produced in each hour of the year against the MCCCG in those same hours. The comparable hourly MCCCG may be different for different renewable sources, taking into account the firmness of the renewable generation resource, the curtailability of the renewable generation resource and whether native load requirements were met by internally owned or contracted generation resources or if market purchases were required to meet native load requirements. The following table provides a MCCCG evaluation matrix. The hourly MCCCG cost determination criteria is listed in the box selected by comparing the types of Purchased Renewable Generation with the Market Condition and Dispatch Type. This method of cost determination is very data intensive and will be evaluated at the end of each year by running TEP's PROMOD model software against the purchased renewable generation. The cost of the purchased renewable generation above MCCCG costs will be included in the REST Adjustor Mechanism and REST Tariff.

MCCCG Cost Determination Matrix

Types of Purchased Renewable Generation					
Market Condition and Dispatch Type		Dispatchable Firm Renewable Generation: Fuel/Solar hybrid, Wind/Hydro hybrid, Biomass	Must Run Firm Renewable Generation: Dedicated Landfill Gas or Biogas	Must Run Non-Firm Renewable Generation: Run of Canal or River Hydro	Curtailable Non Firm Renewable Generation: Wind or Solar without firming storage
	Selling to Market from In House Real and Contracted Generation Sources	MCCCG Cost Based on Incremental Production/Purchase Cost of Base Load Generation for that hour.			
	No Market Transactions from/to In House and Contracted Generation Sources				
	Purchasing from Day Ahead Market, but not Spot Market, to meet Native Load Requirements	MCCCG Cost Based on Average Day Ahead Market Price of Purchased Power for that hour.			
	Purchasing from Spot Market to meet Native Load Requirements	MCCCG Cost Based on Average Spot Market Price of Purchased Power for that hour.			

Incremental Production / Purchase of Base Load - The cost of the next kWh (incremental) amount of load that has to be provided by TEP generation sources and/or purchased power. This will be dependent on the season, month and time of day.

If Day Ahead Market or Spot Market purchases are being used to provide for reliability support capacity to meet native load requirements by freeing up in house or contracted generation resources for regulation or spinning reserve purposes for support of native load requirements, that would still represent a Market Purchase for purposes of determining which matrix box is applicable.

EXHIBIT

"4"

Exhibit 4
TEP MCCCG

Costs (REC & Energy) $/MWH	2010	2011	2012	2013	2014
Photo Voltaic	$120.00	$120.00	$110.00	$110.00	$100.00
Wind	$85.00	$85.00	$85.00	$85.00	$85.00
Concentrated Solar	$150.00	$140.00	$130.00	$120.00	$120.00
Biogas	$140.00	$140.00	$140.00	$140.00	$140.00
Sun Edison REC only	$149.59	$156.68	$159.78	$161.42	$163.32
Landfill Gas	$39.59	$46.68	$49.78	$51.42	$53.32

Production MWH/MW	
PV	1700
Wind	2400
CSP	2600
Biomass	8760

Percentage of Portfolio	2010	2011	2012	2013	2014
Photo Voltaic	15.50%	15.21%	14.93%	14.98%	15.03%
Wind	54.69%	53.67%	52.68%	52.88%	53.06%
Concentrated Solar	5.92%	5.81%	5.71%	5.73%	5.75%
Biogas	13.02%	12.78%	12.54%	12.59%	12.63%
Sun Edison REC only	2.32%	4.56%	6.72%	6.74%	6.77%
Landfill Gas	8.55%	7.97%	7.43%	7.08%	6.75%

TEP Energy Requirement	2010	2011	2012	2013	2014
Total DSM Adjusted Retail	9,528,360	9,634,135	9,763,881	9,825,022	9,905,828
Utility Scale	190,567	216,768	239,215	275,101	312,034
DG	47,642	72,256	102,521	117,900	133,729

UNSE Energy Requirement	2010	2011	2012	2013	2014
Total DSM Adjusted Retail	1,931,882	2,030,022	2,065,576	2,095,378	2,134,465
Utility Scale	38,638	45,675	50,607	58,671	67,236
DG	9,659	15,225	21,689	25,145	28,815

Porfolio Percentages based on:	2010	2011	2012	2013	2014
20 MW PV	34,000	34,000	34,000	34,000	34,000
50 MW Wind	120,000	120,000	120,000	120,000	120,000
5 MW CSP	13,000	13,000	13,000	13,000	13,000
Biogas	28,571	28,571	28,571	28,571	28,571
Sun Edison REC only	5,100	10,200	15,300	15,300	15,300
Landfill Gas	18,750	17,813	16,922	16,076	15,272
Total (MWH)	**219,421**	**223,584**	**227,793**	**226,947**	**226,143**

MCCCG	TEP	UNSE
2010	$39.59	$50.47
2011	$46.68	$58.66
2012	$49.78	$61.33
2013	$51.42	$63.19
2014	$53.32	$63.99

Above MCCCG	TEP	UNSE
2010	$59.46	$48.59
2011	$54.09	$42.11
2012	$50.82	$39.28
2013	$49.02	$37.26
2014	$46.05	$35.39

Formula: Above MCCCG = %Technology(AnnualUtilityRequirement)(REC&Energy - MCCCG)...summed across all technologies

TEP Utility-Scale Budget	
2010	$11,331,633
2011	$11,724,225
2012	$12,157,480
2013	$13,486,426
2014	$14,370,165

UNSE Utility-Scale Budget	
2010	$1,877,284
2011	$1,923,258
2012	$1,987,792
2013	$2,186,038
2014	$2,379,168

TEP	2008	2009	2010	2011	2012	2013	2014
RES Annual Renewable Energy Percentage	1.75%	2.00%	2.50%	3.00%	3.50%	4.00%	4.50%
	Seven Months						
Energy Sales - MWh Growth @ 1.52%/yr	5,713,342	9,457,814	9,653,820	9,813,592	10,003,633	10,147,800	10,299,385
Expected DSM Program Annual Energy Reductior	31,384	63,837	97,308	131,815	167,496	220,257	275,657
Expected DG Program Annual Energy Reductions	0	9,943	28,152	47,642	72,256	102,521	117,900
Net Retail Energy Sales in MWh per Year	5,681,958	9,384,033	9,528,360	9,634,135	9,763,881	9,825,022	9,905,828
Renewable Energy - MWh	99,434	187,681	238,209	289,024	341,736	393,001	445,762
Utility Scale Renewable	89,491	159,529	190,567	216,768	239,215	275,101	312,034
Minimum Distributed Energy %	10.00%	15.00%	20.00%	25.00%	30.00%	30.00%	30.00%
Minimum Distributed Energy MWh	9,943	28,152	47,642	72,256	102,521	117,900	133,729
Minimum Residential Distributed Energy %	5.00%	7.50%	10.00%	12.50%	15.00%	15.00%	15.00%
Minimum Residential Distributed Energy MWh	4,972	14,076	23,821	36,128	51,260	58,950	66,864
Maximum Commercial Distributed Energy %	5.00%	7.50%	10.00%	12.50%	15.00%	15.00%	15.00%
Maximum Commercial Distributed Energy MWh	4,972	14,076	23,821	36,128	51,260	58,950	66,864

UNSE	2008	2009	2010	2011	2012	2013	2014
RES Annual Renewable Energy Percentage	1.75%	2.00%	2.50%	3.00%	3.50%	4.00%	4.50%
	Seven Months						
Energy Sales - MWh Growth @ 1.52%/yr	1,034,004	1,826,544	1,949,281	2,055,769	2,100,851	2,143,625	2,192,800
Expected DSM Program Annual Energy Reductior	3,815	7,810	11,948	16,428	20,878	27,455	34,360
Expected DG Program Annual Energy Reductions	0	1,803	5,451	9,319	14,397	20,793	23,975
Net Retail Energy Sales in MWh per Year	1,030,189	1,816,931	1,931,882	2,030,022	2,065,576	2,095,378	2,134,465
Renewable Energy - MWh	18,028	36,339	48,297	60,901	72,295	83,815	96,051
Utility Scale Renewable	16,225	30,888	38,638	45,675	50,607	58,671	67,236
Minimum Distributed Energy %	10.00%	15.00%	20.00%	25.00%	30.00%	30.00%	30.00%
Minimum Distributed Energy MWh	1,803	5,451	9,659	15,225	21,689	25,145	28,815
Minimum Residential Distributed Energy %	5.00%	7.50%	10.00%	12.50%	15.00%	15.00%	15.00%
Minimum Residential Distributed Energy MWh	901	2,725	4,830	7,613	10,844	12,572	14,408
Maximum Commercial Distributed Energy %	5.00%	7.50%	10.00%	12.50%	15.00%	15.00%	15.00%
Maximum Commercial Distributed Energy MWh	901	2,725	4,830	7,613	10,844	12,572	14,408

*Above Information is taken from "Forecast 2009 PEP Summary"

EXHIBIT

"5"

Exhibit 5

Tucson Electric Power Company

Uniform Credit Purchase Program

Renewable Energy Credit Purchase Program

("RECPP")

Definition

2010 – 2014

PROPOSED REVISION

Table of Contents

Solar PV: Residential Projects (<20kw) and Small Commercial Projects (<100 kW) 1-1
Solar PV: Large Commercial PV Projects (>100kW) 2-1
Residential and Small Commercial Solar Water Heating and Space Heating 3-1
Solar Water Heating and Space Heating: Large Commercial 4-1
Ground Source Heat Pumps: Residential and Commercial 5-1
Wind Systems Smaller Than 1 MW 6-1
Commercial Solar Daylighting 7-1
Additional Technologies with Prescriptive Incentives: 8-1
Technologies without Technology Specific Criteria 9-1
Non-Conforming Projects 10-1
Appendix 1: Incentive Summary Tables 11-1
Appendix 2:_Glossary of Terms 12-1

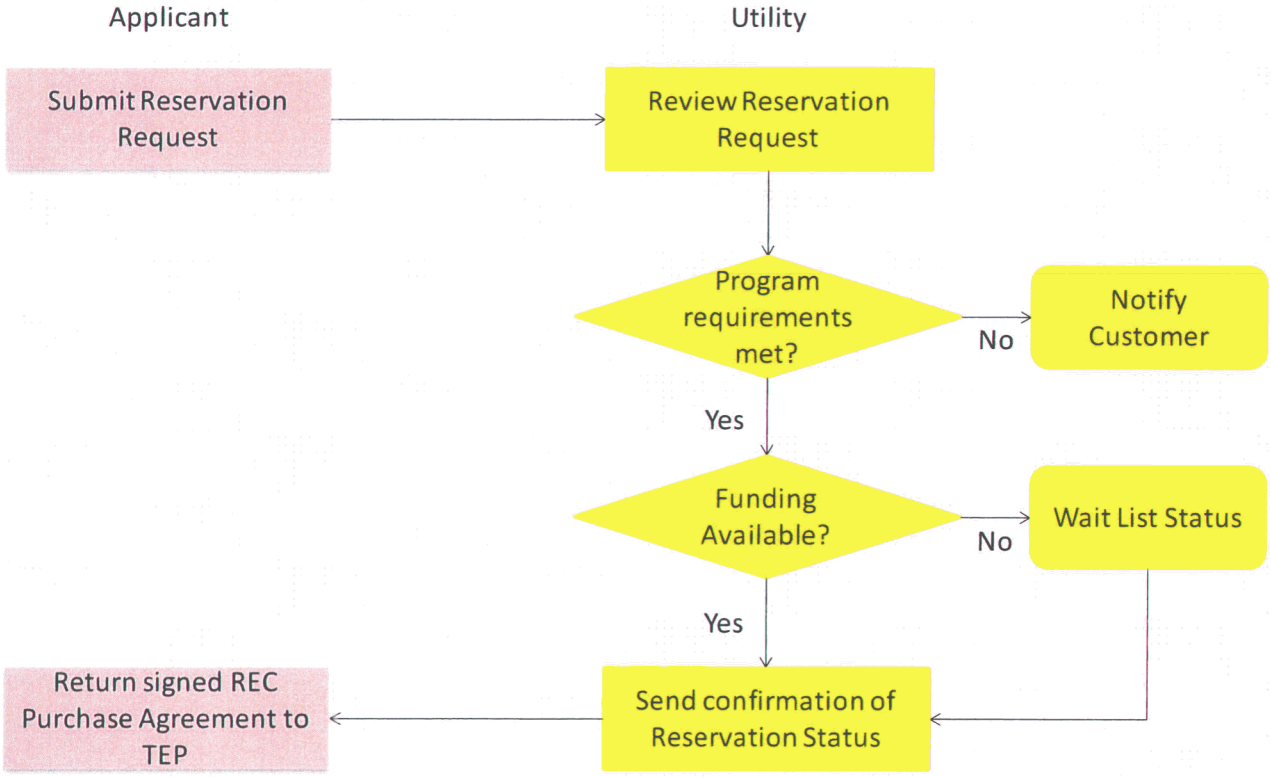
Solar PV: Residential Projects Smaller Than 20 kW and Commercial Projects Smaller Than 100 kW

Tucson Electric Power Company ("TEP" or the "Company") is committed to assisting our customers in developing their own renewable generation resources, through a balanced and supportive renewable energy distributed generation incentive program. Our goal is to create a program that will provide incentives for affordable, environmentally sensitive, customer-sited renewable energy generation systems to supplement TEP customer's energy needs. A properly designed system, matched to a customer's energy use, will provide a reduction in utility bills through the use of renewable resources. This program reflects our commitment to reduce the cost of developing renewable energy resources.

PROCESS FOR OBTAINING INCENTIVES

The process for obtaining incentives from TEP involves the flow of information between the applicant and TEP. The following sections reflect the typical three-step process.

Step 1 – Reservation Request and Assignment of Reservation Status



The applicant must first submit the reservation request to TEP.[1] The reservation request includes information about the TEP customer on whose property the system will be located, the Photovoltaic ("PV") system, the calculation of the incentive, and the installer of the system.

[1] Off-grid projects would submit a different version of the reservation request.

TEP will review the reservation request to ensure the application conforms to program requirements.

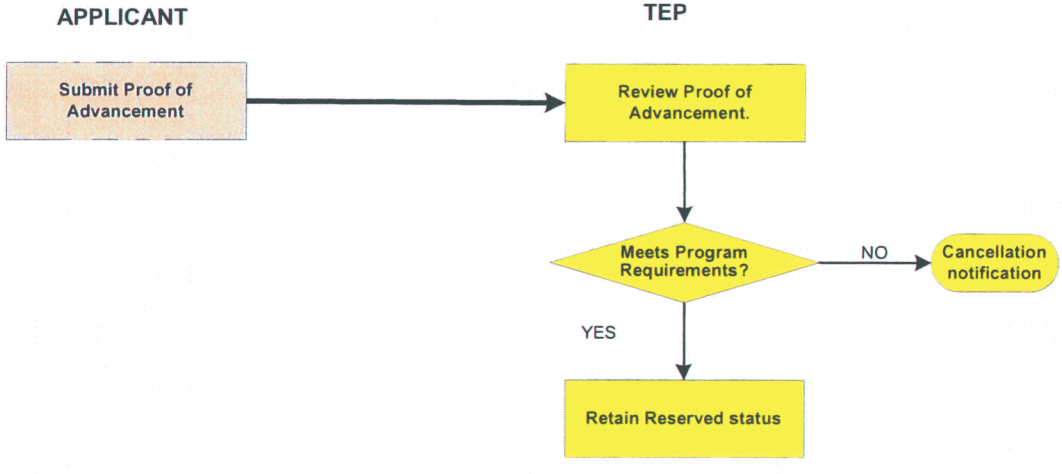
- Reservation requests for residential systems and commercial systems smaller than 100 kW are processed on a first-come, first-reserved basis.
- Reservation requests for residential systems and commercial systems smaller than 100 kW will be reviewed within 30 days of the utility's receipt of the request.

If the reservation request is approved, TEP will send a confirmation to the applicant. A reservation request may be denied for two different reasons, each with its own consequences:

- The reservation request may be denied because the request is not in compliance with program requirements. In this case, TEP will send notification to the applicant of the discrepancies and put the reservation in a "pending" status. The installer will have 14 days to provide the documentation required.
- The reservation request may be denied because it is not in conformance with program requirements. In this case, TEP will send notice that the request is cancelled.
- The reservation request may be denied because funding is not available. In this case, TEP will send a notification to the applicant that the request will be placed on a waiting list.

After reviewing the reservation request, TEP will assign a reservation status.

Step 2 – Proof of Advancement



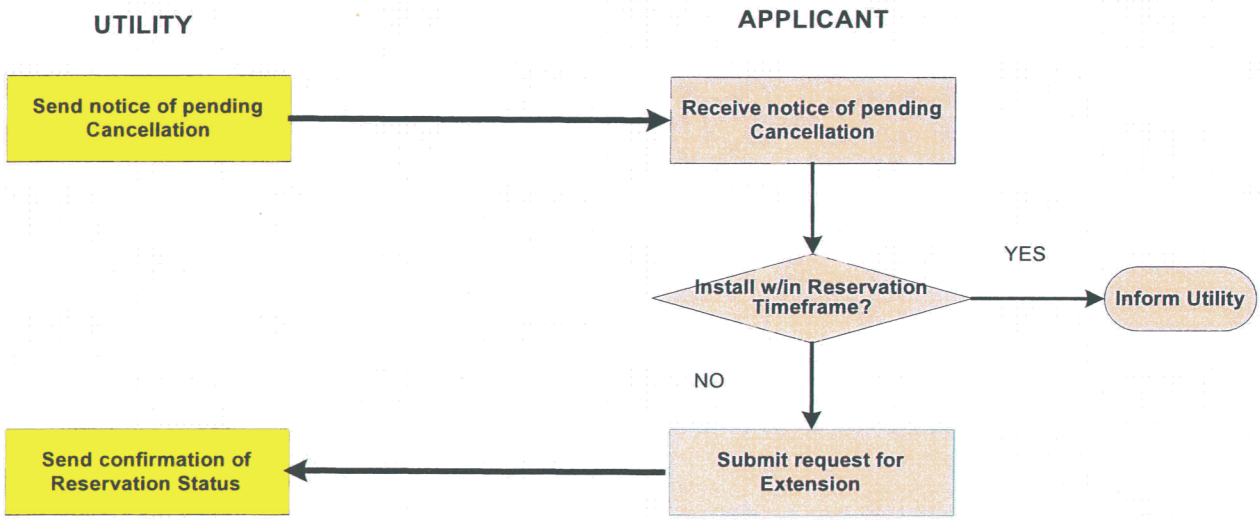
Applicants for residential systems and commercial systems smaller than 100 kW must submit proof of project advancement to TEP within 60 days of the date of reservation confirmation from TEP to retain the reservation. Applicants for residential systems and commercial systems smaller than 100 kW must provide copies of city/county inspection permits to TEP as documentation of the proof of project advancement. If those permits are not available within 60 days of the date of reservation confirmation, the applicant may also provide these documents in place of the permits:

- Signed agreement
- Assignment of Payment form

- Initial city/county-permit application or actual receipt of final acceptance inspection paperwork from the city/county.

If proof of project advancement is not received within the specified timeframe, the applicant will be notified that the reservation is cancelled. The applicant has the option to reapply for funding after the reservation has been cancelled. The request will be processed in the same manner as a new project reservation and will be contingent upon availability of funding at the time the new application is received.

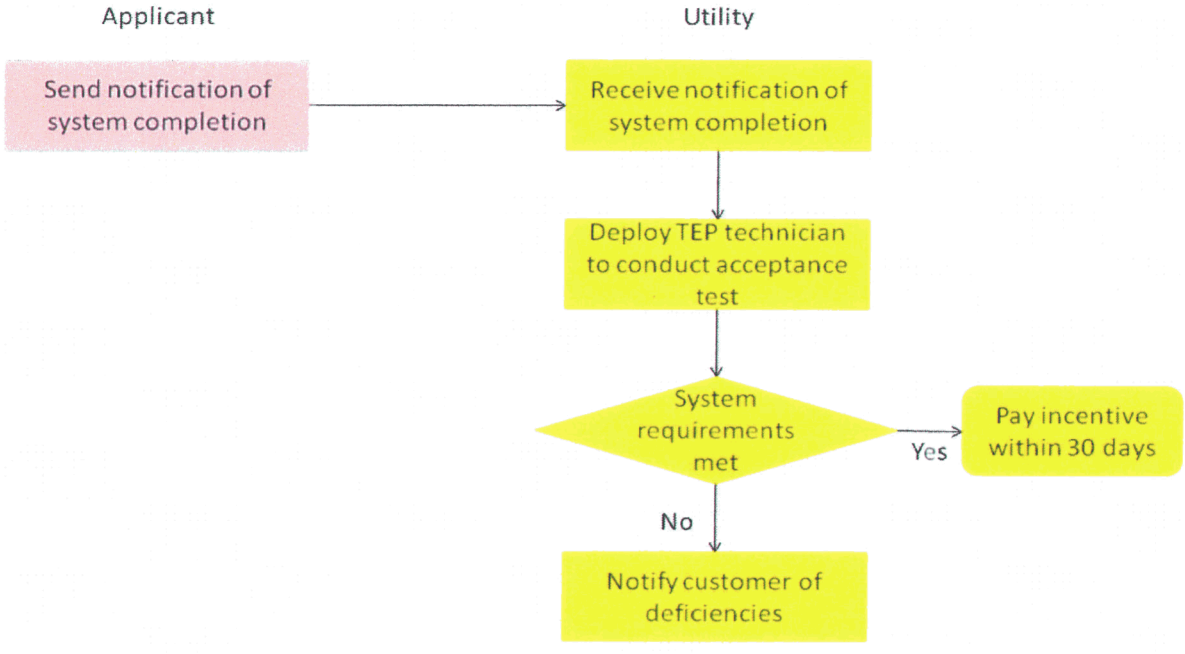
Conditional Step – Extension / Cancellation



If all project requirements are not met within 180 days of the date of the reservation confirmation, the applicant must apply for an extension to remain eligible for the incentive. TEP will trigger this request for extension with a notice of the pending cancellation 30 days prior to the date of scheduled cancellation. TEP will grant an extension for up to 90 days following timely receipt of a customer's request for extension. TEP may approve written extension requests detailing the conditions for delay for periods beyond 90 days under extenuating circumstances.

If all program requirements have not been met within the reservation timeframe, a reservation request will be cancelled unless an extension is granted.

Step 3 – Customer Requests Payment



Upon project completion, the customer must notify TEP that the system has been placed in service. This should be done by submitting a copy of the city/county final inspection permit. When TEP receives notification that the system is complete, TEP will perform an "acceptance test." The acceptance test requires that a TEP inspector test the system's compliance with the required specifications and its performance and determine that it is in line with TEP requirements.

If the system meets TEP specifications and performance requirements, TEP will pay the customer the up-front incentive ("UFI") within 30 days of the acceptance test. If the system fails to meet TEP specifications and performance requirements, TEP will notify the customer within **5** days of the acceptance test. The customer will then have **30** days to address the deficiencies and notify TEP that the system is ready to be retested.

INCENTIVE LEVELS FOR RESIDENTIAL PV SYSTEMS AND COMMERCIAL SYSTEMS SMALLER THAN 100 KW

Residential PV systems and non-residential PV systems smaller than 100 kW are eligible for UFIs. UFIs are those incentives where the customer receives a one-time payment based on the system's designed capacity.

Table 1 identifies the incentives available for residential PV systems and non-residential PV systems smaller than 100 kW.

Table 1. Up-Front Incentives ($/Watt) for On-Grid Residential PV Systems and OnGrid Non-Residential PV Systems Smaller Than 100 kW, and Off-Grid.

Year	Residential	Small-Commercial	Off-Grid
2010	$3.00/W DC	$2.50	$2.00
2011*	$3.00/W DC	$2.50	$2.00
2012*	$3.00/W DC	$2.50	$2.00
2013*	$3.00/W DC	$2.50	$2.00
2014*	$3.00/W DC	$2.50	$2.00

Notes:
*Indicates that the incentive for that year has not yet been approved by the Arizona Corporation Commission ("ACC" or the "Commission"). As such, these incentives are tentative and may change pending Commission approval.

- On-Grid Residential customers will receive a UFI up to a cap of 20 kWac. If a residential system is installed larger than 20 kWdc, TEP will only provide an incentive payment for the first 20 kWdac.
- On-Grid Small commercial customers will receive a UFI up to a cap of 100 kWac. If a small commercial system is installed larger than 100 kWac, it must apply under the large commercial program.
- Off-Grid customers, residential or commercial, will receive a UFI up to a cap of 4 kWac.
- The UFI may not exceed 60% of total System Cost.
- The customer must pay at least 15% of the project cost, after other government incentives (e.g., tax credits) are considered. (See explanation of incentive calculation below.)
- Systems may not be eligible to receive RECPP incentives if other utility incentives are applied.
- As described later in this document, these incentive levels may be decreased because of sub-optimal system positioning.

The incentive amount will be calculated at the time the application is approved for reservation. If federal or state incentives change during the period of time after the reservation approval, the incentive amount reserved will not be changed as long as the reservation is not cancelled.

In return for TEP's payment of a UFI, TEP will be given complete and irrevocable ownership of the RECs until December 31st of the 20th full calendar year after completion of installation of the system. Operational life during that time frame must be supported by system warranty or planned maintenance schedules.

PROJECT FUNDING

Funds will be made available for reservations on a first-come, first-reserved basis, until annual funding is fully reserved. Reservations which are rejected as a result of insufficient funds will be placed on a waiting list and offered the opportunity to retain their original reservation date for one additional quarter without the need to resubmit application documentation. If the incentive level has changed from the date of the original reservation to the date when the reservation is approved, the new incentive level shall be applied.

NET METERING

RECPP incentives can be applied to systems designed to serve only the typical load of the customer with whom the incentive agreement has been established. The assessment of that typical load does not preclude the periodic production of electricity in excess of the customer's demand. All projects must comply with ACC net metering rules.

PROJECT REQUIREMENTS AFTER INSTALLATION

After completing the installation of a residential PV project or commercial PV project smaller than 100 kW, the customer must continue to provide information to TEP about the system's performance.

All customer systems receiving renewable energy self-generation incentives are obligated to include a TEP-supplied production meter, which will report system production to TEP in accordance with the regular meter-reading schedule. TEP, at its option, may perform periodic inspection of the system for operation, metered production, and reporting purposes.

THE FINE PRINT

In addition to the other requirements described in this hand book, there are three other types of program details of which system owners and installers should be aware:

1. Installer qualifications
2. Customer-installed systems
3. System removal

These are described in further detail below.

Installer Qualifications

All systems receiving incentives under the RECPP must be installed by a qualified installer. The following requirements must be submitted by the applicant as part of the reservation request. TEP will verify that the installer meets the following minimum qualifications prior to confirming a reservation request:

1. The installer must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC") with a license classification appropriate for the technology being installed. Alternatively, the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. A copy of the AZROC license must be provided as part of the reservation request.
2. The installer must possess an Arizona business license that is active and in good standing.

Installers may request that the above information be retained on file with TEP; however, under this option the installer must certify that the information on file remains current with the submission of each reservation request. Information on file must be renewed yearly.

Installations by Customer (Residential Photovoltaic and Wind Only)

Residential customers may self-install PV systems 10 kWac or smaller providing they adhere to all applicable codes and standards. The customer-installed systems are eligible for an incentive equal to 70% of the standard UFI, as otherwise listed in Table 1, above. TEP reserves the right to withdraw this self-install qualification condition at any time in the future if TEP finds self-installations are not adhering to the applicable codes and standards or are found to be of poor quality workmanship.

System Removal

If receiving a UFI, neither the Qualifying System nor any components thereof shall be removed from the premises (by either the applicant or future owners or occupants of the property) until December 31st of the 20th full calendar year following completion of system installation of the renewable energy system, without express agreement of TEP. If the Qualifying System is removed by any party in violation of this provision, customer shall immediately reimburse TEP all incentive amounts paid by TEP to customer or on behalf of customer to an authorized third party.

In addition, if a Qualified System is removed, TEP shall monitor that specific customer site to ensure that an additional incentive is not provided for any new distributed renewable energy resource system on that site until the Renewable Energy Credit ("REC") contracted operational life of the original system has been completed.

ADDITIONAL RESOURCES

The following resources provide information regarding system installation and performance forecasting:

The California Energy Commission's Guide to Buying a Photovoltaic Solar Electric System at http://energy.ca.gov/reports/2003-03-11_500-03-014F.PDF

The Arizona Consumers Guide to Buying a Solar Electric System at www.azsolarcenter.com/design/azguide-1.pdf

ATTACHMENT A
System Qualifications for Residential PV Projects and Commercial PV Projects Smaller Than 100 kWac

All solar electric generating Customer Systems must meet the following system and installation requirements to qualify for Tucson Electric Power Company's ("TEP" or the "Company") Renewable Energy Credit Purchase Program ("RECPP"). Capitalized terms not defined herein shall have the meanings ascribed to them in the RECPP Agreement.

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement, which is in conflict with a site-specific governmental requirement, shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Standards

1. The Customer System components must be certified as meeting the requirements of IEEE-929 - Recommended Practice for Utility Interface of Photovoltaic Systems.[2]

2. The Customer System components must be certified as meeting the requirements of UL-1741 - Power Conditioning Units for use in Residential Photovoltaic Power and be covered by a non-prorated manufacturer's warranty of at least two years.

3. Photovoltaic components must be certified by a nationally recognized testing laboratory as meeting the requirements of UL-1703 - Standard for Flat Plate Photovoltaic Modules and Panels Systems and be covered by a non-prorated manufacturer's warranty of at least 20 years.

4. The inverter must be certified as meeting the requirements of IEEE-1547 - Recommended Practice for Utility Interface of Photovoltaic Systems, and it must be UL-1741 certified. Inverters must be covered by a manufacturer's warranty of at least ten years.

[2] Some technology-specific criteria reference third party standards. The requirements of those standards are fully applicable when referenced as part of technology specific criteria. TEP recognizes that new standards are likely to develop in the near future for technologies included in the RECPP, and recommends that the new standards are examined for application in this program definition as they become available.

5. The Customer System design and installation must meet all requirements of the latest edition of the National Electrical Code, including Article 690 and all grounding, conductor, raceway, over-current protection, disconnect and labeling requirements.

6. All other electrical components must be UL listed.

7. The Customer System and installation must meet the requirements of all federal, state and local building codes and have been successfully inspected by the building official having jurisdiction. Accordingly, the installation must be completed in accordance with the requirements of the latest edition of National Electrical Code in effect in the jurisdiction where the installation is being completed (NEC), including, without limitation, Sections 200-6, 210-6, 230-70, 240-3, 250-26, 250-50, 250-122, all of Article 690 pertaining to Solar Photovoltaic Systems, thereof, all as amended and superseded.

8. The Customer System must meet Company and Arizona Corporation Commission interconnection requirements for self-generation equipment.
   See http://images.edocket.azcc.gov/docketpdf/0000074361.pdf for these requirements.

Installation requirements

1. A grid-connected Residential Customer System must have a total solar array nameplate rating of at least 1,200 watts DC and no more than 20,000 watts AC.

2. The Customer System installation must meet the TEP Service Requirements 2000 Edition, Page 1.20, as follows:

   "AN AC DISCONNECT MEANS SHALL BE PROVIDED ON ALL UNGROUNDED AC CONDUCTORS and SHALL CONSIST OF A LOCKABLE GANG OPERATED DISCONNECT CLEARLY INDICATING OPEN OR CLOSED. THE SWITCH SHALL BE VISUALLY INSPECTED TO DETERMINE THAT THE SWITCH IS OPEN. THE SWITCH SHALL BE CLEARLY LABELED STATING "DG SERVICE DISCONNECT."

3. The utility meter and utility disconnect will be installed in a location readily accessible by TEP during normal business hours.

4. Products must be installed according to manufacturers' recommendations.

5. The Customer System photovoltaic panels and modules must face within +/- 100 degrees of true south, and be substantially unshaded from 9 am to 3 pm. System arrays which are facing at an azimuth angle of more than 20 degrees from true south or shaded for more than one hour per day will be subject to a reduced amount of buydown payment per Attachment B.

6. The Customer System photovoltaic panels and modules must be fitted at an angle of 0 degrees to 60 degrees from horizontal. System arrays which are fitted with an elevation angle of less than 20 degrees or more than 35 degrees above horizontal will be subject to a reduced amount of buydown payment per Attachment B.

7. For Residential Customer Systems, Company will provide a meter and meter socket that will be installed in a readily accessible outdoor location by the Customer between the DC to AC converter and the connection to the over-current device in the Customer's electric service panel. For Non-Residential Customer Systems, Company shall provide the meter only, to be installed in a Customer supplied meter socket to be installed in a readily accessible outdoor location by the Customer between the DC to AC converter and the connection to the over-current device in the Customer's electric service panel. Installer must notify TEP of wiring configuration so that TEP may provide the appropriate 3-phase meter.

8. Total voltage drop on the DC and AC wiring from the furthest PV module to the AC meter will not exceed 2%.

9. PV panels and DC to AC inverter will be installed with sufficient clearance to allow for proper ventilation and cooling. At a minimum, manufacturer clearance recommendations will be observed. PV modules may be mounted less than 4 inches above any surface and an additional inch of clearance for each foot of continuous array surface area beyond four feet in the direction parallel to the mounting support surface, only in cases when arrays are flush-mounted to roof pitch. Otherwise, the four-inch spacing and an additional inch of clearance for each foot of continuous array surface area minimum is required.

10. Storage Batteries are not allowed as part of the Customer System unless the inverter is a separate component and TEP can locate the Solar Meter at the inverter's output. If configured otherwise, battery losses will adversely reflect in the annual AC metered energy output. Customer's solar energy generation and energy storage system must meet the requirements of 2 and 3 of this Attachment A.

11. The DC to AC inverter used must provide maximum power point tracking for the full voltage and current range expected from the photovoltaic panels used and the temperature and solar insolation conditions expected in Tucson, Arizona.

12. The DC to AC inverter must be capable of adjusting to "sun splash" from all possible combinations of cloud fringe effects without interruption of electric production.

13. TEP reserves the right to modify standards as technology changes on a case by case basis, pending independent laboratory analysis, Professional Engineer ("PE") stamp, or TEP engineering analysis.

General Requirements

1. All Customer System installations must be completed in a professional, workmanlike and safe manner.

2. Installation must have been made after January 1, 1997.

3. The Customer must be connected to the Company's electric grid, except for approved off-grid systems in conformance with the RECPP.

4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale.

5. The project must comply with applicable local, state, and federal regulations.

6. Products must be installed according to manufacturers' recommendations.

7. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.

8. All major system components must be new and must not have been previously placed in service in any other location or for any other application.

9. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric renewable energy production systems will require customer supplied metering for Performance Based Incentive ("PBI") payment calculation purposes.

10. PV system components shall be properly labeled, including AC & DC disconnects (if present), solar generation meter, service panel (outside cover), and breakers inside the service panel.

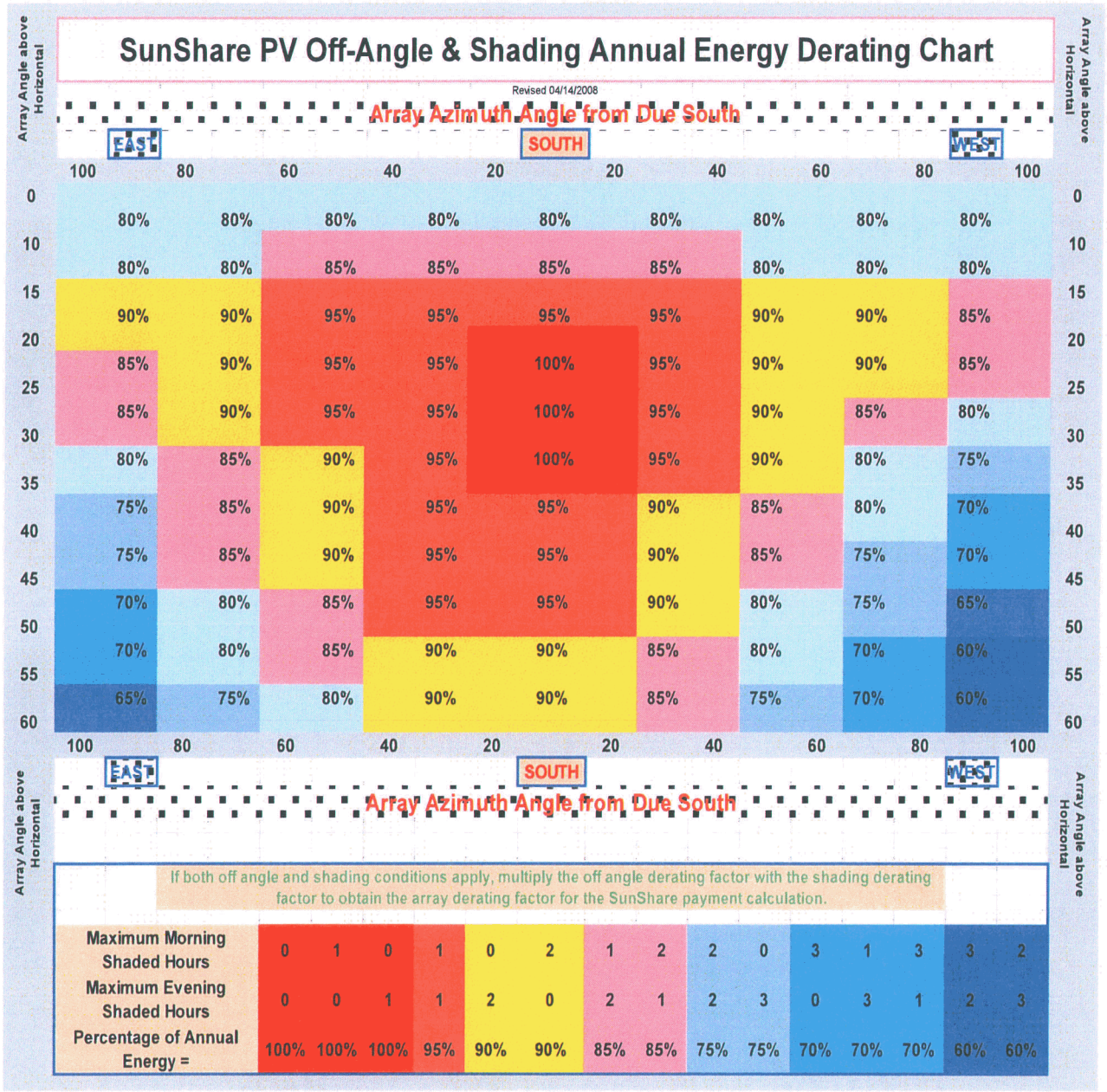
11. The system will in all cases have a material and full labor warranty of at least five years.

Additional Requirements for Off-Grid Systems

1. The minimum PV array size shall be no less than 600 Wdc. The maximum PV array size for customers currently paying into the REST tariff shall not exceed 4,000 Wac. For customers not currently paying into the REST tariff, systems shall not exceed 2,000 Wac.

2. Off-grid systems will not be metered. Compliance reporting production will be based on an annual 20% capacity factor using nameplate DC rating for capacity.

ATTACHMENT B
SunShare PV Off-Angle & Shading Annual Energy Derating Chart



Qualifying systems using Building Integrated Photovoltaic (BIPV) modules of total array capacity of 5 kWdc or less shall receive 90% of the UFI incentive value for PV systems listed in Attachment A. Systems using BIPV modules of total array capacity of greater than 5 kWdc shall be derated based on heating unless the applicant can demonstrate optimal performance.

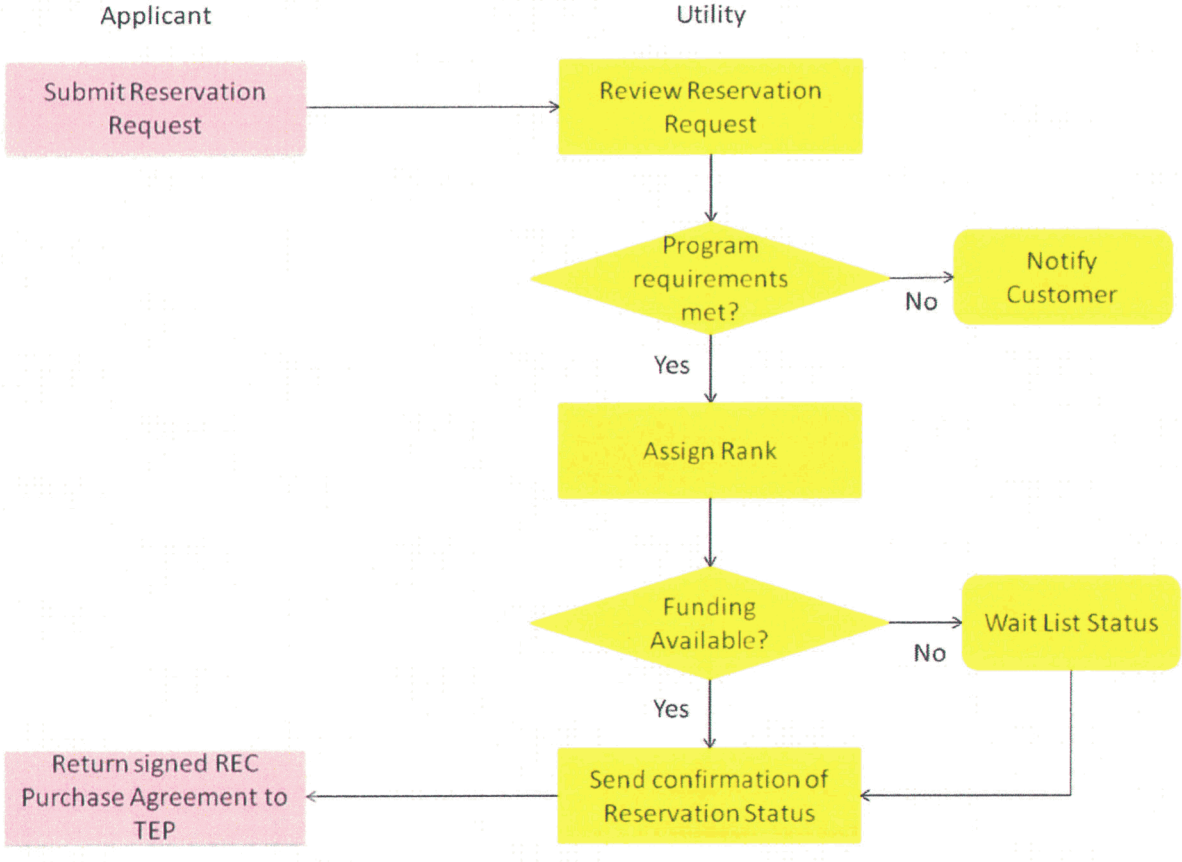
Solar PV: Non-Residential PV Projects Larger Than 100 kW

Tucson Electric Power Company ("TEP" or the "Company") is committed to assisting our customers in developing their own renewable generation resources, through a balanced and supportive renewable energy distributed generation incentive program. Our goal is to create a program that will provide incentives for affordable, environmentally sensitive, customer-sited renewable energy generation systems to supplement TEP customer's energy needs. A properly designed system, matched to a customer's energy use, will provide a reduction in utility bills through the use of renewable resources. This program reflects our commitment to reduce the cost of developing renewable energy resources.

PROCESS FOR OBTAINING INCENTIVES

The process for obtaining incentives from TEP involves the flow of information between the applicant and TEP. The following sections reflect the typical five-step process.

Step 1 – Reservation Request and Assignment of Reservation Status



The applicant must first submit the reservation request to TEP.[3] The reservation request includes information about the TEP customer on whose property the system will be located, the PV system, the calculation of the incentive, and the installer of the system.

TEP will review the reservation request within 90 days of receipt of the request to ensure the application conforms to program requirements.

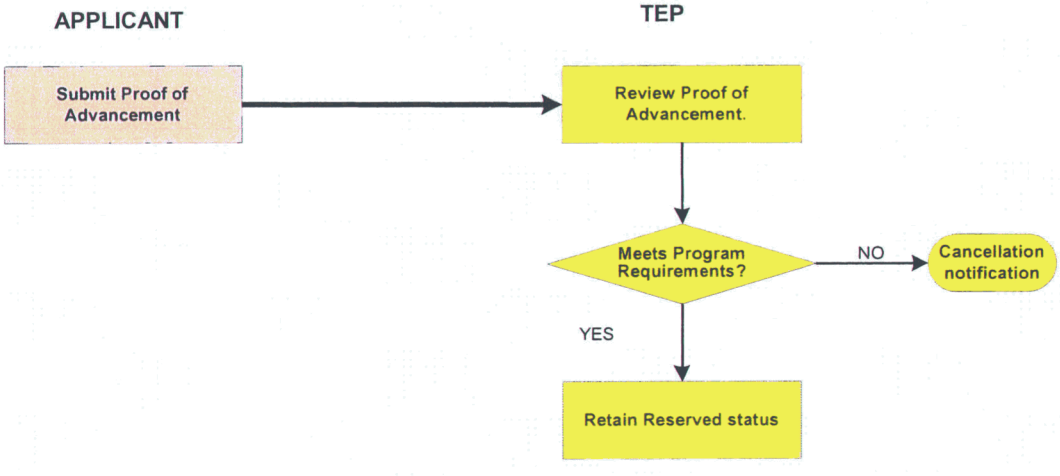
- Reservation requests for non-residential systems larger than 100 kW are assigned a rank based on the lowest expected life cycle credit purchase cost and likelihood of construction.
- In the event of a tie in the ranking, when the program would be fully subscribed if both projects were given reservation status, funds will be awarded based on the date of receipt of the completed reservation request.

If the reservation request is approved, TEP will send a confirmation to the applicant. A reservation request may be denied for two different reasons, each with its own consequences:

- The reservation request may be denied because it is not in conformance with program requirements. In this case, TEP will send notice that the request is cancelled.
- The reservation request may be denied because funding is not available. In this case, TEP will send a notification to the applicant that the request will be placed on a waiting list.

After reviewing the reservation request, TEP will assign a reservation status.

Step 2 – Proof of Advancement



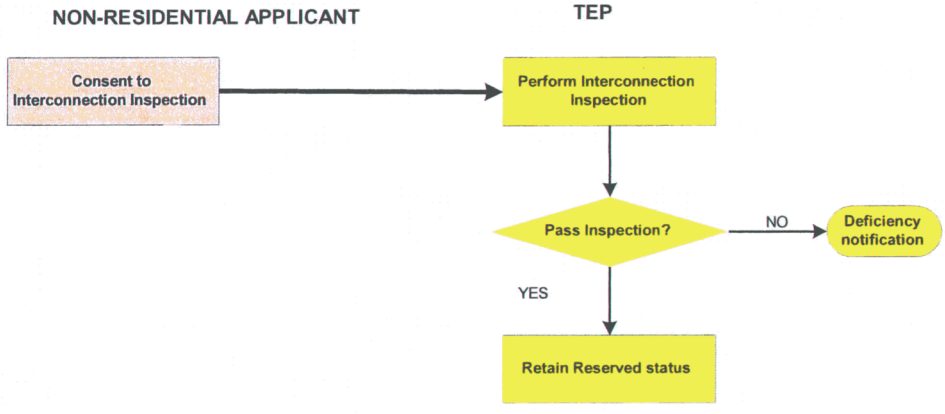
Applicants for non-residential systems larger than 100 kW must submit proof of project advancement to TEP within 120 days of the date of reservation confirmation from TEP to retain the reservation. The Proof of Project Advancement documentation for a non-residential project larger than 100 kW may include the following:

[3] Applicants with off-grid projects would submit a different version of the reservation request.

- A project agreement (between customer and installer);
- An executed installation agreement including all project participants;
- Building and/or construction permits and/or a full set of design development or construction drawings (80% or more complete);
- An executed interconnection agreement (if applicable); and
- A letter from customer committing to utility-accepted in-service date.

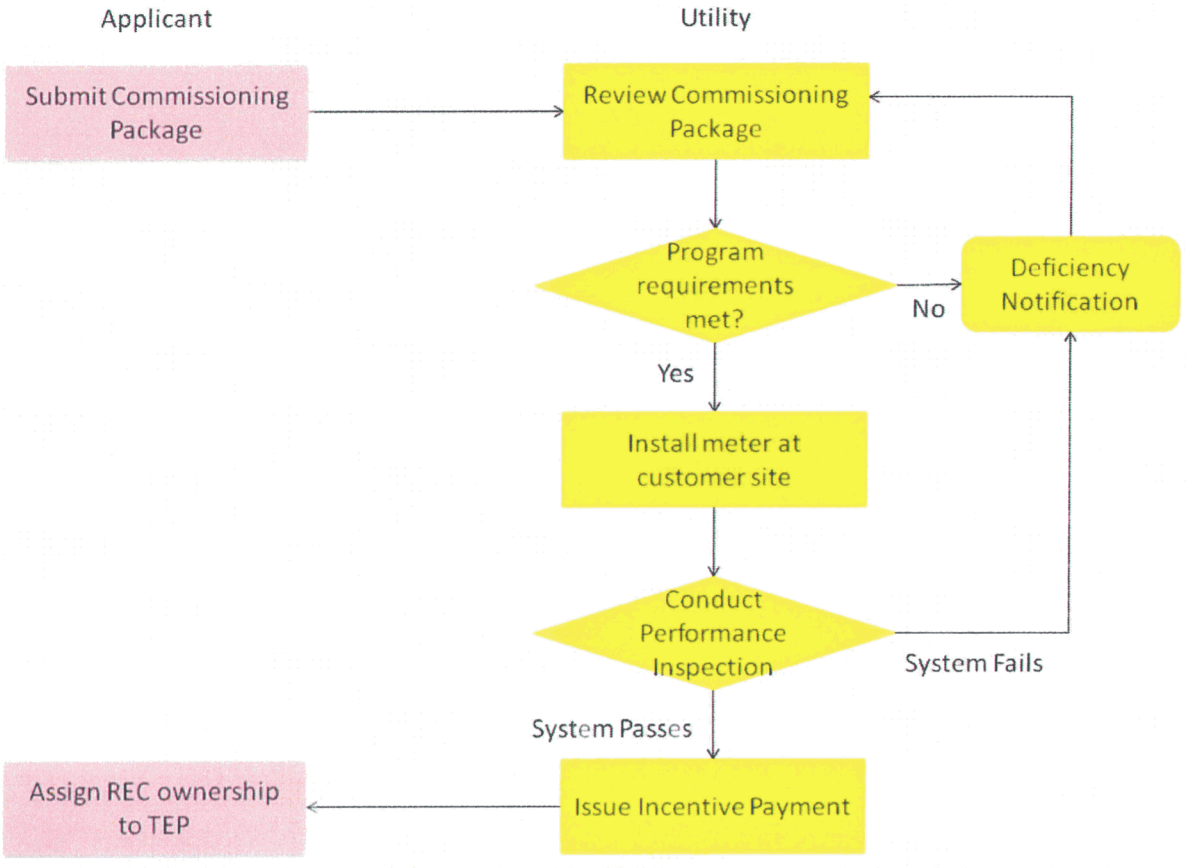
If proof of project advancement is not received within the specified timeframe, the customer will be notified that the reservation is cancelled. An appropriate written request for an extension may be requested if circumstances require. The applicant has the option to reapply for funding after the reservation has been cancelled. The request will be processed in the same manner as a new project reservation and will be contingent upon availability of funding at the time the new application is received.

Step 3 – Interconnection Inspection (for Grid-Tied Qualifying Systems with capacity larger than 100 kW)



Non-residential grid-tied qualifying systems of electrical generating capacity larger than 100 kW must submit to and pass an interconnection inspection before the system can be commissioned. TEP conducts the interconnection inspection and will notify the applicant of the results of the inspection. If the system passes the interconnection inspection, the application retains the reservation. The applicant can keep the reservation even if the system fails the initial interconnection inspection, as long as the deficiency is remedied within 120 days from the date of the reservation confirmation, as described in Step 2.

Step 4 – System Commissioning For Non-Residential Systems Larger Than 100 kW

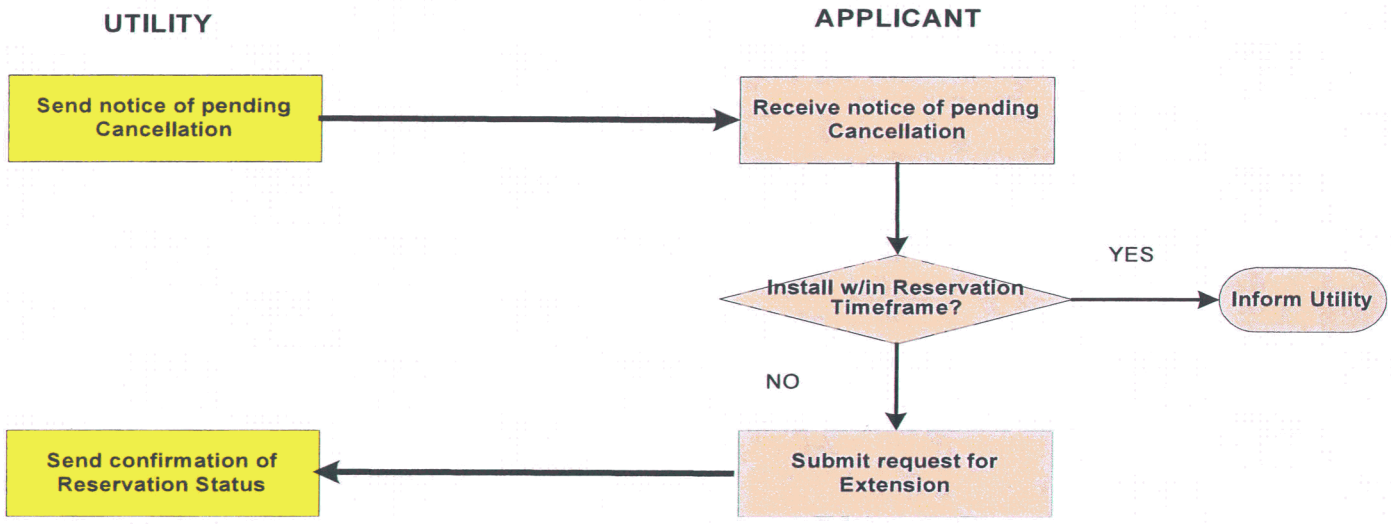


After the Non-Residential system larger than 100 kW has been commissioned, the applicant must submit a commissioning package to TEP. TEP will review the commissioning package and confirm that all program requirements have been met, including passing the interconnection inspection.

After receiving the commissioning package, TEP will dispatch a TEP representative to install the meter at the system site. The meter will be certified according to the TEP standards. The customer must provide access to the site during normal business hours so that the TEP representative can install the meter.

In addition, TEP may, at its discretion, perform a conformance inspection of the system. TEP will notify the applicant of the scheduled conformance inspection and the applicant must make the system available for inspection. In most cases in which a conformance inspection is conducted, an incentive payment may not be issued until after a qualifying system has passed the conformance inspection.

Conditional Step – Extension / Cancellation



If all project requirements are not met within 365 days of the date of the reservation confirmation, the applicant must apply for an extension to remain eligible for the incentive. TEP will trigger this request for extension with a notice of the pending cancellation 60 days prior to the date of scheduled cancellation. TEP will grant an extension for up to 90 days following timely receipt of a customer's request for extension. TEP may approve written extension requests detailing the conditions for delay for periods beyond 90 days under extenuating circumstances, or for systems larger than 1 MW.

If all program requirements have not been met within the reservation timeframe, a reservation request will be cancelled unless an extension is granted.

Step 5 – Incentive Payment is Disbursed

Non-residential PV systems larger than 100 kW are eligible for a performance-based incentive (PBI). All PBI Project Agreements will include the following terms:

1. A project agreement between the applicant(s) and TEP that details the assignment of energy and RECs, and the assignment of payment must be completed before payments can be disbursed.
2. At a minimum, quarterly meter reads will be performed by TEP and quarterly payments will be made to the assigned payee within 30 days of the meter reading based on quarterly kWh production. If the payment due is less than $25.00, it will be held for the next payment period.
3. PBI payments will begin with the first quarterly production following receipt of the completed system commissioning package and conformance inspection, if required, and continue for the life of the agreement term. As part of this provision, it is understood that systems commissioned mid-quarter will receive payment only for the production of that partial quarter.

TEP's payment of a PBI will assure TEP complete and irrevocable ownership of the REC for the full duration of the PBI agreement. The agreement duration must fully coincide with the PBI payment

schedule and the system must be supported by system warranty or planned maintenance schedules for the term of the agreement.

INCENTIVE LEVELS FOR NON-RESIDENTIAL PV SYSTEMS LARGER THAN 100 KW

Non-residential PV systems larger than 100 kW are eligible for performance-based incentives ("PBIs"). The PBI allows the customer to collect incentive payments in direct relation to the actual system production. Table 2 identifies the incentives available for non-residential PV systems larger than 100 kW.

In all cases, incentive values listed in Table 2 are maximum values. PBIs are awarded through a bid process, which is discussed later in this section. Applicants are encouraged to submit bids requesting incentive amounts less than the maximums listed. Bids requesting a lower level of incentive payment than the maximum will have an increased chance of acceptance in the allocation ranking process.

Table 2. Maximum Performance-Based Incentives for Non-Residential Projects Larger Than 100 kW

	Maximum Incentive Levels for Specified REC Agreements of Specified Duration		
Year	10-year	15-year	20-year
2010	0.182	0.168	0.162
2011*	0.182	0.168	0.162
2012*	0.182	0.168	0.162
2013*	0.182	0.168	0.162
2014*	0.182	0.168	0.162

Notes:
*Indicates that the incentive for that year has not yet been approved by the Arizona Corporation Commission ("ACC" or the "Commission"). As such, these incentives are tentative and may change pending Commission approval.

- There is no incentive cap for non-residential systems other than annual program funding considerations.
- A PBI cannot exceed 60% of the real project costs, defined as the undiscounted total system cost plus acceptable financing charges. Acceptable finance charges are finance charges used for the PBI incentive cap calculation and cannot exceed the current prime interest rate plus 5%. Financing charges must be disclosed as part of the commissioning package, if not disclosed before.
- The customer must pay at least 15% of the project cost (as defined above), after other government incentives (e.g., tax credits) are considered. (See explanation of incentive calculation below.)
- Systems may not be eligible to receive RECPP incentives if other utility incentives are applied.

The incentive amount will be calculated at the time the application is approved for reservation. If federal or state incentives change during the period of time after the reservation approval, the incentive amount reserved will not be changed as long as the reservation is not cancelled.

TEP's payment of a PBI will assure TEP complete and irrevocable ownership of the REC for the full duration of the PBI agreement. The agreement duration must fully coincide with the PBI payment schedule and the system must be supported by system warranty or planned maintenance schedules for the term of the agreement.

PROJECT FUNDING

Non-residential funds will be committed as bids are accepted; funds will not be placed in reserve for later in the year. As a result, the budget may be committed before the end of the year. Funds will be made available to projects based on a ranking generated by lowest expected life cycle credit purchase cost, as provided in the application and verified by TEP, as well as likelihood of construction. Projects submitted to the utility for reservation will be ranked based on a calculated index value for purposes of allocating non-residential funds as proposed in the application and verified by TEP. Lowest lifecycle cost projects will be funded first. Indexing of the non-residential projects will be performed based on the verified incentive values and duration of the proposed agreement in the application for that project. In addition, the bid evaluator assesses the likelihood that the project will be completed. Projects with higher incentive payments result in a higher expected life cycle credit purchase cost and projects that produce more kWh result in a lower expected life cycle credit purchase cost. In the event of a tie in the ranking, when the program would be fully subscribed if both projects were given reservation status, funds will be awarded based on the date of receipt of the completed reservation request.

Reservation requests will reviewed by the utility on a monthly basis. Once reservation requests are fully ranked each month, notification of reservation approvals and rejections will be made in conformance with the rankings and available funding.

Reservations which are rejected as a result of insufficient program funds may elect to carry forward into the next period and retain the original reservation date. The election must be made at the time of the original application.

NET METERING

RECPP incentives can be applied to systems designed to serve only the typical load of the customer with whom the incentive agreement has been established. The assessment of that typical load does not preclude the periodic production of electricity in excess of the customer's demand. All projects must comply with ACC net metering rules.

PROJECT REQUIREMENTS AFTER INSTALLATION

All customer systems receiving renewable energy self-generation incentives are obligated to include a TEP-supplied production meter, which will report system production to TEP in accordance with the regular meter-reading schedule. TEP, at its option, may perform periodic inspection of the system for operation, metered production, and reporting purposes.

THE FINE PRINT

In addition to the other requirements described in this hand book, there are two other types of program details of which system owners and installers should be aware:

1. Installer qualifications
2. System removal

These are described in further detail below.

Installer Qualifications

All systems receiving incentives under the RECPP must be installed by a qualified installer. The following requirements must be submitted by the applicant as part of the reservation request. TEP will verify that the installer meets the following minimum qualifications prior to confirming a reservation request:

1. The installer must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC") with a license classification appropriate for the technology being installed. Alternatively, the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. A copy of the AZROC license must be provided as part of the reservation request.
2. The installer must possess an Arizona business license that is active and in good standing.

Installers may request that the above information be retained on file with TEP; however, under this option the installer must certify that the information on file remains current with the submission of each reservation request. Information on file must be renewed yearly.

System Removal

If receiving a PBI, the Qualifying System or any components thereof shall not be removed from the premises until the last day of the final month of the final full calendar year of the applicable incentive payment term in the Agreement following completion of system installation of the renewable energy system, without express agreement from TEP. If the Qualifying System is removed in violation of this provision, customer shall immediately reimburse TEP all incentive amounts paid by TEP to customer or on behalf of customer to an authorized third party.

In addition, if a Qualified System is removed, TEP shall monitor that specific customer site to ensure that an additional incentive is not provided for any new distributed renewable energy resource system on that site until the REC contracted operational life of the original system has been completed.

TEP shall attempt to monitor the number of missing or non-working distributed generation systems and shall summarize its observations in its annual Compliance Report.

ATTACHMENT A
Qualifications for Non-Residential PV Systems Larger Than 100 kWac

All solar electric generating Customer Systems must meet the following system and installation requirements at the time of project commissioning to qualify for Tucson Electric Power Company's ("TEP" or the "Company") Renewable Energy Credit Purchase Program ("RECPP"). Capitalized terms not defined herein shall have the meanings ascribed to them in the RECPP Agreement.

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement which is in conflict with a site-specific governmental requirement shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Standards

1. The Customer System components must be certified as meeting the requirements of IEEE-929 - Recommended Practice for Utility Interface of Photovoltaic Systems.[4]

2. The Customer System components must be certified as meeting the requirements of UL-1741 - Power Conditioning Units for use in Residential Photovoltaic Power and be covered by a non-prorated manufacturer's warranty of at least two years.

3. Photovoltaic components must be certified by a nationally-recognized testing laboratory as meeting the requirements of UL-1703 - Standard for Flat Plate Photovoltaic Modules and Panels Systems; they must also be covered by a non-prorated manufacturer's warranty of at least 20 years.

4. The Customer System design and installation must meet all requirements of the latest edition of the National Electrical Code, including Article 690 and all grounding, conductor, raceway, over-current protection, disconnect and labeling requirements.

[4] Some technology-specific criteria reference third party standards. The requirements of those standards are fully applicable when referenced as part of technology specific criteria. TEP recognizes that new standards are likely to develop in the near future for technologies included in the RECPP and recommends that the new standards are examined for application in this program definition as they become available.

5. The inverter must be certified as meeting the requirements of IEEE-1547 - Recommended Practice for Utility Interface of Photovoltaic Systems and it must be UL-1741 certified. Inverters must be covered by a manufacturer's warranty of at least ten years.

6. All other electrical components must be UL listed.

7. The Customer System and installation must meet the requirements of all federal, state and local building codes and have been successfully inspected by the building official having jurisdiction. Accordingly, the installation must be completed in accordance with the requirements of the latest edition of National Electrical Code in effect in the jurisdiction where the installation is being completed (NEC), including, without limitation, Sections 200-6, 210-6, 230-70, 240-3, 250-26, 250-50, 250-122, all of Article 690 pertaining to Solar Photovoltaic Systems, thereof, all as amended and superseded.

8. The Customer System must meet Company and Arizona Corporation Commission interconnection requirements for self-generation equipment.
   See http://images.edocket.azcc.gov/docketpdf/0000074361.pdf for these requirements.

Installation requirements

1. Any Non-Residential Customer System must have a total solar array nameplate rating of more than 1,200 watts DC.

2. The Customer System installation must meet the TEP Service Requirements 2000 Edition, Page 1.20, as follows:

   "AN AC DISCONNECT MEANS SHALL BE PROVIDED ON ALL UNGROUNDED AC CONDUCTORS and SHALL CONSIST OF A LOCKABLE GANG OPERATED DISCONNECT CLEARLY INDICATING OPEN OR CLOSED. THE SWITCH SHALL BE VISUALLY INSPECTED TO DETERMINE THAT THE SWITCH IS OPEN. THE SWITCH SHALL BE CLEARLY LABELED STATING "DG SERVICE DISCONNECT."

3. The utility meter and utility disconnect will be installed in a location readily accessible by TEP during normal business hours.

4. Products must be installed according to manufacturers' recommendations.

5. For Non-Residential Customer Systems, Company shall provide the meter only, to be installed in a Customer supplied meter socket to be installed in a readily accessible outdoor location by the Customer between the DC to AC converter and the connection to the over-current device in the Customer's electric service panel.

6. Total voltage drop on the DC and AC wiring from the furthest PV module to the AC meter will not exceed 2%.

7. PV panels and DC to AC inverter will be installed with sufficient clearance to allow for proper ventilation and cooling. At a minimum, manufacturer clearance recommendations will be observed. PV modules may be mounted less than 4 inches above any surface and an additional inch of clearance for each foot of continuous array surface area beyond four feet in the direction parallel to the mounting support surface only in cases when arrays are flush-mounted to roof pitch. Otherwise, the four-inch spacing and an additional inch of clearance for each foot of continuous array surface area minimum is required.

8. Storage Batteries are not allowed as part of the Customer System unless the inverter is a separate component and TEP can locate the Solar Meter at the inverter's output. If configured otherwise, battery losses will adversely reflect in the annual AC metered energy output. Customer's solar energy generation and energy storage system must meet the requirements of 1 and 2 under "Equipment Standards" of this Attachment A.

9. The DC to AC inverter used must provide maximum power point tracking for the full voltage and current range expected from the photovoltaic panels used and the temperature and solar insolation conditions expected in Tucson, Arizona.

10. The DC to AC inverter must be capable of adjusting to "sun splash" from all possible combinations of cloud fringe effects without interruption of electric production.

General Requirements

1. All Customer System installations must be completed in a professional, workmanlike and safe manner.

2. Installation must have been made after January 1, 1997.

3. The Customer must be connected to the Company's electric grid, except for approved off-grid systems in conformance with the RECPP.

4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale.

5. All major system components must be new and must not have been previously placed in service in any other location or for any other application.

6. The project must comply with applicable local, state, and federal regulations.

7. Products must be installed according to manufacturers' recommendations.

8. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.

9. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric

renewable energy production systems, noted below, will require customer supplied metering for PBI payment calculation purposes.

10. PV system components shall be properly labeled, including AC & DC disconnects (if present), solar generation meter, service panel (outside cover), and breakers inside the service panel.

11. If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-Generation Equipment.
See http://images.edocket.azcc.gov/docketpdf/0000074361.pdf for these requirements.

12. The system will in all cases have a material and full labor warranty of at least five years.

Requirements Specific to Non-Residential PV Systems Larger Than 100 kW

1. The Non-Residential Customer System shall be operating, substantially complete and have produced an AC output at least 70% of the total array nameplate DC rating at PTC .[5]

2. Operation, Maintenance and Repair. The Customer shall be solely responsible for the operation, maintenance and repair of the Non-Residential Customer System and any and all costs and expenses associated therewith. Company will notify Customer of all Non-Residential Customer System repairs the Company determines are reasonably necessary to support proper continued electrical production of the Non-Residential Customer System. The Customer will notify the Company within five (5) business days of its receipt of any such Company repair notice if the repair requires the installation of a new inverter and/or PV module. The Customer shall complete any such repair that affects the Non-Residential Customer System performance and does not require the purchase of a new inverter or PV module(s) within five (5) business days of the Company's notice of the need for such repair. For any such repair that does require the purchase and installation of a new inverter and/or PV module, the Customer shall promptly commence and diligently pursue such repair to completion, provided, in no event shall such repair take more than thirty (30) days to complete. At all times while Company is receiving the environmental credits from the Non-Residential Customer System, Customer shall clean all PV modules in the Non-Residential Customer System as necessary to keep them free from foreign material that would visibly obscure the modules, including any dirt and/or oils.

3. Non-Residential Customer System Security. At all times during and after installation of the Non-Residential Customer System, the Customer shall use commercially reasonable efforts to provide adequate security to prevent damage or vandalism to the Non-Residential Customer System.

4. Company shall provide Customer with a revenue grade AC meter to be installed between the Non-Residential Customer System and the grid interconnection. This meter will not be used for

[5] PTC stands for "PVUSA Test Conditions." These standards are also referenced by the California Energy Commission. PTC conditions are based upon 1,000 W/m^2 solar irradiance, 20 degrees Celcius ambient temperature, and 1 m/s wind speed.

billing, but shall be used for any official Non-Residential Customer System production output data. Company will retain ownership of the meter and be responsible for its repair if needed.

5. Customer shall provide Company with all documentation reasonably requested by Company to demonstrate to the Commission that any environmental credits transferred under the Agreement were derived from an eligible technology, that the kWh generated are accurately reported and that the environmental credits have not expired or been used by any other entity for any purpose.

6. If certified proof cannot be provided of complete galvanic isolation of any and all DC from the AC output of the inverter(s) used in the Non-Residential Customer System through IEEE-1547 certification of the inverter, the Non-Residential Customer System shall include an isolation transformer installed between the inverter(s) and the grid interconnection. The transformer will be rated at full load continuous operation at 50 degrees C. at 125% of nameplate DC array rating and have an efficiency rating at nameplate DC array rating power of at least 98% as tested. The transformer will have at least one tap each of 2.5% and 5% both above and below the nominal voltage tap.

Additional Requirements for Off-Grid Systems

1. The minimum PV array size shall be no less than 600 Wdc. For customers currently paying into the REST tariff the maximum PV array size shall not exceed 4,000 Wac. For customers currently not paying into the REST tariff, the maximum PV array size shall not exceed 2,000 Wac.

2. Off-grid systems will not be metered. Compliance reporting production will be based on an annual 20% capacity factor using nameplate DC rating for capacity.

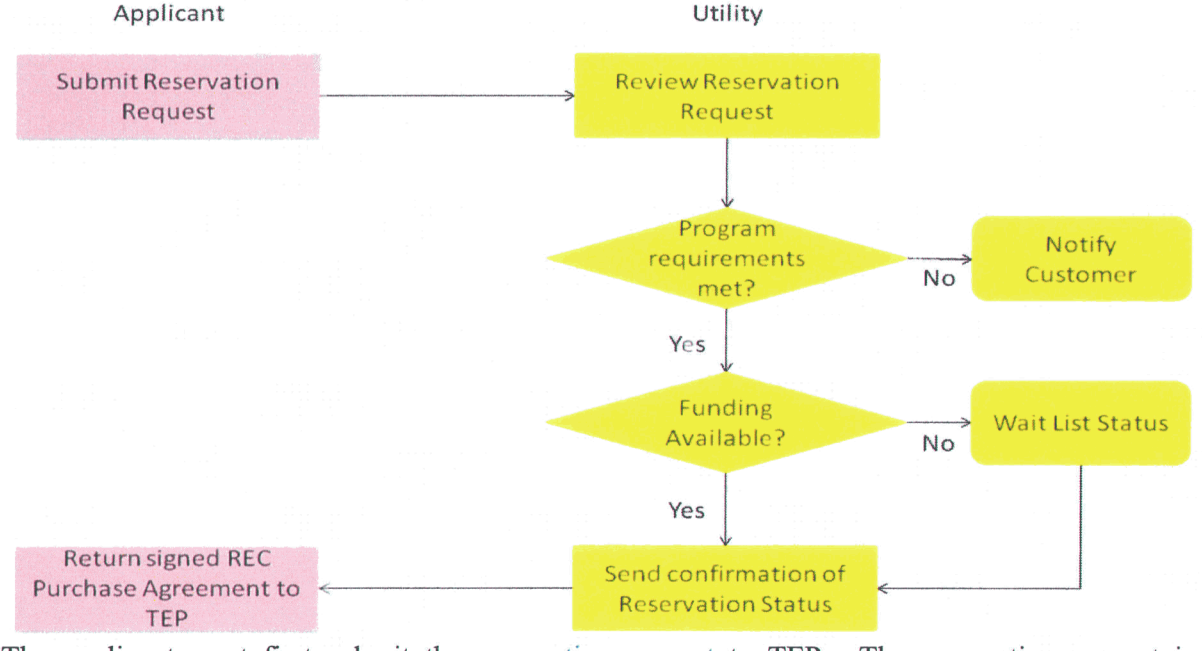
Residential and Small Commercial
Solar Water Heating and Space Heating Smaller than 35,000 kWh Equivalent Annual Production per Year

Tucson Electric Power Company ("TEP" or the "Company") is committed to assisting our customers in developing their own renewable generation resources, through a balanced and supportive renewable energy distributed generation incentive program. Our goal is to create a program that will provide incentives for affordable, environmentally sensitive, customer-sited renewable energy generation systems to supplement TEP customer's energy needs. A properly designed system, matched to a customer's energy use, will provide a reduction in utility bills through the use of renewable resources. This program reflects our commitment to reduce the cost of developing renewable energy resources.

PROCESS FOR OBTAINING INCENTIVES

The process for obtaining incentives from TEP involves the flow of information between the applicant and TEP. The following sections reflect the typical three-step process.

Step 1 – Reservation Request and Assignment of Reservation Status



The applicant must first submit the reservation request to TEP. The reservation request includes information about the TEP customer on whose property the system will be located, the system, the calculation of the incentive, and the installer of the system.

TEP will review the reservation request to ensure the application conforms to program requirements.

- Reservation requests for residential systems and small commercial systems with output smaller than a 35,000 kWh equivalent are processed on a first-come, first-reserved basis.

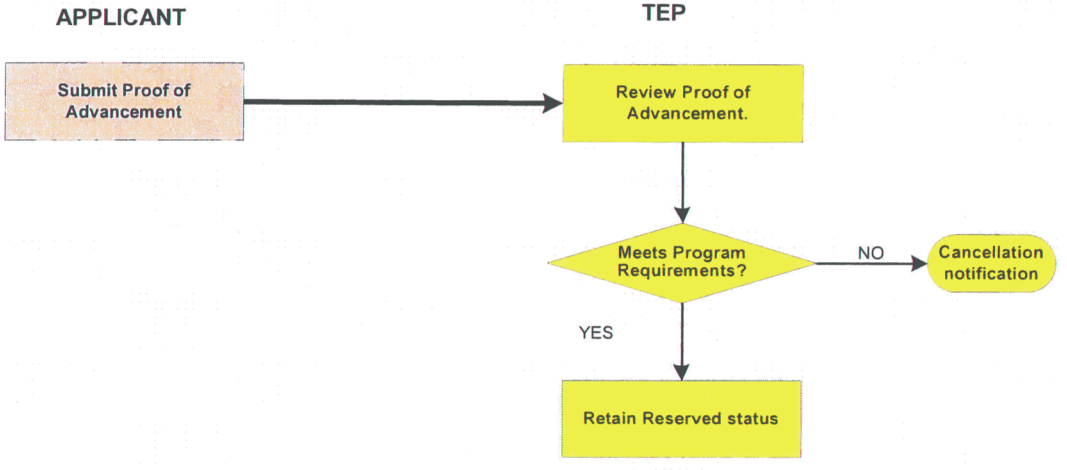
- Reservation requests for residential systems and commercial systems with output smaller than a 35,000 kWh equivalent will be reviewed within 30 days of the utility's receipt of the request.

If the reservation request is approved, TEP will send a confirmation to the applicant. A reservation request may be denied for two different reasons, each with its own consequences:

- The reservation request may be denied because it is not in conformance with program requirements. In this case, TEP will send notice that the request is cancelled.
- The reservation request may be denied because funding is not available. In this case, TEP will send a notification to the applicant that the request will be placed on a waiting list.

After reviewing the reservation request, TEP will assign a reservation status.

Step 2 – Proof of Advancement



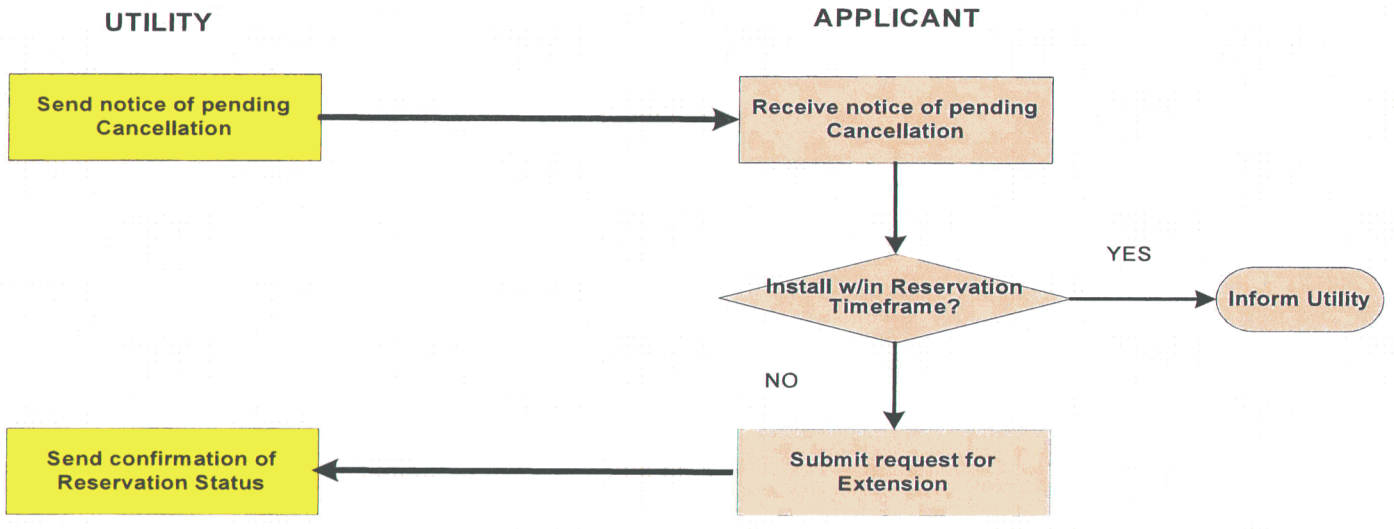
Applicants for residential systems and commercial systems with annual output smaller than a 35,000 kWh equivalent must submit proof of project advancement to TEP within 60 days of the date of reservation confirmation from TEP to retain the reservation. Applicants for residential systems and commercial systems with output smaller than a 35,000 kWh equivalent must provide copies of city/county inspection permits to TEP as documentation of the proof of project advancement. If those permits are not available within 60 days of the date of reservation confirmation, the applicant may also provide these documents in place of the permits:

- Signed agreement
- Assignment of Payment form
- Initial city/county permit application or actual receipt of final acceptance inspection paperwork from the city/county.

If proof of project advancement is not received within the specified timeframe, the applicant will be notified that the reservation is cancelled. The applicant has the option to reapply for funding after the reservation has been cancelled. The request will be processed in the same manner as a new project

reservation and will be contingent upon availability of funding at the time the new application is received.

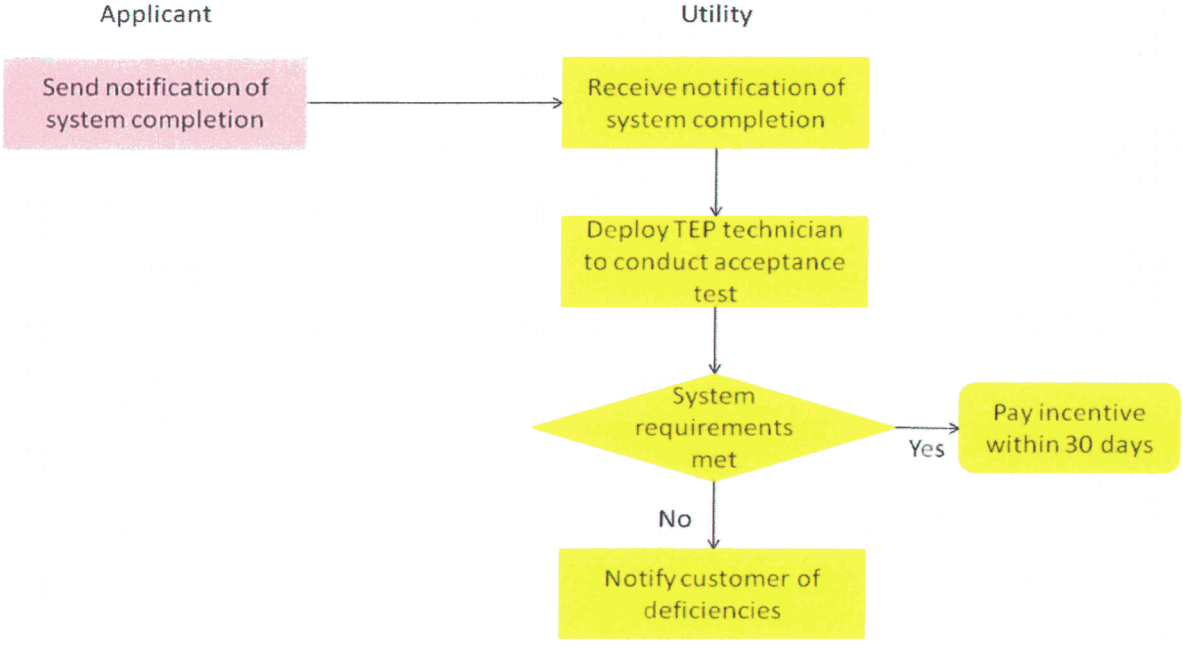
Conditional Step – Extension / Cancellation



If all project requirements are not met within 180 days of the date of the reservation confirmation, the applicant must apply for an extension to remain eligible for the incentive. TEP will trigger this request for extension with a notice of the pending cancellation 30 days prior to the date of scheduled cancellation. TEP will grant an extension for up to 90 days following timely receipt of a customer's request for extension. TEP may approve written extension requests detailing the conditions for delay for periods beyond 90 days under extenuating circumstances.

If all program requirements have not been met within the reservation timeframe, a reservation request will be cancelled unless an extension is granted.

Step 3 – Customer Requests Payment



Upon project completion, the customer must notify TEP that the system has been placed in service. This should be done by submitting a copy of the city/county final inspection permit. When TEP receives notification that the system is complete, TEP will perform an "acceptance test." The acceptance test requires that a TEP inspector test the system's compliance with the required specifications and its performance and determine that it is in line with TEP requirements.

If the system meets TEP specifications and performance requirements, TEP will pay the customer the UFI within 30 days of the acceptance test. If the system fails to meet TEP specifications and performance requirements, TEP will notify the customer within **5** days of the acceptance test. The customer will then have **30** days to address the deficiencies and notify TEP that the system is ready to be retested.

INCENTIVE LEVELS FOR RESIDENTIAL AND SMALL COMMERCIAL SOLAR WATER HEATING AND SPACE HEATING SYSTEMS

Solar water heating and space heating in residential and small commercial applications are eligible for up-front incentives ("UFIs"). UFIs are those incentives where the customer receives a one-time payment based on the system's designed capacity. Table 3 identifies the incentives available for residential and small commercial solar water heating and space heating systems.

Table 3. Incentives for Residential and Small Commercial Solar Water Heating and Space Heating

Year	Residential Incentive Level**	Small Commercial Incentive Level**
2010	$750 plus $0.25/kWh (max $1,750)	$7,500 plus $0.25/kWh (max $17,500)
2011*	$750 plus $0.25/kWh (max $1,750)	$7,500 plus $0.25/kWh (max $17,500)
2012*	$750 plus $0.25/kWh (max $1,750)	$7,500 plus $0.25/kWh (max $17,500)
2013*	$750 plus $0.25/kWh (max $1,750)	$7,500 plus $0.25/kWh (max $17,500)
2014*	$750 plus $0.25/kWh (max $1,750)	$7,500 plus $0.25/kWh (max $17,500)

Notes:

*Indicates that the incentive for that year has not yet been approved by the Arizona Corporation Commission ("ACC" or the "Commission"). As such, these incentives are tentative and may change pending ACC approval.

**Indicates estimated annual kWh production in first year.

Energy savings rating is based on the SRCC OG-300 published rating or the TEP-RECPP Space Heating Calculator. Rate applies to forecast/measured first year energy savings only.

- Small commercial customers will receive a UFI up to a collector system size with output smaller than a 35,000 kWh equivalent. If a small commercial system is installed beyond that threshold, it must apply under the large commercial program.
- The UFI may not exceed 60% of total System Cost.
- The customer must pay at least 15% of the project cost, after other government incentives (e.g., tax credits) are considered. (See explanation of incentive calculation below.)
- Systems may not be eligible to receive RECPP incentives if other utility incentives are applied.
- TEP has adopted a standardized calculation method to support solar space heating system sizing and incentive payment. The display page of the spreadsheet calculation is presented in Attachment B.
- The bid evaluator reserves the right to award incentives to solar thermal projects other than those that meet the specifications outlined in Attachment A. In these cases, the system output must be less than or equivalent to 35,000 kWh per year. Incentives in these cases will be determined by the bid evaluator. C:\Users\jpater\AppData\Roaming\Microsoft\Word\Insert link here

The incentive amount will be calculated at the time the application is approved for reservation. If federal or state incentives change during the period of time after the reservation approval, the incentive amount reserved will not be changed as long as the reservation is not cancelled.

In return for TEP's payment of a UFI, TEP will be given complete and irrevocable ownership of the RECs until December 31st of the 20th full calendar year after completion of installation of the system. Operational life during that time frame must be supported by system warranty or planned maintenance schedules.

PROJECT FUNDING

Funds will be made available for reservations on a first-come, first-reserved basis, until annual funding is reserved. Reservations which are rejected as a result of insufficient funds will be placed on a waiting list and offered the opportunity to retain their original reservation date for one additional quarter without the need to resubmit application documentation. If the incentive level has changed from the date of the original reservation to the date when the reservation is approved, the new incentive level shall be applied.

THE FINE PRINT

In addition to the other requirements described in this hand book, there are two other types of program details of which system owners and installers should be aware:

1. Installer qualifications
2. System removal

These are described in further detail below.

Installer Qualifications

All systems receiving incentives under the RECPP must be installed by a qualified installer. The following requirements must be submitted by the applicant as part of the reservation request. TEP will verify that the installer meets the following minimum qualifications prior to confirming a reservation request:

1. The installer must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC") with a license classification appropriate for the technology being installed. Alternatively, the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. A copy of the AZROC license must be provided as part of the reservation request.
2. The installer must possess an Arizona business license that is active and in good standing.

Installers may request that the above information be retained on file with TEP; however, under this option the installer must certify that the information on file remains current with the submission of each reservation request. Information on file must be renewed yearly.

System Removal

If receiving a UFI, neither the Qualifying System nor any components thereof shall be removed from the premises (by either the applicant or future owners or occupants of the property) until December 31st of the 20th full calendar year following completion of system installation of the renewable energy system, without express agreement of TEP. If the Qualifying System is removed by any party in violation of this provision, customer shall immediately reimburse TEP all incentive amounts paid by TEP to customer or on behalf of customer to an authorized third party.

In addition, if a Qualified System is removed, TEP shall monitor that specific customer site to ensure that an additional incentive is not provided for any new distributed renewable energy resource system on that site until the REC contracted operational life of the original system has been completed.

TEP shall attempt to monitor the number of missing or non-working distributed generation systems and shall summarize its observations in its annual Compliance Report.

Attachment A
Qualifications for Residential Solar Water Heating and Space Heating

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement which is in conflict with a site-specific governmental requirement shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Specifications

1. Domestic Solar Water Heating systems will be rated by the SRCC and meet the OG-300 system standard. Systems that include OG-100 collectors, but are not certified under OG-300, will need to be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a registered third-party professional engineer detailing annual energy savings. Solar Space Heating systems will utilize OG-100 collectors.
2. Solar Space Heating systems will be sized in conformance with the Solar Space Heating Incentive Calculation Procedure (Attachment B.) Compliance reporting production will be based on the design energy savings submitted at time of application.
3. Active, open-loop systems are not eligible for RECPP incentives except for active, open-loop systems that have a proven technology or design that limits scaling and internal corrosion of system piping, and includes appropriate automatic methods for freeze protection and prevents stagnation temperatures that exceed 250 degrees Fahrenheit ("F"). under all conditions at the location of installation. Details disclosing conformance with this exception shall be submitted as part of the manufacturer's verification documentation.
4. The 'high' limit on all Domestic Water Heating controllers shall be set no higher than 160 degrees F.
5. Active thermal storage for solar space heating systems shall use water as the storage element.
6. Contractors must provide a minimum of a five year equipment warranty as provided by the system manufacturer, including a minimum warranty period of five years for repair/replacement service to the customer.
7. Domestic Water Heating systems that are installed as an addition to an existing system or are submitted as a customer designed system or not certified to OG-300 must be specifically reviewed and approved by the utility.
8. The solar collector, heat exchangers, and storage elements shall have an equipment warranty of at least 5 years to qualify for a UFI and at least five years to qualify either for a UFI or for a PBI.

Installation Guidance

1. The system shall be installed with a horizontal tilt angle between 20 degrees and 60 degrees (40 and 60 degrees for space heating applications), and an azimuth angle of +/- 60 degrees of due south (+/- 20 degrees for space heating applications). It is recommended that collectors be positioned for optimum winter heating conditions at a minimum tilt angle of 45 degrees above horizontal, or as recommended by the manufacturer for the specific collector type and geographic location of installation. Azimuth or tilt angles outside these parameters may be reviewed and approved by the utility, at their discretion.
2. All systems should be installed such that the energy collection system is substantially unshaded and should have substantially unobstructed exposure to direct sunlight between the hours of 9:00 a.m. and 3:00 p.m. Solar Hot Water de-rating chart (see Attachment C and D in this section) may be used to adjust incentive level based upon affected output due to shading.
3. Heat exchange fluid in glycol systems should be tested, flushed and refilled with new fluid as necessary or at a minimum every five years or sooner per manufacturer's recommendations.
4. It is recommended that the anode rod be checked and replaced per manufacturer's recommendations, but no less frequently than every five years.
5. It is recommended that the system design include a timer, switch, and a temperature sensor on the backup element of the storage tank.
6. The collectors and storage tank should be in close proximity to the backup system and house distribution system to avoid excessive pressure or temperature losses.
7. It is recommended that in areas where water quality problems are reported to have reduced the expected life of a solar water heater, that a water quality test is performed for each residence to screen for materials that through interaction with the materials of the proposed solar water heating system may reduce the expected operational life of the system components. The customer should consider contacting the manufacturer to determine if warranty or operational life will be affected.
8. In areas subject to snow accumulation, sufficient clearance will be provided to allow a 12" snowfall to be shed from a solar collector without shadowing any part of the collector.
9. Ball valves shall be used throughout the system. Gate valves shall not be used in any new installation systems.
10. Pipes carrying heated fluids shall be insulated for thermal energy conservation as well as personnel protection when exposed to ambient conditions, although this is highly recommended in either situation.
11. TEP reserves the right to modify standards as technology changes on a case by case basis, pending independent laboratory analysis, Professional Engineer ("PE") stamp, or TEP engineering analysis.

General Requirements

1. The project must comply with applicable local, state, and federal regulations.
2. Products must be installed according to manufacturers' recommendations.
3. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.
4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale on new installations.

5. All major system components must be new and must not have been previously placed in service in any other location or for any other application.
6. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric renewable energy production systems, noted below, will require customer supplied metering for PBI payment calculation purposes.
7. If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-Generation Equipment. For these requirements, see ACC Decision Number 69674 located at http://images.edocket.azcc.gov/docketpdf/0000074361.pdf
8. Existing systems that are replacing major components may submitted and reviewed by the utility for the retrofit category of the program's incentive.

Attachment B
Solar Space Heating UFI Incentive Calculation Procedure

TEP has adopted a standardized calculation method to support system sizing and incentive payment. The display page of the spreadsheet calculation is presented in Attachment B.

The solar space heating incentive calculation does not suggest or imply that a full energy audit is required to qualify for the solar space heating incentive. The intent is that industry professionals can utilize the calculation tool to aid in facilitating sound system design.

The effective use of the solar space heating incentive calculation is contingent on a Building Design Review. The Building Design Review calculations, inputs and outputs will be determined and specified as part of the reservation request. It is noted that stakeholder acceptance of the proposed calculation tool is conditioned on the future development of standardized design tools, potentially including input tables and charts.

TEP believes that the proposed approach reflects sound design principles and uses inputs which should be available to professionals in this industry segment. TEP does, however, recognize that the approach used in the standardized calculation is not currently universally applied. TEP proposes that continuing efforts be made to develop standard input charts and tables to increase the efficiency of the method's application. In addition, it is the expectation of TEP that the standard calculation can, in most instances, be implemented by practitioners in the solar space heating industry. TEP supports industry collaborative efforts to increase technical knowledge development in this specific area.

Solar Space Heating UFI Incentive Calculation Procedure.

In Advance, please perform the Design Review and Utility Bill Review (if Applicable) for numbers to enter in Steps #1, #2 and #5.

Elevation Zone Table:

Min Elevation	Max Elevation	Heating Season Days	Daily Panel Heat Output
-1000	1000	105	0
1001	3000	140	0
3001	5000	175	0
5001	7000	210	0
7001	9000	245	0
9001	11000	280	0

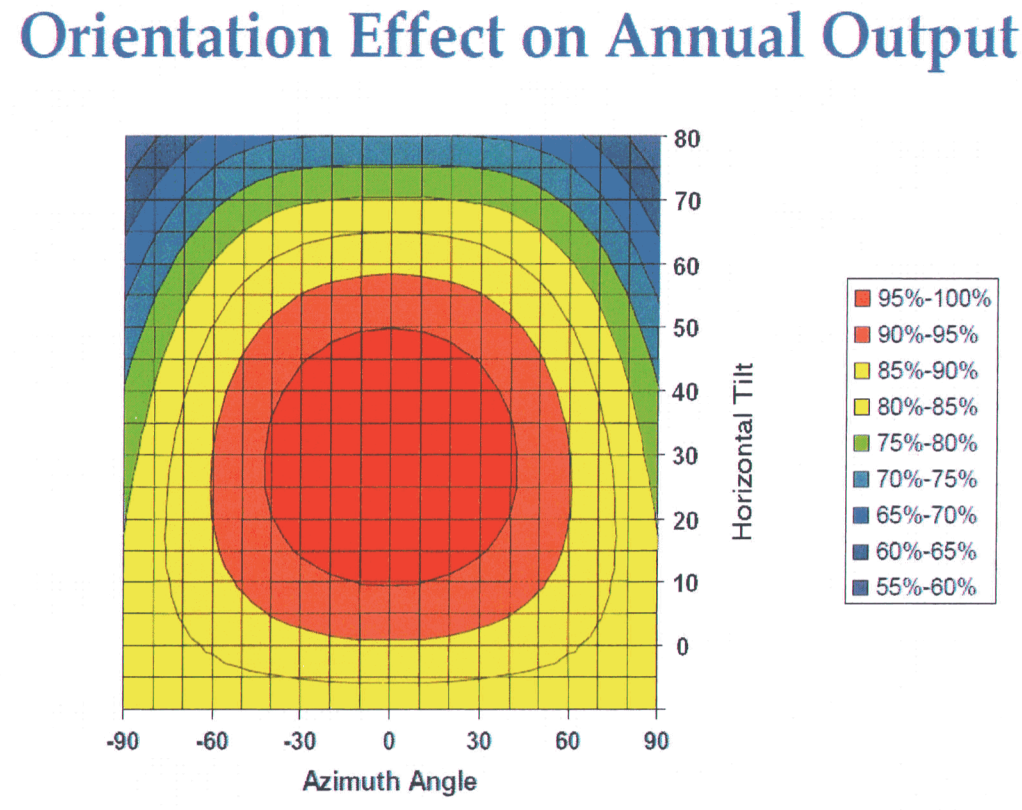
Collector Thermal Performance Rating
Data From OG-100 Sheet

Category:	Delta T	Clear Day
A	-9 Deg. F.	0
B	+9 Deg. F.	0
C	+36 Deg. F.	0
D	+90 Deg. F.	0
E	+144 Deg. F.	0

Enter Solar Panel Make and Model Number Selected for Project:

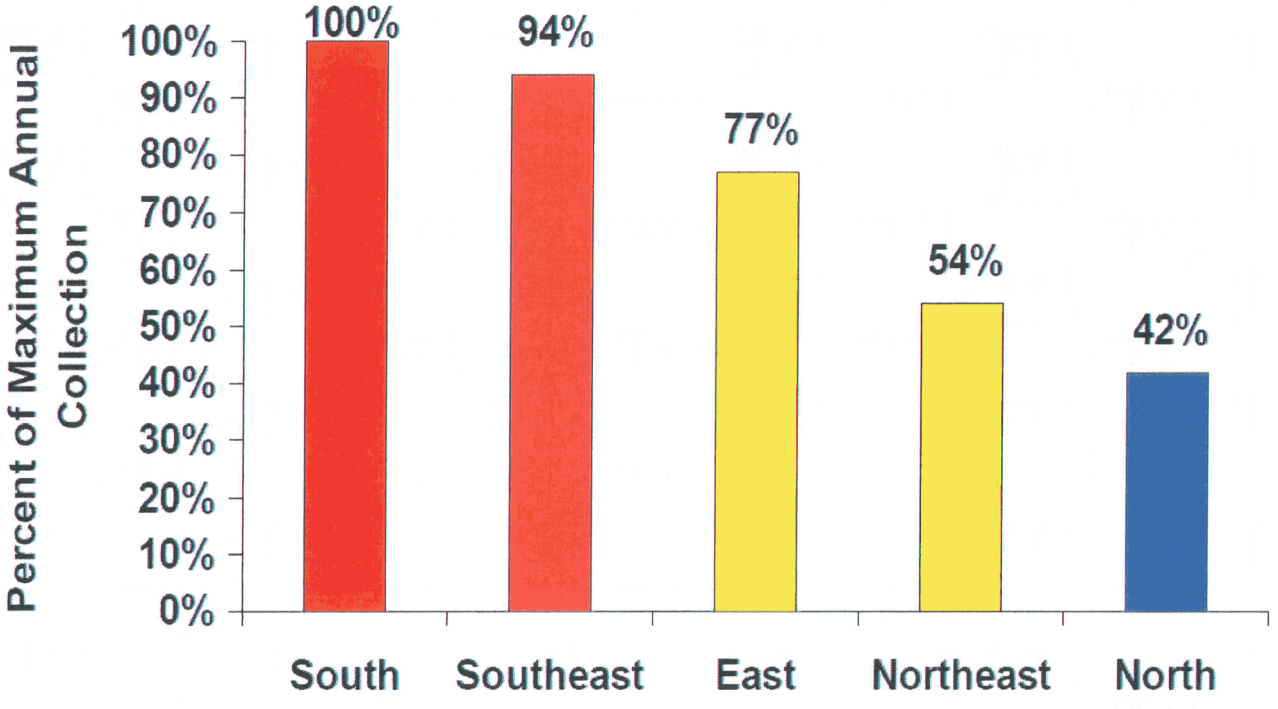
Step #1:	Enter the result of the Design Review of the Design Annual Building Loss =	0	BTU/Year
Step #2:	Enter the result of the Utility Bill Review of the Actual Annual Building Loss: (If not Electric, Natural Gas or Propane Heat, enter 0) =	0	BTU/Year
Step #3:	Calculate the Lesser of the Result in Step #1 & Step #2 = This is the Annual Building Heat Requirement.	0	BTU/Year
Step #4:	Enter Elevation of the Solar Space Heated Building:	0	Feet AMSL
Step #4 cont:	Number of Heating Days per Heating Season from Elevation Zone Table:	105	Days per Year
Step #4 cont:	Calculate Average Daily Building Heat Requirement =	0	BTU/Day
Step #5:	Enter Passive Heat Storage Specific Heat Capacity from Building Design Review:	0	BTU/Deg. F.
Step #5 cont:	Enter Maximum Daily Room Temperature Variation Allowed by Building Occupants: (Max of 10 Degrees F.)	0	Degrees F.
Step #5 cont:	Calculate Maximum Passive Heat Storage Capacity =	0	BTU
Step #5 cont:	Enter Total Active Heat Storage Heat Capacity from Building Design Review:	0	BTU
Step #5 cont:	Calculate Maximum Total Heat Storage Capacity =	0	BTU
Step #6:	Calculate the Lesser of the Average Daily Building Heat Requirement in Step #4 and the Maximum Total Storage Capacity in Step #5. This is the Maximum Useful Daily Solar Heat Input.	0	BTU/Day
Step #7:	Size the Solar Panels based on a total daily solar heat input no greater than the Maximum Useful Daily Solar Heat Input. Enter the single panel SRCC OG-100 Collector Thermal Performance Rating data in the Table Above.	0	BTU/Day per Panel
Step #7cont:	Enter the Total number of solar panels to be installed:	0	# of Panels
Step #7cont:	Calculate the Average Expected Daily Solar Heat Input:	0	BTU/Day
Step #8:	Calculate the Expected Annual Useful Solar KWH Heat Input using the Number of Heating Days times the Average Expected Daily Solar Heat Input / 3415 BTU/KWH:	0	KWH/Year
Step #9:	Enter the UFI per first year KWH UCPP Incentive Rate:	$0.75	$/KWH
Step #9 cont:	Calculate the Total Maximum UFI Payment Subject to Possible Limitation by the 50% of Initial Cost Cap & 15% Minimum Customer Contribution:	$0.00	$
Step #10:	Enter the Total Solar Space Heating System Initial Cost: This should not include costs for Passive Heat Storage or Building Heating System.	$0.00	$
Step #10 cont:	Calculate the Total Expected Federal and Arizona Incentives for this Project:	$0.00	$
Step #10 cont:	Calculate the 15% minimum of the Total Solar Space Heating System Initital Cost to be paid by Customer	$0.00	$
Step #10 cont:	Calculate the Total Actual UFI Payment:	$0.00	$

Attachment C
Solar Hot Water Off-Angle and Shading Annual Energy Derating Chart



If the SHW system falls outside of the 95-100% performance band, then the UFI for the system will be derated. The incentive will be derated based on the decrease in annual energy output anticipated by this chart.

Attachment D
Solar Hot Water System Azimuth Angle Derating Chart



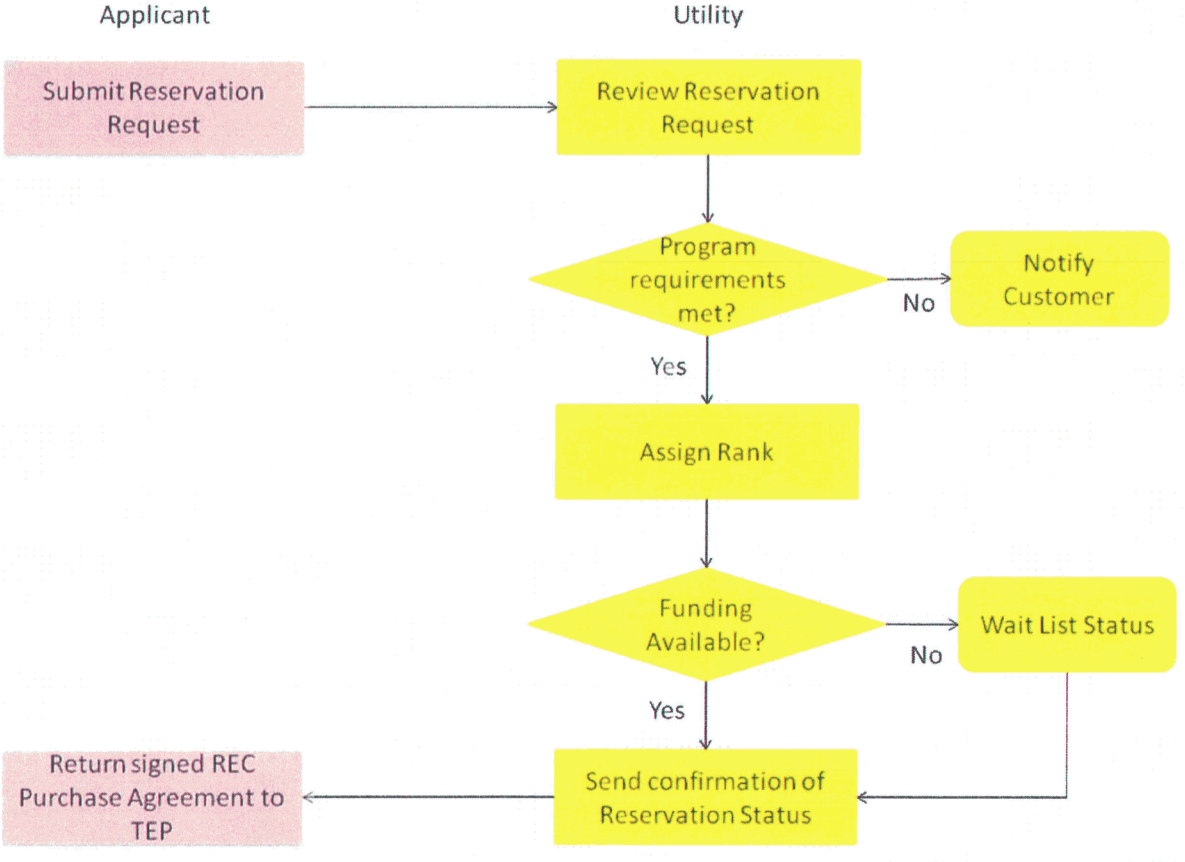
Large Commercial Solar Water Heating and Space Heating: Systems with Annual Production Output Larger Than 35,000 kWh Equivalent

Tucson Electric Power Company ("TEP" or the "Company") is committed to assisting our customers in developing their own renewable generation resources, through a balanced and supportive renewable energy distributed generation incentive program. Our goal is to create a program that will provide incentives for affordable, environmentally sensitive, customer-sited renewable energy generation systems to supplement TEP customer's energy needs. A properly designed system, matched to a customer's energy use, will provide a reduction in utility bills through the use of renewable resources. This program reflects our commitment to reduce the cost of developing renewable energy resources.

Process for Obtaining Incentives

The process for obtaining incentives from TEP involves the flow of information between the applicant and TEP. The following sections reflect the typical four-step process.

Step 1 – Reservation Request and Assignment of Reservation Status



The applicant must first submit the reservation request to TEP. The reservation request includes information about the TEP customer on whose property the system will be located, the system, the calculation of the incentive, and the installer of the system.

TEP will review the reservation request within 90 days of receipt of the request to ensure the application conforms to program requirements.

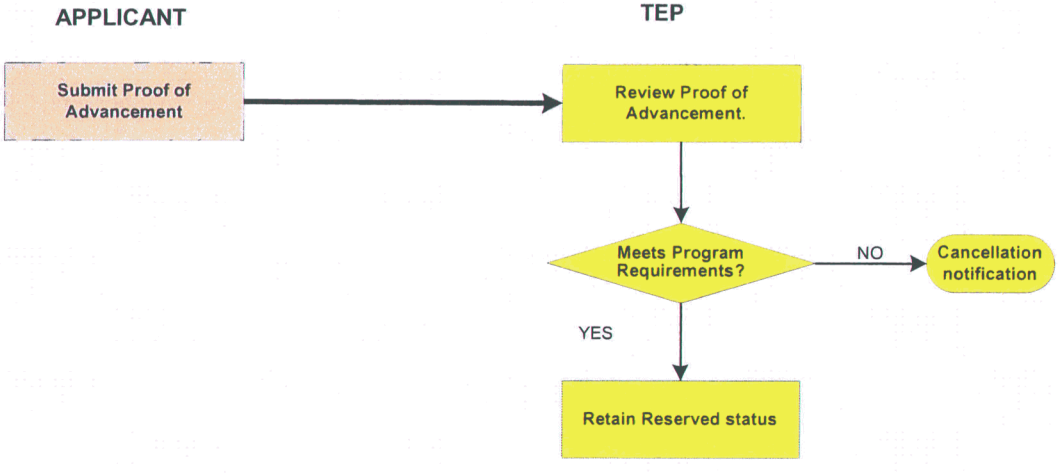
- Reservation requests for non-residential systems larger than 35,000 kWh equivalent annual production are assigned a rank based on the lowest expected life cycle credit purchase cost and likelihood of construction.
- In the event of a tie in the ranking, when the program would be fully subscribed if both projects were given reservation status, funds will be awarded based on the date of receipt of the completed reservation request.

If the reservation request is approved, TEP will send a confirmation to the applicant. A reservation request may be denied for two different reasons, each with its own consequences:

- The reservation request may be denied because it is not in conformance with program requirements. In this case, TEP will send notice that the request is cancelled.
- The reservation request may be denied because funding is not available. In this case, TEP will send a notification to the applicant that the request will be placed on a waiting list.

After reviewing the reservation request, TEP will assign a reservation status.

Step 2 – Proof of Advancement

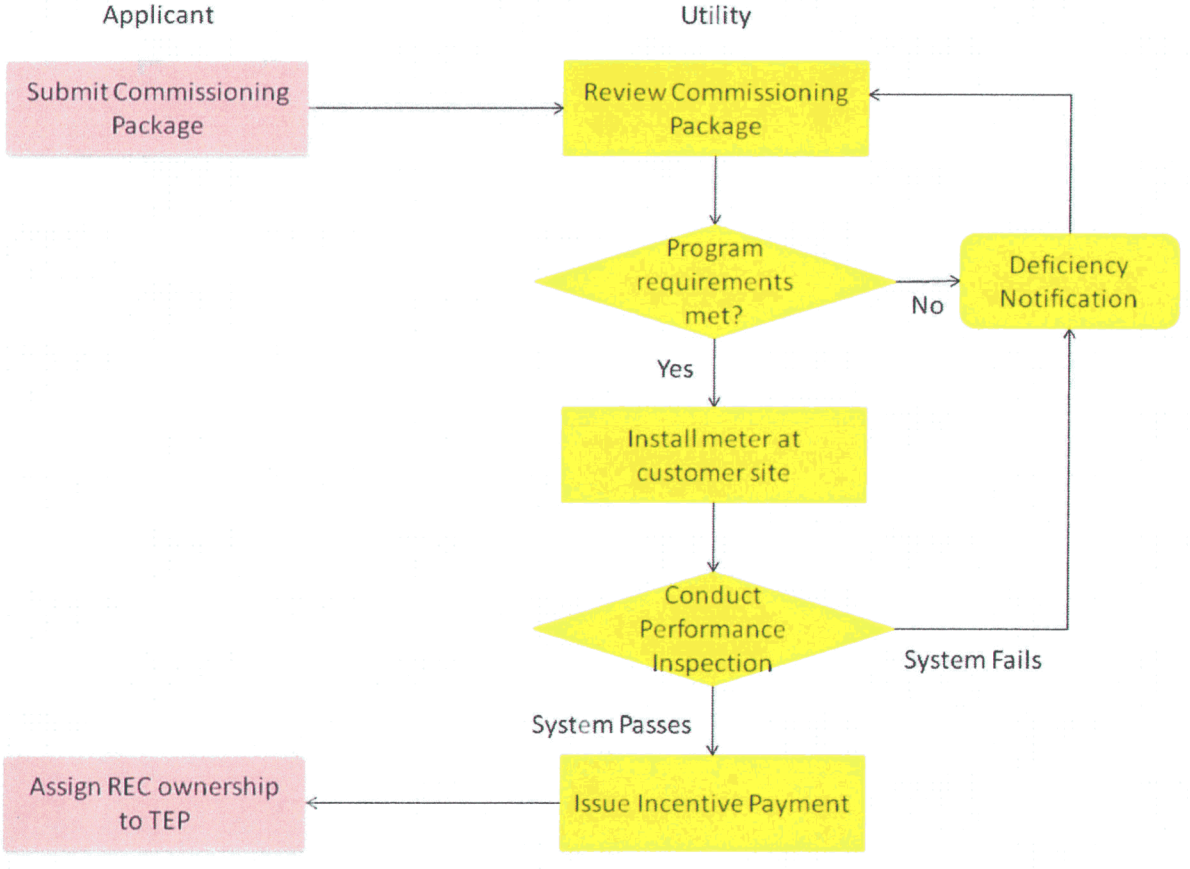


Applicants for non-residential systems larger than 35,000 kWh equivalent annual production output must submit proof of project advancement to TEP within 120 days of the date of reservation confirmation from TEP to retain the reservation. At a minimum, the Proof of Project Advancement documentation for a non-residential project larger than 35,000 kWh equivalent annual production output will include the following:

- A project agreement (between customer and installer);
- An executed installation agreement including all project participants;
- Building and/or construction permits and/or a full set of design development or construction drawings (80% or more complete).

If proof of project advancement is not received within the specified timeframe, the customer will be notified that the reservation is cancelled. The applicant has the option to reapply for funding after the reservation has been cancelled. The request will be processed in the same manner as a new project reservation and will be contingent upon availability of funding at the time the new application is received.

Step 3 – System Commissioning For Non-Residential Systems Larger Than 35,000 kWh equivalent annual production output

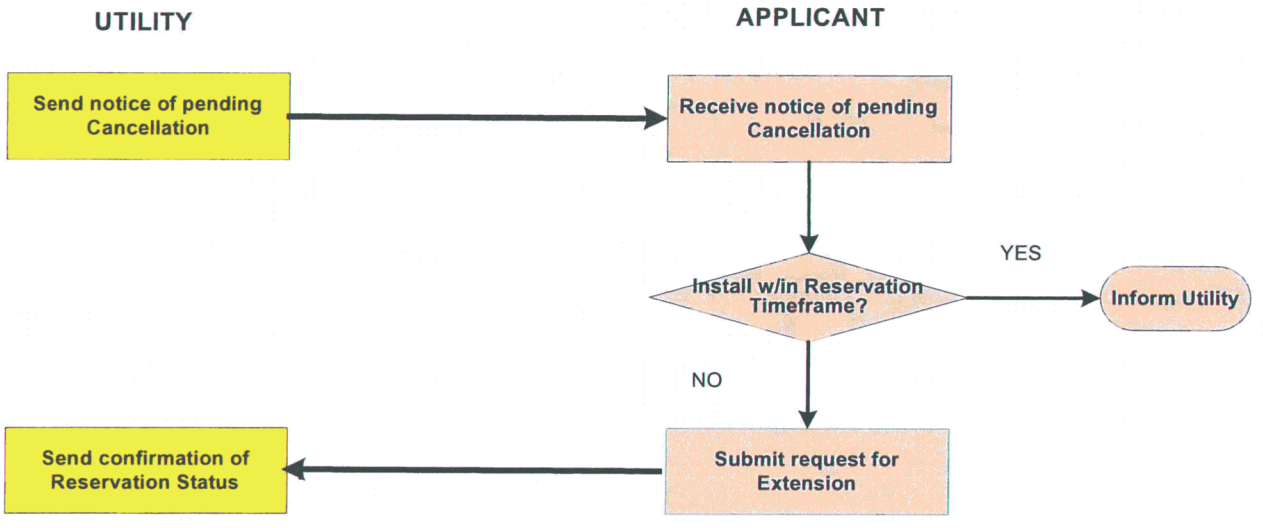


After the system has been commissioned, the applicant must submit a commissioning package to TEP. TEP will review the commissioning package and confirm that all program requirements have been met, including passing the interconnection inspection.

In addition, TEP may, at its discretion, perform a conformance inspection of the system. TEP will notify the applicant of the scheduled conformance inspection and the applicant must make the system

available for inspection. In most cases in which a conformance inspection is conducted, an incentive payment may not be issued until after a qualifying system has passed the conformance inspection.

Conditional Step – Extension / Cancellation



If all project requirements are not met within 365 days of the date of the reservation confirmation, the applicant must apply for an extension to remain eligible for the incentive. TEP will trigger this request for extension with a notice of the pending cancellation 60 days prior to the date of scheduled cancellation. TEP will grant an extension for up to 90 days following timely receipt of a customer's request for extension. TEP may approve written extension requests detailing the conditions for delay for periods beyond 90 days under extenuating circumstances, or for systems larger than 1 MW.

If all program requirements have not been met within the reservation timeframe, a reservation request will be cancelled unless an extension is granted.

Step 5 – Incentive Payment is Disbursed

Non-residential solar water heating and space heating systems larger than 35,000 kWh equivalent annual production output are eligible for a performance-based incentive (PBI). All PBI Project Agreements will include the following terms:

1. A project agreement between the applicant(s) and TEP that details the assignment of energy and RECs and the assignment of payment must be completed before payments can be disbursed.
2. Quarterly meter reads will be performed by TEP and quarterly payments will be made to the assigned payee within 30 days of the meter reading based on quarterly kWh production. If the payment due is less than $25.00, it will be held for the next payment period.
3. PBI payments will begin with the first quarterly production following receipt of the completed system commissioning package and conformance inspection, if required, and continue for the life of the agreement term. As part of this provision, it is understood that systems commissioned mid-quarter will receive payment only for the production of that partial quarter.

TEP's payment of a PBI will assure TEP complete and irrevocable ownership of the REC for the full duration of the PBI agreement. The agreement duration must fully coincide with the PBI payment schedule and the system must be supported by system warranty or planned maintenance schedules for the term of the agreement.

INCENTIVE LEVELS FOR LARGE COMMERCIAL SOLAR WATER HEATING AND SPACE HEATING SYSTEMS

Solar water heating and space heating in large commercial applications are eligible for performance-based incentives (PBIs). In the case of solar water heating and space heating, the PBI allows the customer to collect incentive payments in relation to the actual system production. Table 4 identifies the maximum incentives available for large commercial solar water heating and space heating systems.

In all cases, incentive values listed in Table 4 are maximum values. PBIs are awarded through a bid process, which is discussed later in this section. Applicants are encouraged to submit bids requesting incentive amounts less than the maximums listed. Bids requesting a lower level of incentive payment than the maximum will have an increased chance of acceptance in the allocation ranking process.

Table 4. Maximum Incentives for Large Commercial Solar Water Heating and Space Heating

	Maximum Incentive Level for REC Agreement of the Specified Duration**		
Year	**10-year REC Agreement**	**15-year REC Agreement**	**20-year REC Agreement**
2010	$0.057/kWh	$0.052/kWh	$0.051/kWh
2011*	$0.057/kWh	$0.052/kWh	$0.051/kWh
2012*	$0.057/kWh	$0.052/kWh	$0.051/kWh
2013*	$0.057/kWh	$0.052/kWh	$0.051/kWh
2014*	$0.057/kWh	$0.052/kWh	$0.051/kWh

Notes:
*Indicates that the incentive for that year has not yet been approved by the Arizona Corporation Commission (ACC). As such, these incentives are tentative and may change pending ACC approval.
**Incentive level is based upon $/kWh equivalent output

- There is no incentive cap for non-residential systems other than annual program funding considerations.
- A PBI cannot exceed 60% of the real project costs, defined as the undiscounted total system cost plus acceptable financing charges. Acceptable finance charges are finance charges used for the PBI incentive cap calculation and cannot exceed the current prime interest rate plus 5%. Financing charges must be disclosed as part of the commissioning package, if not disclosed before.
- The customer must pay at least 15% of the project cost, after other government incentives (e.g., tax credits) are considered. (See explanation of incentive calculation below.)
- Systems may not be eligible to receive RECPP incentives if other utility incentives are applied.
- TEP has adopted a standardized calculation method to support solar space heating system sizing and incentive payment. The display page of the spreadsheet calculation is presented in Attachment B.
- The bid evaluator reserves the right to award incentives to solar thermal projects other than those that meet the specifications outlined in Attachment A. Incentives in these cases will be determined by the bid evaluator.

The incentive amount will be calculated at the time the application is approved for reservation. If federal or state incentives change during the period of time after the reservation approval, the incentive amount reserved will not be changed as long as the reservation is not cancelled.

TEP's payment of a PBI will assure TEP complete and irrevocable ownership of the REC for the full duration of the PBI agreement. The agreement duration must fully coincide with the PBI payment schedule and the system must be supported by system warranty or planned maintenance schedules for the term of the agreement.

PROJECT FUNDING

Non-residential funds will be committed as bids are accepted; funds will not be placed in reserve for later in the year. As a result, the budget may be committed before the end of the year. Funds will be made available to projects based on a ranking generated by lowest expected life cycle credit purchase cost as provided in the application and verified by TEP. Projects submitted to the utility for reservation will be ranked based on a calculated index value for purposes of allocating non-residential funds as proposed in the application and verified by TEP. Lowest lifecycle cost projects will be funded first. Indexing of the non-residential projects will be performed based on the verified incentive values and duration of the proposed agreement in the application for that project. In addition, the bid evaluator assesses the likelihood that the project will be completed. Projects with higher incentive payments result in a higher expected life cycle credit purchase cost and projects that produce more kWh result in a lower expected life cycle credit purchase cost. In the event of a tie in the ranking, when the program would be fully subscribed if both projects were given reservation status, funds will be awarded based on the date of receipt of the completed reservation request.

Reservation requests will reviewed by the utility on a monthly basis. Once reservation requests are fully ranked each month, notification of reservation approvals and rejections will be made in conformance with the rankings and available funding.

Funds unused in one period will be equally divided among the remaining periods in that year. Funds allocated to non-residential projects will not roll forward from one year to the next. Reservations which are rejected as a result of insufficient program funds may elect to carry forward into the next period and retain the original reservation date. The election must be made at the time of the original application.

THE FINE PRINT

In addition to the other requirements described in this hand book, there are two other types of program details of which system owners and installers should be aware:

1. Installer qualifications
2. System removal

These are described in further detail below.

Installer Qualifications

All systems receiving incentives under the RECPP must be installed by a qualified installer. The following requirements must be submitted by the applicant as part of the reservation request. TEP will verify that the installer meets the following minimum qualifications prior to confirming a reservation request:

1. The installer must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC") with a license classification appropriate for the technology being installed. Alternatively, the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. A copy of the AZROC license must be provided as part of the reservation request.
2. The installer must possess an Arizona business license that is active and in good standing.

Installers may request that the above information be retained on file with TEP; however, under this option the installer must certify that the information on file remains current with the submission of each reservation request. Information on file must be renewed yearly.

System Removal

If receiving a PBI, the Qualifying System or any components thereof shall not be removed from the premises until the last day of the final month of the final full calendar year of the applicable incentive payment term in the Agreement following completion of system installation of the renewable energy system, without express agreement from TEP. If the Qualifying System is removed in violation of this provision, customer shall immediately reimburse TEP all incentive amounts paid by TEP to customer or on behalf of customer to an authorized third party.

In addition, if a Qualified System is removed, TEP shall monitor that specific customer site to ensure that an additional incentive is not provided for any new distributed renewable energy resource system on that site until the REC contracted operational life of the original system has been completed.

TEP shall attempt to monitor the number of missing or non-working distributed generation systems and shall summarize its observations in its annual Compliance Report.

Attachment A
Qualifications for Large Non-residential Solar Water Heating and Space Heating

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement which is in conflict with a site-specific governmental requirement shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Qualifications

1. Solar collector panels used will have a SRCC OG-100 certification or publicly-funded laboratory documentation showing the panel energy output under controlled and replicable test conditions.
2. If annual energy production is expected to exceed 10,000 kWh or equivalent, the system must include a dedicated performance customer-supplied meter to allow for monitoring of the amount of useful heat produced. Otherwise, compliance reporting production will be based on the design energy savings submitted at time of application.
3. Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a registered professional engineer. The engineering report shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.
4. The solar collector, heat exchangers and storage elements shall have an equipment warranty of at least five years to qualify for a PBI.
5. The system will in all cases have a material and full labor warranty of at least five years.

Installation Guidance

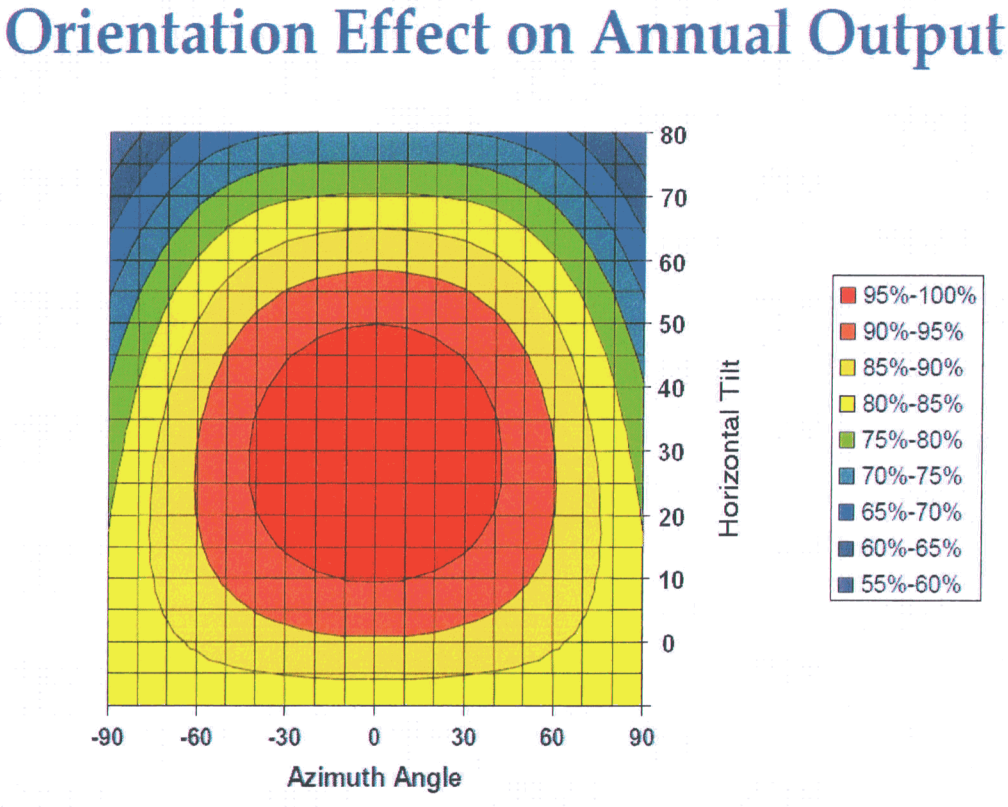
1. The horizontal tilt angle of the collector panels should be between 20 and 60 degrees (30 and 60 degrees for space heating applications) and an azimuth angle +/- 45 degrees of south. Azimuth or tilt angles outside these parameters may be reviewed and approved by the utility, at their discretion
2. All systems should be installed such that the energy collection system is substantially unshaded and should have substantially unobstructed exposure to direct sunlight between the hours of 9:00 a.m. and 3:00 p.m. Solar Hot Water de-rating chart (see Attachment C and D in this section) may be used to adjust incentive level based upon affected output due to shading.
3. The system installation should comply with the design manual.

4. Heat exchange fluid in glycol systems should be tested, flushed and refilled with new fluid as necessary or at a minimum every five years or sooner per manufacturer's recommendations.
5. It is recommended that the anode rod be checked and replaced per manufacturer's recommendations, but no less frequently than every five years.
6. It is recommended that the system design include a timer, switch, and a temperature sensor on the backup element of the storage tank.
7. It is recommended that in areas where water quality problems are reported to have reduced the expected life of a solar water heater, that a water quality test is performed for each residence to screen for materials that through interaction with the materials of the proposed solar water heating system may reduce the expected operational life of the system components. The customer should consider contacting the manufacturer to determine if warranty or operational life will be affected.
8. In areas subject to snow accumulation, sufficient clearance will be provided to allow a 12" snowfall to be shed from a solar collector without shadowing any part of the collector.
9. Each system shall have a comprehensive operation and maintenance manual at the customer's site, which includes a spare parts list, data sheets and flow diagrams indicating operating temperatures and pressures, maintenance schedules and description of testing methods and each customer must complete an initial start up and operation training review with the contractor at the time of system start up
10. TEP reserves the right to modify standards as technology changes on a case by case basis, pending independent laboratory analysis, Professional Engineer ("PE") stamp, or TEP engineering analysis

General Requirements

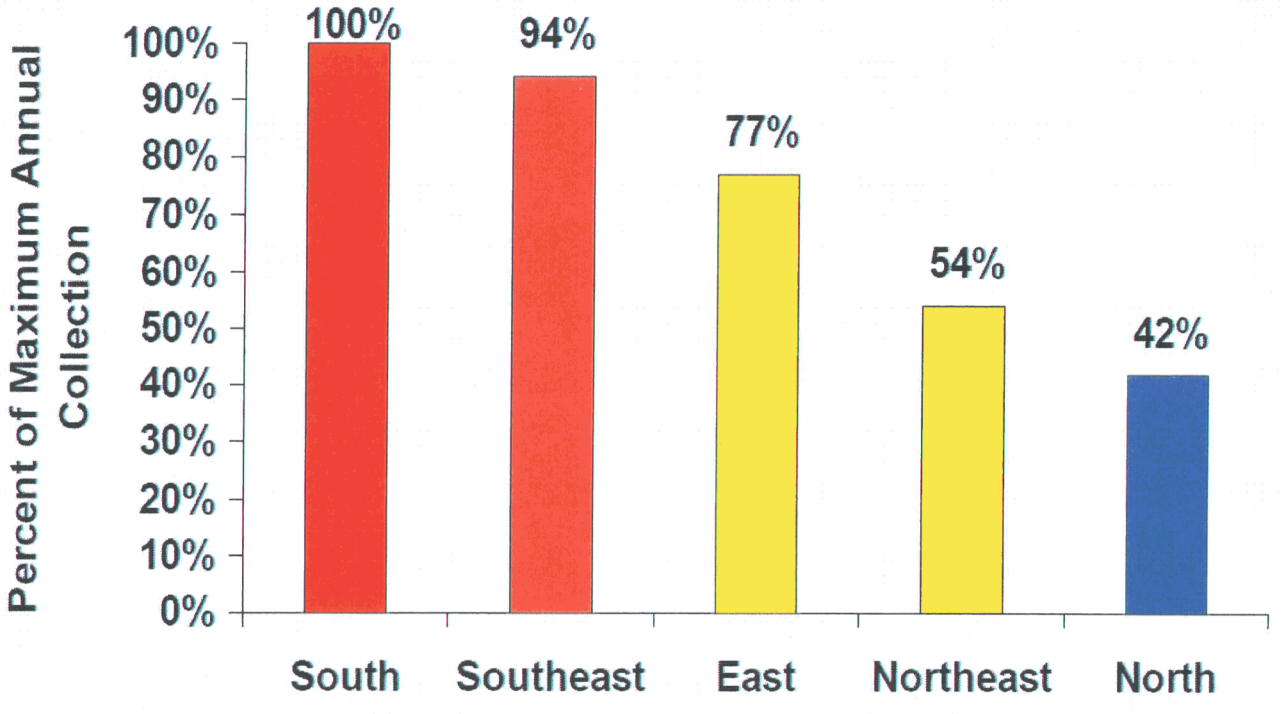
1. The project must comply with applicable local, state, and federal regulations.
2. Products must be installed according to manufacturers' recommendations.
3. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.
4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale.
5. All major system components must be new and must not have been previously placed in service in any other location or for any other application.
6. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric renewable energy production systems, noted below, will require customer supplied metering for PBI payment calculation purposes.
7. If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-Generation Equipment.

Attachment C
Solar Hot Water Off-Angle and Shading Annual Energy Derating Chart



If the SHW system falls outside of the 95-100% performance band, then the UFI for the system will be derated. The incentive will be derated based on the decrease in annual energy output anticipated by this chart.

Attachment D
Solar Hot Water System Azimuth Angle Derating Chart



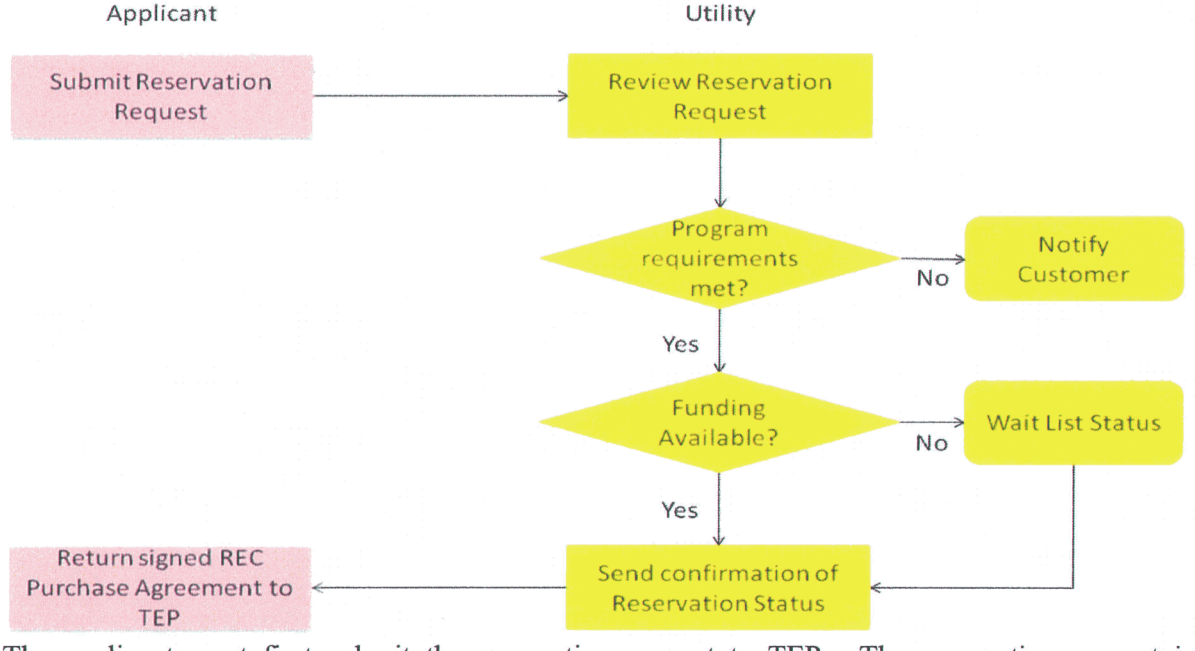
Ground Source Heat Pumps: Residential and Commercial Applications

Tucson Electric Power Company ("TEP" or the "Company") is committed to assisting our customers in develop their own renewable generation resources, through a balanced and supportive renewable energy distributed generation incentive program. Our goal is to create a program that will provide incentives for affordable, environmentally sensitive, customer-sited renewable energy generation systems to supplement TEP customer's energy needs. A properly designed system, matched to a customer's energy use, will provide a reduction in utility bills through the use of renewable resources. This program reflects our commitment to reduce the cost of developing renewable energy resources.

PROCESS FOR OBTAINING INCENTIVES

The process for obtaining incentives from TEP involves the flow of information between the applicant and TEP. The following sections reflect the typical three-step process.

Step 1 – Reservation Request and Assignment of Reservation Status



The applicant must first submit the reservation request to TEP. The reservation request includes information about the TEP customer on whose property the system will be located, the system, the calculation of the incentive, and the installer of the system.

TEP will review the reservation request to ensure the application conforms to program requirements.

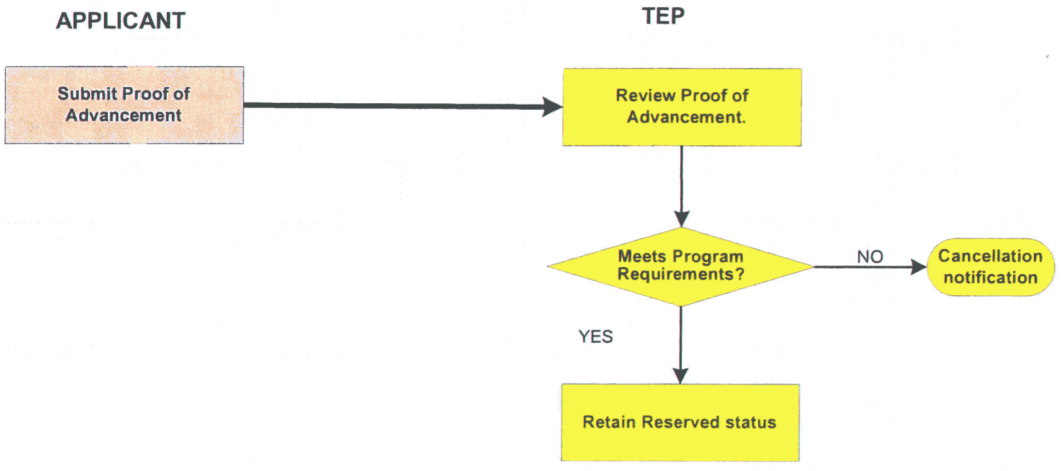
- Reservation requests for GSHP systems are processed on a first-come, first-reserved basis.
- Reservation requests for GSHP systems will be reviewed within 30 days of the utility's receipt of the request.

If the reservation request is approved, TEP will send a confirmation to the applicant. A reservation request may be denied for two different reasons, each with its own consequences:

- The reservation request may be denied because it is not in conformance with program requirements. In this case, TEP will send notice that the request is cancelled.
- The reservation request may be denied because funding is not available. In this case, TEP will send a notification to the applicant that the request will be placed on a waiting list.

After reviewing the reservation request, TEP will assign a reservation status.

Step 2 – Proof of Advancement

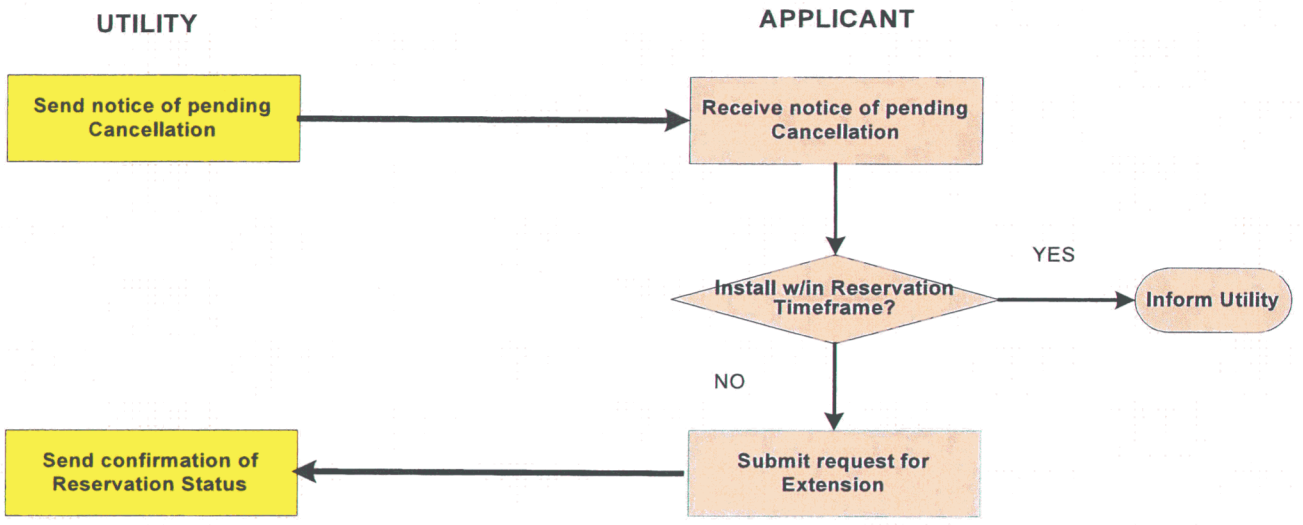


Applicants for GSHP systems must submit proof of project advancement to TEP within 60 days of the date of reservation confirmation from TEP to retain the reservation. Applicants for GSHP systems must provide copies of city/county inspection permits to TEP as documentation of the proof of project advancement. If those permits are not available within 60 days of the date of reservation confirmation, the applicant may also provide these documents in place of the permits:

- Signed agreement
- Assignment of Payment form
- Initial city/county permit application or actual receipt of final acceptance inspection paperwork from the city/county.

If proof of project advancement is not received within the specified timeframe, the applicant will be notified that the reservation is cancelled. The applicant has the option to reapply for funding after the reservation has been cancelled. The request will be processed in the same manner as a new project reservation and will be contingent upon availability of funding at the time the new application is received.

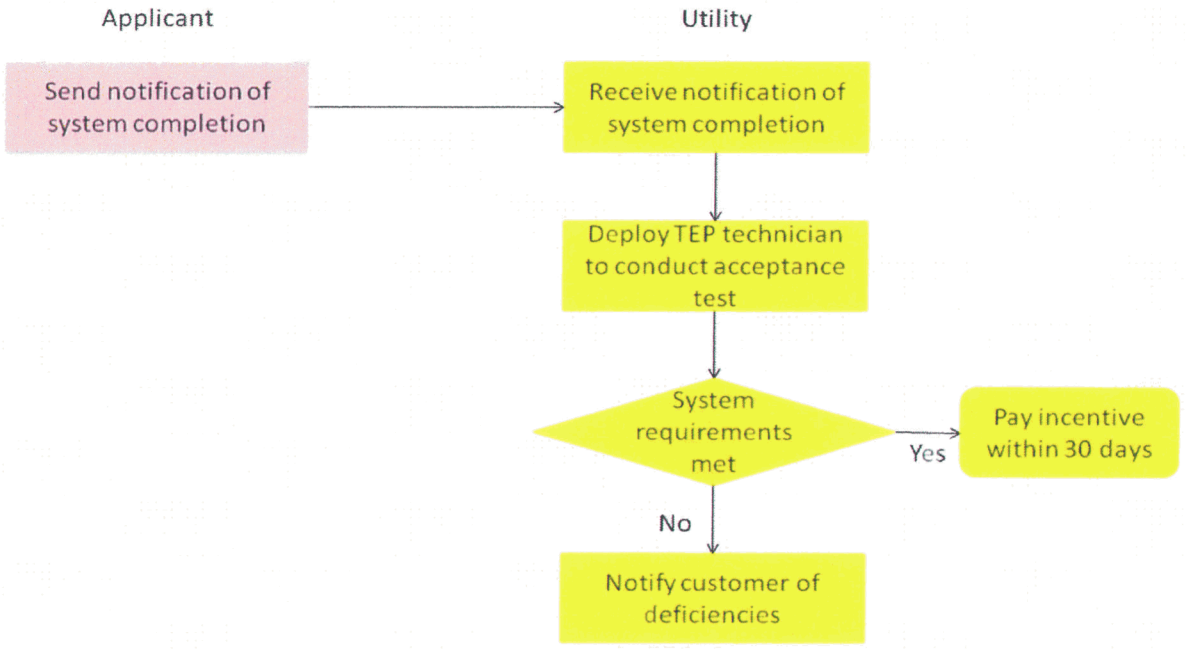
Conditional Step – Extension / Cancellation



If all project requirements are not met within 180 days of the date of the reservation confirmation, the applicant must apply for an extension to remain eligible for the incentive. TEP will trigger this request for extension with a notice of the pending cancellation 30 days prior to the date of scheduled cancellation. TEP will grant an extension for up to 90 days following timely receipt of a customer's request for extension. TEP may approve written extension requests detailing the conditions for delay for periods beyond 90 days under extenuating circumstances.

If all program requirements have not been met within the reservation timeframe, a reservation request will be cancelled unless an extension is granted.

Step 3 – Customer Requests Payment



Upon project completion, the customer must notify TEP that the system has been placed in service. This should be done by submitting a copy of the city/county final inspection permit. When TEP receives notification that the system is complete, TEP will perform an "acceptance test." The acceptance test requires that a TEP inspector test the system's compliance with the required specifications and its performance and determine that it is in line with TEP requirements.

If the system meets TEP specifications and performance requirements, TEP will pay the customer the UFI within 30 days of the acceptance test. If the system fails to meet TEP specifications and performance requirements, TEP will notify the customer within **5** days of the acceptance test. The customer will then have **30** days to address the deficiencies and notify TEP that the system is ready to be retested.

Incentive Levels for Residential and Commercial Ground Source Heat Pump Systems

Residential and small commercial ground source heat pump systems are eligible for up-front incentives ("UFIs"). UFIs are those incentives where the customer receives a one-time payment based on the system's designed capacity. Table 5 identifies the incentives available for GSHP systems.

Table 5. Up-Front Incentives for Residential and Commercial Ground Source Heat Pump Systems

Year	Incentive Level
2010	$500/ton
2011*	$500/ton
2012*	$500/ton
2013*	$500/ton
2014*	$500/ton

Notes:
*Indicates that the incentive for that year has not yet been approved by the Arizona Corporation Commission (ACC). As such, these incentives are tentative and may change pending ACC approval.

- There is no cap on the UFI that can be paid to residential customers.
- Commercial customers will receive a UFI up to a cap of 200 tons. If a commercial system is installed larger than 200 tons, it must apply under the large commercial program.
- The UFI may not exceed 30% of total system cost.
- The customer must pay at least 15% of the project cost, after other government incentives (e.g., tax credits) are considered. (See explanation of incentive calculation below.)
- Systems may not be eligible to receive RECPP incentives if other utility incentives are applied.

The incentive amount will be calculated at the time the application is approved for reservation. If federal or state incentives change during the period of time after the reservation approval, the incentive amount reserved will not be changed as long as the reservation is not cancelled.

In return for TEP's payment of a UFI, TEP will be given complete and irrevocable ownership of the RECs until December 31st of the 20th full calendar year after completion of installation of the system. Operational life during that time frame must be supported by system warranty or planned maintenance schedules.

PROJECT FUNDING

Funds will be made available for reservations on a first-come, first-reserved basis, until annual funding is reserved. Reservations which are rejected as a result of insufficient funds will be placed on a waiting list and offered the opportunity to retain their original reservation date for one additional quarter without the need to resubmit application documentation. If the incentive level has changed from the date of the original reservation to the date when the reservation is approved, the new incentive level shall be applied.

PROJECT REQUIREMENTS AFTER INSTALLATION

After completing the installation of a small distributed energy system, the customer must continue to provide information to TEP about the system's performance.

All customers receiving renewable energy self-generation incentives are obligated to report system production to TEP in accordance with the reporting schedule established in the program agreement between TEP and the customer. TEP, at its option, may perform periodic inspection of the system for operation, metered production, and reporting purposes.

THE FINE PRINT

In addition to the other requirements described in this hand book, there are two other types of program details of which system owners and installers should be aware:

1. Installer qualifications
2. System removal

These are described in further detail below.

Installer Qualifications

All systems receiving incentives under the RECPP must be installed by a qualified installer. The following requirements must be submitted by the applicant as part of the reservation request. TEP will verify that the installer meets the following minimum qualifications prior to confirming a reservation request:

1. The installer must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC") with a license classification appropriate for the technology being installed. Alternatively, the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. A copy of the AZROC license must be provided as part of the reservation request.
2. The installer must possess an Arizona business license that is active and in good standing.

Installers may request that the above information be retained on file with TEP; however, under this option the installer must certify that the information on file remains current with the submission of each reservation request. Information on file must be renewed yearly.

System Removal

If receiving a UFI, neither the Qualifying System nor any components thereof shall be removed from the premises (by either the applicant or future owners or occupants of the property) until December 31st of the 20th full calendar year following completion of system installation of the renewable energy system, without express agreement of TEP. If the Qualifying System is removed by any party in violation of this provision, customer shall immediately reimburse TEP all incentive amounts paid by TEP to customer or on behalf of customer to an authorized third party.

In addition, if a Qualified System is removed, TEP shall monitor that specific customer site to ensure that an additional incentive is not provided for any new distributed renewable energy resource system on that site until the REC contracted operational life of the original system has been completed.

TEP shall attempt to monitor the number of missing or non-working distributed generation systems and shall summarize its observations in its annual Compliance Report.

ATTACHMENT A
QUALIFICATIONS FOR RESIDENTIAL AND COMMERCIAL GROUND SOURCE HEAT PUMP SYSTEMS

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement which is in conflict with a site-specific governmental requirement shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Qualifications

1. Geothermal system installations involving a regulated boiler or pressure vessel are required to comply with all Arizona state boiler regulations; provide a qualifying boiler inspection identification number; and keep all applicable permits in good standing.
2. Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly-funded laboratory or by submitting an engineering report stamped by a registered third-party professional engineer. The engineering report shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.
3. Energy production for space heating, space cooling and process heating will be calculated as one kWh of energy per 3,415 Btu of useful heat delivered by the system as measured by a dedicated heat delivery measuring meter and used by the building space or process.
4. The system will have a material and labor warranty of at least five years.
5. The system must meet Arizona DEQ environmental standards.
6. The most current Energy Star Standards must be achieved. These can be found at http://www.energystar.gov/index.cfm?c=geoheat.prcritgeoheatpumps.

Installation Guidance

Because of the individual nature of geothermal systems, care should be taken to make sure the system complies with all applicable permitting and regulatory requirements including, but not limited to, air emission standards and air permit regulations.

General Requirements

1. The project must comply with applicable local, state, and federal regulations.
2. Products must be installed according to manufacturers' recommendations.

3. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.
4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale.
5. All major system components must be new and must not have been previously placed in service in any other location or for any other application.
6. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric renewable energy production systems, noted below, will require customer supplied metering for PBI payment calculation purposes.
7. If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-Generation Equipment.

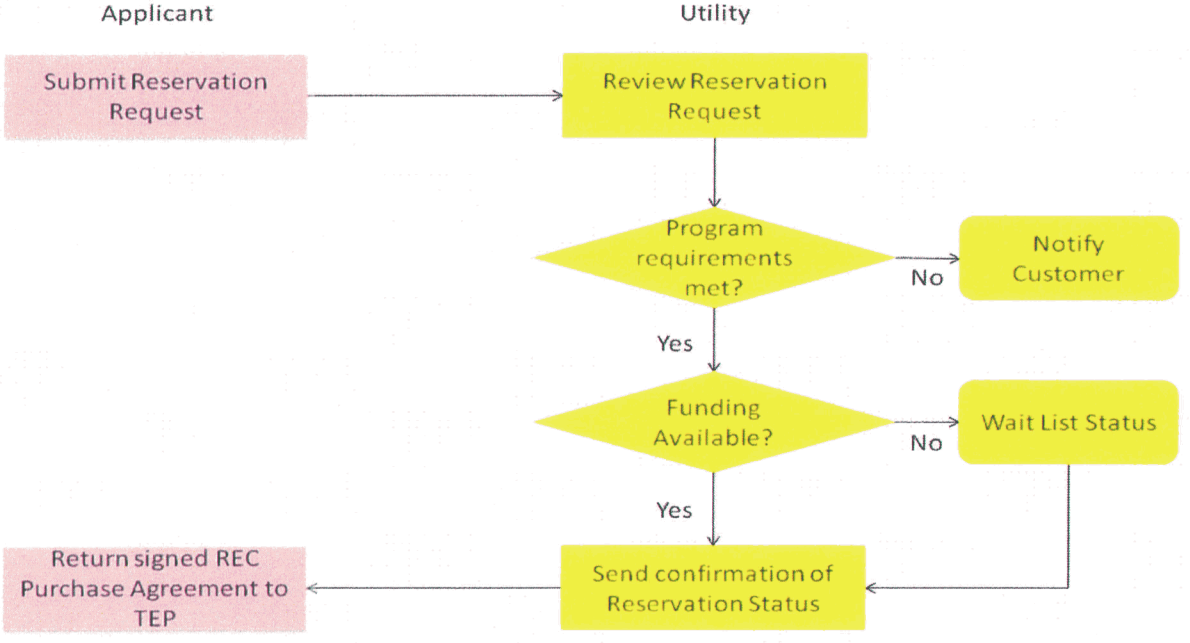
Wind Systems Smaller Than 1 MW

Tucson Electric Power Company ("TEP" or the "Company") is committed to assisting our customers in developing their own renewable generation resources, through a balanced and supportive renewable energy distributed generation incentive program. Our goal is to create a program that will provide incentives for affordable, environmentally sensitive, customer-sited renewable energy generation systems to supplement TEP customer's energy needs. A properly designed system, matched to a customer's energy use, will provide a reduction in utility bills through the use of renewable resources. This program reflects our commitment to reduce the cost of developing renewable energy resources.

PROCESS FOR OBTAINING INCENTIVES

The process for obtaining incentives from TEP involves the flow of information between the applicant and TEP. The following sections reflect the typical three-step process.

Step 1 – Reservation Request and Assignment of Reservation Status



The applicant must first submit the reservation request to TEP. The reservation request includes information about the TEP customer on whose property the system will be located, the wind system, the calculation of the incentive, and the installer of the system.

TEP will review the reservation request to ensure the application conforms to program requirements.

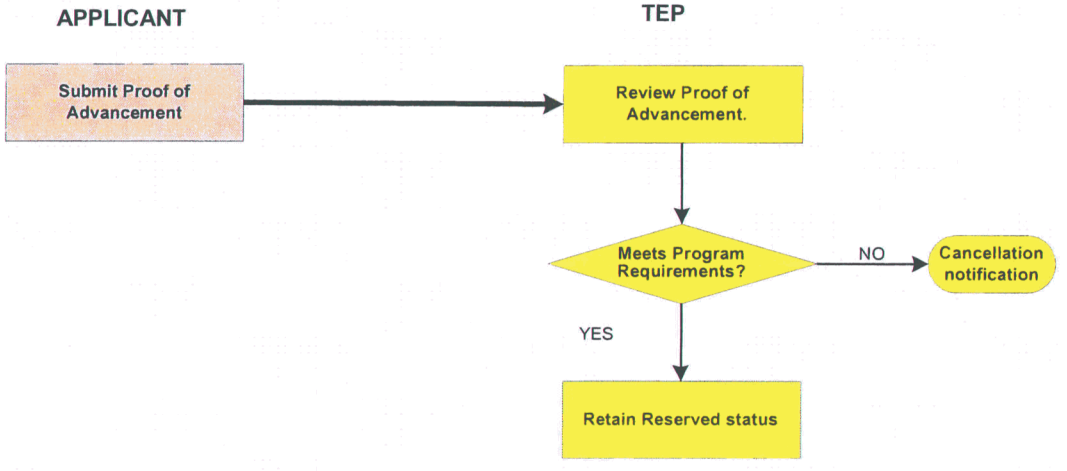
- Reservation requests for small wind systems are processed on a first-come, first-reserved basis.
- Reservation requests for small wind systems will be reviewed within 30 days of the utility's receipt of the request.

If the reservation request is approved, TEP will send a confirmation to the applicant. A reservation request may be denied for two different reasons, each with its own consequences:

- The reservation request may be denied because it is not in conformance with program requirements. In this case, TEP will send notice that the request is cancelled.
- The reservation request may be denied because funding is not available. In this case, TEP will send a notification to the applicant that the request will be placed on a waiting list.

After reviewing the reservation request, TEP will assign a reservation status.

Step 2 – Proof of Advancement

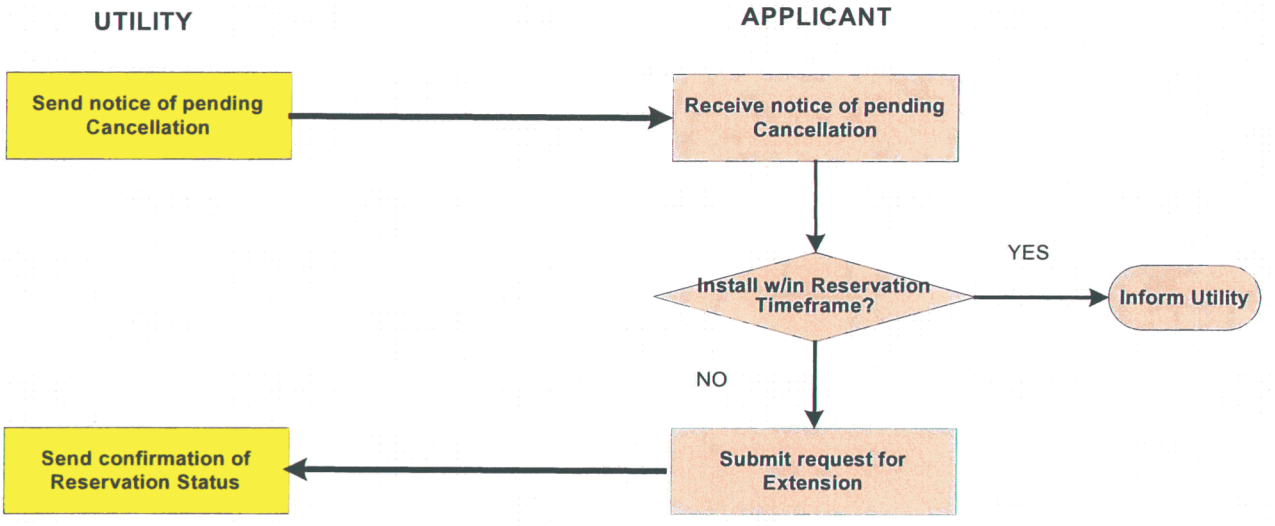


Applicants for wind systems smaller than 1 MW must submit proof of project advancement to TEP within 60 days of the date of reservation confirmation from TEP to retain the reservation. Applicants for wind systems smaller than 1 MW must provide copies of city/county inspection permits to TEP as documentation of the proof of project advancement. If those permits are not available within 60 days of the date of reservation confirmation, the applicant may also provide these documents in place of the permits:

- Signed agreement
- Assignment of Payment form
- Initial city/county permit application or actual receipt of final acceptance inspection paperwork from the city/county.

If proof of project advancement is not received within the specified timeframe, the applicant will be notified that the reservation is cancelled. The applicant has the option to reapply for funding after the reservation has been cancelled. The request will be processed in the same manner as a new project reservation and will be contingent upon availability of funding at the time the new application is received.

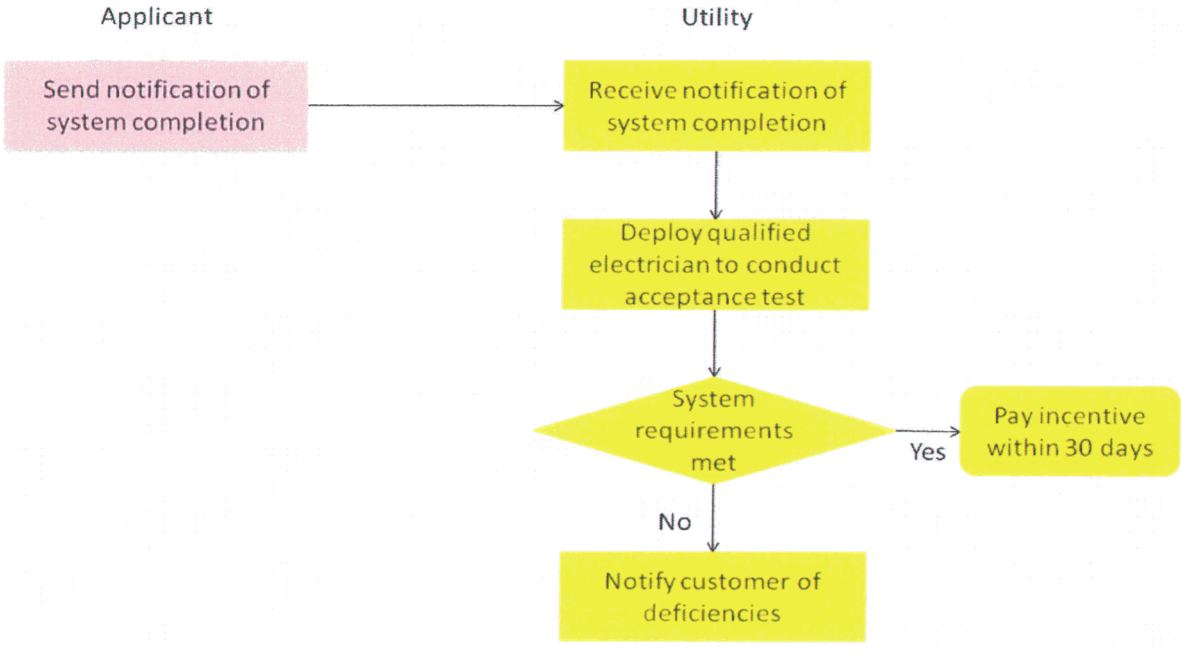
Conditional Step – Extension / Cancellation



If all project requirements are not met within 180 days of the date of the reservation confirmation, the applicant must apply for an extension to remain eligible for the incentive. TEP will trigger this request for extension with a notice of the pending cancellation 30 days prior to the date of scheduled cancellation. TEP will grant an extension for up to 90 days following timely receipt of a customer's request for extension. TEP may approve written extension requests detailing the conditions for delay for periods beyond 90 days under extenuating circumstances.

If all program requirements have not been met within the reservation timeframe, a reservation request will be cancelled unless an extension is granted.

Step 3 – Customer Requests Payment



Upon project completion, the customer must notify TEP that the system has been placed in service. This should be done in by submitting a copy of the city/county final inspection permit. When TEP receives notification that the system is complete, TEP will perform an "acceptance test." The acceptance test requires that a TEP inspector test the system's compliance with the required specifications and its performance and determine that it is in line with TEP requirements.

If the system meets TEP specifications and performance requirements, TEP will pay the customer the UFI within 30 days of the acceptance test. If the system fails to meet TEP specifications and performance requirements, TEP will notify the customer within **5** days of the acceptance test. The customer will then have **30** days to address the deficiencies and notify TEP that the system is ready to be retested.

INCENTIVE LEVELS FOR SMALL WIND SYSTEMS

Wind systems smaller than 1 MW are eligible for up-front incentives ("UFIs"). UFIs are those incentives where the customer receives a one-time payment based on the system's designed capacity. Table 6 identifies the incentives available for wind systems smaller than 1 MW.

Table 6. Up-Front Incentives for Small Wind Systems

	On-Grid Incentive Level	Off-Grid Incentive Level
2010	$2.25/W AC	$1.80/W AC
2011*	$2.25/W AC	$1.80/W AC
2012*	$2.25/W AC	$1.80/W AC
2013*	$2.25/W AC	$1.80/W AC
2014*	$2.25/W AC	$1.80/W AC

Notes:
*Indicates that the incentive for that year has not yet been approved by the Arizona Corporation Commission ("ACC" or the "Commission"). As such, these incentives are tentative and may change pending ACC approval.

- TEP customers will receive a UFI up to a cap of 1 MW. If a system is installed larger than 1 MW, it must apply under the utility-scale program.
- The UFI may not exceed 60% of total System Cost.
- The customer must pay at least 15% of the project cost, after other government incentives (e.g., tax credits) are considered. (See explanation of incentive calculation below.)
- Systems may not be eligible to receive RECPP incentives if other utility incentives are applied.

The incentive amount will be calculated at the time the application is approved for reservation. If federal or state incentives change during the period of time after the reservation approval, the incentive amount reserved will not be changed as long as the reservation is not cancelled.

In return for TEP's payment of a UFI, TEP will be given complete and irrevocable ownership of the RECs until December 31st of the 20th full calendar year after completion of installation of the system. Operational life during that time frame must be supported by system warranty or planned maintenance schedules.

PROJECT FUNDING

Funds will be made available for reservations on a first-come, first-reserved basis, until annual funding is reserved. Reservations which are rejected as a result of insufficient funds will be placed on a waiting list and offered the opportunity to retain their original reservation date for one additional quarter without the need to resubmit application documentation. If the incentive level has changed from the date of the original reservation to the date when the reservation is approved, the new incentive level shall be applied.

NET METERING

All projects must comply with ACC net metering rules.

PROJECT REQUIREMENTS AFTER INSTALLATION

After completing the installation of a small wind project, the customer must continue to provide information to TEP about the system's performance.

All customer systems receiving renewable energy self-generation incentives are obligated to include a TEP-supplied production meter, which will report system production to TEP in accordance with the regular meter-reading schedule. TEP, at its option, may perform periodic inspection of the system for operation, metered production, and reporting purposes.

THE FINE PRINT

In addition to the other requirements described in this hand book, there are three other types of program details of which system owners and installers should be aware:

1. Installer qualifications
2. Customer-installed systems
3. System removal

These are described in further detail below.

Installer Qualifications

All systems receiving incentives under the RECPP must be installed by a qualified installer. The following requirements must be submitted by the applicant as part of the reservation request. TEP will verify that the installer meets the following minimum qualifications prior to confirming a reservation request:

1. The installer must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC") with a license classification appropriate for the technology being installed. Alternatively, the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. A copy of the AZROC license must be provided as part of the reservation request.
2. The installer must possess an Arizona business license that is active and in good standing.

Installers may request that the above information be retained on file with TEP; however, under this option the installer must certify that the information on file remains current with the submission of each reservation request. Information on file must be renewed yearly.

Installations by Customer (Residential Photovoltaic and Wind Only)

Residential customers may self-install PV systems 10 kWac or smaller providing they adhere to all applicable codes and standards. The customer-installed systems are eligible for an incentive equal to 70% of the standard UFI, as otherwise listed in the incentive table above. TEP reserves the right to withdraw this self-install qualification condition at any time in the future if TEP finds self-installations are not adhering to the applicable codes and standards or are found to be of poor quality workmanship.

System Removal

If receiving a UFI, neither the Qualifying System nor any components thereof shall be removed from the premises (by either the applicant or future owners or occupants of the property) until December 31st of the 20th full calendar year following completion of system installation of the renewable energy system, without express agreement of TEP. If the Qualifying System is removed by any party in violation of this provision, customer shall immediately reimburse TEP all incentive amounts paid by TEP to customer or on behalf of customer to an authorized third party.

In addition, if a Qualified System is removed, TEP shall monitor that specific customer site to ensure that an additional incentive is not provided for any new distributed renewable energy resource system on that site until the REC contracted operational life of the original system has been completed.

TEP shall attempt to monitor the number of missing or non-working distributed generation systems and shall summarize its observations in its annual Compliance Report.

Attachment A
Qualifications for Wind Systems Smaller Than 1 MW

A small wind generator is a system with a nameplate capacity rating of one MW or less. The technology criteria described below are intended for small wind generators with a nameplate rating of 100 kW or less. Larger systems will be required to submit a detailed package describing site selection, energy production modeling, and an engineered system design and installation report.

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement which is in conflict with a site-specific governmental requirement shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Qualifications

1. Eligible small wind systems must be certified and nameplate rated by the Consumer Energy Center ("CEC")[6]. See www.consumerenergycenter.org/erprebate/equipment.html for a list of certified generators. For grid tied or off-grid wind generators where an inverter is used, the CEC listed nameplate rating of the wind generator will be multiplied by the CEC approved weighted efficiency percentage listed for the inverter in the "List of Eligible Inverters" at www.consumerenegycenter.org/cgi-bin/eligible_inverters.cgi to calculate the wind turbine nameplate rating for use in determining the UFI payment.[7]
2. Grid connected inverters used as part of the system shall carry a UL listing certifying full compliance with Underwriter's Laboratory ("UL")-1741.
3. A system must include a dedicated performance meter (provided by TEP) installed to allow for measurement of the amount of electricity produced.
4. The performance meter and utility disconnect for grid tied systems will be installed in a location readily accessible by TEP during normal business hours.
5. Off-grid systems of capacity less than 10 kWac will not be metered. Compliance reporting production will be based on an annual 20% capacity factor.
6. The tower used in the installation must be designed by an Arizona registered engineer and must be suitable for use with the wind generator. Tower installation must be designed and supervised by individuals familiar with local geotechnical conditions.

[6] TEP recommends review of the SWCC standards for rating small wind generators once they become available for purposes of supplanting the CEC requirement in this Technology Criterion.

[7] Inverter outputs are rated in dc Watts and must be converted to ac Watts for incentive calculation purposes.

7. To receive a UFI, the wind generator and system must be covered by a manufacturer's warranty of at least 5 years. Otherwise the system will qualify for a PBI. In all cases, the wind system will have a material and labor warranty of at least five years.

Installation Guidance

1. Location: a wind turbine hub should be at least 20 feet above any surrounding object and at least 28 feet above the ground within a 250-foot radius. Wind generators should be installed in locations with an elevation at or above the general elevation of the surrounding terrain.
2. Lot Size: should be one-half acre at minimum. Municipalities and public facilities such as schools and libraries are exempt from the minimum lot size requirements.

General Requirements

1. The project must comply with applicable local, state, and federal regulations.
2. Products must be installed according to manufacturers' recommendations.
3. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.
4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale.
5. All major system components must be new and must not have been previously placed in service in any other location or for any other application.
6. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric renewable energy production systems, noted below, will require customer supplied metering for PBI payment calculation purposes.
7. Wind system components shall be properly labeled, including AC & DC disconnects (if present), wind generation meter, service panel (outside cover), and breakers inside the service panel.
8. If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-Generation Equipment.
   See http://images.edocket.azcc.gov/docketpdf/0000074361.pdf for these requirements.

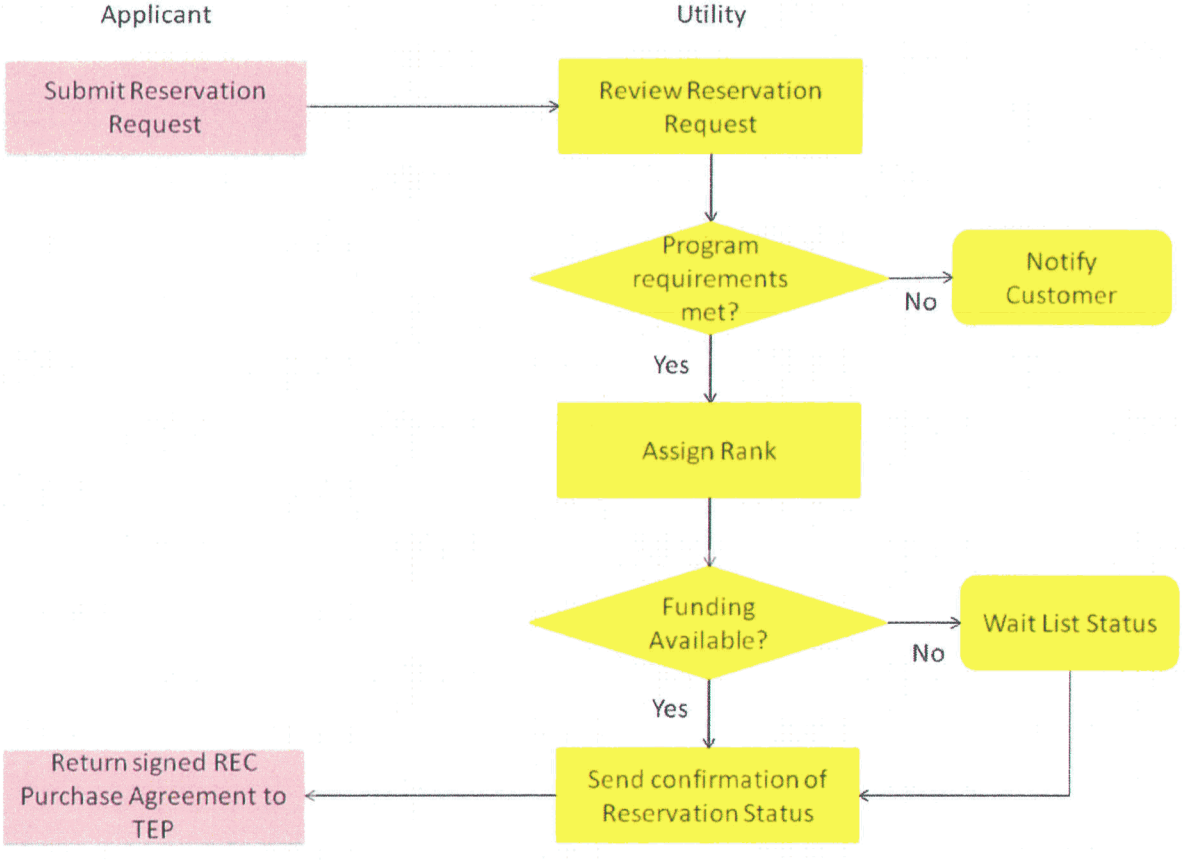
Non-Residential Solar Daylighting

Tucson Electric Power Company ("TEP" or the "Company") is committed to assisting our customers in developing their own renewable generation resources, through a balanced and supportive renewable energy distributed generation incentive program. Our goal is to create a program that will provide incentives for affordable, environmentally sensitive, customer-sited renewable energy generation systems to supplement TEP customer's energy needs. A properly designed system, matched to a customer's energy use, will provide a reduction in utility bills through the use of renewable resources. This program reflects our commitment to reduce the cost of developing renewable energy resources.

PROCESS FOR OBTAINING INCENTIVES

The process for obtaining incentives from TEP involves the flow of information between the applicant and TEP. The following sections reflect the typical five-step process.

Step 1 – Reservation Request and Assignment of Reservation Status



The applicant must first submit the reservation request to TEP. The reservation request includes information about the TEP customer on whose property the system will be located, the system itself, the calculation of the incentive, and the installer of the system.

TEP will review the reservation request within 90 days of receipt of the request to ensure the application conforms to program requirements.

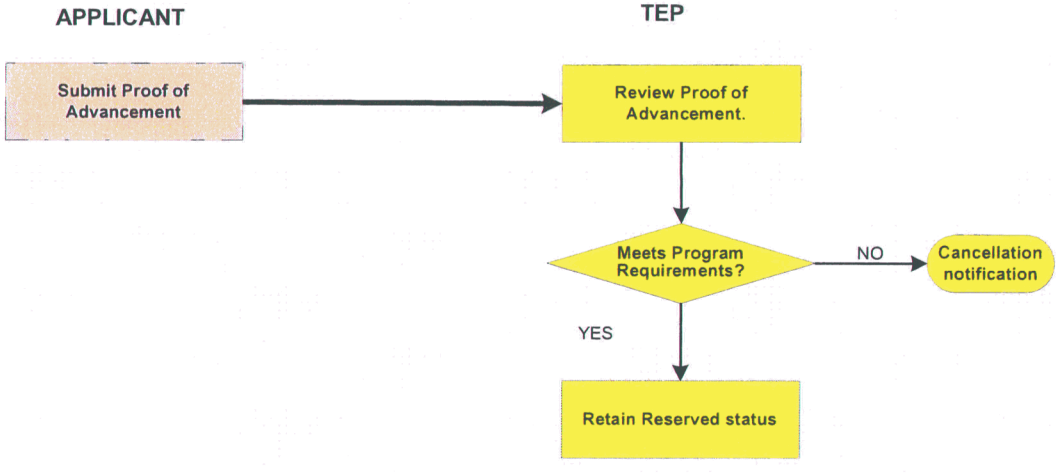
- Reservation requests for non-residential solar daylighting are assigned a rank based on the lowest expected life cycle credit purchase cost.
- In the event of a tie in the ranking, when the program would be fully subscribed if both projects were given reservation status, funds will be awarded based on the date of receipt of the completed reservation request.

If the reservation request is approved, TEP will send a confirmation to the applicant. A reservation request may be denied for two different reasons, each with its own consequences:

- The reservation request may be denied because it is not in conformance with program requirements. In this case, TEP will send notice that the request is cancelled.
- The reservation request may be denied because funding is not available. In this case, TEP will send a notification to the applicant that the request will be placed on a waiting list.

After reviewing the reservation request, TEP will assign a reservation status.

Step 2 – Proof of Advancement



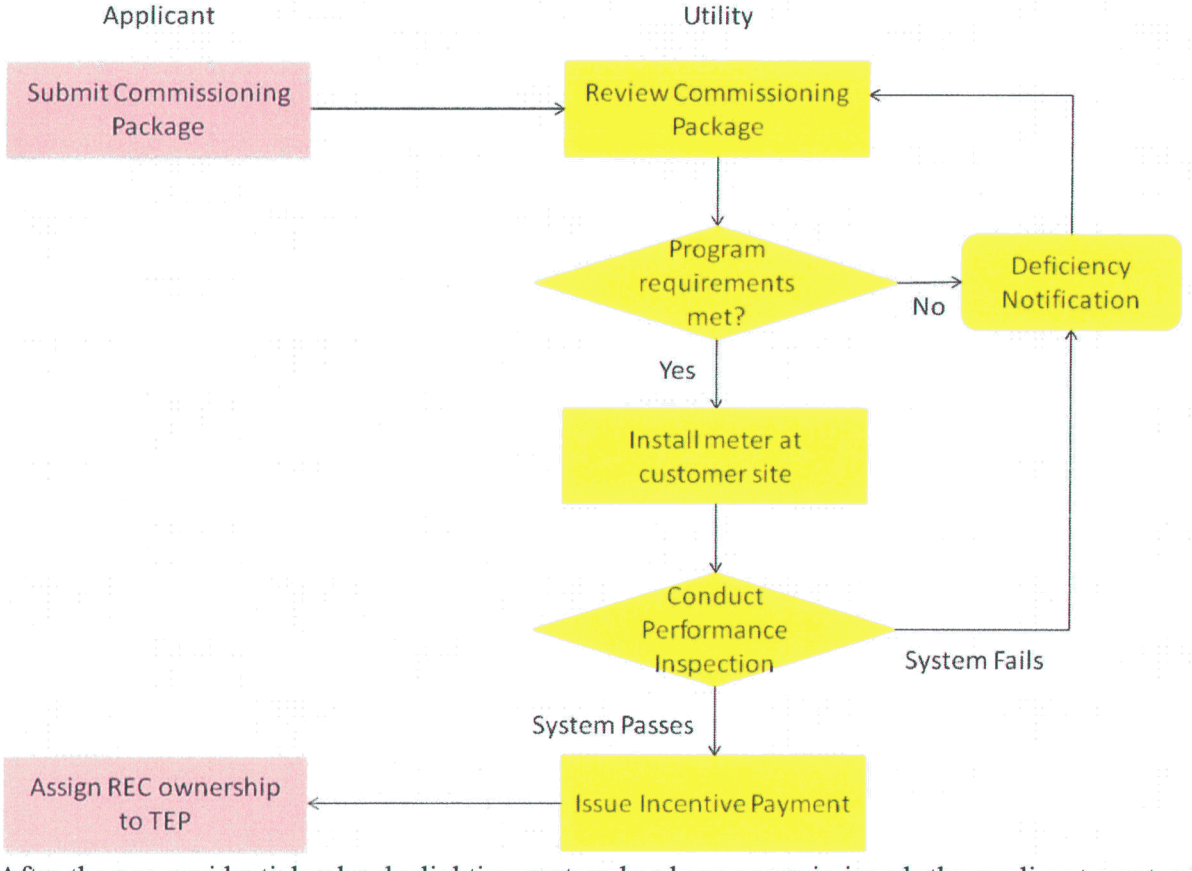
Applicants for non-residential solar daylighting must submit proof of project advancement to TEP within 120 days of the date of reservation confirmation from TEP to retain the reservation. At a minimum, the Proof of Project Advancement documentation for a non-residential solar daylighting system will include the following:

- A project agreement (between customer and installer);
- An executed installation agreement including all project participants;

- Building and/or construction permits and/or a full set of design development or construction drawings (80% or more complete); and

If proof of project advancement is not received within the specified timeframe, the customer will be notified that the reservation is cancelled. The applicant has the option to reapply for funding after the reservation has been cancelled. The request will be processed in the same manner as a new project reservation and will be contingent upon availability of funding at the time the new application is received.

Step 3 – System Commissioning

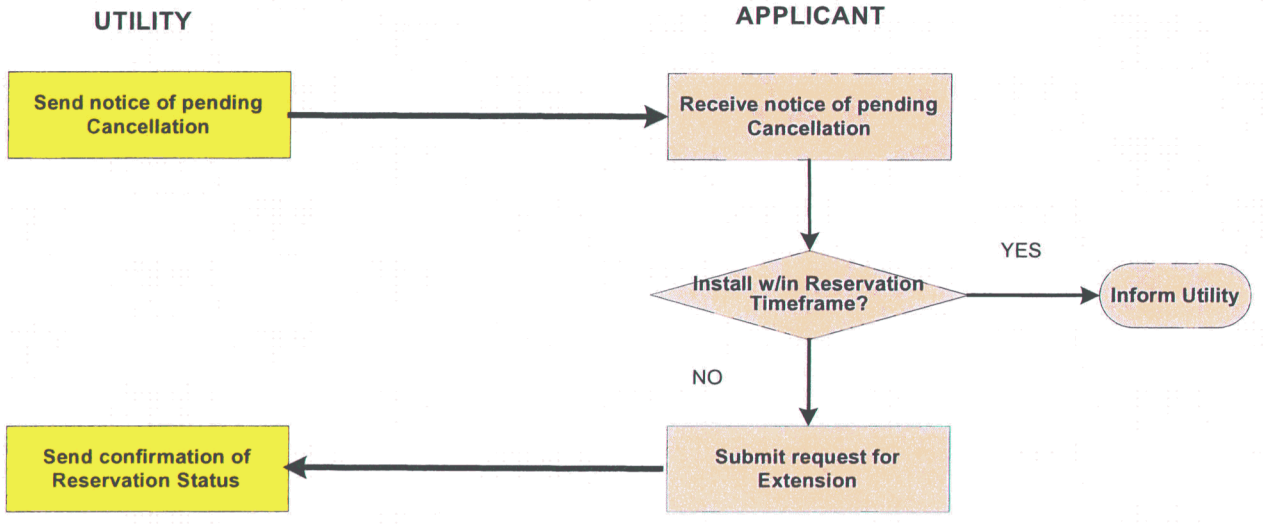


After the non-residential solar daylighting system has been commissioned, the applicant must submit a commissioning package to TEP. TEP will review the commissioning package and confirm that all program requirements have been met, including passing the interconnection inspection.

After receiving the commissioning package, TEP will dispatch a TEP representative to install the meter at the system site. The meter will be certified according to the TEP standards. The customer must provide access to the site during normal business hours so that the TEP representative can install the meter.

In addition, TEP may, at its discretion, perform a conformance inspection of the system. TEP will notify the applicant of the scheduled conformance inspection and the applicant must make the system available for inspection. In most cases in which a conformance inspection is conducted, an incentive payment may not be issued until after a qualifying system has passed the conformance inspection.

Conditional Step – Extension / Cancellation



If all project requirements are not met within 365 days of the date of the reservation confirmation, the applicant must apply for an extension to remain eligible for the incentive. TEP will trigger this request for extension with a notice of the pending cancellation 60 days prior to the date of scheduled cancellation. TEP will grant an extension for up to 90 days following timely receipt of a customer's request for extension. TEP may approve written extension requests detailing the conditions for delay for periods beyond 90 days under extenuating circumstances.

If all program requirements have not been met within the reservation timeframe, a reservation request will be cancelled unless an extension is granted.

Step 4 – Incentive Payment is Disbursed

Non-residential daylighting systems are eligible for a performance-based incentive ("PBI"). All PBI Project Agreements will include the following terms:

1. A project agreement between the applicant(s) and TEP that details the assignment of energy and RECs and the assignment of payment must be completed before payments can be disbursed.
2. Quarterly meter reads will be performed by TEP and quarterly payments will be made to the assigned payee within 30 days of the meter reading based on quarterly kWh production. If the payment due is less than $25.00, it will be held for the next payment period.
3. PBI payments will begin with the first quarterly production following receipt of the completed system commissioning package and conformance inspection, if required, and continue for the life of the agreement term. As part of this provision, it is understood that systems commissioned mid-quarter will receive payment only for the production of that partial quarter.

TEP's payment of a PBI will assure TEP complete and irrevocable ownership of the REC for the full duration of the PBI agreement. The agreement duration must fully coincide with the PBI payment schedule and the system must be supported by system warranty or planned maintenance schedules for the term of the agreement.

INCENTIVE LEVELS FOR NON-RESIDENTIAL SOLAR DAYLIGHTING SYSTEMS

Non-residential solar daylighting systems are eligible for performance-based incentives ("PBIs"). The PBI allows the customer to collect incentive payments in direct relation to the actual system production.

Table 7 identifies the incentives available for non-residential daylighting systems.

In all cases, incentive values listed in

Table 7 are maximum values. PBIs are awarded through a bid process, which is discussed later in this section. Applicants are encouraged to submit bids requesting incentive amounts less than the maximums listed. Bids requesting a lower level of incentive payment than the maximum will have an increased chance of acceptance in the allocation ranking process.

Table 7. Up-Front Incentives for Non-Residential Daylighting Systems

Year	Incentive Level
2010	$0.18/kWh savings during first five years
2011*	$0.18/kWh savings during first five years
2012*	$0.18/kWh savings during first five years
2013*	$0.18/kWh savings during first five years
2014*	$0.18/kWh savings during first five years
Notes: *Indicates that the incentive for that year has not yet been approved by the Arizona Corporation Commission ('ACC" or the "Commission"). As such, these incentives are tentative and may change pending Commission approval. • The per-kWh incentive applies only to energy savings realized during the first five years of project	

operation. The incentive is paid out over the five-year period.
- The UFI may not exceed 60% of total System Cost.
- The customer must pay at least 15% of the project cost, after other government incentives (e.g., tax credits) are considered. (See explanation of incentive calculation below.)
- Systems may not be eligible to receive RECPP incentives if other utility incentives are applied.
- As described later in this document, these incentive levels may be decreased because of sub-optimal system positioning.

The incentive amount will be calculated at the time the application is approved for reservation. If federal or state incentives change during the period of time after the reservation approval, the incentive amount reserved will not be changed as long as the reservation is not cancelled.

In return for TEP's payment of a UFI, TEP will be given complete and irrevocable ownership of the RECs until December 31st of the 20th full calendar year after completion of installation of the system. Operational life during that time frame must be supported by system warranty or planned maintenance schedules.

PROJECT FUNDING

Funds will be made available for reservations on a first-come, first-reserved basis, until annual funding is reserved. Reservations which are rejected as a result of insufficient funds will be placed on a waiting list and offered the opportunity to retain their original reservation date for one additional quarter without the need to resubmit application documentation. If the incentive level has changed from the date of the original reservation to the date when the reservation is approved, the new incentive level shall be applied.

Funds unused in one period will be equally divided among the remaining periods in that year. Funds allocated to non-residential projects will not roll forward from one year to the next. Reservations which are rejected as a result of insufficient program funds may elect to carry forward into the next period and retain the original reservation date. The election must be made at the time of the original application.

THE FINE PRINT

In addition to the other requirements described in this hand book, there are two other types of program details of which system owners and installers should be aware:

1. Installer qualifications
2. System removal

These are described in further detail below.

Installer Qualifications

All systems receiving incentives under the RECPP must be installed by a qualified installer. The following requirements must be submitted by the applicant as part of the reservation request. TEP will verify that the installer meets the following minimum qualifications prior to confirming a reservation request:

1. The installer must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC") with a license classification appropriate for the technology being installed. Alternatively, the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. A copy of the AZROC license must be provided as part of the reservation request.
2. The installer must possess an Arizona business license that is active and in good standing.

Installers may request that the above information be retained on file with TEP; however, under this option the installer must certify that the information on file remains current with the submission of each reservation request. Information on file must be renewed yearly.

System Removal

If receiving a PBI, the Qualifying System or any components thereof shall not be removed from the premises until the last day of the final month of the final full calendar year of the applicable incentive payment term in the Agreement following completion of system installation of the renewable energy system, without express agreement from TEP. If the Qualifying System is removed in violation of this provision, customer shall immediately reimburse TEP all incentive amounts paid by TEP to customer or on behalf of customer to an authorized third party.

In addition, if a Qualified System is removed, TEP shall monitor that specific customer site to ensure that an additional incentive is not provided for any new distributed renewable energy resource system on that site until the REC contracted operational life of the original system has been completed.

TEP shall attempt to monitor the number of missing or non-working distributed generation systems and shall summarize its observations in its annual Compliance Report.

Attachment A
Qualifications for Non-Residential Solar Daylighting

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement, which is in conflict with a site-specific governmental requirement, shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Qualifications

All systems shall include the following components as part of the day lighting system:

1. Skylights must adhere to the 2009 International Energy Conservation Code with regard to the U-factor and solar heat gain coefficient and must have a minimum visible transmittance based on the CPUC Savings by Design program (Note: U-value and SHGC ratings should be based on a 20 degree ratings, now standard through the NFRC):
    - Maximum U-factor of 0.75
    - Maximum solar heat gain coefficient of 0.35
    - Minimum visible transmittance of 0.45
2. Skylight can be in a toplighting configuration only.
3. Skylight area may not exceed 3% of the gross roof area.
4. Skylights must be certified by the National Fenestration Rating Council (NFRC).
5. If artificial lighting systems remain a part of the installation, the system shall include automated lighting control(s) which are programmed to keep electric lights off/dimmed during daylight hours of sufficient solar insulation to provide minimum design illumination levels.
6. The system will have a material and labor warranty of at least five years.

Installation Guidance

All systems should be installed such that the skylight dome is substantially unshaded and have substantially unobstructed exposure to direct sunlight between the hours of 9:00 a.m. and 3:00 p.m.

General Qualifications

1. The project must comply with applicable local, state, and federal regulations.
2. Products must be installed according to manufacturers' recommendations.
3. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.

4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale.
5. All major system components must be new and must not have been previously placed in service in any other location or for any other application.
6. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric renewable energy production systems, noted below, will require customer supplied metering for PBI payment calculation purposes.
7. If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-Generation Equipment. See http://images.edocket.azcc.gov/docketpdf/0000074361.pdf for these requirements.

Additional Technologies with Prescriptive Incentives:

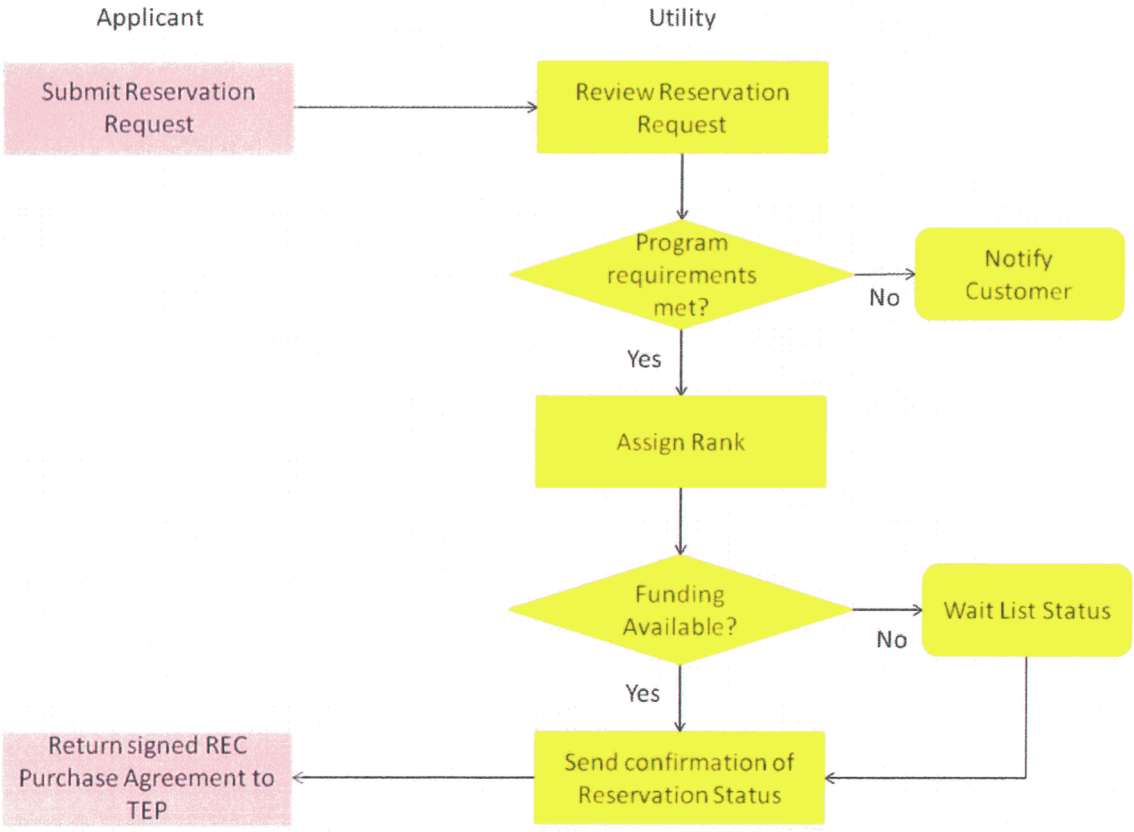
(1) Biomass/Biogas or Geothermal Space Heating, Process Heating, or Space Cooling: Non-Residential
(2) Biomass/Biogas, Hydro or Geothermal Electric
(3) Solar Space Cooling

Tucson Electric Power Company ("TEP" or the "Company") is committed to assisting our customers in developing their own renewable generation resources, through a balanced and supportive renewable energy distributed generation incentive program. Our goal is to create a program that will provide incentives for affordable, environmentally sensitive, customer-sited renewable energy generation systems to supplement TEP customer's energy needs. A properly designed system, matched to a customer's energy use, will provide a reduction in utility bills through the use of renewable resources. This program reflects our commitment to reduce the cost of developing renewable energy resources.

PROCESS FOR OBTAINING INCENTIVES

The process for obtaining incentives from TEP involves the flow of information between the applicant and TEP. The following sections reflect the typical five-step process.

Step 1 – Reservation Request and Assignment of Reservation Status



The applicant must first submit the reservation request to TEP.[8] The reservation request includes information about the TEP customer on whose property the system will be located, the system, the calculation of the incentive, and the installer of the system.

TEP will review the reservation request within 90 days of receipt of the request to ensure the application conforms to program requirements.

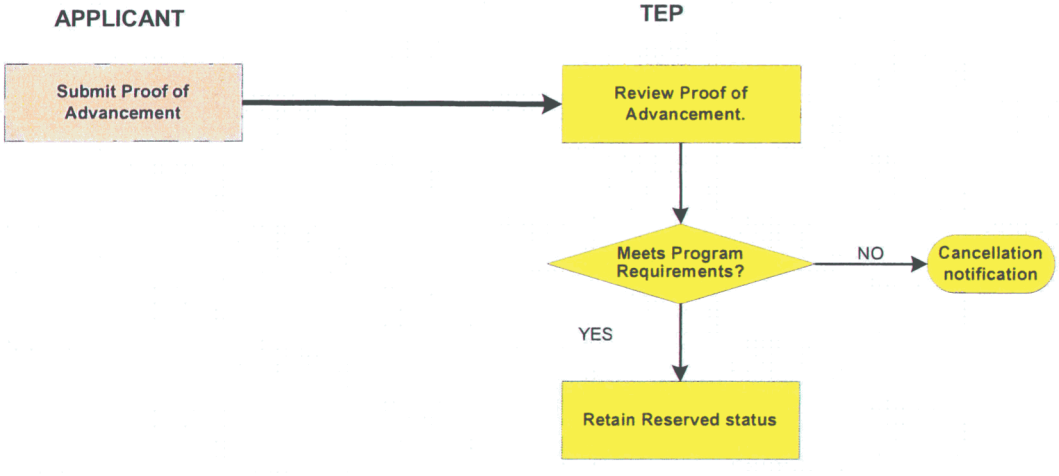
- Reservation requests for non-residential systems larger than 100 kW are assigned a rank based on the lowest expected life cycle credit purchase cost and likelihood of construction.
- In the event of a tie in the ranking, when the program would be fully subscribed if both projects were given reservation status, funds will be awarded based on the date of receipt of the completed reservation request.

If the reservation request is approved, TEP will send a confirmation to the applicant. A reservation request may be denied for two different reasons, each with its own consequences:

- The reservation request may be denied because it is not in conformance with program requirements. In this case, TEP will send notice that the request is cancelled.
- The reservation request may be denied because funding is not available. In this case, TEP will send a notification to the applicant that the request will be placed on a waiting list.

After reviewing the reservation request, TEP will assign a reservation status.

Step 2 – Proof of Advancement



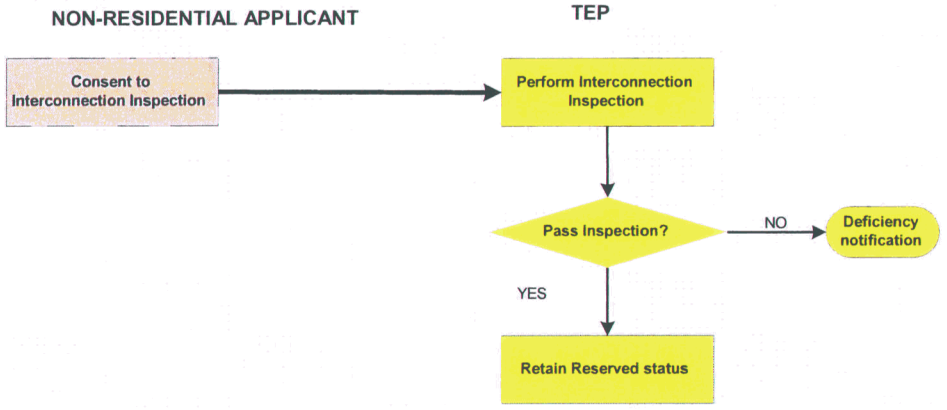
Applicants for non-residential systems larger than 100 kW must submit proof of project advancement to TEP within 120 days of the date of reservation confirmation from TEP to retain the reservation. The Proof of Project Advancement documentation for a non-residential project larger than 100 kW may include the following:

[8] Applicants with off-grid projects would submit a different version of the reservation request.

- A project agreement (between customer and installer);
- An executed installation agreement including all project participants;
- Building and/or construction permits and/or a full set of design development or construction drawings (80% or more complete);
- An executed interconnection agreement (if applicable); and
- A letter from customer committing to utility-accepted in-service date.

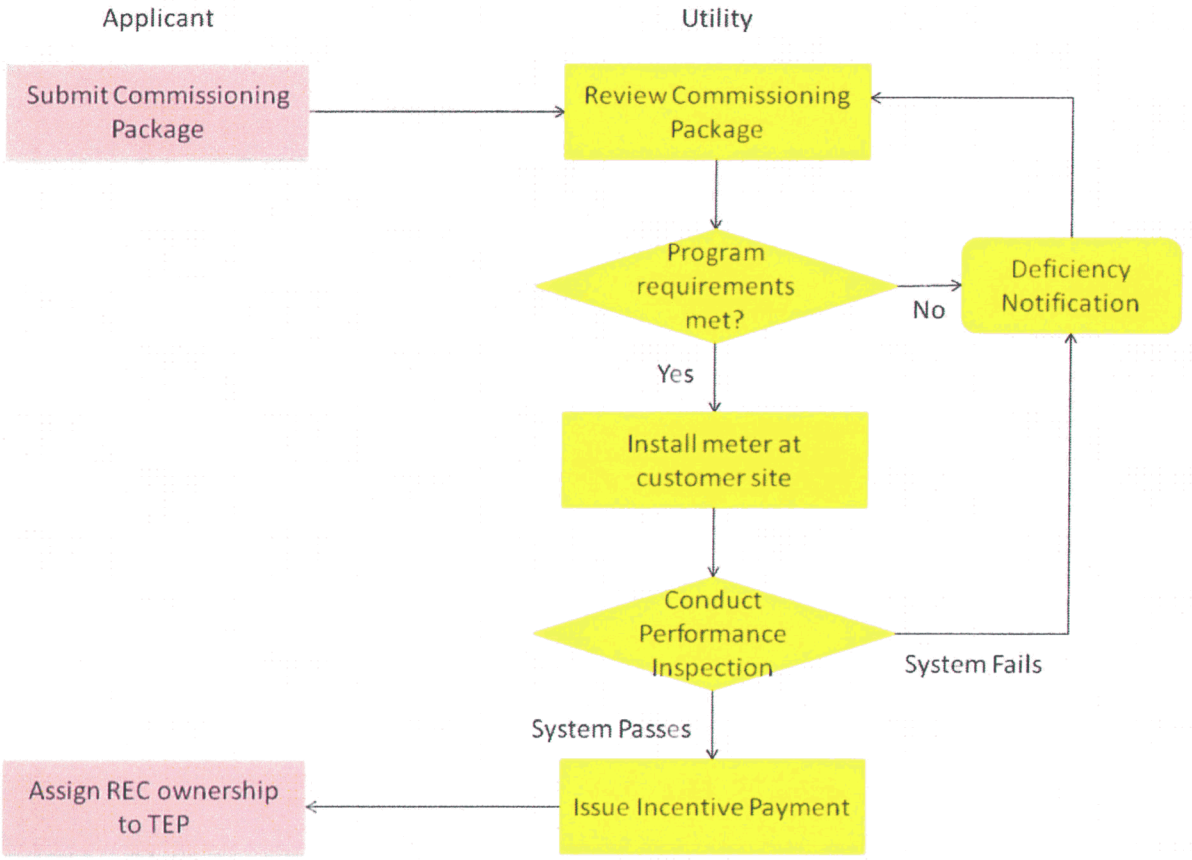
If proof of project advancement is not received within the specified timeframe, the customer will be notified that the reservation is cancelled. An appropriate written request for an extension may be requested if circumstances require. The applicant has the option to reapply for funding after the reservation has been cancelled. The request will be processed in the same manner as a new project reservation and will be contingent upon availability of funding at the time the new application is received.

Step 3 – Interconnection Inspection (for Grid-Tied Qualifying Systems with capacity larger than 100 kW)



Non-residential grid-tied qualifying systems of electrical generating capacity larger than 100 kW must submit to and pass an interconnection inspection before the system can be commissioned. TEP conducts the interconnection inspection and will notify the applicant of the results of the inspection. If the system passes the interconnection inspection, the application retains the reservation. The applicant can keep the reservation even if the system fails the initial interconnection inspection, as long as the deficiency is remedied within 120 days from the date of the reservation confirmation, as described in Step 2.

Step 4 – System Commissioning For Non-Residential Systems Larger Than 100 kW

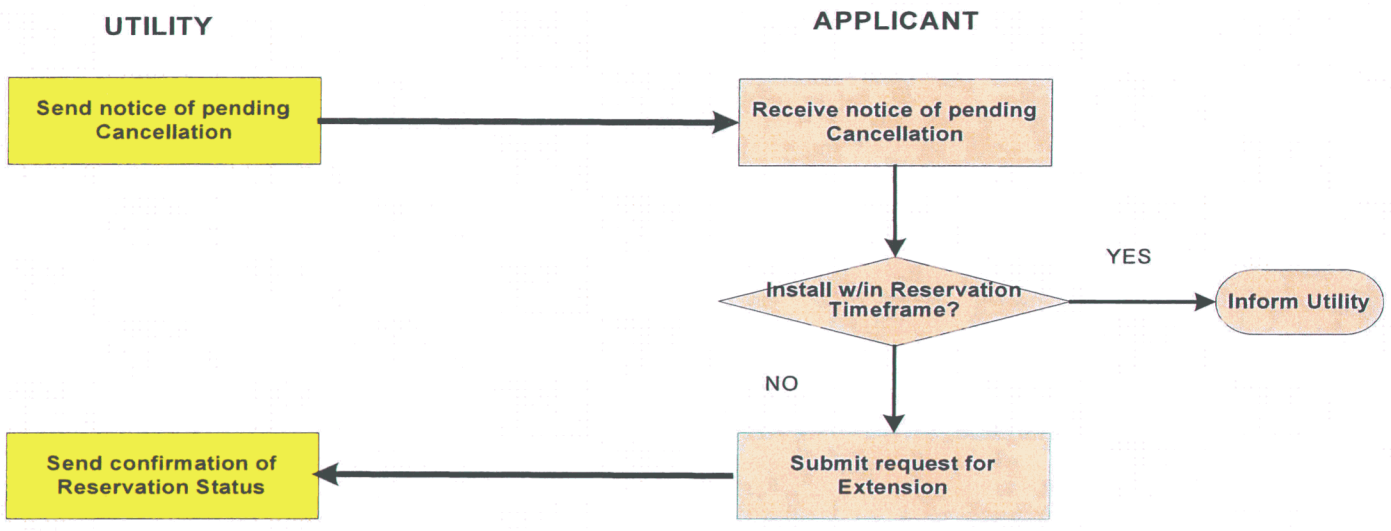


After the Non-Residential system larger than 100 kW has been commissioned, the applicant must submit a commissioning package to TEP. TEP will review the commissioning package and confirm that all program requirements have been met, including passing the interconnection inspection.

After receiving the commissioning package, TEP will dispatch a TEP representative to install the meter at the system site. The meter will be certified according to the TEP standards. The customer must provide access to the site during normal business hours so that the TEP representative can install the meter.

In addition, TEP may, at its discretion, perform a conformance inspection of the system. TEP will notify the applicant of the scheduled conformance inspection and the applicant must make the system available for inspection. In most cases in which a conformance inspection is conducted, an incentive payment may not be issued until after a qualifying system has passed the conformance inspection.

Conditional Step – Extension / Cancellation



If all project requirements are not met within 365 days of the date of the reservation confirmation, the applicant must apply for an extension to remain eligible for the incentive. TEP will trigger this request for extension with a notice of the pending cancellation 60 days prior to the date of scheduled cancellation. TEP will grant an extension for up to 90 days following timely receipt of a customer's request for extension. TEP may approve written extension requests detailing the conditions for delay for periods beyond 90 days under extenuating circumstances, or for systems larger than 1 MW.

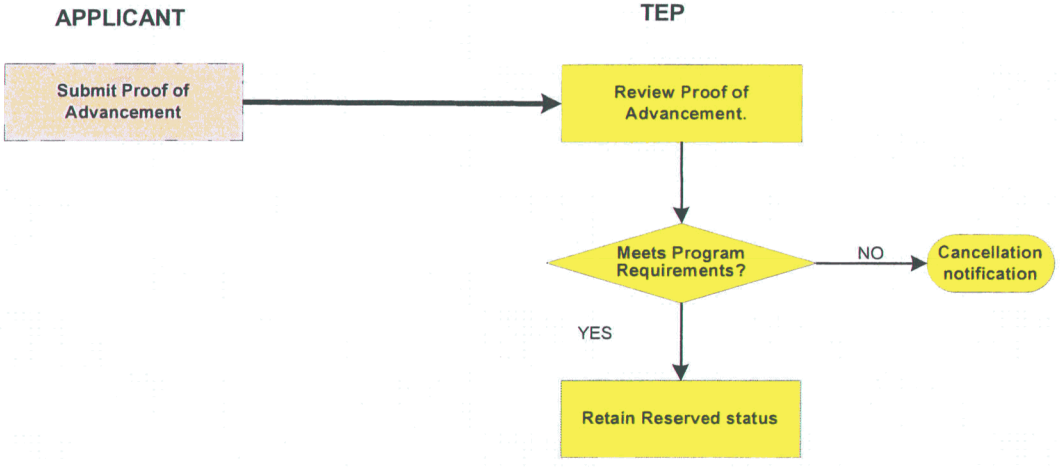
If all program requirements have not been met within the reservation timeframe, a reservation request will be cancelled unless an extension is granted.

Step 5 – Incentive Payment is Disbursed

Non-residential systems larger than 100 kW are eligible for a performance-based incentive ("PBI"). All PBI Project Agreements will include the following terms:

1. A project agreement between the applicant(s) and TEP that details the assignment of energy and RECs and the assignment of payment must be completed before payments can be disbursed.
2. At a minimum, quarterly meter reads will be performed by TEP and quarterly payments will be made to the assigned payee within 30 days of the meter reading based on quarterly kWh production. If the payment due is less than $25.00, it will be held for the next payment period.
3. PBI payments will begin with the first quarterly production following receipt of the completed system commissioning package and conformance inspection, if required, and continue for the life of the agreement term. As part of this provision, it is understood that systems commissioned mid-quarter will receive payment only for the production of that partial quarter.

TEP's payment of a PBI will assure TEP complete and irrevocable ownership of the REC for the full duration of the PBI agreement. The agreement duration must fully coincide with the PBI payment schedule and the system must be supported by system warranty or planned maintenance schedules for the term of the agreement.



INCENTIVE LEVELS FOR ADDITIONAL TECHNOLOGIES

The additional distributed energy technologies in residential and small commercial applications are eligible for performance-based incentives ("PBIs"). The PBI allows the customer to collect incentive payments in direct relation to the actual system production. These incentive levels are specific to each of the groups of technologies. Table 8 summarizes the incentive levels for these technologies for REC agreements signed in 2010 or 2011; Table 9 summarizes the incentive levels for these technologies for REC agreements signed in 2012, 2013, or 2014.

In all cases, incentive values listed in Table 8 and Table 9 are maximum values. PBIs are awarded through a bid process, which is discussed later in this section. Applicants are encouraged to submit bids requesting incentive amounts less than the maximums listed. Bids requesting a lower level of incentive

payment than the maximum will have an increased chance of acceptance in the allocation ranking process.

Table 8. Maximum Incentives for Additional Technologies for 2010 and 2011

Technology/Application	10-Year REC Agreement Signed in 2010-11* ($/kWH)	15-Year REC Agreement Signed in 2010-11* ($/kWH)	20-Year REC Agreement Signed in 2010-11* ($/kWH)
Biomass/Biogas (Electric)	$0.060	$0.056	$0.054
Biomass/Biogas – CHP (Electric) [3]	$0.035	$0.032	$0.031
Biomass/Biogas – CHP (Thermal) [3]	$0.018	$0.017	$0.016
Biomass/Biogas (thermal)	$0.015	$0.014	$0.013
Biomass/Biogas (cooling)	$0.032	$0.030	$0.029
Geothermal – (electric)	$0.024	$0.022	$0.022
Geothermal – (thermal)	$0.048	$0.045	$0.043
Small Hydro	$0.060	$0.056	$0.054
Solar Space Cooling	$0.129	$0.120	$0.115
Non-Residential Pool Heating	$0.012	$0.011	$0.011

Notes:

*Indicates that the incentive for 2011 has not yet been approved by the Arizona Corporation Commission ("ACC" or the "Commission"). As such, these incentives are tentative and may change pending ACC approval.

- There is no incentive cap for non-residential systems other than annual program funding considerations.
- A PBI cannot exceed 60% of the real project costs, defined as the undiscounted total system cost plus acceptable financing charges. Acceptable finance charges are finance charges used for the PBI incentive cap calculation and cannot exceed the current prime interest rate plus 5%. Financing charges must be disclosed as part of the commissioning package, if not disclosed before.
- The customer must pay at least 15% of the project cost, after other government incentives (e.g., tax credits) are considered. (See explanation of incentive calculation below.)
- The CHP incentives may be used in combination for the appropriate components of one system.
- The solar space heating and cooling incentives may be used in combination for the appropriate components of the system.
- Systems may not be eligible to receive RECPP incentives if other utility incentives are applied.
- The process for determining annual kWh savings for commercial solar pool heaters is this:

  1. Determine whether or not the system has an OG-100 rating. If it does not, it is not eligible for the program.
  2. If it does have an OG-100 rating, find an OG-300 rating for comparable set of collectors.
  3. Use Tucson data to find rated annual heat production for domestic water. (This calculation assumes 300 days on which useful heat is produced.)
  4. Multiply the annual savings determined by the OG-300 rating by (180/300). This adjustment reflects the fact that pool heaters in Tucson realistically only produce useful heat on 180 days each year.
  5. The result is anticipated annual kWh savings for the unit. This is multiplied by PBI level to calculate annual incentive. TEP will retain the right to meter the system.

Table 9. Maximum Incentives in 2012-2014 for Additional Technologies

Technology/Application	10-Year REC Agreement Signed in 2012-14* ($/kWH)	15-Year REC Agreement Signed in 2012-14* ($/kWH)	20-Year REC Agreement Signed in 2012-14* ($/kWH)
Biomass/Biogas (Electric)	$0.060	$0.056	$0.054
Biomass/Biogas – CHP (Electric) [3]	$0.035	$0.032	$0.031
Biomass/Biogas – CHP (Thermal) [3]	$0.018	$0.017	$0.016
Biomass/Biogas (thermal)	$0.015	$0.014	$0.013
Biomass/Biogas (cooling)	$0.032	$0.030	$0.029
Geothermal – (electric)	$0.024	$0.022	$0.022
Geothermal – (thermal)	$0.048	$0.045	$0.043
Small Hydro	$0.060	$0.056	$0.054
Solar Space Cooling	$0.129	$0.120	$0.115
Non-Residential Pool Heating	$0.012	$0.011	$0.011

Notes:

*Indicates that the incentives for 2012, 2013, and 2014 have not yet been approved by the Arizona Corporation Commission ("ACC" or the "Commission"). As such, these incentives are tentative and may change pending Commission approval.

- There is no incentive cap for non-residential systems other than annual program funding considerations.
- A PBI cannot exceed 60% of the real project costs, defined as the undiscounted total system cost plus acceptable financing charges. Acceptable finance charges are finance charges used for the PBI incentive cap calculation and cannot exceed the current prime interest rate plus 5%. Financing charges must be disclosed as part of the commissioning package, if not disclosed before.
- The customer must pay at least 15% of the project cost, after other government incentives (e.g., tax credits) are considered. (See explanation of incentive calculation below.)
- The CHP incentives may be used in combination for the appropriate components of one system.
- The solar space heating and cooling incentives may be used in combination for the appropriate components of the system.
- Systems may not be eligible to receive RECPP incentives if other utility incentives are applied.
- The process for determining annual kWh savings for commercial solar pool heaters is this:

  1. Determine whether or not the system has an OG-100 rating. If it does not, it is not eligible for the program.
  2. If it does have an OG-100 rating, find an OG-300 rating for comparable set of collectors.
  3. Use Tucson data to find rated annual heat production for domestic water. (This calculation assumes 300 days on which useful heat is produced.)
  4. Multiply the annual savings determined by the OG-300 rating by (180/300). This adjustment reflects the fact that pool heaters in Tucson realistically only produce useful heat on 180 days each year.
  5. The result is anticipated annual kWh savings for the unit. This is multiplied by PBI level to calculate annual incentive. TEP will retain the right to meter the system.

System Cost for a solar space heating system will not include the cost of any passive thermal storage or the cost of the building heating system itself. It will include the cost of new materials and installation of active thermal storage, expansion tanks, controls, tempering valves, piping, vents, drains, safety valves and all freeze protection.

The incentive amount will be calculated at the time the application is approved for reservation. If federal or state incentives change during the period of time after the reservation approval, the incentive amount reserved will not be changed as long as the reservation is not cancelled.

TEP's payment of a PBI will assure TEP complete and irrevocable ownership of the REC for the full duration of the PBI agreement. The agreement duration must fully coincide with the PBI payment schedule and the system must be supported by system warranty or planned maintenance schedules for the term of the agreement.

PROJECT FUNDING

Non-residential funds will be committed as bids are accepted; funds will not be placed in reserve for later in the year. As a result, the budget may be committed before the end of the year. Funds will be made available to projects based on a ranking generated by lowest expected life cycle credit purchase cost as provided in the application and verified by TEP, as well as likelihood of construction. Projects submitted to the utility for reservation will be ranked based on a calculated index value for purposes of allocating non-residential funds as proposed in the application and verified by TEP. Lowest lifecycle cost projects will be funded first. Indexing of the non-residential projects will be performed based on the verified incentive values and duration of the proposed agreement in the application for that project. In addition, the bid evaluator assesses the likelihood that the project will be completed. Projects with higher incentive payments result in a higher expected life cycle credit purchase cost and projects that produce more kWh result in a lower expected life cycle credit purchase cost. In the event of a tie in the ranking, when the program would be fully subscribed if both projects were given reservation status, funds will be awarded based on the date of receipt of the completed reservation request.

Reservation requests will reviewed by the utility on a monthly basis. Once reservation requests are fully ranked each month, notification of reservation approvals and rejections will be made in conformance with the rankings and available funding.

Funds unused in one period will be equally divided among the remaining periods in that year. Funds allocated to non-residential projects will not roll forward from one year to the next. Reservations which are rejected as a result of insufficient program funds may elect to carry forward into the next period and retain the original reservation date. The election must be made at the time of the original application.

THE FINE PRINT

In addition to the other requirements described in this hand book, there are two other types of program details of which system owners and installers should be aware:

1. Installer qualifications
2. System removal

These are described in further detail below.

Installer Qualifications

All systems receiving incentives under the RECPP must be installed by a qualified installer. The following requirements must be submitted by the applicant as part of the reservation request. TEP will verify that the installer meets the following minimum qualifications prior to confirming a reservation request:

3. The installer must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC") with a license classification appropriate for the technology being installed. Alternatively, the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed. A copy of the AZROC license must be provided as part of the reservation request.
4. The installer must possess an Arizona business license that is active and in good standing.

Installers may request that the above information be retained on file with TEP; however, under this option the installer must certify that the information on file remains current with the submission of each reservation request. Information on file must be renewed yearly.

System Removal

If receiving a PBI, the Qualifying System or any components thereof shall not be removed from the premises until the last day of the final month of the final full calendar year of the applicable incentive payment term in the Agreement following completion of system installation of the renewable energy system, without express agreement from TEP. If the Qualifying System is removed in violation of this provision, customer shall immediately reimburse TEP all incentive amounts paid by TEP to customer or on behalf of customer to an authorized third party.

In addition, if a Qualified System is removed, TEP shall monitor that specific customer site to ensure that an additional incentive is not provided for any new distributed renewable energy resource system on that site until the REC contracted operational life of the original system has been completed.

TEP shall attempt to monitor the number of missing or non-working distributed generation systems and shall summarize its observations in its annual Compliance Report.

Attachment A
Qualifications for Biomass/Biogas or Geothermal Space Heating, Process Heating or Space Cooling: Non-Residential Applications

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement, which is in conflict with a site-specific governmental requirement, shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Qualifications

1. Biomass/Biogas or geothermal system installations involving a regulated boiler or pressure vessel are required to comply with all Arizona state boiler regulations; provide a qualifying boiler inspection identification number; and keep all applicable permits in good standing.
2. Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a registered professional engineer. The engineering report shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.
3. Energy production for space heating, space cooling and process heating will be calculated as one kWh of energy per 3,415 Btu of useful heat delivered by the system as measured by a dedicated heat delivery measuring meter and used by the building space or process.
4. The system will have a material and labor warranty of at least five years.
5. The system must meet Arizona DEQ environmental standards.

Installation Guidance

Because of the individual nature of biomass/biogas or geothermal systems, care should be taken to make sure the system complies with all applicable permitting and regulatory requirements including, but not limited to, air emission standards and air permit regulations.

General Qualifications

1. The project must comply with applicable local, state, and federal regulations.
2. Products must be installed according to manufacturers' recommendations.
3. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.

4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale.
5. All major system components must be new and must not have been previously placed in service in any other location or for any other application.
6. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric renewable energy production systems, noted below, will require customer supplied metering for PBI payment calculation purposes.
7. If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-Generation Equipment.
   See http://images.edocket.azcc.gov/docketpdf/0000074361.pdf for these requirements.

Attachment B
Qualifications for Biomass/Biogas, Hydro, or Geothermal Electric

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement, which is in conflict with a site-specific governmental requirement, shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Qualifications

1. Biomass/Biogas, Hydro or Geothermal system installations involving a regulated boiler or pressure vessel are required to comply with all Arizona state boiler regulations; provide a qualifying boiler inspection identification number; and keep all applicable permits in good standing.
2. System must include a dedicated performance meter to allow for monitoring of the amount of electricity produced.
3. Pre-operational/or pre-commissioning energy savings and design output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a qualified registered professional engineer. The engineering report shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.
4. The system will have a material and labor warranty of at least five years.
5. The system must meet Arizona DEQ environmental standards.

Installation Guidance

Because of the individual nature of biomass/biogas hydro or geothermal systems, care should be taken to make sure the system complies with all applicable permitting and regulatory requirements including, but not limited to, air emission standards and air permit regulations.

General Qualifications

1. The project must comply with applicable local, state, and federal regulations.
2. Products must be installed according to manufacturers' recommendations.
3. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.
4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale.

5. All major system components must be new and must not have been previously placed in service in any other location or for any other application.
6. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric renewable energy production systems, noted below, will require customer supplied metering for PBI payment calculation purposes.
7. If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-Generation Equipment.
   See http://images.edocket.azcc.gov/docketpdf/0000074361.pdf for these requirements.

Attachment C
Qualifications for Solar Space Cooling

The following equipment qualifications listed are mandatory requirements which must be met at the time of project commissioning to receive a RECPP incentive. The installation guidance is intended to provide consumers with information on installation and operation practices which are most likely to support achieving the system's designed output. Installation guidance is mandated in order for a project to receive a RECPP incentive, as it does reflect both industry and TEP concurrence on those practices which are important for a technology to best achieve the designed output. In the future, additional installation guidance items may be considered for inclusion as part of the equipment qualifications.

TEP acknowledges that many regulations and site-specific requirements may apply to the installation of renewable energy technologies. TEP agrees that no requirement imposed by these technology criteria shall be imposed in conflict with any other governmental requirements. Any RECPP-based requirement, which is in conflict with a site-specific governmental requirement, shall be detailed in the reservation request. All qualifying systems must adhere to the following requirements in addition to the RECPP program requirements:

Equipment Qualifications

1. The minimum cooling capacity of the system will be 120,000 BTU (10 tons) per hour.
2. Solar collector panels used will have a Solar Rating and Certification Corporation ("SRCC") OG-100 rating or laboratory documentation showing the panel energy output under controlled and replicable test conditions.
3. Energy savings and designed output for the system will be verified by submitting either a testing certification for a substantially similar system prepared by a publicly funded laboratory or by submitting an engineering report stamped by a registered professional engineer. The engineering report shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications.
4. System must include a dedicated performance meter to allow for monitoring of the amount of heat input to the thermal cooling device or system. Energy production will be calculated at one kW-hr per 3,415 Btu of metered heat delivered to the thermal cooling device or system.
5. The system will have a material and labor warranty of at least five years.
6. TEP reserves the right to modify standards as technology changes on a case by case basis, pending independent laboratory analysis, Professional Engineer ("PE") stamp, or TEP engineering analysis

Installation Guidance

1. The horizontal tilt angle of the collector panels should be between 20 and 60 degrees and an azimuth angle should be between +/- 45 degrees of south.
2. All systems should be installed such that the energy collection system is substantially unshaded and should have substantially unobstructed exposure to direct sunlight between the hours of 9:00 a.m. and 3:00 p.m.
3. The system installation should comply with the design manual.

Additional Technologies with Prescriptive Incentives

General Qualifications

1. The project must comply with applicable local, state, and federal regulations.
2. Products must be installed according to manufacturers' recommendations.
3. Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.
4. Systems must be permitted and inspected by the jurisdiction having authority over construction projects in the customer's locale.
5. All major system components must be new and must not have been previously placed in service in any other location or for any other application.
6. All renewable electricity generation systems must include a dedicated performance meter (provided by TEP) which allows for measurement of system energy production. Certain other non-electric renewable energy production systems, noted below, will require customer supplied metering for PBI payment calculation purposes.
7. If the qualifying system is grid-tied, the system must meet Arizona Corporation Commission Interconnection Requirements for Self-Generation Equipment.
   See http://images.edocket.azcc.gov/docketpdf/0000074361.pdf for these requirements.

Technologies without Technology Specific Criteria

Technology specific criteria have not yet been developed for the following qualifying technologies:

- Fuel Cells
- Other

For applicants requesting incentives for these technologies or for applicants requesting installation of a technology with specific project technology criteria, but where some criteria cannot be met, the applicant will need to submit design and output documentation.

Applicants installing these systems will, at a minimum, need to provide an energy savings and designed output report for the system. The report must include either a testing certification for a substantially similar system prepared by a publicly funded laboratory or an engineering report stamped by a qualified registered professional engineer. The engineering report and/or testing certification shall provide a description of the system and major components, design criteria and performance expectations, applicable standards and/or codes, and a brief history of components in similar applications. Additional information may be required as part of the RECPP requirements.

Non-Conforming Projects

Non-conforming projects will be identified as the Program evolves. Incentive levels for such projects will be calculated based on TEP engineering analysis, independent laboratory analysis, and/or professional engineering ("PE") stamps. Non-conforming projects that prove combined economic and renewable energy value will be allowed appropriately calculated incentives within the RECPP.

Appendix 1: Incentive Summary Tables

RECPP – CONFORMING PROJECT INCENTIVE MATRIX

2010 and 2011 Program Year

Technology/Application	UP FRONT INCENTIVE [1] 20-Year REC Agreement	10-Year REC Agreement [2] 10-Year Payment ($/kWH)	15-Year REC Agreement [2] 15-Year Payment ($/kWH)	20-Year REC Agreement [2] 20-Year Payment ($/kWH)
BIOMASS/BIOGAS (Electric)	NA	0.060	0.056	0.054
BIOMASS/BIOGAS – CHP (Electric) [3]	NA	0.035	0.032	0.031
BIOMASS/BIOGAS – CHP (Thermal) [3]		0.018	0.017	0.016
BIOMASS/BIOGAS (thermal)	NA	0.015	0.014	0.013
BIOMASS/BIOGAS (cooling)	NA	0.032	0.030	0.029
DAYLIGHTING (Non-Residential)	$0.18/kWH [7] See this note for clarification	NA	NA	NA
GEOTHERMAL – (electric)	NA	0.024	0.022	0.022
GEOTHERMAL – (thermal)	NA	0.048	0.045	0.043
Ground Source Heat Pump – (cooling)	$500/ton	NA	NA	NA
SMALL HYDRO	NA	0.060	0.056	0.054
SMALL WIND (grid-tied) [4]	$2.25/Watt AC	NA	NA	NA
SMALL WIND (off-grid) [4]	$1.80/Watt AC	NA	NA	NA
SOLAR ELECTRIC:				
RESIDENTIAL (GRID-TIED)	$3.00/Watt DC [8]	NA	NA	NA
Non-Residential (Grid-Tied) 100 kW or less	$2.50/Watt DC [8]	NA	NA	NA
NON-RESIDENTIAL (GRID-TIED) More than 100 kW	NA	0.182	0.168	0.162
RESIDENTIAL (OFF-GRID)	$2.00/Watt DC [8]	NA	NA	NA
NON-RESIDENTIAL (OFF-GRID)	$2.00/Watt DC [8]	NA	NA	NA
SOLAR SPACE COOLING [5]	NA	0. 116	0. 108	0. 104
SOLAR WATER HEATING/SPACE HEATING [5] (Non-Residential, 35,000 annual kWh output production equivalent or less)	$7,500 plus $0.25/kWH	NA	NA	NA
RESIDENTIAL SOLAR WATER/SPACE HEATING (35,000 annual kWh output production equivalent or less) [6]	$750 plus $0.25/kWH	NA	NA	NA
NON-RESIDENTIAL POOL HEATING	NA	0.012	0.011	0.011

Notes:

1) Residential projects are eligible for an up front incentive (UFI)). UFI payments can not exceed 60% of the cost of renewable energy equipment.
2) Non-residential systems under 100 kW is a UFI but can be a PBI. Non-residential 100 kW and greater is PBI only. The total of payments under a production based incentive can not exceed 60% of the project costs for any project.
3) The CHP incentives may be used in combination for the appropriate components of one system.
4) This PBI applies to a maximum system size of 1 MW.
5) The solar space heating and cooling incentives may be used in combination for the appropriate components of one system.
6) This category includes both traditional water heating and those systems combined with residential solar water heating used for space heating. Space heating applications require a report detailing energy saving for the complete system.
7) Rate applies to measured first five years of energy savings only. Payments are made over a five year period.
8) Some UFI based installations will require an adjustment of the incentive as detailed in the PV Incentive Adjustment Chart.
9) Energy savings rating is based on the SRCC OG-300 published rating or the TEP-RECPP Space Heating Calculator. The customer contribution must be a minimum of 15% of the project cost after accounting for and applying all available Federal and State incentives.
10) Rate applies to forecast/measured first year energy savings only.

NA – Not Available

RECPP – CONFORMING PROJECT INCENTIVE MATRIX

2012 through 2014 Program Year

Technology/Application	UP FRONT INCENTIVE [1] 20-Year REC Agreement	10-Year REC Agreement [2] 10-Year Payment ($/kWH)	15-Year REC Agreement [2] 15-Year Payment ($/kWH)	20-Year REC Agreement [2] 20-Year Payment ($/kWH)
BIOMASS/BIOGAS (Electric)	NA	0.060	0.056	0.054
BIOMASS/BIOGAS – CHP (Electric) [3]	NA	0.035	0.032	0.031
BIOMASS/BIOGAS – CHP (Thermal) [3]		0.018	0.017	0.016
BIOMASS/BIOGAS (thermal)	NA	0.015	0.014	0.013
BIOMASS/BIOGAS (cooling)	NA	0.032	0.030	0.029
DAYLIGHTING (Non-Residential)	$0.18/kWH [7] See this note for clarification	NA	NA	NA
GEOTHERMAL – (electric)	NA	0.024	0.022	0.022
GEOTHERMAL – (thermal)	NA	0.048	0.045	0.043
Ground Source Heat Pump – (cooling)	$500/ton	NA	NA	NA
SMALL HYDRO	NA	0.060	0.056	0.054
SMALL WIND (grid-tied) [4]	$2.25/Watt AC	NA	NA	NA
SMALL WIND (off-grid) [4]	$1.80/Watt AC	NA	NA	NA
SOLAR ELECTRIC:				
RESIDENTIAL (GRID-TIED)	$3.00/Watt DC [8]	NA	NA	NA
Non-Residential (Grid-Tied) 20 kW or less	$2.50/Watt DC [8]	NA	NA	NA
NON-RESIDENTIAL (GRID-TIED) More than 20 kW	NA	0.182	0.168	0.162
RESIDENTIAL (OFF-GRID)	$2.00/Watt DC [8]	NA	NA	NA
NON-RESIDENTIAL (OFF-GRID)	$2.00/Watt DC [8]	NA	NA	NA
SOLAR SPACE COOLING [5]	NA	0. 116	0. 108	0. 104
SOLAR WATER HEATING/SPACE HEATING [5] (Non-Residential, 35,000 annual kWh output production equivalent or less)	$7,500 plus $0.25/kWH	NA	NA	NA
RESIDENTIAL SOLAR WATER/SPACE HEATING (35,000 annual kWh output production equivalent or less) [6]	$750 plus $0.25/kWH	NA	NA	NA
NON-RESIDENTIAL POOL HEATING	NA	0. 116	0. 108	0. 104

Notes:

11) Residential projects are eligible for an up front incentive (UFI)). UFI payments can not exceed 60% of the cost of renewable energy equipment.
12) Non-residential systems under 100 kW is a UFI but can be a PBI. Non-residential 100 kW and greater is PBI only. The total of payments under a production based incentive can not exceed 60% of the project costs for any project.
13) The CHP incentives may be used in combination for the appropriate components of one system.
14) This PBI applies to a maximum system size of 1 MW.
15) The solar space heating and cooling incentives may be used in combination for the appropriate components of one system.
16) This category includes both traditional water heating and those systems combined with residential solar water heating used for space heating. Space heating applications require a report detailing energy saving for the complete system.
17) Rate applies to measured first five years of energy savings only. Payments are made over a five year period.
18) Some UFI based installations will require an adjustment of the incentive as detailed in the PV Incentive Adjustment Chart.
19) Energy savings rating is based on the SRCC OG-300 published rating or the TEP-RECPP Space Heating Calculator. The customer contribution must be a minimum of 15% of the project cost after accounting for and applying all available Federal and State incentives.
20) Rate applies to forecast/measured first year energy savings only.

NA – Not Available

Appendix 2: Glossary of Terms

ACC – Arizona Corporation Commission.

AZROC – Arizona Registrar of Contractors.

Applicant – Utility customer of record for the Utility Revenue Meter located at the installation site; a builder of the structure (residential or non-residential) who will reserve and install the Qualifying system; or for an off-grid Qualifying System, the property owner for the installation site located within a Utility's service territory.

Arizona Business License – A business license issued by the ACC.

Cancelled – Reservation Status indicating that a Reservation has been terminated, funding is no longer allocated, and the utility has removed the reservation from the funding queue.

Cancellation – The termination of the Reservation.

Commissioned – Qualifying System certified to be in operation.

Commissioning Package – Written verification signed by the installer and the customer confirming that the system has been installed in conformance with the approved reservation and that the system is ready for operation.

Conforming Project – Any project utilizing a renewable technology listed in Attachment D.

Conformance Inspection – Inspection performed by the utility to verify that the system has been installed and operates in conformance with the Reservation application.

Customer – Utility customer of record for the Utility Revenue Meter located at the installation site or a builder of the structure (residential or non-residential) who will reserve and install the Qualifying System.

Extension – The extension of the Reservation Timeframe.

Installer – The entity or individual responsible for the installation of a qualifying system.

Interconnection Inspection – Inspection performed by the utility to confirm that the system can be safely interconnected to the power grid.

Non-Conforming Project – Non-conforming projects include, but are not limited to, projects with staged completion dates, multi-customer or multi-system projects, projects involving more than one technology, projects requiring new or unique agreement terms, projects with technologies for which qualification standards have not been developed or projects requiring non-standard timeframes.

Appendix 1: Incentive Summary Tables

Performance Based Incentive ("PBI") – Incentive based on a rate per actual kWh output or on equivalent kWh of energy savings.

Project Costs – System Costs plus financing costs.

Proof of Project Advancement – Documentation demonstrating that a project is progressing on schedule and is staged for Commissioning on or before the end of the Reservation Timeframe.

Qualifying System – Distributed renewable energy systems meeting the qualifications for production of qualified Renewable Energy Credits in Arizona acceptable to the Arizona Corporation Commission as they may be defined for affected utilities to meet any renewable energy standards.

Renewable Energy Credit ("REC") – One Renewable Energy Credit is created for each kWh, or kWh equivalent for non-generating resources, derived from an eligible renewable energy resource. RECs shall include all environmental attributes associated with the production of the eligible renewable energy resource.

Reservation – A dollar amount committed by the utility to fund a project if all program requirements are met.

Reservation Status – Indicator relating to approval or denial of a Reservation request. If a Reservation is approved, the Reservation Status is Reserved. If a Reservation request is denied, the Reservation Status is either Cancelled or Wait Listed.

Reserved – Status indicating the acceptance of a Reservation request.

Reservation Timeframe – The duration of the utility's funding commitment for a Reservation.

System Costs – Costs associated with the Qualifying System components, direct energy distribution, system control/metering, and standard installation costs directly related to the installation of the Qualifying System.

Up Front Incentive (UFI) – One time incentive payment based on system capacity or estimated energy kWh production rather than on measured system output.

Wait List – Status indicating Applicant has met program requirements, but the Utility has insufficient funding to commit to funding the project.

EXHIBIT

"6"

Exhibit 6

Builder Credit Purchase Program Description
2010 REST
"Guarantee Solar Program"

Tucson Electric Power Company ("TEP" or the "Company") has demonstrated a long term commitment to innovative renewable energy technologies and energy efficient new home construction. The SunShare program has brought technical guidance, financial incentives and outreach to promote the adoption of renewable technologies. The award winning Guarantee Home Program has utilized the principles of building science to help builders deliver safe, durable, energy efficient homes for the past decade. TEP would like to continue this as a pilot program, which integrates the Guarantee Home and Sunshare offerings to complement the Renewable Energy Standards and Tariff ("REST").

Background

Several builders in the Tucson marketplace have looked to include an integrated design with the goal of reaching a Net Zero Energy Home. John Wesley Miller has built two homes locally that have been the subject of the National Association of Home Builders Research Center study. TJ Bednar, Doucette Homes and Dorn Homes have also built homes that have aimed toward the zero-energy goal. As local builders, who do not have the buying power to compete on price in a competitive market, they look to differentiate their products by including high quality features and optimum energy performance.
Southwest Energy Efficiency Project (SWEEP) published a study in November of 2007 entitled "High Performance Homes in the Southwest" which evaluated the energy and cost savings potential from constructing more efficient new homes in five Southwest States. Although the report reviewed regional policy from a variety of different perspectives, the following recommendation was made for utilities offering energy efficiency programs for new home construction. "SWEEP recommends that utilities offer a 3-tiered incentives package to builders, beginning at ENERGY STAR and going up to a Net Zero Energy Home level of performance."

Tucson Electric Power has followed this recommendation by adding a program at the "Net Zero Energy Home" level. This provides a distinction for builders who are early adopters of new technologies and embrace high performance as a goal throughout their design process. For builders to effectively reach this level, it is necessary to incorporate certain goals at an early stage in the plan development. It is understood that initial participation at this level will be modest. However, it is important to set this goal significantly above current building standards to set a milestone for market transformation.

The proposed marketing name for the program would be the Guarantee Solar Home Program. This would allow Tucson Electric Power to take advantage of the significant efforts that have been made to build brand identity in the Tucson marketplace with The

Guarantee Home Program. Computer modeling can demonstrate that the total annual electric load of the home may be satisfied by the annual generation of photovoltaic systems ("PV"). However, this is highly dependent on the assumptions of occupant behavior. Homes that have been built to the prescribed standards often times have not proven to be a true "net-zero" when occupied. This will help consumers to have a positive perception of the program and to understand that their lifestyle and consumption decisions play a large role in their homes performance.

Program Requirements

- Builder must participate in TEP's New Home Program with Energy Star.
- Builder may choose solar thermal or PV or both.
- HVAC equipment must be sized per Manual J calculations, and duct systems must be designed per Manual D. This will provide for optimum performance in homes that incorporate a high performance design.
- Builder has the option of certifying their subdivision as a LEED for Home, NAHB Green Building Program or other Green Building Programs offered by local jurisdictions, such as the Pima County Green Building Program. TEP will provide Manual J calculations, HERS Rating services and technical consultation.
- Builder must follow the proof of advancement and cancellation timeline for non-residential systems greater than 20 kWAC that will govern the renewable incentive structure.
- Builder will follow the guidelines expressed in the Renewable Energy Credit Purchase Program ("RECPP") to insure compliance of renewable technologies.

Consumer Benefits

- Savings for consumers when using both the solar energy and very efficient building practices can exceed 60% over standard building practices.
- TEP will provide the homebuyer with a five-year guarantee on their annual heating and cooling bills with the Guarantee option
- Customers that own a Guarantee Solar home would be eligible for TEP's lowest electric rate, 201C. This further rewards customers for purchasing an environmentally friendly home.

- By providing incentives during construction, the price of the solar system is then absorbed in the mortgage. This allows the consumer to utilize the generation of the PV system to offset the increased mortgage cost to create a better cash flow scenario.

- TEP will provide up front installation of net meters along with training and education of homeowners to set proper expectations of system performance.

Builder Benefits

- For Solar Electric: Builder will receive an increase in the amount of the solar electric Up-Front Incentive ("UFI") to an additional $0.50 per DC watt installed over the approved RECPP. For systems that are over 7,000 watts DC, the incentive would be dropped by $0.50 per DC watt installed from the approved RECPP. (Assuming the number of participating homes is 200 in 2009 with a panel average of 3 kW – the budget increase is $300k – a small cost for the benefit.)

- For Solar Water Heating: Builder can choose to install solar water heating at the standard incentive.

- Solar thermal will not receive additional incentive since it is more cost effective. Incentives from the PV and Solar Domestic Water Heating ("SDWH") would be limited to 85% of the total cost of the systems in new home construction.

- Coop advertising (advertising both the builder and benefits of renewable energy) will focus on societal benefits of solar technologies and building science. Twenty-five percent of the marketing and outreach budgets are reserved for the Guarantee Builder Program.

- The program provides inspections and testing at each home to ensure quality installation by homebuilder's subcontractors. This includes all of the requirements for a HERS rating as well as a verification of renewable technologies. Additional consultation, training and technical support from TEP will be made available to builders, architects, mechanical engineers and subcontractors.

Utility Benefits

- Tucson Electric Power realizes significant reductions in the need to develop new generation facilities by the load reduction that is realized through the energy

efficiency measures included in homes built to these standards. There may also be the potential to reduce initial infrastructure resources that are designed to meet the load of the subdivision.

- The program provides a more cost effective method to market the installation of renewable technologies to meet the REST requirements. This includes the initial cost to solicit participation in the renewable programs, as well as the economies of scale that are brought to the market by having large numbers of homes purchased using renewable technologies.

- There are intrinsic benefits to installing solar technologies at the time of construction. TEP will be provided the opportunity to consult on such issues as building orientation, height of parapet walls, shading issues posed by adjacent structures and other potential obstacles to ideal sites for solar installations. This will provide the opportunity to optimize available space for renewable technologies.

- The marketing effort that is placed into promoting the Guarantee Solar Home program for new homes will have "spill over" to existing homes. Homeowners that may not be in the position to purchase a new home will see the co-branded media that may lead them to pursue a qualifying Sunshare Program solar energy system for their existing home.

Summary

TEP believes that this program design offers tremendous symbiotic benefits to their entire DSM/Renewable portfolio. By integrating the renewable technology component into the new home construction program, it allows TEP to effectively build on brands that have been well established in the market place to effectively market renewable technologies. At the same time, it serves a niche of new home builders who are looking to differentiate their enhanced energy efficient product by providing a third party metric. From a regulatory stand point, the offering has strong merit as it builds on existing DSM/REST programs. The opportunity to co-brand our offerings will lead to a more effective use of marketing dollars and potential cross benefits between programs. As a pilot program, there has been significant interest, with several hundred homes currently under consideration for participation. The continuation of this pilot program will allow for added experience toward reaching a viable net-zero home program in the future.

EXHIBIT

"7"

A UniSource Energy Company

Renewable Energy Standard and Tariff Surcharge
REST-TS1
Renewable Energy Program Expense Recovery

APPLICABILITY

Mandatory, non-bypassable surcharge applied to all energy consumed by all customers throughout Company's entire electric service area.

RATES

The Renewable Energy Standard and Tariff Surcharge ("RESTS") shall be applied to all monthly net bills at the following rate:

$0.003847 per kWh

For non-metered services, the lesser of the load profile or otherwise estimated kWh required to provide the service in question, or the service's contract kWh shall be used in the calculation of the surcharge.

This charge will be a line item on customer bills reading "Arizona Corporation Commission Renewable Energy Standard & Tariff"

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company and/or the price or revenue from the electric energy or service sold and/or the volume of energy generated or purchased for sale and/or sold hereunder.

EXHIBIT

"8"

A UniSource Energy Company

Customer Self-Directed Renewable Energy Option
REST-TS2
Renewable Energy Standard Tariff

AVAILABILITY
Open to all Eligible Customers as defined at A.A.C. R14-02-1801.H.

APPLICABILITY
Any Eligible Customer that applies to the Company under this program and receives approval shall participate at its option.

PARTICIPATION PROCESS
An Eligible Customer seeking to participate shall submit to the Company a written application that describes the Distributed Renewable Energy (DRE) resources or facilities that it proposes to install and the estimated costs of the project. The Company shall have sixty (60) calendar days to evaluate and respond in writing to the Eligible Customer, either accepting or declining the project. If accepted, the Customer shall be reimbursed up to the actual dollar amounts of customer surcharge paid under the REST-TS1 Tariff in any calendar year in which DRE facilities are installed as part of the accepted project. To qualify for such funds, the Customer shall provide at least half of the funding necessary to complete the project described in the accepted application, and shall provide the Company with sufficient and reasonable written documentation of the project's costs. Customer shall submit their application prior to May 1 of a given year to apply for funding in the following calendar year.

FACILITIES INSTALLED
The maintenance and repair of the facilities installed by a Customer under this program shall be the responsibility of the Customer following completion of the project. In order to be accepted by the Company for reimbursement purposes, the project shall, at a minimum, conform to the Company's System Qualification standards on file with the Commission. (REST Implementation Plan, Renewable Energy Credit Purchase Program – RECPP, Distributed Generation Interconnection Requirements, Net Metering Tariff, Company's Interconnection Manual)

PAYMENTS AND CREDITS
All funds reimbursed by the Company to the Customer for installation of approved DRE facilities shall be paid on an annual basis no later than March 30th of each calendar year. All Renewable Energy Credits derived from a project, including generation and Extra Credit Multipliers, shall become the property of the Company and shall be applied towards the Company's Annual Renewable Energy Requirement as defined in A.A.C. R14-2-1801.B.

RULES AND REGULATIONS
The standard Rules and Regulations of the Company as on file with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan.

RELATED SCHEDULES

- REST-TS1 - Renewable Energy Program Expense Recovery