

## GreenWatts™ Sunshare Program Hardware Buydown Agreement

This GreenWatts™ Sunshare Program Hardware Buydown Agreement (the “Agreement”) is hereby made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 200\_, by and between Tucson Electric Power Company, an Arizona Corporation (“Company”), and \_\_\_\_\_, (“Customer”). Company and Customer may be referred to individually herein as a “Party” or collectively as the “Parties.”

### RECITALS

A. Company desires to increase the number of solar electricity generation facilities and the consumption of solar electricity within its service territory, while concurrently reducing the cost of solar electric generation systems for its customers. In support of these objectives and to further Company’s continuing commitment to develop and encourage the use of renewable energy resources, Company has implemented a program to provide financial incentives to its customers to install solar generating equipment (the “SunShare Program”). The Sunshare Program was developed under GreenWatts™, Company’s existing renewable energy program; and

B. Company desires for Customer to participate in the Sunshare Program and Customer desires to so participate under the terms and conditions contained in this Agreement.

NOW, THEREFORE, in consideration of these premises and of the mutual promises herein contained, Company and Customer hereby agree as follows:

### AGREEMENT

#### **1. BUYDOWN PROGRAM OPTIONS**

Customer may elect to participate in the SunShare Program under one of the following options.

##### **1.1 Option One: Third Party System**

1.1.1 System. Under Option One, Customer shall purchase a solar generating system from any third party of Customer’s choice (“Third Party System”). However, to qualify under the SunShare Program, any such Third Party System must comply with all requirements set forth in Attachment A “System Qualifications and Attachment B “SunShare PV Off-Angle & Shading Annual Energy Derating Chart”, attached hereto and incorporated herein.

1.1.2 Buydown. Under Option One, Customer buy down and Company credits shall be based on the system’s AC kW output under PVUSA Test Conditions (PTC), as explained in section 5 below.

## **1.2 Option Two: Company System**

1.2.1 System Purchase. Under Option Two, Customer shall purchase from Company a solar electric material kit which shall include photovoltaic panels, a simple support system, a DC to AC inverter, a meter, a meter socket, and standard interconnection design documentation ("Company System"). For the purpose of this Agreement, "Customer System" may be used to collectively refer to Third Party Systems and Company Systems. The components of any such Company System will meet applicable system qualification requirements set forth in Attachment A Qualifications and Attachment B "SunShare PV Off-Angle & Shading Annual Energy Derating Chart", attached hereto. The Company System will be available in nominal 1 kWac capacity size when technically and economically feasible in Company's sole discretion.

1.2.2 Purchase Agreement. The purchase of any Company System by Customer shall be made by separate purchase agreement hereto, which shall contain the specific terms and conditions of the purchase (the "Purchase Agreement"). In the event of a conflict between this Agreement and the Purchase Agreement, the Purchase Agreement shall control.

1.2.3 Purchase Price. Company shall endeavor to sell each 1 kWac system kit for no more than \$4,000, after application of the Buydown Credit set forth in Section 5.2 below. Company is limited to selling no more than ten (10) 1 kWac kits to one customer. Customer shall be responsible for payment of all taxes, fees, contributions or other charges applicable to the purchase of each Company System. Specific payment terms shall be set forth in the Purchase Agreement.

1.2.4 Company System Warranties. In the event Company receives a warranty from the manufacturer for any components of a Company System purchased by Customer, Company shall promptly transfer such warranty to Customer to the extent possible.

## **1.3 Option Three: Third Party System**

1.3.1 System. Under Option Three, Customer shall purchase a solar generating system from any third party of Customer's choice ("Third Party System"). However, to qualify under the SunShare Program, any such Third Party System must comply with all requirements set forth in Attachment A "System Qualifications" and Attachment B "SunShare PV Off-Angle & Shading Annual Energy Derating Chart" attached hereto and incorporated herein.

1.3.2 Buydown. Under Option Three, Customer buydown and Company credits shall be based on the system's manufacturer's rated DC kW output based on Standard Test Conditions, as explained in section 5 below.

1.3.3 Maintenance. Company shall not provide maintenance under Option Three.

## **2. SYSTEM INSTALLATION**

To qualify for participation in the SunShare Program, all Customer Systems installed under Option One, Option Two or Option Three above shall be installed by or on behalf of Customer in accordance with the requirements set forth in Attachment "A", including, without limitation, a proper interconnection with Company's existing power grid. Customer shall be solely responsible for the installation of the System, including all costs and expenses associated therewith.

## **3. SYSTEM INSPECTION**

Following installation of Customer's System, Company shall inspect the Customer System for compliance with the applicable requirements set forth in Attachments A and B hereto. If the Customer System or installation is found to be not in compliance for any reason, Company will notify Customer of the deficiencies causing the noncompliance. Company will have no further obligations hereunder until all such deficiencies are remedied by Customer to Company's reasonable satisfaction. Provided, however, Customer shall install any Company System in compliance with the requirements set forth herein within one hundred twenty (120) days of Customer's receipt of the Company System. In the event Customer fails to properly install the Company System within 120 days, Customer shall be required to immediately refund any Buydown Credit granted to Customer towards the purchase of the Company System as set forth in herein. Any amounts owing under this section shall be paid by Customer to Company within 30 days following the expiration of the 120 day installation period.

## **4. SYSTEM ELECTRICAL OUTPUT**

As a further condition to Customer's participation in the SunShare Program, Customer hereby assigns to Company, all of its rights to all electrical output of the System and all associated environmental credits specifically including those created under the Arizona Corporation Commission Environmental Portfolio Standard Program (the "EPS"), which may result from the installation and use of the System. Company will thereafter return any and all such electric output to the Customer at no cost to Customer. Company's right to Customer's power output and credits assigned hereunder shall continue until December 31, 2012, and shall survive any termination of this Agreement.

## **5. HARDWARE BUYDOWN AND CREDIT**

- 5.1. Option One. Under Option One, subject to the Customer's System passing the Company inspection set forth in Section 3 above and to Customer's compliance with the remaining terms and conditions of this Agreement, Company shall pay Customer \$2,000 per AC kW of installed solar generating capacity of the Third Party System, as prorated by any de-rating for off-angle and shading that may apply by the percentages listed on the chart in Attachment B. The Third Party System's AC kW of installed solar generating capacity shall be determined by Company following successful System inspection and level of compliance with Attachment B ("SunShare PV Off-Angle & Shading Annual Energy Derating Chart"). To ensure

accurate test results, Company shall correct mathematically to accommodate for Standard Test Conditions of; 77 deg F ambient temperature, 1000 Watts/meter squared solar insolation, 1MPH wind speed, and shading factors, in conducting such AC kWh testing. Any amounts determined to be owed under this section 5.1 shall be paid by Company to Customer within 30 days following the Company's completion of AC kWh testing hereunder.

- 5.2. Option Two. Depending on level of compliance to Attachment B, Company will apply a Buydown Credit of up to \$2,000 to the \$6,000 purchase price of each 1 kW Company System. This offer is limited to ten (10) 1 kWac systems. The \$2,000 Buydown Credit will be prorated by any de-rating for off-angle and shading that may apply by the percentages listed on the chart in Attachment B.
- 5.3. Option Three. Under Option Three, subject to the Customer's System passing the Company inspection set forth in Section 3 above and to Customer's compliance with the remaining terms and conditions of this Agreement, Company shall pay Customer up to \$2,000 per STC rated DC kW of installed solar generating capacity of the Third Party System. Payment de-rating for off-angle and shading apply by the percentages listed on the chart in Attachment B

## **6. SYSTEM SERVICE AND MAINTENANCE**

- 6.1. Annual Inspection. ( *For Options One, Two and Three*) Company will conduct at least one inspection annually, at no cost to Customer, for each Customer System which qualified for buydown payments under Section 5 above. Said annual inspections shall commence in the year following Company's buydown payment to Customer. Customer shall provide Company with reasonable access to its System to conduct said inspections.
- 6.2. Repairs. (*For Options One and Two only, Option Three does not include maintenance*) In the event Company determines that any Customer System subsequently requires repair, Company will provide the maintenance labor for such repair at no cost to Customer. This no cost labor shall apply only to repairs resulting from normal System wear and tear and shall not apply to repairs, which, in Company's sole discretion, are required to correct damage caused by Customer misuse, negligence, or abuse of the Customer System, damage caused by third parties or acts of God. Customer shall be responsible for the acquisition and the cost of any materials or parts, including shipping and handling, which Company determines in its reasonable discretion are required to perform any such repairs.
- 6.3. Status. Company performs this service under this Agreement as an independent contractor, not as an employee of Customer. Nothing in this Agreement is intended

to construe the existence of a partnership, joint venture, or agency relationship between Company and Customer.

- 6.4 Removal. Customer shall not remove the Customer System or any components thereof from the premises until December 31, 2012 without express agreement of Company. If Customer removes the Customer System in violation of this provision, Customer shall immediately reimburse Company all Hardware Buydown payment and/or Buydown Credit amounts paid by Company to Customer under Section 5 hereunder.
- 6.5 Duration. Notwithstanding anything contained herein to the contrary, Company will continue to provide the annual inspection and normal repair labor maintenance services set forth in the Section 6.2 above, for so long as EPS funding is sufficient to support such services. If, in Company's sole discretion, funding levels provided under the EPS are insufficient to continue said inspection and maintenance services, Company may terminate such services. To the extent possible, Company will notify Customer no less than twelve (12) months prior to such termination. Thereafter, Company will endeavor to offer Customer the option to purchase a Customer System maintenance and inspection program from Company offering comparable services as those previously offered. In no event will any inspection and maintenance programs offered by Company extend beyond December 31, 2012.

7. **METER READING**

Once per month during the term of this Agreement, Customer shall read the Customer System solar production meter and shall report Customer's name, meter number, and present meter reading to a Company voice recording device at 745-3121, or in some other format as specified by Company. In December of each year, the reading should be taken on December 29, 30, or 31<sup>st</sup> as a representative end of year reading. Company reserves the right to read, at its option, the Customer System meter. Customer shall provide Company with reasonable access to its System to conduct any such readings.

8. **WARRANTY**

**COMPANY MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND HEREUNDER, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PERFORMANCE OF ANY SERVICES OR PROVISION OF ANY GOODS HEREUNDER.**

9. **LIMITATION OF LIABILITY**

**COMPANY'S ENTIRE LIABILITY ARISING OUT OF ITS PERFORMANCE UNDER THIS AGREEMENT SHALL BE LIMITED TO CLAIMS DIRECTLY ATTRIBUTABLE TO COMPANY'S GROSS NEGLIGENCE OR WILFUL MISCONDUCT. IN NO EVENT SHALL COMPANY, ITS EMPLOYEES OR AGENTS BE LIABLE TO CUSTOMER FOR LOSS OF PROFITS OR ANY OTHER SPECIAL, INDIRECT, OR CONSEQUENTIAL**

**DAMAGE, HOWEVER CAUSED, RESULTING FROM COMPANY'S PERFORMANCE  
HEREUNDER.**

**10. TERMINATION**

If either Party shall at any time commit any material breach of any covenant or warranty under this Agreement and shall fail to cure same within 30 days following written notice thereof, the non-breaching Party may terminate this Agreement, in whole or in part. This Agreement may also be terminated at any time by mutual written agreement of the Parties.

**11. MISCELLANEOUS**

11.1. Modification, Waiver and Severability. This Agreement may not be modified or supplemented except by written instrument signed by the Parties. No waiver of any default or breach hereof shall be deemed a waiver of any other default or breach thereof. If any part of this Agreement is declared void and/or unenforceable, such part shall be deemed severed from this Agreement which shall otherwise remain in full force and effect.

11.2. Assignment. This Agreement and the rights, duties, and obligations hereunder may not be assigned or delegated by any Party without the prior written consent of Company.

11.3. Governing Law and Venue. This Agreement shall be governed by the laws of the State of Arizona, without regard to the choice of law provisions thereof. Venue for any dispute arising hereunder shall be any court of competent jurisdiction located in Pima County, Arizona.

11.4. Entire Agreement. This Agreement is the final integration of the agreement between the Parties with respect to the matters covered by it and supersedes any prior understanding or agreements, oral or written, with respect thereto.

11.5. Counterparts. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same Agreement.

11.6. Titles and Captions. Titles or captions contained in this Agreement are inserted for convenience and for reference only and in no way define, limit, extend, or describe the scope of this Agreement or the intent of any provision hereof.

11.7. Expenses and Attorney's Fees. In the event of a breach or threatened breach of any term or provision of this Agreement, the non-breaching party shall be entitled to all of its remedies available at law or in equity, unless otherwise limited in this Agreement, and in addition shall be entitled to be reimbursed for all of its reasonable costs and expenses in enforcing this Agreement (if successful),

including, but not limited to, reasonable attorney's fees. This section shall survive termination or expiration of this Agreement for any reason.

- 11.8 Force Majeure. Neither Party shall be liable to the other for failure to perform its obligations hereunder to the extent such failure results from causes beyond its reasonable control, including strikes, climatic conditions, acts of God, governmental laws, regulations, orders or requirements, interruptions of power or unavailability of equipment or supplies.
- 11.9 Customer Sale of Residence. In the event Customer sells the residence for which the Customer installed the Customer System, Customer's successor-in-interest shall expressly assume all of Customer's obligations hereunder in writing, and this Agreement shall not be affected, nor shall Company's rights hereunder be disturbed in any way, including, without limitation, Company's continued right to all power output and credits assigned pursuant to Section 4 hereunder.
- 11.10 Notices. All notices under this Agreement shall be in writing and shall be given to the Parties thereto by personal service (including receipted confirmed facsimile), or by certified or registered mail, return receipt requested, or by recognized overnight courier service, to the Company at the address set forth below. All notices shall be deemed given upon the actual receipt thereof.

Company: Tucson Electric Power Company  
PO Box 711  
Tucson, Arizona 85702  
Fax: (520) 571-4101  
Attn: Bill Henry

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed as of \_\_\_\_\_, 200\_.

**TUCSON ELECTRIC POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**CUSTOMER**

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Phone: \_\_\_\_\_  
\_\_\_\_\_

**ATTACHMENT "A"**  
**SYSTEM QUALIFICATIONS**

All Customer solar electric generating Systems must meet the following system and installation requirements to qualify for Company's GreenWatts™ Sunshare Hardware Buydown Program. Capitalized terms not defined herein shall have the meanings ascribed to them in the GreenWatts™ Sunshare Program Hardware Buydown Agreement.

1. The Customer System must produce at least 800 watts AC and no more than 10,000 watts AC at noon as corrected to PTC for temperature and solar insolation over a one-year cycle.
2. The Customer System components must be certified as meeting the requirements of IEEE-929 - Recommended Practice for Utility Interface of Photovoltaic Systems.
3. 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.
4. Photovoltaic components must be certified 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 10 years.
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, overcurrent protection, disconnect and labeling requirements.
6. 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 superceded.
7. The Customer System must meet Company and Arizona Corporation Commission interconnection requirements for self-generation equipment.
8. 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."

9. The Customer System photovoltaic panels and modules must face within +/- 90 degrees of real south, and be completely unshaded from three hours after sunrise to three hours before sunset. 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".
10. The Customer System photovoltaic panels and modules must be fitted at an angle of 10 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".
11. TEP will provide a meter and meter socket that will be installed by the Customer between the DC to AC converter and the connection to the overcurrent device in the Customer's electric service panel.
12. Storage Batteries are not allowed as part of the Customer System as they would reduce the annual AC power output. Company offers a net metering option, Rate PRS-101-3.b.III, which credits the Customer with the energy sent into the grid on a kWh basis.
13. Installation must have been made after January 1, 1997.
14. The Customer must be connected to the Company's electric grid.
15. 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.
16. 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.
17. All Customer System installations must be completed in a professional, workmanlike and safe manner.
18. Total voltage drop on the DC and AC wiring from the furthest PV module to the AC meter will not exceed 2%.
19. 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, but in no case less than 4 inches above any surface and an additional

inch of clearance for each foot of continuous array surface beyond four feet in the direction parallel to the mounting support surface.

