

ORIGINAL  
OPEN MEETING



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MEMORANDUM  
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Arizona Corporation Commission

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TO: THE COMMISSION  
FROM: Utilities Division  
DATE: December 5, 2006

2006 DEC -5 P 3:39  
AZ CORP COMMISSION  
DOCUMENT CONTROL

RE: IN THE MATTER OF THE APPLICATION OF UNS ELECTRIC, INC. TO  
EXTEND AND MODIFY ITS GREENWATTS™ SUNSHARE PROGRAM  
(DOCKET NO. E-04204A-06-0621)

On August 10, 2004, in Decision No. 67178, the Arizona Corporation Commission ("Commission") approved the original UNS Electric, Inc. ("UNSE") Greenwatts™ SunShare Program ("Program"). The purpose of the Program is to encourage the installation of renewable energy systems at customer premises.

On September 21, 2006, UNSE filed an application to revise its Greenwatts™ SunShare Program.

There are three specific proposed changes to the Program. First, UNSE proposes to extend the program until December 31, 2008, or until the Commission approves a UNSE proposed Uniform Credit Purchase Program, whichever occurs first.

Second, UNSE proposes to change the incentive payment to \$3.00 per Standard Test Condition ("STC") rated DC Watt. This equates to a \$3,000 incentive for each rated DC KW. UNSE's current approved Program allows for payment of up to \$2.40 per STC rated DC Watt. The term of the Renewable Energy Credits purchased would be extended through 2020.

Third, UNSE proposes to increase the annual program cap from the current 50 KW DC to 120 KW DC.

The proposed customer incentive is \$3,000 per manufacturer's rated DC KW. The customer must sign an agreement assigning rights to the electrical output and all associated environmental credits to UNSE through December 31, 2020. UNSE will return all of the electric output to the owner at no cost. No maintenance will be provided by UNSE.

The program is limited to providing incentives for 120 KW of solar capacity in 2007 and 2008.

UNSE has estimated the cost per kWh to UNSE that each system would produce. UNSE has assumed that each renewable system will produce (annually) 1,385 kWh-AC for each KW-DC nameplate rating for the PV panels. UNSE will contract for Renewable Energy Credits through the end of 2020.

THE COMMISSION

December 5, 2006

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Based upon UNSE's assumptions, UNSE has calculated that the cost to UNSE for RECs will be \$0.166 per kWh.

Staff has reviewed UNSE's calculations and has performed a similar calculation using a different timeframe for energy production and REC purchase from the PV systems. Under the proposed program, UNSE customers installing systems in 2007 would only provide UNSE with RECs for 14 years of a likely 20-30 year system life.

In Staff's calculations of costs per REC to UNSE, Staff used all of UNSE's assumptions except the timeframe for REC transfer to UNSE. Staff assumed that UNSE would obtain RECs from the system for 20 years from the date of installation. Staff also assumed that the customer would pay for any system equipment repair and replacement.

Based on Staff's new assumptions of years of REC transfer, Staff calculates that the cost to UNSE for RECs, under a 20-year contract, would be \$0.108 per kWh.

The dramatic difference in the UNSE and Staff calculations is due directly to the number of RECs that UNSE would accrue over the longer 20-year contract.

For a 2007 system, a REC purchase contract for 14 years would purchase 19,390 kWh (1,385 x 14). A 20-year REC purchase contract would provide UNSE with 27,700 kWh (1,385 x 20) for the same incentive amount.

Staff recommends that each customer be required to sign a contract to provide RECs to UNSE for 20 years from the date of installation. This one change will greatly reduce the cost per kWh of RECs that UNSE will purchase with its incentives.

Staff has reviewed the application and proposed changes submitted by UNSE. Staff recommends approval of the filing with one recommended change.

Staff recommends that UNSE change the terms of its agreement with customers for the assignment of rights to the electrical output and all associated environmental credits to UNSE to a term of 20 years from the date of installation. This will allow UNSE to purchase more RECs, at a lower cost per REC, for the same amount of incentive.



Ernest G. Johnson  
Director  
Utilities Division

EGJ:RTW:lhvJMA

ORIGINATOR: Ray Williamson

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**BEFORE THE ARIZONA CORPORATION COMMISSION**

JEFF HATCH-MILLER  
Chairman  
WILLIAM A. MUNDELL  
Commissioner  
MIKE GLEASON  
Commissioner  
KRISTIN K. MAYES  
Commissioner  
BARRY WONG  
Commissioner

IN THE MATTER OF THE APPLICATION )  
OF UNS ELECTRIC, INC. TO EXTEND )  
AND MODIFY ITS GREENWATTS™ )  
SUNSHARE PROGRAM )

DOCKET NO. E-04204A-06-0621  
DECISION NO. \_\_\_\_\_  
ORDER

Open Meeting  
December 19 and 20, 2006  
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. UNS Electric, Inc. ("UNSE") is engaged in providing electric service within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission ("Commission").

2. On August 10, 2004, in Decision No. 67178, the Commission approved the original UNSE Greenwatts™ SunShare Program ("Program"). The purpose of the Program is to encourage the installation of renewable energy systems at customer premises.

3. On September 21, 2006, UNSE filed an application to revise its Greenwatts™ SunShare Program.

4. There are three specific proposed changes to the Program. First, UNSE proposes to extend the program until December 31, 2008, or until the Commission approves a UNSE proposed Uniform Credit Purchase Program, whichever occurs first.

5. Second, UNSE proposes to change the incentive payment to \$3.00 per Standard Test Condition ("STC") rated DC Watt. This equates to a \$3,000 incentive for each rated DC KW.

1 UNSE's current approved Program allows for payment of up to \$2.40 per STC rated DC Watt.  
2 The term of the Renewable Energy Credits purchased would be extended through 2020.

3 6. Third, UNSE proposes to increase the annual program cap from the current 50 KW  
4 DC to 120 KW DC.

5 7. The proposed customer incentive is \$3,000 per manufacturer's rated DC KW. The  
6 customer must sign an agreement assigning rights to the electrical output and all associated  
7 environmental credits to UNSE through December 31, 2020. UNSE will return all of the electric  
8 output to the owner at no cost. No maintenance will be provided by UNSE.

9 8. The Program is limited to providing incentives for 120 KW of solar capacity in  
10 2007 and 2008.

11 9. UNSE has estimated the cost per kWh to UNSE that each system would produce.  
12 UNSE has assumed that each renewable system will produce (annually) 1,385 kWh-AC for each  
13 KW-DC nameplate rating for the PV panels. UNSE will contract for Renewable Energy Credits  
14 through the end of 2020.

15 10. Based upon UNSE's assumptions, UNSE has calculated that the cost to UNSE for  
16 RECs will be \$0.166 per kWh.

17 11. Staff has reviewed UNSE's calculations and has performed a similar calculation  
18 using a different timeframe for energy production and REC purchase from the PV systems. Under  
19 the proposed program, UNSE customers installing systems in 2007 would only provide UNSE  
20 with RECs for 14 years of a likely 20-30 year system life.

21 12. In Staff's calculations of costs per REC to UNSE, Staff used all of UNSE's  
22 assumptions except the timeframe for REC transfer to UNSE. Staff assumed that UNSE would  
23 obtain RECs from the system for 20 years from the date of installation. Staff also assumed that the  
24 customer would pay for any system equipment repair and replacement.

25 13. Based on Staff's new assumptions of years of REC transfer, Staff calculates that the  
26 cost to UNSE for RECs, under a 20-year contract, would be \$0.108 per kWh. The dramatic  
27 difference in the UNSE and Staff calculations is due directly to the number of RECs that UNSE  
28 would accrue over the longer 20-year contract.



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IT IS FURTHER ORDERED that the customer shall be required to sign an agreement assigning rights to the electrical output and all associated environmental credits to UNSE for a period of 20 years from the date of system installation.

IT IS FURTHER ORDERED that this Order shall become effective immediately.

**BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

CHAIRMAN	COMMISSIONER	
COMMISSIONER	COMMISSIONER	COMMISSIONER

IN WITNESS WHEREOF, I BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this \_\_\_\_\_ day of \_\_\_\_\_, 2006.

\_\_\_\_\_  
BRIAN C. McNEIL  
Executive Director

DISSENT: \_\_\_\_\_

DISSENT: \_\_\_\_\_

EGJ:RTW:lhmvJMA

1 SERVICE LIST FOR: UNS Electric, Inc.  
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