ORIGINAL OPEN MEETING

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MEMORANDUM

Arizona Corporation Commission
DOCKETED

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2008 MAY 20 P 4: 20

DOCKETED BY

AZ CORP COMMISSION
DOCKET CONTROL

TO: THE COMMISSION

FROM: Utilities Division

DATE: May 20, 2008

RE: TUCSON ELECTRIC POWER COMPANY - APPROVAL OF ITS DEMAND-SIDE MANAGEMENT PROGRAMS FOR YEARS 2008 THROUGH 2012. - COMPACT FLUORESCENT LAMP BUYDOWN PROGRAM (DOCKET NO. E-01933A-07-0401)

## BACKGROUND

On July 2, 2007, Tucson Electric Power Company ("TEP" or "Company") filed its demand-side management ("DSM") Portfolio of programs for the years 2008 through 2012 ("Filing"). Ten programs were included in the Filing, including the Compact Fluorescent Lamp ("CFL") Buy-Down Program ("Program") which is addressed here.

The Filing was made in Docket No. E-01933A-07-0401 and provides the Commission with information concerning TEP's existing and proposed DSM programs as required by Commission Decision No. 69568.

## PROGRAM SUMMARY

TEP's CFL Buydown Program would promote high-efficiency lighting. The Company, along with an outside implementation contractor, would negotiate discount pricing from CFL manufacturers and retailers (up-stream buy-down) through incentives paid to the manufacturer.[1] Customers would be referred to participating retailers to purchase qualifying products. Qualifying CFL products would carry the ENERGY STAR® label. Discount pricing would be passed on to consumers through a negotiated agreement with lighting manufacturers and retailers. The Program would also provide consumer education, and sales training for participating retailers, including in-store point-of-sale displays. The Program would be administered by an outside implementation contractor.

Although the Program would be available to all TEP customers, the target market is TEP's residential and small commercial customers. Compact fluorescent lamps are substantially more expensive than traditional incandescent lamps, which is a barrier to their widespread use. By providing this discount program, TEP could expect greater use of CFLs, and along with customers, would see savings from reduced power and energy use.

## PROGRAM IMPLEMENTATION

[1] It has been the experience of DSM programs in other areas that benefits are greater when the incentives are paid to the manufacturer, who then provides greater savings to the retailer who in turn provides even greater savings to the consumer. This is the same program structure as used by Arizona Public Service for its CFL program.

To execute the Program, TEP would work with key partners including:

- The implementation contractor;
- Lighting manufacturers;
- Lighting retailers; and
- Local organizations that could help promote the Program.

The Program would be implemented by a third party implementation contractor. TEP would solicit participation of lighting manufacturers in the Program through an RFP process. Implementation contractor responsibilities would include:

- Soliciting of discount pricing from manufacturers in conjunction with TEP;
- Identifying and coordinating with selected retail outlets;
- Training retail outlet sales and management staff; and
- Tracking Program progress and reporting to TEP.

The tracking of Program progress, or Evaluation, Measurement, and Verification ("EM&V"), would include monitoring and reviewing to determine CFL shipments and sales and to assess CFL costs represented in the agreements signed with manufacturers or retailers. Store locations of retailers participating in the program will be used to assess leakage rate, or the number of lamps sold through participating retailers that may be installed outside of the TEP service area. Leakage can occur when a store is located near other utility service territories; lamps sold at these retailers may be installed outside the TEP service area.

CFL cost data may be collected from both participating and non-participating retailers through the use of on-site cost surveys. These on-site costs will be compared to costs represented in the agreements to be signed with manufacturers or retailers to confirm that CFL costs represented in program agreements are consistent with current CFL market costs. On-site data collection at participating customer sites may be initiated to assess CFL operating hours and service life.

TEP would consider the sale of 300,000 CFLs per year to represent Program success.

TEP itself would provide overall Program management, marketing, quality control, and evaluation, and would also provide Program marketing and customer awareness through strategies such as:

- Promotions on the TEP website concerning the benefits of energy-efficient lighting products and announcement of special pricing and promotional events;

- Advertising in major newspapers and other selected print media in the TEP service region to raise awareness of the availability of the Program and attract customers to participating retail outlets;

- Working with the implementation contractor to develop and coordinate point-of-sale advertising at participating retail outlets; and

- General ongoing promotion of the ENERGY STAR® label and the value of ENERGY STAR® lighting and appliances.

The implementation contractor would provide general program marketing in conjunction with TEP marketing efforts including:

- Development of point-of-sale marketing displays with participating retailers to promote the benefits of qualifying products and announce special pricing and promotional events;

- Scheduling and coordination of special pricing and promotional events with participating retailers;

- Assistance with responding to customer inquiries about the Program and where to purchase qualifying products;

- Training participating retailers on communicating the availability and benefits of qualifying products to their customers; and

- Providing information concerning proper disposal of CFLs. TEP would publish proper disposal information as required by Arizona law and proper practice. Recycling would be encouraged. A list of recycling centers in the Tucson area would be included. The proper way to seal and dispose of old CFLs in domestic trash would also be included.

The Program advertising campaign would communicate that energy-efficient lighting products help reduce customer energy bills, provide equal or better lighting quality, last up to 10 times longer requiring fewer replacements, and benefit the environment by reducing energy use.

**BUDGET AND ENERGY SAVINGS**

TEP proposes a budget for year 2008 for the Program of $700,000. The major portion of the budget is the incentive payments themselves, making up 67.6 percent of the total. TEP expects to expand the Program by 3 percent per year.

Of the $700,000 first-year budget, the non-incentive portion is $226,500. Of that amount, $160,000, or 70 percent, is budgeted for the implementation contractor.

**Table 1**
**Compact Fluorescent Lamp Buydown Program**
**Year 2008 Budget**

| | | | |
|---|---|---|---|
| Managerial & Clerical | $17,448 | Incentives | $473,480 |
| Travel & Direct Expenses | 914 | Hardware & Materials | 5,320 |
| Overhead | 37,638 | Rebate Processing and Inspection | 53,200 |
| **Total Administrative Cost** | **56,000** | **Total Direct Costs** | **532,000** |
| Internal Marketing | 42,000 | Evaluation, Measurement, and Verification ("EM&V") | 15,684 |
| Subcontract Marketing | 42,000 | EM&V Overhead | 12,316 |
| **Total Marketing** | **84,000** | **Total EM&V** | **28,000** |
| | | ***Total 2008 Budget*** | ***$700,000*** |

Analyses show that the Program would provide demand savings of .004 kW and energy savings of 35 kWh annually, on average, per lamp. Table 2 shows TEP's projected sales of new CFLs under the Program, along with the total annual demand and energy savings resulting.

**Table 2**
**CFL Buydown Program**
**Projected CFL Sales, Demand and Energy Reductions**

| Year | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|
| **Projected CFL Sales** | 305,471 | 314,635 | 324,074 | 333,796 | 343,810 |
| **Demand Reduction Coincident with TEP Peak (kW)** | 1,147 | 1,181 | 1,217 | 1,253 | 1,291 |
| **Energy Use Reduction (kWh)** | 9,796,898 | 10,090,805 | 10,393,530 | 10,705,335 | 11,026,495 |

Demand and energy savings from replacing an incandescent lamp with a CFL are shown below in Table 3. The lamps are the typical CFL replacement for a given incandescent lamp to provide the same level of lighting. The reduction in energy use shown is TEP's estimated annual kWh saved due to the replacement of an incandescent lamp with a CFL assuming typical hours of use.

**Table 3**
**Demand and Energy Savings from CFL replacement**

| Watts per Lamp | | Annual kWh |
|---|---|---|
| Incandescent | CFL | Reduction |
| 40W | 16W | 20 kWh |
| 60W | 22W | 32 kWh |
| 75W | 27.5W | 41 kWh |
| 100W | 43.5W | 48 kWh |

Table 3 data exclude line losses and therefore represents savings that customers will experience. Weighted averages of these data indicate annual energy savings of 35 kWh including line losses, or 32 kWh to the customer.

## BENEFIT/COST ANALYSIS

The Commission's 1991 Resource Planning Decision established the Societal Test as the methodology to be used for determining the cost-effectiveness of a DSM program. Under the Societal Test, in order to be cost-effective, the ratio of benefits to costs must be greater than one. That is, the incremental benefits to society of a program must exceed the incremental cost of having the program in place. Societal costs for a DSM Program include the cost of the measure and the cost of implementing the program, excluding rebates. The societal benefits of the program include deferred or avoided generation capacity and energy costs. Other benefits of a program may include reduced water consumption and emissions although they may not be monetized.

Staff's benefit/cost analysis has concluded that the Program is cost-effective and would result in approximately $5.7 million in net benefits to society over the life of the measure, with a benefit/cost ratio of 1.6.

TEP has projected environmental benefits as shown in Table 4.

**Table 4**
**Projected Environmental Benefits**

| | |
|---|---|
| Water | 26,006,532 Gallons |
| $SO_X$ | 124,311 lbs |
| $NO_X$ | 206,492 lbs |
| $CO_2$ | 108,603,278 lbs |

**RECOMMENDATION**

Based upon Staff's analysis of the benefits and costs of this Program, Staff recommends that Tucson Electric Power Company's proposed Compact Fluorescent Lamp Buydown Program be approved.

Ernest G. Johnson
Director
Utilities Division

EGJ:JJP:lhm\

ORIGINATOR: Jeffrey Pasquinelli

**BEFORE THE ARIZONA CORPORATION COMMISSION**

MIKE GLEASON
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
KRISTIN K. MAYES
Commissioner
GARY PIERCE
Commissioner

| | |
|---|---|
| IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR APPROVAL OF ITS DEMAND-SIDE MANAGEMENT PROGRAMS FOR YEARS 2008 - 2012 COMPACT FLUORESCENT LAMP BUYDOWN PROGRAM | DOCKET NO. E-01933A-07-0401<br>DECISION NO. _____<br>ORDER |

Open Meeting
June 3 and 4, 2008
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

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

2. On July 2, 2007, Tucson Electric Power Company filed its demand-side management ("DSM") Portfolio of programs for the years 2008 through 2012 ("Filing"). Ten Programs were included in the Filing, including the Compact Fluorescent Lamp ("CFL") Buy-Down Program ("Program") which is addressed here.

3. The Filing was made in Docket No. E-01933A-07-0401 and provides the Commission with information concerning TEP's existing and proposed DSM programs as required by Commission Decision No. 69568.

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Program Summary

4. TEP's CFL Buydown Program would promote high-efficiency lighting. The Company, along with an outside implementation contractor, would negotiate discount pricing from CFL manufacturers and retailers (up-stream buy-down) through incentives paid to the manufacturer.[1] Customers would be referred to participating retailers to purchase qualifying products. Qualifying CFL products would carry the ENERGY STAR® label. Discount pricing would be passed on to consumers through a negotiated agreement with lighting manufacturers and retailers. The Program would also provide consumer education, and sales training for participating retailers, including in-store point-of-sale displays. The Program would be administered by an outside implementation contractor.

5. Although the Program would be available to all TEP customers, the target market is TEP's residential and small commercial customers. Compact fluorescent lamps are substantially more expensive than traditional incandescent lamps, which is a barrier to their widespread use. By providing this discount program, TEP could expect greater use of CFLs, and along with customers, would see savings from reduced power and energy use.

Program Implementation

6. To execute the Program, TEP would work with key partners including:

- The implementation contractor;
- Lighting manufacturers;
- Lighting retailers; and
- Local organizations that could help promote the Program.

7. The Program would be implemented by a third party implementation contractor. TEP would solicit participation of lighting manufacturers in the Program through an RFP process. Implementation contractor responsibilities would include:

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- Training retail outlet sales and management staff; and
- Tracking Program progress and reporting to TEP.

8. The tracking of Program progress, or Evaluation, Measurement, and Verification ("EM&V"), would include monitoring and reviewing to determine CFL shipments and sales and to assess CFL costs represented in the agreements signed with manufacturers or retailers. Store locations of retailers participating in the program will be used to assess leakage rate, or the number of lamps sold through participating retailers that may be installed outside of the TEP service area. Leakage can occur when a store is located near other utility service territories; lamps sold at these retailers may be installed outside the TEP service area.

9. CFL cost data may be collected from both participating and non-participating retailers through the use of on-site cost surveys. These on-site costs will be compared to costs represented in the agreements to be signed with manufacturers or retailers to confirm that CFL costs represented in program agreements are consistent with current CFL market costs. On-site data collection at participating customer sites may be initiated to assess CFL operating hours and service life.

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13. The Program advertising campaign would communicate that energy-efficient lighting products help reduce customer energy bills, provide equal or better lighting quality, last up to 10 times longer requiring fewer replacements, and benefit the environment by reducing energy use.

Budget And Energy Savings

14. TEP proposes a budget for year 2008 for the Program of $700,000. The major portion of the budget is the incentive payments themselves, making up 67.6 percent of the total. TEP expects to expand the Program by 3 percent per year.

15. Of the $700,000 first-year budget, the non-incentive portion is $226,500. Of that amount, $160,000, or 70 percent, is budgeted for the implementation contractor.

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Benefit/Cost Analysis

19. The Commission's 1991 Resource Planning Decision established the Societal Test as the methodology to be used for determining the cost-effectiveness of a DSM program. Under the Societal Test, in order to be cost-effective, the ratio of benefits to costs must be greater than one. That is, the incremental benefits to society of a program must exceed the incremental cost of having the program in place. Societal costs for a DSM Program include the cost of the measure and the cost of implementing the program, excluding rebates. The societal benefits of the program include deferred or avoided generation capacity and energy costs. Other benefits of a program may include reduced water consumption and emissions although they may not be monetized.

20. Staff's benefit/cost analysis has concluded that the Program is cost-effective and would result in approximately $5.6 million in net benefits to society over the life of the measure, with a benefit/cost ratio of 1.6.

21. TEP has projected environmental benefits as shown in Table 4.

**Table 4**
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| Water | 26,006,532 Gallons |
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| $CO_2$ | 108,603,278 lbs |

Recommendation

22. Based upon Staff's analysis of the benefits and costs of this Program, Staff recommends that Tucson Electric Power Company's proposed Compact Fluorescent Lamp Buydown Program be approved.

## CONCLUSIONS OF LAW

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

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

3. The Commission, having reviewed the application and Staff's Memorandum dated May 20, 2008, concludes that it is in the public interest to approve the TEP Compact Fluorescent Lamp Buydown Program.

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ORDER

IT IS THEREFORE ORDERED that Tucson Electric Power Company's Compact Fluorescent Lamp Buydown Program be and hereby is approved, as discussed herein.

IT IS FURTHER ORDERED that this Decision 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 _____ , 2008.

_____
BRIAN C. McNEIL
Executive Director

DISSENT: _____

DISSENT: _____

EGJ:JJP:lhm/JFW

SERVICE LIST FOR: Tucson Electric Power Company
DOCKET NO. E-01933A-07-0401

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