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**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

**In the Matter of the Energy Efficiency
and Peak Demand Reduction
Program Portfolio of Ohio Edison
Company, The Cleveland Electric
Illuminating Company, and The
Toledo Edison Company**

**Case No. 09-580-EL-EEC
09-581-EL-EEC
09-582-EL-EEC**

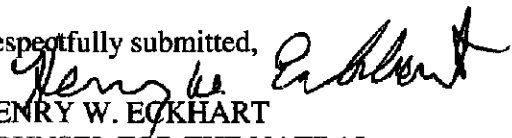
**RECOMMENDATIONS
BY
THE
NATURAL RESOURCES DEFENSE COUNCIL**

The Natural Resources Defense Council offers its recommendations to the energy efficiency program described in the above captioned cases. In their Application in the above-captioned cases, the Ohio Edison Company, the Cleveland Electric Illuminating Company, and the Toledo Edison Company ("FirstEnergy" or "Companies") propose a High Efficiency Light Bulb Program ("CFL program"). The CFL program uses customer incentive dollars inefficiently and has potential to inflict damage on the market for compact fluorescent light bulbs ("CFL" or "CFLs"). In addition, FirstEnergy's cost effectiveness demonstration lacks detail and precision. We recommend that the Public Utilities Commission of Ohio ("Commission" or "PUCO") modify the program or, in the alternative, return it to FirstEnergy's energy efficiency collaborative for improvement.

The reasons for the above-stated recommendations are further set forth in the attached Memorandum in Support.

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Respectfully submitted,


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MEMORANDUM IN SUPPORT

I. INTRODUCTION

On July 9, 2009, the FirstEnergy filed an application to request Commission approval of the High Efficiency Light Bulb Program ("CFL program") for inclusion as part of the Companies' energy efficiency and peak demand reduction benchmarks set forth in R.C. Sec. 4928.66. The Companies requested recovery of the full costs of the implementation of the program through the Companies' DES2 rider. According to the Green Rules adopted by the Commission in Case No. 08-888-EL-ORD, Sec. 4901:1-39-07(B), "Any person may file objections within thirty days of the filing of an electric utility's application for recovery" of energy efficiency program costs. The Commission may set the matter for hearing "if the application appears unjust or unreasonable."

Recovery of costs of the Compact Fluorescent Light Bulb ("CFL") program as it is currently designed would be unreasonable. Furthermore, the application is incomplete.

- The incentive amount per bulb is too high, decreasing the energy savings per incentive dollar spent and inhibiting market transformation.
- The application does not include detailed and precise results of the Total Resource Cost test for the program.

Given these deficiencies, the Commission should modify the program as described in this filing, or return it to the Companies' energy efficiency collaborative for further development.

According to Attachment A of the filing, the CFL program will distribute efficient light bulbs to residential and small commercial customers at no cost using home delivery and shipping, an on-line store, and retailer coupons. In 2009, the Companies plan to deliver 3.75 million CFLs through the program, with an estimated savings of 80 kWh per bulb and an overall program-induced reduction in peak demand of 8.4 MW. The Companies budget \$5 in incentive per bulb and \$.75 per bulb in administrative fees, and anticipate program benefits of \$39.8 million from \$16.6 million in program costs.

II. THE INCENTIVE AMOUNT PER BULB IS TOO HIGH, DECREASING ENERGY SAVINGS PER INCENTIVE DOLLAR SPENT AND INHIBITING MARKET TRANSFORMATION.

Energy efficient products typically have a higher first cost than inefficient products; this additional first cost is eventually paid back as energy savings accumulate. Energy efficiency programs seek to transform markets to properly assign value to energy efficiency by attacking barriers that keep customers from making an energy efficient investment; these barriers can be informational, financial, and technical. In markets that are not transformed, incentives are initially high, and steadily fall until customers are comfortable making an energy efficient purchasing decision. When this happens, the market is transformed.

Programs that encourage customers to install CFLs follow this trajectory. The typical price premium for a CFL is \$2.50 over an incandescent; this CFL produces an annual average energy cost savings of \$5.41, paying back the investment in half a year.¹ The Ohio CFL market is immature, with between 2.5 and 3 CFLs installed per home, compared to a U.S. average of 4.4.²

The Companies propose to give its customers up to four free compact fluorescent light bulbs through various distribution channels at the cost of \$5.75 per bulb in incentive and administrative fees. Although the Ohio CFL market is immature, and thus warrants a high incentive, free CFLs could be damaging to the long-term goal of market transformation. The act of buying a discounted CFL familiarizes a customer with the technology and trains them to pay an additional first cost in exchange for long-term energy savings. Giving away CFLs free disrupts this learning process, and encourages a customer to assign little value to CFLs. This reduced value shows up in the installation rate. According to the Midwest Energy Efficiency Alliance (“MEEA”), installation rates in give away programs are, at best, 50%. Installation rates in programs where customers choose to purchase discounted CFLs are much higher: around 70%.

The high incentive amount – \$5 per bulb – also prevents the program from reaching more participants and facilitating high energy savings. According to Ecos Consulting and MEEA, upstream buy-down programs, which provide incentives to retailers to lower the cost of CFLs at the point-of-sale, typically have a program cost of \$2 per CFL. We thus estimate that FirstEnergy could cost-effectively facilitate almost three times the energy savings in its current program by adopting an upstream buy-down

¹ Energy Star CFL Market Profile. U.S. Department of Energy. March 2009.

² Reid, Michael. “Who’s Buying CFLs? Who’s Not Buying Them? Findings from a Large-Scale, Nationwide Survey.” 2008 ACEEE Summer Study on Energy Efficiency in Buildings.

program design. This is the approach AEP Ohio is taking in its efficient products program. Another successful approach that furthers the goal of market transformation is used in Duke Energy Ohio's Energy Star Products program, which offers customers direct mail coupons for discounted CFLs (the 2007 discount at Wal-Mart was \$1 per bulb³). Both approaches successfully encourage energy savings in non-transformed markets. Both are better from a cost effectiveness and market transformation standpoint than the FirstEnergy program.

In the Green Rules adopted by the Commission in Case No. 08-888-EL-ORD, Sec. 4901:1-39-03(B), Program Design Criteria, electric utilities are required to consider a set of criteria when developing programs. These criteria include "the degree to which the program promotes market transformation" ... "relative cost effectiveness" and ... "the degree to which the program leverages knowledge gained from existing program successes and failures." The Companies' Application gives no indication that these criteria were addressed in the program design. If these criteria were addressed, the CFL program's design would look quite different.

III. THE APPLICATION DOES NOT INCLUDE DETAILED AND PRECISE RESULTS OF THE TOTAL RESOURCE COST TEST FOR THE CFL PROGRAM.

The Commission has identified the Total Resource Cost ("TRC") as its primary metric of cost effectiveness for energy efficiency programs. According to R.C. 4901:1-39-01(W), the Total Resource Cost test is an analysis to determine if, for an investment in

³ Duke Energy Ohio's DSM Status Report and Application to Reconcile and Update the DSM Riders Associated with Demand Side Management Programs for Residential and Nonresidential Customers. Case No. 08-1227-EL-UNC. Page 21.

energy efficiency, “the present value of the avoided supply costs for the periods of load reduction, valued at marginal cost, are greater than the present value of the monetary costs of the demand-side measure or program borne by both the electric utility and the participants.” Supply costs include the “costs of supplying energy and/or capacity that are avoided by the investment, including generation, transmission, and distribution to customers.” The costs of the measure or program include “the costs for equipment, installation, operation and maintenance, removal of replaced equipment, and program administration, net of any residual benefits and avoided expenses such as the comparable costs for devices that would otherwise have been installed, the salvage value of removed equipment, and any tax credits.”

Attachment C of the Companies’ CFL program application provides information about the cost and benefit of the CFL program, but without detail. FirstEnergy provides no explanation of its avoided energy or capacity costs, just net present value benefits of the program. Similarly, the Companies fail to properly assign “Education and Marketing” and “FE Sales and Program Support” monies to the CFL program or the Aclara program filed in the same application.

With this lack of detail and accounting precision, it is difficult to evaluate the cost effectiveness of the CFL program.

IV. CONCLUSION

The Commission should modify the program, or in the alternative, return it to the Companies’ energy efficiency collaborative for refinement. As filed, the CFL program is a poor use of incentive dollars that will be collected from residential customers, and is

less advanced than CFL programs being offered to customers of other Ohio electric utilities. The program could do long-term damage to the CFL market in the FirstEnergy service territory. The modified program should conform to industry best practice: a coupon or buy-down program where customers contribute at least \$1 toward the cost of each bulb.

FirstEnergy will likely argue that modifying or returning the program to the collaborative will delay its implementation. It might. But the Companies already have to develop relationships with retailers to implement the CFL program described in the Application. Vendors operating CFL buy-down programs responded to AEP-Ohio's request for proposals on March 9. The programs began generating savings in May.

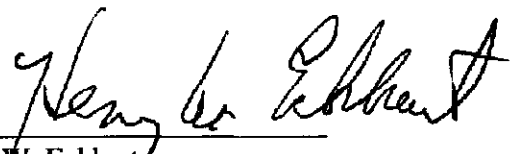
Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that a copy of these *Recommendations* and *Memorandum in Support* were served on the persons stated below by regular U.S. Mail, postage prepaid, and electronic mail on this the 10th day of August, 2009.


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