

FILE

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

RECEIVED-DOCKETING DIV
2008 SEP 29 PM 4:49
PUCO

In the Matter of the Application of Ohio :
Edison Company, The Cleveland Electric :
Illuminating Company and The Toledo :
Edison Company for Authority to :
Establish a Standard Service Offer :
Pursuant to R.C. § 4928.143 in the Form :
of an Electric Security Plan :

Case No. 08-935-EL-SSO

**DIRECT TESTIMONY
OF
RANDY GUNN
ON BEHALF OF
THE OHIO ENVIRONMENTAL COUNCIL**

September 29, 2008

This is to certify that the images appearing are an
accurate and complete reproduction of a case file
document delivered in the regular course of business.
Technician DL Date Processed 9/29/08

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Ohio
Edison Company, The Cleveland Electric
Illuminating Company and The Toledo
Edison Company for Authority to
Establish a Standard Service Offer
Pursuant to R.C. § 4928.143 in the Form
of an Electric Security Plan.

Case No. 08-935-EL-SSO

**DIRECT TESTIMONY
OF
RANDY GUNN
ON BEHALF OF
THE OHIO ENVIRONMENTAL COUNCIL**

I. INTRODUCTION

1 **Q. Please state your name and business address.**

2 A. My name is Randy Gunn. My business address is Summit Blue Consulting, 150 North
3 Michigan Avenue, Suite 2700; Chicago, IL 60601.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am employed by Summit Blue Consulting ("Summit Blue"), a firm that provides
6 consulting services to energy utilities, state agencies, and non-profit organizations on
7 matters relating to energy efficiency and demand response program performance
8 measurement and evaluation, program development and implementation, energy systems
9 technology assessment and demand side management ("DSM") potential studies, market
10 research and market assessments, utility business management consulting, industry
11 restructuring, and deregulation strategies. I am a company founder and Principal with
12 Summit Blue.

1 **Q. Please briefly summarize your educational background and professional experience.**

2 A. As shown in further detail in the *C.V.* set forth in Attachment A to my testimony, I
3 received my Master's Degree in Planning from the University of Minnesota's Humphrey
4 Institute of Public Affairs in 1995. My Master's coursework focused on energy,
5 technology, and natural resources. In addition, I received a Bachelor of Arts degree in
6 Physics from Carleton College in 1980.

7 My consulting work for the past several years has focused on energy efficiency
8 planning studies that have primarily been used as part of energy efficiency regulatory
9 proceedings. I have recently led energy efficiency potential studies, energy efficiency
10 program design studies, and/or the DSM aspects of integrated resource plans for Nova
11 Scotia Power, Xcel Energy Minnesota, Duke Energy Indiana, Hoosier Energy, and
12 Missouri River Energy Services. Previously I led other types of DSM potential studies
13 for the Midwest Energy Efficiency Alliance, the International Energy Agency (demand
14 response programs), Jacksonville Electric Authority, Kansas City Power and Light, the
15 Nebraska Public Power District, and Otter Tail Power Company.

16 **Q. On whose behalf are you testifying in this proceeding?**

17 A. I am testifying on behalf of the Ohio Environmental Council (OEC), an intervenor in this
18 case.

19 **Q. Have you previously submitted testimony in proceedings before this Commission?**

20 A. No. However, I have presented written and oral expert testimony before the Nova Scotia
21 Utility and Review Board earlier in 2008, and made less formal presentations before
22 regulatory agencies in Indiana and Minnesota on matters relating to energy efficiency,
23 demand response, and DSM.

1 **Q. What is the purpose of your testimony in this case?**

2 A. OEC retained Summit Blue to assist it in evaluating the efficacy of the proposals
3 contained in the application for approval of an Electric Security Plan ("ESP") of The
4 Cleveland Electric Illuminating Company, Ohio Edison Company, and The Toledo
5 Edison Company (collectively, the "FE Companies") for achieving the energy savings
6 and demand reduction benchmarks specified in Amended Substitute Senate Bill No. 221
7 ("SB 221"). The purpose of my testimony is to present Summit Blue's findings and
8 recommendations with respect to these matters.

9 **Q. What materials did you review in formulating your findings and recommendations?**

10 A. I reviewed the relevant provisions of SB 221, the FE Companies' application in this case
11 (including the relevant exhibits and supporting testimony), and the proposed rules for
12 implementing the requirements of SB 221 now under consideration by this Commission.
13 I also reviewed materials from other jurisdictions that have programs in place to promote
14 the efficient use of electrical energy by utility customers.

15 **Q. Based on your analysis of these materials, what conclusions did you reach?**

16 A. As discussed below, I conclude that the proposals contained in the FE Companies' ESP
17 are not sufficient to assure compliance with the SB 221 energy savings and demand
18 reduction benchmarks. Specifically, I conclude that the ESP's total spending to support
19 customer energy efficiency and demand response projects, which consists of a \$5 million
20 annual commitment and the projected spending levels reflected in the proposed Demand
21 Side Management and Energy Efficiency Riders for all three companies, will not be
22 sufficient to generate the energy savings and demand reductions mandated by SB 221. I
23 further conclude that, in contrast to standard practice in many other states, the FE

1 Companies' ESP contains no indication as to how the funds will be spent and no defined
2 process for program evaluation, measurement, and savings verification. Finally, I
3 conclude that certain standards should be established in connection with customer
4 requests for exemption from the FE Companies' proposed Demand Side Management
5 and Energy Efficiency Rider.

6 7 **II. THE FE COMPANIES' DSM SPENDING**

8 **Q. What is the basis for your conclusion that the total spending described in the ESP is**
9 **not sufficient to generate the energy savings and demand reductions mandated by**
10 **SB 221?**

11 **A. The FE Companies' application proposes annual total DSM spending for all three**
12 **companies of approximately \$19 million. This figure includes the \$5 million**
13 **commitment for energy efficiency for which no recovery will be sought, and the \$14**
14 **million in DSM expenditures projected to be recovered under the proposed cost-recovery**
15 **mechanism. This amounts to approximately 0.3% of the FE Companies' annual total**
16 **projected utility revenues in Ohio, specifically, 0.34% in 2009, 0.33% in 2010, and**
17 **0.31% in 2011.¹ The benchmarks of SB 221 require saving in 2009 of at least 0.3% of**
18 **the annual average of total energy sales of the previous three years. Results from our**
19 **research suggest that the FE Companies' proposed level of spending will not support the**
20 **required level of saving. In order to achieve the required level of saving, our research**
21 **suggests spending at least 0.5% of utility base revenues.**

¹ These statistics are based on (1) the proposed annual revenue, per company, and the proposed DSM rate recovery, per company and rate group, as enumerated in Volume 1b: Schedules 1a, 1b & 1c (Rate Impacts), Schedule 2 of this case and (2) the proposed annual total DSM spending up to \$5 million that would not be recovered, as described in section A.4.g on page 25 of work papers filed on July 31, 2008 in connection with this application. The detail is shown in the Appendix attached to my testimony.

1 **Q. Please describe the research and analysis that support this conclusion.**

2 A. We benchmark costs and savings of DSM programs across North America as a part of
3 energy efficiency and DSM potential studies we do for our clients. In our most recent
4 DSM benchmarking analysis, we collected data for 2006 DSM program costs and results
5 for 20 utilities and agencies in eleven states across three regions in the US and one in
6 Canada. The analysis relevant here involved the following:

- 7 • Compiled program results and costs from the organizations' 2006² annual DSM
8 regulatory reports.
- 9 • Collected baseline sales and revenues data from the Energy Information
10 Administration's FERC Form 861 database (www.eia.doe.gov).
- 11 • Normalized DSM program spending by the utility or agency overall revenues to
12 produce estimates of DSM spending as a percentage of overall revenues.
- 13 • Normalized energy savings by the utility or agency overall energy sales to
14 produce estimates of DSM savings as percentages of overall energy sales.

15 Figure 1 below lists the organizations reviewed and their 2006 DSM program spending,
16 as a percentage of 2006 revenues, and energy savings, as a percentage of 2006 sales (the
17 list is shown in ascending order of spending).

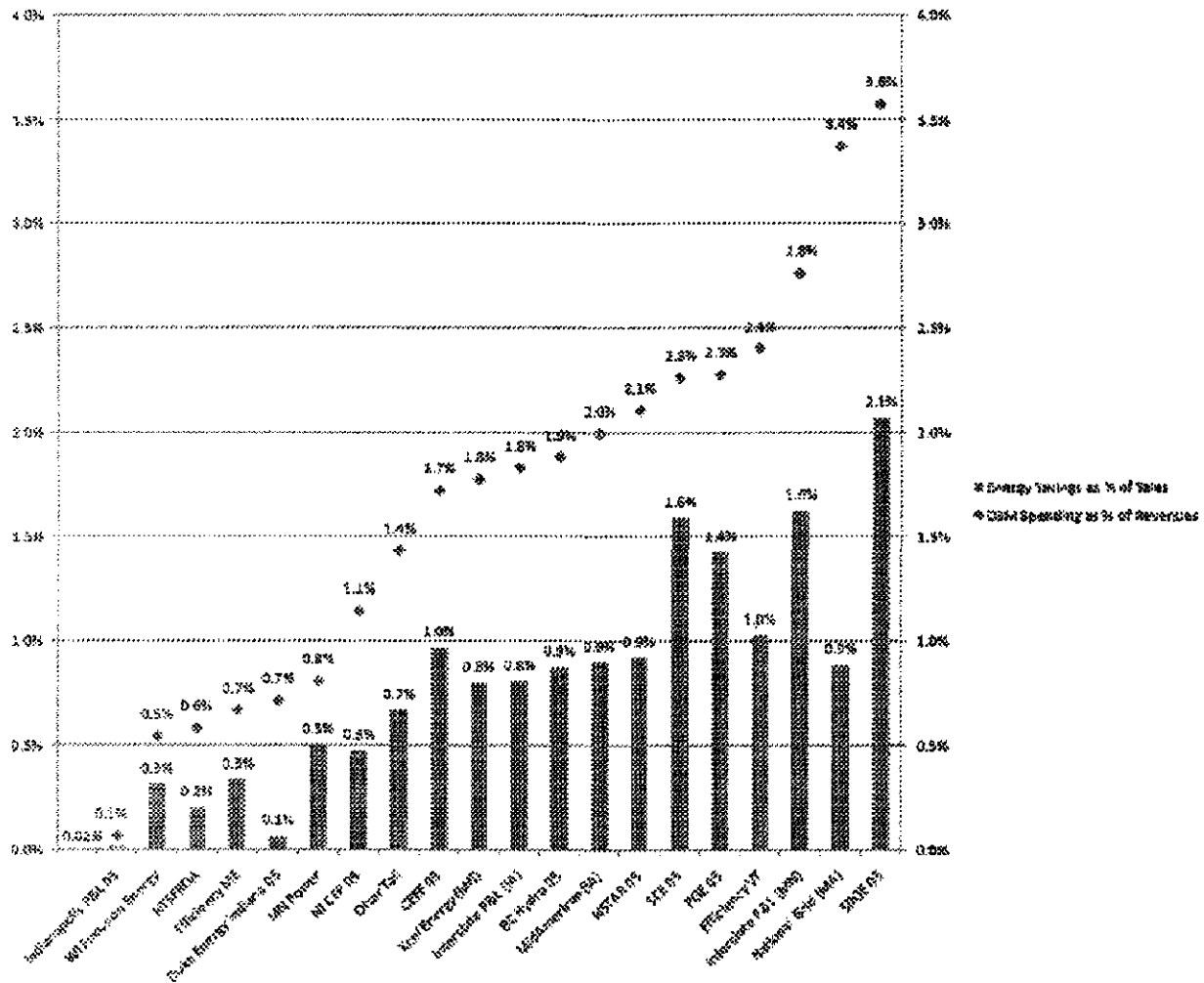
² Where 2006 data were not available, we collected 2005 data.

**Figure 1. Benchmarked Organizations' Normalized 2006
DSM Spending and Energy Savings**

	DSM Spending as % of Revenues	Energy Savings as % of Sales
Indianapolis P&L 05	0.1%	0.02%
WI Focus on Energy	0.5%	0.3%
NYSERDA	0.6%	0.2%
Efficiency ME	0.7%	0.3%
Duke Energy Indiana 05	0.7%	0.1%
MN Power	0.8%	0.5%
NJ CEP 05	1.1%	0.5%
Otter Tail	1.4%	0.7%
CEEF 05	1.7%	1.0%
Xcel Energy (MN)	1.8%	0.8%
Interstate P&L (IA)	1.8%	0.8%
BC Hydro 05	1.9%	0.9%
MidAmerican (IA)	2.0%	0.9%
NSTAR 05	2.1%	0.9%
SCE 05	2.3%	1.6%
PGE 05	2.3%	1.4%
Efficiency VT	2.4%	1.0%
Interstate P&L (MN)	2.8%	1.6%
National Grid (MA)	3.4%	0.9%
SDGE 05	3.6%	2.1%
Median	1.8%	0.8%

Figure 2 below illustrates these rate of spending (diamonds) and the rate of energy savings (bars) of the twenty organizations' DSM programs, listed from left to right in ascending order of spending.

Figure 2. Normalized DSM Spending and Energy Savings



Q. What can one learn from this table?

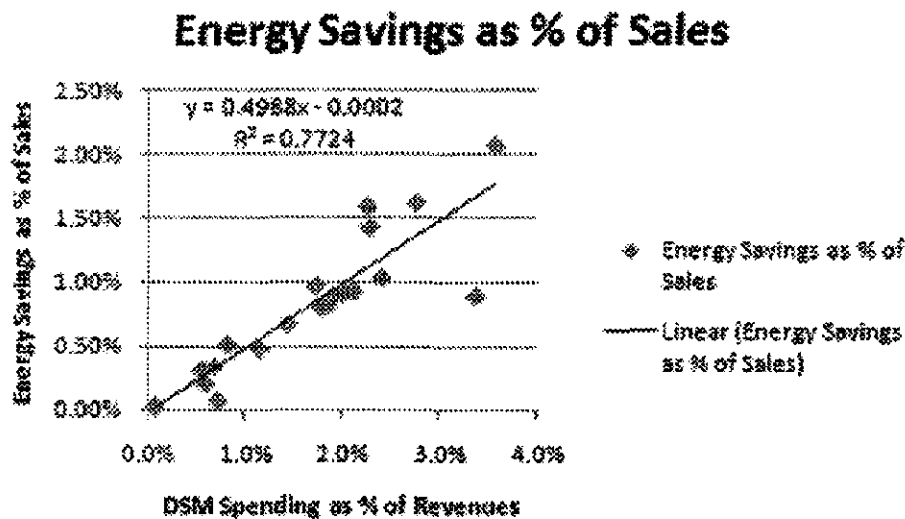
A. There are two key observations relevant to this discussion. First, for every organization, the DSM spending rate (spending as a percentage of revenues) exceeds the energy saving rate (saving as a percentage of energy sales). Second, generally, each organization saved more energy (as a percentage of sales) than almost every organization that spent less on DSM (as a percentage of revenue). Thus, these data suggest a positive direct relationship between spending (as a percentage of revenues) and energy saving (as a percentage of

1 sales); in other words, increases in spending (as a percentage of revenues) indicate
2 increases in energy saving (as a percentage of sales).

3 **Q. Have you quantified this correlation?**

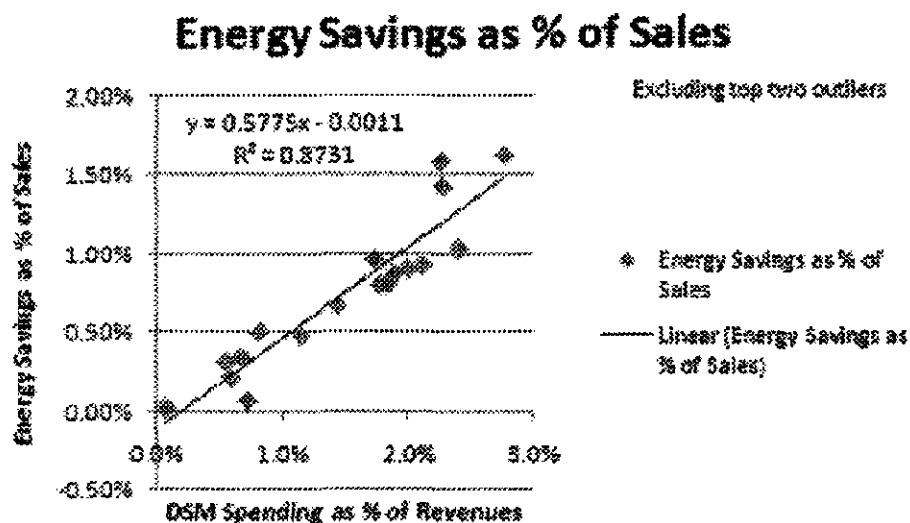
4 **A.** Yes. Figure 3 below shows a scatter plot of spending (as a percentage of revenues) and
5 energy saving (as a percentage of sales) for the 20 organizations reviewed and shows a
6 correlation coefficient of 0.7724. That means that differences in spending account for
7 77% of the differences in energy savings.

8 **Figure 3. Scatter Plot of DSM Spending & Saving for All Organizations**



9
10
11 Figure 4 below shows the same scatter plot, but excludes the top two outliers,
12 National Grid and SDG&E. These data have a correlation coefficient of 0.8731 and
13 suggest a best fit line of energy saving as a percentage of sales = $(0.5775 \times \text{DSM}$
14 $\text{spending as a percentage of revenues}) - 0.0011$. This means that differences in DSM
15 spending account for 87% of differences in savings.

Figure 4. Scatter Plot of DSM Spending & Saving for All but Two Outliers



Q. What do these results imply?

A. These results suggest that an organization aiming to save at least 0.3% on energy sales would need to spend at least 0.5% of revenues on DSM.

Q. Are there limitations associated with this analysis?

A. Yes. For example, the sample size is small. However, two of the limitations actually suggest that the ratio of energy saving (as a percentage of sales) to DSM spending (as a percentage of revenues) is greater than the typical, actual ratio for all DSM programs in North America.

Q. Please explain.

A. Because the organizations in this study were selected because they file annual DSM reports and have been running DSM programs for more than a few years, the sample of organizations is not random and is biased to mature DSM programs. This bias suggests that the average ratio of saving/spending for this group is actually greater than the North American average. In addition, generally, savings are over-reported while spending is accurately reported. Although every effort is made to collect comparable data, there are

1 inherent variations in organizations' practices for reporting impacts. For example, some
2 utilities' methods for estimating savings may be more accurate than others, and only
3 some of the annual DSM filings reported savings that were verified. In total, this
4 variation suggests over-reporting of energy savings. In contrast, reporting of dollars
5 spent is generally very accurate. Together, these limitations suggest that this sample's
6 average saving to spending ratio is greater than actual. In other words, the results,
7 together with the limitations of the analysis, suggest that typical North American DSM
8 programs will not be as cost-efficient at saving energy as the DSM programs included in
9 this group.

10 **Q. Why is this significant for the purpose at hand?**

11 **A.** Although our analysis suggests that the FE Companies will have to spend an amount
12 equal to 0.5% of revenues to produce a 0.3% savings in energy sales, these factors mean
13 that this is a conservative estimate and that total annual DSM expenditures in this amount
14 may not be sufficient to permit the FE Companies to meet SB 221 benchmarks.

15 **Q. What is your conclusion?**

16 **A.** I conclude that the FE Companies would have to increase their total annual spending
17 from approximately \$19 million to approximately \$28 million for 2009 to reach
18 approximate 0.5% of revenues in order to achieve the required 0.3% savings in energy
19 sales. Again, for those reasons I previously identified, I believe this to be a conservative
20 conclusion.

21 **III. PROGRAM EVALUATION, MEASUREMENT, AND VERIFICATION**

22
23 **Q. Does the FE Companies' application provide any indication how the funds**
24 **committed to energy efficiency and DSM improvements will be utilized?**

1 A. No. The application merely states that this commitment "will provide a significant
2 incentive for customer implementation of such programs." Further, there is no discussion
3 of this issue in the supporting testimony filed in conjunction with the application.

4 **Q. Does the FE Companies' application provide any indication how the energy**
5 **efficiency and DSM improvements will be evaluated?**

6 A. No. The application does not provide sufficient information to assess the rigor of the
7 planned evaluation.

8 **Q. Is it industry practice in North America for utilities to file program descriptions and**
9 **evaluation, measurement, and verification ("EM&V") plans as part of the plan**
10 **approval process?**

11 A. In other jurisdictions, utilities provide descriptions of proposed DSM programs as part of
12 their filings for plan approval. It is also becoming industry standard to prepare and file
13 EM&V plans as part of the planning process. Some notable exceptions are California
14 and Texas, which both evaluate program results at a state level.

15 **Q. Can you provide some examples from other jurisdictions?**

16 A. Examples from Massachusetts, Arizona, and New Mexico show how other jurisdictions
17 require program descriptions and EM&V plans as part of DSM plans filed with the
18 regulator for approval.

19 **Q. What are the requirements in Massachusetts?**

20 A. National Grid, which operates electric distribution companies in several states, has been
21 providing DSM programs in Massachusetts since 1999. In 1998, state legislation
22 restructured the electricity market and created a system benefit charge per kWh to fund
23 DSM. The most recent legislation, the Green Communities Act (July 2008), specifies

1 that the department of public utilities shall require a mandatory charge of 2.5 mills per
2 kWh for all consumers, except those served by a municipal lighting plant, to fund energy
3 efficiency programs. The utility files an annual DSM plan to meet spending requirements
4 set by the legislation. The most recent plan is the 2008 Energy Efficiency Plan.

5 Program descriptions are provided for three sectors: Residential Non-Low Income
6 Programs, Residential Low Income Programs, and Commercial and Industrial Energy
7 Efficiency Programs and Initiatives. Each sector includes a discussion on Lost
8 Opportunity, Retrofit, Products and Services, Education and Information, Research and
9 Development and Pilots and General Support which includes a Non-Utilities Parties
10 Collaborative, Massachusetts Division of Energy Resources Support, Sponsorship and
11 Subscriptions, Market Research and Evaluation, and Performance Incentive Tax
12 Liability. The plan also includes a section on Evaluation and Reporting which describes
13 the evaluation context, planned evaluation studies for 2008 – such as Commercial and
14 Industrial free ridership and spillover for Design 2000plus initiative, evaluation of low
15 income non-electric benefits in the Single Family-Appliance Management initiative, and
16 Prescriptive Lighting Impact Evaluation for the Small Business Services initiative – and
17 identifies potential other evaluation activities that might be conducted.

18 **Q. What is the Arizona example to which you referred?**

19 **A.** Tucson Electric Power Company (“TEP”) submitted a plan, the Demand-Side
20 Management Program Portfolio Plan 2008-2012, describing its proposed DSM portfolio
21 of ten programs, which consist of: Education and Outreach Program, Direct Load Control
22 Program, Low-Income Weatherization Program, New Home Program, Residential
23 HVAC Retrofit Program, Shade Tree Program, Compact Fluorescent Lamp Buydown

1 Program, Non-Residential Existing Facilities Program, Efficient Commercial Building
2 Design Program, and Small Business Program. The plan begins with an overview of the
3 5-year portfolio-wide budget, energy and demand savings, and net benefits. There are
4 brief descriptions of each program in the main body of the report, with detailed program
5 descriptions included as attachments.

6 The plan then discusses the proposed budget of \$63.3 million for 2008-2012,
7 which is broken into the following categories: rebates and incentives, training and
8 technical assistance, consumer education, program implementation, program marketing,
9 planning and administration, and measurement, evaluation, and research. The plan notes
10 that DSM programs take time to ramp up and some programs may achieve higher
11 participation levels than others, so the plan requests flexibility in allocating these budget
12 dollars annually. Next, the benefit-cost ratio and expected energy savings and
13 environmental benefits for each program and for the portfolio as a whole are discussed.
14 The results of the Total Resource Cost ("TRC"), Societal Cost, and Rate Payer Impact
15 Measure benefit-cost tests are presented for each program. The next sections provide
16 brief overviews of the proposed program marketing and delivery strategies and a timeline
17 for implementing the programs. Finally, a section is devoted to describing the
18 responsibilities of the third-party measurement, evaluation, and research contractor,
19 which are identified as including: verification that energy efficiency measures are
20 installed as expected, in-field measure performance measurement and data collection,
21 impact analysis to compute the savings that are being achieved, cost-effectiveness
22 analysis, process evaluation, and other research activities to identify additional
23 opportunities for cost-effective energy efficiency measures.

1 The attachments to this DSM plan are detailed plans for each proposed program,
2 each 15-25 pages long. Each program plan has detailed sections on: program concept
3 and description, target market and program eligibility, current baseline conditions,
4 program rationale, program objectives, products and services provided, delivery strategy
5 and administration, marketing and communications, program implementation schedule,
6 monitoring and evaluation plan, program costs, estimated energy savings, and program
7 cost-effectiveness. The section on monitoring and evaluation identifies specific metrics
8 to be tracked during program administration. Program costs are divided into initial start-
9 up year costs and ongoing annual costs where appropriate; additionally, historic program
10 costs are presented if the program already exists in some form. Detailed program budget
11 tables break out costs by year and by numerous categories, including the broad categories
12 of administrative cost, marketing, direct implementation, and EM&V costs, as well as
13 more detailed subcategories such as financial incentives, support activity labor, etc.
14 (detailed subcategories vary by program). Assumptions that go into the cost-
15 effectiveness tests, such as projected participation levels and avoided cost assumptions,
16 are detailed for each program.

17 **Q. What are the New Mexico requirements?**

18 A. Southwestern Public Service Company (SPS) filed its 2008 Energy Efficiency and Load
19 Management Plan in compliance with the Efficient Use of Energy Act and the New
20 Mexico Public Regulation Commission's Energy Efficiency Rule.

21 The plan begins with an overview of SPS's history of providing DSM programs.
22 It then describes the rationale for program selection, which was based on TRC cost-
23 effectiveness results, estimated energy and demand savings, non-energy benefits, and the

1 goal of having broad participation across customer segments. This section also briefly
2 presents the results of the energy efficiency market potential study conducted by an
3 independent contractor for SPS. The remainder of the plan provides detailed descriptions
4 of the eight proposed programs, which were Residential Home Lighting, Residential Air-
5 Source Heat Pumps, Residential Living Wise (a school-based program), Low-Income,
6 Business Cooling Efficiency, Business Custom Efficiency, Business Lighting Efficiency,
7 and Large Customer. Each program description includes specific goals for first year
8 participants, kW savings, and kWh savings, and provides a one-year budget and projected
9 TRC test result. Each program description includes a narrative description of the
10 program implementation activities, specified rebate levels for each measure installed
11 through the program, and specific plans for program administration, marketing and
12 outreach, monitoring and verification ("M&V"), and cost-effectiveness tests. In addition
13 to the eight direct install programs, the plan includes budgets and specific tasks for
14 Planning and Research and Program Delivery and Administration. The next section
15 discusses planned M&V activities and proposes a timeline for selecting and working with
16 an independent evaluator. This is followed by sections devoted to defining the roles and
17 responsibilities of each SPS employee, the cost-effectiveness and avoided cost
18 methodologies, and the reporting process. Finally, a section on cost recovery discusses
19 the estimated bill impact of the proposed tariff rider on different customer classes and the
20 proposed budget categories to be used to track program expenses. Each program's
21 budget is broken out into specific dollar amounts for incentives, internal administration,
22 third-party delivery, promotion, and M&V. Appendices present detailed cost-

1 effectiveness analyses of each program individually, by customer segment, and for the
2 portfolio as a whole, and present the technical assumptions used in those analyses.

3 **Q. Are you suggesting that the Commission should require the FE Companies to model**
4 **its programs after one of these plans?**

5 A. No. I am presenting these examples to illustrate the considerations that other
6 jurisdictions have deemed to be critical components of energy efficiency and DSM
7 programs.

8 **Q. What is your conclusion in this regard?**

9 A. In other jurisdictions, utilities provide detailed descriptions of their proposed DSM
10 programs as part of their filings for plan approval and their commissions must approve
11 those plans. Those plans also include detailed EM&V plans to ensure systems are in
12 place to accurately examine program savings. The level of detail in the FE case does not
13 measure up to that standard.

14
15 **IV. DEMAND SIDE MANAGEMENT AND ENERGY EFFICIENCY RIDER**
16

17 **Q. According to the testimony of FE Companies' witness Hussing, the proposed**
18 **Demand Side Management and Energy Efficiency Rider is structured in such a way**
19 **that customers may avoid a charge by implementing customer-sited improvements**
20 **that help the FE Companies secure compliance with the SB 221 benchmarks. Do**
21 **plans in other states contain a feature of this type?**

22 A. Yes. Some states have approved exemptions from the applicable cost-recovery
23 mechanism as an additional incentive for customers to undertake demand reduction and
24 energy efficiency projects.

1 **Q. What are the monitoring and verification provisions that other states require for**
2 **customers that request relief from energy efficiency and DSM cost-recovery riders?**

3 **A.** There is no common standard found across states that have addressed this issue. Some
4 states have strict monitoring and verification (M&V) requirements, while others have
5 essentially none. Some examples will illustrate the range. Oregon, Wisconsin, and
6 Minnesota require detailed documentation of energy efficiency activities and approval of
7 a request for exemption. Wisconsin also requires independent third party evaluation.
8 The regulations in these three states provide support to an approval and oversight role for
9 regulators. North Carolina and Montana do not require the same level of detail and do
10 not appear to require approval of the requests.

11 **Q. What is the standard in Oregon?**

12 **A.** In Oregon, customers with more than 8,760 MWh consumption in a year are eligible to
13 self-direct up to 57% of their system benefits charges (SBC) to conservation projects at
14 their own site with a simple payback of 1-10 years.³ Customers that have an audit and
15 are found to have already implemented all cost-effective measures (with a 1-10 year
16 payback) can be exempt from paying 54% of their SBC charges. To self-direct,
17 customers must submit a pre-certification request to the Oregon Department of Energy
18 (DOE), submit "project details, drawings, costs, and calculations," and submit a deposit
19 to cover administrative costs. The Oregon DOE reviews the project and certifies project
20 and cost eligibility. Expenditures of more than \$50,000 have to be compiled by a CPA.
21 The Oregon DOE website has a list of qualified auditors that are approved to audit self-
22 direction project sites.

23 **Q. How is this matter handled in Wisconsin?**

³ Source: <http://www.oregon.gov/ENERGY/CONS/SB1149/Business/FAQ.shtml>.

1 A. In Wisconsin, large energy customers can self-direct their SBC funds (less those set aside
2 for statewide renewable resource program) for a self-administered and self-funded energy
3 efficiency program.⁴ Requests for self-directed programs must be received six months
4 prior to start of the next statewide energy efficiency program year and must be pre-
5 approved by the Public Service Commission. The requests must include: program
6 description, itemized list of measures with energy savings, performance targets, a
7 timeframe consistent with the statewide program year, a program level cost-effectiveness
8 analysis, an administrative and program delivery budget, a tracking and reporting system,
9 an M&V plan, and any other information the commission requests.

10 The M&V process is subject to the commission's approval, as is the cost-
11 effectiveness analysis methodology. The commission will contract with an independent
12 third-party evaluator unless it determines that it is reasonable to allow the large customer
13 to contract directly with the independent evaluator, in which case the commission will
14 have oversight and approval of the contracting process. The large energy customer will
15 pay the evaluation costs out of the self-directed funds that would have gone to the SBC
16 fund. The large customer will provide quarterly and annual performance reports to the
17 commission using a format that the commission approves.

18 **Q. What is the practice in Minnesota?**

19 A. In Minnesota, large electric customer with facilities with a peak demand of more than 20
20 MW on a single bill may petition the Commissioner of the Department of Commerce to
21 be exempt from the utility conservation programs.⁵ This means that the revenues and
22 retail sales associated with these customers are not included in the calculation of the

⁴ The governing language is in Chapter PSC 137.09.

⁵ The governing statute is Minnesota Statute 216B.241.

1 percentage of revenues (for the utility's spending requirement) and the percentage of
2 sales (for the utility's energy savings goals). The large electric customers are then
3 ineligible to receive any incentives from the utility's DSM programs.

4 Large electric customer facilities wishing to receive an exemption must submit a
5 petition that "must be supported by evidence relating to competitive or economic
6 pressures on the customer and a showing by the customer of reasonable efforts to
7 identify, evaluate, and implement cost-effective conservation improvements at the
8 facility." The Commissioner is allowed to refuse an exemption if it is found to be
9 "contrary to the public interest." Exempted customers are required to submit updated
10 information comparable to "that originally supplied in or with the owner's original
11 petition" at any time upon request from the Commissioner.

12 **Q. What is the standard for exemption in North Carolina?**

13 A. In North Carolina, industrial customers of any size and large commercial customers with
14 annual consumption of greater than 1 million kWh can opt out of paying the DSM
15 charges "if, at their own expense, they have implemented in the past or plan to implement
16 in the future, alternative DSM/EE measures in accordance with stated, quantifiable
17 goals."⁶ Customers wishing to opt out must notify their electric utility in writing of their
18 request to opt out. The written request must state that "the account(s), at their own
19 expense, have either implemented in the past or plan to implement in the future,
20 alternative DSM/EE measures in accordance with stated, quantifiable goals." There is a
21 template provided on the Progress Energy website that simply provides that statement
22 and then a space to write in the applicable customer account number(s). No additional
23 data is requested.

⁶ Source: http://www.progress-energy.com/custservice/carcig/dsmoptout/dsm_optoutfaq.asp.

1 **Q. What is the practice in Montana?**

2 A. In Montana, large customers with loads greater than 1 MW can self-direct their public
3 benefits charges to qualifying internal energy programs.⁷ They receive credit for
4 expenditures that “qualify as universal systems benefits programs expenditure” which
5 include expenditures that result in a reduction in the consumption of electrical energy in
6 the facility and portions of expenditures for power purchases that are for the support or
7 acquisition of renewable energy or conservation-related activities. If a large customer’s
8 qualified expenditures exceed their portion of the system benefits charges for that year,
9 their credits can roll over to future years.

10 The regulations state that “A utility or large customer filing for a credit shall
11 develop and maintain appropriate documentation to support the utility’s or the large
12 customer’s claim for the credit.” Large customers must file an annual report with both
13 their utility and the Department of Revenue. Documentation described includes “identify
14 each qualifying project or expenditure for which it has claimed a credit and the amount of
15 the credit.”

16 **Q. How does this Commission propose to handle requests for exemption from the cost-**
17 **recovery mechanism?**

18 A. The staff-proposed rules now under consideration in Case No. 08-888-EL-ORD provide
19 for the filing of a joint application by the utility and the mercantile customer for approval
20 of a special arrangement.⁸ As a part of this application, the mercantile customer may
21 request exemption from the cost-recovery mechanism. If such a request is included, the
22 application must provide certain additional information including, among other things,

⁷ The governing language is in Montana Code 69-8-402.

⁸ See proposed Rule 4901:1-39-06(B) and (C).

1 baselines for kilowatt-hour consumption and kilowatt demand, an accounting of energy
2 saved and demand reductions achieved, a listing and description of programs undertaken
3 by the customer, a description of measures taken, devices or equipment installed,
4 processes modified, or other actions taken to increase energy efficiency and reduce
5 demand, and an accounting of expenditures made for each program and for each program
6 element.

7 The proposed rule then provides that the application must include a description of
8 all methodologies, protocols, and practices used or proposed to be used in measuring and
9 verifying program results, and states that the application should also identify and explain
10 all deviations from any guidelines which may be published by the staff for program
11 measurement and verification of compliance.

12 **Q. If this proposed rule, or a substantially similar rule, is adopted, what obligations**
13 **will it place on the FE Companies?**

14 A. As I understand the proposed rule, the electric utility will, in effect, partner with the
15 mercantile customer in seeking an exemption from the rider. This will mean that the
16 electric utility will have the responsibility to develop proposed criteria for eligibility for
17 the exemption and the protocols and practices to be used in verifying project results.

18 **Q. What considerations should be taken into account in establishing eligibility**
19 **standards for relief from the rider?**

20 A. We recommend that the utilities develop a threshold for the amount of energy savings
21 that mercantile customers must demonstrate in order to be eligible for exemption. The
22 threshold for eligibility for exemption from the rider must be set at a level that will
23 produce meaningful savings for the utility. That threshold should also be set high enough

1 that it is cost-effective for the utility to be spend resources processing the paperwork and
2 verifying the savings. In view of the level of scrutiny required, it is not reasonable to
3 incur measurement and verification costs where such costs would outweigh the benefits
4 to the utility, the customer, or society, generally. Projects generating savings below the
5 threshold should be addressed through a standard utility program that is set up for
6 handling larger volumes of small projects cost effectively (for example, a prescriptive
7 rebate program).

8 We recommend that any project meeting the established criteria should be subject
9 to a high standard for documenting savings and that the documentation should be
10 subjected to an independent review. At a minimum, the savings should be certified by an
11 independent professional engineer. The larger the savings (and exempted payments), the
12 more rigorous should be the independent review. Customers with the largest savings
13 should be subject to independent on-site review, measurement, and monitoring to verify
14 that the expected savings are being achieved.

15 We believe that only projects with an avoided contribution in excess of \$10,000
16 should qualify for the exemption. This threshold is high enough that the amount of
17 money involved can support spending funds on independent verification, but not so high
18 that it violates the intent of SB 221. However, since there is no experience in this market
19 with this threshold, we recommend that the threshold be re-examined in the second year.
20 If a substantial number of customers wishing to participate fall below the threshold and
21 the utility's costs of verifying the smaller projects indicate they can be verified on a cost-
22 effective basis, then the threshold should either be lowered or procedures put in place to
23 review a sample of projects falling below the threshold.

1 In no event should customers qualify for the exemption if the percentage of
2 claimed savings is below the applicable benchmark to which the utility itself is subject.
3 This will ensure that the customers seeking exemption are producing no less savings with
4 this money than their funds would have produced had they been left in the utility
5 programs.

ATTACHMENT A

RANDY GUNN, MS

AREAS OF QUALIFICATION

- Energy services program development, management, and evaluation
- Energy services market and technology assessments
- DSM benefit-cost analysis
- Integrated resource planning
- Renewable energy strategy and program development
- Strategic planning

EDUCATION

- Humphrey Institute, University of Minnesota, Minneapolis, MA, Planning, 1995
- Carleton College, Northfield, Minnesota BA, Physics, 1980

EMPLOYMENT HISTORY

- *Founder and Principal, Energy Practice, Summit Blue Consulting (2000-Present).* Responsible for DSM potential studies, DSM planning studies, energy services program and product development, management, and evaluation, energy services market and technology assessments, benefit-cost analysis, integrated resource planning, and renewable energy program development.
- *Manager of Utility Consulting, Sieben Energy Associates, LLC (1999 - 2000).* Responsible for energy services and renewable program development and evaluation, market potential analysis, integrated resource planning, and benchmarking analysis.
- *Energy Consultant, Sieben Energy Associates, LLC (1998 - 1999).* Responsible for utility energy services program development, utility integrated resource plan consulting, energy audits and analysis, and energy supplier selection consulting.
- *Northern States Power Company, Market Planning Consultant (1992 - 1998).* Responsible for DSM potential studies, DSM market and impact assessments and evaluations, DSM program development, integrated resource planning, and benchmarking analysis.
- *Northern States Power Company, Product Development Consultant (1987 - 1992).* Developed six marketing programs with multi-million dollar budgets and impacts — all programs successful and continuing five to ten years later. Also responsible for DSM program evaluation.
- *Northern States Power Company, Product Manager (1983 - 1987).* Responsible for managing load management programs, commercial and industrial energy auditing programs, efficient lighting programs, as well as solar domestic hot water program development, management, and evaluation.

RANDY GUNN, MS

- *Northern States Power Company, Demonstration Project Consultant (1981 - 1983).* Developed and implemented NSP's first electric conservation program — a rebate program for energy efficient home appliances. Program successful and continuing 19 years later.
- *Solar Components of MN, Director of Product Development (1980 - 1981).* Expanded this start-up company's product line considerably through product research and analysis. Also conducted sales calls.

RECENT PROFESSIONAL EXPERIENCE

- ***DSM Potential and Benefit-Cost Analysis Studies:*** Managed several DSM potential studies that included DSM benefit-cost analysis tasks. The benefit-cost analyses for these projects were done using a variety of approaches, including simple spreadsheets, and more complex DSM benefit-cost analysis models such as DSMore. These projects were conducted for Duke Energy Indiana, Jacksonville Electric Authority, Kansas City Power and Light, the Kansas Energy Council, Nebraska Public Power District, and Nova Scotia Power. The studies for Nova Scotia Power and Duke Energy were submitted by the utilities to regulatory commissions in the responsible jurisdictions. (2006-2008)
- ***Market Characterization Studies:*** Managed several market characterization studies for Midwest utilities and energy efficiency organizations. The largest of these studies, for Xcel Energy Minnesota, includes conducting energy audits and decision maker surveys for random samples of over 500 commercial, industrial, and institutional customers, as well as over 500 audits for residential customers. This data will be used to calculate the current saturations of energy efficiency measures (EEMs), determine the primary remaining barriers to further EEM installations, and to calculate the DSM potential for integrated resource planning purposes. Results of three of these studies were presented to stakeholder groups, and were used in preparing the demand side management parts of the utilities' integrated resource plans. Preliminary results from the Xcel Energy study were presented in a 2002 paper for the National Energy Services conference. (2001-2006)
- ***Regulating DSM Spending:*** Principal investigator for a study on how best to regulate DSM spending. The Canadian Association of Members of Public Utility Tribunals (CAMPUT) engaged Summit Blue Consulting and the Regulatory Assistance Project (RAP) to assess the current state of DSM (both gas and electric) in selected key jurisdictions that are active in DSM. The goal of the research was to determine the appropriate level of spending on DSM and the best mechanisms to ensure testing of costs/benefits with a view to adopting guidelines for use by utilities and regulators across Canada. The Summit Blue team conducted in-depth telephone interviews with regulatory, utility and other staff in roughly 15 states and provinces whose experiences would be useful to CAMPUT. These interviews, combined with the experience of Summit Blue and RAP and general literature in the field, were used to prepare a comprehensive report and an appendix containing detailed summaries of each jurisdiction. This research established industry benchmarks and practices across North America and has been widely cited and read in the industry. (2005-2006)
- ***Demand Response Potential Study:*** Principal investigator for a study on demand response resources for the International Energy Agency (IEA) that focused on the assessment of portfolio of demand response programs and how these should be integrated in a resource planning framework that accounts for synergies among programs, risks to ratepayers, and overall market efficiencies. These efforts were part of the IEA Task XIII Demand Response Resources (DRR) study. Summit Blue evaluated approaches for assessing DRR including basic benchmark approaches, applications of standard benefit cost tests, assessments based on increased reliability resulting from DRR, and a case

RANDY GUNN, MS

study modeling effort, which addressed a resource planning approach for valuing DRR. The case study included changes in system costs with and without DRR included in a portfolio of resources. The difference in system costs over a 19 year time horizon provides an estimate of the value of DRR for the electric system. Summit Blue used New Energy Associates' Strategist® Strategic Planning Model for this effort. In addition, as part of the IEA project, Summit Blue conducted a detailed survey of 40 North American utilities to gather information on their demand response programs. The survey topics included the types of demand response programs the utilities are conducting, program participation and demand reduction impacts. (2004-2005)

- **Process/Market Evaluations:** Managed a process and market evaluation for Xcel Energy's Commercial/Industrial Boiler Efficiency Program. This project revealed a number of opportunities to increase customers' awareness of the program, which is the Company's largest natural gas program (2005-2006). Managed a process and market evaluation for an Alliant Energy's Performance Contracting Program. This evaluation led to a number of suggestions to increase trade ally involvement in the program as well as increase customer understanding of the program and its goals (2005). Also managed a limited scope process evaluation for a Xcel Energy's DSM Bidding program. This evaluation investigated the causes of the program's low goal achievement, net-to-gross ratio factors such as free ridership, customer and bidder satisfaction with the program and suggestions for improving future versions of the program (2001).
- **IRP and DSM Collaborative Groups:** Provided facilitation and key analytical support for IRP and DSM collaborative groups for Public Service Company of New Mexico, Nova Scotia Power, and Xcel Energy/Northern States Power. Work most recently includes overall IRP planning and facilitation, as well as DSM specific planning and facilitation. Work in Minnesota was in response to a specific IRP order from the Minnesota Public Utilities Commission (2001-2008).
- **Impact assessments:** Managed a broad-based assessment or audit for all of Xcel Energy's Minnesota DSM programs. This project involved evaluating all program impact assumptions to ensure that they are consistent with current industry estimates. Only secondary sources were used for the project (2001-2002).
- **Demand Response Market Study:** Managed an extensive market survey of Midwestern investor-owned utilities' demand response programs, as well as a sampling of utilities throughout the country. The focus of the effort was on newer buy-back type programs, in which utilities offer customers market-based price incentives for reducing their loads at peak times. A summary of the results of this effort was presented in a 2001 paper for the National Energy Services conference (2001).
- **Impact Evaluation:** Managed an impact evaluation for an Iowa utility's commercial and industrial HVAC program. This project employed a building simulation model to refine the gross savings estimates for ground source heat pumps. The project resulted in this measure passing cost benefit economic analyses that had previously been negative (1999).
- **Solar DHW Program:** Developed, managed, and evaluated a solar domestic hot water program for a large Midwestern utility. The program offered customers low-interest loans to finance solar DHW systems. Managed a process and impact program evaluation, including surveys of program participants to gauge their satisfaction with the program.

RANDY GUNN, MS

RECENT/FORTHCOMING PUBLICATIONS

Review of Recent Midwest DSM Potential Studies 2008. 2008 ACEEE Summer Study on Energy Efficiency in Buildings. American Council for an Energy Efficient Economy: Washington, D.C.

Benchmarking the Potential for Demand Response Programs 2006. 16th National Energy Services Conference Proceedings. Association of Energy Services Professionals International: Jupiter FL.

The Energy Conservation Potential for Retro-Commissioning 2004. 12th National Conference on Building Commissioning. Portland Energy Conservation Inc.: Portland, OR.

Xcel Energy DSM Potential Study 2002. 13th National Energy Services Conference Proceedings. Association of Energy Services Professionals International: Jupiter FL.

Load Management Buyback Programs 2001. 12th National Energy Services Conference Proceedings. Association of Energy Services Professionals International: Jupiter FL.

Community Energy Cooperative Lighting Retrofit Program 2001. 12th National Energy Services Conference Proceedings. Association of Energy Services Professionals International: Jupiter FL.

Energy Service Providers Value Added Services 2000. 11th National Energy Services Conference Proceedings. Association of Energy Services Professionals International: Jupiter FL.

APPENDIX

Supporting Data for Proposed DSM Spending as % of Revenues

2009 Rates - Revenue from DSE Riders

Schedule	Ohio Edison	Cleveland Electric Illuminating	Toledo Edison		
RS	\$3,625,810	\$2,762,708	\$1,471,332		
GS	\$1,351,242	\$1,428,977	\$433,513		
GP	\$580,684	\$70,957	\$214,482		
GSU	\$185,622	\$710,378	\$19,922		
GT	\$511,715	\$161,288	\$653,132		
STL	\$4,556	\$24,696	\$9,648		
POL	\$7,266	\$12,408	\$2,184		
TRF	\$4,323	\$5,564	\$1,514		
ESIP	\$19,791			TOTAL	Total including the \$5M not recovered
Total DSE	\$6,291,009	\$5,176,976	\$2,805,727	\$14,273,712	\$19,273,712
Total Revenues	\$2,612,559,590	\$2,815,814,695	\$1,005,580,111	\$5,633,954,397	\$5,633,954,397
% of Revenues	0.24%	0.26%	0.28%	0.25%	0.34%

2010 Rates - Revenue from DSE Riders


Schedule	Ohio Edison	Cleveland Electric Illuminating	Toledo Edison		
RS	\$3,625,810	\$2,762,708	\$1,471,332		
GS	\$1,351,242	\$1,428,977	\$433,513		
GP	\$580,684	\$70,957	\$214,482		
GSU	\$185,622	\$710,378	\$19,922		
GT	\$511,715	\$161,288	\$653,132		
STL	\$4,556	\$24,696	\$9,648		
POL	\$7,266	\$12,408	\$2,184		
TRF	\$4,323	\$5,564	\$1,514		
ESIP	\$19,791			TOTAL	Total including the \$5M not recovered
Total DSE	\$6,291,009	\$5,176,976	\$2,805,727	\$14,273,712	\$19,273,712
Total Revenues	\$2,716,858,898	\$2,895,160,493	\$1,047,822,694	\$5,859,842,085	\$5,859,842,085
% of Revenues	0.23%	0.25%	0.27%	0.24%	0.33%

2011 Rates - Revenue from DSE Riders

Schedule	Ohio Edison	Cleveland Electric Illuminating	Toledo Edison		
RS	\$3,625,810	\$2,762,708	\$1,471,332		
GS	\$1,351,242	\$1,428,977	\$433,513		
GP	\$580,684	\$70,957	\$214,482		
GSU	\$185,622	\$710,378	\$19,922		
GT	\$511,715	\$161,288	\$653,132		
STL	\$4,556	\$24,696	\$9,648		
POL	\$7,266	\$12,408	\$2,184		
TRF	\$4,323	\$5,564	\$1,514		
ESIP	\$19,791			TOTAL	Total including the \$5M not recovered
Total DSE	\$6,291,009	\$5,176,976	\$2,805,727	\$14,273,712	\$19,273,712
Total Revenues	\$2,880,973,314	\$2,218,934,926	\$1,110,882,450	\$6,210,790,690	\$6,210,790,690
% of Revenues	0.22%	0.23%	0.25%	0.23%	0.31%

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing has been served upon the following parties by first class mail, postage prepaid, and/or by electronic mail this 29th day of September 2008.


Barth E. Royer

James W. Burk
Arthur E. Korkosz
Mark A. Hayden
Ebony L. Miller
FirstEnergy
16 South Main Street
Akron, Ohio 44308

Mark A. Whitt
Jones Day
P.O. Box 165017
325 John H. McConnell Blvd., Suite 600
Columbus, Ohio 43216-5017

Janine L. Migden-Ostrander
Jeffrey M. Small
Jacqueline Lake Roberts
Richard C. Reese
Gregory J. Poulos
Office of the Ohio Consumers' Counsel
10 West Broad Street, Suite 1800
Columbus, Ohio 43215-3485

David F. Boehm
Michael L. Kurtz
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202

John W. Bentine
Mark S. Yurick
Matthew S. White
Chester, Willcox & Saxbe LLP
65 East State Street, Suite 1000
Columbus, Ohio 43215-4213

Samuel C. Randazzo
Lisa G. McAlister
Daniel J. Neilsen
Joseph M. Clark
MCNEES WALLACE & NURICK LLC
21 East State Street, 17th Floor
Columbus, Ohio 43215

David C. Rinebolt
Colleen L. Mooney
Ohio Partners for Affordable Energy
231 West Lima Street
P.O. Box 1793
Findlay, Ohio 45839-1793

Garrett A. Stone
Michael K. Lavanga
Brickfield, Burchette, Ritts & Stone, P.C.
1025 Thomas Jefferson Street, N.W.
8th Floor, West Tower
Washington, D.C. 20007

Leslie A. Kovacik
Senior Attorney, City of Toledo
420 Madison Ave., Suite 100
Toledo, Ohio 43604-1219

Lance M. Keiffer
Assistant Prosecuting Attorney
711 Adams Street, 2nd Floor
Toledo, Ohio 43624-1680

Richard L. Sites
Ohio Hospital Association
155 East Broad Street, 15th Floor
Columbus, Ohio 43215-3620

M. Howard Petricoff
Stephen M. Howard
Vorys, Sater, Seymour and Pease LLP
52 East Gay Street
P. O. Box 1008
Columbus, Ohio 43216-1008

Larry Gearhardt
Ohio Farm Bureau Federation
280 North High Street, P.O. Box 182383
Columbus, OH 43218-2383

Glenn S. Krassen
Bricker & Eckler LLP
1375 East Ninth Street
Suite 1500
Cleveland, Ohio 44114

Gregory H. Dunn
Christopher L. Miller
Schottenstein Zox & Dunn Co., LPA
250 West Street
Columbus, Ohio 43215

R Mitchell Dutton
FPL Energy Power Marketing, Inc.
700 Universe Boulevard
CTR/JB
Juno Beach, Florida 33408

Langdon D. Bell
Bell & Royer Co., LPA
33 South Grant Avenue
Columbus Ohio 43215-3927

Sean W. Vollman
David A. Muntean
Assistant Directors of Law
161 S. High Street, Suite 202
Akron, Ohio 44308

Henry W. Eckhart
50 West Broad Street #2117
Columbus Ohio 43215

Joseph P. Meissner
The Legal Aid Society of Cleveland
1223 West 6th Street
Cleveland, Ohio 44113

Craig I. Smith
2824 Coventry Road
Cleveland, Ohio 44120

Douglas M. Mancino
McDermott Will & Emery LLP
2049 Century Park East
Suite 3800
Los Angeles, California 90067-3218

Grace C. Wung
McDermott Will & Emery, LLP
600 Thirteenth Street, N.W.
Washington, DC 20005

Dane Stinson.
Bailey Cavalieri LLC
One Columbus
10 West Broad Street, Suite 2100
Columbus, Ohio 43215

Nicholas C. York
Eric D. Weldele
Tucker Ellis & West LLP
1225 Huntington Center
41 South High Street
Columbus, Ohio 43215-6197

Theodore S. Robinson
Citizen Power
2121 Murray Avenue
Pittsburgh, Pennsylvania 15217