TESTIMONY OF WILLIAM STEINHURST
SENIOR CONSULTANT
SYNAPSE ENERGY ECONOMICS, INC.
ON BEHALF OF
CITIZENS ACTION COALITION, INC.
CAUSE NO. 42612 BEFORE THE
INDIANA UTILITY REGULATORY COMMISSION

1. Introduction

Q. PLEASE STATE YOUR NAME AND OCCUPATION.

A. My name is William Steinhurst, and I am Senior Consultant with Synapse Energy Economics (Synapse). My business address is 45 State Street, #394, Montpelier, Vermont 05602. Synapse's main offices are at 22 Pearl St., Cambridge, Massachusetts 02139.

Q. PLEASE OUTLINE YOUR EDUCATIONAL BACKGROUND.

A. I received a B.A. in Physics from Wesleyan University in May, 1970. In May, 1980, I was awarded a Master of Science degree in Statistics from the University of Vermont. In May, 1988, I received a Ph.D. in Mechanical Engineering from the University of Vermont.

Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE.

A. I have twenty-three years experience in utility regulation and energy policy. Since joining Synapse in 2003, I have worked on renewable portfolio standards and portfolio management practices for default service providers and regulated utilities, power procurement, green marketing, distributed resource issues, economic impact studies, and rate design. Prior to joining Synapse, I served at the Vermont Department of Public Service from 1981 to 2003, first as Planning Econometrician and, beginning in 1986 as

Director for Regulated Utility Planning. In those positions, I was responsible for energy efficiency policy and oversight, power procurement approvals, economic forecasting and quantitative methods, cost benefit analysis, long range policy planning, various aspects of rate setting and construction permitting litigation, enforcement proceedings, and integrated resource planning. Previously, I served as Chief of Research and Statistics and Director of Planning and Research at the Vermont Department of Corrections; as Acting Deputy Commissioner and Director of Planning and Evaluation at the Vermont Department of Social and Rehabilitation Services, and as Director of Planning at the Vermont Agency of Human Services.

I have written or co-authored numerous papers and reports on utility regulation, energy policy, statistics, and modeling. I have consulted for various clients, including the Illinois Energy Office, the Massachusetts Executive Office of Energy Resources, the Natural Resources Defense Council, the Regulatory Assistance Project, the Connecticut Office of Consumer Counsel, the Maine Office of the Public Advocate, AARP, the Conservation Law Foundation, the Vermont Auditor of Accounts, the James River Corporation, the Nova Scotia Utility and Review Board, and the Newfoundland Department of Natural Resources.

I have testified as an expert witness in approximately 30 cases on topics including utility rates and ratemaking policy, prudence reviews, integrated resource planning, demand side management policy and program design, utility financings, regulatory enforcement, green marketing, power purchases, statistical analysis, and decision analysis. I have been a frequent witness in legislative hearings and represented the State of Vermont in numerous structured and informal negotiations addressing energy efficiency, resource planning and distributed resources.

I was the lead author or co-author of Vermont's long-term energy plans for 1983, 1988, and 1991, as well as the 1998 report *Fueling Vermont's Future: Comprehensive Energy Plan and Greenhouse Gas Action Plan*, and Synapse's study *Portfolio*

Management: How to Procure Electricity Resources to Provide Reliable, Low-Cost, and Efficient Electricity Services to All Retail Customers.

I have included a detailed resume as Attachment 1 to this prefiled testimony.

Q. HAVE YOU TESTIFIED PREVIOUSLY IN INDIANA?

A. No.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. My testimony reviews PSI's proposed set of demand-side management (DSM) programs for the next five years and recommends changes to the scope, intensity and nature of the energy efficiency requirements for PSI (the Company). I present conclusions from that review. In addition, I offer policy recommendations regarding DSM program design, funding and implementation.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. Following this introduction, I first discuss an electric utility's general obligations regarding energy efficiency programs and recommend that the Commission declare that the Company has an inherent obligation to plan for and acquire all cost effective DSM resources. I then review PSI's DSM programs, as well as programs elsewhere. I conclude that PSI's programs have numerous shortcomings that should be remedied. I then discuss the nature of sound DSM program design and recommend certain principles that should govern the Company's DSM programs and their implementation. Next, I discuss several methods for funding DSM programs and recommend that a system benefit charge approach be adopted. In addition, I discuss the level of funding proposed by the Company and recommend a general range of funding that is more in keeping with its least cost service obligations.

I then take up the Company's proposed lost revenue collection scheme. I conclude that this scheme is not appropriately specified and not necessary. Similarly, I then consider the Company's proposed shared savings incentive and conclude that it severely flawed, unfair to consumers, and not necessary. In connection with these two issues, I also discuss concerns about the Company's computation of the expected energy savings from its proposed DSM programs and how those flaws exacerbate the unfairness of the proposed lost revenue and shared savings mechanisms. I recommend the Commission reject both proposals.

Finally, I review a recent trend towards entrusting DSM program development and delivery to an independent (non-utility) third party. I explain the benefits of such an approach and recommend that the Commission adopt it. I also discuss certain transitional processes that I recommend the Commission adopt to govern DSM program development and delivery between now and the time such an independent third party is in place.

2. Energy Efficiency Obligations

Q. HAVING REVIEWED THE COMPANY'S PAST AND PROPOSED ENERGY EFFICIENCY PROGRAMS, AND FROM A BROAD UTILITY POLICY PERSPECTIVE, WHAT DO YOU CONCLUDE REGARDING THE COMPANY'S DSM OBLIGATION?

A. As a matter of public policy, it is appropriate and necessary for the public interest for the Commission to make clear that the acquisition of cost-effective DSM resources, as part of the resource portfolio for meeting PSI's energy needs, is essential to sound and economical management of the Company's public service obligations.

Among the reasons supporting this conclusion is the overriding obligation of the Company to provide least cost service and the fact the substantial efficiency resources are

available at life cycle present value costs less than the life cycle cost of generating and delivering electricity. Without such actions, the Company cannot be said to have fulfilled its obligation to deliver service at costs that are reasonable.

Q. WHAT IS LEAST COST PLANNING AND YOUR UNDERSTANDING OF INDIANA'S REQUIREMENT FOR ELECTRIC UTILITIES TO PERFORM LEAST COSTS PLANNING?

A. As I understand it, Indiana law mandates that, "Every public utility is required to furnish reasonably adequate service and facilities."[1] Least-cost planning is a planning approach which will find the set of options most likely to provide utility services at the lowest cost once appropriate service and reliability levels are determined with the goal of minimizing long run costs of providing adequate and reliable services to customers.[2] The Commission has previously found that least-cost planning is an essential component of [Indiana's] Certificate of Need law.[3]

The Certificate of Need Law, which is also known as the Utility Powerplant Construction Law, states:

> a public utility may not begin the construction, purchase, or lease of any steam, water, or other facility for the generation of electricity to be directly or indirectly used for the furnishing of public utility service . . . without first obtaining from the commission a certificate that public convenience and necessity requires, or will require, such construction, purchase, or lease."[4]

With respect to that law, the Commission has stated that:

> Implicit in this law is the need for extended, regular long term planning which allows the utility, subject to review, to make the least cost choice to meet future capacity requirements . . . If

[1] Ind. Code § 8-1-2-4.
[2] In Re SIGECO, Cause No. 38738 (1989), 1989 Ind. PUC LEXIS 378, 9-10 (Ind. PUC, 1989)
[3] Id.
[4] Ind. Code § 8-1-8.5-2.

> utilities wait until the last moment to perform the required analysis, then only the short lead time options will be feasible and rate payers will be forced to accept a potentially suboptimal solution. Electric utilities which intend to meet the requirements of the law should perform least-cost planning studies regularly and keep the Commission informed on a timely basis.[5]

The Indiana statute also states:

> In acting upon any petition for the construction, purchase, or lease of any facility for the generation of electricity, the commission shall take into account: . . . (C) other methods for providing reliable, efficient, and economical electric service, including the refurbishment of existing facilities, conservation, load management, cogeneration and renewable energy sources.[6]

Q. HAS THE COMMISSION DEVELOPED RULES FOR IMPLEMENTING LEAST COST PLANNING?

A. Yes, under the Commission's rules, "A utility operating or owning, in part or whole, an electrical generating facility . . . to provide electric service within the state of Indiana must submit to the commission on a biennial basis . . . an integrated resource plan" or IRP. 170 IAC 4-7-3(C). The purpose of that IRP is "assist the commission in its administration of the Utility Powerplant Construction Law, IC 8-1-8.5." 170 IAC 4-7-1.

Q. ARE THERE OTHER INDIANA CODE PROVISIONS THAT YOU BELIEVE SUPPORT A POLICY OF LEAST COST PLANNING?

Yes, under the Alternative Utility Regulation Act, for example, the Indiana General Assembly declared the "provision of safe, adequate, efficient, and economical retail energy services is a continuing goal of the commission in the exercise of its jurisdiction."[7] Another example would be the statutory requirement that an electric

[5] XX Jerry needs to verify cite XX
[6] Ind. Code § 8-1-8.5-4.
[7] Ind. Code § 8-1- 2.5-1(1)

utility's environmental compliance plan "[c]onstitutes a reasonable and least cost strategy over the life of the investment consistent with providing reliable, efficient, and economical electric service."[8]

Q. IS THERE EVIDENCE GENERALLY THAT ENERGY EFFICIENCY AND DSM CAN CONTRIBUTE TO PROVIDING REASONABLE AND ADEQUATE ELECTRIC SERVICE AT THE LOWEST COST?

Yes, there is. Numerous studies have shown that enormous untapped electric efficiency resources are available, that those resources are adequate to meet a large part of present and future demand for electricity, and that they are more economical and more efficient than generating and transmitting electric power. At least two studies provided evidence that large-scale energy efficiency investments can result in large scale demand reductions for Indiana and nationwide. *Repowering the Midwest,* a report by Synapse Energy Economics, Brower and Company, the Renewable Energy Policy Project, and the Tellus Institute for a number of public interest groups including the Environmental Law & Policy Center and the Citizens Action Coalition of Indiana found that energy efficiency can cost-effectively reduce electricity demand in Indiana 17% by 2010 and 29% by 2020.[9] A study by the "Five Labs," a group of five government-sponsored laboratories, found that nationwide energy demand reductions of 12.1% by 2010 and 24% by 2020 as a result of energy efficiency were possible.[10]

For these reasons, acquisition of substantial cost-effective efficiency resources is feasible and is consistent with PSI's responsibility to provide electricity at least cost.

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[8] Ind. Code § 8-1-27-8(1)

[9] *Repowering the Midwest: The Clean Energy Development Plan for the Heartland*, Environmental Law & Policy Center, Citizens Action Coalition of Indiana, Dakota Resource Council, Iowa-Renew, Izaak Walton League of America, Minnesotans for an Energy-Efficient Economy, RENEW Wisconsin, and the Union of Concerned Scientists, 2001.

[10] *Scenarios for a Clean Energy Future, Interlaboratory Group on Energy-Efficient and Clean-Energy Technologies, November 2000.*

Q. DO YOU HAVE AN OVERALL RECOMMENDATION REGARDING THE COMPANY'S DSM OBLIGATION?

A. Yes. I recommend that the Commission find that the Company has an inherent obligation to provide least cost service, that to do so it is essential to acquire cost-effective efficiency resources and to treat them on a "level playing field" with generation, transmission and distribution resources both in planning and in the funding and implementation of resource plans.

Q. HOW SHOULD SUCH EFFICIENCY PROGRAMS BE CONCEIVED? WHAT SHOULD BE THEIR SCOPE?

A. I recommend that the Commission clearly enunciate certain efficiency program design principles, set out in section 4 of my testimony below, as part of the DSM obligation of the Company.

3. DSM Programs in PSI Service Territory and Elsewhere

Q. WHAT HAVE BEEN THE RESULTS OF PAST PSI DSM PROGRAMS?

A. PSI has offered DSM programs to various classes of retail customers since at least 1990. The Company has been more successful at making reductions in customer demand in those years when PSI agreed to spend more on DSM programs. Attachment 3 to this testimony indicates that PSI has had varied success in offering DSM programs.[11] Savings achieved by such programs peaked in 1995 at 205,097 MWh and fell to 10,678 MWh in 2000.

[11] The quality of this database is addressed in another part of this prefiled testimony. The validity of Attachment 3 is based on the assumption that PSI correctly reported its own energy impacts, peak demand savings, and costs to the EIA.

Q. HAS PSI RECEIVED AWARDS FOR ANY OF ITS DSM PROGRAMS?

A. Yes, in 2003 along with the Indiana Community Action Agencies (INCAA), PSI was commended by the American Council for an Energy Efficient Economy (ACEEE) for the Refrigerator Replacement portion of its Low-Income Weatherization Program. Also in 2003, PSI was given an Achievement Award by the Association of Energy Services Professionals International for that same program.

Q. DOES PSI'S SUCCESS WITH THE REFRIGERATOR REPLACEMENT PROGRAM HAVE IMPLICATIONS FOR ITS OTHER DSM PROGRAMS?

A. The organizations mentioned in the preceding answer have reviewed many other programs around the nation and have given similar praise to many programs that PSI is not emulating. PSI's customers should benefit from DSM programs that follow recognized best practices, such as in other categories for which awards were given by ACEEE, but PSI's versions, where they exist, do not necessarily follow those "best practices." To the extent they are cost-effective, programs should be modeled after award-winning prototypes or other examples of "best practices" DSM programs. Programs delivered to PSI's customers ought to be improved to be as successful as its best program. Appropriate changes vary from improved program designs to changing the program administrator, and some of these changes will be discussed below. It is interesting to note that the program that appears to be PSI's most successful is administered primarily by a third-party, the "State Weatherization Agencies."

Q. PSI CLAIMS IT IS IN THE TOP 7% OF THE NATION'S UTILITIES IN TERMS OF UTILITY DSM PROGRAMS. DO YOU AGREE WITH THAT ASSERTION?

A. No. PSI made that calculation using an EIA database that does not always accurately reflect sales to end-users nor energy impacts from DSM programs.[12] For example, for Southern California Edison (one of the top 10 programs according to PSI's calculations), sales of electricity to consumers by the California Water Resources Board on behalf of Southern California Edison (SCE) were not counted as SCE's sales, while all DSM-related demand reductions were.[13] The top performer, according to PSI's calculations, was Alabama Electric Cooperative with an astounding 59% demand reduction as a percentage of sales. In reality, the Cooperative (a mainly wholesale T&G cooperative) offers no DSM programs itself, but was asked by the EIA to aggregate demand reductions achieved as a result of DSM programs offered by the cooperatives who buy power from it.[14] Nor does the database provide an accurate picture of PSI's DSM achievements. According to the EIA database, in 2002, PSI sold 27,272,584 MWh, and its DSM programs saved its customers 611,874 MWh. This last figure, 611,874 MWh, is the total of energy impacts achieved in the year 2002 as a result of measures implemented in previous years in addition to those in the year 2002. Achieving such a high level of energy impacts is more likely a result of programs that PSI did in the early '90's when it was required to spend a significant portion of its revenues on DSM.

PSI's claim that it is in the top 7% of utilities nationwide for DSM is erroneous, but more important is the level of energy savings achieved by PSI in the year 2002, itself, as a proportion of retail sales. In response to Data Request CAC 1.6, PSI states that its

[12] The "top 7% claim" was made in the testimony of Richard G. Stevie, page 8, lines 16-18. The database and calculations used by the Company were provided in response to Data Request CAC 1.8 also prepared by Witness Stevie.
[13] Personal communication with Tom Leckey, Energy Information Administration, August 20, 2004.
[14] Personal communication with Rodney Dunn, Energy Information Administration, August 26, 2004.

2002 demand reductions from DSM programs total 8,774 MWh, over 603,000 MWh less than the EIA database states. In response to Data Request CAC 1.5, PSI states that its 2002 retail sales were approximately 27,364,874 MWh, more than 92,000 MWh higher than reported in the EIA database. Taking these data into account, PSI's year 2002 energy savings, as percentage of sales, are really 0.03%.

Q. IF PSI IS NOT AMONG THE TOP UTILITIES IN THE NATION IN TERMS OF DSM, THEN WHO IS?

A. I am not aware of any available ranking of DSM programs. However, there are a number of states that are often pointed to as having utilities that generally offering the most comprehensive and effective set of DSM programs in the nation. These states include Vermont and Massachusetts. There are a number of indicators of good DSM including mills/kWh to fund DSM and the percentage of revenues spent on DSM. (These indicators are discussed further below.) Attachment 2 (also discussed later in this testimony) shows the ten states with the highest levels of funding for DSM programs as compared to Indiana.

4. DSM Program Design

Q. WHAT ARE THE PRINCIPLES OF GOOD DSM PROGRAM DESIGN?

A. At a minimum, well-designed DSM programs should:

1. Seek opportunities to overcome existing market barriers, both to ensure that energy savings are achieved in the short- to medium-term, and to promote the transformation of the efficiency market over the long-term.
2. Be designed to minimize "lost opportunities." Lost opportunities occur when efficiency measures are not installed at the time when it is most cost-effective to do so (e.g., the construction of a new building or facility, building renovations, and the

purchase of new appliances or equipment) or when some measures are left out of a DSM intervention (e.g., arbitrarily limiting the number of efficient light bulbs installed during a home audit).

3. Be designed to avoid "cream skimming." Cream-skimming occurs when only the most cost-effective efficiency measures are installed, even though additional, higher-cost measures would be cost effective. Cream-skimming can lead to lost opportunities, because revisiting a customer to install the remaining measures may involve prohibitive transaction costs and certainly would require additional transaction costs that need not be incurred.
4. Be designed to provide efficiency savings to all types of customer classes and subclasses. This will promote equitable use of the efficiency funds, and will help maintain customer and political support for DSM.
5. Be cost effective by design. This will help increase the societal value of the efficiency expenditures, and will help maintain customer and political support for the DSM charge.
6. Consider multiple fuels as alternatives to electricity. Efficient natural gas appliances and solar designs and technologies should be used to replace electric end-uses, if they are cost-effective.
7. Seek to address as many different cost-effective end-uses as possible. Examples of some of the key end-uses include:
    a. For residential customers the key electric efficiency measures include: efficient light bulbs; efficient light fixtures; refrigerators; clothes washers; dishwashers; hot water heating measures; heating ventilation and air conditioning measures; weatherization, insulation and other building shell measures; and building design measures, such as day lighting and shade trees.
    b. For commercial customers the key electric efficiency measures include: efficient lamps and ballasts; day lighting; efficient exit lamps, street lights and

traffic lights; heating ventilation and air conditioning measures; refrigeration measures; office equipment measures; and energy management systems.

c. For industrial customers the key electric efficiency measures include: efficient motors and motor drives; industrial process improvements; heating ventilation and air conditioning measures; efficient lamps and ballasts; and energy management systems.

8. Competitively bid key elements of the program in order to harness market forces, lower costs, and help develop the market for efficiency vendors and service companies.

Q, WHAT CHANGES WOULD YOU SUGGEST IN PSI'S PROPOSED PACKAGE OF DSM PROGRAMS?

A. I would suggest several changes to PSI's proposed package of DSM programs. First, PSI needs to capture lost opportunities and avoid cream-skimming in its Home Energy House Call Program. PSI uses the Utility Cost Test (UCT) for DSM screening, but despite PSI's UCT results, the Home Energy House Call is unlikely to be a cost-effective program in its current form. In-home energy audits involve significant expense, and such audits are only likely to result in significant energy reductions when the provider is installing measures and offering both incentives and installation arranging services for other measures at the time of the audit. Merely offering a free kit with a few low-cost, self-installed measures is not sufficient.[15] The biggest energy savers—energy efficient appliances, new windows and other building shell measures—are unlikely to be implemented by the customer absent incentives from the utility. The audit provider

[15] "[Program] participants get a free low cost measure kit at the time of the audit." The kit includes 2 compact fluorescent (CFL) bulbs, low flow showerhead, 2 aerators, motion sensor night light and outlet gaskets. Source PSI Witness Goldberg's Exh. D-1, p. 1. While a well-designed bundle of "slam-dunk" measures may be a useful program component in a home audit program, providing an arbitrary number of efficient light bulbs, regardless of the situation, is a prime example of cream skimming and is almost certain to create lost opportunities.

should be actively installing technologies such as new light bulbs *in all appropriate locations in the residence* and providing rebate coupons or other incentives for the purchase and installation of energy efficient appliances at the time of the audit. In fact, each home audited should be provided with immediate installation of a comprehensive set of easy to install items, as well as active support for implementing a similarly comprehensive set of all the cost-effective additional measures that might require further incentives and installation service.

The Low-Income Weatherization program appears to be designed in such a way as to offer an important and significant service to low-income customers. However, this program fails to capture all of the potential benefits to customers and the utility because eligibility is limited to homeowners. To achieve the maximum cost effective level of savings and equitable delivery, it is critical that renters also be eligible for DSM services since low-income families tend to be renters more often than homeowners. [16] PSI fails to equitably serve a very large class of potential participants by limiting its program to low-income homeowners. Nor should customers be excluded because they do not have electric space or water heat.[17] Doing so excludes another group of customers who could greatly benefit from weatherization service. It is interesting to note that a third-party administrator would not be expected to discriminate against and exclude customers because of fuel source.

Heat pumps are overemphasized in the Smart Saver/Summer Saver Program. Some of the funding ought to be targeted to other programs. Incentives for heat pumps are generally favored by utilities because they increase the number of customers with electric rather than gas heat, not because they necessarily create energy savings. The

[16] In Indiana, 21.7% (144,787 households) of renter households are below the poverty line, while only 4.7% (78,447 households) of home-owner households are below the poverty line. National Low Income Housing Coalition, Local Area Low Income Housing Database, www.nlihc.org/research/lalihd/Indiana.pdf.
[17] Cf. CAC-PSI DR 1.26 and PSI Witness Goldberg pft. p. 4, ll. 5-7. The Low Income Weatherization program provides certain non-heating measures, such as CFLs, refrigerator replacements, and some air conditioning measures, which could be cost-effective for non-heating electric customers.

Company has not provided enough information (regarding its assumptions in making heat pump energy impact calculations) in order to prove that there is no risk that this is a load building program rather than an efficiency program.

The Energy Star New Home Construction Program lacks incentives for customers to install Energy Star lighting and appliances in addition to incentives to offset HVAC equipment and inspection costs. Providing incentives is consistent with the principles of good DSM program design because it helps to reduce lost opportunities. If the homeowners do not select Energy Star appliances and lighting during construction, they are much less likely to replace those technologies with more efficient technologies for many years.

The Power Manager Program should be secondary to other programs which "hard-wire" long lived efficiency solutions into the customer's home. That is, there are more long-term benefits to be had by offering incentives for installing or replacing inefficient central air conditioners rather than cycling them (whether they are inefficient or not). Utilities have reasons to prefer load control programs, like this one, over energy efficiency programs because load control does not necessarily reduce overall retail sales, but does reduce peak demand and the utility's costs. The goal of DSM, however, is to implement the most cost-effective set of measures; reducing electric energy consumption is usually more cost-effective than merely shifting demand to other time periods. For all five years, 2005-2009, the percentage of proposed funding allocated to the Power Manager Program is 33-37%, a significant overemphasis of the program versus other proposed programs.

The promotion of Energy Star Products through customer incentives is generally a cost-effective DSM program. PSI's proposed Energy Star Products program should offer incentives for room air-conditioners, dishwashers, and ceiling fans, in addition to the end uses covered in its proposed incentives. Doing so does not pose significant additional burden on PSI beyond requiring more funding for the program, but it does allow customers to make larger energy reductions through Energy Star purchases.

PSI proposes that its energy efficiency website, the Energy Zone, receive funding equal to $354,960 in 2005 rising to $709,920 in 2009. Despite the fact that PSI will offer visitors to the website an "Energy Efficiency Starter Kit,"[18] PSI needs to better detail what that money is being spent on and justify why it needs such high expenditure levels before being allowed to recover funding. Programs in which the utility is passive, and the customer must actively seek opportunities to reduce energy demand are much less successful than those programs in which the utility has an active role.

PSI's Commercial and Industrial Program is overall, a well designed program, so far as it goes, with incentives available to customers for a broad variety of measures. One important aspect overlooked, however, is the need for PSI to facilitate and subsidize the technical assessments needed to determine whether those varied measures are appropriate for a particular customer. Like home energy audits, technical assessments are an important step in determining which DSM measures are most important and cost-effective for a C&I customer, but C&I measures often require more complex, site-specific screening and cost-benefit assessment than residential measures. Furthermore, the program should be made available to C&I customers of all sizes, as I discuss next.

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS ON PSI'S DSM PROGRAMS?

A. Yes, I do. PSI is overlooking significant opportunities for efficiency savings in two areas.

First, utility sponsored DSM programs should be offered to PSI's large C&I customers. Doing so is not only consistent with good program design, but there is no evidence that large C&I programs cannot be successful in Indiana. Witness Stevie states that "over the past few years, it has become increasingly apparent that the larger energy users prefer to implement their own energy efficiency programs rather than rely on and

[18] Petitioner's Exhibit B-1, page 10.

support utility structured DSM programs."[19] As evidence for that statement PSI Witness Stevie points to his testimony on a previous page, which states "The [IURC] approved a Settlement Agreement on December 18, 1996. The Settlement Agreement provided ratepayer-subsidized incentives for those market segments that the parties believed would not be priority targets for the 'non-regulated' energy services companies, specifically residential and small to medium-sized commercial and industrial ('C&I') customers (demands of 500 kW or less)."[20] First and most importantly, it is my understanding that the terms of a Settlement Agreement cannot be precedent for another case, including this one, and do not necessarily represent the positions of any of the parties to the Agreement. Even if it *was* their belief at that time, the supposed belief of the settling parties that non-regulated energy services companies will not target customers of 500 kW or less is no indication of opinions of large energy users for or against utility-sponsored DSM programs. Additionally, that agreement is nearly 8 years old. Market potential studies of programs that target C&I customers of all sizes in PSI service territory should be funded by PSI and performed on a regular basis before judging whether the market exists or not.

Another obvious omission is PSI's lack of programs directed at C&I new construction. Many opportunities are being lost by not targeting new C&I construction. C&I customers, generally, are those with the highest loads. New construction by such customers results in a further jump in energy demand. Even though C&I customers may very well welcome energy savings opportunities, offering them such opportunities after construction incurs an additional charge in terms of disruption from construction and possible outage of important equipment. C&I energy saving opportunities are much more likely to be lost by offering after-the-fact measures rather than assisting C&I customers with energy efficiency measures during construction.

[19] Testimony of Richard G. Stevie, page 13, lines 20-22.
[20] Response to Data Request CAC 1.16.

Q. DO YOU RECOMMEND THAT THE ABOVE CHANGES ACTUALLY BE MADE IN PSI'S DSM PROGRAMS?

A. Only in part. Later in my testimony, I make recommendations about the most appropriate way to administer and deliver electric efficiency programs. If those recommendations are adopted, some of the above changes could be redundant or counterproductive, especially as they may relate to proposed *new* PSI programs. I offer specific recommendations on this point later when I take up the substance of the DSM administration issue.

5. Funding Energy Efficiency Programs

Q. HOW SHOULD THE AMOUNT OF FUNDING THAT IS ALLOCATED FOR DSM PROGRAMS BE DETERMINED?

A. The level of program funding should be sufficient to make a substantial impact on the energy efficiency industry. Ideally, budgets would be large enough to support all cost-effective energy efficiency programs, and to achieve market transformation of key efficiency measures.

Determination of funding levels should be driven by the market potential for DSM and the cost-effectiveness of those programs. This should begin with performing detailed market potential studies. Once those studies are completed, a variety of programs would be selected and designed to acquire that potential resource and then analyzed for cost-effectiveness.

Q. DOES THIS MEAN ALL PSI'S DSM PROGRAMS SHOULD BE PUT "ON HOLD" OR DEFERRED UNTIL AFTER A MARKET POTENTIAL STUDY?

A. No, it does not. It is important to note that in almost any utility jurisdiction there will be a number of programs that can be implemented without benefit of a market potential study because those programs are designed to meet obvious end-uses. Such programs include low-income weatherization, incentives for certain efficient appliances and new construction efficiency programs for all customer classes. The purpose of the market potential studies recommended here is not to state the potential of DSM for obvious end-uses, and they should *not* be a reason for delaying implementation of programs to capture such resources. Rather, such studies can and should be done in parallel with high priority programs and will reveal important information about less obvious end-uses as well as ways in which program design can achieve greater saturation levels.

Q. HOW DOES PSI CURRENTLY DETERIMINE ITS LEVEL OF FUNDING FOR DSM PROGRAMS?

A. This is not clear, but it is obvious that PSI is not even been performing the necessary market potential studies to know what level is needed.[21] Even more distressing, in response to Data Request CAC 1.1, PSI Witness Stevie states

> Optimal level of expenditures [for DSM funding] was not one of the criteria behind developing this set of DSM programs. This would require a complete market potential study that would entail evaluation of every conceivable technology.

While sound and thorough market potential studies are needed to guide program design and improvement, such studies do not seek to include "every conceivable technology," only those that a well informed DSM manager knows or should know are technically

[21] In response to CAC 2.28, PSI stated that it had no copies of any "analyses, assessments or studies of the potential for DSM within PSI's service territory that have been by or for PSI, or any affiliated company, since January 1, 2001."

feasible. Therefore, proper market potential studies in this sense are *exactly* what PSI should be doing. It makes no sense to continue offering programs to a market without knowing the potential of that market.

Witness Stevie goes on to state, "PSI views this DSM proposal as a movement toward the optimal program size." As indicated in my response to the previous question, a market potential study does not necessarily need to analyze measures that would meet obvious end-uses. If PSI "views this DSM proposal as a movement toward the optimal program size," it ought to be performing market potential studies so that the Company can offer more programs in pursuit of achieving "optimal program size." Instead, Witness Stevie states

> PSI is investigating additional energy efficiency technologies beyond the ones in this proposal. If they prove to be worthwhile, PSI will bring those forward for funding and implementation when they become feasible. PSI is also willing to evaluate technologies proposed by others.

Cost-effective DSM is part of the Company's public service obligation, and PSI ought to be proposing to implement all cost-effective programs, not picking and choosing and implementing programs at its desired pace.

Q. EVEN WITHOUT A MARKET POTENTIAL STUDY, ARE THERE INDICATORS THAT PSI IS NOT SPENDING AT SUFFICIENT LEVELS TO IMPLEMENT ALL COST-EFFECTIVE MEASURES?

A. Yes, there are. While following the process described in my previous response is the best way to determine what the optimal DSM expenditure level is, there are several general indicators of good spending levels. The first such indicator is the amount of program expenditures as a percentage of revenues. PSI's proposed level of program spending is only 0.57% of its expected 2005 revenues. As indicated in Attachment 2, the top utilities in the country spend 1-3% of revenues.

Another indicator of reasonable funding is the ratio of program costs to kWh retail sales. Such an indicator is generally used in states with a system benefits charge (discussed later in this testimony), but PSI's proposal to recover program costs through Standard Contract Rider No. 66 allows us to make a comparison of the ratios found in other states. The Rider's Demand Side Management Billing Adjustment Factor per kWh would recover program costs, lost revenues and a shared savings incentive from PSI's customers. Table 1 shows PSI's proposed factors for the various retail customers groups for 2005 converted into a mills/kWh charge. The third column of the table is the percentage of each factor that goes toward recovering program costs. The fourth column is the Adjustment Factor if it were calculated just to recover program costs.

Table 1. PSI's Proposed DSM Adjustment Factor as Presented and for Program Costs Only

	Demand Side Management Billing Adjustment Factor (Mills per kWh)	Program Budget as % of Proposed DSM Adjustment Factor	DSM Adjustment Factor for Program Costs Only (Mills per kWh)
Rate RS	1.29	69	0.902
Rates CS and FOC	0.547	56	0.311
Rate LLF	0.547	56	0.311
Rate HLF	0.547	56	0.311
Rates TS, FS, and MS	4.745	75	3.601
Weighted Average	0.998	65	0.670

Source: PSI Witness Farmer, Exh. C-1, pp. 1-4.

The rightmost column of the above table, shows that the proposed DSM Adjustment Factor does not even reach 1 mill/kWh, with the exception of the DSM Adjustment Factor for Rates TS, FS, and MS. Other jurisdictions have found that a level of funding of up to 3 mills/kWh is appropriate in the same sense as discussed above. The

DSM Adjustment Factor as PSI proposes it is also far below 3 mills/kWh for those customer classes. Interestingly, a third-party administrator, even if it had at its disposal such low levels of funding as in column 1, would spend the entire amount on DSM programs and not devote such a large proportion of the charge to lost revenues or shared savings. This additional problem with the Company's proposal is discussed later in this prefiled testimony.

A third indicator is the annual energy savings resulting from DSM as a percentage of annual retail sales. A good set of DSM programs will generate energy savings each year of up to 0.8% - 1% of the utility's annual electricity demand. For the years in PSI's proposal, 2005-2009, that fraction is 0.25-0.29% of projected sales.

Q. WHAT ARE THE LEADING METHODS FOR FUNDING ENERGY EFFICIENCY PROGRAMS?

A. Two primary methods are used to fund utility energy efficiency programs. The traditional method is to include the costs of the programs in the utility revenue requirements in rate cases. A different method has become more common since the advent of retail competition. That is the use of a rate surcharge, commonly called a system benefits charge or SBC. In states that have restructured the electric utility industry, this approach has been widely accepted. System benefits charges are typically volumetric, that is, a set amount of money per unit of energy consumed, such as $0.003 or 3 mills per kWh. A system benefit charge is usually shown as a separate line item on the customer's bill with an appropriate label, such as "Efficiency Charge" or "System Benefit Charge."

An SBC is a mechanism for supporting energy efficiency programs using funds that are collected from all customers in the state. The charge should be applied to each kWh of electricity consumed by customers and collected by local electric companies. It is important to distinguish between an SBC as defined here and the Company's proposed additions to Rider No. 66. An SBC is a stable, dedicated funding source for system

benefit programs, unlike the proposed modifications to Rider No. 66, which simply allow the Company to recover whatever level of spending it chooses to allocate for efficiency programs (as well as its other proposed incentives, discussed elsewhere in this testimony).

An SBC to support energy efficiency is particularly important whenever there is potential for introduction of retail competition because it offers the best means of implementing energy efficiency programs, regardless of whether a state has restructured its electricity industry, or whether it is likely to restructure in the future. For those states that have not restructured, an SBC provides a secure source of funding for energy efficiency initiatives, and creates certainty regarding the level of efficiency that will be implemented. For those states that have, or might, restructure, an SBC provides a competitively-neutral source of funding from all customers, regardless of which competitive generators serve each customer.

Q. WHICH FUNDING APPROACH DO YOU RECOMMEND IN THIS CASE?

A. I recommend that the Commission implement a system benefit charge approach to funding energy efficiency programs. There are several reasons for this recommendation. First, an SBC segregates the approved level of funding and helps to ensure that it is available for and used for the intended purpose. In fact, it would make sense to require the utility to transfer those funds to a fiscal agent who would disburse them back to the program upon documented expenditures for the intended purpose. Second, a separate line item charge on the customer bill presents an honest and clear picture to the customer of how much money is going towards energy efficiency programs and may, in fact, encourage customer participation in such programs.

Q. WHAT LEVEL OF FUNDING DO YOU RECOMMEND FOR ENERGY EFFICIENCY PROGRAMS IN THIS CASE?

A. Funding levels for electric energy efficiency programs among the states range from virtually zero to about 3 mills/kWh or about 3.4% of retail revenue. Among the states with substantial programs, the lowest charges are around 1.10 mills/kWh and 2% of retail revenues. See, for example Attachment 2 to this prefiled testimony. Given the substantial potential for economic and environmental benefits to Indiana and the very low level of funding by PSI since 2000, I recommend a funding level of 2 to 3 mills/kWh. It may be that during the first start up year, a smaller amount would be appropriate, depending on the implementation plan.

6. PSI's Lost Revenue Proposal

Q. IS PSI'S PROPOSAL TO CALCULATE AND RECOVER "LOST REVENUES" FAIR AND REASONABLE?

A. No, it is not. Like its proposal to calculate and recover a shared savings incentive, which I discuss below, PSI's calculation of lost revenues is based upon estimated impact data. Once impact evaluation data is collected, PSI does not propose to true-up lost revenue charges to its actual energy savings. PSI has a clear incentive to overstate the impacts of its DSM programs and offers no justification as to why actual impact data from program evaluations should not be used. Overstating energy impacts is a particularly egregious error when calculating lost revenues because the lost revenue charge is based on cumulative energy impacts. Under PSI's current proposal, in 2005 (the first year of the proposal) PSI will recover an amount of lost revenues equal to $2.2 million (23% of the DSM program costs), by 2009 PSI proposes to recover lost revenues in the amount of $12.2 million (113% of the DSM program costs).

I do not support allowing PSI to recover any amount of "lost revenues." Even if the Commission were to allow some form of lost revenue recovery for PSI, I would recommend that the utility not be allowed to recover 100% of calculated lost revenues.

For example, load growth may occur at a rate such that the increase in sales will outstrip both the energy savings from DSM. In such a situation, the Company should not be compensated for additional, hypothetical lost revenues.[22] Nor should PSI recover lost revenues from sales made off-system or to affiliates as a result of power "freed-up" by the demand reductions from DSM programs. Doing so would be unfair to customers because it incurs a lost revenue charge on power for which PSI is able to find a buyer. For example, if that buyer is an affiliate of PSI and buys the power at a below-market rate, it is the arms-length transaction value that is relevant. PSI has an obligation to not allow such transactions to its affiliates at the expense of its customers. For purposes of lost revenue recovery, such transactions between affiliates should be treated as having occurred at fair market value for an arms-length transaction. More importantly, if, as I recommend below, efficiency program implementation is placed in the hands of an independent third party, such an incentive is not necessary and the ratepayer funds could be put to better use funding actual efficiency measures.

7. PSI's Shared Savings Incentive

Q. DO YOU BELIEVE PSI'S PROPOSAL TO RECOVER A 10% SHARED SAVINGS INCENTIVE FROM ITS CUSTOMERS IS FAIR AND REASONABLE?

A. No, I do not. In Data Request CAC 2.29, PSI was asked to provide a list of utilities that have incentives similar to or the same at PSI's proposed shared savings incentive. The Company objected to the question, but stated that it is "generally aware that, in Indiana, Vectren and Indianapolis Power & Light Co. have recovered, or continue to recover lost revenues and/or incentives for some or all of their DSM programs."

[22] PSI's response to Data Request CAC 1.27 showed that it is expecting annual average demand growth between the years 2005-2020 at a rate of X.X% in the ECAR region, much higher than the annual demand reductions of 0.25-.029% expected as a result of PSI's proposed DSM programs.

While it is true that other utilities have and do recover a shared savings incentive, PSI presented no evidence that past or current shared savings incentives recovered by those utilities are similar to its proposed shared savings incentive. There is good reason for this. PSI proposes to recover 10% of net program; in an amount equal to $2.4 million in 2005, which is 26% of the total DSM program costs in that year. In comparison, in states such as Massachusetts, the shared savings incentive is capped at 4-8% of the total DSM *program* budget. The proposed incentive would significantly overcompensate the Company. Together, lost revenue and shared savings would total $4.6 million (49% of the DSM program costs) in 2005 rising to $15.6 million (144% of the DSM program costs) in 2009.

In addition, PSI's proposal to calculate the shared savings incentive is neither fair nor justifiable. The testimony of Richard Stevie states[23]

> PSI's shared savings incentive is based on pre-specified demand and energy savings, until information on demand and energy savings from the updated impact evaluation studies become available, at which time the updated projections will be used prospectively.

Essentially, PSI proposes to charge customers a shared savings incentive based upon *estimates* of energy impacts[24] and once the actual impact numbers are available to use those only on a going-forward basis and not true-up past charges to its customers. Nor does PSI explicitly state that it will true-up those charges based upon actual participant numbers. This is patently unfair to PSI's customers. The Company has a strong incentive to overstate projected energy savings because they know that actual impact data will never be used to true-up customer charges retrospectively.

[23] Testimony of Richard G. Stevie, page 24, lines 15-18.

PSI was asked to identify and explain "any reasons why it would be infeasible or inappropriate to apply program evaluation data regarding actual accomplishments retrospectively to shared savings for the period covered by such evaluations."[25] PSI responded, "It is not reasonable to restate impacts on earnings from lost revenues and shared savings retrospectively. PSI believes that the estimates should be made upon the information available at the time."[26] This PSI response provides no justification as to why impact data should not be apply retrospectively to shared savings. Shared savings calculation (should there be any such incentive) must be valid and transparent to all parties; that cannot be accomplished by taking the Company's impact estimates at face value.

Nor is the Company's proposed formula fair to its customers. According to Petitioner's Exhibit A-7 work papers, the formula proposed by the Company to calculate measure savings (of which PSI proposes to receive 10% for every program and measure delivered) is:

Measures Costs x (UCT – 1) = Measure Savings

As an example, let's assume that Measure A has a cost projected to be $100 and savings projected to be $150. The UCT value is therefore 1.5 ($150/$100) and the measure would be eligible for inclusion in program delivery. Under the proposed formula *and on the assumption that the* ***projected*** *measure cost is correct*, PSI would receive compensation in the amount of

[$100 x (1.5 – 1)] x 10% = $5.

[25] Question posed in Data Request CAC 2.13.
[26] Response to Data Request CAC 2.13.

But, as the Company stated, it will not use actual impact data retrospectively, but rather only prospectively in making a number of calculations including cost-effectiveness analyses. If the projected impact data is not accurate, and the UCT value turns out to be less than 1.5, customers will be overcharged, even if the Company's proposed *concept* were acceptable.

Even more troubling is that the proposed formula gives the Company an incentive to let the costs of its DSM programs go out of control and spend more money than necessary to achieve projected energy impacts. Again, using our hypothetical Measure A, if the cost of the measure is projected to be $100, but PSI actually spends $200 on the measure, and the UCT calculation is not adjusted, the Company receives an incentive of:

$$[\$200 \times (1.5 - 1)] \times 10\% = \$10.$$

In testimony, PSI provided no indication that any calculation besides that used to reach the charge under Contract Rider No. 66 would be updated to reflect actual program costs.[27]

More importantly, if, as I recommend below, efficiency program implementation is placed in the hands of an independent third party, such an incentive is not necessary and the ratepayer funds could be put to better use funding actual efficiency measures.

8. Energy Impacts Calculated Incorrectly

[27] Testimony of Richard G. Stevie, page 25, lines 1-3.

Q. DID PSI CORRECTLY CALCULATE ITS ENERGY SAVINGS BASED UPON ITS OWN STATED METHODOLOGY?

A. No, it did not. PSI states, "[it] has accounted for the effect of free riders in its impact evaluation studies, cost-effectiveness analyses, lost revenue calculations, and shared savings incentive calculation."[28] I found otherwise.

In response to Data Request CAC 1.23, PSI provided a document entitled *Summary of Data for DSM Programs and Measures*.[29] Among the data in that document were PSI's estimates of the kWh savings per measure, the percentage of free riders, and the net impact of each measure adjusted for free riders. When asked to provide copies of its work papers and related documents used to calculate lost revenues and shared savings, PSI responded that the only documents available were Petitioner's Exhibit A-6 and A-7 work papers.[30] The assumptions regarding kWh savings per measure contained in those documents are virtually identical to the kWh savings (without free rider adjustment) provided in *Summary of Data for DSM Programs and Measures.* The result is that free rider effects were not correctly accounted for by the Company in estimating energy impacts of its programs and measures. Therefore, the Company's projections of lost revenue and shared savings incentives did not reflect that adjustment, and therefore, it would seem unlikely that free rider effects were accounted for in the Company's cost-effectiveness analyses.

The effect of not including free riders in calculating energy impacts is that the Company's projected lost revenues and shared savings are erroneously high. The impact of this error is particularly significant on lost revenues because PSI wants to recover *cumulative* lost revenues, so an error such as this, starting in the first year, would carry through to all the following years.

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[28] Testimony of Richard G. Stevie, page 19, lines 15-17
[29] That document is included as Attachment 4 to this prefiled testimony.
[30] PSI was requested to provide this information in Data Requests CAC 3.1 and CAC 3.2.

Q. IF PSI WERE TO RESTATE LOST REVENUES CALCULATIONS, SHARED SAVINGS INCENTIVES CALCULATIONS, AND COST-EFFECTIVENESS ANALYSES, TO ACCOUNT FOR FREE RIDERS WOULD THAT LEAD TO CORRECT ESTIMATES OF ENERGY IMPACTS?

A. No, it would not. PSI Witness Stevie states, "For existing [DSM] programs, the load impact estimates utilized in the UCT calculations have been reduced for the impact of free riders. For the new measures, the UCT calculations will be updated once an impact study has been complete or a reasonable approximation of free ridership can be obtained from similar programs in other utility service territories." [31] I understand from this statement that until PSI can determine the correct free rider effect for any of its new measures, it will assume that there are no free riders, even if it knows as a general statement of fact that free riders will exist in practice. This is unreasonable and not good utility practice.

Firstly, there are a number of reliable sources with such information available which can give "a reasonable approximation of free ridership" for many of PSI's programs. In addition, for its own purposes one would assume that PSI would prefer to assume some degree of free rider effect in order to estimate more correctly what level of lost revenues and shared savings the Company can expect. That being said, an assumption of zero free riders might have no bearing on PSI's customers' payments for lost revenues and shared savings if the lost revenues and shared savings were eventually to be adjusted for free riders. However, as discussed above, PSI proposes to use any future impact data to determine the proper lost revenue and shared savings incentive charges to its customers prospectively only and not to make any retrospective adjustments. Since the Company's plan for adjustments is driven by impact evaluation, I am concerned that the Company intends to follow the same practice for adjustments

driven by free rider data, a mistake that clearly favors the Company at the expense of its customers.

Q. DO YOU HAVE ANYTHING ELSE TO ADD REGARDING THE COMPANY'S CALCULATION OF DSM ENERGY IMPACTS?

A. Yes, I do. One benchmark often used in assessing the relative strength of a set of DSM programs is the cost of saved energy, i.e., the cost per MWh of energy saved over the life of the program. As indicated by Table 2, states known to have strong DSM programs have a cost of saved energy between $23 and $40 per MWh.

Table 2. Cost of Saved Energy by State

State	Cost of Saved Energy ($/MWh)
Massachusetts	40
Vermont	30
Connecticut	23

Source: Kushler, Martin, et.al, *Five Years In: An Examination of the First Half-Decade of Public Benefits Energy Efficiency Policies,* American Council for an Energy-Efficiency Economy, April 2004.

A cost of saved energy below $23/MWh is an indication of possible concerns with either the calculation of costs and savings or with the DSM programs themselves. Such very low values for cost per saved MWh can be an indication of two possibilities: 1) the Company programs are designed to promote or allow "cream-skimming," that is, the program designs include only a portion of cost-effective measures and, therefore, only achieving the cheapest energy reductions, or 2) the Company is understating costs, overstating energy impacts per measure installed, or both. While, PSI is clearly cream-

[31] Testimony of Richard G. Stevie, page 19, lines 17-21.

skimming in at least its Home Energy House Call program, as discussed above, the Company is likely overstating its energy impacts as well.

Using information provided by PSI regarding measure lives, kWh savings, expected number of participants in 2005, and 2005 measure costs, I calculated the weighted average of the cost of saved energy for PSI. The cost of saved energy for the various classes of programs and the programs as a whole is listed in Table 3.

The weighted average of PSI's cost of saved energy is $13.40 per MWh, an unusually low figure. Additionally, the cost of saved energy is extremely low for many individual sectors: Residential–New, C&I–Lighting, C&I–HVAC, C&I–Motors, and C&I–Others. In particular, the calculated costs of saved energy for the categories C&I–Others and Residential–New, $3.60 and $6.50/MWh, respectively, are extraordinary.

Unfortunately, we do not have, at this time, sufficient information available to understand why PSI would claim that individual programs and measures would achieve such high levels of energy impacts and therefore low cost of saved energy. The numbers do, however, suggest considerable overestimates in at least some of PSI's energy impact projections. One estimate that is particularly of concern is the "Other" category of C&I, because the Company assumes that 68% of energy savings in the C&I program come from measures in that category.[32] As with the other flaws in energy impact calculations pointed out in this testimony, the effect of overestimating program energy savings would be excessive lost revenue and shared savings charges at the expense of customers and in favor of the Company that, apparently, will never be trued up using actual impact data.

Table 3. Cost of Saved Energy by PSI Sector of Programs[33]

Sector of Programs	2005 Measure	Lifetime Savings	Cost of Saved

[32] Petitioner's Exhibit A-5.

[33] Administration and evaluation costs are considered by PSI only as a whole for all its programs and are not reflected here. The effect of recalculating the cost of saved energy for all programs including these costs, raises PSI's cost of saved energy by about $1/MWh to $14.9/MWh.

	Costs	(MWh)	Energy ($/MWh)
Residential–Existing	$4,899,440	91,341	$53.60
Residential–New	$2,229,830	342,825	$6.50
C&I–Existing[34]	$375,710	677	$554.80
C&I–Lighting	$97,290	6,852	$14.20
C&I–HVAC	$118,125	7,182	$16.40
C&I–Motors	$133,781	14,816	$9.00
C&I–Others	$622,568	170,801	$3.60
All programs excluding C&I–Existing	$8,101,304	633,816	$12.80
All programs	$8,476,444	634,494	$13.40

Note: Cost of Saved Energy rounded to nearest tenth of a dollar.
Source: Work papers of Petitioner's Exhibits A-5 & A-6 (Sponsored by Witness Stevie) and response to CAC 1.23.

9. Independent Administration Specifics

Q. WHO SHOULD BE RESPONSIBLE FOR DELIVERY OF ENERGY EFFICIENCY PROGRAMS?

A. I recommend that the Commission require efficiency programs be delivered by an independent third party administrator. For convenience sake, I will sometimes refer to that administrator as an Independent Administrator or IA. In some settings, such an IA is called an Efficiency Utility or EU, but that should not be taken to mean that it would be a

[34] In the document provided by PSI (Attachment 4 to this testimony), only one measure life was provided for existing C&I programs other than the photovoltaic program. Therefore the calculated cost of saved energy for this sector of programs assumes that that measure life (5 years) applies to all existing C&I programs exclusive of the PV program.

regulated utility. Rather, the IA should be an independent corporation or other entity *completely* without affiliation with any utility and operating under a contract issued by the Commission.

Attachment 5 to this prefiled testimony is a report prepared by myself and Scudder Parker of Synapse Energy Economics, Inc. The report analyzes the advantages and disadvantages of an IA and discusses best practices and essential characteristics of a successful IA. I will summarize some of the key findings and recommendations of that report here.

There is a recent trend to designate an independent third party to administer SBC-funded DSM programs, especially state-wide programs. Cases in point are Efficiency Vermont, Efficiency Maine, and Energy Trust of Oregon.

Designation of an IA to deliver DSM programs removes the disincentive created when a utility is charged with reducing its customers energy demand. Such an IA has, under proper contracting practices, a clear incentive to implement DSM programs vigorously and effectively, since the sale of energy is not its responsibility. It can minimize the cost and complexity associated with regulatory scrutiny of numerous utility DSM programs and can even serve a stateside area, providing equal and efficient statewide services. Standardization of a state's DSM approach will also create a robust market for efficiency products and support services, benefiting the entire state economy.

For best results from IA program delivery (or any means of delivery for that matter), stable, long-term, dedicated funding, such as may be provided by an SBC, is important.

Q. HAVEN'T YOU ARGUED ABOVE THAT THE COMPANY IS OBLIGATED TO ACQUIRE SUCH REOURCES ON ITS OWN? IF SO, WHY SHOULDN'T THE COMPANY BE REQUIRED TO DELIVER THOSE EFFICIENCY PROGRAMS?

A. Yes, the Company does have an obligation to provide least cost service, but I recommend independent, third party DSM program administration, partly because of the

benefits just discussed and partly because of the Company's history with designing and managing its DSM programs. The Company's extraordinary cut backs on DSM post-settlement, the shortcomings in current and proposed program design and scope mentioned above, and its over-reaching proposals for incentives argue for a more committed, competent and aggressive administrator. The inherent advantages of independent, third party administration and, especially, its potential to expand to statewide consistent delivery also support a change at this point.

Q. WON'T IT TAKE QUITE A WHILE TO ORGANIZE AND RAMP UP AN INDEPENDENT, THIRD PARTY EFFICIENCY PROGRAM ADMINISTRATOR? IF SO, WHAT SHOULD BE DONE IN THE MEANTIME? SHOULD PSI'S EXISTING EFFICIENCY PROGRAMS BE CONTINUED? SHOULD PSI'S PROPOSED NEW EFFICIENCY PROGRAMS BE IMPLEMENTED?

A. It will take a while for an IA to be selected and become fully operational, but perhaps not as long as one might think. There are several successful models and a growing literature on how to implement third party efficiency administration and do it correctly. I believe that an IA could be up and running about one year to one-and-a-half years from an order mandating one, possibly less if the recommendations below are adopted. However, I have specific recommendations for what should be done in the meantime.

First, PSI's *existing* programs should be altered as described above and then frozen and continued as is and at current or higher funding levels until the IA is up and running. It would not be in the public interest to forego the savings that can be achieved by those programs during the startup of an IA, especially the savings that could be delivered by implementing the improvements recommended above.

Second, PSI's proposed *new* programs and incentives should be rejected. Any funds budgeted for new programs, lost revenue recovery and incentives between now and

the date when IA will be in action should be converted to an SBC and made available for start up and operation costs of the IA as well as the other activities discussed in the following paragraphs.

When IA is fully functional, funding should be 2-3% of revenues (2% of 2005 projected revenues is $33,351,960; 3% is $50,027,940). In addition, there are ways to constructively use some or all of the Company's proposed spending level ($9,426,856 for 2005) in the meantime. A major increase in funding for Low Income Weatherization and expansion to serve customers regardless of heating source would be an excellent value, because it is quite likely that the CAAs would be the most appropriate vehicles to continue doing the program even in coordination with the IA. The Vermont third party delivery administrator, for example, very closely coordinates program delivery with the CAAs and has the CAAs deliver some of the low income programs. Because the CAAs also administer the state, DOE, and other utility-sponsored low-income programs, both weatherization and EAP, their involvement would be reasonable and likely beneficial.

Third, the Commission should order a set of independent studies of resource potential, market research studies, and program design projects to begin immediately under its supervision and to be funded by, but completely independent of the Company. These studies would be done to enable the IA to implement fully functioning programs as soon as it is selected and organized. The studies would also provide important market data that would enable potential bidders for the IA job to have more certainty about the challenges and opportunities in Indiana, making the competition among potential IA bidders more efficient and robust. Study specifications, RFP content and process, and necessary funding level for these interim activities should be determined by Commission, and the Commission should require the Parties to submit recommendations (by some date certain) that are consistent with above points.

In connection with this proposal, I wish to emphasize that market assessment and studies of potential program enhancements are an essential part of DSM program design, but are an inherently iterative process, not done once for all time. Hence, the proposed

studies are of a type that would normally be performed in parallel with ongoing program delivery by a fully functioning DSM deliverer. Thus, Indiana should not delay organization and implementation of DSM programs, especially via an IA, pending the studies I recommend or any other studies. Rather, such studies would merely be the first round of ongoing research by or for any future DSM deliverers. (Indeed, in my experience, a good IA craves good evaluation and potential assessment.) Good market assessment and related studies examine programs already delivered or in place, but also expand the universe of opportunities by understanding markets and building procedures better, even as core programs are being implemented. Under a comprehensive market characterization and assessment process, DSM deliverers and stakeholders learn about how well key players know the programs, the potential for delivery of new or innovative products or programs, how many customers are using them, why or why not, and many other key questions important to maximizing the benefits and efficiency of DSM programs.

Fourth, the Commission should order implementation of a limited number of demonstration efficiency projects targeted at large C&I customers neglected by prior programs. Such demonstrations should be funded by, but not under the control of, the Company and be designed and implemented consistent with above principles, but targeted at customer groups and end uses now underserved and likely to be major DSM resources in the future and with careful process and an impact evaluation component. The demonstrations should target end uses and customer groups with high potential for large savings and significant research benefits. Also, such demonstrations should be implemented by independent entity selected by Commission and not affiliated with any Indiana energy utility. To the extent feasible, these demonstration projects should be "fast tracked" so they are in operation within 4 months and measure installation is completed within 12 months so that at least preliminary evaluation results can be available by the final stages of IA program design.

Q. DOES THAT COMPLETE YOUR TESTIMONY AT THIS TIME?

A. Yes.