

Wisconsin's Pilot Energy Efficiency Performance Program

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ABSTRACT

The Energy Efficiency Performance (EEP) Program is a performance contracting pilot, part of the state of Wisconsin's Focus On Energy Initiative. This initiative aims to stimulate a more competitive and sustainable market for energy-efficiency and renewable energy services. The EEP program encourages energy service providers to undertake energy efficiency retrofits using performance-based contracts to guarantee energy cost savings to commercial and industrial customers. In return, the program offers participating service providers business development support through training, project facilitation, shared financial risk of performance guarantees, and financial incentives for projects that meet performance guarantees. The program emphasis is to stimulate new opportunities for local service providers, as well as encourage the entry of non-local providers to the Wisconsin market.

While the program draws on lessons learned in other standard performance contracting programs, such as California's and New York's, its goals and target market require an innovative and more flexible approach to address the following market conditions: 1) historically, most energy services in Wisconsin have not been offered on a performance-basis, and 2) the market within the program region is small and has not attracted many national energy services companies.

This paper elaborates on the key elements of the EEP Program and discusses the rationale underlying its design. This paper also reports early results and major findings from the EEP program deployment.

Background

The Wisconsin Department of Administration's FOCUS ON ENERGY initiative, officially launched in July of 1999, is a \$17 million, two-year pilot energy efficiency program for Northeast Wisconsin whose main goal is to prepare the market for a time when energy efficiency goods and services are no longer provided by utilities. Utilities in Wisconsin have invested actively in energy efficiency programs for many years, often by directly subsidizing customer project costs. The pilot initiative aims to test new state involvement in supporting the private, non-utility Wisconsin energy services market with the goal of market transformation. FOCUS ON ENERGY is one of the first state-sponsored public benefit programs in the nation to tackle the challenge of public and private sector cooperation in the delivery of energy efficiency goods and services.

Market Transformation Goals

The EEP program has been designed to encourage both national and local energy service providers to expand their service offerings and market share by pursuing performance-based relationships with commercial and industrial customers. The program's objective is to develop a profitable and sustainable energy services market rather than resource acquisition. To this end, the program offers to share financial performance risk with service providers, and financial performance incentives to service providers willing to expand their business in one of the following three ways: (1) deliver performance-based energy efficiency products or services that have not been previously, (2) deliver performance-based energy services to new customer or market segments that have not been previously targeted, or (3) deliver performance-based energy services through the utilization of new distribution strategies, marketing channels, or teaming alliances.

Service providers participating in the program must enter into guaranteed performance-based contracts with their customers, lasting a minimum of three years. The cost savings guarantee to the customer forms the basis of the EEP performance incentive structure. The incentive is calculated as a percentage of the minimum guaranteed cost savings specified in a performance agreement with a customer.

To be accepted into the program, service providers must demonstrate the viability of their proposed business models. They are required to submit a business plan illustrating the market potential of their proposed new or expanded service offering within the pilot territory, including a description of their proposed sales and marketing strategy for their service offering.

Target Market

The program targets existing energy efficiency services providers and other energy professionals who would like to expand their current service offerings. Eligible service providers, referred to as "Sponsors" include lighting and HVAC contractors, energy services companies (ESCOs), architecture and engineering firms, and manufacturers and distributors of energy efficient products. To achieve the program objective of sustained and leverageable market activity, customers can participate only indirectly, through a service provider.

Program Benefits and Incentives

The EEP program offers three different levels of support to its Sponsors: 1) training and facilitation, 2) sharing of performance guarantee risks with Sponsors, and 3) financial incentives for meeting or exceeding performance guarantees.

Training and facilitation for Sponsors emphasizes the following two skills: 1) training in performance contracting and in identifying and developing viable project opportunities, and 2) facilitation of projects and developing business plans. Training and facilitation is designed specifically to help the smaller, local service providers who have an existing customer base but little or no experience in performance contracting. Larger, well-established service providers are less likely to be interested in the program's training and facilitation offerings.

Second, the program shares with Sponsors the risk of offering cost savings guarantees to customers. If a customer's guaranteed cost savings are not met after one year of verified performance, the EEP program will underwrite 50% of the specified performance penalty owed to the customer for the first three years of the performance contract period. For example, if a Sponsor were to guarantee to a customer an annual energy cost savings of \$20,000, and the measurement & verification results indicate that only \$15,000 in savings were achieved – then the program would pay the Sponsor \$7,500 ($\$5,000 \times 0.5 \times 3$ years).

Whereas, if a customer's guaranteed cost savings are achieved after one year of verified performance, the Sponsor receives a performance incentive equal to 50% of the guaranteed cost savings for the first three years of the performance contract (or 75% of the guaranteed cost savings for projects that achieve no more than 70% of their energy savings from lighting measures). Both risk sharing and incentive payments are issued to the Sponsor in a single, lump-sum payment at the end of the first performance year, to cover three years. Although this payment method is not conducive to sustaining performance (in the incentive case), or remedying any performance shortfalls and avoiding future payment penalties (in the risk-sharing case), using only one performance year reduces the pilot program's administrative overhead and bureaucracy.

The EEP's discontinuous incentive structure (i.e. the Sponsor gets no financial incentive for coming close to, but under the guaranteed cost savings) is intended to avoid overestimation of the cost savings, and misleading the customer on behalf of the Sponsor.

A total of \$4 million in risk-sharing and performance incentive funding is available. Funds are being allocated on a first-come, first-served basis until all incentive funds are committed or until June 30, 2000, whichever occurs first. To stimulate local service providers – considered most likely to sustain the proposed new business models in the program's pilot area, \$1 million of the \$4 million in performance incentive funds is set-aside for local Sponsors. The performance-based incentive is intended to promote reasonable risk-taking and performance follow-through by the Sponsors. The program discourages Sponsors from "buying-down" their customers' front-end project costs, however a mechanism to enforce this guideline has not been set up. Given the program's goal of market transformation, the Sponsors are left to pursue relationships with customers as they see fit.

Comparison to Traditional Utility Programs

The EEP program is unique from performance contracting programs in California and New York, in that a Sponsor's performance incentive is calculated to be a percentage of the Sponsor's cost savings guarantee to the customer, rather than as a \$/unit of measured energy savings. The EEP's incentive structure is defined using the same metric as the guarantee in the Sponsor-Customer contract, that is, cost savings rather than energy savings. This incentive structure also allows M&V requirements for the Sponsor to be simplified, although this was not the primary consideration. The program approves proposed savings calculations and M&V plans for reasonableness, providing a minimum of due-diligence that helps to protect both the Sponsor (in minimizing performance penalties) and the customer (in maximizing cost savings). However, the program administrators are involved for only the first year of the performance period. In this case, the customer has the ultimate responsibility for holding the Sponsor accountable for meeting their contractual obligations and ensuring that a project continues to deliver cost savings beyond the first year.

In order to encourage more comprehensive projects, the EEP program offers a premium incentive of 75% (rather than 50%) for projects that achieve no more than 70% of their energy savings due to lighting measures. As in traditional performance contracting programs, lighting is rewarded at the lowest rate because it is a fairly mature technology. It does not require as much “incentivizing” as other technologies with longer and less certain payback cycles.

The program also includes a special provision to encourage service providers to pursue projects with small business customers (defined as having 50 employees or fewer) by providing them a premium incentive of 75% for all lighting and non-lighting projects. This provision hopes to address the market barrier of small project size. Other performance-based programs have found a tendency for service providers to target only medium to large customers, since the potential for energy savings (and profit) tends to be proportional to customer size. This tendency is driven by several factors, including the considerable effort required to market and negotiate performance relationships with customers and the general lack of knowledge and investment capital among smaller customers.

To compare the incentive structure for the EEP Program to traditional demand-side management (DSM) incentive amounts, the lump-sum incentives (assuming the 50% annual performance incentive level for three years) can be translated into \$/kWh and \$/Therm equivalents using regional average energy prices. The results are shown in Table 1.

Table 1. Comparison of EEP Program and traditional DSM incentive structures

	Electric Equivalent Pricing	Gas Equivalent Pricing
Average C&I customer \$/unit of energy consumed in WI	\$0.04/kWh	\$0.45/Therm
EEP incentive (lump-sum)	150%	150%
Equivalent EEP incentive rate	\$0.06/kWh	\$0.68/Therm
Average cost of C&I DSM savings achieved in WI in 1997 (1)	\$0.10/kWh	\$0.52/Therm

The performance incentive for the EEP program is notably less than the cost of electric DSM savings and similar to the cost of gas DSM savings achieved statewide in 1997. Note that the EEP incentive structure takes into consideration only the savings that are guaranteed to the customers, rather than the actual savings achieved. Since the Sponsor will likely take a conservative approach to formulating the customer guarantee, the actual EEP equivalent \$/kWh and \$/Therm incentive prices for savings will actually be less than stated in Table 1. This means that the EEP program is cost-effective for resource acquisition as well as for transforming the market.

The level of incentives for the EEP program is comparable to that offered by traditional performance contracting programs for electric measures, and considerably higher for gas measures. Also, the incentive price structure appropriately reflects electric and gas prices in the respective regions. The results are shown in Table 2.

Table 2. Comparison of performance contracting program incentives

Program	Equivalent Incentives		Average prices ¹	
	Electric	Gas	Electric	Gas
WI – EEP Incentive	\$0.06/kWh	\$0.68/Therm	\$0.05/kWh	\$0.43/Therm
NY – '99 NYSERDA SPC Incentive	\$0.17/kWh ²	N/A	\$0.11/kWh	\$0.55/Therm
CA – '99 SPC Incentive	\$0.10/kWh ³	\$0.27/Therm	\$0.10/kWh	\$0.44/Therm

Market Specific Barriers Limiting Program Participation

The EEP program was officially kicked-off in July 1999. The program has been well received by the energy industry in general. Numerous service providers have expressed interest in participating. Sponsors began receiving commitments from eligible customers and subscribing projects to the program only six months into the pilot program. This lead-time reflects the program administrator's expectation that the sales cycles for performance-based energy efficiency services can be as long one year.

While the program structure incorporates many lessons learned from traditional performance contracting programs in California and New York, there are unique market- and customer-related barriers that EEP Sponsors face that need to be addressed by the State in future program considerations.

First, since EEP program is a pilot program, there is no commitment from the State to fund the program for an extended period of time. The pilot nature of the program is a significant concern for some service providers who must bear considerable up-front costs to alter their business models, contracting mechanisms, and project delivery processes in order to benefit from the program.

Second, the program's lead-time is too short to recruit energy service providers. Many smaller, local contractors are reluctant to participate due to their limited or nonexistent experience with performance contracting. Larger service providers with more complex decision-making processes also require a longer program lead-time in order to achieve the consensus of a greater number of people within their organizations before finalizing their decision to pursue an opportunity.

¹ www.eia.doe.gov

² Calculated as the average incentive price for lighting measures \$0.105/kWh; cooling-related measures \$0.288/kWh; and motors and other measures \$0.128/kWh in NYSERDA's SPC program.

³ Calculated as the average incentive price for lighting measures \$0.05/kWh; HVAC-related measures \$0.165/kWh; and motors and other measures \$0.08/kWh in California's Statewide SPC Program.

A short lead-time, coupled with the third barrier—limited market potential in the pilot area - increases the perceived level of risk among larger service providers who do not have an existing customer base or sales channel in the area. Much of the pilot area is rural, with the majority of the population and businesses located within or near a few of the larger metropolitan areas, including Green Bay, Wausau, Fond du Lac, Appleton, and Sheboygan.

Program Status to Date

To date, Sponsors represent a range of program vendors. These include lighting distributors, engineering firms, energy service companies, and HVAC contractors. This diversity indicates that the program's marketing and outreach efforts are reaching a variety of vendors.

As of May 2000, the EEP program has signed two program contracts with Sponsors, and approved/reviewing four additional qualifying project applications. Additionally, the program has approved business and marketing plans from six other Sponsors – all of whom are actively pursuing customers.

The current level of participation will yield \$360,000 in annual cost savings, representing over 9000 equivalent MWh of savings at an average electric rate of \$0.04/kWh.

For seven of the eight Sponsors in the program so far, this is the first time they will be delivering performance-based energy services. For this reason, significant program resources have been allocated to working closely with potential and active local Sponsors, helping them learn how to sell, assess and verify performance-based contracts. Larger Sponsors will require little assistance in the form of project facilitation. Rather, these service providers view the program as an opportunity to expand their current portfolio of performance-based services to include more comprehensive measures by establishing new teaming arrangements and more customer segments.

Based on the projections submitted by Sponsors subscribed to date in the program, there is a potential to stimulate over \$2 million in sales revenue in the year 2000, which translates into \$1.3 million in cost savings or an equivalent of 32.5 million kWh⁴ for customers. A summary of these statistics is presented in Table 3.

Table 3 Subscribed Program Potential within the FOCUS ON ENERGY Area

Business Plan	Total EEP Projections (based on current program subscription)	
	2000	2001
Forecasted Sales Goal	\$2,159,000	\$5,082,355
Forecasted Cost Savings (delivered to customers annually)	\$1,337,511	\$1,843,761
Forecasted EEP Incentives:		
Assuming 50% incentive	\$2,006,267	\$2,765,642
Assuming 75% incentive	\$3,009,400	\$4,148,462

⁴ Calculated using a regional average energy price of \$0.04/kWh.

Conclusion

At the time of the writing of this paper, the program is still in the early stages of implementation. The program has been successful enlisting a variety of local contractors, including those who are new to performance contracting. Many elements of the program have been well received, while others need to be altered in order to reach the level of activity required to achieve the EEP's goals. Considerable flexibility is built into the program. The Administrators could adjust the program's parameters to realign the program with emerging market conditions, as necessary.

Early program tracking indicates that the following program changes must be implemented to alleviate market barriers and to achieve EEP goals. The territory of the program must be expanded to include the entire State of Wisconsin. This will provide a sizeable potential market size for national service providers to justify making significant marketing investments within the region. The program schedule (and application deadlines) must be extended to more appropriately reflect the long lead-time that is required for identifying and selling performance-based projects (often as long as one year). The program must also be adequately funded to be able to attract national service providers not already in the region. Lastly, the State must commit to sustaining the program for at least three years. A longer program duration would give potential Sponsors sufficient confidence to make the significant investment and personnel allocation required to expand their energy-efficiency business in Wisconsin.

The program has received the support of several national ESCOs and local vendors alike. The National Association of Energy Services Companies (NAESCO) has also expressed its support of the program. It believes that the EEP program offers several advantages over other types of DSM programs because the program: (1) delivers measured units of saved energy, (2) stimulates the development of a competitive market of energy efficiency services, and (3) encourages technical and business innovation among multiple customers and energy services companies.

As a pilot, the EEP program has achieved some success and also provided important information about the market. With new public benefits legislation passed in Wisconsin, utilities have the option to transition their DSM programs to the statewide public benefits program now, and must do so within three years. Currently, the major barrier to expanding and extending EEP appears to be the utilities' interest in retaining their programs aimed at commercial and industrial sectors for as long as possible. The statewide public benefits program will involve a non-utility program administrator, which will remove a substantial amount of the discretionary control that many major utilities exercise over the development of the energy services marketplace. We believe that a utility-independent energy services industry is an important and potentially effective feature of the new energy economy.

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