Delivering Energy Efficiency Services to Wisconsin's Industries: Actions, Experiences, and Results from the Focus On Energy Program

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ABSTRACT

Under its electric utility restructuring, Wisconsin established a series of energy efficiency programs with major components devoted to serving Wisconsin's industries. This article presents experiences and lessons from working with Wisconsin industries and their suppliers in an action-oriented approach to implementing energy efficient projects and practices.

In 1999, Wisconsin began a pilot program for the development, testing, and delivery of energy efficiency market transformation programs. In 2001, a statewide program was initiated to enhance and expand the scope, territory, and variety of programs offered and markets served. While the pilot work focused on testing energy efficiency services with industry, the statewide industrial programs, in contrast, have been action-oriented, focusing on getting energy efficient projects and practices in place with industry and its suppliers.

These industrial programs experienced many diverging and interesting results from early successes to missed opportunities, to surprise interests. The lessons of these experiences have now been incorporated into many program services and offerings, including in-plant technical support, targeted financial incentives, specialized marketing, and advanced technology support to better service Wisconsin's industries.

Over 400 industrial companies and municipal water/wastewater facilities have taken advantage of these energy efficiency services. These partners and allies have used the program to support such actions as project development, in-plant assessments, facility energy management planning, staff training, specialty process enhancements, and advanced technology assessment and demonstration, all to act upon energy efficiency opportunities to improve plant operation costs.

The challenges and experiences in the Wisconsin industrial programs serve as a valuable guide to the design, development, and implementation of energy efficiency in industrial organizations, facilities, and processes. Case examples from planning through delivery of projects, from starting and continuing activities, are presented to illustrate how energy efficiency implementation can be advanced and achieved.

INTRODUCTION

Under its electric utility restructuring, Wisconsin established a series of energy efficiency programs with major components devoted to serving Wisconsin's industries. This article presents experiences and lessons from working with Wisconsin industries and their suppliers in an action-oriented approach to implement energy efficient projects and practices.

Background

In 1999, Wisconsin began a pilot program for the development, testing, and delivery of energy efficiency market transformation programs. In 2001, a statewide program was initiated to enhance and expand the scope, territory, and variety of programs offered, and markets served. While the pilot work focused on testing energy efficiency services with industry, the statewide industrial business programs, in contrast, have been action-oriented, focusing on getting energy efficient projects and practices in place with industry and its suppliers

The industrial sector of the Wisconsin Business Program is budgeted to deliver over $18 million of energy efficient services, support, and incentives over a 3-year period. Three industrial programs are offered: 1) General Industrial services, 2) Water and Wastewater facilities, and 3) Industries of the Future. The primary missions of the programs are to deliver near-term resource acquisition while encouraging market

transformation for energy efficiency. In particular, the program services include on-site opportunity identification, actions planning, project facilitation, support to program allies, and financial mechanisms to provide for early identification and implementation of energy efficiency improvements, which is one of the primary goals in Wisconsin's programs.

In the first year, the industrial sector programs mobilized over 50 people across six organizations to deliver over $7 million of services and support back to Wisconsin ratepayers. The General Industrial and Water and Wastewater Programs were focused on developing near-term resource acquisition, while the Industries of the Future Program focused on addressing long-term advancements with the intent of bringing market transformation to key industries. The programs delivered energy efficiency to the market through a host of methods including on-site technical assistance, financial incentives, specialized training including building operator certification, Best Practices and Compressed Air Challenge, special strategic partnerships with providers of energy-efficient products and services, and coordination with affiliated programs that also serve the market

Key Program Missions

The business programs of Focus on Energy in the industrial sector aim to help participants adopt the energy management process whereby the industrial end-user adopts an action plan leading to the implementation of energy efficiency improvements. Based on overcoming market barriers, the Wisconsin Focus on Energy approach expands upon this through developing relationships between the industrial partners, trade allies, and other support programs. The programs are designed to provide participants with technical assistance for improving those internal processes that will enable them to implement energy efficiency projects as an ongoing activity. The programs were also designed to foster relationships between trade allies and participants to build a market infrastructure that is able to carry energy efficiency projects forward and result in the marketing of new projects. Further enhancements also include marketing, education, and training support. It is noted that participation in the program is voluntary; the program design is based on the theme that energy efficiency is a profitable business practice.

DESCRIPTION OF INDUSTRIAL PROGRAMS AND STRATEGIES

Three programs are offered to the industrial market.

1. The General Industrial Program serves all types and sizes of industries across Wisconsin with technical, financial, and educational assistance to advance energy efficiency practices and projects.

2. The Water and Wastewater Program serves water utilities and municipal and industrial wastewater treatment facilities. This program delivers similar services as the General Industrial Program, but with a focus on this specific market sector.

3. The Industries of The Future Program serves eight specific industrial sectors with services and financial support to advance innovative technologies and practices. The program has a long-term perspective to effect change in industrial practices and the related market.

Each of these programs employs strategies that are targeted to overcoming market barriers; specific program activities, offerings, and components are designed to influence specific market barriers. The following provides a more detailed description of each of the Focus on Energy Business Programs for the industrial sector.

GENERAL INDUSTRIAL PROGRAM

Program Description

The key goal of the general industrial program is to promote the adoption of energy efficiency measures and practices by end-users by changing energy using behaviors both short-term and long-term. In the short-term, the program seeks to achieve specific energy savings, environmental improvement, and economic development goals as a direct result of the energy savings projects implemented. Over the long term, the program hopes to cultivate an energy saving ethic in industrial end-users, leading them to institute energy saving practices and procedures in their facilities. The program also seeks to transform the equipment stocking and sales practices of equipment suppliers and distributors,

leading them to actively promote energy efficient measures to their customers. This program has a broad orientation and is offered to all industries throughout Wisconsin.

To further educate and transform end users, the General Industrial Program offers a wide array of tools and services. The program offers a wide array of educational courses, industrial sector "Best (energy use) Practices" technical information, and end-user services (including energy audits and analyses) to address end users' extensive and varied technical information needs. Importantly, to meet their financial requirements and improve the economics of proposed energy efficiency projects, the program provides many different types of financial assistance. For larger industries, the program also works with senior managers of corporations in year two, educating them on how their current energy management practices compare with those of their peers in the industry and providing them with specific strategies they can implement to improve.

The program also works with organizations on the supply side, seeking to change their attitudes towards stocking and selling energy efficient equipment. In large part, this is accomplished by increasing demand for energy efficiency measures (through interventions offered on the demand side). However, the program also works directly with trade allies to develop specific action plans geared toward their organizations that will shift their focus toward promotion of energy efficient measures.

The program delivers services and support to the industrial sector by the following:

Provide planning assistance

- Develop action plans for end users and strategic business action plans for trade ally partners to increase their adoption of energy-efficiency practices and sale and promotion of energy efficient products or services, respectively.
- Foster partnerships and collaborations.
- Establish partnerships with trade ally partners and key allied program organizations that can assist with program delivery.
- Provide technical assistance.

- Provide technical support to industrial partners, including energy efficiency opportunity identification, technical and financial analysis of recommended measures, and development of energy management action plans to facilitate with implementation of recommended measures.
- Provide education and training to partners, trade allies, and key organizations.
- Educate end-users and trade allies regarding energy-efficiency.

Provide financial support

- Provide various types of financial incentives to assist with reduction of project costs and reduction of project paybacks to levels competitive with other investment opportunities available to partners. Provide a source of project financing for those partners that need it.

Achieve savings goals

- Implement energy efficiency improvements that achieve the specified energy savings and market effects goals.

Key Barriers and Strategies for Overcoming Them

The General Industrial Program has strategies that are targeted to specific markets and their barriers as follows:

- *Small industrial*: One of the key barriers in this sector is a lack of infrastructure to reach and impact the efficiency of this market; providers of products and services are not highly proactive in promoting energy efficiency. The strategy is to increase the ability of the program allies to deliver information and products to this market. Part of this strategy includes increasing the demand for efficiency by providing a self assessment tool to the end users. Prescribed incentives for appropriate technologies can make it easy for the end user and the allies to understand the grants available. Allied organizations such as the technical colleges and libraries also play a key role in reaching this market for the program.

- *Medium industrial*: The key barriers for this market segment where the program can have the greatest impact are: the lack of knowl-

edge about opportunities and the lack of performance knowledge about their level of efficiency. The strategy to overcome both the knowledge of opportunities and to show a basic level of efficiency performance uses the Best Practices CD. This technical resource provides a framework to guide the user on implementing best practices for a series of common energy systems (compressed air, refrigeration, etc.) found in industries. For each system there are up to ten standard steps to insure the system is as efficient as economically possible or the "best practices."

- *Large industrial*: The key barrier for this segment is the commitment of the upper management to more effectively manage their energy use. One of the key factors preventing "buy-in" to this practice is the lack of knowledge on the relative performance of their facilities. The first need to develop the commitment from upper management is to get their attention; there are many different approaches, including using high level executives in the utilities, marketing group or branches of government. The program delivers a management approach that keys in on organizational interaction, accountability, and continuous improvement that will fit with many of their quality improvement and cost reduction strategies. Using leaders in the industrial community, demonstration of the cost effectiveness of investing in energy management strategies can be promoted.

- *Program allies*: One of the greatest barriers for program allies to promote energy efficiency is the use of first cost as the primary determinant in a customer's purchase decision. The program provides support through fact sheets and training to assist the allies to overcome this resistance and provide a niche of selling long-term life cycle costs. Part of the effort is to connect with program allies to gain knowledge on what new projects are being considered by companies to help them influence ongoing facility expansions or improvements.

- *Allied organizations and utilities*: A big barrier for connecting and using allied organizations is their competing priorities. They are usually very limited in time to give to any issue beyond their direct mission. The program coordinates with them to add enough value for their constituents.

WATER AND WASTEWATER PROGRAM

Program Description

The Water and Wastewater Program is designed to promote the adoption of energy efficiency measures and practices by Wisconsin's water and wastewater facilities. This program offers many of the same types of interventions as the General Industrial Program; however, they are tailored specifically to meet the unique needs of water/wastewater industrial and municipal facilities. This sector is unique in other ways, many of which should enhance the success of this program.

Municipal water/wastewater districts are semi-autonomous from other parts of government operations, which facilitates the energy efficiency decision-making process in general.

The sector itself is highly networked, making it relatively easy to "spread the word" about successful and cost effective energy efficiency measures.

Many recommended energy savings measures are highly replicable across the entire sector, which streamlines the measure identification and analysis process for the sector as a whole.

The program promotes energy efficiency for several sub-markets within the water and wastewater sector.

The Water/Wastewater Program serves:

- Municipal water treatment facilities;
- Surface water facilities;
- Well water facilities;
- Municipal wastewater treatment facilities;
- Industrial wastewater treatment operations; and
- Water and wastewater design contractors, product suppliers, and service companies.

To further educate and transform end users, the Water/Wastewater Program offers a wide array of tools and services. The program provides in-plant and formal training opportunities, sector-specific "Best (energy use) Practices" technical information, and end-user services (including energy audits and analyses) to address end users' extensive and varied technical information needs. Importantly, the program provides many different types of financial assistance to meet their financial require-

ments and improve the economics of proposed energy efficiency projects.

Key Barriers and Strategies for Overcoming Them

The Water and Wastewater Program addresses the following barriers and strategies to program implementation and market transformation.

For the Water and Wastewater facilities:

- **Barrier**: Lack of initial labor resources to identify and prioritize energy efficiency opportunities. **Strategy**: Establish a "partnership" with key management and operators. Provide on-site assistance identifying energy efficiency opportunities and addressing barriers to their implementation. Provide facilitation to advance energy efficiency projects towards implementation in consort with the partner through the action plan process.

- **Barrier**: Energy costs are not a priority, and/or they are the responsibility of others. Energy efficiency is seen as a one-time action where prior audits, retrofits, or actions are perceived as completing projects rather than as an ongoing practice. **Strategy**: Encourage the adoption of energy efficiency practices as part of the regular business in the organization. Gain top management buy-in to energy efficiency practices by establishing a partnership agreement and action plan. Advance knowledge of energy efficiency technical options and energy management practices via in-plant and formal training.

- **Barrier**: Lack of, or competition for, capital. **Strategy**: Encourage energy efficiency project advancement and implementation through financial assistance. Offer custom and expanded financial incentives, such as project implementation grants, feasibility assessment grants, leasing options, etc.

- **Barrier**: Small-to-medium facilities: Market is difficult to reach cost-effectively for other energy efficiency market actors. **Strategy**: Use existing industry associations to deliver energy efficiency knowledge through their existing support services. Establish a systematic and standardized approach to get information and tools to this dispersed market.

- **Barrier**: Small-to-medium facilities: Limited knowledge of energy efficiency options and energy efficiency best practices. **Strategy**: Use simple self-help tools, education, and training to enable the small facilities to independently assess their energy opportunities and to advance energy efficiency project implementation and practices.

- **Barrier**: Emergency repair responses dominate many equipment purchase decisions. **Strategy**: Encourage water/wastewater facility end users to request suppliers to offer and stock typical energy efficient equipment.

For trade allies:

- **Barrier**: Lack of sales processes to educate the water/wastewater market regarding the benefits of energy efficiency. **Strategy**: Provide energy efficiency sales support specifically for program allies with key technologies for the water/wastewater markets, e.g., fine bubble aeration, biogas, adjustable speed drives, etc. Provide allies with a strategic business action plan to increase long-term sales and identify ways to provide program services

- **Barrier**: Competition with other investments (low first-cost bid mentality). **Strategy**: Provide program ally with training, tools, and support to explain the benefits of life-cycle analysis to overcome first cost barriers.

- **Barrier**: Lack of program ally promotion of technologies specifically beneficial to water/wastewater facilities. **Strategy**: Provide key technology financial incentives to encourage allies to promote energy efficiency technologies. Identify opportunities for program ally technology applications via partnership agreement and strategic business action plan.

For related organizations and allied programs

- **Barrier**: Lack of knowledge regarding how energy efficiency affects non-partners (i.e., those with no specific connection to the Focus on Energy Program). **Strategy**: Develop and implement an energy efficiency training curriculum for the water/wastewater operators training certification program. Develop design guidelines and

implement an energy efficiency review service for water/wastewater facilities in cooperation with the DNR. Implement energy efficiency training activities in conjunction with established allied program events.

INDUSTRIES OF THE FUTURE PROGRAM

Program Description

The Industries of the Future (IOF) Program seeks to further the goal of energy efficiency adoption in the most energy-intensive industry categories through a strategy that involves commercialization of new industry specific technologies that solve energy related needs and other challenges facing these industries in the future. The IOF program uses a multi-faceted strategy to identify and develop these new technologies as described below.

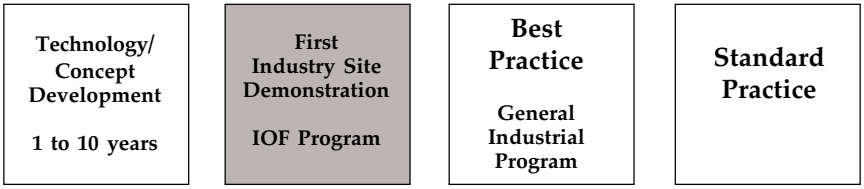
The Industries of the Future Program targets the following industries:

- Forest Products
- Metal Casting
- Food Processing
- Biotechnology
- Printing
- Chemicals
- Glass
- Water and Wastewater

The IOF Program takes a long-term perspective in facilitating the adoption of new technologies and practices in Wisconsin industry. In this respect, its goals and approaches are primarily oriented on market transformation effects. Exhibit B illustrates the development sequence. Here, a technology or concept is to be developed over a longer-term period ranging from 1 to 10 years. The IOF Program's role is to advance promising technologies toward industry acceptances through demonstration by supporting first applications. Over time, the new technology is adopted as a best practices; this is similar to the service that the General Industrial Program is intended to deliver. After widespread adoption, the technology becomes standard practice, effecting change in the market.

The IOF Program has several activities. First, a series of industry roundtables are held with key stakeholders in each industry. Stakeholders include end users, equipment suppliers, and technology developers. The purposes of these roundtables are to:

Exhibit B—Sequence of New Technology Adoption to Industrial Market



- Identify and discuss key issues and challenges facing the industry during the next several years;
- Identify and describe industry needs in detail with respect to the following areas: manufacturing process; materials technology; environmental, regulatory and technical; energy reliability; and products and market needs. As part of this process, identify new technologies that can be developed to address these needs;
- Specify a set of actions that can be taken to address these needs;
- Form action teams to address priority needs;
- Develop an industry road map from the above. This road map is a written report that documents the roundtable discussions and thus contains detailed information on industry-specific issues, needs, new technologies, and action teams/plans. The road map also includes a resource directory containing information on funding sources, possible sponsor organizations for new technology RD&D;
- Generate leads for new technology demonstration (pilot) projects with information gleaned from the roundtable/road mapping process. The pilot projects are designed to directly address the needs identified within the industry road maps. These projects involve demonstration of new energy efficient technologies that are highly replicable to the sector as a whole. The program seeks to develop a small number of pilot projects each year.

Expanding upon the roundtable consensus buildings, the program also uses process experts for industrial site visits to identify needs and convey information on new technologies. If promising projects are iden-

tified, they are referred to the action teams for subsequent follow-up. In addition, the IOF Program provides progress grants to support demonstrations to overcome the risk of an industry adopting a new technology.

Key Barriers and Strategies for Overcoming Them

The Industries of the Future Program addresses the following barriers with strategies for program implementation and market transformation. The primary focus is on achieving long-term improvement in key industries in Wisconsin.

- **Barrier**: Inadequate communication between industry and technology developers regarding industry needs and potential technology solutions. **Strategy**: Increase the quantity and quality of communication regarding new technologies between industry and technology developers through events, project action teams, and information products.

- **Barrier**: Real and perceived risks of adopting new technologies that could fail to work as anticipated. **Strategy**: Identify and overcome specific concerns raised by industry through technology evaluation services. Ease the technology adoption process for industry through facilitation by third-party enablers.

- **Barrier**: Competition with other capital investments. **Strategy**: Assist management decision-making by supporting economic evaluation studies that quantify all benefits of adopting new technologies and the risks of not adopting new technologies.

- **Barrier**: Numerous and complex issues to address when adopting a new technology. **Strategy**: Ease the technology adoption process for industry through facilitation by third-party enablers.

- **Barrier**: Inadequate support and funding throughout the technology development process. **Strategy**: Target support to new technologies with high market potential using an industry needs driven selection process.

- **Barrier**: Difficulty of obtaining production trials to refine new technologies for industrial use. **Strategy**: Overcome industry resistance to production trials by providing third-party facilitation, technology evaluation, and funding to support production trials.

- **Barrier**: No single technology transfer enabler provides all of the competencies required for successful technology commercialization (soliciting funding, patents, licensing, marketing, sales, business creation, and administration, joint ventures, etc.). **Strategy**: Provide key competencies for commercialization through facilitation by third-party enablers.
- **Barrier**: Limited resources (staff time and money) to support new technology development. **Strategy**: Focus resources on new technologies with high potential using an industry needs-driven process for prioritizing and selecting opportunities to pursue.
- **Barrier**: Difficulty of assessing the technical and market viability of proposed new technologies. **Strategy**: Assist technology transfer enablers in assessing new technologies by providing technical and financial support for technology evaluation.

LESSONS AND EXPERIENCES

Experiences and lessons from working with Wisconsin industry and its suppliers in an action-oriented approach to implement energy efficient projects and practices provide insight to the decision-making and approaches that affect energy efficiency adoption.

Serving the Needs of Trade/Program Allies.

Providers of products and services are part of the program market transformation and resource acquisition delivery mechanisms in the Wisconsin Focus on Energy programs. One of the original program strategies was to involve trade allies in promoting the program. A cross program function was established to gather and organize information of providers of energy-related products and services for the whole of the business programs. This function registered and made available a listing of firms who were program allies with the intent that this could be used as a resource for end users to find providers.

However, in the early stages of the industrial programs, it became apparent that there were a few major providers who were key industrial market players for whom the basic program ally program services were not of interest. One of the overarching impediments to the development of an active trade ally involvement was whether the trade allies could

use the program to support their development and sales needs, or whether the program would bring partners to them as potential customers. It was found that while many trade allies could see the benefits of the Focus on Energy Program to support their products and services, they were far too busy to undertake any special sales or development to promote the program. Also, at the early stages of the Focus on Energy Program, trade allies were a bit hesitant to fully subscribe without knowing if there would be any return through increase business opportunities with participating industries.

Working with the program representatives and the program allies, the industrial programs developed enhanced approaches to this part of the market. The action plan approach that was successfully being used with the end-use customers was adapted to the program allies; a strategic business action plan is now used to develop specific strategies for the program ally's participation and coordination in the industrial programs. Here, essentially a series of specific activities are agreed upon where the program and the trade ally can work together. The business action plan specifies tasks, steps, responsibilities and schedules so that the trade ally is provided a specific set of progressive actions. Oftentimes, the business action plan is oriented to tasks that support the ultimate sale and delivery of an energy efficient product for service by the program ally. This approach has proved highly successful in creating specific opportunities for the program and its allies to deliver energy efficiency products and related services to the end-market customer.

As an example of how this approach has been used, the Focus on Energy Program began assisting with a major industrial compressed air supply and service company. As part of the strategic business action plan, detailed tasks were defined and implemented to approach selected industrial customers about energy efficient approaches with the focus program representative working in consort with the program ally. The value that the Focus on Energy Program brought to the transaction was to provide an independent assessment of the validity of the energy savings opportunities. At the same time, Focus on Energy was undertaking training for compressed air system fundamentals; however, the initial sign-up activity was slow to develop. To increase the sign-up for attendance, discounted fees were put in place and offered to industrial customers through the program ally's relationships. This situation created opportunity for both focus and the program ally whereby more industrial staff attended the training, and at the same time the program ally

received recognition for bringing the training opportunity to the industrial company.

Action-Oriented Education and Training

The industrial program coordinated several technical and informational training programs including:

- Making Sense of Energy and Environmental Programs
- Compressed Air Fundamentals
- Advanced Compressed Air
- Steam Challenge

Free tuition to many training sessions was offered as an incentive for new partners to join the program and as a reward for existing partners.

At the mid-point of the first year, however, feedback on the early education and training events, while positive, did not appear to be causing any noticeable change in the participants' energy efficiency practices. Furthermore, resource acquisition missions in the programs were becoming amplified in response to the client and market requests. In response to these customer considerations, the industrial programs undertook a re-evaluation and a re-direction in the approach and techniques for educational and training programs in early 2002.

The education and training programs were modified to include a more action-oriented approach. Elements were added to the instructional approach to include the development of in-class action plans for each participant. The programs, implemented through the Energy Center of Wisconsin, have added adult learning techniques, "hands-on" training with take-home, action-oriented tools. For example, a building operator attending compressed air training would take home an action plan of things to do in his facility to improve compressed air systems. As a result, the trainees get to apply what they learned.

Additionally, more technical sessions (as opposed to general information programs) are planned for future education programs to respond to the desire of participants to expand specific energy related skills. Also, as noted above, these can be integrated with the coordination activities for program allies who have products and service related to the technical training.

This approach has changed how the programs are reaching some of the industrial market. Often now, new participants are coming to the

programs for further support as an outcome of the education and training programs. Also, these participants appear to be more advanced or at least interested in energy efficiency from the beginning of their program involvement.

Coordination Across Industrial Programs

Because the industrial programs had the possibility of reaching some of the same customers, efforts were required to be coordinated across the programs. For example, the General Industry Program could approach industries that were part of the Industries of the Future Program key industrial sectors, or wastewater facilities could be in industrial plants requiring interface coordination with the Water and Wastewater Programs.

Therefore, coordination between the three industrial programs was needed so that the services and approaches of the programs were an integrated approach to the market. In simple terms, the customer should "see" the Focus on Energy Programs as a single entity, and gain access to all available programs through a single contract.

The services and approaches for the programs were designed to be inter-related and coordinated, but additional enhancements were made to streamline these processes. Program representatives were cross-trained to provide access to the services of both programs. The improved program process gave the customer a single point of program contact to both programs and established a consistent message.

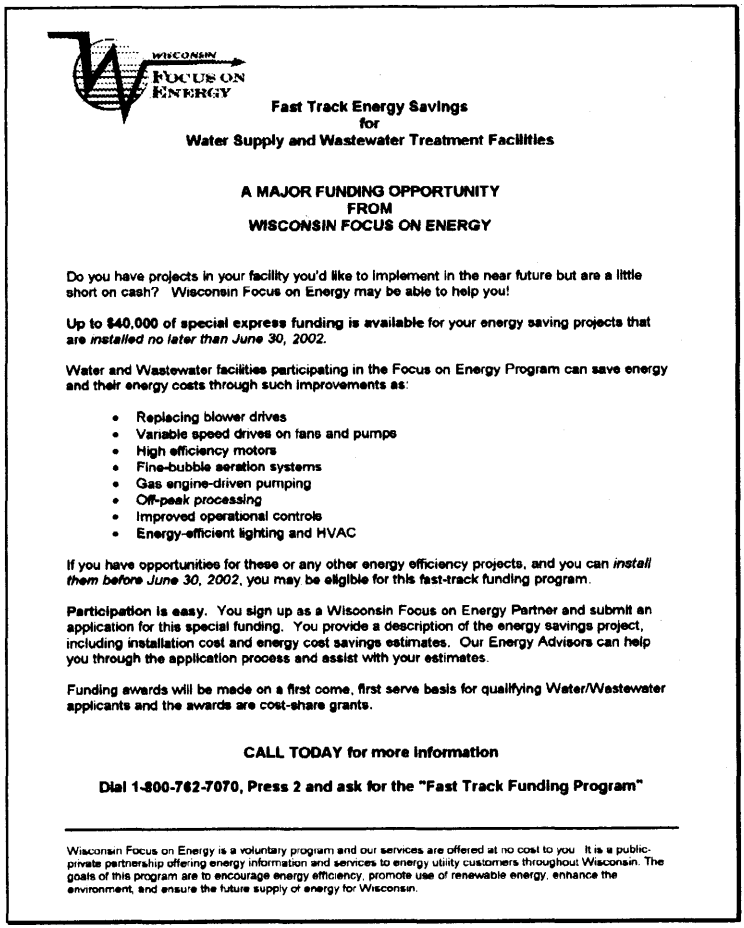
Responding to Extensive Demand for Program Services

After the initial start-up months, the Water and Wastewater Program began to have a tremendous amount of requests for services; however, the program resources were at the same time beginning to become committed. To respond to this potentially overwhelming program demand, a "fast track" project application and approval process was designed and put in place. This allowed customers to, in effect, self-initiate their program participation with only limited assistance, typically over the phone, from the program representatives. After a simple automatic FAX announcement (see Exhibit A) of this program option, over 50 customer inquiries were received through the fast track process.

This fast track approach also captured energy efficiency projects that would otherwise not have been supported by Focus on Energy. For example, a small rural water utility called Focus on Energy on a Friday

afternoon, after receiving the fast track announcement the previous day. They had just had a well pump motor burn out and were about to rewind the motor to repair it. They wondered if the Focus on Energy Program would be able to help support the purchase of a new premium efficiency motor, rather than repairing the old motor. They needed to make a decision by Monday morning because the town water supply was operating without this pump being available. Working with the town's motor supplier, Focus on Energy performed a quick assessment of savings and was able to offer a partial incentive for the premium efficiency motor. Armed with the energy savings and the partial finan-

Exhibit A—Fax Announcement



WISCONSIN FOCUS ON ENERGY

Fast Track Energy Savings
for
Water Supply and Wastewater Treatment Facilities

A MAJOR FUNDING OPPORTUNITY
FROM
WISCONSIN FOCUS ON ENERGY

Do you have projects in your facility you'd like to implement in the near future but are a little short on cash? Wisconsin Focus on Energy may be able to help you!

Up to $40,000 of special express funding is available for your energy saving projects that are *installed no later than June 30, 2002.*

Water and Wastewater facilities participating in the Focus on Energy Program can save energy and their energy costs through such improvements as:

- Replacing blower drives
- Variable speed drives on fans and pumps
- High efficiency motors
- Fine-bubble aeration systems
- Gas engine-driven pumping
- Off-peak processing
- Improved operational controls
- Energy-efficient lighting and HVAC

If you have opportunities for these or any other energy efficiency projects, and you can *install them before June 30, 2002*, you may be eligible for this fast-track funding program.

Participation is easy. You sign up as a Wisconsin Focus on Energy Partner and submit an application for this special funding. You provide a description of the energy savings project, including installation cost and energy cost savings estimates. Our Energy Advisors can help you through the application process and assist with your estimates.

Funding awards will be made on a first come, first serve basis for qualifying Water/Wastewater applicants and the awards are cost-share grants.

CALL TODAY for more information

Dial 1-800-762-7070, Press 2 and ask for the "Fast Track Funding Program"

Wisconsin Focus on Energy is a voluntary program and our services are offered at no cost to you. It is a public-private partnership offering energy information and services to energy utility customers throughout Wisconsin. The goals of this program are to encourage energy efficiency, promote use of renewable energy, enhance the environment, and ensure the future supply of energy for Wisconsin.

cial incentive, on Monday morning the water plant operators were able to convince the town manager to commit the extra monies needed for the premium efficiency motor.

Throughout its operation, recruiting for the Water and Wastewater Program has only been through word of mouth; no significant recruiting or marketing campaigns have been needed to exceed participating goals. One good example how the work is spreading in this close-knit community is that the program has served every wastewater plant in Door County, Wisconsin. This occurred because the first participant proceeded to tell others in his county about the program, and his success with it, and advised them to become partners in the program.

Unexpected Opportunities

In some cases there were unexpected results. For example, under the General Industrial Program, a large paper manufacturer was approached for participation in the program. However, the company was in the process of being sold, and as such, the management, while fully understanding the benefits, was unwilling to participate in the Focus on Energy Program. After several meetings with the plant manager and engineering manager, no progress was made.

After many months of inactivity and little communication, the General Industrial Program received a phone call requesting that the program representative come to the site to work with an assessment team. It turned out that the new owner had initiated a "top-to-bottom" review of the plant processes, and when asked how energy would be considered in this review, the plant and engineering managers noted that they would use the Focus on Energy Program support.

As a result, the Focus on Energy representative became part of the engineering team in the plant review. While working with the company team, the representative put in place methods for assessment of energy, and he provided energy assessment training to others on the team. The end result was to embed energy efficiency considerations into the detailed assessments that were being done by the company under its new ownership.

SUMMARY AND CONCLUSION

Over 400 industrial companies and municipal water/wastewater facilities have participated in these energy efficiency services, putting

implemented projects in place. These partners and allies have used the program to support project development, in-plant assessments, facility energy management planning, staff training, specialty process enhancements, and advanced technology assessment and demonstration, all to act upon energy efficiency opportunities to improve plant operation costs.

Furthermore, these over 400 industrial and municipal partners are building a foundation of future energy efficiency savings, with over $2 million in financial incentives leveraged to commit over 150 energy projects, with savings commitments of over 70 million kWhs, 10 MWs and 3 million therms of savings.

These industrial programs experienced many diverging and interesting results from early successes to missed opportunities, to surprise interests. The lessons of these experiences have been incorporated into the many program services and offerings including in-plant technical support, targeted financial incentives, specialized marketing, and advanced technology support to better service Wisconsin's industries.

The challenges and experiences in the Wisconsin industrial programs serve as a valuable guide to the design, development, and implementation of energy efficiency in industrial organizations, facilities, and processes.

ABOUT THE AUTHORS

Terry R. Pease is currently a contract manager for the Wisconsin Department of Administration Public Benefits programs. Terry became involved in the energy field working as a natural gas salesman and account representative for a major utility. Prior to that, he owned and operated an insurance agency where he developed a love for sales and customer service. He serves on several committees involved with water and wastewater treatment, public school facilities, and commercial new construction. His goal as a contract manager is to return environmental, economic, and energy related value to the ratepayers of Wisconsin.

John Nicol, program manager at SAIC, has more than 18 years experience in energy engineering and project management. For the past three years he has been the industrial program manager for the Focus on Energy Program in Wisconsin. His experience includes energy analyses for new construction and the retrofit of industrial and commercial facili-

ties, case studies for ground-coupled heat pump systems, and evaluation of opportunities in new facilities and industrial processes. He is a licensed Professional Engineer in the State of Wisconsin.

Thomas Giffin, program director at SAIC, has over 25 years experience in energy engineering for residential, commercial, institutional, and industrial facilities, specializing in the design, application, and research of energy-efficient technologies and practices. For the last three years he has been the industrial sector manager for the Focus on Energy Program in Wisconsin. He holds a professional degree for Bachelor of architectural engineering specialized in energy systems and processes, and he is a licensed Professional Engineer in the State of New York.

Jolene Anderson Sheil has been with the Department of Administration for ten years and is the business programs section chief in the Division of Energy. She currently oversees the statewide Focus on Energy Business Programs. For the last three years she has also managed commercial and industrial programs under the Focus on Energy pilot program in northeastern Wisconsin. Prior to that she served as the environmental analyst and the industrial energy analyst in the Division of Energy. Jolene has a Master's Degree in political science from the University of Wisconsin-Madison, and a B.A. degree in public and environmental administration from the University of Wisconsin-Green Bay.

Preston Schutt manages energy-related programs for industry, agriculture and new product development & commercialization at the Wisconsin Department of Administration's Division of Energy, which is the state energy office, located in Madison, WI. Most of the programs are part of Focus on Energy, Wisconsin's statewide energy efficiency and renewable energy program. He also works with the U.S. DOE to deliver programs involving industrial energy efficiency and CHP in Wisconsin. Preston has worked at the Division of Energy for 4 years and previously was an energy resource planner and project finance analyst for Xcel Energy and NRG Energy in Eau Claire and Minneapolis, respectively. Prior to entering the energy industry, he was a water resource planner and vocational agriculture instructor. He holds an MS in resource economics and a BS in agricultural education, both from North Dakota State University, Fargo, ND.