



NATIONAL ASSOCIATION OF
ELECTRICAL DISTRIBUTORS

Smart Tools for Smart Distribution®

Going Green Outside:

Selling Energy Management Solutions

Case Studies

Overview

Electrical distributors are uniquely positioned to expand their businesses by becoming providers of energy management solutions.

Distributors have strong relationships with contractors and end-users, as well as experience with energy efficient electrical products and systems. Distributors also have a well-developed understanding of their customers' buildings and facilities, along with knowledge about how to make these facilities more energy efficient.

Distributors should consider partnering with utilities, state energy programs, and Energy Service Companies to expand their reach in the energy management market.

This case study will explore partnering opportunities with:

- Utilities as they grow the smart grid and install advanced metering systems
- State Energy Programs (SEPs) as they expand with millions in government funds
- Energy Service Companies (ESCOs), which represent the largest players in the energy management market

Utility and ESCO Partnerships

Case Analysis

With energy price volatility, global warming concerns, and national security considerations, energy management and energy efficiency in the built environment are growing in prominence. How can distributors grow their share of energy management projects?

Businesses seeking to reduce their energy consumption go to their utilities and state energy programs for help. If distributors partner with utilities and state energy programs, they can become seen as the "go-to" source for energy management solutions. In addition, partnering with Energy Service Companies (ESCOs) can further expand a distributor's sales; ESCOs can offer performance contracts and financing options to large institutional customers. As a result, ESCO partnerships can offer distributors larger sales and higher margins on those sales.

Utilities

Metering Improvements

The Energy Policy Act (EPAAct) of 2005 required utility regulatory authorities and non-regulated utilities to investigate the feasibility of offering time-based meters and communications devices to facilitate peak-period pricing and net-metering solutions for distributed power generation.

Peak-period pricing helps utilities create more consistent demand because consumers will shift demand to off-peak periods when the rates are lower. Rates are higher during peak periods because "peaker" plants, brought online only during peak demand periods, are more expensive to run.

NET METERING:

The process enabling small renewable energy facilities to sell excess power back to the grid whenever their production exceeds demand

PEAK-PERIOD PRICING:

Higher electricity rates during peak demand periods

Advanced Metering Infrastructure (AMI)

Time-based meters and metering communications are often referred to as Advanced Metering Infrastructure (AMI). Smart meters, a key component of developing an AMI, are digital meters capable of communicating energy use information between utilities and consumers. This two-way communication allows utilities and energy users to access energy use information in real time.

Smart meters provide consumers with a simple way to respond to price signals and save energy and money. For instance, smart meters can feed real-time information on energy use and electricity rates to a secure website.

People can't manage what they don't measure. For this reason, utilities and large energy consumers are working diligently to expand the AMI. They are partnering with electrical distributors and manufacturers to purchase and install advanced meters capable of communicating consumption and pricing information across the grid.

Todd Ferrell, Manager of the Utility Division at Shealy Electrical Wholesalers, described his company's partnership with utilities in South Carolina, North Carolina, and

Georgia.¹ He said, "We work with rural electric co-ops and municipal electric utilities. Their customers often approach them seeking to reduce their energy bills. We help the utilities and their end-use customers obtain load profile and see their energy use using Itron meters. Typically these meters aren't wireless; they use a pulse output. We want to be the resource that utilities send their customers to for help."

E-Mon, an industry leader in submetering, has worked through electrical distribution to provide end-users with advanced electrical meters and software for tenant billing, cost-allocation, energy management and green initiatives (LEED certification, EPCACT 2005 compliance, renewable energy projects, demand response, and smart grid initiatives). E-Mon also supported distributors to implement energy conservation programs for utility customers; these include thermostat set-back programs and measurement and verification programs to identify areas of facility waste in areas like lighting and HVAC.

"We want to be the resource that utilities send their customers to for help."

—Todd Ferrell
Shealy Electrical Wholesalers

E-Mon President Donald Millstein noted that smart-metering can lead to additional electrical product sales. "Once we document wasteful areas, end-users can budget spending on energy conservation equipment. Then they look to their distributor to recommend products such as occupancy sensors and energy efficient lighting. Distributors can help end-users with rebates available from the utilities to lower the overall cost of the project. Once the equipment is installed, end-users can measure and validate the savings with the metering system to procure future budgets for these programs."

Recently, E-Mon worked with utilities like Southern California Edison in California, PECO in Pennsylvania, and AMEREN in Missouri to purchase meters through distribution for LEED projects within their own facilities. These utilities installed meters to obtain points for LEED certification as part of the Energy & Atmosphere section for measurement and verification.

Millstein continued, "Distributors are in the perfect situation to act as the conduit between end-users and utilities for various energy conservation and green projects. Distributors sell the technology and utilities have the access to customers. Metering is the critical piece to successful projects. You can't manage what you don't measure, and metering helps the customer measure their costs and savings."

Smart Grid

The expanded use of smart meters, an essential component of AMI, will help bring about the "smart grid," a concept so promising that President Obama has made it an integral part of his proposed energy program.³ The smart grid will come about through a series of technological improvements to the existing grid, like smart meters, that take advantage of communications over the Internet, the expanded use of open-source standards, and wireless technologies.⁴

Did you know?

The American Recovery and Reinvestment Act (ARRA) allocated \$4.5 billion towards smart grid improvements, which will ultimately improve energy efficiency and the integration of distributed, renewable energy generation. This increased funding will provide a major opportunity for distributors to supply smart meters and related building controls to utilities and their end users.

State Energy Programs (SEPs)

Increased Funding

State Energy Offices or Programs (SEPs) were originally formed in response to the energy crises of the 1970s. Today, these offices focus on distributed renewable energy generation, building and appliance efficiency, and reducing the environmental impacts of energy consumption.⁵

SEP Funding through the American Recovery and Reinvestment Act (ARRA):

- >> Allotted \$3.1 billion to SEPs to boost the economy and create jobs through energy-saving projects
- >> Provided SEPs with the opportunity to also apply for up to \$336 million (12% of the \$2.8 billion total), through the ARRA's Energy Efficiency and Conservation Block Grants.

Connection to Customers

Businesses look to their utilities and SEPs for assistance with reducing their energy consumption. Partnering with these entities to provide energy services is a great way to obtain energy management projects.

Gregg Laber, President of Green Mountain Electric Supply, said, "When energy conservation got started in Vermont, it happened through the utilities. I helped them get their projects started by working on a 'menu' of efficient lighting options. I saw energy efficiency as a potential market right away. Then the state came in and consolidated the utility programs. It was easy to see that we need to be involved with the state's program, Efficiency Vermont, which is a non-profit organization under contract to the Vermont Public Service Board."

Laber continued, "Our staff has good relationships with state and utility program staffers. We talk to them all the time. These relationships are very important. We just bought a store in NY that we are in the process of getting certified with the New York State Energy Research and Development Authority (NYSERDA). I recommend that other distributors get involved with their state or utility energy efficiency programs."⁶

Energy Service Companies

A Growing Market

Energy Service Companies (ESCOs) represent the largest players in the energy management market, as they have long been recognized for their ability to provide energy efficiency and related services to end users with large and medium-sized facilities.

Numerous factors are driving the growth of ESCOs in the U.S., primarily the growing emphasis that federal, state, and municipal governments are placing on energy conservation and efficiency.

“*The ESCO industry showed 22% annual growth from 2004 to 2006.*”⁷

End users are also increasingly concerned about energy price volatility and the need to reduce greenhouse gas emissions.

With nearly one-third of typical office building operating costs being spent on energy, it's easy to see why investments in efficiency are highly regarded. Energy costs represent one of the few uncontrollable costs in building operations.⁸

Did you know?

A 2006 survey estimated ESCO industry revenues at approximately \$3.6 billion. This figure was divided into the following service categories:

- **Energy efficiency (\$2.5 billion or 73%)**
- **Renewable or on-site power generation (\$600 million or 16%)**
- **Consulting/master planning and other services (\$400 million or 11%)**

Partnering Opportunities

Partnering with ESCOs is a strategy employed by a growing number of distributors as they enter or expand their share of the energy management market.

In a 2009 survey, members of the National Association of Electrical Distributors (NAED) were asked if they have partnered with an ESCO to sell energy management solutions. Only 30% said yes, which shows that this strategy is relatively new among electrical distributors.⁹

Gerald Hagerman, recently retired as the Senior Sales Operations Manager at OSRAM SYLVANIA, said distributors can benefit from partnerships with ESCOs. “ESCOs are the biggest player

in the energy management market. The difference between ESCOs and distributors is that the ESCO calls on a different level of management. They take proposals and performance contracts to the Chief Financial Officer or board level. Distributor sales representatives typically go to the facility engineering purchasing level,” said Hagerman.¹⁰

“If distributors would partner with ESCOs, the distributor could bring their customer base and knowledge of what is in the end-users’ buildings, and then ESCOs could bring the whole solution directly to the CFOs,” he continued. “ESCOs can bring other building resources like HVAC and plumbing to these projects, which electrical distributors typically don’t handle. Distributors benefit by selling their products to ESCOs at their price. In addition, funding is available for performance contracts that ESCOs are better positioned to take advantage of, like federal Energy Savings Performance Contracts. So distributors also benefit by expanding their potential customer base.”

Greg Smith, Vice President of Sales Development at Granite City Electric (a leading distributor with 21 locations across New England), described his company’s ESCO partnership. “We partnered with an energy services company about 3 years ago. We turn projects over to them, and they buy the products they need from us,” said Smith. “Our partner does the full spectrum of energy services, such as retrofits and energy audits. Sometimes we make the sales calls with them, but most of the time we just hand it off to them.”

“The difference between ESCOs and distributors is that the ESCO calls on a different level of management.”

—Gerald Hagerman
Osram Sylvania

Smith continued, “Our energy services partner does the energy audit and determine the extent of the project. They give us the bill of materials, and we provide them with a quote. They are very successful on the percentage of sales they get for the projects they propose. It has been a very good relationship.”¹¹

Small- and medium-sized distributors tend to hesitate when it comes to large contractual purchasing agreements with public institutional customers, because they tend to be low bid and therefore low margin. The 2006 ESCO survey found that institutional facilities (universities, schools, hospitals, and federal, state, and municipal buildings) represent over 80% of ESCO customers. So ESCO partnerships could help distributors gain better access to these end users.

Some distributors tend to view ESCOs as a threat rather than a potential ally. Sharing customer information and targets with ESCOs may seem counter-intuitive; however, Hagerman provides this reasoning: “Distributors can be too protective of their customer relationships. If they open up to allies, where they bring the solution, then they will improve customer relations. Distributors need to protect their customer base in these volatile times by offering the best solutions for cost containment. Partnering with ESCOs can help bring the total solution, including financing options, to a higher management level where it is more likely to get approved.”¹²

In solution selling, distributors want to position themselves as the ultimate benefactors of the customer by providing the most cost-effective solutions, which may include partnerships with ESCOs.¹³

OVERCOMING FINANCIAL BARRIERS

- >> Initial costs and/or financing of energy management improvements are the largest barrier for end users, according to a 2009 survey of NAED members.¹⁴
- >> ESCO performance contracts are a way to overcome these barriers. ESCOs guarantee that energy products installed and services performed will generate specified energy savings over time. ESCOs design, construct, and obtain the necessary up-front funding for the energy savings project, and end users make payments for the project over time with a portion of the money saved on their utility bills. These payments represent the ESCO’s return on investment.

Higher Margins

Partnering with ESCOs can also bring about higher margins for distributors. Bruce Ryman, the National Sales Manager for ESCOs in OSRAM SYLVANIA's Industrial/Commercial Channel, develops lighting and energy projects between electrical distributors and ESCOs. He described how these deals create larger margins and more sales for distributors:¹⁵

“A distributor can sell value to an ESCO by bringing them project opportunities and nurturing leads. This often leads to higher margins for the distributor.”

—Bruce Ryman
Osram Sylvania

“A distributor can sell value to an ESCO by bringing them project opportunities and nurturing leads. This often leads to higher margins for the distributor, not to mention a lower cost of sale since the ESCO is supplying the engineering resources to develop the proposal,” Ryman said.

“The ESCOs that have been successful going to market with distributors recognize what motivates the distributors, or why they are willing to bring them leads,” Ryman continued. “If the ESCO has a sense that the distributor has more leads behind the first one, they will approach the distributor as they would a customer, finding ways to help the distributor succeed. They might place discretionary orders through that distributor or accept higher prices on equipment.”

For More Information

- >> See the ESCO section of [Findings in Brief: The Green Market: Trends, Breakthroughs & Business Opportunities](#) for more information on the federal Energy Savings Performance Contracts.
- >> Learn more about how ESCO partnerships can help distributors reach other customer segments by referring to the NAED's [Selling Energy Management Solutions case studies](#) on institutional and government end users.

Endnotes

- ¹ Personal interview with Todd Ferrell, January 16, 2009.
- ² Personal interview with Mitch Stein, January 12, 2009.
- ³ <http://greeninc.blogs.nytimes.com/2009/02/17/obama-signs-stimulus-packed-with-clean-energy-provisions/> accessed June 16, 2009.
- ⁴ “The Smart Grid: An Introduction”, U.S. Department of Energy, <http://www.oe.energy.gov/1165.htm> accessed March 26, 2009.
- ⁵ http://www.naseo.org/about/seo_role.htm accessed March 23, 2009.
- ⁶ Personal interview with Gregg Laber, February 16, 2009.
- ⁷ Hopper, Goldman, Gilligan, Singer, and Birr. “A Survey of the U.S. ESCO Industry: Market Growth and Development from 2000 to 2006.” Lawrence Berkeley National Laboratory and the National Association of Energy Service Companies, May 2007. Available at: <http://eedt.lbl.gov/ea/emp/reports/62679.pdf>
- ⁸ “A Survey of the U.S. ESCO Industry: Market Growth and Development from 2000 to 2006.” Op. Cit.
- ⁹ NAED Selling Energy Management Solutions Survey, administered between 12/29/2008 and 2/27/2009 by Yudelson Associates.
- ¹⁰ Personal interview with Gerald Hagerman, January 12, 2009.
- ¹¹ Personal interview with Greg Smith, January 21, 2009.
- ¹² Personal interview with Gerald Hagerman, January 12, 2009.
- ¹³ Michael Bosworth, “Solution Selling: Creating Buyers in Difficult Selling Markets”, 1994, McGraw-Hill.
- ¹⁴ NAED Selling Energy Management Solutions Survey, administered between 12/29/2008 and 2/27/2009 by Yudelson Associates.
- ¹⁵ Personal interview with Bruce Ryman, July 17, 2009.

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The findings, opinions, conclusions and recommendations provided herein are based on independent research, commissioned and funded by the NAED Education & Research Foundation, Inc. Information in this report should not be regarded as an endorsement or opinion of the Foundation or its parent organization, National Association of Electrical Distributors, Inc.

