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## Employee engagement, Six Sigma take center stage as DTE ramps up quality improvement “operating system”

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**Editor's note: This is Part Two of a two-part series which began in the July issue**

After an intense few years of developing and implementing the first phases of a “continuous improvement operating system” (see *Chartwell's Best Practices for Utilities & Energy Companies*, July 2005), by the end of 2003 the time had come for DTE Energy to drive the continuous improvement philosophy and the processes more deeply into the culture. Operating system leaders needed to introduce the tools and processes needed for such an undertaking to a wider audience.

In short, the continuous improvement operating system must be tied to every facet of the business and every employee so each individual thinks and runs his/her business according to operating system principles.

A key at this point was complementing the “lean process” with a working application of Six Sigma tools, which would provide the statistical discipline and project management structure needed. “The challenge was ... how do we go from where we were, which is people understanding what kaizens are (see *Best Practices*, July 2005), to this far more sophisticated set of tools that we expect the organization to be able to understand and use? And we also expect them to think very differently,” says Andy Carlino, senior partner of the Lean Learning Center, Novi, Mich., and president of Achievement Dynamics, Palm Beach Gardens, Fla.

DTE Energy learned that lean and Six Sigma principles are not mutually exclusive but work hand-in-hand. “Lean is the way you run your business, but if you don't have the statistics and you don't know what to do with those statistics ... you don't know whether you're running your business well or not,” Carlino stresses. DTE's new Operating System Strategy Group director Tom Witte has brought the two together into a single business system.

### Company profile

DTE Energy's largest operating subsidiaries are Detroit Edison, an investor-owned electric utility serving 2.1 million customers, and Michigan Consolidated Gas Co. (MichCon), a natural gas utility serving 1.2 million customers. DTE Energy has 11,000 employees in utility and non-utility subsidiaries involved in a wide range of energy-related businesses. The company's growth strategy is focused on continued excellence of its core utility businesses, the development of non-regulated, energy-related ventures, and investment in and development of emerging technologies.



## Data trends studied

However, before blending the two, DTE Energy had to move further into establishing Six Sigma as a discipline, following the company's success with lean organizational tools, primarily kaizen events. A GE executive who "eats, sleeps and drinks Six Sigma" came to DTE and became a member of the operating council. "He was able to show his peers what it really means to be an executive champion of this work," says Carlino. Having a seasoned senior level leader serving as an example for his peers was a critical factor in taking the next big leap. Operating system leaders started driving hard to get more resources into the system and to use them more effectively. With this injection of new energy, the momentum for enhancing continuous improvement was building.

As a result of the organization's moving deeper into Six Sigma and metrics, instead of attempting to meet basic objectives and achieve overall improvements, people working with the system began to track the metrics and study trends in the data, Witte says. The next step was applying statistics "to show the people what variation meant, and to try to drive that concept into the business. It wasn't good enough to try to talk about averages any longer; you needed to talk about the variation in your output," Witte adds.

## New concepts meet resistance

A period of resistance followed as people adjusted to the increased demands of the system and the Six Sigma methodology. It wasn't that they didn't want to do it, "they didn't know how to do it," Witte relates. They were nervous about the new terms and concepts. "He really drove them up the wall when he said he wanted hypothesis testing done on a quarterly basis. They had never even heard that term before." There was some confusion and lack of communication at first.

The statistical software in use is MiniTab, the standard tool used for Six Sigma calculations. Employees using the tool "have to learn how to put the inputs in, what the outputs mean and how to react to them. They don't have to know all the formulas," Witte adds, "but a few people in the company do need to know formulas."

Witte's proposition is to help usher in full engagement of the workforce. He has been discussing this goal with union representatives. "They want to partner with us in the use of this tool, which they see as an element to make the company stronger," he says. "It's better for the union to have a strong rather than a weak company. We see the benefit that engaged employees are certainly going to help our company get stronger."

With the introduction of so many process changes and new operating methods, the company requires the union's support. Company leaders have invited union members to participate in the system as subject matter experts. "We actually have five union members now who are full-time continuous improvement people. We want to build that substantially over the next year ... we're pushing for that ... to show that this isn't just a management initiative," Witte says.

Currently, it would be hard to find anyone in the company who isn't familiar with the concepts and terms associated with the operating system, and most employees have participated on some level in the continuous improvement process.

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## Demand for black belt training escalates

With the focus recently averted to Six Sigma, the time had come for Carlino's group to form a training module designed to drive people into this new way of thinking around problem-solving. Employees must be selected for acceptance into this expert or black belt training program. "Each vice president nominates people who they believe will be the appropriate people in their organization to take on these skills, and [gives these employees] the time to apply these skills on a full-time basis within their organization," says Shawn Patterson, former director of the DTE Energy Operating System Strategy Group and now director of regional service operations.

Patterson further describes the two major training tracks that will help the company achieve a high level of engagement: "One is our operating system black belt training – our expert training – which is very in-depth. The top people in the organization are the only ones that are going to get involved in this. They're going to be responsible full time for driving change in the organization, just as you would expect of a GE black belt, for example; it's that kind of a skill level."

Business unit executives make the selections based on demonstrated performance. The first prerequisite for selection is attitude, Patterson says. "That's number one. Are they change leaders? Have they demonstrated change leadership in the past? Are they the kind of people that you believe will lead an initiative to fruition? The next one is aptitude. Can they physically learn this? Do they have the intelligence to learn it, to pick it up and to be able to apply it?" Anyone with a talent for Six Sigma will be noticed by company leaders. "We have a pretty sophisticated tele-planning process here, where periodically right up to the top of the house, our CEO is sitting down with his leadership team and deciding who the future officers of the company are. That cascades all the way down to who the future directors are, who the future managers are and so on. Our CEO has literally said that in operations positions, unless you're a black belt in the DTE Energy operating system here in the next few years ... you won't become a senior leader in this organization. It becomes intertwined in the rewards and the promotion process," states Patterson.

The second training track is "our operating system specialist training, which is a six-day training session. It's more of an overview to create some awareness. People can be much better participants on projects when they have a better understanding of the tools. In addition, there's the opportunity to get involved in various things that go on, like kaizens and after-action reviews."

Only a small number of selected employees have participated in expert training, compared to 30% of the 10,500 employees who have received some kind of operating system training. At least 50% of the population has been actively involved in some aspect of continuous improvement, according to Witte.

An interesting phenomenon occurred when the operating system focus shifted to Six Sigma: It attracted widespread interest. "The nice thing about lean is that basically everybody can do it and to some extent most everybody can understand it. That's actually the power of it. You can quickly get people engaged," Witte relates. "But when you bring Six Sigma into it ... not everybody has the talent to be able to do it. So all of a sudden there was this strange thing that happened. Everybody wanted to learn about it ... because it was new and

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... [represented] a leg up on other people who maybe couldn't know it. We make it a prerequisite that they go through the lean teaching first, because we want them to get grounded in that," Witte says. Learning Six Sigma became almost a badge of honor.

One of the draws to Six Sigma is the certification employees can earn by successfully completing the training. Six Sigma certification is accepted worldwide.

### **Operating system delivers tangible results**

The kaizens and other initiatives have resulted in increasing hard and soft savings annually, up to the current level of \$150 million. Patterson is preparing a list of about 35 implemented projects to present to stockholders "so that people can see that this is very tangible. Without doing this, we would have been in trouble. There would have been a couple of tough years here because of deregulation in our industry. It's not just our business but it's all of the utility business, which has experienced a considerable drop in margins. Our margins would have been even less – considerably less – than they are today had we not implemented this system."


Throughout the process of developing and implementing the operating system, Patterson has been continually surprised to see how a combination of the right team, right thinking and right set of tools can achieve results that were beyond expectations.

"As an example, in my organization ... last year we were benchmarked as the worst company in outage restoration [on an industry survey]. Our performance had been degrading for about 10 years. We've had a team working on this ... and we split the project up into six or seven sub-projects. In the six months we've been working on it, our CAIDI (Customer Average Interruption Duration Index) ... has gone from 232 to about 160 through the first five months of the year. That's about a 33% improvement. We were going for a 10% improvement."

This is not an isolated incident. It is the result of using the lean and Six Sigma tools in a focused way. On one of the sub-projects, for example, the team was looking at understanding the nature of the company's outages. "We learned that we were treating every single case as if they were the same. These cases can be anywhere from one customer to a whole circuit of 1,500 customers. We weren't understanding the priority around a 1,500 customer outage vs. a one-customer outage and how you should respond to it differently.

"One of our black belts dug into the data and he said, 'It's really only 5% of the cases that are contributing 95% of the restoration performance,'" Patterson relates. After designing an improved work-flow process, the company was able to cut its time for dispatching crews from about 40 minutes to less than five minutes on major outages.

"That's just by using the basic lean tools, understanding flow, looking at the process maps, using some of the Six Sigma tools, and understanding the data like that black belt did," says Patterson.



In another case of dramatic results achieved, the company was having an issue with inventory accuracy in the warehouses. The Sarbanes-Oxley Act leaves no room for error with inventory. "It's a pretty serious situation," Carlino says. "DTE was facing an audit in one of its warehouses because inventory accuracy was not at an acceptable level. Through some statistical application and the application of some of the basic lean tools, they took the inventory accuracy at that particular warehouse to such a level that the audit was canceled. That audit would have cost DTE a significant amount of money."

To put the operating system in current perspective, Carlino says, "there are a lot of tentacles out there in the organization now. That's what's helping create the savings DTE is getting and the kind of awareness that's going on in the organization. This started with doing one kaizen event in one area. Now ... they've got black belts; green belts; Six Sigma specialists; operating specialists who have been moved out in the business units and have seeded the business units; demonstration projects; kaizens. They have all this training going on; they have so many things going on in the organization based on the plan that was established some time ago."

The operating system has taken hold and employee engagement is happening. "People see that it's not an initiative, it's how we go about achieving our strategic priorities in the organization. I think that's the most important thing that's happened at DTE Energy," Patterson says. "Our CEO and our chief operating officer talk all the time now about the operating system as the way that we're going to go about achieving our priorities. The operating system isn't just something we work on when we have time to work on it."

## Contractor referral service combines customer service, energy efficiency

### **Company Profile:**

**Puget Energy is a Bellevue, Wash.-based company whose core business is Puget Sound Energy, a regulated utility that provides electric and natural gas service to the Puget Sound region of western Washington. As Washington State's oldest and largest energy utility, with a 6,000-square-mile service territory stretching across 11 counties, Puget Sound Energy serves 1 million electric customers and 672,000 natural gas customers.**

The Puget Sound Energy Contractor Referral Service has been a good vehicle for increasing customer satisfaction and promoting energy efficient products and installations. The utility oversees a network of 150 well-qualified contractors, who serve more than 20,000 customers annually.

The referral service helps customers find qualified contractors and dealers for energy-related improvement projects. Through the free service, customers receive bids for installing, upgrading or maintaining energy-related systems in homes and offices. Customers may complete contractor referral request forms online. The utility then selects the most qualified contractors for those requests and provides both customers and contractors with each other's contact information. Contractors contact customers directly to set up on-site bids.

There is no charge for referrals, but contractors pay Puget Sound Energy a 5% administrative fee for every job they sell.

Although customer service has always been the motivation for the nine-year-old program, recently energy efficiency has come to the fore. "Over the last two or three years, energy efficiency has had a resurgence here," says Todd Starnes, Puget Sound Energy's manager of business development. "The contractor referral program has helped energy efficiency, and energy efficiency has helped the contractor referral program."

The referral service was created to assist a growing number of customers who called the utility for information on heating systems or energy-related product information, and the utility would have to send them to the yellow pages. "We wanted to complete the transaction on behalf of the customers. We wanted to be able to take them full circle through the process of getting quality products in their homes," Starnes explains. Additionally, in today's new era of the program, "we want to help customers install energy efficient products."

### **From a branded dot-com to simple customer service**

The program originated at the time of the merger between Puget Power and Washington Natural Gas. "More recently, about four years ago when I started with the company, we were trying to define what the contractor referral service was. At first it was called Energy Select and then it was called Enliance. We were trying to brand it and create a separate entity ... and kind of getting on the dot-com bandwagon before I arrived. There were probably a dozen companies looking at referral businesses as being the next Amazon or the next rage to riches on the Internet," Starnes says.

"When I came in and took over the program, we restructured it. We got rid of the brand Enliance and we chose to just call it what it is. It's a contractor referral service, and that's what we really wanted to do – provide a service for our customers. We were redefining the program ... and putting the focus on providing a service for our customers as a way for us to increase the quality and quantity of energy efficiency installations."

Providing pre-screened contractors and standing behind their work was the best way to achieve those goals, Starnes adds.

The program eventually expanded to include a wide array of home installations, including windows, doors, insulation, siding and HVAC, which covers fireplaces, water heaters, furnaces and air conditioning. "As an offshoot of that, the most frequent request we got was for roofing. In the Northwest you replace your roof every 15 years or so because of the rain and the weather here," says Starnes. "It was not a direct tie to home energy efficiency products, but it was an area of the home where we felt we could use what we'd learned with our contractor referral service to develop a roofing contractor network. We gave it a try and it's been very successful."

### **Three product managers oversee program, training**

In its years of experience in working with contractors and customers, Puget Sound Energy has found effective ways to optimize the service. Many pieces of the program's organizational puzzle have fallen into place in recent years.

The program falls under products and services within the customer service area. In the customer contact center, specialized agents called energy advisors handle all phone calls and e-mail requests for contractor referrals.

Starnes manages the contractor referral program, and three product managers carry out a variety of duties. "We have one person overseeing our roofing product line, one person overseeing our HVAC product line and another person overseeing home improvement, which is windows, doors, insulation, siding. The majority of our contractors are HVAC. That's the one [service] that is most closely associated with the utility. Years ago, the utility actually used to sell those products."

Product managers are responsible for training contractors. "We do general training for the contractors on how to present themselves in the customers' homes and on installations," says Starnes. "We want them to be trained on the most energy-efficient products. We want them to be trained on any changes to policy as it relates to the utility itself, whether it's gas connections, gas permits or areas of the company where we're trying to encourage gas conversions or we're trying to encourage a certain type of air conditioning unit because of the way it affects our load. So training is a big component."

Marketing the product is another area of responsibility for product managers, who consult with contractors to receive their input on the latest promotions.

Product managers spend the majority of their time on customer service issues. "If an installation doesn't go well, our product manager will be out to inspect the installation to see if it was an error on the part of the contractor or if the homeowner was just not understanding the way the product should be installed," notes Starnes. "So part of their job is handling customer complaints. Our customer complaints are less than 1%, but if you have 20,000 referrals, that's enough to keep us busy. We track our customer complaints before the sale, during installation and post installation."

## Getting the right contractors

Selection and retention of the best contractors is a high priority. Before a contractor is considered, the utility performs background checks with numerous groups and individuals, including the Better Business Bureau, licensing agencies and the attorney general's office as well as reference checks with customers that have used their services. The utility requires that contractors have been in business at least five years and that they have a place of business and a computer, Starnes explains.

"It's taken three or four years, but we've done a really good job of weeding out the contractors that were under-performing and getting what we feel are the best contractors in the area into the program," he says.

"We have very small contractors and we have some of the larger companies in the area in our network. We have learned that more is not better. We keep a fairly small group of contractors and we keep a waiting list. Part of the reason we do that is we want the contractors to be engaged in our program."

In reshaping the program, Starnes found that it was necessary to monitor the contractors more closely than in the past. "We have a system online that's called referral track. When a customer calls Puget Sound Energy and says 'I'd like to install a new furnace,' we give that customer's name to two contractors ... and we give the customer the name of those two contractors. Those two contractors are then required to contact that customer within two business days. They're also required to give a free in-home estimate. A lot of contractors were giving estimates over the phone and we said they had to give a free estimate in person at the home of the customer."

A very important aspect of the program's success is tracking the contacts and close rates of the leads. In the first step, contractors are expected to access an online system and verify that they contacted the customer. In the second step, they must verify that they have met with the customer and given the customer a bid; and in the third step, they verify the result – either sale, no sale or pending.

"In order for the contractors to continue to get referrals from us, they have to keep their databases of leads updated," notes Starnes. "We also track their close rates – so if their databases are updated and their close rates are high, their names continue to move to the top of the list of our algorithm."

Contractors selected for the program choose which products they want referrals for. They may choose one or many and they may select the ZIP codes of the areas they wish to work in. When a customer calls for a referral, "the algorithm figures out which contractors in that ZIP code have the highest ranking, and they're the ones that will get the most referrals or go to the top of the list of referrals," says Starnes.

## Contractors engaged in promotions

"Now that we've been in it awhile, we also give awards to the contractors every year. We give platinum, gold and silver awards for volume of work, for close rates, for customer service etc. A lot of these contractors use that in their own advertising; for instance they may say, 'Awarded Platinum Dealer by Puget Sound Energy's Contractor Referral Service.'"

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Contractors may choose to become more engaged in the program by joining an advisory council that meets quarterly to discuss how to improve the program. The advisory council is made up of contractors within the network, a manufacturer and a representative from the utility. The advisory council is a valuable link between the contractors, the market and the utility, Starnes says, adding that it's most valuable function is determining how to market the program. For example, feedback from the advisory group has helped Puget Sound Energy focus its marketing message on the trust that people have with the utility.

Advertising the contractor referral service is done primarily through bill inserts. Limited radio and print advertising are used also.

The most recent promotion is the "\$150/\$150 rebate," which is promoted in current bill inserts. "The contractors are giving the customers \$150 off and we also have a \$150 energy efficiency rebate. So they will get \$300 off if they purchase a 90% [efficient] furnace. What typically may happen is the offer gets the customer to call us; we send out the contractor and the contractor does an analysis to determine if a 90% furnace is appropriate for the customer's home." The utility finances rebate promotions and also partners with Energy Star and various manufacturers for other promotions.

### **Future goals include outdoor living products**


Program goals for the near future are to continue in the same direction. "We want to continue to marry up with our energy efficiency goals. A big push for our company is energy efficiency, so to the extent that our contractor referral service can help customers install those energy efficient products, that's what we want to see happen," states Starnes.

The No. 1 goal is still customer satisfaction. "Customers call with questions about how to use our product and we want to help them use our product more efficiently or effectively. We would hope that whatever they install is the most efficient product possible because that's good for the environment, good for the long term and good for the utility. The profit is really inconsequential to the utility. We'll do maybe \$14 million to \$15 million in gross installations per year." What is important is that "we feel like we're satisfying a need with customers."

Starnes assesses the program as increasingly effective. "Our close rate ... has been steadily increasing for the last three or four years, which to me says that the quality of our contractors is improving and the quality of our message is improving with our ability to create the right promotions [by] working with the contractor advisory group to [help us determine] what kinds of promotions we can do to get people to call and use our service. So the satisfaction is going up. Customers are referring other customers to use our service."

In considering changes to the program in the near future, Starnes says the utility is always on the lookout for new products, as long as they make sense for the utility and the customer base. "We don't think lawn service, maid service or pool cleaning is the right service. But we are looking at outdoor living as a possible next product line because that's become so popular, with outdoor fireplaces, outdoor gas lights and outdoor gas heaters that create that ambience outside the home. We think that's a pretty good tie-in for us because

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we want people to have good quality installations of new gas products. It's an area for us to probably pull together a core group of contractors that are starting to enter that market."

The contractor referral program has proven its worth and staying power. "It's taken awhile to get the momentum, but everybody from our CEO on down now understands its value within the company, and that it is a key component to our customer service."

## Transactional customer surveys reveal specific, actionable customer concerns to CVPS

**Company Profile:**  
**Central Vermont Public Service, Rutland, Vt., is an investor-owned company providing energy and energy related services to customers throughout Vermont. CVPS, the largest of the state's 22 utilities, serves 151,000 customers across the state.**

Central Vermont Public Service (CVPS) has been conducting quarterly transactional customer surveys since 2002 and improved the format in early 2005. Working with its current surveying vendor, Metrix Matrix, CVPS gathers 400 completed transactional satisfaction surveys quarterly for transactions completed in the months of March, June, September and December, says John Lafaso, customer relations team leader.

CVPS has 17 service quality measures it must meet in accordance with state regulations. One of the measures includes maintaining a transactional satisfaction score of 80% or greater, says Lafaso. Other measures are related to abandon rates, call handling and billing timeliness, he explains.

When conducting the quarterly transactional surveys, CVPS and Metrix Matrix collaborate to randomly select a sample of customer contacts over the one-month period for surveying. CVPS provides the vendor with contact records that include the customer's name, phone number and the reason for the contact. Metrix Matrix attempts contacts with those customers until the necessary number of surveys has been completed.

The customer is asked about 19 questions, the length of the survey depending on the customer's remarks, etc., says Lafaso. The utility is looking to measure critical dimensions of service quality, including people, training and technology. The four components of this initiative include reliability, responsiveness, assurance and empathy, Lafaso says.

- Reliability – Did CVPS deliver the proper service dependably and accurately?
- Responsiveness – Did the CSR listen to the customer's requests and respond promptly?
- Assurance – Are the utility's CSRs knowledgeable and courteous in a manner that builds trust?
- Empathy – Did CVPS make the customer feel cared for?

Specific questions are related to:

- CSR courtesy and friendliness;
- Timely response;
- Ease of reaching proper person;
- CSR knowledge;
- Personal attention; and
- Necessary time spent with customer.

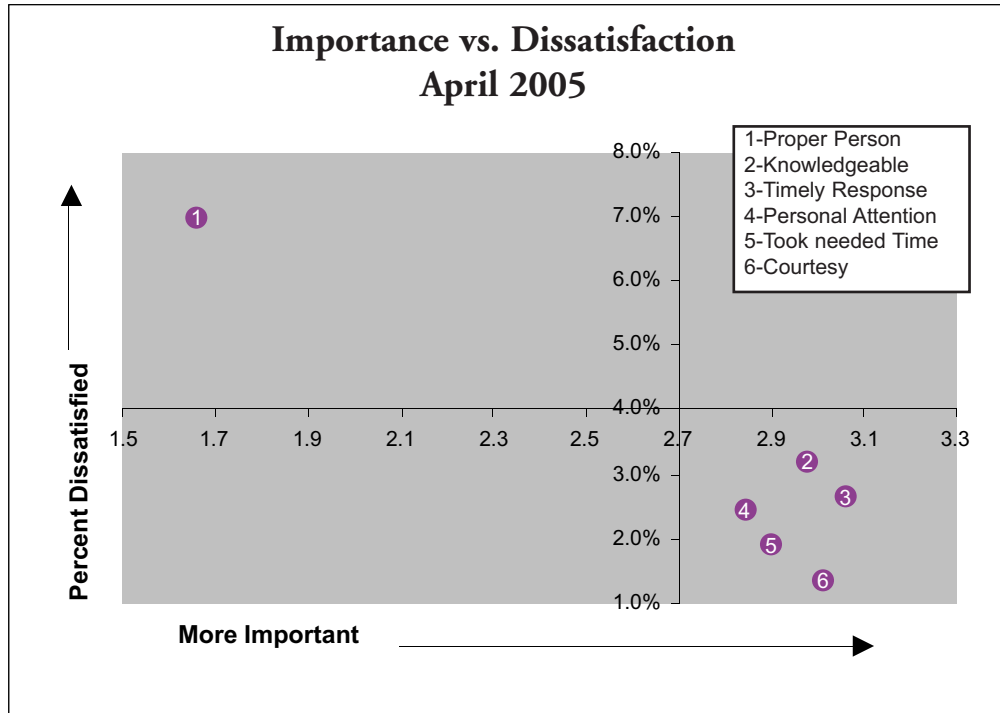
Scores are provided by customers on a "1" (extremely poor job) to "5" (extremely good job) scale. Customers are also asked to provide suggestions on how the utility can enhance its customer care, says Lafaso.

Although the utility can measure its call center's speed of answer, CSR workload related to customer calls and its billing processes, CVPS is also interested in gleaning the customer's perception of the transaction, Lafaso says. Therefore, the customer is asked to explain if their opinion has been changed – positively or negatively – due to the transaction.

Although the utility continually strives to provide customers with effective customer service that involves responsible, dependable and efficient CSRs, it has created a hierarchy of needs that is designed to allow its customers to feel respected, guided and appreciated and valued, he says. "We're trying to use our satisfaction surveys as a mechanism to do that," he says.

### Customers heard through surveys

Metrix Matrix provides CVPS a matrix displaying the results of the survey and revealing areas of importance to customers. As shown in the matrix below, surveys revealed that a timely response, CSR knowledge and courtesy are some of the most important aspects of customer service to CVPS customers.



CVPS' transactional survey matrix plots the "impact" of each of six customer service attributes. The impact is a combination of the attribute's importance (as rated by customers) and percent dissatisfied. For example, in April 2005, respondents were most dissatisfied with being able to reach the proper person. However, this attribute has less importance than other attributes such as timely response and courtesy. Source: Central Vermont Public Service

The surveys also revealed that customers were providing lower scores in the area of personal attention, says Lafaso. This prompted the utility to assemble a soft skills training program for CSRs that included coaching in the areas of listening, empathy and responsiveness. Following this initiative, the utility experienced drastic improvements the following quarter in this area of customer satisfaction.

CVPS also experienced lower scores related to reaching the correct person when contacting the utility and CSR knowledge, says Lafaso. Survey results revealed that the IVR was causing customers dissatisfaction in attempting to report an outage; the problem wasn't as general as "not reaching the correct person." In response, a consumer update campaign was initiated to provide customers with information in bill stuffers on the utility's IVR and outage measures.

As of June 2005, CVPS received a score of 88% or higher in the previous five quarters. Most recently, its scores were 90% in January 2005 and 91% in April 2005. Although 80% is required by state regulators, CVPS doesn't "want to be at the minimum level of satisfaction," says Lafaso.

Several years ago, CVPS had an inhouse group of marketing/customer service personnel that created an analysis based on customer surveys. Now the utility relies on Metrix Matrix to provide survey responses and analysis that will allow CVPS to create actionable results, says Lafaso.

The flexibility to slice and dice the data gathered for transactional customer surveys has been very beneficial for CVPS, says Lafaso. Previously, the utility received a satisfaction score but was unable to determine the aspect of the call that led to the customer's survey responses.

"Why are [customers] dissatisfied?" asks Lafaso. "We never knew." Drilling down to the call type and retrieving individual responses allow the utility to determine why the customer was not pleased with an outage call, for example.

Through breaking down the data gathered from transactional surveys, CVPS, with the aid of Metrix Matrix, is determining how to achieve its goals. CVPS is now able to "focus our efforts on what is really important to our customers in satisfying their needs," says Lafaso.

### **Information sharing and coaching can drive satisfaction**

When it comes to transactional survey results, "all of the information should be shared across the organization," says Lafaso. Although not all employees have contact with the company's customers, awareness across the utility is important, he adds. The utility's intranet is used to provide the most recent status of the transactional surveys.

Calls can be traced to each CSR, so the details of the surveys are shared with the representatives, says Lafaso. Areas of individual or team need are pinpointed, and training then occurs on a one-on-one or group basis.

A cross section of customer relations and operations employees has the ability to access survey data real-time. Also, real-time e-mails are distributed to these utility officials, providing survey results of customers who scored CVPS with a "3" or less, he says. Then, if the customer does not object to a follow-up call, customer relations personnel contact the customer to determine the problem and attempt to deliver a solution.

While call center managers typically call customers who have expressed dissatisfaction, CSRs are also asked to provide this service on occasion. "In most cases – more than 75% of the time – we have really missed an opportunity with the customer when we previously had them on the initial call," explains Lafaso. The utility has tried to tailor its CSR training to determine how opportunities with the customer may have been lost, or how various situations could have been handled differently, he adds.

This is yet another measure to make the utility's customers feel valued, respected and guided, he says. In early July 2005, CVPS implemented a call monitoring system that is designed to be another step toward accomplishing the utility's hierarchy of customer needs, says Lafaso.

## Asset management delivers lower prices to gas customers

### **Company Profile:**

**Chattanooga Gas provides retail natural gas sales and transportation services to about 62,000 customers in Tennessee. It is responsible for delivering more than 20 billion cubic feet of natural gas per year and maintaining the gas pipeline infrastructure. Chattanooga Gas is a subsidiary of AGL Resources, Atlanta, the parent company of six natural gas utilities, two gas storage facilities and an asset management company, Sequent Energy Management, Houston. The six utility companies provide gas distribution to more than 2.3 million customers in Georgia, New Jersey, Virginia, Florida, Tennessee and Maryland.**

In recent years, the volatility of the gas market coupled with competition from other fuel sources such as oil, propane and electricity, has compelled natural gas utilities to seek effective ways to diversify and optimize their assets. Asset management began emerging in the early and mid-1990s to lend a competitive boost to natural gas assets.

A good asset manager can develop a significant income stream from unutilized assets, enabling a utility to return profits to customers through reduced fuel costs. The revenue is folded into new gas cost calculations and applied to customer bills. This means of reducing commodity costs is written into regulatory codes.

"Asset managers who focus on optimizing physical assets on behalf of customers are playing an increasingly vital role in the way utilities manage their businesses," says Steve Lindsey, vice president and general manager of Chattanooga Gas and Atlanta Gas Light Co. (AGLC).

In the past, utilities might have sought to optimize their own assets inhouse, if it was done at all. "More often than not there really wasn't any asset management," Lindsey comments. Instead, most utilities acquired the necessary gas supplies for their customers and, like squirrels, stored them for the winter. "A lot of those assets basically lay fallow throughout the year and weren't really optimized," he adds.

"Our business, natural gas, is a choice product," he adds. "Customers are concerned with the bottom line number on the bill. We recognize that a big component of that bill is the commodity and this helps to reduce that commodity cost. It really helps us to continue to be competitive. It's one of those things where the opportunity is there. There would be no reason that we shouldn't take advantage of it."

In 2001, AGL Resources, Atlanta, formed an asset management subsidiary, Sequent Energy Management, Houston. Sequent is the asset manager for AGL Resources subsidiaries and other utilities. Sequent also operates businesses in trading and marketing; commodity purchasing; sales and services to wholesale counterparties; producer services; and origination, or portfolio management and other physical delivery services.

From 2001 through mid-2005, Sequent's asset management practice has returned more than \$28 million to customers of three AGL Resources affiliates – Chattanooga Gas, AGLC and Virginia Natural Gas.

Originally named AGL Energy Services, Sequent was created as a vehicle for optimizing natural gas assets, primarily by selling excess fuel on the open market to meet the off-peak demand requirements of other gas utilities. The driver behind the formation of Sequent was to enable the company "to have its own internal vehicle to monetize the portfolio vs. outsourcing to a third party," explains Sequent's vice president of asset management and origination Peter Tumminello.

Assets are defined as a utility's interstate gas supply and its transportation and underground storage facilities. In managing these assets, the asset manager is always focused first on the continued reliability of firm supply to the utility's customers. After assuring their needs are met, the asset manager may sell any remaining assets to wholesale buyers.

"Every day the utility isn't fully using its transportation and storage assets is a day those assets are available to be commercially monetized in the market," states Tumminello.

### **Portfolio optimized in upstream markets**

Chattanooga Gas, which began using Sequent in May of 2001, serves as a good example of how asset management services work. "We believe that we're in the best position to optimize the Chattanooga Gas portfolio because we've developed many markets along the paths of their upstream assets," Tumminello says.

The utility recently announced a refund of \$1.8 million to residential and small business customers as a result of its asset management plan. This was a 50% increase over the amount refunded in 2004. The revenues will be shared with customers through 2005 in the form of reduced gas costs. This equates to an annual average savings of about \$30 per customer.

At Chattanooga Gas the revenues that are generated are shared between customers and Sequent Energy on a 50/50 basis. In the most recent example, "Sequent generated \$3.6 million of incremental revenue, and \$1.8 million of that is shared back to the customers through the reduced commodity product," Lindsey says.


The 50/50 revenue sharing with customers is written into the tariff. In following regulatory guidelines, Chattanooga Gas files regular reports with the Tennessee Regulatory Authority (TRA). "We have a PGA (purchase gas adjustment) ... and we make changes to that twice a year; it depends on how volatile the gas prices are. We try to keep the PGA from fluctuating too much so customers don't have a lot of the whipsaw effect, the ups and downs. That is regulated," Lindsey explains.

Chattanooga Gas is closely involved in the development of contracts with Sequent. "There are three parts to the asset management arrangement – the utility, the gas operations and capacity planning group, and the asset manager. As the utility or the business, we determine, along with our gas operations group, what assets we need," Lindsey explains. "We go out and contract for that with the different pipeline groups. Then based on what we contract for, those are the assets that Sequent manages throughout the year. We manage the operational side of acquiring the assets, setting up the contracts and determining what our needs are to serve our customers," Lindsey adds. On Sequent's end, the company first secures reliable delivery for firm customer needs and then focuses on the best way to optimize the physical assets of the utility.

### **Extended agreements add stability**

In considering the current state of asset management, Lindsey says that the company has learned the value of extended term arrangements. "Rather than

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Sequent generated \$3.6 million of incremental revenue, and \$1.8 million of that is shared back to the customers.”



having annual arrangements where you might have one [asset manager] for one year and one for another, I think there's some value in having the asset manager come in, learn about the assets you have and learn about the market you're in. I think it's been representative in the increased results we've seen from Sequent over the last three years in terms of what we're able to return back to the customer. There is some value in putting a little bit of stability around asset management.

"In my opinion it helps with their ability to plan, because obviously Sequent doesn't only provide services for Chattanooga Gas, they provide for many other utilities ... and some municipalities and industrial customers. This gives them the ability to look at the portfolio, look across the landscape and be able to manage [over time]. I think that gives them the ability to be much more efficient and much more productive than they probably would be. That's one thing we've learned as we've gone through this."

AGL Resources chose to keep asset management inhouse through a subsidiary. One benefit of that arrangement "is that you can control your credit exposure better," Tumminello says. "If you have an entity like Sequent, which manages for our affiliate utilities, we're diversifying our credit exposure because we're buying gas from many, many counterparties."

The challenge for asset managers is "to develop robust third-party markets along the path of the firm transportation contracts that we manage," states Tumminello. "We have to have excellent credit support – which we do from our parent company AGL Resources – because we're buying and selling with other wholesale counterparties in the market and we need strong credit backing to make that occur."

An effective asset management company also requires the right intellectual capital to give it a leg up in the market, says Tumminello. Asset managers must have thorough understanding of the specialized components that comprise the assets, including the pipeline grid and the storage grid. They must "know where they can secure the best possible supply and remarket it to the best possible markets."

Additionally, they are required to know the systems that give them the ability "to track and control this business in such a way that we understand every day what we've optimized, what our positions are and how much value we've created for the utility and for us," Tumminello says.

Sequent has developed proprietary systems that are used to evaluate asset management transactions. "Having a strong system and IT environment that can track and control these transactions is a key [element]. Sequent spent a very large sum of money in 2004 to implement a new end-to-end system that allows us to enter a transaction and have it immediately give us positions, credit exposure and all the other reports we need to best manage an asset management business."

Without a competitive supply to work with, trying to develop upstream market sales would be futile. Asset managers see to it that the available supply is marketable. "Part of the portfolio is traded day to day, where we are just optimizing those assets at the current daily values that those assets are worth."

Secondly, Sequent is out securing longer-term markets and in particular, in the case of Chattanooga Gas' assets, we've secured some longer-term power generation markets. These markets coincide with the term of the asset management agreement that we have with Chattanooga Gas. So we will secure other longer-term markets that need these assets during the term that Chattanooga Gas doesn't need these assets," relates Tumminello.

"For example," he continues, "we have several power generation markets that can utilize the upstream transportation that Chattanooga Gas has secured in the summertime and in the shoulder months. Power generators typically burn more in the summer period. So we've structured longer-term transactions with these power generators.

Both Tumminello and Lindsey say that their asset management plan is beneficial to all parties. "The situation that we have right now is working very well. We have seen incremental improvements in terms of what Sequent has been able to do and what we've been able to deliver to the customers over the last three years," says Lindsey.

"Our challenge is in the competitive arena as the commodity has increased so much," Lindsey adds. "This is an area that for years [the gas industry] didn't do anything with ... and now we've started to realize the upside that is there. We're not unique ... some utilities do it with their affiliates, some of them do it with third parties, but very rarely anymore do you see large gas companies not taking advantage of the assets they have throughout the year."

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