Green Pricing Case History: MGE's Story

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ABSTRACT:

In October of 1997, after extensive market research, Madison Gas and Electric Company (MGE) announced plans to build an 11.22 MW, 17 turbine wind farm and market the energy through a green pricing program. Early marketing efforts began by enlisting the support of key local environmental groups, continuing with targeted marketing to residential customers and, later, special offerings attractive to business customers. This paper summarizes MGE's marketing methods, results, and lessons learned.

Background of the Project

On October 6, 1997, Madison Gas and Electric Company (MGE) announced plans to construct an 11 megawatt wind farm, the largest wind farm in Wisconsin, and almost twice the size of the any U.S. wind farm east of the Mississippi. The project is located on the Niagra Escarpement in Kewaunee County of northeastern Wisconsin, a gently sloping geological ridge that runs from southeast Wisconsin up to Niagra Falls. The wind farm is scheduled to be up and operational by July of 1999.

MGE is marketing the energy using a green pricing program, and selling to both residential and commercial customers. This program involves selling the energy in 80 kWh blocks [1]at $5 per block. A customer choosing 1 block, for example, would see an increase in their bill of $5 per month. The annual environmental benefit of this 80 kWh block is roughly equal to driving a car pollution free for 1,920 miles[2].

MGE initiated the project because of customer demand. Extensive customer research demonstrated the strong environmental ethic of our customers. They care about the environment and they want us to plan for the use of alternative energy resources.

The project consists of 17 660kW Vestas turbines mounted on 213 foot white tubular towers. The tower height enables the turbine to take advantage of higher wind speeds available at greater elevations, a fact that is especially important in Wisconsin, where wind speeds are moderate even in the best locations.

The turbines will produce roughly 25 million kWh per year, enough electricity to fully supply about 4,400 homes with wind power. MGE estimates the wind farm will displace approximately 14,250 tons of coal each year. This is the equivalent of 142 100-ton railroad cars filled with coal, equivalent to a train 1.33 miles long.

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[1] The size of the block is contingent on the number of turbines qualifying for the Federal Production Tax Credit by being operational July 1, 1999 and could increase substantially if all turbines are eligible. The price per block will remain at $5.

[2] EPA estimate.

The total area required for siting the wind farm is approximately 600 acres. Only about 7 acres, however, is used by the wind turbines and access roads. The remaining land can be farmed as usual.

Background About MGE

MGE is a small Midwestern gas and electric utility, located in south central Wisconsin and serving primarily the Dane County area. On the electric side our customer base consists of 105,000 residential and 10,000 business customers, our gas customers total 96,000 residential and 8,000 business. Notable characteristics of the service territory are low unemployment, stable and growing economic climate, highly educated customer base, and a high renter population.

Marketing Methods

Initial marketing for residential customers focused on targeted direct mail, supported by newspaper advertising, website information, articles in customer and environmental newsletters, newspaper articles, press releases, speaker's bureau presentations to a variety of groups, library outreach, internal employee educational forums, and a series of educational public wind forums, along with bill messages and inserts.

Our research had given us some measure of confidence that part of the market was ready for wind energy, but we realized very early that most other customers were not aware of any choices they had regarding their electrical energy, particularly green options, never-mind going the extra step of exercising their choice. The more we listened to customers, the more it became obvious that customer education in a variety of forms would be a key to penetrating the larger market.

This education is part of a community approach, an effort adapted from the model used successfully by the Land and Water Fund in Colorado to promote participation in wind energy programs. For MGE, this means using our contacts within the community and working through them to create the awareness and acceptance necessary to "prime the pump" for participation. These contacts include active members of neighborhood associations, relationships with organizations (such as Rotary, Lions Club, Optimists Club, UW-Madison classes) featuring speakers, and other organizations. For example, we took pains throughout our program development to work with local environmental groups to listen to their concerns and to develop a project and green pricing offering they could support. We continue to work with them on marketing. For example, four of the local environmental groups staffed tables for their groups at our recent wind forums, to show their support for our program and talk with customers who wanted their perspective. We have also advertised the program through the newsletter of the local Sierra club and sent personal letters to members of RENEW, a local advocacy group. In addition, leaders of these organizations have written favorable editorials on the program in their newsletters and for publication in local newspapers. We are challenging each other to find new ways to promote this program.

We continue to explore new ways to raise awareness, change attitudes, and get customers to take action. We do this in three ways: educate, educate, and educate, realizing different customers have different reasons for participating and preferred ways to get information. To be successful, we feel we need to be there with our information when customers are making a

decision on what type of energy they want.

Our approach with business customers is to give them good business reasons why they should participate, show them examples of other businesses (both elsewhere and locally) that are participating, provide several ways they can participate, and suggest ideas for how they can pay for this. In order to get early sales we can use to leverage further promotion, we created a limited-time, charter membership offer, which creates an incentive to make a decision and take action. Businesses can participate either as Wind Power Leaders, where a significant wind power purchase can be tailored to fit the company's needs: to power a facility, piece of equipment, or product line; or they can participate as Wind Power Supporters, where the business commits to purchase at least 5% of their monthly electric use or $15 per month, whichever is greater.

Businesses have many reasons that make sense for them to participate. In general, these reasons fall into categories such as: increasing sales, demonstrating corporate citizenship, enhancing corporate image, or helping meet environmental requirements. For some businesses, there are compelling reasons for participating because they perceive the competitive costs of not participating as too high. We have seen this locally with printers and the water utility. Another retail business has come forward offering to have employees wear wind t-shirts and sponsor a week-long campaign to sign up customers.

Marketing Results

Residential marketing results have been very good so far, based on preliminary information. After being in the market with a targeted campaign for about three months, more than 3,500 customers have signed up, purchasing over 5,500 blocks of energy. This amounts to about 21% of the available energy for the project. The average purchase has been about 1.6 blocks. Part of the initial campaign is yet to run, but results have been encouraging. Table 1 shows the signup rate (those who signed up at some level) and the purchase rate (the average number of blocks per month purchased).

Group	Signup Rate	Purchase Rate
Shareholders	9.2%	1.5
Targeted List	6.9%	1.6
Random List	5.6%	1.5
Other	1.5%	1.6

Table 1 Program sign-up and purchase rate

We had targeted direct mail campaigns directed at shareholders; a targeted list of single-family homeowners selected on the basis of area, education, and income; and a random list of rental and single-family customers; as well as an "other" list, which was not part of the direct mail campaign, but instead found out about the offer by other means, such as attendance at a wind forum, advertising, MGE bill stuffer, articles in environmental or neighborhood newsletters, word of mouth, etc. Purchase rates are about what we expected. The signup rates, while preliminary, reflect the relative effectiveness of direct mail versus mass market and the higher signup rates we would expect from the targeted group and shareholders. The strength of

the random list, in terms of signups, was somewhat surprising, given the presence of rental customers in this group, as was the "other" group, given the low pressure sales approach. Overall, we were very encouraged with initial efforts.

On the business side, and again very preliminarily, we have had a good initial response, with about 30 of the top 300 business showing interest after very little marketing. Our approach with them has been breakfast presentations to a group of businesses, followed by individual contact. Since our time in the market has been short with this group, we don't have much in the way of results now, but will have an update available at the time of the conference. We are also using a direct mail campaign for smaller customers.

Lessons Learned

There are many lessons we've learned and re-learned as part of this process. These are several that were relevant for us:

- ✓ Internal commitment is critical. Our project had strong support from the top and throughout the organization, with very willing participation from key departments. If a picture is worth a thousand words, the latest annual report says a lot, since it featured a picture of a wind turbine on the cover. We found that this internal commitment made it easier to get things done within the organization, especially when we were challenging the organization to work more quickly. This commitment was also very useful in marketing efforts to business customers and other customer groups, such as shareholders.

- ✓ Planning has its limits. We had to spend more time flying by the seat of our pants than we anticipated. While part of the excitement, it's something for which we needed to devote extra time and resources. Some black hole issues included siting, regulatory compliance, internal billing systems, creating alliances with key constituencies, managing "borrowed" internal resources, and developing and growing an effective marketing approach, among others. We learned that "extra time" is a relative concept and we did not have the luxury (or burden) of long planning and review cycles common for many utility projects.

- ✓ Sales Training is important. We learned that sales training is important for anyone promoting the program. Up to now, much of our marketing has been reactive, involving conservation technologies that will save customers money. Proactively approaching customers and getting them to spend more, sometimes substantially more, requires a different mindset and effective training designed to systematically break down barriers to doing business.

- ✓ Set Goals. We are attempting to divide and conquer. We needed to figure out a "fair share" for customers and sales staff.

- ✓ Community Collaboration We find that using our existing distribution system to get information out, leveraging existing relationships and using the most effective message carriers to maximize the ways the message arrives at our intended target from friendly

sources works well for us. Many community groups and leaders welcomed the chance to take a concrete action that demonstrates their commitment.

- ✓ Educate. Educate. Educate. We found that customers have various reasons for participating and preferred ways of getting information. We needed to use our information distribution network effectively. We needed to be there with information like Coke is with their vending machines.

- ✓ Maintain Momentum We found that people expect to be reminded of what you want them to do. We try to maintain this momentum through bill inserts, bill messages, news-plants, advertising, editorials, updating our community partners regularly, and seizing opportunities when they presented themselves to add wind to the agenda.

In summary, our wind program is the first core business offering we have that many of our customers want to hear about. We are finding it to be a huge opportunity. The benefits go far beyond the narrow goal of selling the available energy from the project, to include enhanced customer relationships and internal training for the real world and new ways of doing business. Even for customers who don't want to participate, reaching out and talking to them is a door opener for what they want and expect from us, and that can be a substantial benefit going forward.

What's significant about MGE's project?

The MGE wind energy program provides several benefits for the company, for customers and for the community. These include:

- ✓ It's a voluntary program for us, not a response to a regulatory order or edict. The commitment to construct MGE's project was announced publicly on October 6, 1997, long before The Reliability Act (Act 204) was passed and in fact, the project is almost four times larger than MGE's 3 MW requirement for complying with the Act.

- ✓ It's new renewable energy. This project adds new renewable energy to the existing supply rather than transferring existing renewable energy from one location to another.

- ✓ It's 100% in-state. This project is 100% in-state and supplies all the energy for MGE's green pricing program. The project increases Wisconsin's supply of renewable energy while avoiding the import of out-of-state electricity.

- ✓ It's green pricing. The energy from the project will be marketed through a green pricing program. Customers will have the ability to choose to buy new, in-state, renewable energy.

- ✓ It demonstrates a market and paves the way for additional development. Customer participation demonstrates that a market exists for renewable energy. This "market pull" makes investing in this market more attractive to utilities and other builders. This creates a

market driven incentive that directly addresses fears about stranded investment and the reluctance of businesses to invest in a more expensive technology. This demonstrated customer demand, that there is a sustainable market for Wisconsin renewable energy, readily translates into political leverage, since all participants are or will be of voting age, and they have shown their willingness to act on their beliefs.

- ✓ It provides utility ownership and local shared revenue. MGE ownership results in local economic benefits for the county and townships. The combined first year benefit is about $120,000.

- ✓ It's a utility's choice. Utilities have the choice of building one type of generation or another, and under today's regulatory structure they have an equal opportunity to earn the same authorized rate of return on either asset.

- ✓ It provides long-term commitment. MGE owns the wind turbines and is committed to renewable energy for the long haul, not just the one or two year commitment commonly specified in renewable energy RFP's.

- ✓ It has other local benefits. Lease payments to local landowners where the turbines are located provide a steady stream of income while taking little land out of production, helping to preserve family farms and ease development pressure.

- ✓ MGE can respond to the market. MGE has sufficient sites identified to support an additional 8-9 megawatt wind farm.

Contingent Valuation Study

In 1997, MGE participated in a contingent valuation study that looked at predicting voluntary participation in a green pricing program.. Three populations were surveyed and given identical information about the wind farm. Participants in population one were asked to participate in a hypothetical program and given a dichotomous choice of a level of wind power to subscribe to on a take it or leave it basis. Levels offered started at 50 kWh/month, with other levels in 100 kWh increments, up to 600 kWh per month. Population two was given the same offer for participation in an actual program. Population three was given the levels available and allowed to participate at the level of their choice. One interesting element of the study was the inclusion of a follow-up certainty question for those in the hypothetical group who were indicated they would sign up and pay more monthly for wind energy. For predictive purposes, only those who indicated certainty of "8" or more on a ten point scale were predicted to actually be willing to pay. In general, the results demonstrated three things:

1. The hypothetical dichotomous choice group had the highest fraction of "yes" responses to the willingness to pay more for wind-power question.
2. The actual payment card group (those able to choose their own level) had the next highest fraction of "yes" responses to the willingness to pay more for wind-power

question.

3 The actual dichotomous choice group had the lowest fraction of "yes" responses to the willingness to pay more for wind-power question.

Still, the willingness to pay more for wind-power was very strong for all three populations, ranging from 24% to 43% for the groups listed above. There are important caveats to consider when evaluating these results. The populations surveyed were residential single family customers and the surveys were sent out with a letter on UW Madison letterhead.