Pent Up Demand: Nevada Power and Sierra Pacific Power 2003 ENERGY STAR® Appliance Rebate Program

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ABSTRACT

How do you design a meaningful program with meager funds? That was the challenge faced by Nevada Power and Sierra Pacific Power (the Utilities) when re-establishing the companies in the energy conservation arena after an approximate 10-year hiatus. In their inaugural year of entering the current field of conservation players, these Utilities crafted a pilot ENERGY STAR® Appliance Rebate Program that was limited in the quantity of available rebates. In a state that has one of the highest penetrations of ENERGY STAR homes in the nation, this constraint posed a real challenge for the Program.

In an effort to capitalize on the positive impact utility-funded incentives would have on the customer base, the Utilities opened their pilot program to any interested retail partner offering qualifying appliances and crafted a branding strategy intended to enhance customer and retailer perceptions. The overwhelming retail and consumer support put the program on a collision course with disaster, opening up the possibility of greater demand than could be supported with rebate funds and risking the very reputation the Utilities were trying to improve!

This paper will explain the history behind the Utilities' decision to reenter the world of residential conservation programs. It will describe the overwhelming market response and the actions taken to avoid the backlash and negative PR that seemed likely to result if the program terminated before the promised end date. Reasons why the Utilities thought it was important to craft a branding strategy for these programs are also covered. The paper concludes with lessons learned and recommendations on how utilities, with limited resources to invest in conservation measures, can anticipate some of the pitfalls and challenges faced by first-year programs.

Program Background

In the early spring of 2001, Nevada Power and Sierra Pacific Power were anticipating power supply shortages for the upcoming summer peak. In response, the Utilities formed a new department to launch a "Take Control" energy efficiency and conservation message. This message, and the associated set of conservation programs, was intended to educate customers about the efficient use of electricity and to capture immediate energy and capacity savings.

An outcome of these 2001 efforts was the establishment of a Demand Side Collaborative team consisting of representatives from the Utilities, the Public Utilities Commission of Nevada (PUCN), the Bureau of Consumer Protection, industry, and members from establishments of higher education and trade associations. This group met several times throughout 2002 and came to a consensus on a number of conservation offerings for which the Utilities would request approval. The chosen program concepts were intended to help the Utilities, which have a combined customer base of nearly one million residential customers, reduce electrical load on their system, regain experience running energy-efficiency programs, and enhance their image among customers and retailers as a good corporate citizen.

In late 2002, the Public Utilities Commission of Nevada granted approval for approximately $11.2 million in program funds. The Utilities immediately embarked on a selection process for a team of contractors and consultants who would be able to implement this newly-devised scope of work. The Utilities utilized a "Request for Proposals" (RFP) process that packaged similar programs together. The Utilities paid careful attention to ensure that programs requiring the longest lead and development time began early on, with more standard, easy-to-implement programs beginning later in the process. As a result of this process, the Utilities hired no fewer than six separate contractors and consultants to implement these programs in early 2003. Through this process, the program implementer for the ENERGY STAR Appliance Rebate Program was selected.

Designing an ENERGY STAR program that would be available to all residential customers of the Utilities' wide, geographically diverse, service territory was initially one of the highest priorities. This entailed working with a diverse group of retailers – from the busiest areas in Las Vegas to the most rural areas of northern Nevada. Also, the Utilities specifically requested that the program be open to all retailers within the service territory. The Utility program manager asked the team to keep their "Chamber of Commerce hats on" when working with Nevada retailers.

The Utilities also established the following objectives for the ENERGY STAR Appliance Rebate pilot programs:

- Regain experience running energy-efficiency programs
- Implement a simple, low-cost, customer-friendly rebate program
- Launch the program by the middle of April 2003
- Award rebates for at least 2,550 ENERGY STAR qualified appliances (750 in Sierra Pacific Power territory and 1,800 in Nevada Power territory)
- Maximize the involvement of retail partners to deliver critical program information to customers as well as program managers
- Enhance the Utilities' image among customers and retailers as a good corporate citizen

ENERGY STAR Appliance Rebate Program

Using ENERGY STAR as the platform for the Appliance Rebate Program and a branding strategy entitled "Working Together for Change," the Utilities tapped into resources offered by the national ENERGY STAR programs. Support offered by the Environmental Protection Agency (EPA) and the Department of Energy (DOE) was invaluable in crafting programs that offered clear messages and facts regarding the benefits of choosing ENERGY STAR qualified products. The ENERGY STAR platform also allowed the Utilities to effectively leverage market actors and increase the amount of qualified products sold in the marketplace. The programs offered mail-in rebates ranging from $35-$100 to utility customers who purchased ENERGY STAR qualified clothes washers, refrigerators, room air conditioners, dishwashers and energy-efficient electric water heaters (energy factor of >0.91).

In an effort to capitalize on the positive impact utility-funded incentives would have with the customer base, the Utilities asked that their pilot program be made available to any interested retail partner offering qualifying appliances. A retailer solicitation letter was distributed to a wide range of retailers throughout the state of Nevada encouraging retailers to partner with the Utilities in offering utility-funded incentives to customers. Over 100 retailers—both independent dealers as well as national chain retailers—were invited to join the Appliance Program and approximately 60 eventually participated. The program engaged retailers as key market actors and trained them on the benefits of ENERGY STAR appliances. Retailers were also asked to display program-related material promoting ENERGY STAR qualified appliances. The programs also utilized the sales skills of retail associates to execute key program responsibilities such as helping customers fill out rebate forms and reporting customer response levels to program managers.

Appliance Program Goals

The program established unit goals for each appliance that reflected their typical ENERGY STAR market share. National ENERGY STAR incremental cost data, which showed that the average price premium on ENERGY STAR refrigerators, dishwashers, and room air conditioners ranged from $35-$75, were used to set the rebate levels.[1] The rebates were intended to reduce or eliminate the consumer's incremental cost. The initial rebate of $75 for clothes washers was set because their incremental cost tends to be somewhat higher than other ENERGY STAR appliances. Table 1 shows the original number of units and rebate amounts proposed for each Utility service territory.

Table 1. Original Number of Units and Rebate Amounts for Each Utility

	Nevada Power	Sierra Pacific Power	Rebate Amount
Clothes Washers	400	150	$75
Dishwashers	450	180	$35
Refrigerator	500	180	$50
AC	350	175	$50
Water Heater	100	65	$40
Total	1800	750	

Double Your Savings Impact

As a way of providing increased benefit to their customers, the Utilities joined the national ENERGY STAR clothes washer collaborative, Double Your Savings (DYS), to further enhance the utility rebate and leverage the limited utility funds. The national program featured eight manufacturers offering a $50 matching rebate on their ENERGY STAR clothes washers. By participating in the DYS campaign, the Utilities were able to rebate more total purchases and deliver a larger overall incentive on each purchase to consumers. The DYS campaign made this possible by allowing the Utilities to reduce their original planned $75 rebate on clothes washers to $50.

Joining the DYS campaign altered the program's unit goals and rebate amounts by:

- Reducing the utility clothes washer incentive level from $75 to $50

[1] Rebate levels were suggested in the RFPs distributed by the Utilities (Request For Proposal Nos. 02-R-096 and 02-R-097) entitled ACLM – ENERGY STAR Appliance Conservation Program but the adopted incentive levels were slightly lower than outlined in the RFPs.

- Increasing consumer rebate levels to $100
- Leveraging manufacturer funds to match utility funds
- Increasing the target number of clothes washers by 50 percent

The Table 2 illustrates the resulting target number of rebates by utility territory.

Table 2. Target Number of Rebates by Utility

	Nevada Power	Sierra Pacific Power	Rebate Amount
Clothes Washers	600	225	$50
Dishwashers	450	180	$35
Refrigerator	500	180	$50
AC	350	175	$50
Water Heater	100	65	$40
Total	2000	825	

Overwhelming Market Response

The overwhelming retail and consumer support put the program on a collision course with disaster, developing the possibility of greater demand than could be supported with rebate funds! In the "real world", having so much customer interest in your product or service is usually a good thing. Here it represented a significant risk to the Utilities in that the program risked developing unfulfilled retail partner and customer expectations. This situation created an opposite effect than was intended, resulting in a potentially negative public relations situation for the Utilities. The programs were on a path toward exhausting the incentive funds in a span of weeks as opposed to months as the Utilities had hoped. Even more importantly, this program was implemented during a highly tumultuous time when the Utilities were extremely concerned about recent utility rate increases to customers.

The original programs were intended to last until July 15. Due to the enthusiastic response by customers and retailers alike, the initial pool of rebate funds was nearly exhausted after only three weeks in the market. The Utilities approached the Public Utility Commission of Nevada (PUCN) with a request to shift funds from lesser performing programs, which was granted, allowing the program to continue to June 15.

Additionally, the programs adapted to the strong demand by modifying the fundamental program design. Instead of managing to a set number of rebates by appliance category, as originally targeted, the programs shifted the program to allow the unit targets to float based upon actual sales. This action significantly reduced the daily communications that were required with retailers in order for the program to track actual sales against the defined targets.

Also, the program shifted to a specific program end date as opposed to ending the program when the target number of appliances by category was achieved. This satisfied retailers who were confused as to why rebates on select products would end sooner than other product categories. Retailers felt the change simplified the program design and they welcomed these modifications. Field coordinators reported that retailers were grateful for the program's extension and design changes. Even though the program lasted a month less than had originally been communicated, retailers perceived that the Utilities had advocated on their behalf at the

Commission and appreciated the attempts that the Utilities made to simplify retailers' participation.

From April 15 to June 15, the Utilities rebated a total of 4,954 appliances—primarily refrigerators, clothes washers and dishwashers. This total represents 194.3 percent of the original target and signifies that the program was extremely successful in motivating residents of Nevada to purchase ENERGY STAR products.

The program conducted retailer surveys that shed light on retailers' perceptions and impressions of the pilot rebate program. Retailers were asked, among other things:

- Whether they thought the rebate influenced customers to choose an ENERGY STAR machine instead of a non-ENERGY STAR model (nearly 86 percent said the rebate had a heavy influence)
- Whether rebate levels were appropriately set (92 percent agreed)
- Whether they made any changes to their product inventory as a result of the program (two-thirds said no—this is most likely because retailers did not have assurance at that time that the program would continue beyond the initial, short-term duration. Retailers are not likely to make changes to inventory unless they can be assured that the program will be in place for an extended, continuous period of time).

The primary message conveyed by the survey responses can be summed up as, "this program was great, please do it again, but do it for a longer amount of time." The program field coordinators' anecdotal reports support the survey feedback. Field staff spent three months in close contact with participating retailers and reported that:

- Customers were satisfied with the rebate levels and the types of appliances covered by incentives.
- Retailers found value in the rebates and indicated that their customers were pleased to have the rebates available.
- The only commonly repeated negative response has been to the limited nature of the program; retailers and customers alike would have preferred the rebates to remain in the market throughout the year.

Energy Savings Results

At the outset of the program, annual energy savings from the appliance program were estimated as 188.9 MWh per year for Nevada Power and 81.5 MWh per year for Sierra Pacific Power.[2] As Table 3 and Table 4 show, the programs far exceeded these energy savings goals, as a result of expanding the size of the incentive pool by 50 percent. The annual savings in Nevada Power was calculated to be 938 MWh, or about five times greater than estimated. The annual savings in Sierra Pacific was approximately 473 MWh, or almost six times greater than estimated.

The actual savings were calculated by using model-specific kWh savings information available on the ENERGY STAR Web site (www.energystar.gov). The number and type of

[2] The Bonneville Power Authority's Regional Technical Forum Web site (www.rtf.nwppc.org) was used to estimate annual and lifetime savings per appliance category and to establish the measure life.

rebated appliances were extracted from the program database and merged with ENERGY STAR data that provided the basis for model-specific calculations. Consequently, the calculations presented here are specific to what was actually rebated in the program, rather than based on generic energy savings estimates. It is not a surprise that clothes washers account for the bulk of the achieved savings.

Table 3. Energy Savings for Nevada Power

Retailer / Appliances	Appliances Sold	Total Weighted ENERGY STAR kWh	Total Weighted Federal Standard kWh	Total Weighted kWh Savings
Room A/C	11	8,778	9,789	1,011
Clothes Washer	1,033	324,666	1,028,934	704,268
Dishwasher	652	278,086	369,026	90,940
Refrigerator	1,680	996,331	1,135,439	139,108
Water Heater	8	38,184	40,848	2,664
Totals	**3,384**			**937,991**

Table 4. Energy Savings for Sierra Pacific Power

Retailer / Appliances	Appliances Sold	Total Weighted ENERGY STAR kWh	Total Weighted Federal Standard kWh	Total Weighted kWh Savings
Room A/C	10	8,120	8,986	866
Clothes Washer	547	162,339	540,704	378,365
Dishwasher	290	124,870	164,713	39,843
Refrigerator	719	407,633	460,080	52,477
Water Heater	4	19,092	20,424	1,332
Totals	**1,570**			**472,853**

Program Branding: "Working Together For Change"

From the outset, the Utilities stated a desire to achieve a "best in class" status for the residential ENERGY STAR Appliance Program. This was a lofty goal for a first-year pilot with limited funds, but it was taken seriously. Experience working on similar projects elsewhere had demonstrated that branding the program is often the differentiating factor between a program that is good and one that is best in class. Thus, the program undertook a concerted effort to create a branding strategy.

The following considerations formed the underpinnings of the branding strategy:

- It had been between eight and 10 years since the Utilities had implemented any conservation programs
- The last program the Utilities coordinated was not received by the marketplace as positively as desired

- The Utilities had already initiated a marketing campaign to improve its image in the community
- The Utilities were looking to leverage broader marketing opportunities, including linkage into national ENERGY STAR initiatives such as Earth Day and the "*Change A Light, Change The World*" campaign
- The Utilities were looking to achieve some economies of scale based on the previous experience of its contractor

It became clear that the branding strategy had to firmly address the Utilities' need to improve their public image and to correct negative perceptions in the marketplace. The central theme for the ENERGY STAR programs in Nevada thus became "Working Together for Change".

This theme wove together multiple objectives into a clear, concise tagline. It conveyed that the Utilities wanted to change, and that they wanted the perceptions held by their customers to change as well. It told people that the only way that this could happen was if the Utilities and the customers worked together to make the change happen. Together, with their customers, the Utilities could improve the level of service while bringing more value to the community in general. This was an opportunity for the Utilities, customers and local retailers to partner together to not only save time and money but to conserve Nevada's natural resources.

Given this strong focus on improving public image, the risk posed by potentially running out of rebate funds and shortening the program by one-third of the promised time became even more heightened. Here, the program had developed an entire branding campaign based on the notion of strong community partnership and working together with retailers and customers, only to face a potentially severe backlash by failing to meet expectations that had been created at program launch.

It is a testament to the excellent, ongoing communication with retailers, carried out on a weekly and personal basis by the field representatives, and to the program's adaptive management that the Utilities suffered virtually no negative PR with retailers or customers. Though retailers unanimously expressed their desire for a rebate program that lasts as long as possible, this sentiment was expressed as part of a wish list, rather than as pointed displeasure with the Utilities. It reflects their recognition of the positive impact rebates have on appliance sales more than a criticism of the rebate program.

Lessons Learned

The following lessons were drawn from the program's 2003 experience with the ENERGY STAR Appliance Program.

Adaptive Management

The ability to react quickly to market dynamics is crucial if it becomes apparent that the existing program design is not capable of handling the market response. The Utilities reacted quickly to respond to the overwhelming customer and retailer support of the program. Daily analysis of subscription results was performed to forecast future demand and to predict when incentive funds would be consumed under several scenarios. This analysis was used to make informed decisions on how to modify the program while keeping industry partners and utility customers happy. Siphoning additional funds into the program and modifying the program end date resulted in a smoothly run program that was enthusiastically embraced by industry partners and consumers alike.

Market Presence and Duration Are Critical

The ability to maintain a market presence with rebates and point-of-purchase materials for as long as possible was identified as the major lesson learned from 2003. This was a challenge, given the limited funding and the large number of retail partners that were involved. Widespread retail participation, by definition, means that limited funds are spread more thinly. In order to stay in the market longer, the Utilities can work more efficiently with a smaller set of retailers, offer more sizable pools of incentive funds, or reduce the rebate amounts. The preferred choice for 2004 was to reduce rebate levels. This path was chosen in an effort to distribute the limited pool of incentives over a greater number of customers. In addition, this action also improved the cost effectiveness of the program, which is discussed below in greater detail.

This lesson became the basis for approaching the PUCN in May 2003, with a request for additional funds that would allow the program to remain in the marketplace for a longer timeframe.

Infrastructure Creation

As with any new effort, the resources needed to create the infrastructure are large in comparison to the resources required to continue the effort for an extended period of time. Of the additional funds requested and granted by the PUCN for the program extension, more than 91 percent of the additional funding ($206,790) was returned to consumers as rebate incentives. This lesson points to the program efficiencies that can be achieved once the program is operational.

Manage Program to an End Date As Opposed to a Specific Quantity of Appliances

While it is necessary to anticipate the specific quantity of appliances to be rebated for budget purposes, it is much easier for the marketplace—customers and retailers alike—to understand a definite end date rather than to be micromanaged according to weekly rebate movement by appliance type. As long as the program's estimates of how many rebates are needed to keep a three-month program (or the appropriate duration) afloat are accurate, micromanagement by tracking weekly sales data from each participating retailer is unnecessary.

Leverage National Energy Star Efforts When Possible to Extend Utility Funding

The benefits of participating in the DYS campaign were substantial. Participating in this effort provided many opportunities that would not have presented themselves had the program been working autonomously. As an example, the program leveraged over $80,000 from manufacturers, which it would not have been able to do otherwise. In addition, as being a part of the larger collaborative, this program was able to gain the attention of national retailers and manufacturers, obtaining strong support for program designed marketing materials. However, the Utilities learned that joining these national campaigns required a great deal of lead-time and extensive coordination for effective implementation. They joined this collaborative effort in February 2003, well into the planning of the 2003 DYS planning, but are well positioned for an early start to the 2004 national appliance promotion.

Brand the Program

A well-branded program strategy results in success by clearly communicating a program message that is easy to understand. By incorporating effective branding, a program establishes a foothold with consumers in the markets where the programs are implemented. This makes it easier for the programs to maintain continuity and to be recognized. In order to arrive at an identity or brand for a program, it is necessary to have a firm understanding of the target audience, the approach, the delivery method, the look, feel, tone, language, the vehicle, key messages and distribution guidelines for the brand.

For the Utilities, program branding required consideration of several themes and messages that were to be conveyed. “Working Together for Change” addressed the needs on many levels and will be used for several years by the Utilities.

Conclusions

In 2003, Nevada Power and Sierra Pacific Power hired a new contractor, worked with that contractor to develop ENERGY STAR appliance rebate programs, developed a branding strategy and point-of-purchase materials for the programs, recruited retail partners to participate, joined the DYS collaborative, and launched the programs within a span of three months (mid-January through mid-April). Resulting response from both retailers and consumers was stronger than anticipated, requiring a mid-course correction to the program implementation strategy by the middle of May. This mid-course correction allowed the programs to continue through June 15. The adaptive management strategy and close contact with retail partners allowed the programs to significantly exceed program expectations, achieving 194 percent of goals with minimal retail disruption. This illustrates that a potentially negative situation was made into a success through a cooperative relationship between Utilities, the program implementation team and industry partners. As a result of the Utilities successfully navigating their way through a potentially devastating situation, Nevada retailers view the 2003 program as a success and are anxiously awaiting the launch of the 2004 Appliance Rebate Program.

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