Final Report

EM&V Report: ENERGY STAR® CFL Program for Small Hardware and Grocery Retailers

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Executive Summary

This report presents the findings of Quantec's Evaluation, Measurement and Verification (EM&V) analysis for the ENERGY STAR® CFL Program for Small Hardware and Grocery Retailers (the Program) implemented by Ecos Consulting, Inc. (Ecos). The Program is designed to increase sales of ENERGY STAR-qualified compact fluorescent lamps (CFLs) among hard-to-reach residential customers in rural hardware stores and ethnic grocery markets that serve non-English-speaking customers (Hispanic, Chinese, Vietnamese, and Korean) in the San Diego Gas & Electric (SDG&E) and Southern California Edison (SCE) service territories. The Program provides incentives to eligible hardware and grocery stores that can be used to reduce retail prices and conduct consumer marketing activities.

The evaluation consists of two parts: assessment of Program delivery (process evaluation) and assessment of Program impacts (impact evaluation).

Methodology

Multiple data sources were used to complete the EM&V activities. The process evaluation included:

- Individual and focus group interviews with Ecos staff, conducted in April 2003 and March 2004.
- On-site surveys of 70 participating retailers, conducted in four rounds between June 2003 and March 2004.
- Telephone surveys of ten participating lighting manufacturers.

The impact analysis included:

- Verification of incentive processing. Data from a random sample of projects, including number of bulbs shipped, were compared to determine if there were any discrepancies between what was entered into the Program database and what was in hard copy files.
- Verification of the percentage of funds awarded to rural hardware and ethnic retailers.
- Verification of Program impacts.

Focus Group Results

Key results included:

- The Field Staff brought extensive experience to the Program and worked effectively as a team to address challenges as they arose.

- The training and ongoing support converted retailers into believing in the product and the whole Program. The retailers, having received intensive support from the Field Representatives, developed knowledge of the products and confidence in promoting them. The Field Representatives believe that they effectively sold the ENERGY STAR symbol and what it means.
- Working with manufacturers proved challenging, but staff believe that establishing clear guidelines and rules and communicating these early through repeated training would reduce some of the issues that arose during the Program.
- While staff felt that some of the Point-of-Purchase (POP) materials were effective (e.g., the pocket card, tear-off pads, and dump bins), the ad templates were not used as often. Retailers preferred a simple logo and price point for use in customized local flyers, rather than the extensive energy efficiency message included in the original templates. Revised templates based on this input from retailers were more often used.
- There is a need for consistency among the lighting incentive Programs supported by the CPUC. Having multiple programs with different incentives makes Program delivery difficult and only engenders confusion and resistance among affected customers.

Survey Results

Retailers

- When initially approached, some retailers were concerned about the volume of bulbs they would need to distribute and about possible "hidden costs." These concerns were addressed through information given by the manufacturers and the Field Representatives.
- Of the POP materials, retailers rated the poster (added in 2003) and the shelf talker (available both years) as most effective. About one-quarter of the retailers used the ad templates, most often in store circulars or local flyers. Having POP materials in-language was viewed as important for promoting the products.
- Among special activities they could devote to promoting the bulbs, retailers most often said they allocated special space, locating the bulbs at aisle ends and near registers or entrances.
- Support and training from the Field Representatives was important to assist store staff in how to display and promote the CFLs and to assist retailers with issues and questions with manufacturers.
- About one-half of retailers would consider stocking the CFLs in the absence of the Program; among those who said they would not stock

the bulbs, most said their decision would ultimately depend on customer demand and cost.

Manufacturers

- Overall, manufacturers were positive regarding the Program, noting that it provided a good incentive level, offered them the opportunity to reach new markets, and increased their sales.
- The allocation process and the inability to predict the number of bulbs they could guarantee to their retailers and to their companies' distribution section were a source of concern for several of the participants.
- Six of the ten surveyed manufacturers rated the assistance from the Field Representatives to address questions and resolve issues with retailers as "very important."

Verification of Percent of Retailers Awarded Funds

One of the target goals was to award at least 60% of Program incentive funds to rural hardware stores and ethnic grocery markets. The Program far exceeded these goals, with 85% of projects reaching ethnic groceries and 12% reaching rural hardware stores. ECOS focused their efforts on ethnic markets to avoid duplication with other IOU programs targeting rural markets.

Verification of Incentive Processing Documentation

In examining a sample of Program invoice packets, Quantec found that each of the sampled invoices matched the figures included in the Program databases, verifying internal consistency of the incentive process and the accuracy of the databases.

Impact Results

Secondary Review of the Literature

A review of the literature did not identify comparable research on installation or retention rates. This is primarily due to the Program's unique distribution mode. Our review of net-to-gross (NTG) ratios in CFL programs of varying types revealed higher NTG ratios than that mandated for this Program by the California Public Utilities Commission (CPUC). That is, the research points toward NTG ratios closer to 1.0, while the CPUC's deemed value is 0.8. This results in a conservative savings estimate.

Program Impacts

We conducted a review of the "reasonableness of assumptions" behind the Watt equivalents originally proposed by Ecos overall and found that the

assumptions used for Demand and Energy impacts for each measure in the Ecos Project Proposal were consistent with other regional sources. For final savings calculations, Ecos and Southern California Edison came to agreement regarding the savings associated with each measure (eight bulb types versus two in the original proposal) that would be used in determining the final Program savings. Using these agreed upon per-unit savings, Table ES.1 presents both the gross and net demand and energy savings generated by the Program.

Table ES.1: Program Demand and Energy Savings

	Gross Program Savings	Deemed NTG Ratio	Net Program Savings
Demand Savings (kW)	15,834	0.8	12,667
Energy Savings (kWh)	52,856,490	0.8	42,285,192

Verification of Cost Effectiveness

- Cost effectiveness was determined using the CPUC-provided workbook. We have verified the inputs and calculations. The Program was cost effective from both a Total Resource Cost perspective and a Participant Cost perspective with benefit/cost ratios of 1.62 and 2.30, respectively.

Summary & Conclusions

- Using an innovative approach, built on partnerships between manufacturers and retailers, and strong support from Field Representatives, the Program was able to distribute almost a million bulbs (955,178). Eighty-five per-percent of these were distributed in targeted ethnic communities.
- Effective Program materials reflect not only cultural and ethnic needs, but also take into consideration that retailers are looking at "price points;" thus, ad templates should be simple, including logo, price points, and "save energy" message. Retailers will use these in designing their own ads for store circulars and other media outlets.
- Reaching supportive corporate decision-makers is important. This may be especially important with larger chain markets, such as 99 Ranch Markets, in targeted ethnic markets.
- Clear rules and guidelines for store eligibility, documentation requirements, and other Program components, as well as consistent monitoring, are needed in working with lighting manufacturers.
- Field Representatives play a key role in developing trust, providing education, and supporting the retailers, particularly in the ethnic

communities. Having Field Representatives who speak the language and are familiar with the targeted communities is also a positive factor in gaining support in the ethnic markets. Both of these factors were central to obtaining participation among the hard-to-reach ethnic retailers. This approach is quite different from the more typical downstream programs, such as the IOU Statewide Lighting Programs, in which CFLs are provided at a reduced cost but no other supports are built into the approach.

- Incentive processing and data entry were conducted effectively, and with no identified errors. This allowed for a verification of savings 100% in agreement with savings reported by Ecos.
- The Program resulted in annual savings of 12,667 kW and 42,285,192 kWh. Lifecycle energy savings will be 211,425,960 kWh.
- The Program was cost effective from both a Total Resource Cost perspective and a Participant Cost perspective with benefit/cost ratios of 1.62 and 2.30 respectively.

I. Introduction

The ENERGY STAR® CFL Program for Small Hardware and Grocery Retailers (the Program) was designed to increase sales of ENERGY STAR-qualified compact fluorescent lamps (CFLs) in stores that have been underrepresented in past utility programs. The Program targeted hard-to-reach residential customers by focusing on rural hardware stores and ethnic grocery markets that serve non-English-speaking customers (Hispanic, Chinese, Vietnamese, and Korean) in the San Diego Gas & Electric (SDG&E) and Southern California Edison (SCE) service territories. The Program was designed to provide incentives to eligible hardware and grocery stores that could be used to reduce retail prices and conduct marketing activities. The Program was supported through the California Public Utilities Commission's (CPUC) Energy Efficiency Programs, funded by the electric Public Goods Charge (PGC) and natural gas Demand Side Management (DSM) charge applied to each customer's bill within each of California's utilities' service territories.

Quantec was engaged to provide program Evaluation, Measurement and Verification (EM&V), as required by the CPUC. There are two main components to this evaluation: assessment of Program delivery (process evaluation) and assessment of Program impacts (impact evaluation). This report summarizes the results of both evaluation components.

Methodology

Process Evaluation

The evaluation of Program delivery consists of the following components.

Interviews with the Program Manager and Data Specialist. The evaluation team conducted interviews in April 2003 with the Program manager and with the Ecos staff person most knowledgeable about the data-tracking system. The interviews provided an opportunity to explore the history of the Program, early implementation issues, and the structure and depth of Program data.

Focus Groups with Field Representatives. Quantec staff conducted focus group discussions with staff – field representatives, administrative staff, and the Program manager – in April 2003 and in March 2004. During the first discussions, staff shared their experiences early in the Program's delivery while, in the latter, they reflected on the complete Program through its extension into 2004. During the second focus group with staff, we discussed the Program's evolution, lessons learned, and key accomplishments. See Appendix A for copies of the focus group discussion guides.

Surveys with Participating Retailers. Four rounds of on-site surveys were conducted with participating retailers in June, August, and November 2003 and March 2004. A total of 70 surveys were completed for the evaluation.

Prior to each round of site visits, Ecos provided the evaluation team a list of participants and, after the first round, these included only those receiving product since the prior site visit dates. The lists were sorted by zip code, and a random sample selected for each round; a second and third backup were designated for each retailer selected to be used in the event that the retailer refused or the appropriate contact was no longer available.

Once on site, the evaluation team surveyed participants to explore their experiences with the Program, and conducted a brief visual check of lighting products (e.g., presence of CFLs, both ENERGY STAR and others, use of display, allocation of shelf space to Program products). See Appendix B for copy of Retailer Survey.

Surveys with Participating Manufacturers. In 2004, near the Program end, Quantec conducted telephone surveys with representatives of ten participating lighting manufacturers. Although not included in original EM&V plan, the evaluation team added these surveys to ensure that the views of these actors, who had a large role in Program implementation, were represented. See Appendix C for copy of Manufacturer Survey.

Verification of Percent of Funds Awarded to Priority Retailers. The Program Implementation Plan (PIP) that Ecos filed with the CPUC included the following Program indicators 1) the total number of participating ethnic grocery retailers and 2) the total number of participating rural hardware retailers. The goal was to award 60% of Program funds to these retail groups. As required by the CPUC, the evaluation included a verification of the percentage of these retailers served. In doing this verification, Quantec reviewed the Program database and calculated the totals and percentages of the overall participants of each of these priority retail groups and compared these to Program goals.

Verification of Incentive Processing. To verify the incentive process and the distribution of CFLs into the marketplace, Quantec visited the Ecos office in 2003 and 2004 to examine a randomly selected sample of the *Overall Summary Invoice* packets. These packets, identified by a reservation number, included the invoice summary from the Ecos Program database, manufacturer's invoice and shipping documentation, retailer's signed purchase order, and a copy of the delivery form with the participating retailer's signature. In this review, we verified filed copies of:

- Total incentive given to the manufacturer
- Total number of bulbs delivered to the participating retailer

These invoice data were compared to the entries in the Program databases for each of the sampled reservation numbers.

Impact Evaluation

The impact evaluation included the following tasks.

Review of initial savings assumptions. The evaluation team conducted a broad-based literature review, of both printed and electronic materials, in an attempt to identify comparable research on installation and retention rates. The team also reviewed net-to-gross (NTG) values in CFL programs of varying types to examine the reasonableness of the NTG values used by the Program in savings calculations. Finally, the evaluation team reviewed the "reasonableness of assumptions" behind the Watt equivalents originally proposed by Ecos.

Verification of savings. Using the Program database of measures, savings per measure, and the stipulated values, the evaluation team verified the savings calculations.

Evaluation Issues

Due to the timing of the EM&V contractor selection, it was not possible for Quantec staff to conduct the first round of site visits with participating retailers until after the lighting promotions were complete. Thus, we were not able to observe the placement of product and promotional efforts, nor were we able to verify that implementation occurred as reported. In trying to complete the surveys with retailers, we found that some staff were no longer employed and that the immediacy of Program recollections diminished for others, while others wondered why the project was being revisited so long after the promotions were complete. These difficulties primarily affected the evaluation of Program efforts in 2002 (sites visited early in 2003).

We were able to more closely time the remaining rounds of site visits to ensure that the product would be in the store/on the shelf during at least some of the visits. At the time of the last site visits (during the project extension in the first quarter of 2004), almost every retailer had the lighting products on display during the visit.

Organization of the Report

Chapter II presents background on the development of the Program and a review of the Program's components. The next five chapters present the process results:

- Chapter III summarizes the findings from the focus groups conducted with staff, Chapter IV presenting results of the surveys of

manufacturers, and Chapter V reviewing the results of the retailer surveys

- Chapter VI contains the results of the verification of the percentage of funds going to targeted retailers
- Chapter VII the findings from the verification of incentive processing

The next two chapters, Chapters VIII and IX, present the results of the literature review and verification of program savings, respectively. Chapter X contains conclusions drawn from the combined evaluation efforts.

II. Program Background

Program Concept

As outlined in the original Program proposal, the effort was conceived as a residential lighting program, with the goal of increasing sales of ENERGY STAR®-qualified CFLs in small, hard-to-reach, rural and ethnic grocery retail stores. The Program was designed to target these stores, thereby reaching residential customers through retail outlets serving non-English-speaking customers. By providing flexible incentives to reduce retail prices and provide support for consumer marketing activities, and targeted POP materials in a variety of languages, the Program would benefit customers by providing long- and short-term energy savings and increasing sales for small, hard-to-reach retailers.

The Program was proposed for three Investor-Owned Utility (IOU) territories: Pacific Gas & Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E). The CPUC approved the Program for the SCE and SDG&E territories. The Program officially kicked off on July 1, 2002, and continued through March 2004 (the first quarter of 2004 was a CPUC approved extension due to late approval and funding for projects by the CPUC in 2002).

Program Design & Implementation

Unique Approach of Local Program

The local hard-to-reach, hardware and grocery program differed significantly from IOU Statewide Lighting Programs, which provide a buy-down only and where current 2004-2005 Program incentives vary by lumen output, ranging from $0.50 to $2 per CFL. The Ecos approach, however, was to combine an attractive flat incentive with marketing/support materials and one-on-one retailer support from Program Field Representatives. The Program had a strong emphasis on education, both of retailers and their customers. Many months of market research and planning into the special needs of these hard-to-reach retailers preceded the notification to eligible customers.

Incentive Level

The incentive was set at $5 per CFL, with manufacturers, distributors, and retailers eligible for Program funds. During the Program extension period, the incentive was reduced to $3.

Identifying and Working with Retailers & Manufacturers/Distributors

Ecos staff identified and recruited manufacturers to contact distributors who served both the rural locations and specific stores within the targeted communities (Spanish, Chinese, Vietnamese, and Korean). These channels were seen as a primary delivery mechanism for the Program as Ecos' market research revealed that many retailers felt more comfortable working directly with manufacturers. Most had never participated in a utility-funded program and were intimidated with the process. The targeted retail segments expressed definite interest in the Program but were more likely to have manufacturers initiate the process and submit the Reservation Request Forms, with the retailers listed as the project partner. Indeed, in 2002 and throughout the Program, manufacturers dominated the process.

Targeted retailers were also identified, and the first letters describing the Program were sent to identified manufacturers and retailers in August 2002. The resulting request for bulbs far exceeded the Program's resources. In response, Ecos developed an allocation process.

To the extent possible, selected stores were cross-referenced with lists provided by SCE and SDG&E to eliminate those already participating in IOU Statewide Lighting Programs. The list of remaining stores was examined to identify those with multiple requests from the same manufacturer. These were held aside until remaining allocations had been completed. Then, if product availability allowed, the multiple requests were honored. Otherwise, the requests were limited. Some rural hardware stores were also held aside to avoid over-saturation in some communities.

Ecos staff entered the information on the remaining stores into a spreadsheet to calculate the number of stores and amount of units (CFLs) proposed by given manufacturers. Where multiple requests for the same stores or same chain of stores existed, the stores selected for a specific manufacturer were based on potential kWh savings of product proposed and/or amount of product already allocated to the manufacturers. This step was needed to allow the Program to remain within kWh savings targets since reservation requests were submitted from 15- to 25-Watt ranges.

In the next step, Field Representatives visited the selected stores to evaluate the ethnic customer base, to verify appropriate size and volume of customers, and to ensure that no IOU Statewide Lighting Program products were already on display. Given the presence of SCE & SDG&E in the rural markets in 2002, Ecos made no allocations to the rural hardware market for 2002.

Once project requests were confirmed, a final processing stage ensued to ensure that all required Retailer Participation Agreements were completed, that all signatures were present, and that all other Program rules had been followed. Manufacturers were contacted to provide any missing

documentation. Upon delivery of the bulbs, the retailer would sign a delivery acceptance form.

A second round of letters was sent to retailers and manufacturers on December 24, 2002, to launch the 2003 component of the Program. A similar process of allocation has continued to date.

Throughout the Program, Ecos staff maintained close communication with SCE and SDG&E regarding the timing of the IOU Statewide Lighting Programs to avoid serving the same markets in the same time periods. Ecos was only able to fully serve these markets in the first quarter of 2003. They withdrew from these markets in the first quarter of 2004 as SCE had again begun an IOU Statewide Program.

In 2003, nine retailers acted as participants on their own behalf, rather than as a partner to the manufacturer. These retailers had gained confidence, both through familiarity with the Program and through support from the Field Representatives, to complete the required forms and implement the invoicing and reporting requirements.

Role of Field Representatives

Key to the Program design was personalized support for participating retailers. A lack of knowledge of the benefits of CFLs, initial cost, slow product movement, and thus the risk small retailers perceive with the product were key barriers to the sales and promotion of CFLS in the small grocery and hardware sectors. To address these issues, the Program was designed with a strong role for the Field Representatives.

The Field staff worked closely with the retailers to educate them on the benefits of program participation and of ENERGY STAR. Field staff made in-person visits to recruit retailers, to assess store eligibility, and, once the retailers were enrolled, to assist them in setting up displays, training in-store staff, and resolving issues arising with manufacturers and distributors around communication and/or product delivery.

Training was an essential part of the Field Representative's role and varied depending upon the type of retailer. Most hardware store employees, for example, were fairly knowledgeable about the benefits of CFLs, while ethnic grocery employees were almost completely unfamiliar with the product. Often, across retailer type, training had to be done quickly on the sales floor, consisting of a brief overview and an introduction to the materials. The Pocket Cards (see below) were a valuable tool for this type of training because they provided the minimum amount of knowledge needed to answer customers' questions, employees could refer back to them, and they were in the appropriate language. In only a few cases, with larger chain retailers, were full "sit-down" training sessions with multiple employees possible.

Multilingual POP Materials & Advertising Template

In designing all of the materials for the Program, Ecos conducted extensive research to identify the most effective colors and patterns (and variability by ethnicity), and extent of language localization needed by the ethnic community. The result was a variety of POP and marketing assistance materials carrying a unified theme – but personalized for each ethnic community served. Messages key to the Program's theme were:

- Save money using ENERGY STAR-qualified light bulbs
- CFLs use 75% less electricity
- CFLs can last up to five years
- Look for the ENERGY STAR logo when buying CFLs

Materials developed included:[1]

- ***Posters*** that closely reflected the theme of the ad templates so that all of the Program materials had a cohesive look and feel. The posters were 18" x 27", and there was a co-branding space created at the base of the poster to allow retailers to write in their own in-store sales and promotional messages. Each poster, in-language, reflected the research on colors and patterns most suited to each ethnic community and featured models reflecting the targeted ethnic communities.
- ***Shelf talker & aisle wobbler*** attach to the shelf or end of aisle to draw attention to the shelf products. These materials were available in all five languages and reflected the colors and patterns in the posters and other materials by ethnicity.
- ***CFL bulb dump bin display*** allows the retailer to place products in a convenient stack that is covered with Program signage. The bin helps by placing the product into a more prominent position than a store shelf, often in an aisle or as an end-cap. Each bin has an image of bulbs, the ENERGY STAR logo, and CPUC language attached to it.
- ***Tear pads*** were designed to serve as a quick-reference for shoppers who wanted to learn more about ENERGY STAR-qualified lighting products. This double-sided marketing piece, highlighting energy savings statistics, wattage comparison, and suggested applications, was usually stuck to the shelf near the bulbs. Tear pads could also be placed near registers.
- ***Pocket cards*** were designed to allow store staff and management to learn about the value of ENERGY STAR-qualified lighting and to

[1] Source: Ecos Consulting, 258BC-02 1st Quarter 2003 Report.

carry the cards in aprons or have at the register for quick access as a reference. The handouts were created in all five languages and were double sided and full color with a durable laminate.

- ***Bulb light output meter displays*** compares the light output of a CFL bulb and an incandescent, side-by-side. The Watt meter for each bulb displays how much, or little, electricity is required to produce light. This marketing piece had a headline in all five languages of the Program and was used by field staff at various promotional events.
- More than 25 ***adverting templates*** were created, transferred to CDs, and distributed to retail and manufacturer partners.
- The marketing team provided four ***radio & television advertising scripts*** to accommodate retail partners who wished to create and run radio ads for ENERGY STAR products, each 30 seconds in length. Each spot featured the benefits of ENERGY STAR bulbs along with a savings factoid to grab the attention of the listener.

Incentive Processing

As participating retailers and manufacturers submitted proof that they had completed their incentive projects, Ecos staff reviewed the data to ensure compliance with Program rules before issuing incentive payments to the participants. Copies of all documentation submitted by retailers and manufacturers were filed in packets and payment information entered into the electronic Program Tracking System.

Ecos tried to send the incentives within two weeks of receiving invoices and proof of completion. After some initial delays in processing, by mid-year 2003 and throughout the remainder of the Program's implementation, the amount of time for incentive payments typically averaged two weeks between verification of completion and the date that checks were cut for recipients.

Responding to Customer Questions and/or Complaints

Ecos committed an extension of the company's toll-free number to support any manufacturer, retailer, or customer complaint occurring during the Program. Ecos staff reports, however, that no complaints were received via this line and that very few calls with questions, except early in the Program's implementation, were received.

III. Focus Group Results

In April 2003 and March 2004, the evaluation team completed focus group discussions with Ecos Field Representatives, administrative support staff, and the Program manager. Discussion in the 2003 group focused on how the Program began, how it had been delivered, customer response to date, early issues encountered, and lessons learned to date. By the 2004 meeting, the focus had shifted to changes that had occurred over the life of the Program, and overall lessons learned.

Summary of Key Results

Program Staff's Training and Experience

The field staff came into the Program with a great deal of experience, both in the technologies and in working with small commercial retailers. Two of the staff had been trained at Edison's Customer Technology Center on compact fluorescent lighting and worked on another project where they entered ethnic communities with CFL giveaways and torchiere turn-in programs. Most had worked previously with CFL programs for Edison, the CPUC, or other utilities. Two staff had also worked as representatives in other industries serving retail stores and noted that they "had experience visiting stores from that [market segment] and it made visiting store managers much easier."

While there was some turnover, staff added later quickly adapted, and the later addition of a staff person fluent in Chinese was very helpful in more effectively reaching the Chinese retailers. Overall, all of the staff agreed that they worked together to reach their goals and were an effective team.

> " For example, if we were having trouble with retailer trainings, we would share ideas and often help each other with solutions. Our goal was to help retailers sell more product and we worked together to do that."

Program Process

As noted in Chapter II, Ecos first sent marketing materials, including application forms, to manufacturers/distributors and retail stores describing the Program. In 2002 and early 2003, the manufacturers primarily sold the Program to their retail customers and received the incentives for each bulb distributed. (Later some retailers participated on their own, and not as a partner to the manufacturer.) The manufacturer subsequently submitted forms for each retailer, identifying the number of bulbs each would receive.

Upon receipt of these forms, Ecos Field staff did on-site screening to ensure that the retailer was eligible for the Program and to check that retailers' percent of ethnic customers fit the program targets. Staff noted that they also

had to check that the stores existed and that they were in the zip codes recorded by the manufacturer. Experience with many stores allowed them, over time, to more easily decide on a reasonable product allowance for a given store. That is, staff could assess the volume of customers and which stores did better advertising and outreach and thus were more likely to effectively distribute the bulbs. Once the retailers were approved, Ecos Field Representatives worked with them to place POP materials, to educate them and their employees about the product and promoting it to their customers, and to problem-solve around delays in delivery and other issues.

The retailers subsequently distributed the bulbs, either through special sales promotions or free offerings to customers. In the ethnic communities, the stores were more likely to offer the bulbs as free 'rewards' to customers purchasing a certain amount of merchandise or to regular and/or elderly customers. This continued throughout the project, especially among very competitive retail markets in close geographic proximity. In response, Ecos tried to vary shipping dates for these markets. Indeed competitive pressure kept some markets wanting to sell the product from doing so, if their primary competitor was giving the bulbs away. Other repeat participants gave bulbs away initially, but later did advertising and sold the bulbs. Staff estimated that, over the life of the Program, about 50% of the CFLs were given away and about 50% were sold.

Ecos Field Representatives also conducted site visits to participating retailers to assess their use of POP materials and status of stock and to examine overall lighting display and promotion.

Staff reported that "every quarter we changed things" and, over time, the Field Representatives assumed more responsibility for all aspects of the Program, including making more decisions in the field. The latter reflected their knowledge of the history of how the deal with the retailer had been made, issues that had arisen, and the level of trust that had been developed.

Retailer Response

Initially, many of the retailers did not believe that the CFLs would be free. They had had negative experiences in previous programs and were skeptical when manufacturer's representatives started calling them and offering them free bulbs. One retailer even cancelled because they were unhappy with so many phone calls from manufacturers trying to get them into the Program. Once Ecos Field Representatives followed up with the Program support, however, most retailers were pleased with the free bulbs and liked the idea that they could use them with regular customers as a free gift, to educate, or to offer at a very low price to introduce customers to the product.

The Field Representatives were surprised, however, at the amount of support needed by the retailers. In some cases, there was "constant hand-holding." In

others, it took many, many visits before the retailer seemed to grasp what was required of the participating stores. Once trust was established, however, retailer support was very high.

> "I have noticed that retailers view us more like an ally now. If there is an issue or concern, they call either our support staff or field staff directly. I think that has been a change; they think of Ecos representatives or of Ecos in general as a program. They are on our side, and they want us to succeed . . . . This sort of satisfaction – having solved problems for them with the manufacturer, for example – also makes a difference when you want to negotiate how much space we are going to get in the store."

Overall, the level of demand in the retail market was very high. Ecos used a "reservation" system for the lighting products to ensure fair distribution and to avoid setting unrealistic expectations that could not be filled. In general, Ecos found the bigger chain markets more receptive to the Program than smaller independent stores, and rural hardware stores less easily involved due to their participation in programs of this type in the recent past (there was some confusion with SCE and SDG&E Lighting programs that ran in 2002).

> "By the second time, the retailers really have it down. They know how to sell it and when the product will be there."

Ecos staff estimated that, overall, about 75% of participants were repeat customers, with most participating at least twice (receiving two allocations). A few retailers, mainly in the San Diego area, received three to four allocations. From the Field Representatives' view this reflected the increased comfort the retailers felt with the Program.

> "The retailers are willing and happy to use bulbs as promotional items. They have established trust with their customers, and I think sales of CFLs would triple if sold at these local sites."

Ecos staff all believed that the Program was successful in reaching the target markets and that the key to this success was involving the retailers. As one Field Representative noted, "The training and ongoing support converted them to believing in the product and the whole Program." Another noted changes observed in retailers as they participated a second time, with most "feeling more confident about answering customer questions." One Field Representative highlighted a retailer who had been particularly resistant when first contacted but, after several visits, "the next time I came there was a huge display waiting for me!"

> "The product (CFLs) has saturated their knowledge. Many of the retailers' employees have now changed out their own bulbs in their homes. There is more of a 'total' understanding and now that their customers want it, the retailers are very excited."

The Field Representatives also believe that they have effectively sold the ENERGY STAR® symbol and what it means, saying that "a lot of them wear the ENERGY STAR lapel pins regularly." Staff said that retailers now know to look for the ENERGY STAR logo, especially if they are approached in the future by manufacturers trying to sell them a cheaper and less-efficient product.

Finally, Field Representatives felt that, among these smaller retailers, the Program had increased their overall knowledge and enthusiasm about energy efficiency.

Point-of-Purchase Materials

Field Representatives viewed several aspects of the POP materials as successful. The simple message of the materials – "save money" – was seen as key, as was the good will engendered by having the materials in-language. In some retail stores, especially those serving Spanish-speaking customers, the tear-off pad proved very useful. It was good to have as an accompaniment to bulbs that were given away. Other managers trained store staff to put a tear-off page in every shopping bag. Staff were less sure that the tear-off pads, in English, utilized to the same extent. In other stores, the shelf talker combined with the tear-off pad was effective.

> "The retailers like the fact that [the tear-off] is a piece of information that the customer can take with them. A lot of times the retailers don't have the time or staff available to come by and answer the customers' questions."

Overall, the dump bins were very effective, especially in stores with little shelf space or in very large, crowded businesses. The bins place the product in a visible part of the store, and some retailers incorporated them into their own displays.

The store employees also found the pocket cards useful as references when telling their customers key points about the CFL. And, as noted earlier, the Field Representatives staff found the pocket cards useful for training the retailers and their staff.

Having the range of POP materials was important given that the stores vary a great deal in the way they merchandise, sell, and promote products. As one Field Representative noted, promotion is actually a two-step process, whereby the wobblers, shelf talkers, and end-caps get the customers' attention, but more in-depth information is then needed to hold their attention and get them to actually take the product.

Field staff felt that retailers were less satisfied with the ad slicks and newsprint templates – that the CFL graphic was not large enough on either the posters or ads and customers could not tell at a glance what the ad was about. Retailers were happy, however, that something was available to them and that they did not have to create a promotional graphic themselves. Ecos staff revised the ad templates in response to the retailer comments, providing just the CFL graphic, the ENERGY STAR logo, and the price point. The retailers used these to prepare their own ads.

Challenges in Program Delivery

Working with manufacturers. Ecos staff felt that the manufacturers oversimplified the Program when presenting it, creating problems when Ecos staff followed up with retailers. Field staff reported that manufacturers often signed retailers without providing complete (or in some cases, any) information on what would be required in terms of POP materials, educating customers, etc. Therefore, when field staff did screening visits to follow-up, retailers were unaware that an approval process was required and surprised at both the level of promotion expected and the amount of product they would need to move. These types of issues, and too much phone solicitation by manufacturers, contributed to losing "a fair amount of stores" from the Program, especially early in Program implementation. Manufacturers also submitted retail partners who were not eligible businesses.

In response, Ecos conducted training with some of the larger manufacturers, and staff noted some improvement as a result. However, one staff member noted that, even late in the Program, one manufacturer was trying to go to the same retailers with a lower price bulb of their own. These types of challenges continued throughout the Program.

> "For [Ecos], it's not just a free bulb program. But we say 'this is what we expect of you, the retailer, in terms of promotion. We also educate, however slightly, about overall energy efficiency and its importance."
>
> "I've also added to my training the message that 'money is not all that you are saving.' I mention the small things they can do to save the earth's resources, whether energy, recycling, packaging, or whatever. I emphasize that doing it both at home and in your business is important."

Field staff also identified key differences between the manufacturers' and Ecos' approach. Ecos staff's approach is not to emphasize the free bulb aspect of the Program, but to include expectations in terms of promotion and to educate retailers about energy efficiency in general.

Field staff emphasized the need to educate manufacturers more intensely about overall expectations, rules, and approach to retailers when a program is starting up. Training should make clear the accepted CFL models and wattage, and each manufacturer should be asked to clearly identify the name of the contact at the proposed retail partner. Learning early about the manufacturer's system of invoicing could also alleviate issues that lead to delays in delivery and payment.

Working with retailers. Field staff was also surprised at the amount of "hand holding" required by the participating retailers. The long-term payoff, however, is that the customers' perceptions have shifted from skepticism to appreciation of Ecos support, especially in solving issues or problems with the manufacturers (e.g., delivery delays, fewer bulbs than expected, etc.).

Overall, Field staff found that the Chinese, Korean, and Vietnamese markets harbored higher distrust levels and required more hand holding and trust building. Staff found the Hispanic markets much easier to enroll. Differences were also seen in distribution of the CFLs with Hispanic markets usually selling the product and "almost three-quarters" of the Asian markets giving the product to customers.

Ecos Field staff were surprised that the decision-maker in the stores wanted to conduct business in English. They found that most businesses have bilingual staff, even if most used in-language POP materials with customers.

Still, language barriers were a challenge. In the ethnic markets, it was sometimes difficult to find the decision-maker. While the front-line employees might speak English, the owner might not. It was necessary to encourage the line staff to communicate what the Program could offer to the owner in-language.

In other stores, a given retailer in a market chain would not be aware that their management had made the decision to participate, while other managers might foster competition between the stores who were participating.

The grocery strike in late 2003 and early 2004 also affected the Program, making it difficult to get time to train in stores where business had increased. An unexpected positive outcome of the strike was that patronage of the ethnic, local markets increased by customers wanting to support the striking employees of the larger chain markets. Ethnic retailers were excited about the temporary influx of new customers and utilized the Program's product in an effort to retain their business.

IOUs in rural hardware market. The consistent presence of the IOU Statewide Lighting Programs in the rural areas prevented the Program from reaching the participation levels originally anticipated in the rural hardware market. The presence of multiple lighting programs in the same utility service territories also presented a burden to retailers, some of which were contacted by 17 manufacturers over the course of a year. This confused the retailers and, in some cases, led them to refuse to participate in any program offered.

Other Lessons Learned

All of the Ecos staff felt that programs like the one offered to the ethnic and rural hard-to-reach markets need two to three years for implementation. It takes time to build trust with the retailers, and for them to feel confident about educating their customers. As several Field Representatives noted, in the second year, "you really begin to see the excitement." Ecos staff also believe, however, that the Program effects will be long lasting and that, even if the product is not available free to the retailers, some of the customers who have been educated about energy efficiency and received a bulb will demand the

product. Then, retailers see the value and continue to stock the ENERGY STAR products. However, the message of needing to save energy must be continuous.

The next step, now that the products are in the market, is to educate the retailers and customers about the differences in the ENERGY STAR products available (i.e., how to tell a good quality CFL from one of poorer quality).

Finally, the Ecos staff noted the need for consistency among the lighting incentive Programs. Having multiple programs with different incentives makes Program delivery difficult and engenders confusion and resistance among affected customers.

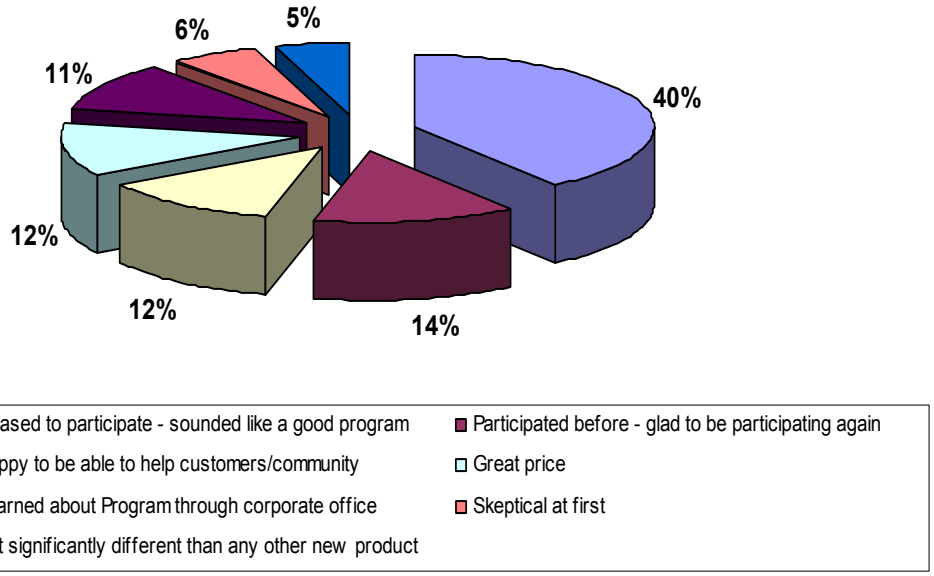
IV. Survey Results: Retailers

Section IV presents the results of Quantec's on-site surveys conducted with participating retailers. A total of 70 retailers were sampled during four different rounds of interviews covering both the San Diego and Los Angeles area.

Initial Response

We first asked retailers a series of questions about how they viewed the Program when first approached. As shown in Figure IV.1, 70% said they had a positive initial response, believing it was good for customers, offered at a great price, or were generally pleased to participate. Fifteen percent said they were skeptical, thinking the Program offer might be "too good to be true." Others noted that they "did not really have a reaction" since they were just told to participate by the corporate office.

Figure IV.1: Retailer Initial Response
(n=70, Multiple Responses Provided)



Of participants surveyed, 15 reported having concerns when initially approached by the Program. The specific concerns cited are shown in Table IV.1, with suspicion about hidden costs and the volume of bulbs they would be required to move the most common responses. These 15 participants were asked if anyone addressed their initial concerns and, if so, by whom and in what way. As shown in Tables IV.2 and IV.3, almost half said that the Ecos Field Representative addressed their concerns, and another 38% said the

manufacturer did so. Usually additional explanation of the Program was provided. Field Representatives also continued to provide information and work with the participants.

Table IV.1: Type of Initial Concerns about Program

Concern	Freq.	%
Wary of hidden costs	5	33%
Concerned with the volume of bulbs	5	33%
Confused - in need of clarification	3	20%
Unfamiliar with CFLs	1	7%
The Rep did not speak language	1	7%
	15	***100%***

Table IV.2: Agent Addressing Concerns

Agent	Freq.	%
Ecos Rep	6	46%
Manufacturer/Distributor	5	38%
Other	1	8%
Ecos Rep & Manufacturer/Distributor	1	8%
	13*	***100%***

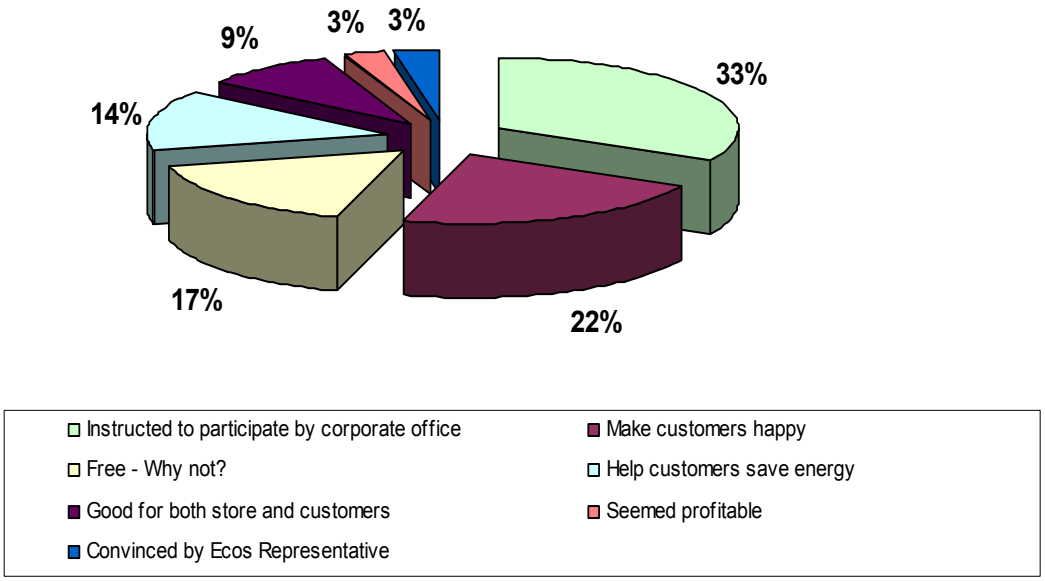
* Of the two remaining participants, the concern of one was not addressed (A Spanish speaking representative did not handle the arrangements with the store), while the other did not vocalize their concern to either Ecos or the manufacturer.

Table IV.3: Way in Which Initial Concerns Addressed

How Addressed	Freq.	%
Further explained program	8	62%
Continued Attention from Ecos Field Rep	4	31%
Discussed with store management	1	8%
	13	***100%***

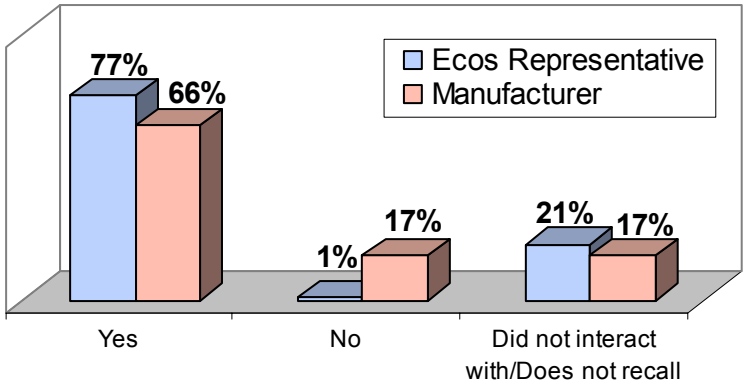
After exploring the retailers' initial responses to the Program, the evaluation team asked why they decided to participate (see Figure IV.2). As shown, the most common reasons included that they were instructed to participate by their central office (33%), to make their customers happy (22%), or because the Program was free (17%).

Figure IV.2: Reason for Program Participation
(n=70 Multiple Responses Provided)



Retail customers obtained information about the Program from both the Ecos Field Representatives and the manufacturers who solicited their participation. When participants were asked if the Program was explained clearly by both of these delivery agents, more than three-quarters said yes (Figure IV.3).

Figure IV.3: Program Explained Clearly (n=70)



Program Promotional Activities

We asked retailers about the effectiveness of both the POP materials and promotion. It is important to note that the only POP materials available to

participating retailers in 2002 (our sample included 20) were the shelf talker and aisle wobbler. Overall, the poster, added in 2003, and the shelf talker, available both years, were considered by retailers to be the most effective.

Table IV.4: Effectiveness of POP Materials

	Tear-Off Info	Pocket-Card	Poster	Shelf Talker	Shelf Wobbler	Dump bin
	n=50	n=50	n=50	n=70	n=70	n=50
Very Effective	6%	2%	52%	34%	10%	18%
Somewhat Effective	4%	8%	24%	29%	24%	0%
Not Effective	0%	6%	24%	6%	7%	0%
Not Sure/Did Not Use	90%	84%	0%	32%	59%	82%
Total	***100%***	***100%***	***100%***	***100%***	***100%***	***100%***

As shown in Table IV.5, 43% of those surveyed said that different materials or approaches would be more useful in promoting the CFLs. The most common suggestion was for larger and/or brighter displays to catch the customers' attention. Other interesting suggestions included information regarding the Program itself – why the bulbs were so much cheaper than at other retailers, who the Program sponsor was and how compact fluorescent lighting worked.

Table IV.5: Types of Different Materials/Approach Desired

Materials/Action	Freq.*	%
Yes	30	43%
Larger and/or brighter displays	15	47%
Materials that explained how the bulbs work	4	13%
Longer duration of advertising	3	9%
Materials that explained the Program itself - esp. why bulbs were so cheap	2	6%
Insert in electric bill	2	6%
More languages	2	6%
Materials that emphasis that it is an Edison program	2	6%
Materials that explained wattage equivalencies	1	3%
Special display for store entrance	1	3%
No	40	57%

* Multiple responses provided

Next, the 2003 and 2004 participants[2] were asked whether they used the advertising template provided by Ecos and, if so, how it was used. As shown in Table IV.6, only 20% of these participants used the template, but when they did so, it was most often included in their store circular.

Table IV.6: Use Advertising Template

	Freq.	%
Yes	14	28%
Store Circular	10	67%
Local papers	2	13%
Store Newsletter	2	13%
Radio	1	7%
No	35	70%
Planning to	1	2%
	50	***100%***

* Multiple responses provided

Next, the retailers were presented a series of questions on other promotional activities they had used. As shown in Table IV.7, 80% had allocated special space to the product; 6% had given the bulbs away, and 6% had held special promotion events. For those having allocated special space, we asked where this space was in their store. Their responses are shown in Table IV.8. Most often, the space allocated was near the store entrance, registers, or at the end of an aisle.

Table IV.7: Promotional Activities Used

Activity Used	In-Store Demonstration		Special Promotions Event		Gave Away Free with Purchase		Meter Unit Display		Allocate Special Space	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Yes	4	6%	4	6%	4	6%	3	4%	56	80%
No	66	94%	66	94%	66	94%	67	96%	14	20%

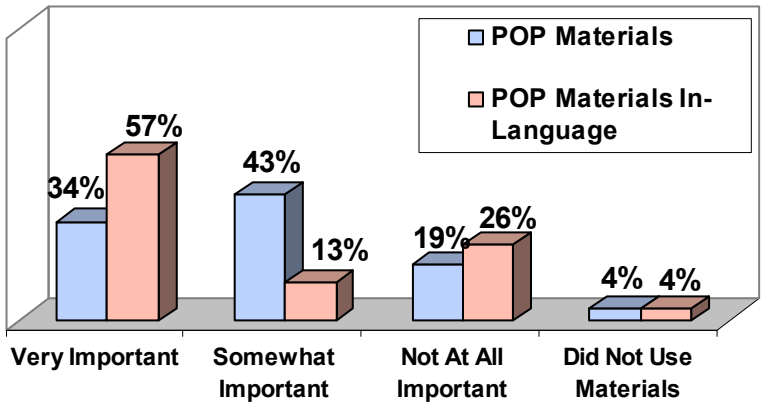
[2] The template was not available to 2002 participants.

Table IV.8: Location of Allocated Shelf Space

	Frequency	Percent
Near the entrance	14	25%
End cap display	14	25%
Near registers	12	21%
Pallet in aisle	6	11%
"Prime location" in store	5	9%
Middle row display	3	5%
Outside of front entrance	2	4%
	56	***100%***

Finally, we asked retailers to assess the overall importance of the POP materials and of having them in-language. Their responses are shown in Figure IV.4. While one third felt that the materials were very important, 57% felt it was important to have the materials in-language.

Figure IV.4: Importance of POP and In-Language Materials (n=70)



Retailer Support

We asked retailers to assess the importance of the Ecos Field Representative's support in three areas: understanding the Program, effectively promoting the product, and resolving problems. In some areas, such as resolving problems, the question was applicable to only a percentage of respondents (most having no problems to resolve). As shown in Table IV.9, it appears that, for almost half of participants, the Field Representative was very important in helping them to understand the Program requirements, and for 58%, the Field Representative was either "very important" or "somewhat important" in helping them to effectively promote the CFLs.

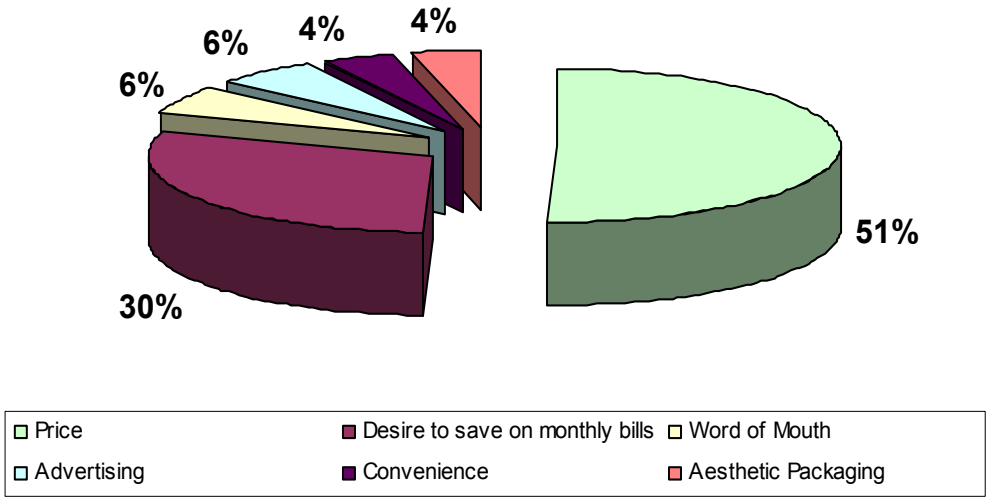
Table IV.9: Importance of Field Representative in Helping Retailer

Importance Rating	Understand Program Requirements		Effectively Promoting Product		Resolve Problems	
	Freq.	%	Freq.	%	Freq.	%
Very important	31	44%	20	29%	7	10%
Somewhat important	14	20%	20	29%	1	1%
Not at all important	- - -	- - -	5	7%	- - -	- - -
Don't know/Not sure	25	36%	25	36%	62	89%
Total	***70***	***100%***	***70***	***100%***	***70***	***100%***

Retailer View of Customer Response

The retailers who sold the bulbs were asked what encouraged customers to buy them. As shown in Figure IV.5, half said the price (either free or very low cost), but another 30% said it was the customers' desire to save on their monthly energy bills. In their comments, some retailers noted that this promotion allowed the customers to "try out" the bulbs without great cost. One retailer noted that customers would buy one and then return the following day and buy ten or more. When asked how they knew the promotion had increased their customers' satisfaction with CFLs, having had few returns or complaints and receiving positive feedback were the reasons most often cited (see Table IV.10).

Figure IV.5: Factors Encouraging Customers to Buy Program CFLs (n=53)



Almost all of those surveyed said that the promotion had increased their customers' overall awareness of the product. This was especially true for customers who had not seen CFLs before or had never been able to afford them. We asked if retailers thought the Program had increased their customers' satisfaction with CFLs. All but one (97%) said yes. When asked why they believed this, 36% said it was because the bulbs had not been returned or customers returned asking for more and 35% said it was due to positive feedback about bulbs or price.

Table IV.10: Retailers' Reasons for Reporting that Promotion Increased Customers' Satisfaction with CFLs

Reason	Freq.	%
Very few or no returns	14	20%
Received positive feedback	13	19%
Did not receive any complaints	12	17%
Customers pleased with price	11	16%
Customers returned wanting more	11	16%
Customers mentioned decrease in bill	5	7%
Happy to get to try them for free	4	6%
	70	***100%***

Stocking and Retail Practices

In a final series of questions, the evaluation team asked participating retailers about their CFL stocking practices. Only six retailers (9%) had stocked CFLs prior to this Program – the majority of which were rural hardware stores. Those same six retailers said they still stock them (without the Program), while ten stores (14%) that had not previously stocked CFLs said they planned to stock them after the Program.

Table IV.11: Retailer Plan to Stock CFLs in Absence of Program/Other Supports

Stock without Program	Freq.	%
Yes; stock them now	6	9%
Yes; plan to stock them	10	14%
No	36	51%
Unsure	18	26%
	70	***100%***

Those retailers reporting that they would not stock the CFLs after the Program provided multiple reasons. As shown in Table IV.12, the most common reason given was the cost of bulbs without Program support. For others (22%), the

customers' interest in or demand for the product was also a factor, in addition to cost. For some, the decision not to carry the bulbs was a corporate one versus their own. In four cases, the bulbs were carried during the Program by markets that normally do not – and will not in the future – carry non-food products.

Table IV.12: Reasons for Not Stocking CFLs after Program Completion

Reason	Freq.	%
Too expensive w/o program assistance	32	59%
Depends on availability, price and/or customer interest	12	22%
Corporate decision	6	11%
Only carry food	4	7%
	54	***100%***

The evaluation team's review of products stocked conducted while visiting the retail sites validates these responses. Some type of CFLs, including both Program and non-Program products, were present in almost half (47%) of the stores. As shown in Table IV.13, ENERGY STAR® CFLs were found in 33 of the stores at the time of the site visit, but other types of CFLs were stocked in only two. In about two-thirds (64%) of the sites having CFLs, there was a special display; in one-third, the stores had allocated shelf space. And there were Program materials present in 58% of the stores with CFLs in stock.

Table IV.13: CFL Status at Time of Site Visits

Status	CFLs PRESENT		ENERGY STAR CFLs Present*		Other CFLs Present*		Special Display*		Allocated Shelf Space*		Materials Present*	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Yes	33	47%	33	100%	2	6%	21	64%	11	33%	19	58%
No	37	53%	0	0%	31	94%	12	36%	22	67%	14	42%
	70	***100%***	***33***	***100%***	***33***	***100%***	***33***	***100%***	***33***	***100%***	***33***	***100%***

* Only applicable to retailers with CFLs present at time of site visit; some visits occurred after the promotion was complete so no product or displays remained.

Other Program Outcomes

In general, all of the surveyed retailers reported feeling more confident in promoting the CFLs, and 94% felt that the incentive was sufficient to encourage them to act as the lead in future Programs (versus going through the manufacturer). The latter finding mirrors the impressions given by staff that having participated several times over the life of the Program, many of the retailers had developed the confidence to act on their own behalf.

V. Survey Results: Manufacturers

Given the key role that manufacturers played in delivery of the Program, the evaluation team conducted telephone surveys with representatives of ten of the active firms. These surveys were designed to explore their perceptions of the Program, challenges in participating, relationships with their retail partners, and the impact of the Program on their sales and market penetration in the targeted markets.

As shown in Table V.I, the manufacturers learned about the Program in a variety of ways, including through the Ecos. Those citing other sources usually said, "we are in this business and just in the loop," or a similar comment. In general, all thought it was a good opportunity (see Table V.2).

Table V.1: How Manufacturer First Learned of Program

Source of Program Information	Freq.
Ecos (representative or mailing)	4
Utility	1
ENERGY STAR®	1
Co-worker	1
Other	3
	10

Table V.2: Manufacturer's Initial Reaction on Hearing of Program

Reaction	Freq.
Good program	3
Tapping a new market	3
Increasing outreach	1
Better incentive than other programs	1
Convenient	1
Generally excited	1
	10

When asked about their concerns with the Program, a variety of responses were given. Three said they did not know what to expect since it was a new program and not at all like that offered by the statewide lighting programs. One felt that the retailers were confused by having two different approaches – the local and the statewide – at the same time. Two said they were concerned about getting the hard-to-reach customers to participate, another that the number of qualifying customers was so limited, and yet another felt it was difficult and confusing to determine which stores would qualify. One

manufacturer was concerned that there was not enough in the budget for promotion to the retailers, while another was concerned with following the rules and guidelines outlined by Ecos.

> "We didn't know what to expect because we had never worked with these customers, this market, before."
>
> "I was concerned that the number of qualifying customers was so limited."

As with initial reactions, the surveyed manufacturers gave a variety of reasons for their decision to participate in the Program. As shown in Table V.3, the most frequent reason given was "to sell or promote more of the product;" others felt it fit with their current promotion of ENERGY STAR® products and with their overall business. Two of those surveyed said they were motivated to participate by the incentive level.

Table V.3: Manufacturer's Reasons for Participation

Reason	Freq.
Sell/promote product	4
Incentive level	2
Good for business	2
Promote Energy Savings/ENERGY STAR	2
Good fit with what we do	2
Reach new customers/markets	1
Other	1
Total	***14***

Two of the ten manufacturers, when asked if the Program was clearly explained to them in the beginning, said that it was not. One of these manufacturers noted that there was no personal contact, only that his company received "a 50-page packet, by mail, with lots of legal mumbo-jumbo that had to be translated into something we could understand. We had to call them with questions." The other noted that there was a lot of confusion during the first month but, after that, the field representatives visited their company and the Program was fully explained.

The evaluation team then asked the manufacturers if there were any issues with several aspects of the Program's delivery, from communication with Ecos staff to receiving payment.

Eight of the ten had no concerns/issues with communication. Of the remaining, one was frustrated by having to use e-mail and the other felt that his voice mail messages were not returned quickly enough. The majority, eight manufacturers, also had no issues with the product reservation process. One of the remaining expressed some concern with overall communication about the reservations, while the other felt strongly about problems that the reservation process caused for his retail partners (see quote below).

Only four of the manufacturers expressed some concern regarding communication with the retailers. One of the manufacturers was troubled by the language barriers and feared that he could not accurately communicate the Program requirements to the retailers. Another feared that the retailer might get confused and participate in both the Ecos Program and the statewide program. A third manufacturer felt that the retailers would sign the agreement to do the promotion but not follow-through. In this case, the manufacturer felt that the Program penalized them – by nonpayment – for the retailers' failure to follow-up on their commitment. The final concern focused on confusion between the product Ecos staff would promote to the retailer and that promoted by the manufacturer's representative.

The majority of the manufacturers surveyed (8) had no issues with product delivery. Of the remaining two, both commented on the allocation process, saying that the lack of a firm commitment on the number of bulbs they would receive presented problems for their companies.

Regarding the payment process, three manufacturers noted that it took a little longer than expected and the fourth noted some confusion regarding the contract requirements for payment. The remaining six expressed no concern with the payment process.

When asked if there were any other issues with Program delivery, seven said there were not. Of the remaining three, one cited "too much paperwork," another the amount of time it took to qualify customers, and another revisited the allocation process mentioned previously.

As shown in Table V.4, nine of the ten manufacturers said that having the Ecos Field Representatives available to assist them with problems and questions was important, with six of these saying it was "Very Important."

Table V.4: Importance of Availability of Field Representatives to Assist with Problems/Questions

Rating	Freq.
Very Important	6
Somewhat Important	3
Not at all important	1
Total	***10***

The evaluation team asked the manufacturers several questions regarding the impact of the Program on their business. Eight of the ten surveyed said that their participation in the Program had increased their company's knowledge of the hard-to-reach market "a great deal." As shown in Table V.5, the Program had other impacts, such as increasing company sales, providing the company

new contacts, and offering an opportunity to improve relationships with retailers.

Table V.5: Other Impacts Participation Had on Business

Impacts	Freq.*
Increased Sales	7
Better outreach/new contacts	5
Improved relationships with retailers	2
Total	***14***

* Multiple responses possible.

A few other comments were offered about the Program. These were largely positive, citing the importance of getting into the hard-to-reach market, and hopes that the Program would be continued. Comments included:

"The best part of the Program was increasing our knowledge of this hard-to-reach market. [Ecos] really accomplished their goal and really spurred a market transformation. I hope it continues next year."

"Overall I think this was a very good program -- I think it's a good idea to target this market. I hope the Program continues, especially targeting this market."

"Many people do not know the benefits of energy efficient lights, so this Program helps that. I really, really hope this Program continues. It's a great idea. It's good for people, good for business, and good for everyone. It even helps the DOE with the energy problem."

"I would really like to participate in the Program again next year and all the time. I think it's an excellent Program. The field reps physically went out to the retailers to promote the Program and increase awareness, and that helped spread energy efficiency knowledge."

"There need to be more programs. In spite of all the problems, they helped us move our product, and I would like to see the Program continue."

"We were very happy with the Program and if it comes around again, we'd like to participate."

VI. Verification of Percent of Funds Awarded to Priority Retailers

Methodology and Results

To verify the percent of funds awarded to priority retailers, Quantec staff used the Hardware and Grocery Database (the Database) program provided by Ecos. Table VI.1 provides a distribution of Program funding by channel, as well as, when appropriate, by type of ethnic grocery. It is clear from this table that the Program was successful in its goal of awarding at least 60% of Program incentive funds to rural hardware stores and ethnic grocery markets. Overall, rural hardware and ethnic grocery markets accounted for 97% of the allocated incentive funding, with ethnic groceries constituting almost 82% of that goal.

Table VI.1: Distribution of Program Funding

Channel/Type	Freq.	Percent	Dollars	Percent
Ethnic Grocery	225	81.8%	$3,223,958	84.7%
Chinese	40	15%	$707,900	19%
Hispanic	96	35%	$1,685,225	44%
Korean	31	11%	$324,445	9%
Vietnamese	54	20%	$434,388	11%
Vietnamese/ Chinese	4	1%	$72,000	2%
Grocery	4	1.5%	$17,350	0.5%
Hardware	6	2.2%	$89,000	2.3%
Rural Hardware	40	14.5%	$477,490	12.5%
Program Total	***275***	***100%***	***$3,807,798***	***100%***

VII. Verification of Incentive Processing Documentation

To verify the incentive process and the distribution of CFLs into the marketplace, Quantec visited the Ecos office to examine a randomly selected sample of the *Overall Summary Invoice* packets for 2002, 2003, and 2004 (first quarter extension). These packets include the invoice summary from the Ecos Program database, manufacturer's invoice and shipping documentation, retailer's signed purchase order, and a copy of the delivery form with participating retailer's signature. In this review, we verified filed copies of:

- Total incentive given to the manufacturer
- Total number of bulbs delivered to the participating retailer

These invoice data were compared to the entries in the Database for each of the sampled reservation numbers. Quantec found that each of the sampled invoices matched the figures included in the Database, verifying100% internal consistency between the incentive process and the accuracy of the Database.

VIII. Status of Secondary Review of Literature

In the revised EM&V Plan, Quantec responded to the CPUC's request to include a secondary review of the literature to obtain an estimate of the appropriate installation rates, retention rates, and NTG rates for this type of program.

Installation & Retention

No evaluation reports, planning documents, or other literature on installation and retention of bulbs distributed through programs that used a similar delivery mechanism could be identified. This is due to the unique target population and distribution methods in the Program. In the absence of directly comparable programs, we have used results from other types of CFL programs.

Net to Gross (NTG)

One issue raised in the evaluation process has been the reasonableness of applying a uniform 0.80 NTG to all Program measures. Quantec has a long history of assessment of NTG ratios for a variety of clients and programs. In some instances, we have made the argument that the level and effect of spillover may be large enough to cancel the free ridership impacts (PacifiCorp programs in Oregon, Washington, and Utah). We believe, therefore, that the application of a uniform NTG ratio of this magnitude will tend to lead to an overly conservative estimate of Program-induced savings.

In fact, Quantec's research on the subject has shown that, in many cases when both effects are measured, spillover can actually be greater than free rider-ship. This may be especially true in programs of this type, where data from retailers indicate that none carried the product prior to the program. In such cases, the assumption that free rider-ship and spillover negate each other actually provides a conservative estimate of Program energy savings.

The lack of spillover analysis has been recognized in many instances:

- According to the ***International Energy Agency***, "these indirect effects work in opposite directions and both are difficult to quantify. Until better information is available, it may be practical to assume (as in some regulatory jurisdictions in the case of traditional energy efficiency projects and programs) that these two effects cancel each other out."

- ***The National Association of Regulatory Utility Commissioners*** (NARUC) Regulating DSM Evaluation manual states that, as of 1994, no regulators were requiring the measurement of spillover effects, yet "most encourage or require free rider assessments, resulting in potentially lopsided analyses which could under value the benefits of utility DSM programs." [3]
- ***Iowa's investor-owned utilities***, along with the Iowa Utilities Board, discontinued the calculation of program-specific free rider-ship and spillover in response to Quantec's research on the subject and have since adopted a NTG ratio of 1.0 for all utility programs.

However, in a preliminary effort to evaluate the reasonableness of the mandated NTG ratio, Quantec sought to find the ratio utilized in similar California residential programs. The NTG ratio calculated during the evaluation of the following programs, though not entirely analogous, provide some insight into the appropriateness of the current NTG ratio:

- ***1996 Residential Appliance Efficiency Incentives Program: High Efficiency Lighting: First Year Load Impact Evaluation***. This study evaluated the gross and net load impacts of a residential high efficiency lighting program. The program was designed to educate and increase consumer awareness of CFLs and to encourage their installation. Gross load impacts analysis was conducted by SDG&E using direct mail response, field operations lighting forms, and the replacement bid program database. Net-to-gross analysis was conducted by Hagler Bailly Consulting Inc. and consisted of a survey of participants to determine free ridership. The spillover analysis did not provide reliable results and was ignored. Results were that estimated gross demand saving were 84.73 kWh. The NTG ratio, based on the results of the self-report survey only was 0.86.[4]
- ***1994 Residential Appliance Efficiency Incentives Program High Efficiency Lighting: First Year Statewide Load Impact*** *(NTG found to be 0.90)*. This study determined the first year gross and net load impacts of the 1994 Residential Compact Fluorescent Lighting Incentives programs sponsored by SCE and SDG&E. The study used a triangulated engineering approach. The methodology incorporated both spillover and free-ridership impacts. Savings were based on the difference in the energy consumption between CFLs and the incandescent lamps they replaced. An important factor in the study was the estimated base annual hours of operation, which was based on phone surveys. The study showed the total number of distributed

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[3] National Association of Regulatory and Utility Commissioners, April 1994. *Regulating DSM Evaluation,* Washington, DC. NARUC.

[4] http://www.calmac.org/calmac.asp

CFLs of 923,713 bulbs a per-unit gross savings of 57.7 Watts, an average daily usage of 3.3 hours, and an average per-CFL energy savings of 67.7 kWh per year. The study results show a net-to-gross ratio of 0.90.[5]

[5] Ibid.

IX. Reasonableness of Assumptions and Verification of Program Savings

Rationale for Discussion

Quantec conducted a review of the "reasonableness of assumptions" behind the Watt equivalents originally proposed by Ecos. Once the reasonableness of the Program's savings assumptions was confirmed, Quantec used the deemed energy and demand savings from the PIP to calculate the Program's net kWh and kW impact. In addition to this, all of the above was used to verify the Ecos' cost-effectiveness findings.

Review of "Reasonable of Assumptions"

As part of this task, Quantec reviewed several sources to determine the lumens associated with incandescent bulbs and CFLs made by different manufacturers. We then averaged the lumen power reported across the sources for each size of incandescent bulb and CFL (Table IX.1). The shaded measures are those that pertain to the Ecos Program, with typical incandescent home lighting in the far left column and the Program CFLs on the far right. In general, the sources reviewed indicate an approximately 4-to-1 ratio between the wattage of an incandescent lamp and its proposed replacement CFL to achieve comparable lighting intensities.[6]

Table IX.1: Average Lumens per Bulb – Incandescent and CFL

Bulb Size	Incandescent (lumens)	CFL (lumens)	Program CFLs (replacement)
40 W baseline	472	871	15 W
60 W baseline	821	871	15 W
75 W baseline	1,200	1,193	20 W
75 W baseline	1,200	1,447	23 W
100 W baseline	1,850	1,600	25 W
100 W baseline	1,850	1,750	27 W
100 W baseline	1,850	1,800	30 W

[6] Due to improvements in technology, CFL lumen output per Watt has increased recently. This may indicate a need to update the Southern California Edison table.

Eight CFL sizes were shipped as part of the Program: 14W, 15W, 16W, 18W, 20W, 23W, 25W and 26W. The analysis below looks at all of these sizes. We consulted three additional sources[7] to determine "generally accepted" values for demand and energy savings. Wide variations were found in the values provided by these sources, primarily due to appreciable differences in assumptions about "Load Coincident Factor," "Average Daily Operating Hours," and HVAC interactions used in savings calculations. Table IX.2 provides estimates from each of these sources for Demand and Energy Impact for each CFL type involved in the Program. We have also provided an average estimate of actual savings, in the absence of primary research such as the confirmation of *actual* (metered) operating hours in the program region, reevaluation of the *actual* load coincident factor for the regions residential loads, and detailed modeling of HVAC interactions in the Program region.

Table IX.2: Demand and Energy Impacts

CFL Size	SCE	2001 DEER[1, c]	RTF[2,c]	ENERGY STAR [b, c]	ECOS
Demand Savings (kW Coincident with Peak Demand)					
14 Watt	0.0052				0.0139
15 Watt	0.0050	0.0136	0.0027	0.011	0.0136
16 Watt	0.0048				0.0133
18 Watt	0.0064				0.0172
20 Watt	0.0080	0.0165[a]	0.0033	0.0138	0.0166
23 Watt	0.0074	0.0156[a]	0.0032	0.013	0.0233
25 Watt	0.0100	0.0227		0.0188	0.0227
26 Watt	0.0098		0.0045		0.0139
Energy Savings (Annual kWh)					
14 Watt	33				46.4
15 Watt	32	45	34	64	45.4
16 Watt	31				44.4
18 Watt	41				57.5
20 Watt	51	55 [a]	42	80	55.5
23 Watt	47	52 [a]	40	76	77.7
25 Watt	64	75		110	75.7
26 Watt	63		56		74.7

1 Database for Energy Efficiency Resources (DEER), Database contains extensive information on selected energy-efficient technologies and measures. The DEER provides estimates of the average cost, market saturation, and energy-savings potential for these technologies in residential and nonresidential applications.

2 Regional Technical Forum (RTF), Northwest Power Planning Council standardized protocols for verifying and evaluating conservation savings.

a Numbers are an interpolation of values using best estimates of 2001 DEER assumptions.

b Energy Star values calculated using ENERGY STAR Assumptions and an imputed Coincidence Factor of 0.25.

c Values for missing wattages are not available.

[7] Sources reviewed include: DEER 2001 database (www.energy.ca.gov/deer), Regional Technical Forum Supporting Data Files (www.nwcouncil.org/energy/rtf/reports.htm) and the Energy Star CFL Savings Calculator Assumptions (www.energystar.gov).

Comparing the Ecos projections in the original Program proposal and Implementation Plan, the Ecos assumptions of savings per unit fall within the ranges of the different sources and are closest to the 2001 DEER[8] values. The Ecos figures are in fact derived directly from the DEER 2001 values for demand and energy with the energy figures adjusted to reflect a 0.8 NTG. Overall, the Ecos assumptions for demand and energy impacts for each measure are consistent with other regional sources.[9]

Utilizing the verified deemed per-unit kW and kWh savings figures from the PIP methodology, Table IX.3 calculates the gross demand and energy for each bulb type included in the Program. The Program's overall gross demand and energy savings are determined by summing the individual bulb type totals. As evident in the table, just under a million bulbs were distributed to hard-to-reach retailers and hardware stores throughout Southern California. Together these bulbs constituted a gross demand savings of 15,834 kW and an energy savings of 52,856,490 kWh.

Table IX.3: Gross Demand and Energy Impacts

Bulb Types	Bulbs Distributed	kW		kWh	
		Deemed per-unit Savings	Gross Savings	Deemed per-unit Savings	Gross Savings
14 Watt	43,584	0.0139	606	46.4	2,022,298
15 Watt	463,149	0.0136	6,299	45.4	21,026,965
16 Watt	3,520	0.0133	47	44.4	156,288
18 Watt	26,090	0.0172	449	57.5	1,500,175
20 Watt	191,312	0.0166	3,176	55.5	10,617,816
23 Watt	155,179	0.0233	3,616	77.7	12,057,408
25 Watt	71,444	0.0227	1,622	75.7	5,408,311
26 Watt	900	0.0224	20	74.7	67,230
Overall	***955,178***		***15,834***		***52,856,490***

However, in order to determine the net impact of the Program, the totals from the above table must be multiplied by the Program's deemed net-to-gross ratio. Upon applying the NTG ratio of 0.80 to both the total demand and

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8 Ibid.

9 An important observation to be made from the table above is that the RTF figures are quite low. One major factor is that the RTF explicitly considers HVAC impacts on the load. For the Pacific Northwest, a winter peaking area, this can result in as much as a 20% reduction in the proposed demand and energy savings. For the Southern California region, the HVAC impacts would likely be quite the reverse. A more involved analysis of measure savings would use the RTF methodology and model HVAC impacts (for Southern California) explicitly. This would result in considerably higher values for measure savings in the tabulated figures for the RTF.

energy savings from Table IX.3, the net impact of the Program was determined to be 12,667 kW and 42,285,192kWh.

Table IX.4: Net Program Demand and Energy Savings

	Gross Program Savings	Deemed Net-to-Gross Ratio	Net Program Savings
Demand Savings (kW)	15,834	0.8	12,667
Energy Savings (kWh)	52,856,490	0.8	42,285,192

Verification of Cost Effectiveness

Cost effectiveness was determined using the CPUC-provided workbook. We have verified the inputs and calculations. The Program was cost effective from both a Total Resource Cost perspective and a Participant Cost perspective with benefit/cost ratios of 1.62 and 2.30, respectively. Ecos used a conservative value of $10 per CFL (a price commonly found in rural and small retailers at the time of program inception). Reducing this price assumption in the cost effectiveness analysis would result in even larger benefit/cost ratios.

We independently calculated the cost effectiveness using Quantec's hourly cost effectiveness model and found it to be cost effective with a TRC benefit/cost ratio of 1.66. Since the Program largely resulted in free or minimal cost distribution of CFLs to the end user, the Participant Cost Test was not calculated.

X. Summary and Conclusions

The Program, as designed by Ecos, was a unique and effective approach to promoting CFLs to residents in hard-to-reach rural and ethnic communities. The Program designers undertook in-depth research to identify the target retail markets, the manufacturers, and specify high quality, eligible CFLs. After extensive market research, a comprehensive set of promotional materials, all in-language, were developed, and the Field Representatives provided training and a high level of ongoing support to retailers using these materials to educate customers and promote the CFLs.

Having promotional materials in-language and ongoing Field Representative support were seen as very important to more than half of the participants. Ecos staff acknowledged, however, that while the message of the ad templates was focused on saving energy (as well were all of the materials), the retailers preferred a simple price point and logo to use in designing customized flyers or store ads.

For most retailers, with the exception of a few rural markets, this was the first time they had stocked CFLs, and the support of the Field Representatives was important in assisting them in training store staff, identifying the best mechanisms for promotion, and problem-solving with the manufacturers. As Ecos staff noted, many retailers came to see the Field Representatives as their ally over the Program period. Staff also found that the retailers needed more attention than expected, especially in the ethnic markets. However, even these retailers, after participating once or twice, were asking how they could continue to participate with some even asking to do so on their own rather than as a partner to a manufacturer. The bulk of the Program participants represented the ethnic markets as the presence of IOU Statewide Lighting Programs in the rural areas prohibited Ecos from fully serving these target markets.

For manufacturers, the Program presented an opportunity to identify and reach out to new markets and to improve relationships with retailers. The incentive level was also very favorable compared to utility-sponsored programs. For this incentive, however, more was expected of them, and primarily of their retail partners, in promoting the products. While there was some initial confusion regarding the allocation of the CFLs, primarily due to the overwhelming demand, Ecos developed a system to allocate bulbs that worked well for the remainder of the Program. This system was intended to provide the broadest geographic coverage possible, ensure that target communities were included and that as many retailers as possible had an opportunity to participate, while also ensuring that Program goals for CFL distribution (by wattage) were accomplished. Early training and clear rules and guidelines for manufacturers were seen as essential by Ecos staff, to avoid

some of the issues that arose during implementation. The majority of the manufacturers was very satisfied with the Program and wants it to continue, since it has increased sales and moved them into new markets.

Participating retailers expressed high levels of satisfaction with the Program; initial concerns by some over cost and volume of product to be moved were overcome through information from the manufacturers and ongoing education and support from the Field Representatives. One-third of retailers were instructed to participate in the Program by a corporate office, indicating the effectiveness of reaching supportive corporate decision makers. Some of the retailers were disturbed by the number of manufacturers approaching them about Programs and were especially confused by the fact that utility-sponsored CFL Programs were active at the same time as the Ecos effort.

Special space within the stores, either near entrances, registers, or at ends of aisles, was devoted to promoting the CFLs. The dump bins were sometimes used to put the CFLs in a highly visible location. The advertising template, while not as effective as staff intended, was used or adapted by almost one-third of participants. Pocket cards and tear-off pads were especially convenient and useful tools to assist store staff in answering customer questions and promoting the bulbs.

Participating retailers noted that the lack of complaints and customers asking for the product indicate the success of the Program in increasing support for CFLs among their customers. While only half said they are considering stocking the bulbs after the Program ends, even some of those who indicated they would not stock them in the future noted that their decision would depend on the price of and customer demand for the products.

To summarize key results:

- Using an innovative approach, built on partnerships between manufacturers and retailers, and strong support from Field Representatives, the Program was able to distribute almost a million bulbs (955,178). Eighty-five percent of these were distributed in targeted ethnic communities.
- Effective Program materials reflect not only cultural and ethnic needs, but also take into consideration that retailers are looking at "price points;" thus, ad templates should be simple, including logo, price points, and "save energy" message. Retailers will use these in designing their own ads for store circulars and other media outlets.
- Reaching supportive corporate decision-makers is important. This may be especially important with larger chain markets, such as 99 Ranch Markets, in targeted ethnic markets.

- Clear rules and guidelines for store eligibility, documentation requirements, and other Program components, as well as consistent monitoring, are needed in working with lighting manufacturers.
- Field Representatives play a key role in developing trust, providing education, and supporting the retailers, particularly in the ethnic communities. Having Field Representatives who speak the language and are familiar with the targeted communities is also a positive factor in gaining support in the ethnic markets. Both of these factors were central to obtaining participation among the hard-to-reach ethnic retailers. This approach is quite different from the more typical downstream programs, such as the IOU Statewide Lighting Programs, in which CFLs are provided at a reduced cost, but no other supports are built into the approach.

While a proposal submitted to the CPUC to continue the Program in 2004-2005 was not funded, the IOU Statewide Lighting Programs in the SCE and SDG&E service territories were funded and are building on the markets identified and nurtured by the Ecos staff. And, as the Field Representatives noted, they expect long-lasting results from the Program, having gained the support of the retailers, both as promoters and users of CFLs, and having begun to build demand within the targeted communities. It is anticipated that this groundwork, begun by the Program, will contribute to the IOU State Lighting Program's success.

Incentive processing was conducted effectively, and with no identified errors, and no errors were identified in data entry. This allowed for a verification of savings 100% in agreement with savings reported by Ecos.

The program resulted in annual savings of 12,667 kW and 42,285,192 kWh. Lifecycle energy savings will be 211,425,960 kWh. The program was cost effective from both a Total Resource Cost perspective and a Participant Cost perspective with benefit/cost ratios of 1.62 and 2.30, respectively.

Appendix A. Focus Group Discussion Guides

Focus Group Script: ECOS CFL Field Staff

I. Introduction

Thank you all for coming. My name is Sharon Baggett and my company's name is Quantec. We have been selected and approved as the evaluation contractor for the Energy Star CFL program. I will be the facilitator for today's discussion. My job is to present the topics, help keep the discussion flowing, and make sure that we understand what you are telling us about your experience.

A few points before we begin:

- What goes on in this group will be held in confidence. We are taping this session and it will be transcribed for analysis. However, no names are identified with any text in the transcription. In reporting the results, no names are ever connected to specific comments.
- We are looking for your frank and open responses and would like this to be a group discussion – not just comments aimed at me. Ask each other questions, and chime in if you have a comment.
- While I want everyone's active participation, we also need some order. Therefore, I need to you to take turns and speak one at a time. In this way we can all keep track of what's being said and the transcription of the tape will be much easier for us.

II. Introduction of Participants

Let's start by going around the table. Please tell me your first name and in what way you have been involved with the program and how long you've worked in this field or a similar one.

I'd like to begin by talking with you about the start of your involvement with the program.

III. Beginning the Program

1. Could you talk a little about the training you received for this program? What approaches were used?

   Did you feel confident going into the field?

2. How were you involved in getting the Program off the ground?

3. What were the initial responses of retailers to your field visits? What sort of variation in retailers' response did you observe? (by location, type of store, other variables)?

IV. Program Components

1. What has been the retailers' response to the various Program components?

   a. Let's talk first about training for retailers.

   b. Incentive levels?

   c. What about the Point of Purchase (POP) materials? (Probe use of and reactions to aisle wobblers, retail shelf talkers, posters)

   d. Pocket cards?

   e. Dump bins/aisle vending displays?

   f. How would your characterize the response to and use of the newsprint advertising templates? (Probe: use of CD Rom, cut sheets or ad slicks)

2. What differences, if any, have you seen in how these materials have been used? (Probe: lessons learned)

3. What differences, if any, have you seen among retailers in overall program participation?

4. What has been the retailers' response to Field Representative support? (probe initial preference for working with manufacturers – changes over time)

5. Let's discuss the target markets. What has been your experience in trying to reach the target markets? (to what extent have you been successful? Reasons?)

III. Program Assessment

1. What challenges have you encountered with the program?

2. What aspects have been most successful? Why?

3. What has surprised you most about the program?

4. If you were planning the program for the future, what do you think must be anticipated? How do you see the future need and demand for the Program services?

IV. Conclusion

I'd like to review what we have discussed today.

Program Preparation

Retailer Response

Successes and Challenges

The Future

Follow-up Focus Group Script: ECOS CFL Field Staff

I. Introduction

Thank you all for coming. My name is Sharon Baggett and my company's name is Quantec. You probably remember that we spoke last spring about your experience with the Hard-to-Reach & Ethnic Grocery program. When we spoke last time, we much of our discussion focused on the start-up of the program and some early issues in implementation. We are now preparing the final evaluation and I wanted to hear more about how the program went throughout the year (and into the first quarter of this year), explore lessons learned, etc.

A few points before we begin:

- What goes on in this group will be held in confidence. We are taping this session and it will be transcribed for analysis. However, no names are identified with any text in the transcription. In reporting the results, no names are ever connected to specific comments.
- We are looking for your frank and open responses and would like this to be a group discussion – not just comments aimed at me. Ask each other questions, and chime in if you have a comment.
- While I want everyone's active participation, we also need some order. Therefore, I need to you to take turns and speak one at a time. In this way we can all keep track of what's being said and the transcription of the tape will be much easier for us.

II. Introduction of Participants

Let's start by going around the table. Please remind me of your names and in what way you have been involved with the program.

III. Program Implementation

III.1. Last year about this time, some of you mentioned that "*We lost a fair amount of stores because of the retailer not being particularly happy with what the manufacturer had done…we were doing a lot of damage control."*

Did this continue through the year or improve at some point? If improve, what turned this around?

III.2. Early last year, you also noted that the bigger chains had been more receptive than the smaller, independent stores. The hardware stores, particularly, were confused between this program and others.

Did this change over the life of the program? If so, how? What influenced these changes?

III.3. Several of you noted last year that the "*retailers view us more like an ally now."* Did this trend continue? If so, any change? If not, what changed?

III.4. Over time, what variation did you see in retailers' response to your field visits? (by location, type, other variables)

IV. Program Components

IV.1. Over the life of the program, what has been the retailers' response to the various Program components?

a. Incentive levels? (Are ethnic retailers still using largely as a give away or reward?)

What was response to decrease in incentive during the extension period?

b. What about the Point of Purchase (POP) materials? (Probe use of and reactions to aisle wobblers, retail shelf talkers, posters, dump bins)

Previously, you mentioned that tear-off pads were most useful in grocery stores, unlike hardware stores, where someone is usually available to answer questions. Did anything change about your views or how the POP materials were used? Where was each most effective?

c. Pocket cards? Did their use and popularity continue?

d. How would your characterize the response to and use of the newsprint advertising templates (Probe: use of CD Rom, cut sheets or ad slicks) over the life of the program? Last year, we discussed the need to revise these templates and Ecos's plan to do so. Were these revised (e.g., making CFL graphic larger)? If so, in what way? Did this change the response of retailers to the templates?

IV.2. What differences, if any, did you see among retailers in overall program participation?

During the program, how many retailers were "repeat" participants? Did these retailers differ in some way from others? If so, describe.

IV.3. Let's discuss the target markets. To what extent was the program successful in reaching the target markets? What were the reasons for this level of success?

V. Program Assessment

V.1. What were the biggest challenges you encountered during the life of the program? Did these change over time? If so, how? Why?

V.2. What aspects of the Program were the most successful? Why?

V.3. What has surprised you most about the program?

V.4. What do you think has been the program's impact on this particular market? (Probe: significantly increased their interest in and willingness to promote CFLs? If yes: do you think this interest will be lasting? What evidence would you use to support this conclusion? Other?)

III. Conclusion

I'd like to review what we have discussed today.

- ➜ **Program Outreach and Marketing**
- ➜ **Retailer Response**
- ➜ **Successes and Challenges**
- ➜ **Impacts**

Appendix B. Retailer Survey

Ecos Energy Star ENERGY SAVING LIGHT BULB Program for Small Hardware and Grocery Retailers

On-Site Survey

Into: My name is _____ and I'm here to ask your opinions about the Energy Star - Energy Saving Light bulb -promotion you participated in with ___DIST/MFG_____ and __Field Rep__ from Ecos. [*If customer does not remember, display some of the POP materials and the date that the products were shipped*]

If no appt. or calling to set up appt: Is this a good time for us to talk? It will take about 15-20 minutes of your time. Your views are very important for the future of these types of programs for small retailers.

If appt: Date _____ Time: _____

Directions/Notes:

First, I'd like to ask a few questions about when you first learned about the ENERGY SAVING LIGHT BULB program.

1. What was your initial reaction when you heard about the Program?

_____

_____

1a. Did you have any concerns about the Program?

1. Yes. If so, what were these? _____
2. No (*GO TO Q2*)

1b. Did someone address these concerns?

1. Yes
2. No (go ii)

1c. Who addressed your concerns?

1 Ecos representative
2 Manufacturer/distributor
3 Someone else (Specify: _____)

i. How did they address your concerns? _____

ii. No. Please describe. _____

2. What made you decide to participate in the Program (if needed: request the ENERGY SAVING LIGHT BULBs)?

_____

_____

3. Did you feel that the Program (the ENERGY SAVING LIGHT BULB offer) was clearly explained:

3a. By the manufacturer?

1. Yes
2. No (Describe) _____

3b. By the Ecos representative?

1. Yes
2. No (Describe) _____

4. How effective were each of the following promotional materials in helping your customers understand the benefits of ENERGY SAVING LIGHT BULBs and what you were offering them?

(USE THIS TABLE FOR 2002 Participants)

2002 Participants	Not effective	Somewhat Effective	Very Effective	Not sure/Did not use	Comments
Aisle wobblers					
Shelf talkers					

(USE THIS TABLE FOR 2003 Participants)

2003 Participants	Not Effective	Somewhat Effective	Very Effective	Not Sure/Did not use	Comments
Tear off "Facts about ENERGY SAVING LIGHT BULBs"					
Pocket Card					
Poster					
Shelf talker					
Aisle wobblers					
Dump bin (with poster or other POP or other)					

4a. Would other/different materials have been helpful or more effective?

1. Yes
2. No (*GO TO Q5*)

4b. If Yes, what other/different materials would you like to see?

_____

_____

ASK Q.5 ONLY OF 2003 Participants. ALL OTHER GO TO Q. 6.

5. Did you use the advertising templates (CD ROM) provided?

1. Yes
2. No (*GO TO Q5b*)

5a. If yes, how did you use these?

Template Use	No. Times Used	Description of use
Print advertising		Type of print media?
Store circular		How distributed? Used with other promotions or events?
Radio/TV ads		Used with other promotions or events?
Flyer		How distributed? To whom?

5b. If no, why didn't you use them? _____

6. Did you do any of these other activities to promote the ENERGY SAVING LIGHT BULBs?

1	In-store demonstration	Yes	No	Comments:
2	Special event (Describe:	Yes	No	Comments:
3	Free with purchase	Yes	No	Comments:
4	Use meter display unit	Yes	No	Comments:
5	Allocate special display space	Yes	No	Comments:

7. How important were the point-of-purchase materials and advertising assistance in getting customers to buy the product?

1 Not at all important
2 Somewhat important
3 Very important
4 Not applicable/gave free with purchase
9 Don't know/not sure

8. How important was it to reaching your customers that these materials were available in-language?

1 Not at all important
2 Somewhat important
3 Very important
9 Don't know/not sure

Comments: _____

9. The field representatives were available to help you with placing the promotional materials and providing other assistance. How important was this support to you:

9a. In understanding the requirements of the program?

1 Not at all important
2 Somewhat important
3 Very important
4 Not applicable
9 Don't know/not sure

9b. In effectively promoting the products?

1 Not at all important
2 Somewhat important
3 Very important
4 Not applicable
9 Don't know/not sure

9c. In solving any problems (with manufacturer/distributor, shipping of product, other)?

1 Not at all important
2 Somewhat important
3 Very important
4 Not applicable/gave free with purchase
9 Don't know/not sure

ASK Q. 10 and 11 ONLY IF ENERGY SAVING LIGHT BULBs SOLD (NOT GIVE AWAY)

10. What do you think encouraged customers to buy the ENERGY SAVING LIGHT BULBs offered?

_____

_____

11. To what extent do you think the ENERGY SAVING LIGHT BULB promotion increased your overall customers' awareness of the product?

_____

_____

ASK OF ALL

12. Do you think the promotion increased your customers' satisfaction with ENERGY SAVING LIGHT BULBs?

1. Yes
   Why?/How? _____
2. No
   Why not? _____

Now, I'd like to ask you some questions about your stocking and sales of ENERGY SAVING LIGHT BULBs.

13. Did you stock any type of ENERGY SAVING LIGHT BULBs (CFLS) in 2001 or before this Program in 2002?

    1. Yes
    2. No (*GO TO Q.17*)

14. What were sales levels of any type of ENERGY SAVING LIGHT BULBs in your business(s) in 2001?

    (Estimate: _____$/year or _____units per month/year)

14a. Before this program in 2002?

    (Estimate: _____$/year or _____units per month/year)

15. Approximately, what was the average price for the ENERGY SAVING LIGHT BULBs that you stocked in 2001? Early in 2002?

    _____

    _____

16. Have you participated in other utility-sponsored programs to promote the use of ENERGY SAVING LIGHT BULBs?

    1. Yes
    2. No (*GO TO Q 17*)

16.a. Did you change your stocking practices as a result of these other programs?

    1. Yes. To what extent? (Probe for change in number of units, change in placement in store) _____
    2. No

17. What impact, if any, has the ENERGY STAR promotion with Ecos had on store sales of ENERGY SAVING LIGHT BULBs?

    1 No increase
    2 A slight increase (estimate % or $ increase _____)
    3 A moderate increase (estimate % or $ increase _____)
    4 A large increase (estimate % or $ increase _____)
    5 Not enough time passed since promotion to determine
    9 Don't know/not sure

If retailers reported increase in stocking in 16a. (as result of other programs):

17a. Was this increase beyond that you had already experienced?
1. Yes
2. No

18. Will you continue to stock the ENERGY STAR ENERGY SAVING LIGHT BULBs even if there are no special supports or programs?

1. Yes; stock them now
2. Yes; plan to stock them
2. No. Why Not? _____(*GO TO Q 19*)

18a. At the same volume?

1. Yes
2. No
9. Not sure

18b. At what price? _____

19. Do you feel more confident promoting the ENERGY SAVING LIGHT BULBs to customers after participating in the Program?

1. Yes
2. No
9. Don't know

20. Finally, do you feel that the incentive is enough for you as the retailer to be the lead and do all the work (contract with Ecos, carry out promotion, etc)

1. Yes
2. No

21. Do you have any further comments or suggestions on the ENERGY STAR ENERGY SAVING LIGHT BULB program?

Thank and close. (GO TO ATTACHED SURVEY FORM)

Ecos Energy Star ENERGY SAVING LIGHT BULB Program for Small Hardware and Grocery Retailers

Store Survey

Name of Retailer _____

Single Store _____ Multiple Store _____

Address of Store Surveyed: _____

Urban _____ Rural _____

Date of Site Visit: _____ Interviewer: _____

_____

Visual check of lighting stock

			Comments
CFLs stocked	Yes ____	No _____(end survey)	
% of Total Lighting	_____%		
Energy Star CFLS	Yes ____	No _____	
Other CFLs	Yes ____	No _____	
Special display	Yes ____	No _____	
Allocated shelf space	Yes ____	No _____	
CFL material in store	Yes ____	No _____	

Appendix C. Manufacturer Survey

Ecos Energy Star ENERGY SAVING LIGHT BULB PROGRAM for Small Hardware and Grocery Retailers

Manufacturer/Distributor
Telephone Survey

Intro: My name is _____and I am calling from Quantec. We are the evaluation firm contracted to assess the impact of the CFL program, implemented by Ecos, in which you participated. I'd like to ask you just a few questions about your experience with the program; it should take about 5-7 minutes. Do you have a few minutes now to talk?

Yes (Proceed)

No: Can we schedule a better time for me to call you back?

Yes: _____(Date & Time of callback)

No: Refused

---

1. How did you first learn about the Program (may have been in late 2002, early in 2003)? [DO NOT READ]
   1. Ecos representative contacted me
   2. A retailer
   3. Other (specify: _____)

2. What was your initial reaction when you heard about the Program?

   _____

   _____

2b. What concerns, if any, did you have about the Program?

   _____

   _____

3. Prior to this program offered through Ecos, had you participated in other Energy Efficiency programs targeting these same customers, i.e., small, hard to reach grocery and hardware stores?

   1. Yes
   2. No (GO TO Q.4)
   9. Don't know/don't remember (GO TO Q.4)

3a. If YES: Were these programs sponsored by a utility or another energy services firm? [Choose all that apply]

   1. Utility
   2. Energy services firm
   3. Other (Specify: _____)
   9. Don't know/don't remember

3b. What types of energy efficiency measures were offered through these other programs?

_____

_____

4. In what ways did this program differ from other energy efficiency programs in which you have participated (regardless of the specific customer market)?

_____

_____

4a. In what ways was it the same/similar?

_____

_____

5. What made you decide to participate in this program?

_____

_____

6. At the time of program start-up, did you feel that your role in the program was clearly explained by the field representative(s)?

   1. Yes (GO TO Q.7)
   2. No
   9. Don't know/don't remember (GO TO Q.7)

6a. Which aspects were not made clear?

_____

_____

7. What issues, if any, arose during the Program regarding:

   1. Communication with Ecos staff
   2. Reservations for product
   3. Communication with retailers
   d. Product delivery
   e. Payment process
   f. Any other issues?

8. The field representatives were available to assist you with program questions, problems with products or delivery, or retailer questions. How important was this assistance to you in successfully implementing the Program?

   1. Not at all important
   2. Somewhat important
   3. Very important
   9. Don't know/not sure

9. To what extent did participation in this Program increase your company's knowledge of this hard-to reach market?

   1. A great deal
   2. Somewhat
   3. Not at all
   9. Don't know/not sure

10. What other impacts did participation in this program have on your business? (Probe: increase in sales; better outreach; better relationships with retailers; other)

_____

_____

11. Do you have any other comments on this Program?

_____

_____

Thank you for your time and for sharing your experience with us.