



ENERGY STAR® Home Products Program
Market Progress Evaluation Report, No.1

prepared by

Dethman & Associates

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ENERGY STAR® Home Products Program Market Progress Evaluation Report

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EXECUTIVE SUMMARY

INTRODUCTION

This report is the first of two Market Progress Evaluation Reports (MPER) documenting the status and progress of the Northwest Energy Efficiency Alliance (Alliance) ENERGY STAR® Home Products Program (the Program). This MPER covers the period from the initiation of the program in March 2001 through August 2002. It draws from these evaluation sources (for more detail on these sources, see Chapters 2 and 3):

- ✓ A review of various market share and characterization reports, including an incremental cost survey conducted by the Program.
- ✓ A national and regional consumer survey
- ✓ A survey of 152 northwest retailers
- ✓ A mystery shopper report from 48 northwest stores
- ✓ A survey of 45 northwest utilities
- ✓ Program monthly reports
- ✓ Discussions with program and Alliance staff

The Program is designed to foster consumer acceptance of white goods appliances (clothes washers, dishwashers, refrigerators, and room air conditioners); the Program also cross-markets other ENERGY STAR products. Through greater consumer acceptance and use, the Alliance hopes to help transform the residential home products market to one where consumers more regularly choose higher efficiency models.

The Alliance contracts with Portland Energy Conservation Inc. (PECI) to carry out the Program. The Program uses education and marketing efforts to reach and involve retailers, utilities, manufacturers, and consumers. The greatest efforts are devoted to partnering with utilities, retailers, and manufacturers, toward the common goal of increasing consumer awareness and purchases of ENERGY STAR qualified products.

KEY INDICATOR STATUS

The status of the Program for 16 key indicators is shown below in Table 1, grouped under four categories: marketplace, consumers, retailers, and utilities. Depending upon the data available, baseline and/or mid-program data are used. Due to the variety and timeframe of the data used, we have listed the data sources for each indicator. A full listing of timing and data sources may be found in Chapter 2. The next MPER will report on changes in the indicators listed so that program progress can be tracked.

Table 1: Summary Status of Progress Indicators

Indicators	Status																				
Marketplace																					
1. (Increase) Regional market share	<p>✓ Using the pre-program year 2000 as the baseline, the ENERGY STAR market share figures*, by appliance, for the region, from 2000 through 2002 show significant growth in market share, especially for clothes washers and dishwashers.</p> <table border="1" data-bbox="609 919 1393 1119"> <thead> <tr> <th></th> <th>2000 %</th> <th>2001 %</th> <th>2002 %</th> </tr> </thead> <tbody> <tr> <td>Clothes washers</td> <td>17</td> <td>22</td> <td>32</td> </tr> <tr> <td>Dishwashers</td> <td>7</td> <td>18</td> <td>35</td> </tr> <tr> <td>Refrigerators**</td> <td>35</td> <td>17</td> <td>22</td> </tr> <tr> <td>Room air conditioners (A/C)***</td> <td>n/a</td> <td>10</td> <td>41</td> </tr> </tbody> </table> <p>*Data are based on AHAM appliance sales figures, D&R estimates of ENERGY STAR market share, and Program assumptions.</p> <p>**Standards became stricter for refrigerators in 2001, so available models decreased. ENERGY STAR standards changed in January 2001 and Federal standards in July of 2001.</p> <p>***Data were not available during 2000 for room air conditioners.</p>		2000 %	2001 %	2002 %	Clothes washers	17	22	32	Dishwashers	7	18	35	Refrigerators**	35	17	22	Room air conditioners (A/C)***	n/a	10	41
	2000 %	2001 %	2002 %																		
Clothes washers	17	22	32																		
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Refrigerators**	35	17	22																		
Room air conditioners (A/C)***	n/a	10	41																		

Indicators	Status																																																		
<p>2. (Increase) Floor coverage</p>	<p>✓ As of mid-2002, the average floor coverage of ENERGY STAR * in the region was about one-third for clothes washers and refrigerators and 62% for dishwashers.</p> <table border="1" data-bbox="609 346 1144 546"> <thead> <tr> <th></th> <th>2002 * *</th> </tr> <tr> <th></th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Clothes washers</td> <td>34</td> </tr> <tr> <td>Dishwashers</td> <td>62</td> </tr> <tr> <td>Refrigerators</td> <td>31</td> </tr> <tr> <td>Room A/C</td> <td>n/a</td> </tr> </tbody> </table> <p>*Floor coverage equals the percent of appliances on the floor that are ENERGY STAR qualified.</p> <p>**Data are based on a Program survey of 75 retailers across the region. Due to the timing of the survey, data for room air conditioners were not available.</p>		2002 * *		%	Clothes washers	34	Dishwashers	62	Refrigerators	31	Room A/C	n/a																																						
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Room A/C	n/a																																																		
<p>3. (Increase) Number of ENERGY STAR Models and Manufacturers</p>	<p>✓ Program data show that both the number of ENERGY STAR qualified ENERGY STAR appliance models, and the number of manufacturers of ENERGY STAR qualified appliances increased notably between 2000 and 2002.</p> <table border="1" data-bbox="609 892 1396 1087"> <thead> <tr> <th>Models</th> <th>2000</th> <th>2001</th> <th>2002</th> <th>Increase</th> </tr> </thead> <tbody> <tr> <td>Clothes Washers</td> <td>65</td> <td>81</td> <td>113</td> <td>48</td> </tr> <tr> <td>Refrigerators</td> <td>299</td> <td>234</td> <td>421</td> <td>122</td> </tr> <tr> <td>Dishwashers</td> <td>247</td> <td>292</td> <td>406</td> <td>159</td> </tr> <tr> <td>Room A/C</td> <td>32</td> <td>83</td> <td>223</td> <td>191</td> </tr> </tbody> </table> <table border="1" data-bbox="609 1144 1396 1381"> <thead> <tr> <th>Manufacturers</th> <th>2000</th> <th>2001</th> <th>2002</th> <th>Increase</th> </tr> </thead> <tbody> <tr> <td>Clothes Washers</td> <td>18</td> <td>20</td> <td>27</td> <td>9</td> </tr> <tr> <td>Refrigerators</td> <td>14</td> <td>16</td> <td>18</td> <td>4</td> </tr> <tr> <td>Dishwashers</td> <td>25</td> <td>27</td> <td>29</td> <td>4</td> </tr> <tr> <td>Room A/C</td> <td>11</td> <td>14</td> <td>27</td> <td>6</td> </tr> </tbody> </table>	Models	2000	2001	2002	Increase	Clothes Washers	65	81	113	48	Refrigerators	299	234	421	122	Dishwashers	247	292	406	159	Room A/C	32	83	223	191	Manufacturers	2000	2001	2002	Increase	Clothes Washers	18	20	27	9	Refrigerators	14	16	18	4	Dishwashers	25	27	29	4	Room A/C	11	14	27	6
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Indicators	Status																				
<p>4. (Decrease) Average price premium for comparable ENERGY STAR and Non-ENERGY STAR models</p>	<p>✓ National data from D&R International (2002) show a broad range of prices for ENERGY STAR products, including less expensive models. Data show average price premiums are significant for comparable clothes washers but minimal for the other appliances.</p> <table border="1" data-bbox="609 380 1468 688"> <thead> <tr> <th></th> <th>ENERGY STAR Price Range</th> <th>Non-ENERGY STAR Price Range</th> <th>Ave. Price Premium*</th> </tr> </thead> <tbody> <tr> <td>Clothes Washers</td> <td>\$650-1397</td> <td>\$200-893</td> <td>\$300</td> </tr> <tr> <td>Refrigerators</td> <td>\$600-2800</td> <td>\$450-2550</td> <td>\$30-50</td> </tr> <tr> <td>Dishwashers</td> <td>\$250-1200</td> <td>\$200-920</td> <td>\$30-50</td> </tr> <tr> <td>Room A/C</td> <td>\$220-700</td> <td>\$180-800</td> <td>\$30-50</td> </tr> </tbody> </table> <p>*Premiums can be difficult to estimate, but are based on the assumption that consumers are choosing between models that are comparable in size and configuration.</p> <p>Note: This table is copied directly from the <i>Appliance White Paper</i> released by D&R in December 2002. NW data are not available.</p>		ENERGY STAR Price Range	Non-ENERGY STAR Price Range	Ave. Price Premium*	Clothes Washers	\$650-1397	\$200-893	\$300	Refrigerators	\$600-2800	\$450-2550	\$30-50	Dishwashers	\$250-1200	\$200-920	\$30-50	Room A/C	\$220-700	\$180-800	\$30-50
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Consumers																					
<p>5. (Increase) Awareness of label/brand</p>	<p>✓ After seeing the ENERGY STAR label, 40% of respondents* overall reported being aware of the label. Data suggest that awareness levels are likely to be 10-15% higher in high publicity areas such as Portland and Seattle.</p> <p>* Figures are drawn from the <i>National Analysis of CEE 2001 ENERGY STAR Household Surveys</i>.</p>																				
<p>6. (Increase) Understanding of label/brand</p>	<p>✓ About 38% of respondents to the national survey knew that the label, after seeing it, meant “energy efficiency” or “energy savings.” Again, the proportion is likely to be higher in cities such as Portland and Seattle – about 46%.</p>																				
<p>7. (Increase) Value of label/brand</p>	<p>✓ About 25% of those who purchased ENERGY STAR labeled appliances reported that the label “influenced their decision very much.” This figure increases to 34% in high publicity areas.</p> <p>✓ 34% of ENERGY STAR-labeled purchasers were very likely to recommend ENERGY STAR appliances to a friend.</p> <p>✓ The majority of retailers (61%) in the 2001 survey said that ENERGY STAR was important to consumers when shopping for appliances.</p>																				
<p>8. (Increase) Recognition of non-energy benefits</p>	<p>✓ Most (89%) retailers from the 2001 survey said that their customers are interested in water savings when considering an ENERGY STAR qualified product, and 22% said customers are interested in reduced emissions (where applicable).</p>																				
Retailers	Status																				

Indicators	Status
9. (Increase) # of retailers	<ul style="list-style-type: none"> ✓ According to Program monthly reports, the number of retailers participating in the Program increased from 474 to 534 between March and December 2001 – a 13% increase. (Note: Retailers also dropped out during this period, largely due to closures and other non-program factors.)
10. (Increase) Importance of carrying/promoting Program products	<ul style="list-style-type: none"> ✓ The 2001 survey of 152 retailers showed that 26% of retailers believe ENERGY STAR is extremely important in their marketing and sales efforts, with 55% feeling it's somewhat important. ✓ Just over three-quarters (76%) of the retailers surveyed reported it was easier to sell ENERGY STAR qualified products than non-qualified products. ✓ According to 2002 mystery shopper research, 35% (17 of 48) of salespeople mentioned ENERGY STAR before the researchers did. ✓ Researchers rated 58% of salespeople “motivated” to sell ENERGY STAR products. ✓ The mystery shopper research showed that most salespeople mentioned that ENERGY STAR washers used less energy (88%) and saved water (92%) Fewer mentioned the products saved time (58%) and detergent (52%). Still fewer, said the washers exceeded Federal energy standards (44%), were more quiet (40%), or that they reduced emission pollution (13%).
11. (Increase) Perceived level of consumer demand for Program products	<ul style="list-style-type: none"> ✓ Almost half of retailers (47%) surveyed reported that 10% or less of their customers had asked specifically for ENERGY STAR products in the last three months. ✓ 78% of the retailers said their sales of ENERGY STAR appliances have increased.
12. (Decrease) Barriers to selling Program products	<ul style="list-style-type: none"> ✓ 47% of retailers surveyed say price (or no financial incentive) is the biggest challenge in selling ENERGY STAR qualified products; 14% say there are no challenges.
13. (Increase) Satisfaction with the Program	<ul style="list-style-type: none"> ✓ 85% of retailers surveyed said the Program aided them in driving sales for ENERGY STAR qualified products, and 81% said that ENERGY STAR was extremely (26%) or somewhat (55%) helpful in their marketing and sales efforts. ✓ 68% of retailers rated Program brochures, product labels, and point-of-purchase (POP) materials as useful to selling Program products; just over half rated both the Program's local utility coordination and signage as useful; and about 45% each said sales training, field rep support, and co-op marketing were useful.

Indicators	Status
14. (Increase) Importance of utility partners	✓ 63% of retailers surveyed said local utility partnerships are extremely important to generating ENERGY STAR product sales.
Utilities	
15. (Increase) Level of utility participation	<p>✓ Just over one-third of the 45 utilities surveyed in 2002 reported they've had little contact with the program. This varies dramatically by utility size: almost half of small and medium size utilities say they've had little contact, while only one of ten large utilities reported little contact.</p> <p>✓ The use of Program tools and services varied greatly among utilities. Over three-quarters used the advertising tools (84%), product fact sheets (74%), POP materials (76%), and met with field reps (76%).</p> <p>✓ Overall, less than half (42%) used the Utility Resource Kit, participated in co-op marketing (33%), used the media kit (32%), received program promotion support (22%), or used the incentive program design (16%).</p>
16. (Increase) Satisfaction with the Program	<p>✓ Overall, 22% of utilities surveyed rated the Program as providing excellent support to utilities, while 51% said the support was good. Large utilities rated program support much more highly than either medium or small utilities.</p> <p>✓ 14% of utility sponsors report they have found the Utility Resource Kit (URK) very useful, and 34% have found it somewhat useful.</p>

CONCLUSIONS AND RECOMMENDATIONS

Overall Program. Looking across all data gathered in the MPER, the ENERGY STAR Home Products Program has many positive attributes and its share of challenges. This MPER's primary goal was to establish benchmarks against which future progress of the Program can be measured. At the same time, if the evaluation alerted us to any dire program situations that needed attention, we would discuss them in this report. Fortunately, the Program appears to be operating within normal bounds. Still, this evaluation has identified some indicators that deserve further discussion. These are discussed in the next sections.

Marketplace Influence. The marketplace has been evolving, and increasing, for ENERGY STAR products. At the start of ENERGY STAR in 1996, there were relatively few choices for efficient appliances and manufacturers and retailers did not trust that consumers would choose efficient products. Since the ENERGY STAR label and related marketing and incentive activities have been in place, consumers have demanded and bought more efficient appliances. Manufacturers have expanded product lines or entered the market, and retailers are carrying more ENERGY STAR qualified products.

Many new ENERGY STAR products offer energy efficiency coupled with improved performance, convenience, and modern design. While these appliances have tended to be marketed to more up-scale consumers and priced at the higher end, their cutting edge nature has so far fostered wider consumer interest. One indicator of this wider appeal is that some less costly high efficiency products are emerging.

Recommendation: The tendency of ENERGY STAR products to be “high end” is something that should be monitored since it has the potential to limit market growth and may also generate equity concerns. This makes the search for more up-to-date incremental cost data very important. We also need to find a way to determine whether more affordable ENERGY STAR choices are emerging. Finally, we need good consumer research that reveals more about the value that consumers are willing to attach to the brand and about the characteristics of buyers.

Consumers. Based on results of the 2001 national survey, opportunity exists to grow brand awareness and equity, energy efficiency appears (as usual) to have limited value to customers, and awareness of non-energy benefits (aside from water savings with washers) is fairly low. Data also show that where local publicity efforts have been strong, brand equity is significantly higher, but still far from 100%.

Retailers. Retailer participation increased 13% as the program ramped up. Three-quarters of retailers said it was easier to sell ENERGY STAR products than non-qualified products, and that their sales of ENERGY STAR appliances had increased. Eighty-five percent said the program helped them drive ENERGY STAR appliance sales, and 68% liked the marketing tools.

Ratings of usefulness for utility-retailer coordination, sales training, field rep support, and co-op marketing were lower – around 50% or below. And retailer belief in the value of the brand as a marketing tool (26% extremely important) is on the low side. (Evaluation efforts did not gather the reasons behind each of these ratings.) The mystery shopper research revealed that many salespeople may not be as proactive, knowledgeable, or enthusiastic as they could be about ENERGY STAR products.

Recommendation. Because the program staff and field reps have their “ears to the ground,” they are important repositories of retailer and consumer concerns. If they are not already doing so, the Program staff should, on a regular basis, brainstorm together about how retailer services might be improved – especially for those that were lower rated in this evaluation. Then, any lessons learned and recommendations should be chronicled and applied in communications and training with retailers and salespeople. Field reps might also gather retailer recommendations on a regular basis by distributing and collecting a short feedback survey; responses could be compiled across the retailers.

Utility Services. The Program is responsible for serving utilities throughout the region. The strategy for dealing with this diverse group is to offer many types of services options. While two-thirds of 45 utilities surveyed reported they had made at

least some use of the Program, large utilities were clearly getting more out of the Program, and use of some tools and services is highly variable and in some cases pretty low.

For instance, less than half have used the Utility Resource Kit or URK (42%) a key Program resource, and among those who have, less than half say they found it very (14%) or somewhat (34%) useful. A third of utilities have participated in co-op marketing, 22% have received promotion support, and 15% have used the incentive program design. Again, large, medium, and small utilities often used different Program services and products.

Recommendation. As with the lower rated or used services for retailers, program staff should review and discuss their insights about utility services and materials (e.g., the URK), with an eye to lessons learned and to revising or reducing some elements.

Evaluation Roadmap. In the course of developing this MPER, we noted four areas where evaluation data or efforts need to be particularly improved, including (1) Consumer data specific to the Northwest that tells more about consumer decision-making and other topics not covered by the basic CEE Survey; (2) manufacturer data to gather the manufacturing perspectives about the development and future of the market place and the usefulness of, and satisfaction with, various Program services; (3) incremental cost-data that reliably compares “like” models; and (4) more direct communication with program managers and staff about evaluation goals, evaluation tasks, and program strengths and weaknesses.

Recommendations: (1) Careful thought needs to be given to how to maximize regional data collected through the national CEE survey, and to the additional questions that will be asked. Program and evaluation staff should work together within the next month to finalize sponsorship and sampling, and to craft questionnaire items.

(2) A manufacturer survey project should be defined, designed, and implemented as soon as possible to provide information about this important program client and market player. If time allows, another manufacturer survey should be fielded toward the scheduled end-date for the Program.

(3) At this point, an incremental cost study is not in the evaluation scope of work. However, if the program is willing to undertake another study of appliance before the end of its current operating period, the evaluators and program staff should work in tandem to ensure cost data collected can reveal incremental price differences or premiums.

(4) Finally, the evaluation staff should initiate communication more regularly with the program staff and contractors about the program, both to define evaluation goals and to plan evaluation elements, and to convey information about program progress. The evaluation tasks should also include more formal interviews with program

managers and staff about the strengths and needed improvements for the program. Topics for these conversations should include program management and services and revisiting the cost-effectiveness assumptions as outlined in this report and making any needed adjustments.

CHAPTER 1: INTRODUCTION AND PROGRAM BACKGROUND

INTRODUCTION

The Northwest Energy Efficiency Alliance (Alliance) is a non-profit organization that fosters regional efforts to make energy-efficient products and services available in the marketplace; it is comprised of electric utilities, state governments, public interest groups, and industry partners. This is the first of two Market Progress Evaluation Reports (MPER) evaluating the Alliance's ENERGY STAR® Home Products Program (the Program), a program designed to foster consumer acceptance of white goods appliances (clothes washers, dishwashers, refrigerators, and room air conditioners).

The Program is one of a number of residential energy efficiency programs that the Alliance sponsors. It works in concert with the lighting program. In particular, the Program's marketing and informational materials were expanded in the summer of 2001 to include qualified lighting, windows, and home electronics. The focus of the evaluation efforts, however, will be to assess the Program's effect on the white goods market.

APPROACH AND ORGANIZATION OF MPER #1

This report has four chapters. This chapter presents a brief history and description of the Program. *Chapter 2* discusses the evaluation approach and presents the initial status of the program on key indicators; these same indicators will be used in MPER #2 to assess the progress of the program over time. *Chapter 3* summarizes the methods and results of evaluation activities, and discusses the Alliance's current cost-effectiveness calculations. In *Chapter 4* we present our conclusions and recommendations.

PROGRAM BACKGROUND

Program Description

ENERGY STAR (ENERGY STAR) is the national symbol for energy efficiency, developed and sponsored by the U.S. Environmental Protection Agency and the U.S. Department of Energy. Qualifying appliances for ENERGY STAR labeling is voluntary for product manufacturers. The goal of the Program is to increase consumer brand awareness and purchasing of ENERGY STAR qualified "white

goods” appliances by working with utility, retailer, and industry partners. It also “cross-promotes” other ENERGY STAR products including electronics and lighting.

Increasing consumer acceptance of ENERGY STAR products – clothes washers, dishwashers, refrigerators, and room air conditioners – will increase product efficiency and transform the residential home products market to one where consumers are aware of ENERGY STAR appliances and buy them on their own. The Program is intended to overcome major barriers that have hindered greater market adoption of these products, including varying levels of product availability by manufacturers; retailer buying habits; high first cost; and limited consumer awareness and demand.

Begun in March of 2001, and slated to run through December 2003, the Program is an outgrowth of the ENERGY STAR Resource-Efficient Clothes Washer Program (ENERGY STAR-RECW). Indeed, according to MPER #4 for the ENERGY STAR-RECW, that program was expanded during the first half of 2000 to include the other three ENERGY STAR home appliances – dishwashers, refrigerators, and air conditioners.

As with the ENERGY STAR-RECW, the Alliance contracts with Portland Energy Conservation Inc. (PECI) to carry out the Program. The Program uses education and marketing efforts to reach and involve retailers, utilities, manufacturers, and consumers. The greatest efforts are devoted to partnering with utilities, retailers, and manufacturers, toward the common goal of increased consumer awareness and purchases of ENERGY STAR products. The Program relies on the following marketing and education tactics:

- ✓ Marketing support, focused on cooperative marketing. Support includes public relations; key marketing materials such as in-store advertising; and nationally coordinated and regionally implemented promotional efforts.
- ✓ Field support, both on-site, telephone, and Internet to establish and maintain utility, retailer, and manufacturers relationships.
- ✓ Outreach to support local marketing efforts such as home shows and utility events.
- ✓ Utility coordination through a designated utility coordinator.
- ✓ Partner communications, including the List Serve email sent to utilities, the @Home newsletter sent to utilities and retailers, the Utility Resource Kit (URK) and the Retailer Kit.

In addition, the Program participates in national initiatives intended to improve the efficiency standards for home products.

CHAPTER 2: EVALUATION APPROACH AND PROGRAM INDICATORS

EVALUATION APPROACH

The original intent of this evaluation effort was to produce a baseline MPER and two follow-up MPERs. However, due to changes in evaluation contractors and Alliance contractor staff, the timing for the first MPER became elongated, so that the data for the first MPER were gathered over a longer period – from May 2001 through August 2002.

In addition, when Dethman & Associates took over the evaluation in July of 2002, we encountered many difficulties in the data and in the reports we inherited. These problems ranged from questionable or incomplete questionnaire approaches to data coding, entry, and analysis issues. While a good deal of data turned out to be unusable, we feel this report constructs a reliable picture of early program performance with both baseline and more mid-stream data. Data for the second MPER can then be used to chart program progress. This report will be the first comprehensive evaluation information that the program will receive.

The following table shows the general timing of the program’s activities and how they relate to the evaluation efforts. Overall, the evaluation approach combines a review of secondary data sources to determine market penetration figures and primary research with target audiences, including consumers, retailers, and utilities. Please note that Table 2 reflects only those evaluation tasks where substantive work was completed.

Table 2: Timeline for Program and Evaluation Efforts

Timing	Program (Based on Monthly Reports)	Evaluation
5/1997- 2/2001	ENERGY STAR-RECW in place; added new products in first half of 2001	ENERGY STARCW MPER #4 and #5 mention new products but the focus was on clothes washers.
3/2001- 8/2001	ENERGY STAR® Home Products Program begins, ramps up and expands relations with retailers and utilities; materials expanded to include lighting, windows, home electronics. New cross-product outreach brochures and media kits developed.	1 st evaluation contractor brought on board. (7/2001) Pacific Northwest Web-TV Survey with consumers implemented directly by the Alliance. (Spring 2001) and partially reported on in <i>ENERGY STAR Home Products Program Baseline Survey, Label Recognition and Understanding Analysis</i> by Christopher Glenn, Ph.D. Due to methods problems, data from this survey are not represented

Timing	Program (Based on Monthly Reports)	Evaluation
		in this report.
9/2001-12/2001	Strong push to raise awareness and understanding of ENERGY STAR qualified products through: a media push, the new Cooperative Marketing Fund; new Retail Manual; the new Utility Resource Kit; and the Sears 10% off coupon and other promotional opportunities	Evaluation SOW finalized with initial evaluation contractor, RHAS. (10/2001) CEE conducts National 2001 ENERGY STAR Household Surveys. (Fall 2001) Dr. Glenn's report on the NW Web-TV survey. (10/2001) RHAS conducts and drafts report on Retailer/Buyer Group Survey. (11/2001)
1/2002-3/2002	Program in full swing. Emphasis on the National "Change" public awareness campaign, multi-faceted co-op marketing efforts, public relations, and strengthening of manufacturer, retailer and utility relations	RHAS reviews Web-TV report. (2/2002) RHAS drafts Baseline Market Assessment. (Draft 3/2002) RHAS completes Retailer Survey Report (3/2002) RHAS conducts Mystery Shopper research. (3/2002)
4/2002-6/2002	Beginning of the Program's promotional focus; coordination continues with all target audiences. Launch of product line and price surveys.	RHAS drafts utility survey. (4/2002). Alliance begins search for new evaluation contractor. (5/2002) The Program conducts Product Coverage and Cost Survey. (6/2002)
7/2002-9/2002	Various promotions, events, and public/media relations efforts that leverage partner resources continue in the region.	Dethman & Associates (D&A) becomes new evaluation contractor (7/2002). D&A reviews program to date and begins to revise data and reports for Web TV survey; Retailer Survey; Mystery Shopper research; and Market Assessment begun. (8/2002) D&A revises and fields Utility Survey. (9/2002)
10/2002 – 12/2002	Various promotions, events, and public/media relations efforts that leverage partner resources continue in the region, including movie theatre messaging, a Sears Joint Rebate offer, and change-out events. 2003 planning occurred.	Alliance evaluator departs; interim Alliance evaluator takes over. (10/2002) D&A drafts and revises utility survey report. (10/2002) D&A revises and comments on other reports including Mystery Shopper, Market Assessment, and NW Web-TV and Retailer surveys.
1/2003-3/2003	Launch of 2003 activities.	New Alliance evaluator takes over through May 2003 (1/2003) New SOW and timeline for MPER #1 agreed upon.

PROGRAM INDICATORS

Summary of Key Indicators

Four broad categories of indicators, and sixteen specific indications, for program progress are covered in this report, as shown in the table below. These indicators were largely developed “after the fact” when we took over the evaluation effort, rather than as part of the evaluation design, and reflect, in part, the data that were available that would be useful to track. The indicators were also chosen as factors the Program could and wanted to affect with their services. Still, as will be discussed, there are some substantial problems with some of the data available, and some indicators may drop out or change before the second MPER.

For each of the specific indicators, the direction of desired change is shown in parentheses. However, for this first MPER, we generally will only supply the status of each indicator based on the best available information. As described in the section above, while some data reflect baseline conditions before the program began or as it was ramping up during 2001, other data are mid-stream (during 2002). Table 3 below shows whether the data used were baseline or mid-stream, and whether sources were primary or secondary.

In MPER #2 we will compare the data in this report with data gathered toward the end of the Program’s planned life. Through these comparisons we will show where changes have occurred, impute the effects of the Program, and outline both its successes and the challenges ahead.

Table 3: List of Progress Indicators

Indicator	Baseline (2001 or before) or Mid-Stream (2002)	Primary Sources
Marketplace		
1. (Increase) Regional market share	Baseline	Primary and secondary market share and characterization data and reports, both national and regional, including AHAM and D&R data.
2. (Increase) Floor coverage	Mid-Stream	Program survey of 75 retailers.
3. (Increase) Number of ENERGY STAR Models and Manufacturers	Mid-Stream	Program tracking information.
4. (Decrease) Average price premium for comparable ENERGY STAR and Non-ENERGY STAR models	Mid-Stream	D&R <i>Appliance White Paper</i> , December 2002.
Consumer		

Indicator	Baseline (2001 or before) or Mid-Stream (2002)	Primary Sources
5. (Increase) Awareness of label/brand	Baseline	<i>National Analysis of CEE 2001 ENERGY STAR Household Surveys (N = 1,810). Retailer Survey (by telephone with 152 NW retailers).</i>
6. (Increase) Understanding of label/brand	Baseline	
7. (Increase) Value of label/brand	Baseline	
8. (Increase) Recognition of non-energy benefits	Baseline	
<i>Retailers/Buyer Groups</i>		
9. (Increase) # of retailers in the Program	Baseline	Program Monthly Reports. Retailer Survey (see above). Mystery Shopper research at 48 NW appliance retailers.
10. (Increase) Importance of carrying/promoting Program products	Baseline	
11. (Increase) Perceived level of consumer demand for Program products	Baseline	
12. (Decrease) Barriers to selling Program products	Baseline	
13. (Increase) Satisfaction with the Program	Baseline	
14. (Increase) Importance of utility partners	Baseline	
<i>Utilities</i>		
15. (Increase) Level of participation	Mid-Stream	Utility Survey (by telephone with 45 NW electric utilities)
16. (Increase) Satisfaction with the Program	Mid-Stream	

CHAPTER 3: REVIEW OF EVALUATION ACTIVITIES

MARKETPLACE INDICATORS

Summary of Implications and Key Indicators

The marketplace has been evolving, and increasing, for ENERGY STAR products. A major impetus for establishing ENERGY STAR standards in 1996 was to reduce the “significant lag in sales averages of energy-efficient products when compared to less efficient products.” (*D&R White Paper, 2002*). At that time, there were relatively few choices for efficient appliances and manufacturers and retailers did not trust that consumers would choose efficient products.

Over time, demand for more efficient products has grown, even though more stringent standards have been adopted. D&R cites ENERGY STAR as a major factor in key market changes, by fostering more buyers, and, soon after, more models and manufacturers. ENERGY STAR products also got a boost because many of the new products offered energy efficiency coupled with features that would appeal to a broader market, such as improved performance, convenient features, and modern design. While these appliances have tended to be upscale, they also have engendered more consumer interest in energy efficient products because they are cutting edge. In addition, the 2001 California (and west coast) energy crisis “sped the launch of new products,” especially refrigerators. (*D&R White Paper, 2002*) Thus, in today’s market, some less costly but high efficiency products are emerging.

Table 4 below summarizes data for the four marketplace indicators for ENERGY STAR appliances in the region; a discussion of methods and additional key findings may be found following Table 4. The table shows:

1. **Market share:** indicates the growth of ENERGY STAR appliances and how well they are penetrating the existing appliance markets. Data show a moderate rise in market share for refrigerators, a strong rise for clothes washers, and a rapid rise for dishwashers, and room air conditioners.

The sizable drop in refrigerator share between 2000 and 2001 stemmed from stricter ENERGY STAR specifications being adopted in January (and Federal standards in July 2001), producing a subsequent decrease in the availability of qualified models because manufacturers said they could not supply them until later in the year. Once qualified refrigerators reappeared in the market – in part driven by the California energy crisis – their share began to increase again, giving a positive indication of the strength of the ENERGY STAR brand. While ENERGY STAR also adopted more stringent specifications for dishwashers and room A/Cs, the same lack in supply did not occur.

Clothes washers are the poster child of ENERGY STAR appliances; between 1997 and 2000, they increased from a 3% to a 17% market share, with significant increases each year.

2. **Floor coverage:** indicates the proportion of qualified product on showroom floors, suggesting demand for the product. Data show that about one-third of available floor space is devoted to ENERGY STAR qualified clothes washers and refrigerators, while ENERGY STAR qualified dishwashers cover the majority of floor space (62%).
3. **Number of models and manufacturers of ENERGY STAR products:** indicates the number of qualified ENERGY STAR models and the number of manufacturers. Program data show that both the number of qualified ENERGY STAR appliance models, and the number of manufacturers of ENERGY STAR qualified appliances increased notably between 2000 and 2002. The figures suggest that the number of ENERGY STAR qualified product models gained momentum between 2000 and 2001, and then increased even more rapidly between 2001 and 2002.
4. **Price premiums for comparable ENERGY STAR and non-ENERGY STAR products:** indicates the average price difference between comparable ENERGY STAR and non-ENERGY STAR qualified products, or the premium paid for ENERGY STAR products. Price for appliances, like most products, is important to consumers. National data from D&R International (2002) show a broad range of prices for ENERGY STAR products, including less expensive models, although many ENERGY STAR qualified appliances are toward the high end. Data show average premiums are significant for clothes washers but minimal for the other appliances.

Table 4: Marketplace Indicator Summary

Indicators	Status																																																					
Marketplace																																																						
1. (Increase) Regional market share	<table border="1"> <thead> <tr> <th></th> <th>2000 %</th> <th>2001 %</th> <th>2002 %</th> </tr> </thead> <tbody> <tr> <td>Clothes washers</td> <td>17</td> <td>22</td> <td>32</td> </tr> <tr> <td>Dishwashers</td> <td>7</td> <td>18</td> <td>35</td> </tr> <tr> <td>Refrigerators**</td> <td>35</td> <td>17</td> <td>22</td> </tr> <tr> <td>Room air conditioners (a/c)***</td> <td>n/a</td> <td>10</td> <td>41</td> </tr> </tbody> </table> <p>*Data are based on AHAM appliance sales figures, D&R estimates of ENERGY STAR market share, and Program assumptions.</p> <p>**Standards became stricter for refrigerators in 2001, so available models decreased. ENERGY STAR standards changed in January 2001 and Federal standards in July of 2001.</p> <p>*** Data were not available during 2000 for room air conditioners.</p>					2000 %	2001 %	2002 %	Clothes washers	17	22	32	Dishwashers	7	18	35	Refrigerators**	35	17	22	Room air conditioners (a/c)***	n/a	10	41																														
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Indicators	Status			
4. (Decrease) Average price premium for comparable ENERGY STAR and Non-ENERGY STAR models		ENERGY STAR Price Range	Non-ENERGY STAR Price Range	Ave. Price Premium*
	Clothes Washers	\$650-1397	\$200-893	\$300
	Refrigerators	\$600-2800	\$450-2550	\$30-50
	Dishwashers	\$250-1200	\$200-920	\$30-50
	Room A/C	\$220-700	\$180-800	\$30-50
	<p>*Premiums can be difficult to estimate, but are based on the assumption that consumers are choosing between models that are comparable in size and configuration.</p> <p>Note: Data and comments in this table are copied from the Appliance White Paper released by D&R in December 2002. NW data are not available.</p>			

Methods and Further Market Share Analysis

Obtaining primary market share information is challenging, because retailers generally guard their sales information. However, solid secondary sources can be combined with some reasonable assumptions to produce reliable estimates. After reviewing several options for how to calculate market share percentages for ENERGY STAR home products, we have decided to use the same steps that the Program uses to derive market penetration for the program. We have chosen this method because it is straightforward, makes limited assumptions, and can be repeated from year to year. The method:

1. Uses AHAM (Association of Home Appliance Manufacturers) yearly sales figures by appliance type.
2. Uses D&R International ENERGY STAR penetration percentages for larger chain stores.
3. Assumes that independent stores carry the same share of ENERGY STAR products as the large chains (based upon Program experience).

It is important to note that the larger chain stores, represented by D&R International data, only account for about half of sales. However, since no consistent source of sales information exists for independent stores, and Program sales reps routinely talk with independent retailers, we have decided the Program's assumption about equal shares makes sense.

In addition to the overall market penetration findings used as a key indicator (repeated in the last row of Table 5), market share data can be delineated in a variety

of useful ways. Table 5 shows that in the baseline year of 2000, market penetration was quite similar for each appliance across the four states, with qualified refrigerators having the largest share, followed by clothes washers and dishwashers. (Note: air conditioner data were not available.)

Table 5: Baseline (2000) Market Share for ENERGY STAR Products

State	Clothes Washers	Dishwasher s	Refrigerators
	%	%	%
Idaho	13	6	39
Montana	14	6	30
Oregon	16	8	34
Washington	19	7	35
Region	17	7	35

Table 6 provides ENERGY STAR market share comparisons across the years of 2000-2002, for each northwest state, for the region as a whole, and for the nation. While some differences exist by state, with Washington and Oregon having higher market shares than Idaho and Montana for clothes washers and dishwashers in 2001 and 2002, the most notable differences are between national and regional level data. Clothes washer market share in the region has been significantly higher than national market share for all three years, suggesting the influence of the ENERGY STAR RECW program.

Table 6: ENERGY STAR Market Share Comparisons 2000-2002

	2000	2001	2002
Idaho	%	%	%
Clothes Washers	13	16	23
Dishwashers	6	13	26
Refrigerators	39	17	19
Room AC	n/a	11	39
Montana			
Clothes Washers	14	18	26
Dishwashers	6	14	25
Refrigerators	30	16	21
Room AC	n/a	12	46
Oregon			
Clothes Washers	16	23	34
Dishwashers	8	20	34
Refrigerators	34	19	23
Room AC		13	48

	2000	2001	2002
Washington			
Clothes Washers	19	22	33
Dishwashers	7	19	37
Refrigerators	35	16	23
Room AC	n/a	8	34
NW Region			
Clothes Washers	17	22	32
Dishwashers	7	18	35
Refrigerators	35	17	22
Room AC	n/a	10	41
National			
Clothes Washers	9	10	19
Dishwashers	12	20	42
Refrigerators	25	17	21
Room AC	n/a	12	36

Methods and Further Coverage and Price Data Key Findings

To obtain data specific to the northwest, the Program surveyed ENERGY STAR product categories as seen on showroom floors throughout the region. In the summer of 2002, the Program chose 75 stores based on geographic location and classification (independent, large chain, small chain and nationals), and similar to the sample used for the Mystery Shopper research. In all, they collected 4,351 records of appliance information, including cost, ENERGY STAR qualification, model, brand, and location.

For the showroom floor survey, the Program developed a checklist of ENERGY STAR qualified and non-qualified clothes washers, refrigerators and dishwasher models to use as a guide. Due to seasonality, they did not collect information on room air conditioners. Products not on the list were also captured. Field reps recorded the retail price for every product present on the floor. All data were then entered into an electronic database. Dethman & Associates received the data from the Program and developed the analysis presented in Tables 7 and 8 below.

Table 7 shows ENERGY STAR floor coverage by state and overall for each appliance. The table also shows the range of average coverage for each state, revealing a great amount of variability in coverage, with by far the greatest ENERGY STAR coverage being with dishwashers – almost twice the average of clothes washers and refrigerators. It's also important to note consumers could encounter very different types of choices in stores, from those that have few or no ENERGY STAR qualified appliances to those where almost every appliance qualifies.

Table 7: Floor Coverage by State

	# Stores	Average ENERGY STAR Coverage	Range of Coverage
Clothes Washers		%	%
Idaho	15	30	0-67%
Montana	12	30	0-67%
Oregon	23	38	14-55%
Washington	25	28	0-100%
Overall	75	34	
Dishwashers			
Idaho	15	61	8-94%
Montana	12	55	33-76%
Oregon	23	64	25-94%
Washington	25	63	20-100%
Overall	75	62	
Refrigerators			
Idaho	15	31	9-50%
Montana	12	31	0-52%
Oregon	23	35	7-63%
Washington	25	28	0-50%
Overall	75	31	

Table 8 shows the average price for ENERGY STAR qualified and non-qualified models found on showroom floors, irregardless of model. This is potentially a consumer's first impression of price choices, and the differences are large at first glance. The figures also show that ENERGY STAR qualified appliances do tend toward the high end. Finally, Table 8 points out that average price differences do vary by state.

Table 8: Average Price for Non-Qualified and Qualified Floor Models

	N	Non-Qualified Average Price	N	Qualified Average Price
Clothes Washers				
Idaho	150	\$460.06	62	\$969.85
Montana	109	\$508.16	55	\$1,071.77
Oregon	295	\$481.17	174	\$1,000.25
Washington	285	\$474.97	117	\$1,047.23
Overall	839	\$478.80	408	\$1,018.75
Dishwashers				
Idaho	83	\$422.95	137	\$580.23
Montana	49	\$422.42	77	\$628.54
Oregon	161	\$444.88	324	\$616.66

Washington	126	\$432.71	228	\$628.83
Overall	419	\$434.25	766	\$614.96
Refrigerators				
Idaho	266	\$914.86	128	\$1,425.15
Montana	142	\$1,088.38	63	\$1,483.90
Oregon	487	\$990.19	257	\$1,463.55
Washington	406	\$980.44	170	\$1,460.88
Overall	1301	\$982.46	618	\$1,456.93

CONSUMER INDICATORS

Summary of Implications and Key Indicators

Consumer awareness, understanding, and perceived value of the ENERGY STAR brand are first steps to buying behavior. Based on results of the 2001 national survey, opportunity exists to grow brand equity: only 40% of American consumers are aware of the brand. Data also show that where local publicity efforts have been strong, brand equity is significantly higher. In marketing parlance, this means there is still plenty of “low hanging fruit” to pursue, and that may be true for this region as well. Early results of the 2002 national survey show that overall brand awareness has not increased.

While the northwest has long been a supporter of energy efficiency initiatives, the full strength ENERGY STAR program was just getting underway in the fall of 2001 when the national survey was fielded. Since it’s likely that publicity levels varied across the region, we have used the overall national statistics to represent the region, but have also presented the results for high and low publicity areas.

Less than half of consumers nationwide (40%) said they are aware of the ENERGY STAR brand after looking at the label. In high publicity areas such as Seattle and Portland, the proportions are likely to be 10-15% higher; in low publicity areas, the proportions are likely to be 10% lower.

A similar pattern emerges for understanding the meaning of the label. Overall, thirty-eight percent knew the label meant energy efficiency, but that increased to 46% in high publicity areas and decreases to 31% in low publicity areas.

Respondents who had purchased ENERGY STAR appliances were asked two questions to measure the value of the brand: how much the brand influenced them and whether they would recommend an ENERGY STAR-labeled appliance to a friend. One-quarter of respondents who had purchased an ENERGY STAR labeled appliance said it had influenced their decision “very much;” this increases to one-third among those in high publicity areas, but decreases to just 9% in low publicity areas. Overall, thirty-four percent of respondents said they would be very likely to

recommend an ENERGY STAR product to a friend; no data were provided for high publicity versus low publicity areas.

Because data from northwest consumers is limited, we used some of the results from the 2001 survey of retailers as a proxy for consumer views. Across several questions, retailers consistently felt the ENERGY STAR label was valuable to their customers although there is room to increase that value. When asked to rate how important the ENERGY STAR label was to consumer buying decisions, 61% said it was important. When asked if their customers knew about the non-energy benefits of ENERGY STAR-labeled appliances, most (89%) said their customers know about water savings, but that fewer knew about other non-energy benefits.

Table 9: Consumer Indicator Summary

Consumer Indicators	Status
5. (Increase) Awareness of label/brand	<p>✓ After seeing the ENERGY STAR label, 40% of respondents* overall reported being aware of the label. Data suggest that awareness levels are likely to be 10-15% higher in high publicity areas such as Portland and Seattle.</p> <p>* Figures are drawn from the <i>National Analysis of CEE 2001 ENERGY STAR Household Surveys</i>.</p>
6. (Increase) Understanding of label/brand	<p>✓ About 38% of respondents to the national survey knew that the label, after seeing it, meant “energy efficiency” or “energy savings.” Again, the proportion is likely to be higher in cities such as Portland and Seattle – about 46%.</p>
7. (Increase) Value of label/brand	<p>✓ About 25% of those who purchased ENERGY STAR labeled appliances reported that the label “influenced their decision very much.” This figure increases to 34% in high publicity areas.</p> <p>✓ 34% of ENERGY STAR-labeled purchasers were very likely to recommend ENERGY STAR appliances to a friend.</p> <p>✓ The majority of retailers (61%) in the 2001 survey said that ENERGY STAR was important to consumers when shopping for appliances.</p>
8. (Increase) Recognition of non-energy benefits	<p>✓ Most (89%) retailers from the 2001 survey said that their customers are interested in water savings when considering an ENERGY STAR qualified product, and 22% said customers are interested in reduced emissions (where applicable).</p>

Methods

Two Web-TV surveys, where respondents could view the ENERGY STAR label, were considered as a source of the consumer indicators: the 2001 *Northwest ENERGY STAR Home Products Program Baseline Survey* and the *National Analysis of CEE 2001 ENERGY STAR Household Surveys*. While the data are limited, we decided to

use the CEE survey for two reasons: methodological problems with the northwest survey and the Alliance's decision to sponsor regional over-sampling in CEE's next national survey and to use those results in MPER #2.

The goals of the 2001 national survey were to collect information about consumer "recognition, understanding, and purchasing influence of the ENERGY STAR label." The Web TV survey had 1,672 respondents, using a complex national sampling system. To find out more about this survey, please access the CEE Website (www.cee1.org); the full survey report, entitled *National Analysis of CEE 2001 ENERGY STAR® Household Surveys, Final Report*, August 1, 2002, can be downloaded.

The results and methods of the Retailer Survey are discussed more fully in the next section.

RETAILER INDICATORS

Summary of Implications and Key Indicators

Baseline indicators from a survey with 152 retailers and from the mystery shopper research show that strong relationships between retailers and the program were already in place by the end of the first program year.

Retailer participation increased 13% as the program ramped up. Three-quarters of retailers said it was easier to sell ENERGY STAR products than non-qualified products, and that their sales of ENERGY STAR appliances had increased. Eighty-five percent said the program helped them drive ENERGY STAR appliance sales.

Still, there is room to improve services to retailers and their sales staff. While 68% of retailers rated program materials as useful selling tools, usefulness ratings were lower (55% or less) for the program's utility coordination, sales training, field rep support, and co-op marketing. Retailer belief in the value of the brand (at 26% very important) can also be increased.

The mystery shopper research revealed that only about one-third of the salespeople mentioned ENERGY STAR before the shoppers did. Mystery shoppers also felt that a notable proportion (about 40%) of the sales force could be more motivated to sell ENERGY STAR products, and that they could be more informed about the full range of non-energy benefits for ENERGY STAR products.

For further details of the retailer data, please see Table 10 below and the next sections of the report.

Table 10: Retailer Indicator Summary

Retailer Indicators	Status
9. (Increase) # of retailers	<ul style="list-style-type: none"> ✓ According to Program monthly reports, the number of retailers participating in the Program increased from 474 to 534 between March and December 2001 – a 13% increase. (Note: Retailers also dropped out during this period, largely due to closures and other non-program factors.)
10. (Increase) Importance of carrying/promoting Program products	<ul style="list-style-type: none"> ✓ The 2001 survey of 152 retailers showed that 26% of retailers believe ENERGY STAR is extremely important in their marketing and sales efforts, with 55% feeling it's somewhat important. ✓ Just over three-quarters (76%) of the retailers surveyed reported it was easier to sell ENERGY STAR qualified products than non-qualified products. ✓ According to 2002 mystery shopper research, 35% (17 of 48) of salespeople mentioned ENERGY STAR before the researchers did. ✓ Researchers rated 58% of salespeople as motivated to sell ENERGY STAR products. ✓ The mystery shopper research showed that most salespeople mentioned that ENERGY STAR washers used less energy (88%) and saved water (92%) Fewer mentioned the products saved time (58%) and detergent (52%). Still fewer, said the washers exceeded Federal energy standards (44%), were more quiet (40%), or that they reduced emission pollution (13%).
11. (Increase) Perceived level of consumer demand for Program products	<ul style="list-style-type: none"> ✓ Almost half of retailers (47%) surveyed reported that 10% or less of their customers had asked specifically for ENERGY STAR products in the last three months. ✓ However, 78% of the retailers said their sales of ENERGY STAR appliances have increased.
12. (Decrease) Barriers to selling Program products	<ul style="list-style-type: none"> ✓ 47% of retailers surveyed say price (or no financial incentive) is the biggest challenge in selling ENERGY STAR qualified products; 14% say there are no challenges.
13. (Increase) Satisfaction with the Program	<ul style="list-style-type: none"> ✓ 85% of retailers surveyed said the Program aided them in driving sales for ENERGY STAR qualified products, and 81% said that ENERGY STAR was extremely (26%) or somewhat (55%) helpful in their marketing and sales efforts. ✓ 68% of retailers rated Program brochures, product labels, and point-of-purchase (POP) materials as useful to selling Program products; just over half rated both the Program's local utility coordination and signage as useful; and about 45% each said sales training, field rep support, and co-op marketing were useful.
14. (Increase) Importance of utility partners	<ul style="list-style-type: none"> ✓ 63% of retailers surveyed said local utility partnerships are extremely important to generating ENERGY STAR product sales.

Methods

The purposes of the Retailer Survey were to gather impressions about the value of ENERGY STAR, the efficacy of the Program, and the need for any program improvements. The survey was conducted, by telephone, in November 2001 with 152 independent and national retailers in the Northwest. The 25 minute telephone survey was with the Program's key contact. Most often these individuals were the storeowners or managers of the retail outlets located in Washington, Oregon, Montana and Idaho.

Based on the materials from the previous evaluation contractor, stores were randomly selected within each state. The 149 Independent Retailers were categorized into independent, large, and small. Three District Managers of a national retail chain were also interviewed, for a total of 152 interviews. Of the 149 Independent retailers, 48% were members of a Buyer's Group and 52% were not, which parallels the entire independent retailer population in the region. Retailers were very cooperative in taking part. Questionnaires were coded, input into a data file, and analyzed using SPSS.

The Mystery Shopper activity provides another view of retailers, particularly the sales floor and staff. Mystery shoppers are typically used to provide feedback to various types of services about the performance of their sales staff and, sometimes, the physical upkeep of shopping locations. In this case, researchers, posing as married couple shoppers, gathered information about the shopping experience for ENERGY STAR appliances, from the knowledge of sales staff to marketing tools displayed. The "shops" took place in March 2002 in 48 out of 491 retail stores that the Program identified as carrying qualified appliances throughout the northwest and were selected to provide a mix of store types and geographic location.

Further Retailer Survey Key Findings

Views of the ENERGY STAR Brand

- ✓ Retailers said ENERGY STAR qualified products were easier to sell because consumers were seeking long-term value and financial savings (41%), were more energy conscious, and were interested in the water savings and other environmental benefits (40%). Only 14% mentioned financial incentives, such as rebates or tax incentives.
- ✓ Many retailers did think price affects selling ENERGY STAR qualified appliances, but it didn't emerge as an overwhelming obstacle. Most said it was somewhat likely that consumers would pay more for ENERGY STAR appliances. When asked to describe challenges in selling ENERGY STAR products, less than half (47%) cited price, but it was the most frequent response. Many retailers felt that

incentives such as rebates and tax credits help to resolve customer hesitation and enable them to sell more ENERGY STAR qualified products.

- ✓ According to retailers, availability, price, and the life of the product were the most salient features for customers buying appliances. Energy and water savings, and being ENERGY STAR qualified, on the other hand, were rated as considerably less important.
- ✓ Perceived sales increases of ENERGY STAR products varied considerably by product: 78% thought ENERGY STAR clothes washer sales had increased; 66% said ENERGY STAR refrigerator sales had increased; 64% thought sales of ENERGY STAR dishwashers had increased; but only 6% thought sales of ENERGY STAR qualified air conditioners had increased.

Views of Program Services

- ✓ When asked to name the single most important marketing tool that the Program provides, the largest percent of retailers (34%) said the stickers, logo and labels, while 20% cited the water bottle display, 15% said brochures and pamphlets, and 12% cited the tax credit, rebates, SPIFFs, and coupons.
- ✓ When asked to rate the usefulness of six key services the program provides, useful ratings ranged from 43% to 68%. In terms of **extremely useful** ratings only, local utility coordination received the highest proportion (41%) while field rep support received the lowest (18%). Specific ratings were:
 - Two-thirds rated the brochures, product labels, and POP as extremely (32%) or somewhat (36%) useful.
 - Just over half rated local utility coordination as extremely (41%) or somewhat useful (14%).
 - Fifty-two percent said signage was extremely (30%) or somewhat useful (22%).
 - Just under half said the sales training was extremely (27%) or somewhat (18%) useful.
 - Forty-four percent said the field rep support was extremely (18%) or somewhat (26%) useful.
 - 43% said the co-op marketing was extremely (30%) or somewhat (13%) useful.
- ✓ Retailers especially valued field representatives for their help in providing utility coordination, promotional support, sales training, and POP placement.

Views of Local Utility Support

- ✓ The majority of retailers, 89%, feel that local utility partnerships are extremely (63%) or somewhat (26%) important to generating sales for ENERGY STAR qualified products.
- ✓ Most retailers (59%) also thought having the local utility logo present in advertisements positively affected sales, although 19% disagreed, 8% said it made no difference, and 14% didn't know.
- ✓ Retailers suggested additional steps that local utilities could take to help promote ENERGY STAR sales efforts, including providing rebates, discounts, and bonuses or financing (37%), educating consumer (28%), and listing them as ENERGY STAR partners and resources in utility materials (11%).

Further Mystery Shopper Key Findings

- ✓ Although most shoppers (67%) prompted the initial discussion about ENERGY STAR, salespeople responded strongly once they were engaged. Two of three salespeople showed ENERGY STAR products before other products, and a majority of salespeople (58%) emphasized ENERGY STAR products over other products.
- ✓ Most salespeople (85%) were able to convince the mystery shoppers that ENERGY STAR washers were a good value overall, and 75% of shoppers say they would have purchased an ENERGY STAR product.
- ✓ Most salespeople were rated as knowledgeable about ENERGY STAR (81%); were able to speak about ENERGY STAR benefits and answer questions without assistance (83%); and could explain the differences between ENERGY STAR qualified products and other products (71%).
- ✓ Most salespeople did not “cross-market” ENERGY STAR appliances without a prompt (35%), but when prompted about dishwashers, most salespeople (69%) remained enthusiastic about ENERGY STAR.
- ✓ The presence of marketing tools in the stores varied greatly. The most frequent tools were the small logos (79% of stores), followed by an all ENERGY STAR products brochure (59%), large logos on products (49%), the ENERGY STAR appliance brochure (48%), and the water bottle display (44%). Other marketing materials were much less present, including indoor banners (25%), outdoor banners (8%) and logos on vehicles (4%).
- ✓ Differences did emerge by state (although the numbers are small). Oregon consistently lead on salesperson indicators, such as whether salespeople mentioned ENERGY STAR first (64% in Oregon compared to 7% in Washington); being specific about ENERGY STAR benefits and savings; and general knowledge

and motivation to sell ENERGY STAR products. The presence of marketing materials was less variable by state.

- ✓ Findings were more mixed by type of store, with no consistent pattern emerging, although in National and Brand stores, salespeople more often mentioned ENERGY STAR first compared to Independents and Large Chains.

UTILITY INDICATORS

Summary of Key Implications and Indicators

The Program is charged with serving utilities throughout the region and offers an array of services. Responses to the utility survey revealed some of the challenges in serving this diverse clientele. At mid-term in the Program, almost two-thirds of 45 utilities surveyed reported they had made at least some use of the Program. Larger utilities, representing the majority of customers in the region, and often having dedicated conservation staff and resources, were much more likely to use the program than small or medium utilities. They were also likely to rate the Program more highly.

Use of various Program tools and services varied widely. Almost all said they had used the Program's advertising tools (84%), and three-quarters reported they had used product fact sheets, POP materials, and met with field reps.

On the other hand, less than half have used the Utility Resource Kit or URK (42%) a key Program resource, and among those who have, less than half say they found it very (14%) or somewhat (34%) useful. A third of utilities have participated in co-op marketing, 22% have received promotion support, and 15% have used the incentive program design. Again, large, medium, and small utilities often used different Program services and products.

Given such a wide range of utilities, and a need to offer services to all of them, it is difficult to gauge the appropriate levels at which each Program tool should or could be used, or even the level of satisfaction that should be achieved (for instance, should all utilities count equally in the ratings?). Overall satisfaction is on the high side of good. All things being equal, this would suggest the need for some targeted improvements.

Table 11: Utility Indicator Summary

<i>Utility Indicators</i>	

<p>15. (Increase) Level of utility participation</p>	<ul style="list-style-type: none"> ✓ Just over one-third of the 45 utilities surveyed in 2002 reported they've had little contact with the program. This varies dramatically by utility size: almost half of small and medium size utilities say they've had little contact, while only one of ten large utilities reported little contact. ✓ The use of Program tools and services varied greatly among utilities. Over three-quarters used the advertising tools (84%), product fact sheets (74%), POP materials (76%), and met with field reps (76%). ✓ Overall, less than half (42%) used the Utility Resource Kit, participated in co-op marketing (33%), used the media kit (32%), received program promotion support (22%), or used the incentive program design (16%).
<p>16. (Increase) Satisfaction with the Program</p>	<ul style="list-style-type: none"> ✓ Overall, 22% of utilities surveyed rated the Program as providing excellent support to utilities, while 51% said the support was good. Large utilities rated program support much more highly than either medium or small utilities. ✓ 14% of utility sponsors report they have found the Utility Resource Kit (URK) very useful, and 34% have found it somewhat useful.

Methods

The Utility Survey was conducted to gather feedback from the Program's utility partners and sponsors. The survey covers four main areas: program staffing, program tools, marketing services, and overall impressions and next steps. Dethman & Associates staff conducted the interviews by phone in September 2002 with 45 utility respondents, representing about one-third of all regional utilities.

The utilities were selected both on size (small, medium, or large), and location to obtain a representative picture of the region. Small and medium utilities were sampled from the total population, but all ten large utilities were included in the sample. All questionnaire data were coded and keyed into an SPSS data file for analysis.

Further Utility Survey Key Findings

- ✓ As shown in Table 12, people (i.e., field reps) are clearly the favored mode of communication, with 62% of all respondents ranking the field reps as their number one or two communications choice. The utility coordinator received the next highest ranking. The @Home Newsletter, email ListServ, and URK are also valued by significant percentages of respondents.

Table 12: Rankings of Communications Tools

Top Ranked Communications Tool	N	%
Field Reps	15	33
Utility Coordinator	11	24
@ Home Newsletter	7	16
Utility Resource Kit	4	9
Email ListServ	4	9
Web Site	1	2
Haven't used any tools	3	7
2nd Ranked Communications Tool		
Field Reps	13	29
Email ListServ	8	18
@ Home Newsletter	6	13
Utility Coordinator	5	11
Utility Resource Kit	5	11
Only used 1/Haven't used any tools	8	18
Combined 1st and 2nd Rankings		
Field Reps	28	62
Utility Coordinator	16	36
@ Home Newsletter	13	29
Email ListServ	12	27
Utility Resource Kit	9	20
Web Site	1	2
Only used 1/Haven't used any tools	11	24

- ✓ As shown in Tables 13 and 14, the Program has had its biggest and most wide-ranging impact on large utilities. Large utilities were much more familiar with the Program and more often took advantage of the complete range of its services, compared to medium and small utilities. As a group, they also valued the Program more.
- ✓ Higher use by large utilities no doubt contributed to the high ratings for overall program support. Sixty percent of large utilities said the Program provided excellent overall support, compared to 11% of medium and 12% of small utilities. The lower overall ratings from medium and small utilities are at least partly explained by those who said they have had little or no contact with the Program. Only one of ten large utilities said this, compared to 44% of medium and 47% of small utilities.
- ✓ Large utilities used the utility coordinator much more often than medium and small utilities. Fifty-one percent of respondents who had used the utility coordinator said that the utility coordinator's strengths lay in knowing the Program and its products, and in being available to answer questions or discuss ideas.

- ✓ Utilities rated the field reps as more important than the utility coordinator across all utility sizes, with all medium utilities, 47% of small utilities, and 80% of large utilities having used a rep. Large utilities were the most complimentary about the reps, with half (50%) of the users saying the overall value of the field reps' services were excellent versus 25% of small utilities and 22% of medium utilities using them. Almost one-quarter of those using field reps said they would have liked more contact.
- ✓ For the 42% of utilities using the URK, advertising tools, product fact sheets, and POP materials were the most popular elements. Most (86%) who used POP materials said they were very useful. The PR media kit was the most popular with small utilities, not used at all by medium utilities, and used by three of seven large utilities.
- ✓ Two-thirds of respondents overall received and read the ListServ messages. While similar proportions used the ListServ no matter the utility size, ratings of usefulness varied substantially. Four of seven large utilities rated the ListServ as very useful, compared to just three of twenty-three small and medium utilities.
- ✓ Results were similar for the @Home newsletter: 69% of respondents received and read the @Home newsletter with similar proportions across utility size. However, three of seven large utilities, zero of thirteen medium utilities, and two of eleven small utilities rated it as very useful.
- ✓ Outreach support was used most by large utilities (80%) and medium utilities (61%), but by only 29% of small utilities. Program promotion support and cooperative marketing were also used much more often by large utilities compared to medium and small utilities.

Table 13: Respondent Use Rates by Utility Size

Used Utility Coordinator				%	Used POP Materials				%
Large utilities	9	of	10	90	Large utilities	5	of	7	71
Medium utilities	9	of	18	50	Medium utilities	7	of	8	88
Small utilities	5	of	17	29	Small utilities	2	of	4	50
Overall	23	of	45	51	Overall	14	of	19	74
Met with Field representative					Used List of ENERGY STAR Models				
Large utilities	8	of	10	80	Large utilities	5	of	7	71
Medium utilities	18	of	18	100	Medium utilities	4	of	8	50
Small utilities	8	of	17	47	Small utilities	3	of	4	75
Overall	34	of	45	76	Overall	12	of	19	63
Used the URK					Used Cooperative Marketing tools				
Large utilities	7	of	10	70	Large utilities	2	of	7	29
Medium utilities	8	of	16	50	Medium utilities	5	of	8	63

Small utilities	4	of	9	44	Small utilities	1	of	4	25
Overall	19	of	35	54	Overall	8	of	19	42
Used Advertising tools					Used PR Media Kit				
Large utilities	6	of	7	86	Large utilities	3	of	7	43
Medium utilities	7	of	8	88	Medium utilities	0	of	8	0
Small utilities	3	of	4	75	Small utilities	3	of	4	75
Overall	16	of	19	84	Overall	6	of	19	32
Used Product Fact Sheets					Used Incentive Program Design				
Large utilities	6	of	7	86	Large utilities	1	of	7	14
Medium utilities	4	of	8	50	Medium utilities	2	of	8	25
Small utilities	4	of	4	100	Small utilities	0	of	4	0
Overall	14	of	19	74	Overall	3	of	19	16

Table 14: Respondent Usage Rates by Utility Size

Received & Read ListServ					%	Used Coop Marketing					%
Large utilities	7	of	10	70	70	Large utilities	5	of	10	50	50
Medium utilities	11	of	18	61	61	Medium utilities	5	of	18	28	28
Small utilities	12	of	17	71	71	Small utilities	5	of	17	29	29
Overall	30	of	45	67	67	Overall	15	of	45	33	33
Received & Read @Home						Reported Program Support as Excellent					
Large utilities	7	of	10	70	70	Large utilities	6	of	10	60	60
Medium utilities	13	of	18	72	72	Medium utilities	2	of	18	11	11
Small utilities	11	of	17	65	65	Small utilities	2	of	17	12	12
Overall	31	of	45	69	69	Overall	10	of	45	22	22
Used Outreach Support						Had Little/No Contact w/Program					
Large utilities	8	of	10	80	80	Large utilities	1	of	10	10	10
Medium utilities	11	of	18	61	61	Medium utilities	8	of	18	44	44
Small utilities	5	of	17	29	29	Small utilities	8	of	17	47	47
Overall	24	of	45	53	53	Overall	17	of	45	38	38
Received Promotion Support											
Large utilities	5	of	9	56							
Medium utilities	5	of	18	28							
Small utilities	0	of	17	0							
Overall	10	of	44	23							

MANUFACTURER INFORMATION

No primary data has been gathered from manufacturers to help evaluate the Program. Only one question was asked of retailers regarding the level of support they receive from manufacturers. Forty percent (40%) indicated that they receive

either excellent or very good support from manufacturers, 30% said good, and 20% categorized it as fair, and 6% felt they received poor support.

PROGRAM COST-EFFECTIVENESS

At the time of this report, the Alliance was reviewing its cost-effectiveness analysis, due to discussions with the Alliance analyst, program staff, and evaluators for the Program. Program evaluators are responsible for reviewing the analytical framework and commenting on any issues that might affect the validity of the cost-effectiveness. These major issues and questions surfaced as a result of the cost-effectiveness discussions:

1. Should room air conditioners remain in the product mix for tracking?
2. Can updated cost/incremental price data be used?
3. How do old versus new efficiency standards affect the baseline?
4. Should savings and tracking of clothes washers be added to the Program?
5. Should savings calculations be adjusted by product (e.g., dishwashers)

On the first point, we believe that room air conditioners should be included in the product mix since these products are and will be a focus of the program. Other ENERGY STAR products should be added on an as-needed basis if the program continues forward.

On the second point, if better price data are available and can be consistently applied, we recommend it be used; at this point, however, the program and evaluation staff have agreed that the numbers set forth in D&R's 2002 *White Paper* are the most reliable.

On the third point, we advise that the evaluation staff, program staff, and cost-effectiveness analyst agree on a common set of numbers for both the baseline condition and subsequent years. This report sets out the baseline market share conditions.

On the fourth point, clothes washer sales and savings should be part of the cost-effectiveness analysis, since the current program design and operation grew out of the clothes washer program. While it will be important to ensure there is no double-counting, clothes washers are certainly being promoted in this program – indeed, it is a package approach, with more products being added. If clothes washers are cost-effective (which they likely are), it will allow the program to push further to new products and less served areas to promote ENERGY STAR products. But, even if washers are not cost-effective, their fate lies with this program. On the final point, it seems prudent and consistent to adjust savings by product.

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

Overall Program. Looking across all data gathered in the MPER, the ENERGY STAR Home Products Program has many positive attributes and its share of challenges. It is a service-intensive program targeted to working with three sets of diverse clients – retailers, utilities, and manufacturers – all of whom are interested in reaching and influencing consumers to buy appliances that meet Program standards and moving the market toward higher efficiency products.

This MPER's primary goal was to establish benchmarks (indicators) against which the Program's progress can be measured. At the same time, if the evaluation alerted us to any dire program situations that needed attention, we would discuss them in this report. Fortunately, the Program appears to be operating within normal bounds for the stage that it is in. Still, this evaluation has identified both some positive and challenging program indicators.

Data gathered and analyzed for this MPER reveal that the Program's positive indicators include increases in qualified products, market share, ENERGY STAR manufacturers and retailer participation; retailers who are interested in fostering the brand and who have devoted time and space to ENERGY STAR products; evidence of the strong role the Program has played in creating strong alliances between retailers and utilities; and some strong utility supporters, especially among large utilities.

Potentially more challenging indicators include evidence that consumer awareness of the brand may be stagnant on a national level; still low consumer understanding of the label and appreciation of its value; a tendency to higher end products which could limit growth; and positive but not exceptional program satisfaction ratings coupled with fairly limited use of some program services by both retailers and utilities.

Marketplace Influence. The marketplace has been evolving, and increasing, for ENERGY STAR products. At the start of ENERGY STAR in 1996, there were relatively few choices for efficient appliances and manufacturers and retailers did not trust that consumers would choose efficient products. Since the ENERGY STAR label and related marketing and incentive activities have been in place both nationally and in various parts of the country, including the northwest, consumers have demanded and bought more efficient appliances. Manufacturers have responded by expanding product lines or by entering the market for the first time, and retailers are carrying more ENERGY STAR qualified products.

Many new ENERGY STAR products offer energy efficiency coupled with improved performance, convenience, and modern design. While these appliances have tended to be priced (and often marketed) for an up-scale audience, their cutting edge nature

has so far appeared to have fostered wider consumer interest. This has resulted in ENERGY STAR gaining brand equity and value and some less costly high efficiency products are emerging.

Recommendation: The tendency of ENERGY STAR products to be “high end” is something which should be monitored since it has the potential to limit market growth. In addition, at some point, sponsors may be forced to look at the equity issue if these products are mostly being bought by more affluent consumers. This makes the search for more up-to-date incremental cost data very important. In addition, we need to find a way to determine whether more affordable ENERGY STAR choices are emerging. Finally, we need good consumer research that reveals more about the value that consumers are willing to attach to the brand and about customer characteristics. The 2003 national survey, with over sampling and added questions, is crucial and should shed some important light on the consumer value issue. However, it’s not clear how better cost and affordability information will be gathered.

Consumers. Based on results of the 2001 national survey, opportunity exists to grow brand awareness and equity: only 40% of American consumers overall are aware of the brand, energy efficiency appears to have limited value to customers, and awareness of non-energy benefits (aside from water savings with washers) is fairly low. Data also show that where local publicity efforts have been strong, brand equity is significantly higher, but still far from 100%. This means there is still opportunity to increase brand awareness and appreciation for the value of the brand.

Retailers. Retailer participation increased 13% as the program ramped up. Three-quarters of retailers said it was easier to sell ENERGY STAR products than non-qualified products, and that their sales of ENERGY STAR appliances had increased. Eighty-five percent said the program helped them drive ENERGY STAR appliance sales, and 68% liked the marketing tools.

Useful ratings for helping with utility-retailer coordination, sales training, field rep support, and co-op marketing were lower – around 50% or below. And retailer belief in the value of the brand as a marketing tool is on the low side. Evaluation data did not include the reasons behind these lower ratings.

The mystery shopper research revealed that salespeople may not be as proactive and enthusiastic as they could be about ENERGY STAR products. In addition, their knowledge about non-energy benefits could be improved.

Recommendation. Because the program staff and field reps have their “ears to the ground,” they are important repositories of retailer and consumer concerns. If they are not already doing so, the Program staff should, on a regular basis, brainstorm how retailer services might be improved – especially for those that were lower rated in this evaluation. Then, any lessons learned and recommendations should be applied in communications and training with retailers and salespeople. Field reps could also routinely gather customer service recommendations on a more standard

format; for instance, they could distribute and collect a very short survey form to retailers on a regular basis that could be aggregated.

Utility Services. The Program is responsible for serving utilities throughout the region. The strategy for dealing with this diverse group is to offer many types of service options. While two-thirds of 45 utilities surveyed reported they had made at least some use of the Program, large utilities were clearly getting more out of the Program, and use of some tools and services is highly variable and in some cases pretty low.

For instance, less than half have used the Utility Resource Kit or URK (42%) a key Program resource, and among those who have, less than half say they found it very (14%) or somewhat (34%) useful. One-third of utilities have participated in co-op marketing, 22% have received promotion support, and 15% have used the incentive program design. Again, large, medium, and small utilities often used different Program services and products.

Recommendation. As with the lower rated or used services for retailers, utility services and materials (e.g., the URK) should be actively reviewed and discussed with an eye to revising or reducing some elements.

Evaluation Roadmap. In the course of developing this MPER, we noted four areas where evaluation data or efforts need to be improved, including (1) Consumer data specific to the Northwest that tells more about consumer decision-making and other topics not covered by the basic CEE Survey; (2) manufacturer data to gather the manufacturing perspectives about the development and future of the market place and the usefulness of, and satisfaction with, various Program services; (3) incremental cost-data that reliably compares “like” models; and (4) direct communication with program managers and staff about evaluation goals, evaluation tasks, and program strengths and weaknesses.

Recommendations: (1) Careful thought needs to be given to how to maximize regional data collected through the national CEE survey, and to the additional questions that will be asked. Program and evaluation staff should work together within the next month to finalize sponsorship, sample, and questionnaire items.

(2) A manufacturer survey project should be defined, designed, and implemented as soon as possible to provide information about this important program client and market player. Another manufacturer survey should be fielded toward the scheduled end-date for the Program.

(3) At this point, an incremental cost study is not in the evaluation scope of work. However, if the program is willing to undertake another study of appliance before the end of its current operating period, the evaluators and program staff should work in tandem to ensure cost data collected can reveal incremental price differences or premiums.

(4) Finally, program managers and staff, and evaluators, should communicate more regularly about the program, both to define evaluation goals and to plan evaluation elements, and to convey information about program progress. The evaluation tasks should also include more formal interviews with program managers and staff about the strengths and needed improvements for the program. Topics for these conversations should include program management and services, and revisiting the cost-effectiveness assumptions as outlined in this report and making any needed adjustments.