

ILLUME

SoCalGas Cold Water Default Clothes Washer Process Evaluation

Final Report

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1. EXECUTIVE SUMMARY

This study is referenced as Residential-13 in the 2013-2016 Energy Division & Program Administrator Energy Efficiency Evaluation, Measurement and Verification Plan, Version 6.

1.1 INTRODUCTION AND MEASURE OVERVIEW

This report summarizes the results of the Southern California Gas (heretofore referred to as “SCG”) Cold Water Default Cold Washer (CWDCW) process evaluation. The CWDCW is a new measure offering through SCG’s Plug Load and Appliance (PLA) program.¹

Customers who purchase a program-qualifying clothes washer receive a \$200 rebate. Currently, the initiative provides a \$200 rebate for one specific machine, the Whirlpool Model WTW4715EW. The rebate is scheduled to diminish over time as market adoption increases (e.g., sequential decreases of \$50). The rebate was set high to start to drive adoption and overcome perceived barriers.

Unlike many high-efficiency washing machine programs that target front-loading washing machines, this initiative targets vertical axis clothes washers in the \$376-\$475 price range, which is significantly lower than ENERGY STAR® washers. The Whirlpool machine was designed to appeal to mid-market shoppers, specifically moderate-income customers (e.g., low income above the Energy Savings Assistance (ESA) threshold², and middle income) who may not be able or willing to purchase an ENERGY STAR® washer.

The wash cycle settings are what most distinguish the machine from other vertical axis models. Five of the six wash cycle settings use only cold water, including the “Normal” setting. The one setting labeled “Heavy Duty” (with sub-label “hot wash”) uses warm water wash (95° F) and a cold water rinse.³ The user manually selects the water temperature via a knob.⁴ The machine does not save water compared to other high efficiency top-loading washing machines nor compared with federal standards for top-loading washer water use (as the machine meets but does not exceed these standards).⁵

¹ SCG launched the CWDCW in April 2015 (California Public Utilities Commission, Energy Division, 2013-2015 Energy Division & Program Administrator Energy Efficiency Evaluation, Measurement, and Verification Plan Version 5, San Francisco, CA (May 2015).)

² ESA income thresholds available at: <https://www.socalgas.com/save-money-and-energy/assistance-programs/energy-savings-assistance-program>

³ The machine achieves a warm-water temperature of 95° F by mixing hot and cold water, unlikely a typical hot-water wash cycle that uses water at the temperature coming out of the water heater. In this way, even on the Heavy Duty setting, it requires less water heating.

⁴ The setting does not change between uses unless changed by the user; therefore, it is technically possible for the machine to remain on warm water wash indefinitely.

⁵ The CWDCW is an industry baseline top loading model – This category includes washers with capacity of at least 1.6 ft³ and a maximum Integrated Water Factor (IWF) of 8.4 gal/cycle/ft³. It meets the current Code of Federal Regulations baseline values for all top loading standard size washers in the United States manufactured from March 7th, 2015 to January 1st, 2018 (See https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/39). The CWDCW uses the same amount of gallons per wash cycle as the minimally compliant baseline washer model; thus no water savings can be claimed for this model. Some washers on the market, such as high-efficiency ENERGY STAR® models, use less water per load than the current Code of Federal Regulations baseline values. However, these washers are

In 2015, SCG partnered with five local retailers to promote the rebate: Howard's, Pacific Sales, Warehouse Discount Center, Sears and Idler's Appliances.⁶ Three of these stores offer a point-of-sale rebate, while two offer a mail-in rebate. All stores market the rebate through point of purchase materials and sales associates. SCG hired a subcontractor to train retailers on the technology and how to educate customers on the machine's features and rebate. SCG also markets the technology and rebate on their website, via paid keyword searches, social media, and bill inserts.

1.2 EVALUATION METHODS

SCG engaged ILLUME Advising LLC (ILLUME) to assess the market response to the CWDCW in 2015. While not designed as a process evaluation, this study assessed process-related issues, and is therefore referred to as a process evaluation throughout this report. c

The evaluation methodology included a combination of primary data collection and secondary analysis with participant and non-participant customers, including: online marketplace review and analysis; mystery shopping at participating retailers; formative participant interviews and quantitative surveys; nonparticipant surveys of prospective and recent clothes washer purchasers, and; interviews with the participating manufacturer and retailers.

1.3 KEY FINDINGS

SCG worked closely with manufacturers, including Whirlpool, to bring a cold water clothes washer to market. The initiative included customer education on the benefits of washing in cold water to overcome the belief that warm or hot water washing will result in cleaner clothes.

CWDCW uptake has been slower than anticipated with 864 units rebated in 2015 compared with the 3,597 projected. There are a number of reasons why uptake may have been slower than expected, including (a) difficulty gaining floor space with the larger big-box retailers, (b) limited in-store promotion of the washer by some participating retailers (indicative of additional training and support needs), and (c) limited education and awareness activities to kick off the product launch. Additionally, we found some inconsistency in how retailers communicated information about the machine to customers.

Customers that purchase the washer are generally satisfied, and view the machine as being both energy and water efficient. Customer confusion about water efficiency is noteworthy because, although the washer meets federal water use standards, it does not save water compared with other washers on the market.

This study found mixed results on the influence of the rebate on sales, indicating that more time on the market and more research is needed to understand market uptake. The majority of customers reported that price was a very important factor in their purchase, although some said they would have purchased without a rebate. Retailers thought the rebate was important

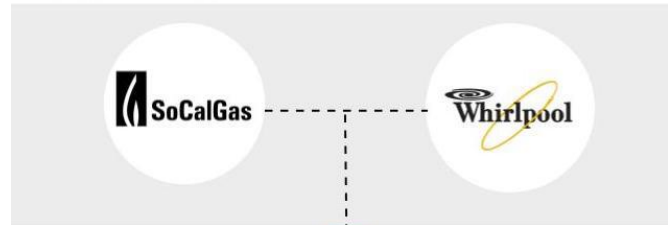
typically priced higher. In one Consumer Reports test of high-efficiency top-loaders, the Whirlpool Model WTW4715EW machine used about twice as much water as other high-efficiency top-loaders they tested, but it appears that Consumer Reports may have tested more expensive models (<http://www.consumerreports.org/washing-machines/cold-water-whirlpool-washer>).

⁶ http://www.socalgas.com/documents/rebates/CWW_Stores4_1.pdf

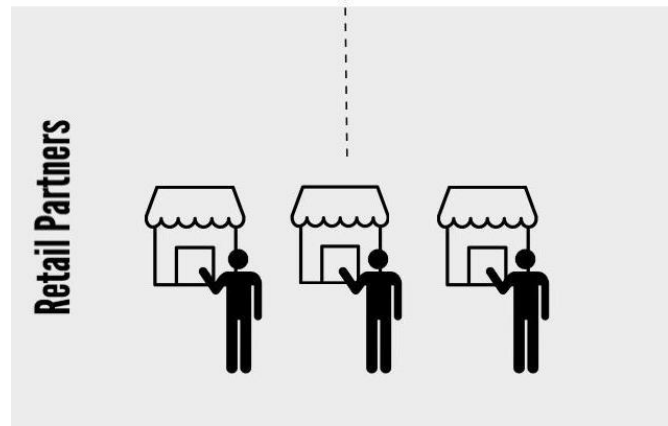
in influencing purchase and would continue to be influential, even if offered at a slightly lower level (e.g, \$150).

The figure below summarizes key findings from this study.

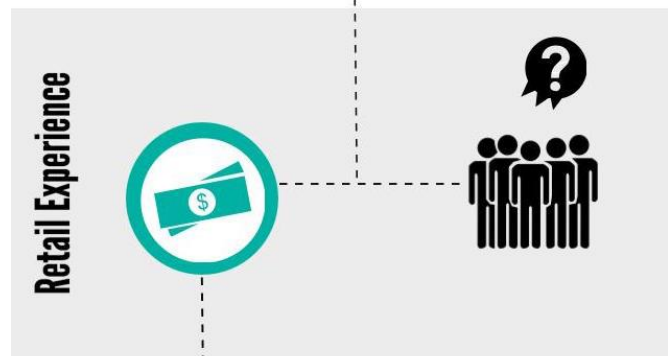
PROCESS



CWDCW



Retail Partners



Retail Experience

**HIGH SATISFACTION
CHANGED BEHAVIORS**

HIGHLIGHTS

SCG has successfully developed a partnership to bring the CWDCW to market.

SCG has maintained successful partnerships with local retailers, but partnerships with larger big-box retailers are needed to drive sales volume.

Increased sales associate training and buy-in about (1) energy efficiency benefits and (2) technological features that make cold-water washing effective could help the CWDCW gain more traction.

Energy and water conservation are important to customers, but customers conflate these benefits, resulting in the misperception that the CWDCW is water-efficient.

Rebate amount can decrease and customers will likely still purchase the CWDCW, though this should be monitored.

Customers like the machine and seem to be changing their washing behaviors as a result.

1.4 RECOMMENDATIONS

Given that participation levels have been slower than projected (due to a number of hurdles, as mentioned above), we recommend focusing program changes in 2016 on increasing market uptake. First, SCG could consider renewing talks with Sears and Home Depot (who is a participant in 2016) around carrying the CWDCW model on the sales floor rather than double-tagging the base model (which both of these big box retailers are currently doing). Second, SCG could consider renewing talks with non-participating big box stores in partnership with Whirlpool to (a) understand barriers to stocking the model on the sales floor or participating⁷, and (b) overcome these perceived barriers. Finally, SCG should consider an education and awareness-raising campaign among their customers to promote the product and cold-water washing. There has been limited marketing outside of the retail channels, and non-participant awareness of the CWDCW is low. An education and awareness campaign about cold-water washing could help drive interest before customers reach a store.

The first-year buyers of the CWDCW were highly price-sensitive, though they also value both energy and water savings. Looking forward to when rebate levels will decrease, SCG may want to start investigating which buyers are less price-sensitive and what features attract them to the CWDCW. Such customer research could be used to tailor marketing to (a) customers who are more likely to buy when rebate levels go down, and (b) messages that focus on non-price benefits customers care about.

We found evidence of some market confusion around water savings, and also found that energy savings aren't well-promoted on manufacturer or retailer websites, or in stores. We recommend reviewing how the machine's features are presented on manufacturer and retailer websites, in-store materials, and the SCG website to make sure that (a) energy savings benefits are clear, and (b) the high-efficiency nature of the machine is not presented in a way that may lead people to believe it saves water. This may require working with retailers to modify their online product specifications. The benefits of cold-water washing (e.g., gas savings) and machine features (e.g., high-efficiency agitator) should also be highlighted in future retail sales associate trainings, as we found some inconsistency in how sales associates described and promoted the product. Continuing to train on these benefits would help sales associates gain confidence in the machine's ability to clean clothes effectively using cold water, and promote these benefits to customers.

⁷ The evaluation team did not speak with non-participating retailers directly as part of this research, therefore we recommend gathering more information about barriers.

1.5 REPORT STRUCTURE

The remainder of this report provides detailed findings from this evaluation. Specifically:

- **Section 2** provides a brief overview of the CWDCW including incentive structure, participation goals, market actor engagement, clothes washer characteristics, and marketing.
- **Section 3** describes the evaluation activities and methodology for each activity
- **Sections 4, 5, and 6** provides the findings resulting from the market actor interviews, marketplace research, and customer surveys, respectively.
- **Section 7** summarizes the key findings and recommendations.

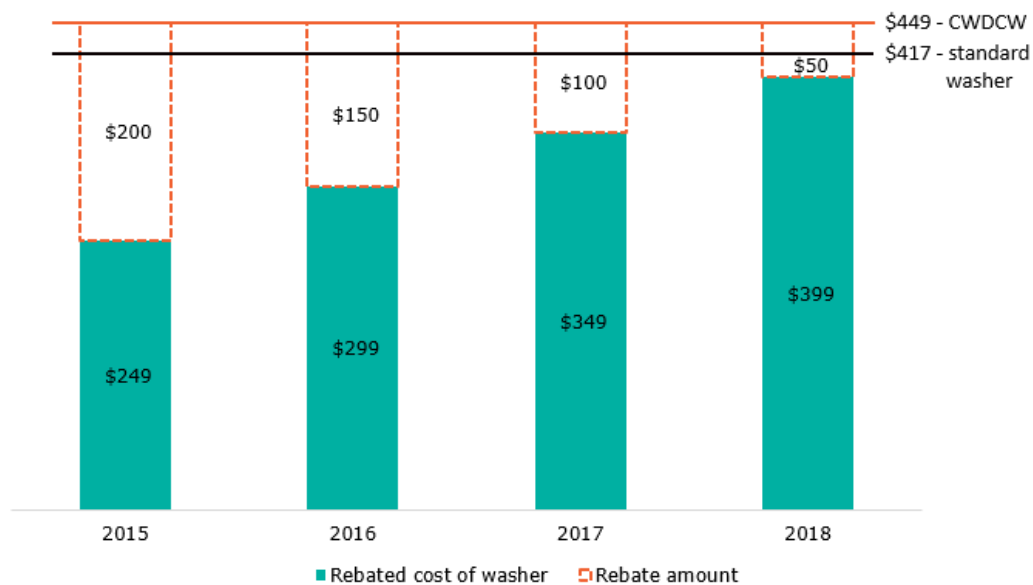
2. INTRODUCTION

This section briefly introduces the SCG CWDCW measure offering, characteristics of the CWDCW, initial market penetration goals, and market actor engagement. The history of CWDCW measure development and more detail on retailer activities is provided in Section 4.

Measure offering: SCG initiated the cold-water washer measure to provide a low cost efficient washing machine option for mid-market customers who are unlikely to purchase ENERGY STAR® certified washing machines at the current market price. As described in Section 4, SCG partnered with a manufacturer (General Electric (GE) initially, followed by Whirlpool) to bring a CWDCW to market.⁸ The intent was to design a machine that minimized hot water usage, and produce an energy efficient product with other features desired by consumers.

The measure is offered as part of the Plug Load and Appliance (PLA) program. SCG offers a \$200 rebate for the Whirlpool CWDCW Model WTW4715EW. The original plan called for annual \$50 reductions in the rebate amount - to \$150 in 2016, \$100 in 2017, and \$50 in 2018. The average cost of a standard efficiency washer is \$417 and the average retail cost of the CWDCW washer is \$449, assuming an estimated 10% retail discount.⁹ The rebates brought the incremental cost of the CWDCW to -\$168 in 2015.

Figure 2-1. Planned Rebate Declines Over Program Period



Rebate information for graphic from: Navigant. (2014). *Mini Business Plan Cold-Water Wash Facilitating Washing Machines for Residential Customers*. Prepared for Southern California Gas Company and SDGE.

⁸ Initial market research was funded by the SCG Emerging Technologies Program (ETP).

⁹ Source: Navigant. (2014). *Mini Business Plan Cold-Water Wash Facilitating Washing Machines for Residential Customers*. Prepared for Southern California Gas Company and SDGE. As of 5/17/2016, Consumer Reports lists an approximate retail price of \$450, and the price is listed as \$449-\$450 on the websites of multiple retailers (e.g., Howard's, Sears, Warehouse Discount Center, Home Depot, Lowe's)

The CWDCW is not a market transformation initiative per se, though it has market transformation characteristics. A key criterion for market transformation is education and behavior change, and SCG aims to increase acceptance and awareness of cold water washing and its benefits, regardless of whether the customer purchases a program-qualified washer. Another criterion for market transformation is that the effort to develop the measure involves a number of stakeholders, including manufacturer and retail partners. SCG partnered with a manufacturer (Whirlpool) over multiple years to design a machine that minimized hot water usage, thus producing an energy efficient product with other features desired by consumers. Finally, the initial rebate amount is far greater than the incremental cost; the initial, more aggressive rebate structure was designed to increase market acceptance of the product.

Machine features: The wash cycle settings are what most distinguish the machine from the vertical axis market. The machine has six cycle settings, ranging from Delicates to Heavy Duty (Figure 2-2). Five of these cycle settings, including "Normal", use only cold water. The one setting labeled "Heavy Duty" (with sub-label "hot wash") uses warm water (95° F) and cold rinse.

Even though the washer is labeled a "cold water default clothes washer," the machine does not necessarily default to cold water. The user needs to manually select the temperature and the machine stays on that temperature until the user manually changes it again. Additionally, the machine is energy, not water, efficient; the machine meets federal standard water use requirements, but cannot claim to save water compared with the federal baseline for top-loading washers.¹⁰

¹⁰ The CWDCW is an industry baseline top loading model – This category includes washers with capacity of at least 1.6 ft³ and a maximum Integrated Water Factor (IWF) of 8.4 gal/cycle/ft³. It meets the current Code of Federal Regulations baseline values for all top loading standard size washers in the United States manufactured from March 7th, 2015 to January 1st, 2018 (See https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/39). The CWDCW uses the same amount of gallons per wash cycle as the minimally compliant baseline washer model; thus no water savings can be claimed for this model. Some washers on the market, such as high-efficiency ENERGY STAR® models, use less water per load than the current Code of Federal Regulations baseline values. However, these washers are typically priced higher. In one Consumer Reports test of high-efficiency top-loaders, the Whirlpool Model WTW4715EW machine used about twice as much water as other high-efficiency top-loaders they tested, but it appears that Consumer Reports may have tested more expensive models (<http://www.consumerreports.org/washing-machines/cold-water-whirlpool-washer>).

Figure 2-2. Controls of Whirlpool Model WTW4715EW



Source: ILLUME staff photo.

Participation goals: SCG contracted with Navigant to conduct a field study and develop participation and savings goals for the measure. Based on this research, as well as retailer participation assumptions, SCG established participation and savings goals (Table 2-1).¹¹ For 2015, this business plan projected 3,597 participants. These participation goals assumed that at least four retailers – two national and two regional – would carry the machine on their sales floors and fulfill the rebate point-of-sale rather than through a mail-in rebate. Specifically, the program assumed that both Sears and Home Depot would participate at this level. However, neither retailer carries the product on their sales floor (Sears double-tagged the base model in 2015 and Home Depot is double-tagging in 2016), and Home Depot did not start participating until 2016.

Table 2-1. Projected Market Penetration and Savings for Southern California Gas

| Year | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|-------|-------|--------|--------|--------|--------|--------|
| Annual new penetration | 7.50% | 9.42% | 9.42% | 10.37% | 11.29% | 12.15% | 12.94% |
| Annual customers participating | 3,597 | 4,520 | 4,520 | 4,976 | 5,414 | 5,827 | 6,206 |
| Cumulative customers participating | 3,597 | 8,117 | 12,637 | 17,613 | 23,027 | 28,854 | 35,060 |
| Annual savings from cumulative adoption (Mth) | 0.019 | 0.043 | 0.067 | 0.094 | 0.122 | 0.153 | 0.186 |
| Cumulative energy savings (Mth) | 0.019 | 0.062 | 0.129 | 0.223 | 0.345 | 0.499 | 0.685 |

Source: Navigant. (2014). Mini Business Plan Cold-Water Wash Facilitating Washing Machines for Residential Customers. Prepared for Southern California Gas Company and SDGE.

Retail Availability: The measure launched on April 1, 2015, and five local retailers actively participated in selling the CWDCW in 2015: Howard’s, Pacific Sales, Warehouse Discount Center, Sears and Idler’s Appliances.¹² These retailers varied in participation levels as well

¹¹ Source: Navigant. (2014). Mini Business Plan Cold-Water Wash Facilitating Washing Machines for Residential Customers. Prepared for Southern California Gas Company and SDGE.

¹² http://www.socalgas.com/documents/rebates/CWW_Stores4_1.pdf

as marketing and rebate approaches. Details of retailer activities are presented in Section 4.2. In addition to the product being offered by participating retailers, we found evidence that the product is carried by non-participating retailers (e.g., online listings and rebates from purchases at non-participating retailers). An investigation into stocking and marketing practices by non-participating retailers was not within the scope of this study.

Marketing: SCG developed a two-fold marketing plan for the CWDCW: (1) Direct-to-consumer marketing activities performed by SCG, and (2) retailer partnerships – including point-of-purchase materials and sales associate training – administered through two independent service vendors.

SCG's direct-to-consumer marketing commenced when the machine was in-market (April 2015), and included social media marketing on Facebook (e.g., Facebook posts) and one multilingual bill insert. These activities were more limited than the initial plan outlined; most notably, an education and outreach campaign was not implemented in 2015.¹³

SCG also developed a dedicated webpage on their website. The webpage is placed separately from other rebates within the "Save Energy and Money" section of their website and (a) describes the product features, (b) describes benefits of washing in cold water, (c) provides a list of regional retail locations carrying the model, and (d) provides a PDF of the rebate form for customers who purchase from retailers who do not offer point-of-sale rebates.

Details of retailer marketing activities are presented in Section 4.2.

¹³ The initial marketing plan included an education and awareness campaign prior to launch, social media marketing via Facebook and Twitter, a dedicated web page about the benefits of washing in cold water, a marquis on the SCG homepage, advertising the program, paid search result marketing, and paid online ads, such as Pandora.com.

3. EVALUATION OBJECTIVES AND METHODOLOGY

3.1 EVALUATION OBJECTIVES

SCG engaged ILLUME Advising LLC (ILLUME) to assess the market response to the CWDCW in 2015. While not designed as a process evaluation, this study assessed process-related issues, and is therefore referred to as a process evaluation throughout this report.

The goals of this process evaluation were to provide rapid feedback on the program design, delivery, education and outreach related to SCG's efforts to increase CWDCW sales. The findings from this research will be used to improve the potential for CWDCW programs, to achieve energy savings, and to meet SCG's savings goals. Specifically, this study investigated the following:

- Is this a solution to serve multiple income groups?
- What is the motivation and expectation of the manufacturers?
- Are the retailers willing to stock this model with and without incentives?
- What type of clothes washers did customers previously use and/or currently using?
- What are customer awareness, interest, and perception of CWDCW and, if aware, what was their source of awareness?
- What drives customers' decisions around clothes washer purchases, and how important/effective is the program-offered incentive in encouraging the purchase? Are consumers willing to purchase the product without a rebate?

We detail our research approach in the following methodology section.

3.2 EVALUATION METHODOLOGY

In this section, we describe the research activities conducted for the SCG Cold Water Default Clothes Washer process evaluation to address the study objectives. These include:

- **Interviews with key program staff** to understand measure objectives and market research goals;
- **Review of secondary data** sources including a review of the online CWDCW marketplace and product promotions;
- **Mystery shopping** at participating retail stores to understand the customer in-store experience;

- **Interview with market actors** - participating retailers and manufacturers - to understand the motivations, expectations, and level of satisfaction with the program processes;
- **Participant survey** (preceded by formative participant in-depth interviews) to shed light on customer clothes washing behavior, perceptions of cold water washing, customer purchasing decision, and demographics;
- **Non-participant clothes washer purchaser survey** among households in SCG territory who purchased a clothes washer during the past 12 months or who plan to purchase a clothes washer in the next 12 months, to understand customer clothes washer preferences, clothes washing behaviors, perceptions of cold water washing, and demographics.

3.2.1 Program Staff Interviews

We spoke with key staff members at SCG, including the Residential Portfolio Program Supervisor, the Plug Load and Appliances (PLA) Program Manager, and the Energy Program Advisor, who managed relations with retailers and retail service vendors. Interviews were conducted on September 8 and 9, 2015. We aimed to identify market study needs and determine potential challenges or issues that might affect data collection. We also gathered and reviewed program information and materials, including background market research, implementation plans, regulatory documents, marketing plans, point-of-purchase (POP) materials, and information distributed to sales associates.

Findings from this research were used to inform the design of the study and data collection tools.

3.2.2 Secondary Data Analysis

We completed a high level review of the online marketplace for the CWDCW during December, 2015. Customers are increasingly self-educating themselves through online research, particularly via product reviews from other consumers and industry experts.

In order to determine current availability of the Whirlpool CWDCW online, we visited each participating retailer website and the website of two non-participating retailers with high rebate levels and attempted to find Whirlpool model WTW4715EW within the products listed on the website. The researcher also typed the phrase "Whirlpool model WTW4715EW" into Google and examined the first page of results to determine whether other retailers were stocking the CWDCW.

Our research also included examining product reviews by customers and experts. We looked for customer reviews on the manufacturer product page, retailer websites, and through a general internet search.¹⁴ We also looked at a Consumers Reports review of the Whirlpool CWDCW. We categorized the reviews based on their rating of the Whirlpool CWDCW, and examined what machine attributes customers viewed as key benefits and drawbacks.

¹⁴ Our search terms included "Whirlpool model WTW4715EW reviews", "Whirlpool model WTW4715EW user reviews" and "Whirlpool model WTW4715EW product reviews". This did not yield any additional user reviews.

The online marketplace review also identified other cold water clothes washer models on the market, and examined manufacturer branding and messaging around those models. We searched the phrases “cold water washing machine” and “cold water clothes washer” in Google and Google shopping. For the other cold water washers, we gathered information on price, branding and messaging.

These findings are detailed in Section 5.1.

3.2.3 Mystery Shopping

SCG markets the CWDCW through their participating retail appliance stores. SCG provides these retailers with special signage and information pamphlets to be placed near the program-qualifying washers, and SCG has hired two vendors to visit stores and train sales associates.

Programs that engage customers through midstream partners such as retailers use these partners to help drive equipment adoption. In their telephone survey responses, participants frequently mentioned sales staff as being influential in their purchase decisions.

We conducted mystery shopping visits on November 17-18, 2015. We visited one store location in the SCG territory for each of the five participating retailers (Idler’s, Howard’s, Pacific Sales, Sears, and Warehouse Discount Center) offering the SCG rebate for the Whirlpool CWDCW. We spent 15-20 minutes at each store browsing the sales floor and speaking with the sales associates. At each store location, we played the role of a residential customer browsing and shopping for a new clothes washing machine. We asked retail staff for clothes washer recommendations, information about rebates, and about ENERGY STAR® certifications. We aimed to answer the following questions:

- Are retailers using signage? Is the signage posted as expected?
- When asked about a new washing machine, what units did the sales representative direct us to?
- When showing an interest in a vertical axis machine, which unit did the representative direct us to?
- What messaging did the sales representative use to direct us to the SCG qualified unit?
- At what point in the sales process did the sales representative mention a rebate?
- If the rebate was mentioned, did the sales representative accurately state why there was a rebate available?
- When asked a series of questions on the perceived limitations of cold water washing, what was the sales representative’s response?

Findings from this research activity are detailed in Section 5.2. A copy of the mystery shopping guide and data collection form is included in Appendix A.

3.2.4 Market Actor Interviews

We conducted interviews with market actors in February and March 2016 in order to understand their motivations and expectations regarding the CWDCW measure, and to gain their perspective on the market outlook for the Whirlpool CWDCW model.

Specifically, we conducted an interview with the top-loading laundry product development manager at Whirlpool (the manufacturer of the CWDCW) to understand Whirlpool's motivations for developing a product for this market, the history of CWDCW development, their plans for developing an ENERGY STAR® version of the CWDCW, and their perception of the market outlook for the CWDCW.

We also spoke with a representative from three of five participating retailers, including Howard's, Sears, and Idler's, to understand their satisfaction with CWDCW and explore the importance of having the incentive at its current \$200 level. Our interviews also covered the history of the retailers' engagement with the CWDCW, effectiveness of information and training support provided by SCG and the manufacturer, and their perspective on the market outlook for the CWDCW.

Despite multiple attempts, we were unable to conduct interviews with the other two participating retailers, Warehouse Discount Center and Pacific Sales. The evaluation team made multiple attempts to contact the program representative at Warehouse Discount Center through phone, email and voicemail. None of the Pacific Sales representatives we reached were knowledgeable about the Whirlpool CWDCW or collaboration with SCG.

Findings from this research activity are detailed in Section **Error! Reference source not found.** Interview questions are included in Appendix B.

3.2.5 Participant Survey

Before fielding a quantitative survey, we conducted five in-depth interviews with participants in order to inform the focus and language of the participant survey. Respondents were drawn from a pool of all participants who received a rebate for the CWDCW prior to September 2015. We spoke with two participants who shopped at Howard's; one participant each from Warehouse Discount Center, Pacific Sales, and Idler's; and one participant who shopped at either Harlow's or Taylor's, which produced the highest volume of rebates among non-participating stores. Our interviews covered key questions related to purchasing the Whirlpool CWDCW, including drivers and barriers. In addition, we explored the language that participants used to describe the CWDCW and the rebate.

Following these formative interviews, we conducted a quantitative telephone survey with 70 SCG customers who had purchased the CWDCW and received either a mail-in or point of purchase rebate. The survey was fielded from February 17-March 8, 2016. The participant surveys explored purchase motivations, sources of information about the CWDCW and their influence in purchasing, customers' experience during the purchasing and shopping phase, customers' experience with the \$200 rebate, and satisfaction. Specifically, we explored the following:

- The process behind customers' decision to purchase the qualifying washer, including desirable washing machine features and interactions with POP materials and sales associates;
- Perceptions and awareness of cold water clothes washers and cold water washing behaviors;
- Previous and current clothes washing behaviors, including the number of loads per week, type of machine settings used, and the frequency of use of different temperature settings;
- Effectiveness of signage in creating awareness of the technology or drawing customers' attention to the specific SCG-rebated washer;
- Satisfaction with their purchased CWDCW and its features, including perception of differences in washer performance; and
- Demographics, including income categorizations that will allow SCG to analyze results by poverty level / income classifications.

The sample frame included all participants who received rebates from the beginning of the program through November 2015 for point-of-sale rebates and through December 2015 for mail-in rebates. This sample frame included 775 of the 864 rebates claimed in 2015 (90%). The table below shows the share of rebates by type of retailer and rebate offering. We drew a stratified random sample using three sample strata: (1) buyers at one retailer with a large proportion of rebates (whose name and share of sales is not shown for confidentiality reasons), (2) buyers from participating stores other than this store, and (3) buyers from non-participating stores.

Notably, 80% of sales came through retailers offering point-of-sale rebates. It is also interesting to see that more rebates came from customers who shopped at non-participating retailers than the two participating retailers offering mail-in rebates (combined). Non-participating retailers may be offering the machine on their sales floor or website, but do not receive any training or POP materials from SCG to promote the machine or rebate. We do not know how they are promoting the machine or the rebate – they may have signage alerting customers to the availability of the mail-in rebate, or customers may have found this information on their own. Non-participating retailer mystery shopping was not in-scope for this study.

Table 3-1. Share of Rebates by Type of Retailer

| Retail Purchase Location | Percentage of Rebates through Nov/Dec 2015 ^a |
|---|---|
| Participating Retailers with <i>Point-of-Sale Rebates</i> | 80% |
| Participating Retailers with <i>Mail-in Rebates</i> | 7% |
| Non-Participating Retailers ¹⁵ (customers can apply for mail-in rebate; it is unclear whether the rebate is promoted in-store) | 13% |
| TOTAL | 100% |

^a This sample frame includes 775 of the 864 total rebates claimed in 2015 (90%), and accounts for participants who received point-of-sale rebates from the beginning of the program through November 2015, and those who received mail-in rebates through December 2015.

Findings from this activity are detailed in Section 6. The survey instrument is included in Appendix C.

3.2.6 Non-Participant Clothes Washer Purchaser Survey

We conducted an online survey with 218 households in the SCG territory, with customers who had either purchased a clothes washer during the previous 12 months, or planned to purchase a clothes washer in the next 12 months. The survey gathered market information on the following:

- Recent clothes washer purchases and likelihood to purchase a clothes washer in the near-term future;
- Features of recent purchase, or features customers are looking for in their clothes washer (including front-loading versus vertical axis);
- Current clothes washing behaviors, including number of loads washed per week, temperature preference for different laundry types, and frequency of use of different temperature settings;
- Perceptions of the effectiveness of cold water washing, including current use, awareness, and perceptions of cold water detergent;

¹⁵ Non-participating retailers may be offering the machine on their sales floor or website, but do not receive any training or POP materials from SCG to promote the machine or rebate. We do not know how they are promoting the machine or the rebate – they may have signage alerting customers to the availability of the mail-in rebate, or customers may have found this information on their own. Non-participating retailer mystery shopping was not in-scope for this study. The most common non-participating retailers in the sample frame were Taylor’s Appliances (n=23 of 775 total rebates), Harlow’s Kitchen Concepts (n=23), and Lowe’s (n=17).

- Level of awareness regarding cold water washing impacts, including energy use, and clothes wear & tear;
- Knowledge about availability of CWDCW machines, consideration of CWDCW in recent purchase, interest in purchasing a CWDCW in the future, and reasons behind their interest; and
- Demographics, including income categorizations that will allow SCG to analyze results by poverty level / income classifications.

The sample frame was comprised of YouGov online panel participants who live in SCG territory, based on their ZIP codes. YouGov is an international market research firm that maintains an extensive and diverse panel of individuals who have opted in to receive survey invitations. For this research effort, YouGov employed a “Census Clicks” approach whereby they created a sample frame that resembled the population distribution based on the US Census, and screened for those who had made or were likely to make a purchase.

Findings from this survey are reported in Section 6. The survey instrument is included in Appendix C.

4. MARKET ACTOR FINDINGS

4.1 MANUFACTURER PARTNERSHIP

This section describes the history of SCG's involvement in the product development process, and key findings from the evaluation team's interview with a manufacturer representative.

4.1.1 History of Manufacturer Relationship

SCG's cold water wash efforts started in 2009 when they offered a rebate for cold water detergent to increase the acceptance of cold water washing.¹⁶ However, this measure was discontinued due to a short measure life and lack of sizable savings. SCG decided to continue cold water wash efforts through collaboration with a manufacturing partner to design a machine that used cold water technology, similar to those on the market in Europe.

SCG initially collaborated with GE to develop and field test a cold water clothes washer that also had features deemed desirable by customers. They conducted a three-month field trial with 90 households to demonstrate the CWDCW's market and savings potential. The study (funded by ETP) found that customers were highly satisfied with the machine. Furthermore, the study demonstrated a 58% reduction in energy use associated with clothes washing.¹⁷ Shortly after the study GE decided to drop the project due to a change in management.

SCG presented this study to Whirlpool as evidence of market opportunity. Whirlpool expressed interest in the technology (partly due to customer response to the field study), and SCG subsequently secured a partnership with Whirlpool to continue the project and design the current CWDCW model (Model # WTW4715EW). Whirlpool also informed the design of marketing materials and collateral in order to highlight machine features that are most important to consumers, alongside information about cold water wash features. Whirlpool was not paid to develop the washer and there is no contract between SCG and Whirlpool. SCG funds the rebate from the PLA program.

SCG contracted with Navigant to conduct a field study and develop participation and savings goals for the measure. These participation goals are outlined in Section 2.

4.1.2 Manufacturer Interview Findings

The evaluation team spoke with the product development manager for top-loading laundry at Whirlpool on February 16, 2016. The product development manager had been involved with SCG and the cold water washing machine initiative since September 2013, the same time that SCG approached Whirlpool with a concept for a cold water default washer. The following detail key findings from the manufacturer interview.

SCG was heavily involved in the development of the product and establishment of regional retail partnerships. The initiative started in 2013 when SCG contacted the

¹⁶ Southern California Gas Company. (2009). Cold Water Detergent (Work Paper SCGWP090618A).

¹⁷ Navigant. (2012). *Field Study and Short-Term Persistence Report*. Prepared for Southern California Gas Company.

government relations group, with the results of preliminary testing they had conducted. From there, SCG helped define the features of the product, and followed it into production. At the beginning of the project, SCG and Whirlpool met on a monthly basis, and the intensity of communication increased to biweekly and near-daily meetings during product launch.

The product concept was compelling to Whirlpool as a way to open the high-efficiency laundry market to another customer segment. When SCG presented the concept, Whirlpool understood that developing a lower-cost product and offering an SCG rebate could make high-efficiency laundry an attractive alternative to traditional machines. While Whirlpool has a systematic process for evaluating new products, the market research that SCG provided was highly influential in the decision to pursue product development.

The relationship between Whirlpool and SCG has been positive. The product manager provided very positive feedback about Whirlpool's relationship with SCG, including clear communication, SCG's role in the product development process, and SCG's role in establishing regional retail partnerships.

Sales are not meeting Whirlpool expectations. Sales have not met the product manager's expectations. The product manager was not authorized to provide specific numbers or a qualitative idea of how far off the sales are. The product manager attributed the lower-than-expected sales to the challenge of getting national big-box stores like Home Depot, Lowe's and Sears fully on board (discussed next). These stores have high market share, and without their involvement in marketing and messaging the rebate, it may be challenging to meet sales goals.

The regional nature of marketing utility-specific rebates may be a barrier to developing partnerships with national big-box chains, thus impacting sales. The product manager felt it was difficult to get national and big box chains involved because they are often not interested in dealing with regional requirements, such as merchandising-related activities like offering a rebate and associated marketing. He felt that the changing rebate structure may also be a barrier, because the big box stores may be hesitant to take on the additional complication of a changing rebate structure. Despite this, he thought that the rebate is attractive to retailers.

The manufacturer representative indicated that organizing a joint meeting between SCG, Whirlpool and big box stores could help address the resistance these retailers may have to the regional program. As a potential solution to these barriers, he suggested a joint meeting/appointment between SCG, Whirlpool, and big box store representatives to show that there was a "team approach" behind the product and program. As part of this meeting, he thought it might be helpful to share some customer feedback on the CWDCW. From what the product manager has heard, stores that carry the model have received positive customer feedback, which big box stores may value.

Whirlpool would consider a front-loading CWDCW in the future. Currently, about 30% of sales are front-loading, representing a significant market. However, this model would not necessarily be ENERGY STAR® (though it would be considered). An ENERGY STAR® model is generally attractive because of brand recognition, but it can also be a challenge to develop an ENERGY STAR® because product requirements change over time and be higher-cost.

4.2 PARTICIPATING RETAILER FINDINGS

This section describes activities of participating retailers, and our findings from in-depth interviews with these participating retailers.

4.2.1 Participating Retailer Activities

Whirlpool and SCG leveraged existing relationships with regional retailers to get the CWDCW into stores and advertise the rebate. Five retailers participated in the program in 2015. Three of these stores - Howard's, Warehouse Discount Center, and Sears - market the program through a point-of-sale rebate, while two - Idler's and Pacific Sales - offer a mail-in rebate (Table 4-1). Among national and big box retailers, Sears is currently participating in a more limited capacity than regional retailers, and Home Depot is joining the program in 2016. SCG and Whirlpool are still pursuing discussions with other national stores to carry the model and program materials.

Retailers other than these participating retailers may carry the CWDCW model as well, either on their sales floors or online.¹⁸ However, these non-participating retailers do not receive training or POP materials from SCG. Still, an SCG customer who purchases the CWDCW at a non-participating retailer would be able to download the rebate form from the SCG website, and submit it independently.

SCG hired two independent service vendors (Organizational Support Services (OSS) and BDS Marketing¹⁹) to conduct outreach, training, POP materials placement, and in-store promotional events. These vendors visited stores frequently at the outset of the program as part of regularly-scheduled visits for the PLA program, and in extra visits to support the launch of CWDCW. The vendors also conducted promotional events every weekend in March, April, and May of 2015 specifically for the CWDCW.

Vendor trainings and POP placement are generally coordinated to occur at the same time as training for other PLA program, though vendors conducted extra visits at the outset of the program. During initial training events, sales staff learned about CWDCW specifications, the SCG rebate, and the benefits of cold-water washing. Retailers also received SCG/Whirlpool branded flyers and clings to display near the CWDCW (Figure 4-1 and Figure 4-2). After initial training events, vendors conducted check-ins and training sessions monthly for Sears, and every other month or as needed for the other retailers. During the visits, vendors refreshed POP materials and trained new sales associates on the SCG appliance rebate.

Beyond training and POP materials, there are differences in product stocking and rebate fulfillment process. While the four regional retailers carry the model on the sales floor, Sears double-tags the base model of the CWDCW with rebate information - i.e., they carry a base model that is nearly identical to the CWDCW in design, features and low price point, except

¹⁸ This includes retailers beyond California. While the evaluation did not set out to catalog all purchasing points beyond participating retailers, we found some retailers outside of California among the top search results for the machine. These included AJ Madison (NY/NJ), which currently has a paid search ad for Whirlpool WTW4715EW), Appliance Smart (MN, OH, GA, TX), Good Deals Appliances (FL), Appliances Connection (NY), and others. Non-California-based retailers appear throughout search results, suggesting that the model is being stocked across the country.

¹⁹ OSS Services was hired to work with regional retailers, and BDS Marketing was hired to work with big box stores.

for the cold-water setting on certain load settings. Howard’s, Sears, and Warehouse Discount Center are offering point-of-sale rebates, while the other two retailers require customers to fill out a mail-in rebate application. Short application forms are available in participating retail locations. Participating retailer characteristics are summarized in Table 4-1.

Table 4-1. Participating Retailer Characteristics

| Participating Retailers | Participation start date | CWDCW offered in-store | CWDCW offered online | Materials in-store | Received training | Point-of-sale rebate? |
|---------------------------|--------------------------|------------------------|----------------------|--------------------|-------------------|-----------------------|
| Howard’s | Last week of March 2015 | ● | ● | ● | ● | ● |
| Pacific Sales/Best Buy | Beginning of April 2015 | ● | | ● | ● | |
| Idler’s | Beginning of April 2015 | ● | | ● | ● | |
| Warehouse Discount Center | Late April 2015 | ● | ● | ● | ● | ● |
| Sears | May 2015 | | ● | ○ ^a | ● | ● |

^a Base model is double-tagged with information about CWDCW

Examples of point-of-purchase materials are included below. Point-of-purchase materials are typically displayed as clings displayed placed on top of the CWDCW, or in plastic flyer cases placed near or on the CWDCW.

In addition to SCG-led outreach, some retailers have conducted independent marketing for the machine. Specifically, Warehouse Discount Center and Howard’s both ran print ads (e.g., in the local paper) promoting the machine and rebate within an advertisement for multiple appliances. Idler’s also reported running print, digital, and radio ads for the CWDCW as well as having it appear on their website. Howard’s said they listed the model on a large LED sign in front of one of their stores, using the CWDCW’s attractive price point to get customers into the store.

Figure 4-1. Point of Purchase Materials Advertising Rebate



You get an instant \$200 rebate from SoCalGas® on this Whirlpool Cold Water Technology Washer, Model Number WTW4715EW.

See associate for details.



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Figure 4-2. Point of purchase materials advertising rebate and CWDCW features

SoCalGas A Sempra Energy utility

\$200 REBATE

Instant \$200 rebate from SoCalGas® on this Whirlpool Cold Water Technology Washer, Model Number 4715

Whirlpool
HOME APPLIANCES

FEATURES

COLD WASH DEFAULT SETTING
Delivers great cleaning and protects fabrics from heat damage while using less energy than a regular washing machine.

3.5 CUBIC FEET CAPACITY
Get the extra space you need and wash nearly two baskets of laundry in one load (based on 7 lbs. per basket).

DEEP WATER WASH CYCLE
Helps break down loose soils by using more water.

HEAVY DUTY SETTING
Helps remove deep stains with 95-degree water temperature.

SMOOTH BASKET
Smooth white porcelain helps prevent even the gentlest clothing from snagging.

See associate for details. Some restrictions apply.

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4.2.2 Retailer In-Depth Interview Findings

We spoke with three of five participating retailers about their collaboration with SCG in promoting the Whirlpool CWDCW rebate and the market outlook for the Whirlpool CWDCW.²⁰ This section presents an overview of their initiation in the program, their decisions to stock CWDCW, ongoing communications, and reactions to the model offered for sale.

PROGRAM INITIATION

We asked retailers how they initially learned about the SCG rebate for the Whirlpool CWDCW and the process they went through to become a participating retailer.

Retailers described a simple, straight-forward process to become a participating retailer for the CWDCW initiative. The typical steps a retailer went through to begin participating included speaking to a Whirlpool representative, having sales associates receive training from a Whirlpool or SCG representative, and having an SCG representative come to the store to place point of purchase flyers and materials. Several retailers participating in this program were already offering rebates through the PLA program, so SCG did not have to do additional relationship-building. None of the retailers mentioned SCG's marketing, outreach and training vendors (OSS and BDS Marketing) as entities involved with trainings, indicating that they likely perceived that these representatives were from Whirlpool or SCG. However, this is not likely to impact overall program effectiveness.

Retailers viewed POP materials placement as SCG's responsibility, saying that an SCG representative had placed the materials when the model was placed on the floor. This indicates that field representatives should regularly visit stores to ensure materials are placed appropriately.

DECISION TO STOCK THE CWDCW

We asked retailers what information they used to decide to stock the CWDCW and what their expectations were for the machine's market appeal.

The rebate was a major factor in retailer decisions to stock the CWDCW. Idler's and Howard's said their participation depended on the rebate, and that they either would not have participated, or would have not ordered as many units, without the rebate. Sears said that they would have participated without the rebate, but that the model would have had very few sales without SCG's efforts to generate awareness and educate customers.

Two retailers thought that an energy-saving washing machine would resonate particularly well in the California market. Sears and Idler's retailers mentioned that they thought the CWDCW machine would do well, given the current focus in California on the drought and water conservation. They mentioned these benefits despite the fact that the Whirlpool CWDCW does not save water.²¹ Retailers associated these perceived water

²⁰ The evaluation team made multiple contact attempts at multiple levels of Pacific Sales and Warehouse Discount Center, but were unable to find someone knowledgeable about the SCG rebate and program to participate in an interview.

²¹ The CWDCW is an industry baseline top loading model that has a capacity of at least 1.6 ft³ and a maximum Integrated Water Factor (IWF) of 8.4 gal/cycle/ft³. It meets the current Code of Federal Regulations baseline values for all top loading standard size washers in the United States manufactured from March 7th, 2015 to January 1st, 2018. The CWDCW uses the same amount of gallons per wash cycle as the minimally compliant baseline washer

efficiency benefits in with energy efficiency, indicating that retailers may not distinguish between these different conservation benefits. This may be a driver of consumers' perceptions that the CWDCW is water-efficient (see Section 6.2).

All retailers think that it is important to stock ENERGY STAR® equipment. SCG was interested in understanding how important ENERGY STAR® status is to retailer stocking decisions. Sears and Idler's said that they worked to ensure a significant portion of their equipment is ENERGY STAR® due to high market penetration of ENERGY STAR® washing machines, customer demand, and retailer involvement with the ENERGY STAR® program. Howard's indicated that whether or not to stock ENERGY STAR® qualified machines depended on whether the equipment qualified for a rebate.

ONGOING ACTIVITIES AND COMMUNICATIONS

We asked retailers if sales associate training needs were being adequately addressed by SCG and if they had any suggestions for improvement.

Training activities are meeting sales associate needs. Retailers indicated that either SCG or Whirlpool was providing monthly or as-needed training to sales associates. They felt that visits were timed such that the trainings were reaching staff working at different times of day or on different days of the week. Sears has a utility portal which provides up-to-date information on utility rebates.

Retailers are mostly satisfied with the amount and frequency of communication they have with SCG. Frequency of retailer communications with SCG range from bi-weekly to every couple of months. Retailers said they were mostly satisfied with the amount of communication, and felt they were getting the information they needed. Sears and Howard's reported providing sales information to SCG, and indicated that it was not difficult to share this information. Idler's said that communication had initially been strong, but noted that he hadn't heard anything from SCG for the last few months. As a result, he had not ordered any additional CWDCW models, because he was not sure the rebate would continue.

Two retailers reported conducting their own marketing for the CWDCW, independent of SCG marketing. Idler's reported running print, digital and radio ads, as well as having it appear on their website banner. Howard's said they listed the model and price on a large LED sign in front of one of their stores. They indicated that the competitive price for the model was a good way to get customers into the store.

The POS rebate is a great benefit for customers, but one retailer indicated that reimbursements were delayed. Howard's was already offering POS rebates for other equipment. They added the zip codes in SCG's territory to determine which customers qualified for the rebate. Howard's views POS rebates as a major benefit to their customers, saying that customers dislike filling out rebate applications. They provide a file to SCG monthly in order to be reimbursed, but said that SCG is a few months late in providing reimbursement. SCG is supposed to provide reimbursement on a monthly basis.

model; thus there are no water savings to report. Some washers on the market, such as high-efficiency Energy Star models, use less water per load than the current Code of Federal Regulations baseline values. However, these washers are typically priced higher. In one Consumer Reports test of high-efficiency top-loaders, the Whirlpool Model WTW4715EW machine used about twice as much water as other high-efficiency top-loaders they tested, but it appears that Consumer Reports may have tested more expensive models (<http://www.consumerreports.org/washing-machines/cold-water-whirlpool-washer>).

REACTIONS TO MODEL SALES

Some retailers attribute lower than expected sales to the technology, although the biggest difference in sales between stores may be related to (a) rebate fulfillment method, and (b) sales associate presentation. Idler's indicated sales were only slightly lower than expected, while Sears said that sales of the CWDCW only achieved 4% of sales of the base model, where they expected sales to be more comparable. Both retailers said they thought that not having more options to wash in warmer or hot water was hurting CWDCW sales (however, as noted above, the machine has this option with the "Heavy Duty" setting). Howard's indicated that sales were meeting expectations. In our opinion, these differences are likely related to the level of effort each store is investing in promoting the machine – Howard's offers point-of-sale rebates, carries the machine on the sales floor, and sales associates appear more willing to present the machine's benefits. Idler's promotes mail in rebates, and Sears does not display the CWDCW in-store. In addition, the sales team at both stores appeared more hesitant to promote the machine.

Retailers think that the \$200 rebate is having a major impact on sales, and do not believe a reduction to \$150 will have dramatic impact on sales. Howard's and Idler's attributed almost all of the CWDCW sales to the \$200 rebate. Sears thought that the rebate made the machine more attractive, but also cited customer interests in energy and the environment as impacting the machine sales. All of the retailers thought the machine would still sell, although at a slightly lower rate, with a \$150 rebate. The Sears representative said that he thought a \$100 rebate was the "tipping point" for most customers, though this was purely an opinion.

Two retailers indicated that they did not plan to change the number of Whirlpool CWDCWs they stocked going forward. Howard's, who thought sales were meeting expectations, did not expect to change stocking practices. Sears, who thought sales were significantly lower than expected, said they would need greater sales volume to take greater action, such as increasing marketing efforts or moving the CWDCW onto the sales floor. Idler's thought sales were lower than expected, and due to the lack of recent communication, was not sure if SCG was planning to continue offering a rebate for the CWDCW. They were not ordering more equipment as a result of this uncertainty.

OVERALL SATISFACTION

We asked retailers about their overall satisfaction with the Whirlpool CWDCW rebate and their collaboration with SCG.

Retailers are satisfied with their collaboration with SCG as part of the CWDCW rebate initiative. Despite lower-than-expected sales, retailers stated they were satisfied with all aspects of the rebate program including the rebate, communication with SCG, and the collaboration overall.

Retailers named several benefits to participating in the CWDCW rebate initiative, and no drawbacks to the rebate itself. Benefits included attracting customers to the store with the \$200 rebate, helping customers purchase a high quality machine and save gas at the same time, and demonstrating that businesses are willing to test new technologies and collaborate with utilities. In other words, although sales levels are not high, retailers are not dissatisfied with the rebate or working with SCG; the sales level simply affects their order volume (of the Whirlpool model).

4.3 SUMMARY OF MARKET ACTOR FINDINGS AND RECOMMENDATIONS

SCG has begun to establish a utility-manufacturer-retailer partnership to introduce the CWDCW into the marketplace. Retailers view the rebate as an important driver of sales, and do not think lowering the rebate will have large impact on sales, though this should be monitored as rebate levels decrease.

Sales of the CWDCW have not met manufacturer or retailer expectations. At the highest level, this may be because relatively few retailers currently participate in the CWDCW initiative, and it has been challenging to recruit big box stores. Likely barriers among big-box retailers include a reluctance to provide floor space to a new model with an unproven track record, and the additional effort it may take to administer “regionalized” marketing (e.g., training and POP specific to SCG territory). Among the retailers who are participating, sales levels are likely impacted by sales associate doubts about cold water washing (which we observed in mystery shopping, and could be mitigated by training and stronger retailer commitment).

SCG should consider renewing talks with additional “Big Box” retailers (in partnership with the manufacturer) to encourage “Big Box” participation in the initiative. SCG should also consider enhanced trainings on marketing and messaging for sales associates, and in customer-facing materials.

5. MARKETPLACE FINDINGS

5.1 ONLINE MARKETPLACE REVIEW

The results presented in this section are based on an analysis of how the Whirlpool CWDCW machine is positioned online, consumer perceptions written in consumer reviews, and availability and presentment of other cold wash clothes washers. This section also details the results of the in-store mystery shopping.

5.1.1 Online Listings

We reviewed the websites of participating stores, large national retailers, and two non-participating stores with a high rebate count.^{22,23}

In general, retailer websites provide product overview, features, and specifications for the Whirlpool clothes washer, similar to those that appear on the Whirlpool website. However, on some retail websites, including two participating retailer websites, the cold water wash features of the CWDCW were buried in the product features or specifications tables, meaning that consumers could purchase this machine without learning about its cold water features (see Figure 5-1). An example of a participating retailer webpage that does list cold-water features is displayed in Figure 5-2. Still, the cold-water wash features are somewhat buried in the text and not reiterated in bullet points of key features.

²² Website reviews were conducted on December 7, 2015. The researcher visited each participating retailer website and the website of two non-participating retailers with high rebate levels and attempted to find Whirlpool model WTW4715EW within the products listed on the website. The researcher also typed the phrase "Whirlpool model WTW4715EW" into Google and examined the first page of results to determine whether other retailers were stocking the CWDCW.

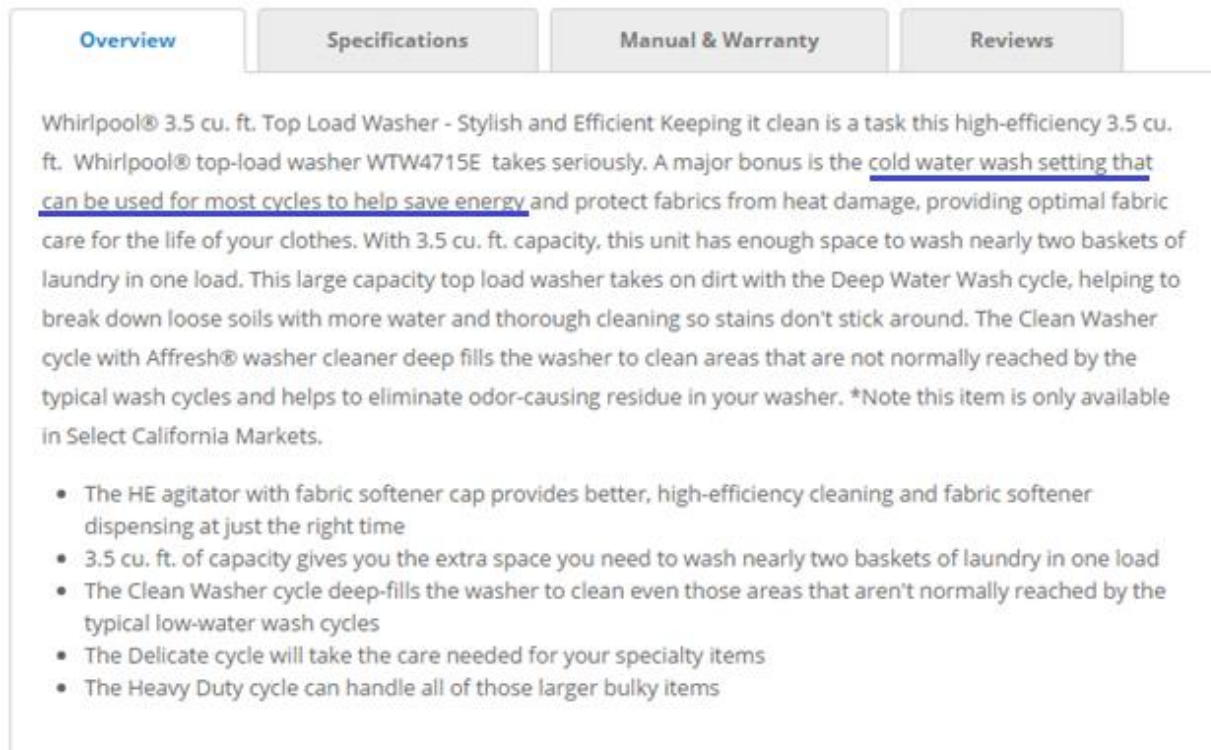
²³ Non-participating retailers may be offering the machine on their sales floor or website, but do not receive any training or POP materials from SCG to promote the machine or rebate. We do not know how they are promoting the machine or the rebate – they may have signage alerting customers to the availability of the mail-in rebate, or customers may have found this information on their own.

Figure 5-1. Examples of Participating Retailers Not Listing Cold Water Features^a



^a This image was captured from the Howard’s website on 12/7/2015 (<http://www.howards.com/laundry/washers/high-efficiency-top-load-washers/WTW4715EW>)

Figure 5-2. Examples of Participating Retailer Listing Cold Water Features^a



^a This image was captured from the Sears website on 12/7/2015 (http://www.searsoutlet.com/3-5-cu-ft-Top-Load-Washer-White-Select-California-Markets*/d/product_details.jsp?pid=146197&mode=seeAll)

Coverage of the CWDCW was not consistent across retailer websites. Idler’s incorrectly identified the CWDCW as an ENERGY STAR® model, and the Best Buy website listed the product as out-of-stock. We also reviewed websites of retailers that were not participating in the program that also offered the Whirlpool CWDCW. Among these nonparticipating retailers, we found that Harlow’s did not list the CWDCW on their website, despite generating CWDCW sales in-store. The product was listed on the Howard’s, Sears, and Warehouse Discount Center websites (Table 5-1).

None of the retailer websites advertised the SCG rebate. Some websites were offering separate discounts or sale prices, although none were as substantial as the \$200 SCG rebate. Not enough information was provided about these discounts to determine whether they were from the retailer or a separate source (Table 5-1). Mentioning the rebate on the website may have some impact on sales, since 35% of participants researched their clothes washer prior to purchase, and 9% of participants first heard about the Whirlpool CWDCW online. This type of promotion may be worth exploring in future communications with retail partners.

Table 5-1. Coverage of the CWDCW on Websites of Participating and Non-participating Retailers^a

| Participating Stores | Retailer | Price on 12/7/2015 | Cold water specified? ^b | Discount pricing? | Rebate mentioned? |
|----------------------|---------------------------|--|------------------------------------|--------------------------------|-------------------|
| Participating Stores | Howard’s | \$449 | No | \$99 discount | No |
| | Pacific Sales/Best Buy | Product not currently available online | -- | -- | -- |
| | Idler’s | \$499 | No | No | No |
| | Warehouse Discount Center | \$553 | Yes | “On sale” amount not specified | No |
| | Sears ^c | \$500 | Yes | No | No |
| Other Sites Reviewed | Home Depot | \$499 | Yes | No | No |
| | Lowe’s | \$449 | No | 10% discount | No |
| | Taylor’s ^d | Have to call/email for quote | No | Not specified | No |
| | Harlow’s ^d | Product not on website | -- | -- | -- |

^a Our review of the online market place includes the following retailer types: Participating retailers (Howard’s, Idler’s, Best Buy/Pacific Sales, Warehouse Discount Center, Sears), non-participating retailers with high rates of participation (Taylor’s, Harlow’s), and non-participating, but high market share, big box stores (Home Depot, Lowe’s)

^b The researcher examined the CWDCW product page on each retail website to determine whether any mention of the machine’s cold water features were mentioned in the product description, features, or specifications. The reviewer also used the “Find” feature of the webpage to look for mentions of cold water features. The researcher did not examine linked manuals or pdfs because it is unlikely the average shopper is looking at the webpage in that much detail.

^c Though Sears does not offer the model in-store, it is available online, and is considered a participating store because, sales staff receive regular program trainings and updates, the stores offer a point-of-sale rebate, and the base model, which is carried in-store, is double-tagged with information about the CWDCW and rebate.

^d Included based on rebate counts through 9/23; Taylor’s and Harlow’s had the highest number of rebates among non-participating stores

Notably, we found some retailers outside of California among the top search results for the machine. These included AJ Madison (NY/NJ), which currently has a paid search ad for Whirlpool WTW4715EW, Appliance Smart (MN, OH, GA, TX), Good Deals Appliances (FL), Appliances Connection (NY), and others. Non-California-based retailers appear throughout search results, suggesting that the model is being stocked across the country.

5.1.2 Consumer Reviews

We searched for and compiled reviews from the retailer websites we visited, the Whirlpool webpage, and from a general internet search using key search terms.²⁴

Reviews of the machine on the Whirlpool website give the machine an average rating of 3.5 out of 5 stars. Of all 22 reviews, 15 were identified as positive (Figure 5-3). We did not find retailers that collected and hosted reviews from their own buyers; rather, retailers pull Whirlpool content through to their sites. It is unclear whether reviews were authored by SCG customers, though most are from California residents. There are 22 product reviews on the Whirlpool webpage as of December 7, 2015.²⁵

Figure 5-3. Customers Ratings of the Whirlpool CWDCW



Among the user reviews, the most frequent benefits and satisfiers about the washer are affordability and utility bill savings. There were no features or characteristics that were routinely mentioned as negative – in most cases, if one person was dissatisfied with a feature, another review was positive. A minority of reviewers reported dissatisfaction with the machine. Example dissatisfiers include that the CWDCW was ineffective at cleaning clothes, low-quality, and that people were confused about what the washing machine was doing at different stages in the process (Table 5-2).

²⁴ Our search terms included “Whirlpool model WTW4715EW reviews”, “Whirlpool model WTW4715EW user reviews” and “Whirlpool model WTW4715EW product reviews”. This did not yield any additional user reviews.

²⁵ Available at: [http://www.whirlpool.com/laundry-1/laundry-2/washers-3/-\[WTW4715EW\]-1022742/WTW4715EW/](http://www.whirlpool.com/laundry-1/laundry-2/washers-3/-[WTW4715EW]-1022742/WTW4715EW/)

Table 5-2. Positive and Negative Attributes of the CWDCW Based on User Reviews on the Whirlpool Webpage

| Negative attributes | Positive attributes |
|---|---|
| <p>Ineffective at cleaning clothes: "I hate this washer! I would not take it if they gave it to me for free, if I knew what I know now on how it cleans clothes! It does not get them clean at all, I would have never bought it."</p> <p>Low-quality or unreliable: "Not even three months old and it's broke. You can hear the motor is locked up and just hums."</p> <p>Confusion about stages of machine washing cycle: "Today it started dumping all the water after sensing fill and then it sounds like it wants to wash but there is no water plus none of the cycle lights are on. I have no idea what the problem is."</p> | <p>Price/affordability: "You don't have to have top of the line...fancy...etc. to get your clothes clean!"</p> <p>Saves money: "Really like the cold water wash...saves the clothes as well as gas" "I am saving money with cold water wash!"</p> <p>Easy to use: "Very simple to use, quiet and gets the job done well." "Easy to operate as well!"</p> |

The machine received mixed reviews in a few categories, as shown in Table 5-3.

Table 5-3. Mixed Reviews of CWDCW by Category

| Topic | Negative reviews | Positive reviews |
|-----------------------|--|---|
| Noise level | <ul style="list-style-type: none"> • "It is a little noisy but, does the job" • "It has different noises as it goes through the cycles than my previous washer. I guess I have to get used to it." • "During the WASH cycle it makes a LOUD intermittent noise that lasts for the entire wash cycle (30 minutes +). It can be heard from the far side of the house and sounds approximately like a blender. The Whirlpool tech came says it sounds normal." | <ul style="list-style-type: none"> • "It is so quiet, we sometimes forget to take the clothes out to dry." |
| Washing effectiveness | <ul style="list-style-type: none"> • "It does not get them clean at all" • "Sometimes doesn't rinse out all the soap but soap rubs off easily" | <ul style="list-style-type: none"> • "Our younger son plays travel baseball and the uniforms are coming clean with one wash." |
| Water usage | <ul style="list-style-type: none"> • "If you press "pause" it will soak for 10 minutes then drain the water and you have to start over with new water. HOW IS THAT HIGH EFFICIENCY? IT WASTES WATER!" | <ul style="list-style-type: none"> • "We have drastically reduced the amount of water we use. That is so important in California. We can do one load of clothes instead of two with our old washer." |

Consumer Reports published an online article about the Whirlpool CWDCW model on October 22, 2015.²⁶ The Sears website includes this review on their product page. The article highlights the energy-saving benefits of the CWDCW, stating that heating hot water accounts for 90% of energy that a clothes washer uses. However, the review criticizes the washing machine's agitator, which reduces the washing machine's capacity compared to a high-efficiency washer, as well as the washing machine's water use, which is about twice that of other high-efficiency top-loading machines reviewed. The article also lists other top-loading agitator washing machines to consider, all of which are \$650 or more; notably, LG ColdWash™ clothes washers are not in the list.

5.1.3 Comparable Products

We also searched for cold water wash technology to understand other manufacturer's positioning and branding around cold water washing.

When searching for "cold water washing machine" or "cold water clothes washer" in Google or Google Shopping, the Whirlpool machine does not appear.²⁷ The top listings are editorials and other articles about the pros and cons of cold water clothes washing. The top product results are nearly all LG machines, plus an Amana and Whirlpool machine. LG ColdWash™ technology is available on front-loading and top-loading machines in many different sizes and price points.

The least expensive LG ColdWash™ machines we found in December 2015 were \$499-\$599 for on-sale top-loading machines, but many new machines with ColdWash™ technology were in the \$700-900 range, and are front-loading washers.

Besides the LG models, we did not find manufacturers or models that explicitly highlighted technology that improves the effectiveness of washing in cold water. Examples of how ColdWash™ technology are described include "Achieve cold water savings with warm water performance with ColdWash™ technology"²⁸, "Using the cold cycle on your washer doesn't have to mean compromising", and "ColdWash™ technology uses cold water and enhanced washing motions to penetrate deep into fabrics, giving you cold water savings with warm water performance."²⁹

5.2 IN-STORE MYSTERY SHOPPING

The primary goal of mystery shopping was to discern the response typical shoppers encounter when engaging with retail staff. We also aimed to determine whether participating retailers were displaying the expected CWDCW materials and highlighting CWDCW features emphasized in program trainings.

The shopper visited five participating retailer locations on November 16-17, 2015 and acted as a residential customer browsing and shopping for a new clothes washer. In each store, the shopper asked the sales associate for help finding a washing machine. If the associate asked

²⁶ <http://www.consumerreports.org/washing-machines/cold-water-whirlpool-washer>

²⁷ Google Shopping results are typically regionalized, and we were not able to manually set our location to SCG territory. We recommend replicating this search in SCG territory to confirm findings.

²⁸ <http://www.lg.com/us/laundry/front-load-washer.jsp>

²⁹ <http://www.ajmadison.com/cgi-bin/ajmadison/WM3470H.html>

about price, the shopper indicated she wanted a machine in the \$300-600 range. The shopper also indicated she wanted a top-loading machine, if the sales rep tried to show her any front loading machines. The appendix contains the mystery shopping research instrument.

5.2.1 Positioning and Signage

The shopper observed the positioning and presentation of the CWDCW at each store. The shopper aimed to determine if the CWDCW was on the showroom floor and if the SCG POP materials were displayed.

Every store visited had the CWDCW on the sales floor, with the exception of Sears which double-tagged the base model per the program design. The machine was generally grouped with other clothes washers in the low- to mid-price range (Table 5-4).

Display of program signage on the sales floor varied by retailer. Four of five stores were displaying, at minimum, the cling advertising the \$200 rebate from SCG on the front of the machine, as well as assorted additional materials. Warehouse Discount Center had the CWDCW model on the floor, but it was not marked with any signage and the associate did not know it was there (Table 5-4).

Table 5-4. Model and Signage Placement by Store

| Store | Idler's | Warehouse Discount Center | Howard's | Pacific Sales | Sears |
|-----------------------------------|---------|---------------------------|------------------|---------------|------------------|
| Model on showroom floor | ● | ● | ● | ● | ○ ^a |
| Rebate cling | ● | | ● | ● | ● |
| Rebate and product features cling | ● | | ● | | ● |
| Product features flyer | ● | | | | |
| Rebate applications | | N/A ^b | N/A ^b | ● | N/A ^b |

^a Base model tagged with information about the CWDCW

^b Warehouse Discount Center, Howard's, and Sears offer point-of-sale rebates, so they do not need to carry rebate applications in-store

5.2.2 Sales Associate Response to General Clothes Washer Inquiry

The shopper asked the sales associate for help finding a washing machine, and observed which washing machines she was directed to initially. The shopper aimed to determine whether the sales associate directed her to the CWDCW unaided and what other washing machine options were presented.

Howard's was the only store that directed the shopper to the CWDCW unaided. At the other four stores, the shopper had to ask specifically for information about the CWDCW. Sales associates at the other four stores started by directing the shopper to traditional, non-efficient machines in the \$300-\$500 range. Sales associates also showed the shopper a few high-efficiency top-loading models in the \$400-600 range, including ENERGY STAR® certified models. When sales associates directed the shopper to high efficiency models, they tended to emphasize water-saving benefits, and mentioned energy-savings as a secondary feature.

Sales associates in every store mentioned that consumers preferred washing machines with agitators, saying that the mechanical action of agitators generally does a better job of cleaning clothes. Other features sales representatives highlighted about certain machines included:

- Noise level (Idler's);
- Mechanical action of front loading machines contributing to cleaner clothes (Pacific Sales);
- Capacity (Howard's; note that this was a feature highlighted in a machine with a larger capacity than the CWDCW);
- Stainless steel basket (Sears); and
- Water savings (Idler's, Pacific Sales, Howard's).

5.2.3 Presentation and Positioning of the CWDCW Model

In every store except Howard's, after the sales representatives finished giving their initial recommendations, the shopper asked specifically about the CWDCW model, saying she had looked at the model online and wanted more information. The shopper observed the language that representatives used to describe the CWDCW and what features they initially represented.

Howard's promoted the machine as affordable and energy-saving. The sales associate highlighted the machine's popularity, saying they had sold several CWDCW machines recently. At Pacific Sales and Idler's, after the shopper inquired about the CWDCW, sales associates accurately described cold water wash and energy saving features of the machine. The sales representative at Idler's expressed some doubts about cold water washing. The associates at WDC and Sears both stated that they were unfamiliar with the CWDCW and had to look up additional information online. These interactions are described in more detail in Table 5-5.

At three of the stores (Howard's, Idler's, and Pacific Sales), the sales associate ultimately recommended that the shopper purchase a slightly more expensive machine over the CWDCW. This highlights a potential drawback to the machine's affordable price point, which is that sales associates may try to up-sell customers to a more expensive washing machine, instead of promoting the CWDCW as an affordable option.

Table 5-5. Presentation and Positioning of the CWDCW Model

| Store | Mentioned CWDCW unaided | Accurately described key features ^a | Promoted cold water wash efficacy | Tried to promote more expensive model | Sales associate characterization of CWDCW |
|---------------------------|-------------------------|--|-----------------------------------|--|---|
| Howard’s | ● | ● | ● | Top loading ENERGY STAR® machine, without an agitator, higher in my price range (\$500) | <ul style="list-style-type: none"> Highlighted the CWDCW affordability (“Best deal for washer/dryer”) and popularity (“sold several of these models”) Mentioned was the machine’s capacity (smaller than other machines they had in stock, which may not have had agitators) as drawback |
| Pacific Sales | | ● | ● | ENERGY STAR® certified front-loading washing machine, at the top end of the shoppers price range (\$600) | <ul style="list-style-type: none"> Described the CWDCW as “highly energy efficient”, saying that it used cold water technology. CWDCW was presented as a good option, but the associate ultimately recommended a different clothes washer |
| Idler’s | | ● | | ENERGY STAR® certified Whirlpool model, which was at the top end of the specified price range (\$560) | <ul style="list-style-type: none"> Did not recommend the CWDCW, unless the shopper already washed everything in cold water, since the machine only has one hot-water setting Pointed out the energy saving benefits, but that shopper was better off spending additional money on a water-efficient washer if she wanted to save money on her utility bills, since water is more expensive than natural gas |
| Warehouse Discount Center | | | | | <ul style="list-style-type: none"> Claimed they didn’t have the model in stock, even though the machine was on the showroom floor, without any of the SCG materials. Said he wasn’t familiar with CWDCW, when the shopper asked for information on the model. Said he could have CWDCW in stock within the week for no additional charge. |
| Sears | | | | Whirlpool base model for CWDCW (\$350) | <ul style="list-style-type: none"> Told the shopper that the machine had all cold water settings and no hot water settings, and recommended the base model, so that the shopper would have the flexibility to select the wash temperature |

^a Key washing machine features are defined as follows: 1) The CWDCW as all cold water settings, except for one hot water setting, 2) The CWDCW saves energy due to avoided water heating.

5.2.4 Characterization of the CWDCW

The shopper asked a series of follow-up questions about the rebate and energy-saving features of the CWDCW. The shopper also determined whether sales associates accurately stated why there was a \$200 rebate and who sponsored the rebate.

Every sales associate who described the CWDCW to the shopper (excluding WDC) highlighted the rebate and the energy savings as the main benefits to the CWDCW. Three representatives (Howard's, Pacific Sales, and Sears) also highlighted the water sensing feature of the washing machine, explaining that this meant the washing machine determines how much water to add based on the weight of the laundry load. Representatives at Howard's and Pacific Sales explained that an ENERGY STAR® certified washer would save more water, and presented the CWDCW water use as being between a traditional clothes washer and a "true water efficient model".

All sales associates who described the CWDCW accurately identified the rebate as coming from SCG or "the gas company." At Howard's and Sears, this was mentioned after the shopper asked specifically about the reason for the rebate.

Table 5-6 lists the features and benefits of the Whirlpool CWDCW, and the number of associates who mentioned these characteristics with or without additional promoting (e.g., shopper asked what the benefits were).

Table 5-6. Sales Associate Mentions of CWDCW Features and Benefits

| Retailer | Rebate from SCG ^a | Affordable | Smooth basket gentler on clothes ^a | Saves energy ^a | Cold wash default setting ^a | Large capacity ^a | Deep water wash cycle ^a | Cold wash is gentler on clothes | Cold wash is effective |
|---------------------------|------------------------------|------------|---|---------------------------|--|-----------------------------|------------------------------------|---------------------------------|------------------------|
| Howard's | ○ | ● | | ● | ● | | | | ○ |
| Pacific Sales | ● | | | ○ | ● | | | | ○ |
| Idler's | ● | | | ○ | ● | | | | |
| Warehouse Discount Center | | | | | | | | | |
| Sears | ○ | | | ● | ● ^b | | | | |

○ = feature mentioned aided, ● = feature mentioned unaided, Blank Cell = attribute was not mentioned

^a This feature is listed in the specification sheet given to sales associates for training

^b The sales associate at Pacific Sales incorrectly stated that the CWDCW had no hot water setting

5.2.5 Efficacy of Cold Water Wash

The shopper asked the sales representative several questions, expressing doubt about the efficacy of cold water washing. The aim was to determine how well sales representatives addressed the efficacy of cold water washing.

Two out of four sales representatives supported the efficacy of cold water washing after the shopper expressed doubts about this machine feature. The associate at Pacific Sales noted that most washing machines do not get warm enough to sanitize clothes, and that soap and mechanical action had a larger role in cleaning clothes, so there was no reason to wash in warm water. The associate at Howard's said that as long as you purchase cold water detergent, the cold water settings would perform as well as any other machine. Neither associate spoke about the non-energy benefits of washing in cold water, such as preserving clothing quality.

Sales representatives at Sears and Idler's mentioned cold water wash features of the CWDCW as drawbacks during their initial presentation of the machine. When the shopper expressed concern about the performance of the cold water washing, these sales associates expressed doubts about the efficacy of cold water washing, indicating that their personal preference was washing clothing in warm water.

5.3 SUMMARY OF MARKETPLACE FINDINGS AND RECOMMENDATIONS

Messaging and promotion of the Whirlpool CWDCW model is inconsistent across the online and in-store marketplace.

While all participating retailers listed the Whirlpool CWDCW model on their websites, two of five of the retailers did not prominently advertise the machine's cold-water features. Furthermore, none of the participating retailers advertised the SCG rebate online. Efforts should be made to encourage retailers to use product summaries that include cold-water washing features to avoid customer confusion. In addition, SCG should encourage retailers to display the SCG rebate on the Whirlpool product page to appeal to price-driven customers.

Mystery shopping activities also revealed that not all sales associates are actively promoting the Whirlpool CWDCW. While four out of five stores were displaying POP materials from the initiative, only one of five retail sales associates we spoke with recommended the CWDCW to the shopper unaided. In addition, two of five retail sales associates expressed doubts about the efficacy of the washing machine's cold water settings. Additional work needs to be done in increasing sales associate confidence in cold water washing efficacy and benefits, so that sales associates do not perceive this as a barrier to customer satisfaction.

6. CUSTOMER FINDINGS

In this section, we present findings from the participant and non-participant surveys and analysis. As described in the methodology section, the participant survey was conducted by telephone among customers who purchased the CWDCW and received an SCG rebate. The non-participant survey was conducted via online panel among SCG customers who either purchased a clothes washer in the past 12 months or who stated they were likely to purchase a washer in the next 12 months.

We begin by presenting a characterization of customers surveyed as part of these two different survey efforts. We then present results on purchasing decision factors and motivators that compel customers to purchase new washing machines; awareness of cold water washing, CWDCWs, and the SCG rebate; findings related to the customer in-store experience; and self-reported clothes washing behaviors.

Where applicable, we show comparisons for survey results between participants and non-participants. Statistically significant differences, where present, are reported at the 90% level.

6.1 CHARACTERIZATION OF RESPONDENTS

The participant sample included customers who had purchased a CWDCW and received a rebate from SCG through November/December 2015.³⁰ Of these, 87% purchased the machine through a participating retailer and 13% through a non-participating retailer. The majority of respondents (80%) purchased through a participating retailer who offered point-of-sale rebates.

Among non-participating customers, 62% (n=136 of 218) had purchased a washing machine during the past year, while 38% (n=82 of 218) were planning to purchase a machine within the next one year.

Approximately 70% of both participating and non-participating customers are homeowners. The non-participant sample, which was designed to be demographically representative of the population of SCG territory, had a significantly lower percentage of 1-2 person households than the participant sample, which may indicate that the Whirlpool CWDCW appeals to smaller homes. Participating customers were also significantly more likely to be over the age of 64, compared to non-participants.

The CWDCW appears to be reaching customers at a wide range of income levels.

Income levels are similar between participating and non-participating customers, and 21% (n=12 of 57) of participants reported household incomes less than \$35,000 (Table 6-1 and Table 6-2).³¹ A similar percentage of participants and non-participants reported incomes over \$100,000 (35% and 34%, respectively). Still, 46% of participating customers (n=32 of 70) said they were receiving public assistance or subsidies for housing. These findings suggest that although the product might be targeted at lower- and moderate-income buyers, this market is not exclusively purchasing the product. Instead, price-sensitive shoppers at multiple

³⁰ Through November 2015 for point-of-sale rebates and through December 2015 for mail-in rebates.

³¹ This evaluation did not verify whether respondents were CARE customers.

income levels appear to be purchasing the washer. Other demographic characteristics are displayed in Table 6-3 below.

Table 6-1. Participant Annual Household Income

| Income | Percent |
|---------------------|---------|
| Less than \$25,000 | 7% |
| \$20,000-\$34,999 | 14% |
| \$35,000-\$49,999 | 11% |
| \$50,000-\$74,999 | 21% |
| \$75,000-\$99,999 | 12% |
| \$100,000-\$149,999 | 14% |
| \$150,000 and over | 21% |

D7. Which of the following categories best represents your total annual household income before taxes? Please tell me when I get to your range (n=57).

Table 6-2. Non-participant Annual Household Income

| Income | Percent |
|---------------------|---------|
| Less than \$20,000 | 7% |
| \$20,000-\$39,999 | 17% |
| \$40,000-\$59,999 | 14% |
| \$60,000-\$79,999 | 17% |
| \$80,000-\$99,999 | 11% |
| \$100,000-\$149,999 | 19% |
| \$150,000 and over | 15% |

D7. Which of the following categories best represents your total annual household income before taxes? Please tell me when I get to your range (n=187).

Table 6-3. Demographic Characteristics of Participating and Non-participating Customers³²

| Population Characteristics | Participating customers (n=70) | Non-participating customers (n=218) |
|--------------------------------------|--------------------------------|-------------------------------------|
| Tenancy | | |
| <i>Renter</i> | 24% | 27% |
| <i>Owner</i> | 71% | 70% |
| <i>Landlord</i> | 3% | 1% |
| <i>Other</i> | 1% | 2% |
| Language | | |
| <i>English</i> | 95% | 92% |
| <i>Spanish</i> | 5% | 7% |
| <i>Other</i> | 1% | 1% |
| Number of People in Household | | |
| <i>1-2</i> | 59%* | 40% |
| <i>3-5</i> | 36% | 48%^ |
| <i>6 or more</i> | 5% | 12%^ |
| Age | | |
| <i>18 to 24</i> | 0% | 8%* |
| <i>25 to 44</i> | 22% | 33%^ |
| <i>45 to 64</i> | 46% | 45% |
| <i>65 and over</i> | 32%* | 14% |

* - denotes p-value less than 0.05; ^ - denotes p-value less than 0.1

V2. Are you a renter, owner or landlord of the home that this washing machine was purchased for? D5. What language is spoken most in your home? D1. Including yourself, how many people live in your household full time (full-time year-round)? D3. Which of the following categories includes your age? (Participant n=70; Non-participant n=218).

The demographic differences between participants and non-participants may reflect different preferences, needs or behaviors among CWDCW buyers. However, these differences may also reflect differences in the underlying demographics of customers who shop at regional or local chains versus national or big box chains. Of all rebates submitted through the end of 2015, the majority (91%) came from regional or local stores, while about 9% came from customers who shopped at nationally-known big box stores (Sears, Best Buy (Pacific Sales), Lowe's, Home Depot, Kmart).³³ It is possible that the demographic profile of shoppers at big box or national chains differs from shoppers at regional or local stores. As another possible explanation, given that the participant survey was conducted by phone and the non-participant survey via an online panel, the age and household composition changes may also be related to survey mode effects.

³² Income variables were asked sufficiently differently in the participant and non-participant surveys; thus, participants and non-participants could not be directly compared by income level. A table with income information is included in the appendix.

³³ As described above, though these retailers do not participate in SCG's training program nor receive SCG POP materials, it is possible that these customers found the mail-in rebate form online (e.g., on SCG's website).

6.2 MOTIVATIONS AND PURCHASING DECISIONS

The majority of customers purchased a new washing machine to replace an existing washer. Of participants, 89% (n=62 of 70) reported this as their primary motivation, compared to 79% (n=173 of 218) of non-participants. A small percentage of customers reported that their washing machine purchase was for a home with no previous clothes washer (11% of participants and 19% of non-participants).

Both participating and non-participating customers rated price as a very important factor in choosing a washing machine. Of participating customers, 80% (n=56 of 70) rated price as one of their top four considerations when purchasing a new washing machine (Figure 6-1), compared to 83% (n=180 of 217) of non-participants (Figure 6-2).³⁴

Both participants and non-participants also considered energy use to be an important factor when purchasing a new washer, although participants considered it less important than price. Eighty-three (n=180 of 217) percent of non-participants thought energy efficiency was an important factor to consider when purchasing a washer, rating it to be equally as important as price. While energy use was the second most commonly selected factor of consideration for participants, only 53% (n= 37 of 70) of respondents selected this as an important factor, compared to 80% who indicated price was important. This indicates that while energy use is important to participants, it may not be as important as price.

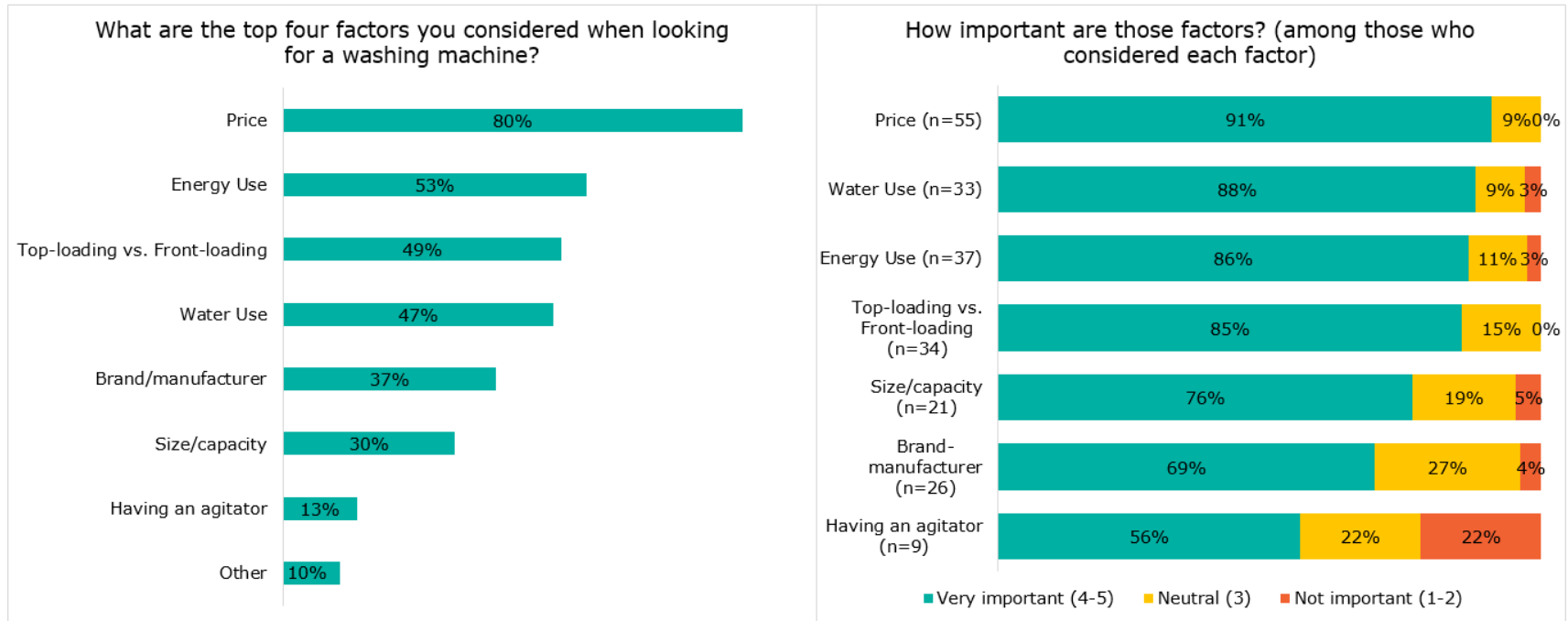
Water use is the fourth most important consideration for choosing a clothes washer among both participating and non-participating customers. However, many participating customers mistakenly believe that the Whirlpool CWDCW uses less water than other washing machines. Just under half of participating customers (47%, n=33 of 47) ranked water use among their top four considerations when purchasing a new washer, compared to 75% (n=163 of 218) of non-participants.

However, there is significant customer confusion about the water use of the Whirlpool washer compared to other machines. When we asked participating customers to compare the water use of the Whirlpool CWDCW to other washing machines, 54% (n=18 of 33) said they thought the CWDCW used less water. It is possible that customers are comparing the Whirlpool CWDCW to their previous washing machine, which is likely an older model, and could be skewing customers' perceptions about the relative water efficiency of the CWDCW.

Customer confusion may also be driven by retailers conflating energy-efficiency and water-efficiency. As noted earlier, two out of three retailers mentioned California customers' concerns about the drought and saving water as reasons the Whirlpool CWDCW might appeal to this customer segment.

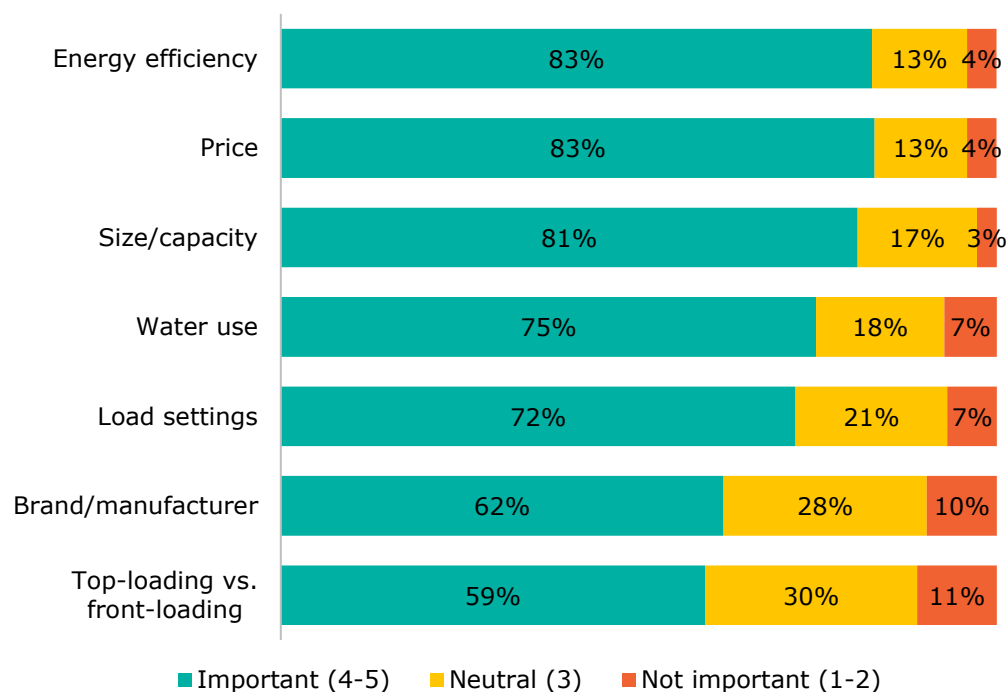
³⁴ Statistically significant comparisons between participating and non-participating customers are not made because questions were asked very differently among these two populations. Participating customers were asked to rate their top four washing machine characteristics, whereas non-participating customers were asked to rate all of their top characteristics.

Figure 6-1. Top Factors Considered by Participants when Purchasing a Machine and Their Importance



P7. I'm going to read a list of factors that you may have considered when deciding to purchase the Whirlpool machine. Please tell me which factors were important in your decision. [Multiple response up to 4] (n=70). For each response indicated in P7: On a scale of 1-5 where 1 is not important and 5 is very important, how important was <read in factor> in your decision to purchase the Whirlpool machine? (n=number of respondents for each factor selected in P7).

Figure 6-2. Top Factors Considered by Non-Participants when Purchasing a Machine and Their Importance



P1. Below is a list of factors that you [IF S3=1: may have considered, IF S4=1: may consider] when deciding which washing machine to purchase. Please rate how important each factor [IF S3=1: was; IF S4=1: will be] in your purchase decision. (n=218).

Non-participating customers appear to have a slightly higher price range for their washing machine purchase compared to participants, and prefer ENERGY STAR® certified top-loading machines. Participating customers who specified the price range they were looking for a washing machine (n=52 of 70), typically targeted the \$420-\$510 price range, on average. By comparison, more than a third of non-participating customers (34%, n=74 of 218) indicated that they were interested in machines in a slightly higher price range of \$500-\$750.

Non-participating clothes washer shoppers also prefer ENERGY STAR® certified machines, which aligns with their priority for energy efficiency when shopping for a new machine. Among non-participants, 83% (n=182 of 218) said that they have already purchased, or plan to purchase, an ENERGY STAR® washing machine (Table 6-4).³⁵ This, in conjunction with the stated higher price point, may indicate that these customers would opt for an ENERGY STAR® qualified washer over the CWDCW.

³⁵ Per discussions with the Whirlpool representative, Energy Star aims to keep Energy Star product market share to about 20% of the market. The high Energy Star penetration that respondents reported may represent respondent bias in reporting (i.e., tendency to over-report familiar or socially-desirable labels), or it may indicate higher Energy Star penetration levels in SCG territory relative to the rest of the country.

Table 6-4. Non-participating Customer Preferences on Machine Type and ENERGY STAR® Status

| Machine characteristics | Purchased | Planning to purchase | All Non-Participants |
|---------------------------------|-----------|----------------------|----------------------|
| Machine type | | | |
| <i>Front-loading</i> | 40% | 26% | 35% |
| <i>Top-loading</i> | 60% | 44% | 54% |
| <i>No specific machine type</i> | 0% | 30% | 12% |
| ENERGY STAR® | | | |
| <i>Yes</i> | 88% | 77% | 83% |
| <i>No</i> | 5% | 2% | 4% |
| <i>Don't know</i> | 7% | 21% | 12% |

P4. What kind of washing machine [IF S3=1: did you purchase, IF S4=1: are you planning to purchase]? (n=218). P5. [IF S3=1: Did you purchase, IF S4=1: Are you planning to purchase] an ENERGY STAR® certified washing machine? (n=218).

6.3 PROMOTION AND AWARENESS OF CWDCW

6.3.1 Non-Participant Awareness and Perceptions

Less than one-quarter of non-participating customers had heard of, or purchased, a cold water clothes washer. Among non-participating customers, 24% (n=52 of 217) said they had heard of a cold water washer. Of those who had purchased a washing machine during the previous 12 months, 19% (n=25 of 135) reported purchasing a cold water washer.³⁶

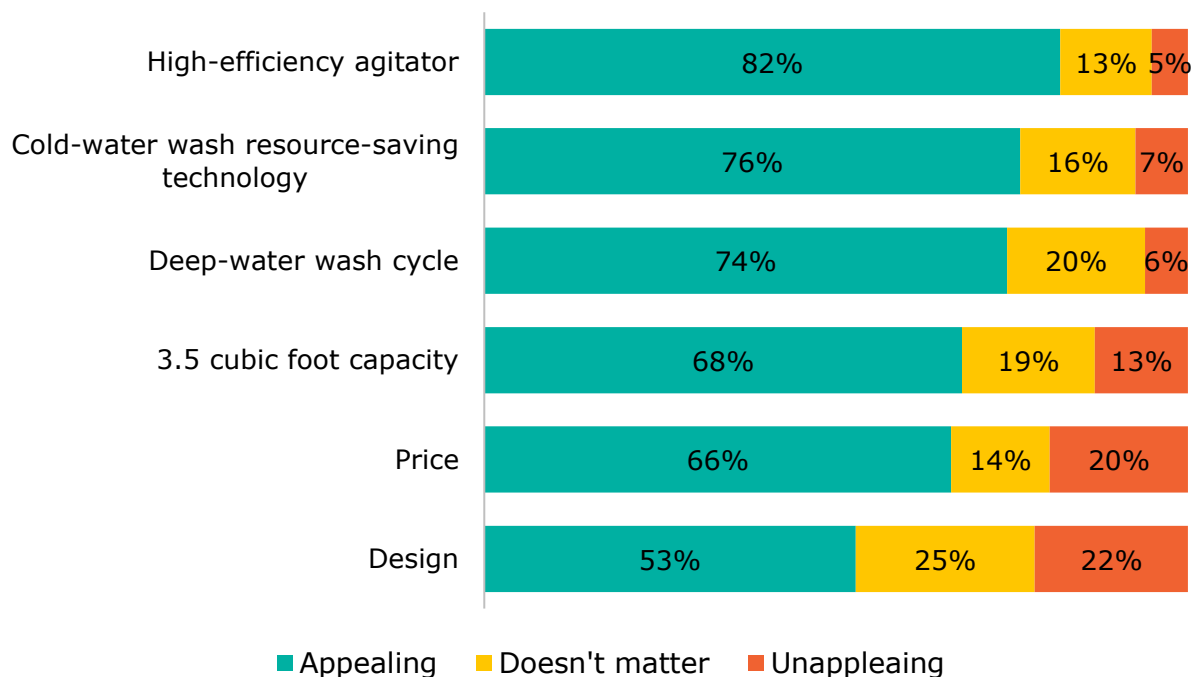
Non-participating customers are interested in the CWDCW, particularly due to features including the high-efficiency agitator, the cold water wash resource-saving technology, and the deep water wash cycle. We showed customers a webpage highlighting key features of the Whirlpool CWDCW (see Appendix C.2) and asked them to rate whether the features were appealing, unappealing, or unimportant. Three-quarters of customers reported that they were particularly interested in the high efficiency agitator feature (82%, n=176 of 218), the cold water wash resource saving feature (76%, n=163 of 218), and the deep water wash cycle (74%, n=159 of 218) (Figure 6-3).

Interestingly, 20% of non-participants noted that the price of the CWDCW was unappealing. In general, while non-participants appear to have slightly higher price brackets as compared to participants (see above), there appears to be a segment of non-participants who may be

³⁶ We did not have the ability to cross-reference these respondents with the rebate list given online panel privacy restrictions. It is possible that respondents over-reported their purchase of cold-water washers, which is a common phenomenon when asking about low-penetration, new or emerging technology.

more price sensitive. When asked what price range they were shopping in, 25% (n=55 of 218) of non-participants stated that they were unwilling to pay above \$500 for a new clothes washing machine, in general.³⁷ The price of the CWDCW, as told to non-participants during the survey was \$550. This may indicate an opportunity for marketing the machine to price-sensitive shoppers interested in ENERGY STAR® or high-efficiency washing who may not want to pay for ENERGY STAR®.

Figure 6-3. Non-participant Customer Ratings of CWDCW Key Features



A4. Here is a description of a cold water clothes washer manufactured by Whirlpool. Please take a moment to read the description, and then rate things you find appealing or unappealing about the machine. (n=218).

Half of non-participating customers are interested in purchasing a cold water washer for their next clothes washer purchase. After learning about the Whirlpool CWDCW, about half (52%, n=99 of 192) said it was somewhat or very likely that they would consider a cold water washer for their next clothes washer purchase. This relatively high interest level among consumers who have reviewed the machine’s features suggests that awareness-raising marketing activities could be helpful in increasing market demand for the product.

Less than one-fifth of non-participating customers (18%, n=35 of 192) said it was unlikely or very unlikely they would consider a cold water washer for their next purchase. The most common reason these customers gave for not wanting to purchase a cold water washer was that they wanted more warm or hot water settings (41%, n=14 of 35). This is notable because sales associates at some retail stores perceive that a lack of warm water settings leads to

³⁷ This question was asked before, and independently of, a description of the CWDCW, so their price range does not reflect any perceptions about the CWDCW features.

dissatisfaction for customers purchasing this machine (see Section 5.2.5), and thus, several sales associates are not proactively marketing or dissuading customer from purchasing this technology. Given the relatively small subset of customers who expressed this concern, it is possible that sales associates are overestimating the impact that the cold water default settings will have on customer interest in the washing machine.

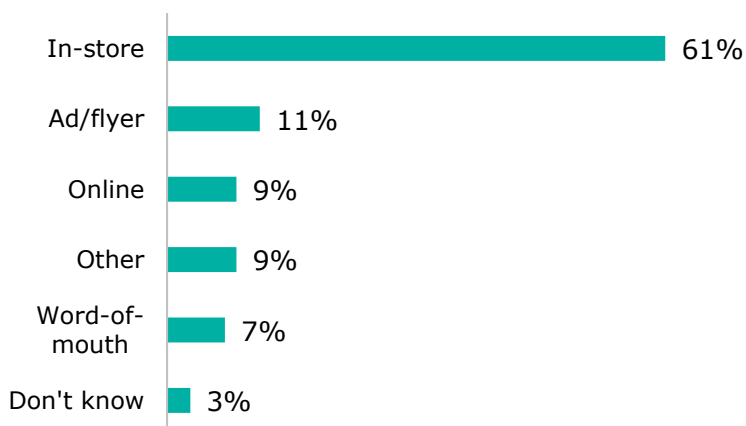
6.3.2 Participant Awareness of CWDCW Machine

The majority of participating customers said they learned about the Whirlpool CWDCW in an appliance or retail store. Among participants, 61% (n=43 of 70) reported that they learned about the Whirlpool CWDCW while shopping in-store (Figure 6-4). In addition, almost every customer said that they spoke to a sales associate at the store where they purchased their clothes washer (94%, n=66 of 70), and three-quarters of customers (77%, n=51 of 70) said that the sales associate provided them with information about the Whirlpool CWDCW (Figure 6-5). Together, these findings indicate that the retail store marketing strategy is an important channel for disseminating information about the machine. This emphasizes the need to address sales associate doubts about the efficacy of cold water washing and misperceptions about the Whirlpool CWDCW being a water-saving washing machine model. Only 9% of customers reported learning about the machine online, which makes sense given that there is little online marketing (SCG sponsors Facebook ads, and the machine is listed on its SCG webpage, and retailer product pages).

Retail sales associates and in-store signage appear to be influential in customers' decisions to purchase the Whirlpool CWDCW. The majority of customers (71%, n=37 of 52) rated the sales associate as a 4 or 5 on a scale from 1 to 5 where one is not influential and 5 is extremely influential. Over half of customers specifically remember sales associates providing them with information about the Whirlpool CWDCW's cold water settings, the Heavy Duty cycle, the SCG \$200 rebate, and the natural gas savings.

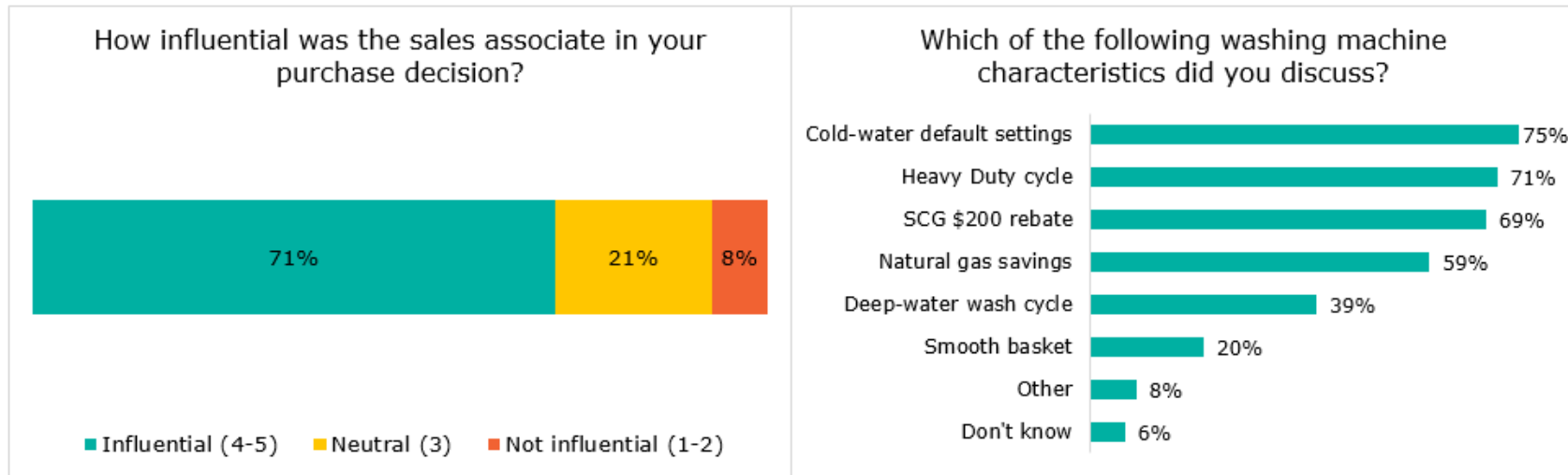
Nearly half of customers (43%, n=30 of 70) remember seeing POP materials advertising machine features, and 47% (n=33 of 70) remember seeing POP materials advertising the rebate. Most customers (75%, n=30 of 40) who remember seeing these materials said they were influential in their final purchase decision (Figure 6-6).

Figure 6-4. Where Did You First Learn About the Whirlpool CWDCW?



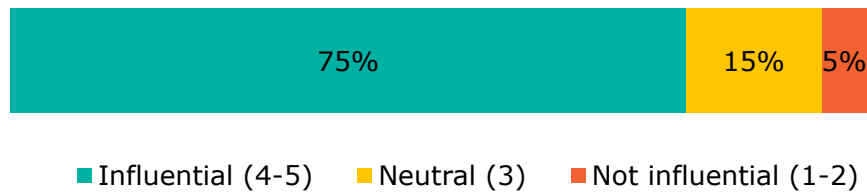
P5. Where did you first learn about the Whirlpool clothes washer? (n=70).

Figure 6-5. Customer Ratings of Sales Associate Influence and Recall of Sales Discussions



S5. I'm going to read a list of features of the Whirlpool top-loading clothes washing machine you may have discussed with the sales associate. Please tell me if you remember discussing any of these features? [Multiple Select] (n=51). S6. On a scale from 1 to 5 where 1 is not very influential and 5 is very influential, how influential was the information provided by the sales associate in your decision to purchase the Whirlpool top-loading clothes washing machine? (n=52).

Figure 6-6. How Influential Were the Flyers, Signs, Posters, or Stickers in Your Purchase Decision?



S7. On a scale from 1 to 5 where 1 is not very influential and 5 is very influential, how influential was the information on flyers, signs, posters or stickers in your decision to purchase the Whirlpool top-loading clothes washing machine? (n=40).

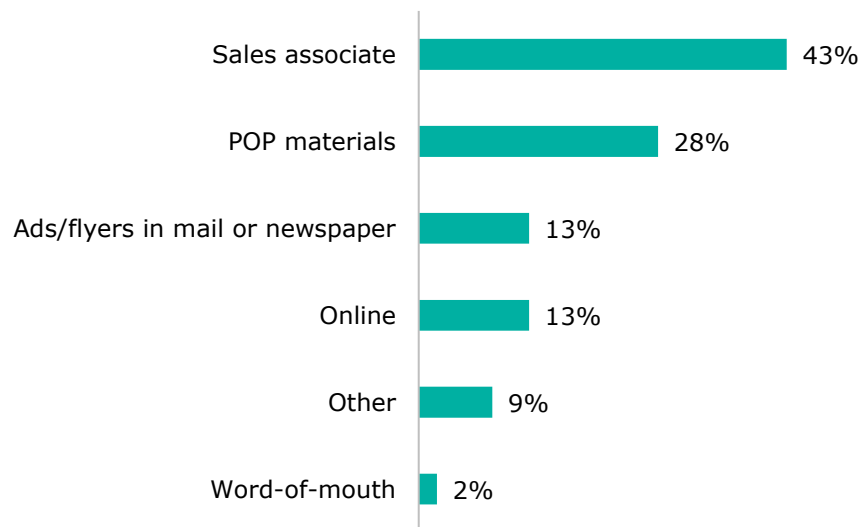
6.3.3 Rebate Awareness and Influence

The majority of participating customers received a POS rebate. More than three-quarters of rebates were via point of purchase (80%). The retailer with the largest share of rebates had sales staff who proactively recommended the CWDCW during mystery shopping. Furthermore, this store was the only store to incorporate the rebate directly into the machine price on the price tag, so the customer immediately saw the rebated price, regardless of whether they also saw the POP materials.

Knowledge of the rebate is fairly high among participating customers, but non-participant awareness remains relatively low. Among customers who received a POS rebate, close to two-thirds (59%, n=33 of 56) of customers knew that they received a rebate.³⁸ By contrast, only 12% (n=25 of 192) of non-participants reported that they knew about the SCG CWDCW rebate. This underscores the need to recruit additional retail partners in the program to increase awareness and sales of the CWDCW.

Participating customers primarily learned about the rebate while shopping in the retail store. Similar to the primary source of awareness for the CWDCW machine (in-store), the majority of customers (43%, n=20 of 46) report that they learned about the rebate from a sales associate. Point of purchase materials were the second most common source of awareness, with 28% of customers (n=13 of 46) learning about the rebate from these materials (Figure 6-7). These findings, compared with the finding above that about half of non-participants appear interested in the machine after learning about its features, suggest that awareness-raising activities that educate customers on the machine, technology and rebate might help drive more sales in-store.

Figure 6-7. How Participants Learned About the Rebate



³⁸ Since the rebate amount is incorporated into the displayed purchase price at POP retailers, we would not expect all buyers at POP stores to know they received a rebate. Since the majority of customers purchased at stores with POP rebates (80%), it makes sense that some buyers were unaware they “received a \$200 rebate or discount for this washing machine from SoCalGas” (it’s possible that they were aware it was discounted, but may not have recalled the source of the discount.)

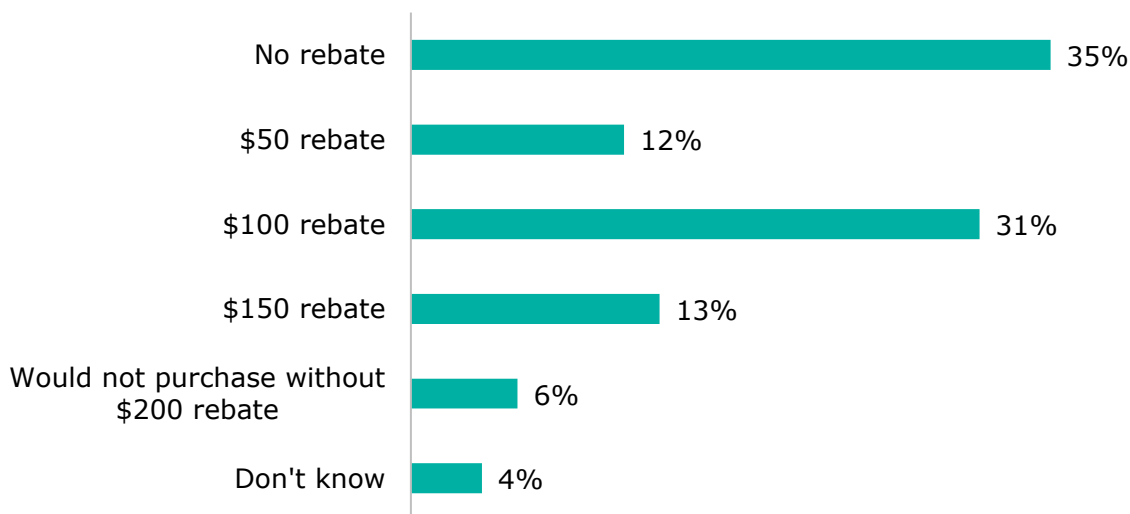
R3. We talked earlier about the \$200 rebate that SoCalGas provided for your washer. How did you learn about the rebate or discount for this washing machine? Did you learn about it... [Multiple Select] (n=46).

The rebate appears to be highly influential in a customers’ decision to purchase a CWDCW. Among customers who had purchased a CWDCW and were aware they had received a rebate, 96% (n=44 of 46) reported that the rebate was highly influential (score of 4 or 5 on a 5-point scale) in their decision to purchase a CWDCW.

Approximately one-third of participating customers who remembered how much they had paid for the CWDCW said they would have purchased the CWDCW in the absence of the rebate. On average, participating customers report paying \$360 for the Whirlpool CWDCW after the rebate, a significant decrease from the original price. Yet 35% of participants (n=18 of 52) report that they would have purchased the CWDCW in the absence of the rebate (Figure 6-8).³⁹ This finding is somewhat inconsistent with the reportedly high influence of the rebate (noted by retailers and participant self-report), and is interesting given that most participants prioritize price when shopping for a washing machine. This study was not designed to measure attribution; therefore, it is unclear why these inconsistencies were reported. Regardless, customer surveys (as well as retailers’ reports on rebate importance) indicate the rebate is effective in encouraging CWDCW sales.

Non-participants who were unaware of the rebate were told that SCG offers a \$200 rebate for a Whirlpool top-loading cold water clothes washer and asked if knowing about the rebate altered their interest in purchasing a CWDCW. Nearly two-thirds of non-participating customers reported that knowledge of the rebate would increase their interest in the CWDCW (63%, n=121 of 192).

Figure 6-8. Participant Willingness to Purchase Machine at Different Rebate Levels



PS4. Do you think that you would have purchased the same washing machine if [IF REBATE AWARE: the rebate was \$50, and] the machine cost [PS2+150]? (n=53). PS5. Do you think that you would have purchased the same washing machine if [IF REBATE AWARE: the rebate was \$100, and] the machine

³⁹ As noted above, this study was not designed to quantify freeridership. Though the survey did ask a few questions about the influence of the rebate that might suggest some freeridership, further research with a full freeridership battery would be required to estimate freeridership.

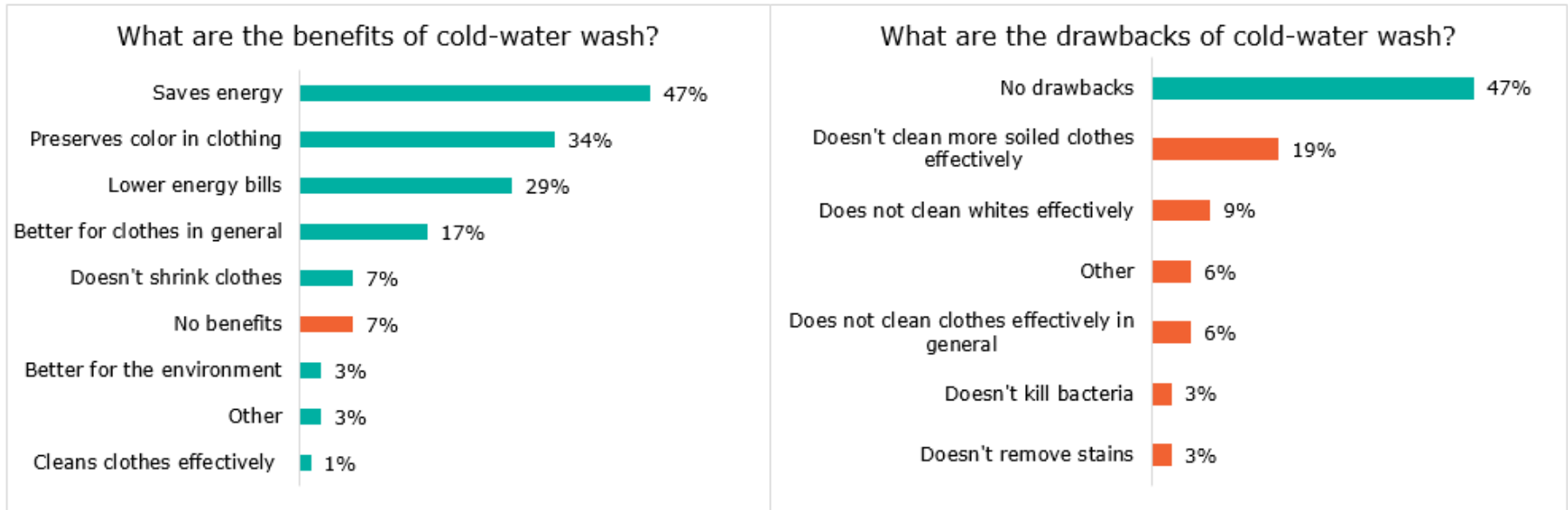
cost [PS2+100]? (n=35). PS6. Do you think that you would have purchased the same washing machine if [IF REBATE AWARE: the rebate was \$150, and] the machine cost [PS2+50]? (n=29).

6.4 PERCEPTIONS OF COLD WATER WASHING

Customers perceive saving energy and preserving color in clothing as the top benefits of cold water washing. Approximately half of participants (47%, n=33 of 70) and non-participants (54%, 103 of 191) believe that the primary benefit to washing clothing in cold water is saving energy (Figure 6-9, Figure 6-10). Both customer groups also report that preserving color in clothes is a key benefit to washing in cold water. Nearly a third of participants 34% (n=24 of 70) reported this benefit unaided, while 73% (n=140 of 191) of non-participants agreed with the statement that cold water preserves clothing. This may represent an opportunity to enhance marketing to and POP materials to emphasize the benefits of cold-water washing for clothes.

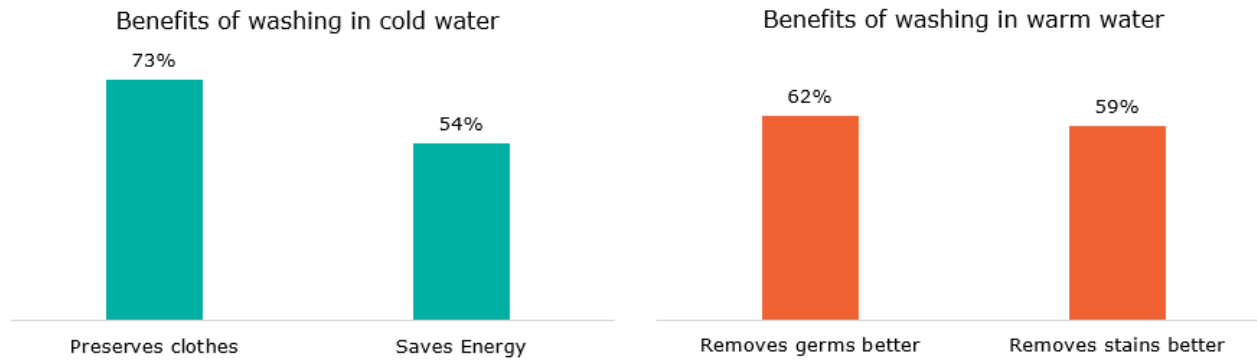
Nearly half of participating customers report no drawbacks to washing in cold water, though non-participants still see benefits of warm-water washing. Nearly half of participant customers (47%, n=33 of 70) report no drawbacks to washing in cold water (Figure 6-9). Those participants who did perceive that there were drawbacks to washing in cold water thought that cold water was less effective for cleaning more soiled clothing (19%, n=13 of 70) and for cleaning white clothing (9%, n=6 of 70). By contrast, over half of non-participants agreed with the statements that warm water removes germs more effectively (62%, n=118 of 191) and that warm water removes stains more effectively (59%, n=112 of 191) (Figure 6-10). However, when asked about the importance of water temperature compared to other machine features, non-participants rate the importance of having the correct amount of water, the mechanical action of the washing machine, laundry detergent, and load size as more important in cleaning clothes than the temperature (Figure 6-11). This highlights the importance of emphasizing that the Whirlpool CWDCW is *specifically engineered to clean clothes in cold water*, and to emphasize the role that other washing machine features play in cleaning clothes.

Figure 6-9. Participating Customer Perceptions of Cold Water Wash



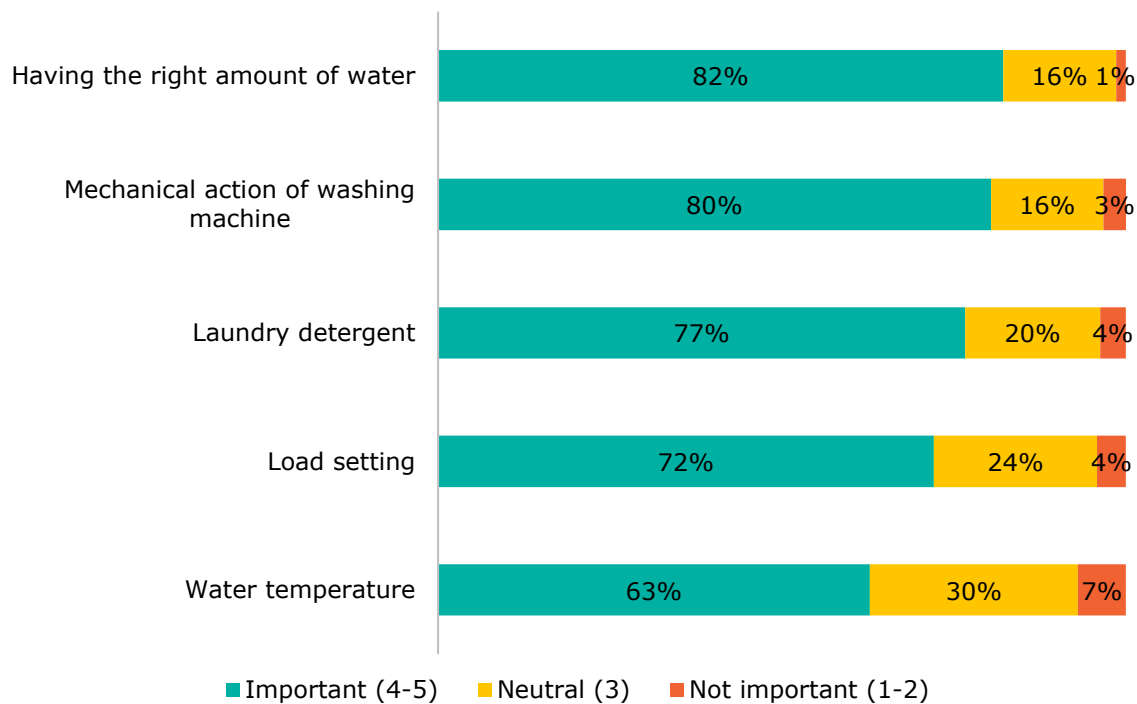
C2. What do you think the benefits of washing your clothes in cold water are? [Multiple Select] (n=70). C3. What do you think the drawbacks of washing your clothes in cold water are? [Multiple Select] (n=70).

Figure 6-10. Non-participating Customer Perception of Cold Water Wash vs. Hot Water Wash



C2. What do you like about washing clothes in warm or hot water? [Multiple Select] (n=190).
 C3. What do you like about washing clothes in cool or cold water? [Multiple Select] (n=191).

Figure 6-11. Non-participating Customer Perceptions of Importance of Various Factors in Cleaning Clothes



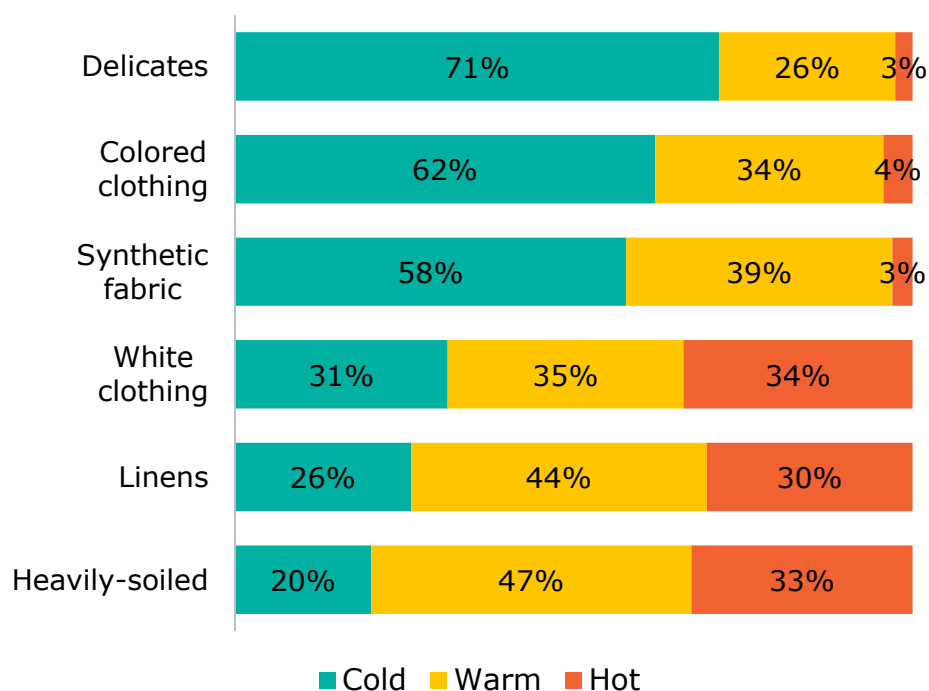
C1. In your opinion, how important is each factor in getting your clothes clean? (n=215).

6.5 CLOTHES WASHING BEHAVIORS

Participating customers wash in cold water more frequently with their CWDCW than with their previous washing machine. On average, participating customers report washing their clothes in cold water 81% of the time (n=67) with the Whirlpool CWDCW, compared to 43% of the time (n=60) with their previous washer. Customers cite the CWDCW cold water settings (65%, n=28 of 43) and the energy savings benefits of washing in cold water (16%, n=7 of 43) as the reasons for this change in behavior.

Participating customers wash more loads in cold water compared to non-participating customers. In contrast to participating customers who run their wash in cold water 81% (n=64) of the time on average, non-participants report washing their clothes in cold water 46% of the time.⁴⁰ Given that some participating customers listed decreased efficacy in cleaning white clothing and heavily soiled items as drawbacks to washing in cold water it is possible that these customers are still using warm and hot settings for these laundry types. Non-participants prefer warm or hot water settings for white clothing, linens, and heavily-soiled items (Figure 6-12).

Figure 6-12. Temperature Preferences for Different Laundry Types Among Non-participants



B2. What water temperature do you typically use to wash the following types of loads? (n=218).

⁴⁰ Participating and non-participating customers wash a similar number of loads of laundry per week. Most participating (63%, n=43 of 70) and non-participating customers (59%, n=127 of 218) report that they run 3-6 loads of laundry per week.

Over half of participating customers are using a cold water detergent. Among participants, 57% (n=39 of 68) report that they switched detergents since purchasing the Whirlpool CWDCW and are now using a cold water detergent. By contrast, 32% of non-participants (n=69 of 218) report using a cold water detergent.

6.6 SATISFACTION

The majority of customers who have purchased a CWDCW are very satisfied with their new clothes washing machine. The majority of participants (83%, n=58 of 70) rated their satisfaction with their new CWDCW as a 4 or 5 on a 5-point scale, with 5 indicating highly satisfied (Figure 6-13). The most common reasons for customer dissatisfaction were that the washing machine did not clean clothes effectively (n=8 of 12) and that the machine was too noisy (n=3 of 12).

Figure 6-13. Participant Satisfaction with the CWDCW



■ Satisfied (4-5) ■ Neutral (3) ■ Dissatisfied (1-2)

SAT1. On a scale from 1 to 5, where 1 is very dissatisfied and 5 is very satisfied, how satisfied are you with your Whirlpool top-loading clothes washing machine? (n=70).

Customers who offered suggestions for improvement most commonly stated that they wanted more information on the rebate. Very few customers offered suggestions for improvement. Of the 20 customers who did offer suggestions for improvement, 10 customers said they had not been previously aware of the rebate, and that they would have liked to learn about it sooner. All but one of these customers received a POS rebate at a participating retail store.

Other customers who offered suggestions stated that the machine was noisy (n=3), that they wanted more control over water levels (n=2), and they wanted more information on the machine in general (n=2).

6.7 SUMMARY OF CUSTOMER FINDINGS AND RECOMMENDATIONS

The CWDCW initiative appears to be effective in attracting purchasers from many different income groups and, in fact, appears to be reaching a higher income group than initially targeted by the program. In addition, customers report high influence of the rebate. If planned rebate decreases take effect, monitoring should take place to ensure that the machine is still within desired customer price ranges, particularly for lower income groups.

Customers prioritize energy efficiency in washing machine purchase decisions, but as noted earlier, manufacturer and retailer online listings and sales associates do not focus on this message. Though water temperature is still a marker of washing efficacy for many consumers,

the mechanical action and engineering of the clothes washer may be an influential message as they consider more cold-water washing. For these reasons, SCG should consider enhanced training and marketing that focuses on the energy efficiency of the CWDCW, and also communicates how the engineering and other features of the machine make cold-water washing effective. This should also include information on the key benefits of cold water washing, such as preserving energy and clothing.

There is a low rate of awareness of the CWDCW and the SCG rebate among general population customers. However, once customers learned about the washer, over half expressed interest in a cold water washer for their next purchase. In addition, nearly two-thirds indicated that the rebate increased their level of interest. Among existing participants, findings on the influence of the rebate were mixed – though the majority of those aware of the rebate reported that the rebate highly influential in their decision (96%), about one-third of those who remembered the price they paid said they would have purchased without the rebate.

7. FINDINGS AND RECOMMENDATIONS

Below we highlight key findings and recommendations for SCG's consideration within three categories: (1) Manufacturer and Retailer Partnerships, (2) Marketing and Outreach, (3) Market Uptake and Influence of the Rebate, and; (4) Customer Perceptions.

7.1 MANUFACTURER AND RETAILER PARTNERSHIPS

Key findings related to manufacturer and retailer partnerships:

- 1. The CWDCW initiative has been effective in developing a manufacturer-utility partnership.** The manufacturer was motivated to participate in the partnership due to the opportunity to open the high-efficiency clothes washer market to a new customer segment, while SCG saw the CWDCW measure as a way to shift customer cold water washing perceptions and behaviors. Based on this experience, the Whirlpool product manager said they could consider other manufacturer-utility partnerships in the future.
- 2. The CWDCW initiative has not met its participation goals or manufacturer sales expectations, largely due to challenges enlisting big box retailers to carry and promote the model.** SCG rebated 864 clothes washers in 2015 (April – Dec), compared to an initial goal of 3,597 rebates for 2015.⁴¹ The Whirlpool product manager attributed the shortfall to big box partners not carrying the model on sales floors.⁴² The initial goal (3,597) assumed a full year of 2015 sales and that at least four retailers, two big box and two regional retailers, would offer point-of-sales (POS) rebates. However, the initiative launched later in 2015 than expected, and no big box retailers carried the model at the beginning of the program. At the time of this evaluation, the program had not recruited any additional big box partners into the program, such as Home Depot or Lowe's.⁴³

Recommendation 2a. Consider renewing talks with big box stores in partnership with Whirlpool to (a) understand barriers to stocking the model and participating, (b) show the "partnership" behind the machine, and (b) overcome big box retailers' hesitation to participate.⁴⁴ This study did not gather feedback from non-participating retailers, so more information on barriers may be needed before approaching retailers. According to the Whirlpool product manager, the big box retailers may be hesitant to sign on due to the perceived complication of managing marketing and training on a regional level (i.e., one region of CA). The product manager felt that approaching big box stores as a manufacturer-utility partnership would be more effective than SCG approaching alone, to reinforce the "team approach" behind the initiative.

⁴¹ Source: Navigant. (2014). Mini Business Plan Cold-Water Wash Facilitating Washing Machines for Residential Customers. Prepared for Southern California Gas Company and SDGE.

⁴² Whirlpool was not permitted to share sales figures with the evaluation team, so we do not know how sales figures compare with goals.

⁴³ Home Depot began double-tagging the base model in February 2016, after the point at which participation counts in this evaluation were obtained. As of May 2016, the program is planning to place POP materials and train sales associates at Home Depot stores in 2016, though this placement and training has not yet occurred.

⁴⁴ At the time of revisions to this report (May 2016), we understand that SCG and Whirlpool are pursuing further joint discussions with big box retailers.

Recommendation 2b. Consider encouraging Sears and Home Depot to carry the model on sales floor rather than double-tagging. At present, Sears offers POS rebates, and double-tags the base model, yet sales have remained limited. Home Depot will be participating in a similar capacity as Sears in 2016. Based on sales from Howard's and Warehouse Discount Center – who carry the model on their sales floor and offer POS rebates – sales potential may be higher if a retailer carries the model on the sales floor.

Recommendation 2c. Consider increasing education and awareness-raising marketing activities to promote the product rebate before customers reach the store. SCG has not yet been able to launch a full education and awareness campaign, so current sales are largely driven by in-store activities. An education and awareness campaign might reach more prospective shoppers and increase demand for the machine before customers reach the store.

- 3. Big-box and local retailers who do not participate in SCG's program (i.e., no POP materials and training) are carrying the machine, though we do not know if or how they are promoting the rebate.** Approximately 13% of rebates submitted in 2015 came from customers who purchased at non-participating retailers, and we found multiple online listings for the machine at big box and local stores who do not participate in SCG's trainings or receive POP materials. SCG and the evaluation team do not have insight into stocking or marketing practices at these stores, or how these customers learned about the rebate.

Recommendation 3. Conduct further research on product merchandising and rebate marketing at non-participant stores. If possible, conduct a more comprehensive online review and consider mystery shopping at non-participating stores. If more participant research is conducted in the future, consider oversampling purchasers at non-participating stores to understand when and how they first learned of the CWDCW and rebate.

7.2 MARKETING AND OUTREACH

Key findings related to marketing and outreach:

- 4. Price is the most important factor that participating customers considered when purchasing a new clothes washer.** Energy use, top-loading vs. front-loading, and water use were also influential factors, but they were not as important as price. Eighty percent of participants said that price was one of the top four factors they considered when purchasing a new clothes washer. The next most commonly referenced factors were energy use, top-loading vs. front-loading, and water use, mentioned by 53%, 49%, and 47% of participants, respectively.⁴⁵ This indicates that while these factors may have some influence on purchasing decisions, price is the most important driver for this customer segment.

Recommendation 4. Conduct further research to understand what types of buyers are less price-sensitive, and what features are most important to these customers. Given additional time and participation, it may be valuable for the

⁴⁵ Chapter 6 of this report contains details participant and non-participant purchase criteria.

program to identify the characteristics of participating customers less likely to have purchased for price-based reasons, and understand why they purchased the machine (i.e., what factors beyond the rebate attracted them?). This information could be used to develop a targeting or outreach strategy, or tailor marketing and in-store materials to highlight features these customers care about. Developing strategies that resonate with less price-sensitive shoppers will be important as rebate levels decrease.

- 5. Customers prioritize energy efficiency in washing machine purchase decisions, but partner websites do not address energy savings, and sales associates do not focus on this message.** Among non-participants, 80% rated energy efficiency as a key factor in their decision to purchase a new washing machine. However, multiple online product listings we found (including Whirlpool.com and Sears.com) do not mention gas or energy savings, and sales associates do not market the energy efficiency of the CWDCW; instead, they erroneously highlight the ability of the CWDCW to save water (*next finding*).

Recommendation 5. Work with partner websites to incorporate energy savings message into their online listings, and continue training sales associates to highlight gas savings. Sales associate training should focus on overcoming perceived barriers to cold-water washing among the sales associates themselves, and customers – so that sales associates have greater confidence in the product. This may require continued education on the benefits of cold-water washing and the machine’s ability to wash clothes effectively in cold water.

- 6. Water use is an important consideration for choosing a clothes washer among both participating and non-participating customers.** The Whirlpool CWDCW is not a water-efficient machine, a fact not understood by some customers and retailers. Over half of participating customers (54%) thought the Whirlpool CWDCW used less water than other washing machines. The mystery shopping and interviews also found that retailers conflate energy-efficiency and water-efficiency. Two out of three retailers interviewed mentioned California customers’ concerns about the drought and saving water as reasons the Whirlpool CWDCW might appeal to this customer segment. Furthermore, sales associates described the CWDCW as an “in-between” option that saves more water than a standard washing machine, but not as much as an EnergyStar machine. However, the CWDCW uses the same amount of gallons per wash cycle as the minimally compliant baseline washer model and cannot claim to save water.

Recommendation 6. Enhance sales associates training with more information about energy efficiency features of the CWDCW and clarification of its water use. Consider marketing specific energy efficiency savings information in customer-facing materials. SCG could provide sales associates and customers with information on key benefits of cold water washing, such as conserving energy. Training and marketing materials should also clarify that the washer does not save water compared to other high-efficiency top-loaders or ENERGY STAR® models.

- 7. Non-participant customer awareness of the CWDCW and \$200 SCG rebate remains relatively low.** However, customers are interested in the CWDCW once they learn about the technology and its specific features. Less than 25% of non-participating customers had heard of cold water clothes washers and less than 5% had recently purchased a washing machine model with cold water default settings. Fifteen percent of non-participants had heard of the \$200 SCG rebate. When presented with information on the Whirlpool CWDCW, more than half of non-participating customers indicated that they

would be interested in purchasing it, particularly due to the high-efficiency agitator, the cold water wash resource-saving technology, and the deep water wash cycle.

Recommendation 7. Consider identifying ways to enhance customer knowledge of the CWDCW and the \$200 SCG rebate. Conduct broader education and awareness activities within SCG territory to introduce the machine. Ensure that marketing materials and retail sales associate trainings highlight the key features that customers find most appealing in the CWDCW. Consider developing enhanced in-store signage related to the \$200 SCG rebate or requiring that participating retailers specifically tell customers about the rebate.

7.3 MARKET UPTAKE AND INFLUENCE OF REBATE

Key findings related to market uptake and the influence of the rebate:

8. The CWDCW initiative appears to be reaching a diverse population. Survey results indicate that participants' demographics vary in terms of income and rental status. While the initiative is not exclusively reaching moderate-income customers as planned, it is still reaching price-sensitive customers who might not be willing or able to purchase an ENERGY STAR® machine. Once the rebate is reduced to \$100, the approximate cost of the CWDCW will be \$450. This is within the \$420-\$510 price range the average participating customers specified as the price range they were shopping in.

Recommendation 8. Consider additional segmentation analysis to characterize participants and tailor marketing and outreach strategies. Per recommendation 4 above, given additional time and participation, it may be valuable for the program to identify the characteristics of the participating market and compare those characteristics against the initial target market. This analysis could inform more refined targeting and outreach strategies.

9. Customers perceive the \$200 SCG rebate as influential in their decision to purchase a CWDCW. Among customers who purchased a CWDCW and were aware they had received a rebate, 96% reported that the rebate was influential in their decision to purchase a CWDCW. With that said, about a third of participants said they would have purchased the machine without a rebate. These responses are inconsistent, potentially due to self-report bias. Note that the survey did not intend to measure free-ridership; therefore, it is not possible to discern the reason for the inconsistency. Regardless, the program clearly influenced the majority of customers' decisions.

10. Retailers and customers believe that a decreased rebate of \$150 would still be influential on sales of the CWDCW. Retailers interviewed thought that decreasing the rebate to \$150 would slightly decrease sales, but believed it would still encourage the purchase as \$150 is still a relatively high rebate for a clothes washer. This is supported by participating customers, 91% of whom report that they still would have purchase the Whirlpool CWDCW if the rebate had been \$150 or lower. Thirty-five percent of participating customers said they would have purchased the machine, even if the rebate had not been available.

Recommendation 10. Continue to monitor rebate volume as rebate decreases take effect to determine if there is a trade-off between the rebate level and

rebate volume. At present, SCG plans to extend the \$200 rebate through 2016 to encourage sales, though they may reduce the rebate to \$150 in 2017. If a significant dip in rebate volume is observed after the first rebate decrease, consider maintaining or extending the rebate at a higher rebate level to stabilize sales.

7.4 CUSTOMER PERCEPTIONS

Key findings and recommendations related to customer perceptions of cold-water washing:

- 11. The CWDCW appears to be effective in increasing the incidence of loads washed in cold water.** CWDCW purchasers report washing their clothes in cold water 81% of the time with the Whirlpool CWDCW, compared to 43% of the time with their previous washer. Customers cite the CWDCW cold water settings and the energy savings benefits of washing in cold water as the reasons for more frequently washing in cold water. This increase in cold-water loads suggests that the 2015 buyers weren't necessarily customers who were already washing most loads in cold water.
- 12. Customers continue to perceive warm or hot water washing as optimal for cleaning clothes.** General population customers perceive several benefits to hot water washing, including increased efficacy in removing germs and stains. In addition, some participating customers listed decreased efficacy in cleaning white clothing and heavily soiled items as drawbacks to washing in cold water, indicating that these customers may prefer hot water for these laundry types.

Recommendation 12. Enhance in-store and online messaging related to the ability of the CWDCW to effectively clean, sanitize, and preserve laundry. This will help customers understand that the CWDCW is specifically engineered for cold water washing and that cold water washing is equally as effective as hot water washing.

A. MYSTERY SHOPPING INSTRUMENT

Cold water Default Clothes Washer Market Study

Mystery Shopping Instrument

Final 11/13/2015

A.1 INTRODUCTION

One Illume staff member will visit five store locations of participating retailers to complete a mystery shopping exercise. We will work with SCG to determine which participating retailers should be prioritized for sampling.

The primary goal of mystery shopping is to discern the response typical shoppers encounter when engaging with retail staff. For this effort, our team of researchers will enter participating stores, browse and “shop” for a new washing machine as if in the market. The aim of this work is to assess the following throughout their interactions with the sales staff:

- What signage is being used? Is the signage posted as expected?
- When asked about a new washing machine, what units did the sales rep direct us to?
- When showing an interest in a vertical axis machine, which unit did the rep direct us to?
- What messaging did they use to direct us to the SCG qualified unit?
- At what point did the sales rep mention a rebate?
- Did the sales representative accurately state why there was a rebate available (if mentioned)?
- When asked a series of questions on the perceived limitations of cold water washing, what was retailers’ response?

A.2 MYSTERY SHOPPING GUIDE

Shopper details

- New homeowner buying a new clothes washer
- Live in <Neighborhood> (will be selected during sampling)
- I am certain I am a SoCalGas customer

Walk around appliance area and browse for up to 5 minutes until a Sales Associate approaches you.

If you are not approached within 5 minutes, seek assistance from someone in the appliances department.

When not speaking with the associate, observe the showroom floor.

- Where is the CWDCW model? Describe in terms of: price points of machines around it, visibility.
- How easy is it to find?
- What signage is displayed on the model?
 - Price
 - SCG materials
 - Base model "double-tagging" (Sears only)

General shopping for new washing machine

"Hi, I recently bought a new home and I'm looking for a washing machine. Can you help me find one?"

"I'm not looking to buy anything today. I'm just getting a sense of what my options are."

- If asked about price: "I'm looking for something in the \$300-600 range"
- If asked about size: "Whatever the standard size is"
- If asked about top load or front load: "I'm not sure – I'm open to either"
- If asked about features, brand, or color: "I'm not sure at this stage. I'm just looking to see what my options are. I'll decide later."
- If asked about dimensions: "Oops, I forgot to take measurements. I think I have about 3ft x 3ft of space available, but I'm really not sure."

Make note of washing machines described and features mentioned for each machine. [IF FEATURES NOT BEING DESCRIBED] "Is there anything besides price that differentiates these washing machines? What features should I look for in a washing machine?"

If you need to re-orient discussion to more affordable or top-loading units at some point, say, "Actually I think I'm leaning toward a top-loading machine because they seem more affordable."

Whirlpool Model

Prompt: Either express interest in SCG model or if associate doesn't mention: "I did some research online and I was looking at this model" [show written down model number]: **Whirlpool Model #WTW4715EW**. "Do you have this in stock? Can you tell me more about it?"

[Note whether they mention benefits listed on training spec sheet – 1) gentler on clothes, and 2) saves energy]

1. [IF NOT MENTIONED EARLIER] "Are there any discounts or rebates available for this machine?"
2. [WHEN ASSOCIATE MENTIONS COLD WATER FEATURES] "I don't usually wash my laundry in cold water" [IF ASSOCIATE DOES NOT MENTION COLD WATER FEATURES] "I read online that this laundry machine has cold water default settings, and I don't usually wash my clothes in cold water"
 - a. "Will my clothes get as clean?"
 - b. "Is cold water as good as hot water at removing stains?"
 - c. "Does cold water kill germs?"
 - d. "Do I need to use cold water detergent with this washer"

3. [If not in stock] How long would it take if I ordered this model? Would it cost extra?

Energy Star [ask if these topics do not arise earlier]

1. I've heard about Energy Star washers – what does that mean?
2. Are any of the washers you just showed me Energy Star?
3. Are any other rebates available?
4. [IF NEEDED] How does this Whirlpool model compare to Energy Star?

A.3 POST-SHOPPING QUESTIONNAIRE

The interviewer will fill out these notes after leaving the showroom floor, to be sure she doesn't look like a researcher.

Before speaking with sales person

1. Is the Whirlpool Top Loading machine on the showroom floor? Y/N

2. How easy is it to find the Whirlpool Top Loading machine? (1-5 scale) Is it displayed near other clothes washing machines? (Y/N) Is it more or less noticeable than other clothes washing machines? (More/less/same) Describe.

3. [IF NEEDED] How could the store improve ease of finding the Whirlpool machine?

4. Was SCG rebate promotional material clearly displayed?
 - a. Cling on unit
 - b. Flyer (in plastic display)
 - c. Base model double-tagging

5. Is any additional signage displayed? Please describe.

Sales person interaction

6. What types machines did the sales person refer you to *initially*?
 - a. Top-loaders or front-loaders?
 - b. Energy Star or non-Energy Star?
 - c. Particular price range?
 - d. Particular manufacturers?
 - e. Any other features/characteristics?

Please list machines and any features or benefits mentioned with those machines.

7. Did the sales person mention the CWDCW machine unprompted? Y/N
 - f. *If yes:* What features or benefits did he/she mention first?

Characterization of Cold water Default Clothes Washer

For questions 8-15 make sure to differentiate between what the sales person said *before and after being prompted* about the CWDCW machine specifically

Mystery Shopping Instrument

8. What language did they use to describe the CWDCW machine? (Make note of what they described as main benefits)

9. What features of the machine did the associate mention on an aided vs. unaided basis? (complete table below)

| Characteristic | Unaided | Aided | Comments |
|---|---------|-------|----------|
| Cold water is the default setting for everything but "Heavy Duty" | | | |
| Cold water wash saves energy from water heating | | | |
| Cold water wash gentler on clothes | | | |
| SCG rebate | | | |
| Additional capacity | | | |
| Deep Water Wash – uses more water | | | |
| Heavy Duty – 95 degree wash | | | |
| Smooth basket to prevent clothes from snagging | | | |

10. Did the associate directly compare the CWDCW to other clothes washers on the floor? Which ones? (Any Energy Star or efficient models?)

11. What did the associate mention about the rebate?
 - g. Did they say who the rebate was from? Y/N
 - h. Did they say why the rebate was being offered? Y/N
 - i. Did they specify the rebate amount? Y/N

j. Additional comments?

12. Did associate mention any other cold water benefits (in addition to the tables above?)

13. Did associate mention any other features or benefits (in addition to the tables above?)

14. If the associate mentioned energy efficiency: Did they explain how the machine saved energy?

15. Did the associate accurately explain the difference between an EnergyStar washer and the CWDCW model?

Persuasiveness

16. Did the associate mention any *drawbacks* of the CWDCW, or try to draw you to another model? If so, what drawbacks?

17. On a scale from 1 to 5, how well did the associate sell you on the cold water default settings after you expressed hesitation? Please describe.

18. On a scale from 1 to 5, how well did the associate sell you on the CWDCW machine overall? Please describe

B. MARKET ACTOR INTERVIEW QUESTIONS

B.1 MANUFACTURER INTERVIEW QUESTIONS

Introduction

Thanks for agreeing to talk to me today. I received your name from _____, who suggested I speak with you about SoCalGas's Cold water Default Clothes Washer program. My company, ILLUME, is conducting research on how this program developed and market outlook for the cold water washer. Your knowledge and insights are extremely important in this process. Before we start, I wanted to let you know that I am taping this interview in order to ensure my notes are accurate. Is this okay with you?

1. Please describe your role and responsibilities at Whirlpool. (Probe for: role in determining what products to develop or stock)

History of CWDCW Model Development

First I want to ask you about the development of the cold water default clothes washer.

2. Can you explain briefly how Whirlpool determines what clothes washer products to develop for its markets?
3. What was Whirlpool's motivation in developing the CWDCW model? How did the idea for this washer originate?
4. My next set of questions is about the decision-making process surrounding the development of the CWDCW. How did the decision-making process align with your standard decision-making process/considerations? How long did it take to decide to move forward with the product?
5. What research was most influential in your decision to develop this product? (Probe for whether Whirlpool or another entity led each study mentioned.) How did the research inform the product design?
6. [IF NOT MENTIONED] We understand that SCG and SDG&E conducted a field test of cold water default washers in 2011. Did that research factor into the development process? Did any other research by utilities factor into the development process?
7. Can you describe your interactions with SoCalGas around the CWDCW product development? When did you first engage? Where were they involved in the product development process? What decisions did the SCG team support? (Prompt for: Product design parameters, market positioning/pricing)
8. What market goals, if any, do you have for the CWDCW model?

Perceptions of CWDCW Market

9. Now I have a few questions about Whirlpool's perception of the market for the CWDCW model during the development process.
 - a. What were your expectations for the sales potential of this model? How did this influence product development?

- b. Did you think this product would be more attractive to a specific customer segment? What segment? (IF NEEDED: What attributes or features of the product meet the needs of this customer segment?)
 - c. Did you think that sales for this product would be higher in any specific region? What region? Why did you think sales would be higher for this region? (IF NEEDED: What attributes or features of the product meet the needs of this region?)
10. Have you received recent sales numbers for this model? What is your reaction to these numbers?
11. Have you received any sales information by region or customer segment? [IF YES] Have the regions or customer segments you mentioned earlier been receptive to the model?
12. Have you received any qualitative customer feedback on the model?
- a. What feedback have customers provided about the model?
 - b. Do you think overall customer response has been positive, negative, or mixed?
 - c. Has anything surprised you about customer response to this model? (Probe for positive/negative customer reactions, regions, customer segments)
13. What barriers has Whirlpool faced in marketing and distributing this model?
- a. What are the greatest barriers to stocking the model among distributors and retailers?
 - b. Do you have any insight into consumer concerns or barriers? If so, what do you think the greatest barriers are for consumers?
14. Do you see opportunity for CWDCW in other regions of CA or elsewhere in the country?

Consideration of ENERGY STAR® CWDCW

15. Is Whirlpool considering developing an ENERGY STAR® certified version of the CWDCW?
16. [IF YES] What is Whirlpool's motivation for developing this version? Does this model resolve any of the market concerns or challenges outlined earlier? If so, how?
17. What market trends or data would you need to see to support development of an ENERGY STAR® certified CWDCW?
18. What is the current likelihood of developing an ENERGY STAR® version of the CWDCW?

Expanding the Market for Cold water Washing

19. Is Whirlpool doing anything else develop the market for cold water clothes washers?
- a. Do you have any education or marketing campaigns to promote cold water washing?
 - b. Are you working with cold water detergent companies?
 - c. Anything else?

Outlook for Utility Partnerships/Relationships

Now I would like to ask a few questions about your experience partnering with SoCalGas.

20. Can you describe your current interactions with SCG, if any?
21. Are you satisfied with the overall experience of developing and launching the CWDCW model in partnership with SoCalGas? Why do you say that?
- a. What were the successes of your partnership?
 - b. Any areas that could be improved?

22. Would you consider working with utilities in the future to bring an energy-efficient or water-saving product to market? Why or why not?
23. Are there additional elements would you like to see in a manufacturer partnership with a utility?
24. What recommendations do you have for utilities who wish to partner with manufacturers to bring emerging technologies to market?

B.2 PARTICIPATING RETAILER INTERVIEW QUESTIONS

SoCalGas Cold Water Default Clothes Washer Market Study

Participating Retailer Depth Interview Guide

Final December 11, 2015

Background

As part of the cold water default clothes washer (CWDCW) market study, ILLUME Advising is speaking with the five participating retailers currently offering the CWDCW, messaging the SCG rebate, and participating in SCG training:

- Howard's
- Pacific Sales/Best Buy
- Idler's
- Warehouse Discount Center
- Sears (the model is not present on the sales floor but they display signage for the model and rebate on the base model)

Introduction

Thanks for agreeing to talk to me today. I received your name from Michelle Cook, who suggested I speak with you about SoCalGas's Cold Water Default Clothes Washer program. My company, ILLUME Advising, LLC, is conducting research on the market outlook for cold water washing machines. Your knowledge and insights are extremely important in this process. Before we start, I wanted to let you know that I am recording this interview in order to ensure my notes are accurate. Is this okay with you?

1. Please describe your role and responsibilities at [RETAILER]. (Probe for role in determining what products to stock)
2. We understand that [RETAILER] stocks the Whirlpool WTW4715EW, which is a cold water default clothes washer that SoCalGas provides a rebate for.
 - a. Please describe your role as it relates to the Whirlpool cold water clothes washer?
 - i. How are you involved with the Whirlpool cold water clothes washer? (Probe for: merchandising/stocking decisions, sales associate training)

- ii. How are you involved with SoCalGas or the rebate for this clothes washer? (Probe for: sales associate training; signage about the rebate; rebate applications or rebate processing)
3. What communication do you have with SoCalGas about the Whirlpool cold water default clothes washer? (Probe for: in-store signage, training, rebate processing or tracking)

Program Initiation [Participating Retailers Only]

First I want to ask you about how [RETAILER] initially got involved with SoCalGas's Cold Water Default Clothes Washer program.

4. How did [RETAILER] learn about the Whirlpool Cold water Default clothes washer? Who initially approached [RETAILER] about stocking it?
5. What process did [RETAILER] go through to become a participating retailer? (Prompt for communications with Whirlpool, SoCalGas, or other parties involved with the program)
6. We understand that SoCalGas provides in-store materials such as _____ and conducts training to help sales associates market the cold water washing machine. [IF POS rebates: Additionally, your customers can get an instant rebate in the store]. Only a few retailers in Southern California are doing that much to market the Whirlpool cold water clothes washer and rebate, and SoCalGas considers [RETAILER] one of five "participating" retailers.
 - a. Do you know what motivated [RETAILER] to become involved in the rebate program?

Training

7. I understand that [DDS marketing/OSS marketing] conducted training with sales staff at each participating store on the first day that the model was on the floor. Did you have any goals or expectations regarding that training? (Probe for: program information, information about CWDCW, whether they wanted a specific number of staff to be trained)
8. What ongoing training activities do you conduct or participate in as part of your involvement with SoCalGas?
9. How satisfied were you with training your staff has received on the CWDCW?
 - a. Are there any sales associate questions that the training didn't address?
 - b. Are there any customer questions that the training didn't address?
 - c. Do you have any recommendations for improvement?

Decision to stock the CWDCW

Now I would like to talk about how you decided to stock the Whirlpool CWDCW, specifically.

10. How does [RETAILER] typically decide what equipment to stock? How does EnergyStar status factor into your stocking decisions?
11. Did the decision to stock the CWDCW follow this process?
 - a. If not, why not? Please explain the process CWDW underwent.
12. Did you use any market research or sales data to inform your decision about whether to stock this product? (Probe for author of research and who provided it)
13. What were your expectations for sales of this product? Did you expect this product to be more attractive to a certain customer segment?

14. Did you initially stock the CWDCW in all of your stores in the SCG territory, or a subset? What factors drove this decision?
15. How important was the \$200 rebate in your decision to stock the CWDCW? Do you think you would have agreed to participate in the program without the rebate?

Current program involvement

Next, I would like to talk about your ongoing involvement with the program.

16. What are [RETAILER]'s current responsibilities regarding the program? What information do you provide to SoCalGas? What information do you provide to Whirlpool?
17. [HOWARD'S ONLY] How does the rebate reimbursement process work? What information do you provide to SCG to be reimbursed? How often are you reimbursed?
18. [HOWARD'S ONLY] Are you satisfied with the rebate reimbursement process? What changes or improvements could be made?
19. I understand SoCalGas provides you with flyers, and clings to display with the CWDCW. Are you currently displaying these? Why or why not?
20. [NOT HOWARD'S] Do you carry rebate applications for this model in-store? Why or why not?
21. Have you conducted any marketing specifically for this model? Why or why not?

Reaction to rebate & sales

22. Have you examined recent sales numbers for the CWDCW model? What is your reaction to these numbers? Is the CWDCW selling better, worse, or about the same as machines the same price range?
23. Have you heard any feedback from sales associates on how they're selling the model? From your perspective, are there any challenges to selling this Whirlpool model? Is there anything the program could help you to do overcome these challenges? (Probe for: EnergyStar status)
24. Have you received any customer feedback on the model? Do you think overall customer response has been positive, negative, or mixed? Why? (Probe for: EnergyStar status)
25. What impact, if any, do you think the \$200 rebate has on these sales numbers? Why do you say that?
26. The program is planning to reduce the rebate amount for this washing machine to \$150 in 2016. What impact, if any, do you think this will have on sales of the CWDCW? Why do you say that?
27. What are your future plans for this rebated Whirlpool model? Do you plan to change the number of stores stocking this model? In stores where you are currently stocking this model, do you plan to make any changes to the number of CWDCW machines you carry? (Probe for: EnergyStar status)

Satisfaction with program and SCG

Now I would like to ask a few questions about your overall experience with the program.

28. Are you satisfied with [RETAILER's] involvement in the SCG program?
 - a. What are the main benefits to participating in this program?
 - b. What are the drawbacks to participating in this program?
 - c. Is there any aspect of the program that could be improved?

Market Actor Interview Questions

29. Are you satisfied with the level of communication from the program? (Probe for: frequency, format)? Can the program do anything to improve communication with retailers?
30. Are you satisfied with the rebate amount offered by the program? Why do you say that?
31. Would you recommend participating in this program to another retailer? Why or why not?

Those are all the questions I have for you today. Thank you very much for your time.

C. PARTICIPANT SURVEY INSTRUMENT

SoCalGas Cold Water Default Clothes Washer Market Study

Participant Survey Instrument

January 7, 2016

C.1 INTRODUCTION

ILLUME is working with Leede Research to complete 70 surveys with CWDCW program participants. These surveys will shed light on customer purchasing decisions, perceptions related to cold water washing, and customer clothes washing behaviors. Specifically, we will investigate the following topics:

- The process behind customer's decision to purchase the qualifying washer
- Perceptions and awareness of cold water clothes washers
- Clothes-washing behaviors
- Effectiveness of signage in creating awareness of the technology or drawing customers' attention to the specific SCG-rebated washer
- Satisfaction with CWDCW and features (e.g., perception of differences in washer performance including treatment and cleanliness of clothes)
- Participant demographics

Please note that this survey is not designed to be used for impact assessment, such as developing a net-to-gross ratio for the measure. It is meant to provide a preliminary understanding of the influence of the rebate, among other factors and features of the machine, in the adoption of the technology

Surveys will be 10-15 minutes long depending on customers' responses. The survey will not be more than 15 minutes long to minimize customer burden. Participants will be sampled from SCG's participant tracking database. There is not an incentive for completing the survey.

C.2 SCREENER

Hello, my name is [INSERT NAME] with Leede Research. I am calling on behalf of SoCalGas [IF NEEDED: Southern California Gas Company]. We are conducting a study about the top-loading Whirlpool clothes washer you recently purchased.

Before we begin the survey, I need to ask a few questions about your household to see if you qualify. The survey will take about 15 minutes to complete.

SC1. Are you, or is anyone in your household, an employee of an electric or gas utility?

1. (Yes) [THANK & TERMINATE]
2. (No)
88. (Don't know) [THANK & TERMINATE]
99. (Refused) [THANK & TERMINATE]

SC2. [INTERVIEWER: REINTRODUCE YOURSELF IF NECESSARY] Our records indicate that you purchased a Whirlpool top-loading clothes washing machine [IF NEEDED: Model WTW4715EW]. Were you involved in your household's decision to purchase that washer? [IF NEEDED: If you purchased this washer for a rental unit or another home where you don't live, that's okay, we have a few questions about that later.]

1. (Yes)
2. (No)
88. (Don't know) [THANK & TERMINATE]
99. (Refused) [THANK & TERMINATE]

[ASK IF SC2=2]

SC3. Is there someone else in your household I could speak to who was involved with your household's decision to purchase the Whirlpool top-loading clothes washing machine?

1. (Yes)
2. (No) [THANK & TERMINATE]
88. (Don't know) [THANK & TERMINATE]
99. (Refused) [THANK & TERMINATE]

[ASK IF SC3=1]

SC3a. May I please speak to that person?

1. (Yes, available) [RETURN TO SC2]
2. (No, not available) [SCHEDULE A CALLBACK. REMEMBER TO RECORD NAME OF PERSON TO ASK FOR.]
88. (Don't know) [THANK & TERMINATE]
99. (Refused) [THANK & TERMINATE]

SC4. Are you a Southern California Gas customer?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

C.3 VERIFICATION

V1. Did you buy this clothes washer to replace an existing washing machine?

1. (Yes)
2. (No)

88. (Don't know)

99. (Refused)

[ASK IF V1=2,88]

V1a. What scenario best describes why you purchased this clothes washer?

1. To add another clothes washer to home

2. Purchased for a newly-built home

3. It's the first clothes washer in this home (IF NEEDED: Did not have an existing washer)

77. (Other – specify)

88. (Don't know)

99. (Refused)

V2. Are you a renter, owner or landlord of the home that this washing machine was purchased for?

1. (Renter)

2. (Owner)

3. (Landlord or property manager)

77. (Other – specify)

88. (Don't know)

99. (Refused)

V3. Is the washing machine currently installed in [IF V2<>3: your home] [IF V2=3: the home it was purchased for]?

1. (Yes)

2. (No)

88. (Don't know)

99. (Refused)

[ASK IF V3=2]

V4. Please tell me what happened to the clothes washer. [RECORD VERBATIM]

V5. Did you purchase your new clothes washing machine in-store or online?

1. (In-store)

2. (Online)

77. (Other – specify)

88. (Don't know)

99. (Refused)

[ASK IF POINT-OF-PURCHASE REBATE]

R1. Are you aware that you received a \$200 rebate or discount for this washing machine from SoCalGas [IF NEEDED: Southern California Gas Company]?

1. (Yes)

2. (No)

88. (Don't know)

99. (Refused)

[ASK IF MAIL-IN REBATE]

R2. Do you recall submitting a mail-in rebate for this clothes washer?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

C.4 RESEARCH PROCESS

P1. I'd like you to think back to the time when you were deciding to buy a new clothes washing machine. What motivated you to look for a new washing machine? [DO NOT READ; MULTIPLE SELECT]

1. [DO NOT SHOW IF V1a=1,2,3] (Previous washing machine broken)
2. [DO NOT SHOW IF V1a=1,2,3] (Previous washing machine working poorly)
3. [DO NOT SHOW IF V1a=1,2,3] (Previous washing machine was old)
4. [SHOW IF V1a=2,3,77] (New house/new apartment)
5. [SHOW IF V1a=1,77] (Wanted an additional clothes washer for home)
6. (Wanted to save energy)
7. (Wanted to save water)
8. (A discount/rebate was available for new washing machine)
77. (Other – specify)
88. (Don't know)
99. (Refused)

P2. Did you do any research on washing machines prior to [IF V5<>2: visiting a store to purchase a machine] [IF V5=2: Purchasing a machine online]?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

P5. Where did you first learn about the Whirlpool clothes washer?

1. In an appliance or retail store
2. Online
3. Through friends, family neighbor or coworker
4. Saw an ad or flyer in the mail or newspaper
77. (Other – specify)
88. (Don't know)
99. (Refused)

[ASK IF V5=2 & P5<>1]

P10. Did you look at clothes washers in a store before purchasing online?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

[ASK IF V5=2 OR P2=1 OR P5=2]

P6. Can you recall if you saw the washing machine you purchased on a specific website? IF so, which? [DO NOT READ; MULTIPLE SELECT]

1. (SoCalGas website)
2. (Whirlpool website)
3. (Howards.com)
3. (Amazon.com)
4. (BestBuy.com)
5. (PacificSales.com)
6. (Idlers.net)
7. (Warehouse Discount Center – wdcappliances.com)
8. (Sears.com)
9. (Lowe's.com)
10. (HomeDepot.com)
77. (Other – Specify)
88. (Don't Know/Do not recall)
99. (Refused)

P7. I'm going to read a list of factors that you may have considered when deciding to purchase the Whirlpool machine. Please tell me which factors were important in your decision. [ROTATE 1-7; multiple response up to 4]

1. Price
2. Washing machine size/capacity
3. Brand/manufacturer
4. Top-loading
5. Having an agitator [IF NEEDED: the part that sticks up in the middle of the basket]
6. Water use
7. Energy use

- 77. ...or something else? (Specify)
- 88. (Don't Know)
- 99. (Refused)

[ASK IF P7 Response #1 < 88]

P8a. On a scale of 1-5 where 1 is not important and 5 is very important, how important was <P7_R1> in your decision to purchase the Whirlpool machine?

[ASK IF P7 Response #2 < 88]

P8b. On a scale of 1-5 where 1 is not important and 5 is very important, how important was <P7_R2> in your decision to purchase the Whirlpool machine?

[ASK IF P7 Response #3 < 88]

P8c. On a scale of 1-5 where 1 is not important and 5 is very important, how important was <P7_R3> in your decision to purchase the Whirlpool machine?

[ASK IF P7 Response #4 < 88]

P8d. On a scale of 1-5 where 1 is not important and 5 is very important, how important was <P7_R4> in your decision to purchase the Whirlpool machine?

[ASK IF P7=6]

P9. You mentioned that you considered water use in your decision to purchase the Whirlpool machine. Can you tell me how the Whirlpool machine's water use compared to other machines? [IF NEEDED: Do you think it saves water compared to other top-loading machines? Compared to front-loading machines? Compared to Energy Star?] [RECORD VERBATIM]

C.5 RETAIL SHOPPING PROCESS

[SKIP SECTION IF V5=2 & P10=2,88,99]

My next set of questions is about what you did in an appliance or retail store before buying this clothes washer.

S1. While you were in the store, did you remember seeing any flyers, signs, posters, or stickers about the \$200 rebate offered by SoCalGas for the Whirlpool top-loading clothes washing machine?

- 1. (Yes)
- 2. (No)
- 88. (Don't know)
- 99. (Refused)

S2. Do you remember seeing any flyers, signs, posters, or stickers about the features of the Whirlpool machine?

- 1. (Yes)
- 2. (No)
- 88. (Don't know)

99. (Refused)

S3. Did you speak to a sales associate in the store where you purchased your clothes washing machine?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

[IF S3 = 1]

S4. Did the sales associate provide you with any information about the Whirlpool top-loading clothes washing machine?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

[IF S4=1]

S5. I'm going to read a list of features of the Whirlpool top-loading clothes washing machine you may have discussed with the sales associate. Please tell me if you remember discussing any of these features... [ROTATE 1-7; READ ALOUD; MULTIPLE SELECT]

1. The washer uses cold water for five out of six washing machine settings
2. The washer will help you save natural gas
3. The washer has a deep water wash cycle which uses extra water to provide a deeper clean
4. The washer has a Heavy Duty setting which allows you to wash your clothes in warm water
5. The washer has a smooth basket to prevent clothes from snagging
6. SoCalGas is offering a \$200 rebate for the Whirlpool clothes washer
77. (Other - specify)
88. (Don't know)
99. (Refused)

[IF S4=1]

S6. On a scale from 1 to 5 where 1 is not very influential and 5 is very influential, how influential was the information provided by the sales associate in your decision to purchase the Whirlpool top-loading clothes washing machine? [RECORD 1-5, DON'T KNOW, REFUSED]

[IF S1=1 OR S2=1]

S7. On a scale from 1 to 5 where 1 is not very influential and 5 is very influential, how influential was the information on flyers, signs, posters or stickers in your decision to purchase the Whirlpool top-loading clothes washing machine? [RECORD 1-5, DON'T KNOW, REFUSED]

C.6 SOCALGAS REBATE

[SKIP IF R1=2, 98, 99 OR R2 = 2, 98, 99]

R3. We talked earlier about the \$200 rebate that SoCalGas provided for your washer. How did you learn about the rebate or discount for this washing machine? Did you learn about it...[ROTATE 1-5; MULTIPLE SELECT]

1. From a sales associate
2. Through signs/advertising you saw in the store
3. Online
4. Through ads or flyers in the mail or newspaper
5. From friends, family or a neighbor
77. Or, somewhere else? (specify)
88. (Don't know)
99. (Refused)

[ASK IF R3=3]

R4. Where did you learn about the rebate online? [ROTATE 1-5; MULTIPLE SELECT] [DO NOT READ LIST]

1. (An appliance or Big Box store website)
2. (The SoCalGas website)
3. (The SoCalGas Facebook page)
4. (Online advertising)
5. (Consumer Reports)
77. (Other – specify)
88. (Don't know)
99. (Refused)

[ASK IF R3=4]

R5. What kind of advertising did you see? [ROTATE 1-5; MULTIPLE SELECT] [DO NOT READ LIST]

1. (Flyers or other mailing from a retail store)
2. (Bill insert or mailing from SoCalGas)
3. (TV, radio or newspaper advertising from a retail store)
4. (Online advertising)
77. (Other – specify)
88. (Don't know)
99. (Refused)

[SKIP IF R1=2, 98, 99 OR R2 = 2, 98, 99]

R8. On a scale from 1 to 5 where 1 is not very influential and 5 is very influential, how influential was the rebate or discount in your decision to purchase the Whirlpool top-loading clothes washing machine? [RECORD 1-5, DON'T KNOW, REFUSED]

C.7 PRICE SENSITIVITY

[Generate a variable called "Rebate Aware" if R1=1 OR R2=1, use variable in read-ins for PS3-PS6]

PS1. What price range were you looking for washing machines in? [RECORD NUMERIC RANGE]

PS2. What was the final price of the clothes washer, after the rebate? [NUMERIC OPEN RESPONSE] (PROMPT FOR A ROUGH ESTIMATE IF THEY DON'T KNOW – Reasonable range is \$250-\$500. The typical price with the rebate is about \$350.)

PS3. Do you think that you would have purchased the same washing machine if [IF REBATE AWARE: there were no rebate, and] the machine cost [PS2+200]?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

[ASK IF PS3=2,88,99]

PS4. Do you think that you would have purchased the same washing machine if [IF REBATE AWARE: the rebate was \$50, and] the machine cost [PS2+150]?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

[ASK IF PS4=2,88,99]

PS5. Do you think that you would have purchased the same washing machine if [IF REBATE AWARE: the rebate was \$100, and] the machine cost [PS2+100]?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

[ASK IF PS5=2,88,99]

PS6. Do you think that you would have purchased the same washing machine if [IF REBATE AWARE: the rebate was \$150, and] the machine cost [PS2+50]?

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

C.8 CLOTHES WASHING MACHINE BEHAVIOR

[SKIP SECTION FOR LANDLORDS – IF V2=3]

Now I would like to talk to you about how you use your new Whirlpool clothes washing machine.

B1. Approximately how many loads of laundry do you wash in your Whirlpool clothes washer in a typical week?

1. Less than 1
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. 7
9. 8
10. 9
11. 10
12. More than 10
88. (Don't know)
99. (Refused)

B2. I am going to read a list of settings on your Whirlpool clothes washing machine. Please tell me if you have used these settings on your washing machine. Have you used... [ROTATE 1-6, READ ALOUD, MULTIPLE SELECT]

1. Normal
2. Delicate
3. Casual
4. Bulky items/sheets
5. Deep water wash [IF NEEDED: setting that uses more water]
6. Heavy duty [IF NEEDED: hot water setting]
77. (Other-specify)
88. (Don't know)
99. (Refused)

[IF B2=5]

B3. Approximately what percentage of loads do you wash with the "Deep water wash" cycle? [RECORD PERCENT 0-100, 888=DON'T KNOW, 999=REFUSED]

[IF B2=6]

B4. Approximately what percentage of loads do you wash with the "Heavy Duty" cycle? [RECORD PERCENT 0-100, 888=DON'T KNOW, 999=REFUSED]

B5. About what percentage of loads do you wash in cold water? [RECORD PERCENT 0-100, 888=DON'T KNOW, 999=REFUSED]

B6. Thinking about [IF V1=1: your previous washing machine] [IF V1<>1: how you did laundry before you got this machine], about what percentage of loads did you wash in cold water [IF V1=1: with your previous machine] [IF V1<>1: previously]? [RECORD PERCENT 0-100, 888=DON'T KNOW, 999=REFUSED]

[ASK IF B5=888,999 OR B6=888,999]

B7. Would you say you...

1. Wash clothes in cold water less frequently now than you did before you got the Whirlpool machine?
2. Wash clothes in cold water more frequently now than you did before you got the Whirlpool machine?
3. Wash clothes in cold water about the same amount
88. (Don't know)
99. (Refused)

[ASK IF (B5<888 & B6<888 & B5<>B6) OR B7=1,2]

B8. Why do you wash your clothes in cold water [IF B5>B6 OR B7=2: "More now"] [IF B5<B6 OR B7=1: "Less now"] than you did [IF V1=1: with your previous washing machine] [IF V1<>1: previously]?

1. (Record verbatim)
88. (Don't know)
99. (Refused)

C.9 PERCEPTION OF COLD WATER WASHING

C1. When you purchased the machine, were you aware that most of the settings use cold water for all wash cycles? (IF NEEDED: the only setting that does not use cold water for the wash cycle is "heavy duty")

1. (Yes)
2. (No)
88. (Don't know)
99. (Refused)

C2. What do you think the benefits of washing your clothes in cold water are? [DO NOT READ; ROTATE 1-7; MULTIPLE SELECT]

1. (Saves energy)
2. (Preserves color in clothing)
3. (Doesn't shrink clothes)
4. (Better for clothes in general)
5. (Cleans clothes effectively)

- 6. (Lower energy bills)
- 7. (Better for the environment)
- 66. (No benefits)
- 77. (Other – specify)
- 88. (Don't know)
- 99. (Refused)

C3. What do you think the drawbacks of washing your clothes in cold water are? [DO NOT READ; ROTATE 1-6; MULTIPLE SELECT]

- 1. (Does not remove stains)
- 2. (Does not remove odors)
- 3. (Does not kill bacteria)
- 4. (Does not clean dirtier/more soiled clothes effectively)
- 5. (Does not clean whites effectively)
- 6. (Does not clean clothes effectively in general)
- 66. (No drawbacks)
- 77. (Other - specify)
- 88. (Don't know)
- 99. (Refused)

C.10 LAUNDRY DETERGENT BEHAVIOR

[SKIP SECTION FOR LANDLORDS – IF V2=3]

I'd like to ask you a few questions about the laundry detergent that you use with your Whirlpool clothes washing machine.

L1. Do you use the same laundry detergent with your new Whirlpool clothes washing machine as you did with your previous washing machine?

- 1. (Yes)
- 2. (No)
- 88. (Don't know)
- 99. (Refused)

L2. Is the laundry detergent that you are currently using a cold water detergent? [IF NEEDED: Is your laundry detergent designed to be used when washing your laundry on cold water?]

- 1. (Yes)
- 2. (No)
- 88. (Don't know)
- 99. (Refused)

C.11 OVERALL SATISFACTION

Now I'd like to talk to you about your overall satisfaction with your new Whirlpool clothes washing machine.

SAT1. On a scale from 1 to 5, where 1 is very dissatisfied and 5 is very satisfied, how satisfied are you with your Whirlpool top-loading clothes washing machine? [RECORD 1-5, DON'T KNOW, REFUSED]

[ASK IF SAT1<4]

SAT2. What do you dislike about your new Whirlpool clothes washing machine? [DO NOT READ; MULTIPLE SELECT]

1. (Difficult/confusing to use)
2. (Fewer/worse settings)
3. (Does not clean clothes effectively)
4. (Noisy)
5. (Do not like the machine's aesthetic appearance)
6. (Takes too long to clean clothes)
7. (Cannot clean enough clothes per load)
8. (Washing machine size is too large)
66. (Nothing)
77. (Other – specify)
88. (Don't know)
99. (Refused)

SAT3. Is there any aspect of the process of shopping for, purchasing or receiving the financial incentive for the Whirlpool top-loading clothes washing machine that could be improved? If so, please describe. [RECORD VERBATIM]

C.12 DEMOGRAPHICS

We are almost done; I just have a few final questions.

[SKIP D1-D8 FOR LANDLORDS – IF V2=3]

D1. Including yourself, how many people live in your household full time (full-time year-round)?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8

- 9. 9
- 10. 10 or more
- 88. (Don't know)
- 99. (Refused)

[ASK IF D1>1]

D2. How many children under the age of 18 live in your household?

- 1. None
- 2. 1
- 3. 2
- 4. 3
- 5. 4
- 6. 5
- 7. 6
- 8. 7
- 9. 8
- 10. 9
- 11. 10 or more
- 88. (Don't know)
- 99. (Refused)

D3. Which of the following categories includes your age? Please tell me when I get to your range.

- 1. 18 to 24 years
- 2. 25 to 44 years
- 3. 45 to 64 years
- 4. 65 years and over
- 88. (Don't know)
- 99. (Refused)

D5. What language is spoken most in your home? [DO NOT READ LIST]

- 1. (English)
- 2. (Spanish)
- 3. (Mandarin)
- 4. (Cantonese)
- 5. (Vietnamese)
- 77. (Other – specify)
- 88. (Don't know)
- 99. (Refused)

D6. What is the highest level of education that you have completed?

- 1. Less than high school
- 2. High school graduate

3. Some college, no degree
4. Associate's degree
5. Bachelor's degree
6. Master's degree
7. Doctoral degree
8. Other professional degree
88. (Don't know)
99. (Refused)

D7. Which of the following categories best represents your total annual household income before taxes? Please tell me when I get to your range.

1. Less than \$25,000
2. \$25,000 - \$34,999
3. \$35,000 - \$49,999
4. \$50,000 - \$74,999
5. \$75,000 - \$99,999
6. \$100,000 - \$149,000
7. \$150,000 or over
88. (Don't know)
99. (Refused)

[SKIP IF D7=6,7 or (D7=5 & D1<7)]

D8. Does your household receive public assistance or subsidies for housing?

1. (Yes)
2. (No)
3. (Other – Specify)
88. (Don't know)
99. (Refused)

[ASK IF V2=3]

D9. Is the unit or building where the washing machine was installed occupied by tenants who receive public assistance or subsidies for housing?

1. (Yes)
2. (No)
77. (Other – Specify)
88. (Don't know)
99. (Refused)

[SKIP IF V2=1]

D10. Does [IF V2=2,77: your home] [IF V2=3: the home where the washer is installed] have a gas or electric water heater?

1. Gas

- 2. Electric
- 3. (Other – specify)
- 88. (Don't Know)
- 99. (Refused)

That's all of the questions I have for you. On behalf of SoCalGas, thank you very much for your time.

D. NON-PARTICIPANT SURVEY INSTRUMENT

SoCalGas Cold Water Default Clothes Washer Market Study

Non-Participant Online Survey Instrument

Final, February 4, 2016

D.1 INTRODUCTION

ILLUME is working with YouGov to complete 200 online surveys with SCG customers who have purchased a washing machine in the past 12 months or are planning to purchase a washing machine in the next 12 months. These surveys will shed light on customer purchasing decisions, perceptions related to cold water washing, and customer clothes washing behaviors. Specifically, we will investigate the following topics:

- The process of a typical shopper looking for a clothes washer
- Desired washing machine features
- Clothes-washing behaviors
- Perceptions of cold water washing effectiveness and impacts
- Knowledge and perception of CWDCW machines
- Participant demographics

The survey will be primarily targeted to YouGov panel members who are homeowners in SCG territory. Due to the screening criteria of purchases in the past 12 months or upcoming 12 months, YouGov may need to recruit some panelists from a partner organization to achieve 200 completes in SCG territory.

YouGov is a national market research and polling company that maintains a 1.2 million household panel across the US, with particularly strong coverage in California. The YouGov sampling frame has been designed to match the population in the American Community Survey conducted by the US Census, and has been augmented with information from voter and consumer databases. We will match and weight our sample to the homeowner population to ensure that we can recruit a diverse group of SCG homeowners for this survey.

Surveys will be 10-15 minutes long depending on customers' responses. The survey will not be more than 15 minutes long to minimize customer burden. There is not an incentive for completing the survey.

D.2 SURVEY INTRODUCTION

This survey is about (a) shopping for, and purchasing, new clothes washing machines, and (b) your household's clothes washing behaviors. This survey typically takes 10-15 minutes to complete.

D.3 BASIC SCREENING

- S1. Please enter your ZIP code.
- S2. Are you, or is anyone in your household, an employee of an electric or gas utility?
1. Yes [THANK & TERMINATE]
 2. No
 88. Don't know

- S3. Have you purchased a clothes washing machine in the past year?
1. Yes
 2. No
 88. Don't know

[ASK IF S3=2, 88]

- S4. Do you expect to purchase a clothes washing machine in the next 12 months?
1. Yes
 2. No [THANK & TERMINATE]
 88. Don't know [THANK & TERMINATE]

[CONTINUE IF S3=1 OR S4=1, else terminate]

- S5. What scenario best describes why you [IF S3=1: purchased, IF S4=1: are planning to purchase] a clothes washer?
1. To replace an existing clothes washer
 2. For a home with no previous clothes washer
 3. To add another clothes washer to home
 77. Other

- S6. Are you a renter, owner or landlord of the home that **[IF S3=1: this washing machine was purchased for]** **[IF S4=1: you are planning to purchase a washing machine for?]**
1. Renter
 2. Owner
 3. Landlord or property manager
 77. Other (specify)

D.4 RESEARCH PROCESS

P1. Below is a list of factors that you [IF S3=1: may have considered, IF S4=1: may consider] when deciding which washing machine to purchase. Please rate how important each factor [IF S3=1: was; IF S4=1: will be] in your purchase decision. [ROTATE]

| | Not at all important (1) | (2) | (3) | (4) | Extremely important (5) |
|--------------------------------------|--------------------------|-----|-----|-----|-------------------------|
| Price | | | | | |
| Size/capacity | | | | | |
| Brand/manufacturer | | | | | |
| Top-loading vs. front-loading | | | | | |
| Load settings (type and temperature) | | | | | |
| Water use | | | | | |
| Energy efficiency | | | | | |

P2. Are there any other factors you [IF S3=1: considered when you purchased a new washer; if S4=1: might consider when purchasing a new washer?]

P3. What is the price range of the washing machine [IF S3=1: you purchased, IF S4=1: you are planning to purchase]? [MULTIPLE SELECT]

1. \$250-\$499.99
2. \$500-\$749.99
3. \$750-\$999.99
4. \$1000-\$1249.99
5. \$1250-\$1499.99
6. \$1500-\$1999.99

P4. What kind of washing machine [IF S3=1: did you purchase, IF S4=1: are you planning to purchase]?

1. Front-loading
2. Top-loading (also known as vertical axis)
3. [IF S4=1] No specific machine type

P5. [IF S3=1: Did you purchase, IF S4=1: Are you planning to purchase] an ENERGY STAR certified washing machine?

1. Yes
2. No
88. Not sure

D.5 CLOTHES WASHING BEHAVIOR

[SKIP SECTION IF S6=3]

B1. Approximately how many loads of laundry do you wash in your clothes washer in a typical week?

1. Less than 1
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. 7
9. 8
10. 9
11. 10
12. More than 10

B2. What water temperature do you typically use to wash the following types of loads?
[ROTATE]

| | Hot water | Warm water | Cool or cold water | Don't wash this type of laundry |
|---|-----------|------------|--------------------|---------------------------------|
| a. Linens (such as sheets and towels) | | | | |
| b. Colored clothing | | | | |
| c. White/light-colored clothing | | | | |
| d. Synthetic fabric (e.g., polyester; exercise clothes) | | | | |
| e. Heavily-soiled items | | | | |
| g. Delicates | | | | |

B3. Approximately what percentage of loads do you wash with the following temperature settings? Please ensure your responses add to 100%. [RECORD PERCENT 0-100, ANSWER SHOULD ADD TO 100%]

- a. Hot water _____
- b. Warm water _____
- c. Cold / cool water _____

B4. Is the laundry detergent that you are currently using: [MULTIPLE RESPONSE]

1. High-efficiency detergent (designed to be used in high-efficiency washing machines)
2. Cold water detergent (designed to be used when washing your laundry in cold water)?
3. Neither
88. Not sure

D.6 PERCEPTION OF COLD WATER WASHING

[SKIP SECTION IF S6=3]

C1. In your opinion, how important is each factor in getting your clothes clean? [ROTATE]

| | Not at all important (1) | (2) | (3) | (4) | Extremely important (5) |
|---|--------------------------|-----|-----|-----|-------------------------|
| a. Water temperature | | | | | |
| b. Having the right amount of water | | | | | |
| c. Laundry detergent | | | | | |
| e. Load setting (e.g., delicate, normal, heavy-duty) | | | | | |
| f. Mechanical action of washing machine (e.g., agitation, spinning) | | | | | |

[ASK IF B3A>0 OR B3A>0]

C2. What do you like about washing clothes in warm or hot water? [MULTIPLE SELECT]

1. I believe it removes stains better than cool or cold water
2. I believe it will remove germs better than cool or cold water
77. Another reason (specify)

[ASK IF B3C>0]

C3. What do you like about washing clothes in cool or cold water? [MULTIPLE SELECT]

1. I believe it preserves my clothes more than warm or hot water
2. I believe it saves energy compared with warm or hot water
77. Another reason (specify)

D.7 AWARENESS OF COLD WATER WASHERS

A1. The next set of questions is about a specific-type of clothes washer technology called cold water clothes washers:

- Cold water clothes washers are specially engineered to wash laundry in cold water.
- The majority of washing machine settings use cold water, though a warm water setting is available if needed.
- These washing machines save energy by avoiding the energy needed to heat water, which accounts for 90% of the energy used by clothes washers.

A2. Had you heard of cold water clothes washers prior to taking this survey?

1. Yes
2. No

88. Not sure

[ASK IF S3=1]

A3. Is the clothes washer you recently purchased a cold water clothes washer?

- 1. Yes
- 2. No
- 88. Not sure

A4. Here is a description of a cold water clothes washer manufactured by Whirlpool. Please take a moment to read the description, and then rate things you find appealing or unappealing about the machine.



3.5 cu. ft. High-Efficiency Top Load Washer with Clean Washer cycle with affresh® Washer cleaner

★★★★☆ 3.5
22 Reviews | Write a Review

AVAILABLE COLOR OPTIONS



White - WTW4715EW

Chat Print

BASE MSRP
\$549.00



CHOOSE A COLOR

White

QUANTITY:

1

Where to Buy

Add to Compare

OVERVIEW FEATURES SPECIFICATIONS RATINGS & REVIEWS MANUALS RELATED MODELS & ACCESSORIES

3.5 cu. ft. High-Efficiency Top Load Washer with Clean Washer cycle with affresh® Washer cleaner



Keeping it clean is a task this high-efficiency washer takes seriously. An HE agitator with fabric softener cap provides high-efficiency cleaning and dispensing at just the right time. And with 3.5 cu. ft. capacity, it has enough space to wash nearly two baskets of laundry in one load. This large capacity top load washer takes on dirt with the Deep Water Wash cycle, helping to break down loose soils with more water and thorough cleaning so stains don't stick around, while the Clean Washer cycle with affresh® Washer cleaner deep fills the washer to clean areas that aren't normally reached by low-water wash cycles to help eliminate odor-causing residue in this high-efficiency washer.

Why You'll Love It...



HE Agitator with Fabric Softener Cap

Get better, high-efficiency cleaning and fabric softener dispensing at just the right time with the HE agitator with fabric softener cap.



Cold-Water Wash Resource Saving Technology

This washer uses a cold water wash setting for most cycles to help save energy and protect fabrics from heat damage, providing optimal fabric care for the life of your clothes.



Deep Water Wash Cycle

Take on dirt with the Deep Water Wash cycle that helps break down loose soils using more water and thorough cleaning so stains don't stick around.



SHARE



SHARE



| | Appealing | Unappealing | Doesn't matter to me |
|---|-----------|-------------|----------------------|
| A. Design | | | |
| B. 3.5 Cubic Foot capacity | | | |
| C. High-efficiency agitator | | | |
| D. Cold water wash resource-saving technology | | | |
| E. Deep-water wash cycle | | | |
| F. Price (\$550) | | | |

[SKIP IF A3=1]

A5. Based on this information, how likely are you to select a cold water clothes washer for your next washing machine purchase?

1. Very likely
2. Somewhat likely
3. Neutral
4. Somewhat unlikely
5. Very unlikely

[ASK IF A5=4, 5]

A6. Why wouldn't you consider a cold water clothes washer for your next purchase?

D.8 SCG REBATE

R1. SoCalGas offers a \$200 rebate for a Whirlpool cold water washing machine, which would be deducted from the typical retail price of about \$520.

R2. Prior to taking this survey, were you aware that SoCalGas is offering a \$200 rebate for a Whirlpool top-loading cold water clothes washer?

1. Yes
2. No

[ASK IF R2=2 & S3=1]

R3. If you had known about this rebate during the shopping process, do you think the rebate would have influenced your purchase decision?

1. Yes
2. No
88. Not sure

[ASK IF R2=2 & S4=1]

R4. Does the availability of the rebate increase your interest in the Whirlpool cold water clothes washer?

1. Yes
2. No

88. Not sure

D.9 DEMOGRAPHICS

[SKIP D2-D7 IF S6=3]

We are almost done; we just have a few final questions.

D2. Including yourself, how many people live in your household full time (full-time year-round)?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. 10 or more

[ASK IF D2>1]

D3. How many children under the age of 18 live in your household?

1. 0
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. 7
9. 8
10. 9
11. 10 or more

D4. Which of the following categories includes your age?

1. 18 to 24 years
2. 25 to 34
3. 45 to 54 years
4. 55 to 64 years
5. 65 years and over

D5. What language is spoken most in your home?

1. English
2. Spanish
3. Mandarin
4. Cantonese
5. Vietnamese
77. Other – specify

D6. What is the highest level of education that you have completed?

1. Less than high school
2. High school graduate
3. Some college, no degree
4. Associate's degree
5. Bachelor's degree
6. Master's degree
7. Doctoral degree
8. Other professional degree

D7. Which of the following categories best represents your total annual household income before taxes? Please tell me when I get to your range.

1. Less than \$25,000
2. \$25,000 - \$34,999
3. \$35,000 - \$49,999
4. \$50,000 - \$74,999
5. \$75,000 - \$99,999
6. \$100,000 - \$149,000
7. \$150,000 or over

[ASK IF S6=3]

L1. Is the unit or building where the washing machine [**IF S3=1**: you purchased] [**IF S4=1**: you are planning to purchase] occupied by tenants who receive public assistance or subsidies for housing?

1. Yes
2. No
88. Not sure

That's all of the questions I have for you. On behalf of SoCalGas, thank you very much for your time.