

Setting the Foundation for Strong Program Design and Evaluation using Descriptive Segmentation

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ABSTRACT

Descriptive segmentation is an often overlooked, but critical step in understanding customers before designing energy efficiency programs and the associated marketing strategies aimed at driving participation in those programs. Segmenting the market before programs are designed provides the opportunity to build, track, and assess the effectiveness of the gas portfolio in a unique way. Programs designed with an accurate description of the customer in mind can more effectively market to that customer and track success with different customer segments over time.

This paper presents an approach to descriptive segmentation using qualitative methods to explore how people think, feel, and talk about their needs in the home, natural gas services, and natural gas appliances and products prior to a more traditional segmentation survey. Qualitative research included video-enabled interviews (n=19) preceded by a “homework” assignment. The goals of the pre-interview homework were to get participants thinking about their homes and how they use natural gas and to provide valuable background information to the interviewer.

Findings from the qualitative research were also used to guide development of the segmentation survey which was fielded among 1,600 customers of four natural gas utilities in the northwest. We used hierarchical cluster analysis to segment customers with similar response patterns. This paper provides high-level descriptions of the natural gas customer segments identified and provides examples of how the segmentation study results are being used in additional research and program design.

Introduction and Background

The Northwest Energy Efficiency Alliance (NEEA) contracted Illume Advising, LLC (ILLUME) to characterize the Northwest’s natural gas consumer to support NEEA in natural gas-focused market transformation initiatives. The goal of the study was to understand and personify consumer segments to help develop and drive energy efficiency programs to foster market transformation in the region. The full research report on which this paper is based was very graphical in nature to present large amounts of information in a way that was easy to read and understandable. This paper balances the use of text and samples of graphics and other design elements from the full market research report. The appendix includes the more graphically-driven version of the segment overview for the segment most likely to invest in natural gas products as an example of using graphics to make the research more accessible.

Methodology

This study examined the behaviors of natural gas consumers in the Northwest with a focus on consumers served by four natural gas utilities: Avista Utilities, Cascade Natural Gas Corporation, Northwest Natural, and Puget Sound Energy. The natural gas consumers surveyed reside in predominantly two states in the northwest, namely Washington (55%) and Oregon (41%). Just four percent live in Northwestern Idaho. ILLUME conducted three discrete research and data collection tasks prior to defining segments:

- **Natural Gas Study Literature Review** – A literature review of regional natural gas end use market penetration, saturation studies, potential studies, and energy efficiency customer segmentation studies.
- **Web-Facilitated Ethnographic Research** - ILLUME conducted an online ethnographic research study with 19 natural gas consumers. Prior to the interview, participants completed a “homework” assignment. The intent of the pre-interview homework was to get participants thinking about their homes and how they use natural gas and to provide valuable background information to the interviewer. Participants wrote about what they like and don’t like in their homes, identified appliances or home furnishings that bring them comfort and completed a fill in the blank letter to natural gas. During the online interviews, ILLUME researchers engaged in a home “tour” to discuss barriers and drivers to natural gas service, appliances in the home, and conservation and efficiency measures.
- **Survey of Natural Gas Consumers** - ILLUME surveyed natural gas consumers living within NEEA’s natural gas sponsors’ territories. The goal of this study was to understand consumers’ preferences for natural gas service to their households, appliances, and equipment as well as barriers and drivers to adoption of energy efficiency measures. Specific natural gas appliances and equipment asked about in the survey included heating equipment, water heaters, ranges, dryers and fireplaces. Note that the base for all percentages listed in this report is the entire sample, or the entire segment when referring to segment results.

Upon completion of the data collection, ILLUME developed the consumer segments using a three-step process. The first step in developing the segments was to perform factor analysis to reduce the number of questions available for analysis and create indices for similar topics such as past and planned purchases and attitudes toward natural gas. Then, we identified key outcomes (attitudes, behaviors or purchases) in the survey that NEEA cared most about, and estimated classification and regression trees for each of those discrete outcomes to understand which survey variables and factors were most predictive of key outcomes. Lastly, we used hierarchical clustering analysis to group consumers with similar response patterns to the questions and factors that surfaced from the decision tree analysis. Specifically, we clustered using the Gower dissimilarity (distance measure) and Ward’s linkage method, and tested the stability of different clustering solutions before settling on the final four consumer segments.

Results

Who is the Natural Gas Consumer?

Overall, the natural gas consumers in the Northwest tend to live in two-person households (79%) and most (68%) are married. They also tend to live in middle-income households (earning between \$40,000 and \$79,999 per year) and nearly half (44%) have attained a bachelor’s degree or more education. Forty percent have a very strong preference for natural gas, indicating they would not have purchased their home if it did not have natural gas. More than three-quarters of natural gas consumers agree (rated a 4 or 5 on a 5-point scale where five is strongly agree) that natural gas is more affordable and more comfortable than other fuels (Figure 1).

NATURAL GAS IS....

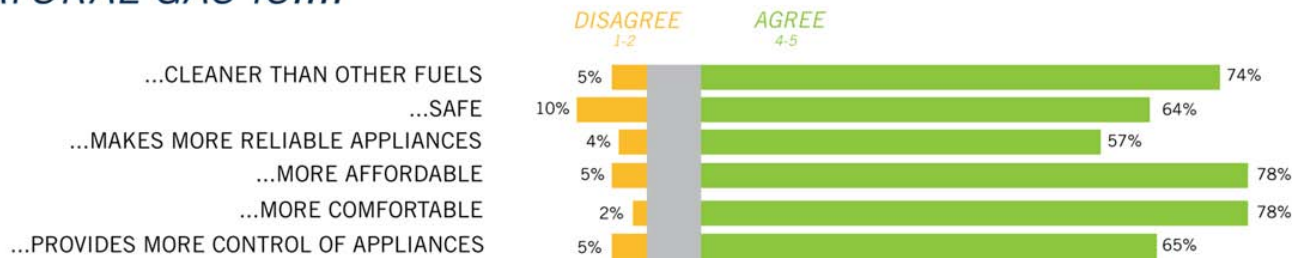


Figure 1. Key Characteristics of Doug, The Natural Gas Pragmatist

Of the consumers surveyed, 78% use natural gas for their primary heating, 70% use it for water heating, 44% have a gas range, 43% have a natural gas fireplace and 16% for their clothes dryer. Interestingly, natural gas consumers report making a greater effort to reduce their electricity costs (58% report making a moderate to great effort) than their natural gas costs (49%), suggesting that the low cost of natural gas may present a barrier to efficiency investments. As a result, messages focusing on the drivers to efficiency improvements such as quality, durability and longevity that are not directly aimed at reducing the cost of service may be more appealing to these consumers.

How do Natural Gas Consumers Shop for New Equipment?

The majority of natural gas consumers begin their shopping online for all end use technologies (64%). However, they do report key differences in shopping behavior depending on the equipment. Natural gas consumers report relying on contractors and installers (57%) when purchasing space or water heating equipment but for end uses that they interact with daily, “seeing it for themselves” (56%) was an important stage in the decision-making process. Twenty-eight percent consider the sales associate an important source of information when shopping for a new natural gas appliance or equipment.

Who are the Natural Gas Consumer Segments?

ILLUME’s research found four key natural gas consumer segments, each with their own specific drivers and barriers to high efficiency natural gas product adoption. ILLUME then created personas to bring the segments to life and illustrate the “voice” of a single segment. The “voices” are creative renderings of the personas based on actual consumer comments but are an amalgamation of sentiments and ideas expressed throughout the study. Individuals in the segments can be male or female, but persona voices are gendered to help bring them to life. The four natural gas consumer segments are: Doug, the Natural Gas Pragmatist (30%), Kyle, the New Urban Traditionalist (6%), Erica, the Middle American (9%), and Rose, the Day-to-Day (55%).

Among these segments, Doug is the most avid consumer of natural gas and the most likely to invest in higher quality products. For these reasons, Doug is an optimal target for high efficiency natural gas initiatives followed next by Kyle, who will seek out higher quality water heating and cooking equipment. Both Erica and Rose are convenience-driven shoppers, will make easy choices for their homes and may be best described as your “Majority,” “Late Majority,” and “Laggard” segments. Thus, we recommend targeting them in the later stages of efficient natural gas product initiatives.

Table 1 summarizes our key findings and recommendations for each segment.

Table 1. Natural Gas Consumer Segments



**DOUG:
THE NATURAL GAS
PRAGMATIST**



**KYLE:
THE YOUNG URBAN
TRADITIONALIST**



**ERICA:
THE MIDDLE
AMERICAN**



**ROSE:
THE DAY-TO-DAY**

	DOUG: THE NATURAL GAS PRAGMATIST	KYLE: THE YOUNG URBAN TRADITIONALIST	ERICA: THE MIDDLE AMERICAN	ROSE: THE DAY-TO-DAY
TENDS TO BE...	Mostly male 40's-mid 60's, high income, conservative	Mostly male Late 20's early 30's, moderate income, liberal	Mostly female 30-40's, second highest income, liberal	Male/female 50's+, lower income, conservative
TARGET WITH ...	All natural gas initiatives, including higher- cost items	Ranges & water heaters, possibly new furnaces	Rangers, water heaters, and fireplaces	Water heaters
VALUES...	Quality, Reliability, & Comfort	New tech, Environment, & "Feel good" factor	Convenience, Comfort, & Ease of use	Durability, Reliability, Least cost/price
TENDS TO LIVE...	Large suburban homes, some new construction. Has a long tenure in home.	Modest first homes in urban areas. Likely to be new construction & may move soon. Lives with young kids.	Modest suburban existing homes. Lives with older kids in the home.	Small suburban and rural homes. Has lived in the home the longest (10+ years).
PREFERS NATURAL GAS BECAUSE....	Dependable Comfort Burns clean Low cost Efficient	Environment Likes the sensate benefits of cooking, hot showers	Rates NG lowest on all attributes	No fuel preference Least cost

Doug, The Natural Gas Pragmatist

"I have worked my whole life to have what I have. At this point I want to be comfortable and have peace of mind. I buy exactly what I need and I am willing to spend a little more for quality and reliability so I don't have to worry. It's called being smart with my money. That's why I love natural gas – it's dependable and keeps me comfortable. It even saves me some money. It's a no-brainer." –Doug (creative rendering drawing on qualitative and quantitative data)

Of these four segments, Doug, The Natural Gas Pragmatist is the easiest, most immediate target for efficient natural gas products as this segment is both willing to invest in home upgrades and has a vested interest in durable, high-quality, efficient equipment that has a low cost to operate. This segment is best targeted through online reviews and trade allies. This segment will likely invest in all natural gas products. Figure 2 below displays some of the key characteristics of this segment.

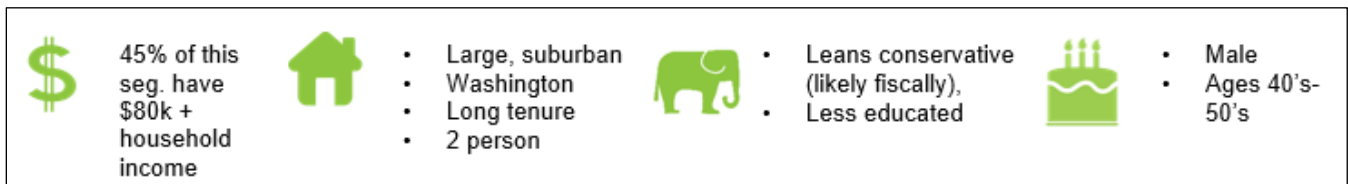


Figure 2. Key Characteristics of Doug, The Natural Gas Pragmatist

Doug...

- **Has a home that is:** large, located in a suburb, meticulously maintained, and shared with his life-long partner.
- **Buys products because:** they are well-rated, known for exceptional quality, and are made domestically or by a reputable company.
- **Prioritizes home upgrades based on:** the integrity of the home/structure, enhance craftsmanship, increased efficiency.
- **Will pay a little more for:** American made equipment, brands with a long-standing reputation, equipment known for quality and durability.
- **Likes natural gas because:** it is reliable, inexpensive, improves the efficiency of his heating and cooking, and is domestically sourced.
- **Will respond well to messages that:** speak to his desire to have high quality items that contribute to his need to care for and protect his loved ones yet provide a sound rational, payoff.
- **Feels confident in information if:** the product claims are backed by a reputable source or person.
- **Is best reached through:** contractors, home shows, Consumer Reports.

Doug's natural gas appliance journey (featured graphically in the appendix) begins before appliance failure three-quarters of the time. The main reasons Doug considers replacing equipment before failure are to avoid an emergency situation (44%), to improve energy efficiency (39%), and to improve performance (37%). This segment prefers products that are durable and will last a life time (68%) and are known for exceptional performance (55%). Doug prefers to use a contractor (65%) and the internet (61%). Words that appeal to this segment include "durable", "reliable", "a good investment" and "performance". Doug also needs to feel comfortable, informed or smart, and protected when purchasing new equipment or appliances.

Figure 3 shows key purchase triggers, important messages and the best channels for reaching Doug for each of the natural gas products featured in the survey.



Figure 3. Targeting Doug, The Natural Gas Pragmatist

The appendix includes the full segment snapshot for Doug to provide greater detail on the easiest, most immediate target for efficient natural gas products and to serve as an example of the reporting style used to convey a large amount of information in a way that can be easily understood.

Kyle, The New Urban Traditionalist

“I want to feel good in my home and have an environment for positive experiences – great meals, hot showers, beautiful to look at. We don’t have a ton of expendable income, but when I do spend my money, it’s on things that enhance the quality of my life. That’s why we pay more to live in a walkable city, we try to have products with smart designs, or spending a little more to make sure I make socially responsible purchases. Even though we might move to have more space for our growing family, it’s important that we feel like our home reflects our values and tastes. We’ll do it ourselves if that’s what it takes to have the home we want.” –Kyle (creative rendering drawing on qualitative and quantitative data)

The next greatest opportunity, Kyle, The New Urban Traditionalist, represents a younger, value-driven segment that is willing to pay more for quality products that are socially responsible and enhance the comfort and value of their home. While this is a small segment, this group will grow in importance as more people within the segment enter in to homeownership. For this reason, consider priming this market by leveraging popular DIY and design media channels while also focusing on generating word-of-mouth buzz with an emphasis on high tech measures as well as water heating and gas ranges. Figure 4 below displays some of the key characteristics of this segment.

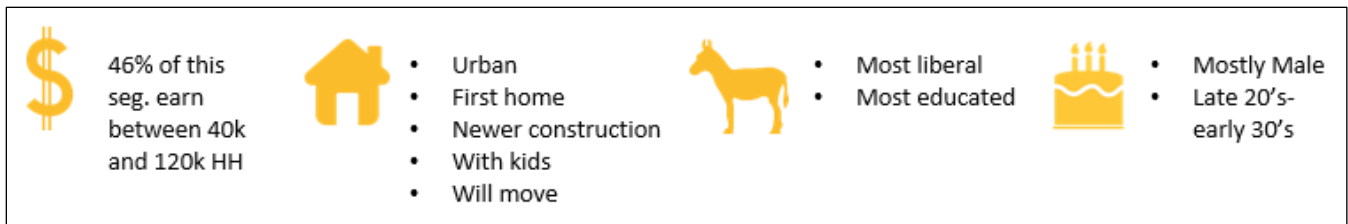


Figure 4. Key Characteristics of Kyle, The New Urban Traditionalist

Kyle...

- **Has a home that is:** modestly sized, newer construction and one he is quickly growing out of, located in an urban area. The home is smartly designed, informed by popular design and DIY sources.
- **Buys products because:** they have a simple, minimal design, are well designed, are socially responsible.
- **Prioritizes home upgrades based on:** aesthetics, the “feel” of the home, family health and safety. Increase home value, as he’s looking to sell in the near future.
- **Will pay a little more for:** cutting-edge technology, high quality and have a clear sensate benefit (such as hot showers, a nice range).
- **Likes natural gas because:** it provides greater control for his range, speedy and constant water heating as a lower GHG impact relative to electricity.
- **Will respond well to messages that:** speak to his sense of design and staying up on new technologies. That acknowledge his young family and speak to his social and environmental values.
- **Feels confident in information if:** the source is from reputable organizations, such as the utility, ENERGY STAR®, or from go-to home sources.
- **Is best reached through:** DIY resources such as design and DIY blogs, Amazon, local stores.

Kyle is far more likely than members of the other segments to replace equipment before failure, in fact, nearly all (97%) would consider replacing before failure. The primary reasons Kyle would replace equipment or appliances before they break are to increase the value of his home (32%), upgrade technology (29%), and to improve efficiency (25%). Products that appeal to this segment are durable and last a lifetime (30%), attractive and enhance the appearance of their home (24%), and are well designed and not overly complicated (24%). Kyle turns to the internet (74%) and people he knows (70%) most frequently when seeking information about major equipment and appliances in his home. Kyle is more likely than other segments to turn to his utility website, with 26% stating they use their utility website for information when making purchase decisions. Retailer websites are also popular with Kyle; 26% of this segment stated they use them for information. Kyle needs to hear words like “innovative”, “smart design”, “simple” and “environmentally friendly”. Kyle needs to feel that he is ahead of the trend, has quality products and is being socially responsible.

Figure 5 shows key purchase triggers, important messages and the best channels for reaching Kyle for each of the natural gas products featured in the survey.



Figure 5. Targeting Kyle, The New Urban Traditionalist

Erica, The Middle American

"I love my place. We live in a great neighborhood close to friends. It's an easy commuting distance from work and we are close to great schools. We're not extravagant people but we like to keep up with what's out there as long as the price is right and it's been proven to work well. I don't really care about the product details or the fuel, I just want it to get the job done and keep my life simple. Isn't that what we all want? Enough money and time to relax and do the things we love. I don't sweat the small stuff, like my energy costs. If I'm comfortable and I can afford it, we're all set." –Erica (creative rendering drawing on qualitative and quantitative data)

While more challenging, Erica, The Middle American segment, may offer wins on emergency or early appliance replacement behaviors at point of purchase by focusing on their core values: comfort, convenience, and product popularity. This segment will rely on big box stores, manufacturer specifications, and sales associates to help them decide what to purchase. Program materials should be in place to capitalize on this moment. Figure 6 shows some of the key characteristics of this segment.



Figure 6. Key Characteristics of Erica, The Middle American

Erica...

- **Has a home that is:** mid-sized to large, existing construction, located in a suburb commuting distance to "the city." Least likely to upgrade home.
- **Buys products because:** they are simple and create a more comfortable and easy life, part of popular culture/widely adopted, and proven in the marketplace, and qualify as "nice" things.

- **Prioritizes home upgrades based on:** how much they enhance comfort, are easy to use, and enhance her sense of well-being.
- **Will pay a little more for:** technologies that are “fun” and enjoyable and make her house a great place to live, and high performance equipment.
- **(DIS)likes natural gas because:** she assumes electric is generally better but is admittedly under informed and not interested in the topic.
- **Will respond well to messages that:** speak to her sense of providing for her household and her desire to live a “good life” and have “nice” things.
- **Feels confident in information if:** the product is something her friends and family are talking about as well as things trending on social media. She also trusts big box retailer sites and reviews.
- **Is best reached through:** big box retailers, retail “experts” such as those at stores like Best Buy.

Erica will consider replacing an appliance or equipment before it breaks 77% of the time and energy efficiency is a big reason for doing so for 52% of the segment. Avoiding emergency situations (40%) and improving performance (40%) are also reasons this segment replaces appliances or equipment before it breaks. Erica prefers products that are durable and last a lifetime (59%), that are well designed and without overly complicated mechanism. She turns to the internet (69%) and seeing items in person (58%) most frequently when seeking information about major equipment and appliances in her home. Online reviews (44%) and product specification information (33%) are the most frequently used internet sources of information. Erica needs to hear words like “easy”, “comfortable”, “no-brainer”, and “well-tested” She needs to feel that she is with the pack, up-to-speed, comfortable, and that purchases contribute to a good life.

Figure 7 shows the likelihood that Erica will invest in each of the natural gas products featured in the survey and when she will, the purchase triggers that lead to that purchase and which messages and channels will appeal to her.

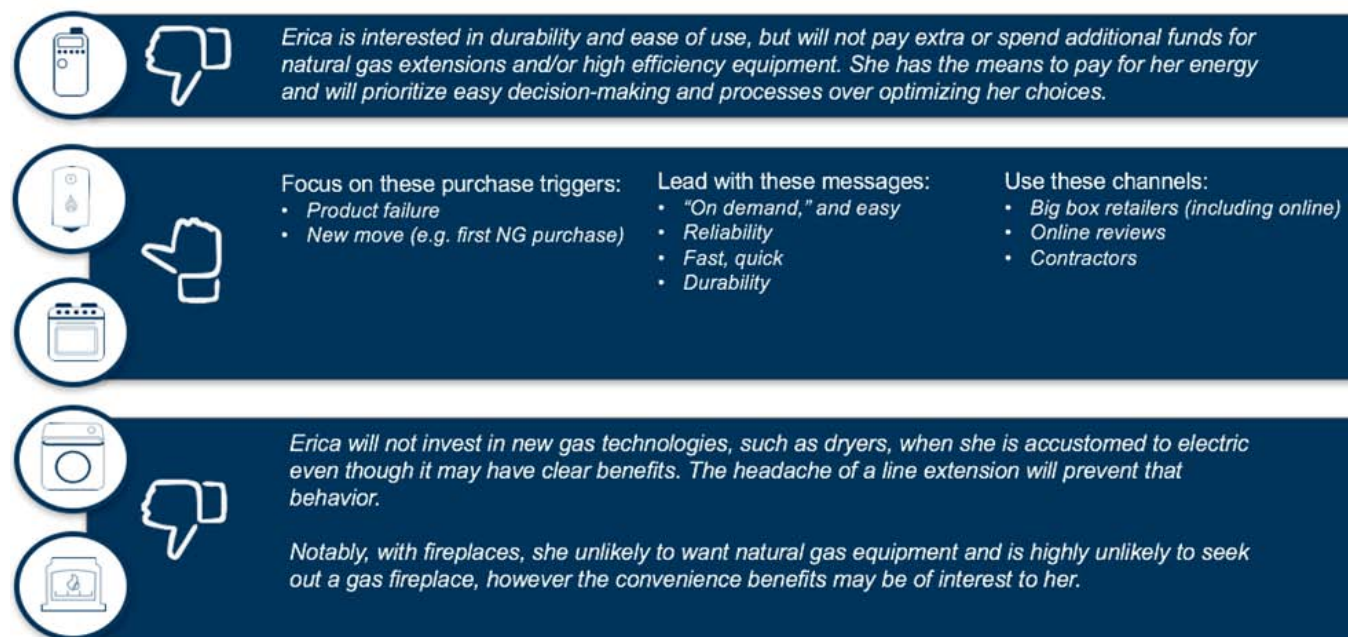


Figure 7. Targeting Erica, The Middle American

Rose, The Day-to-Day

“I love my home, and even though it’s small, it’s just right for me. I take good care of my things but don’t waste on buying fancy new stuff. If it ain’t broke, don’t fix it. I like to go and talk to people I know, like the guys down at Ike’s, and learn more about the appliances I buy. They’re honest and let me see things for myself. I want things that will last me. I don’t want anything fancy – just something to meet my needs.” –Rose (creative rendering drawing on qualitative and quantitative data)

Rose, The Day-to-Day, will likely only replace when products fail and will be looking to local chain stores for information on good, durable equipment that has a low cost to operate. While this segment may consider efficient equipment, the incremental cost must be small because this segment is most likely to live paycheck to paycheck. Figure 8 below shows some of the key characteristics of this segment.

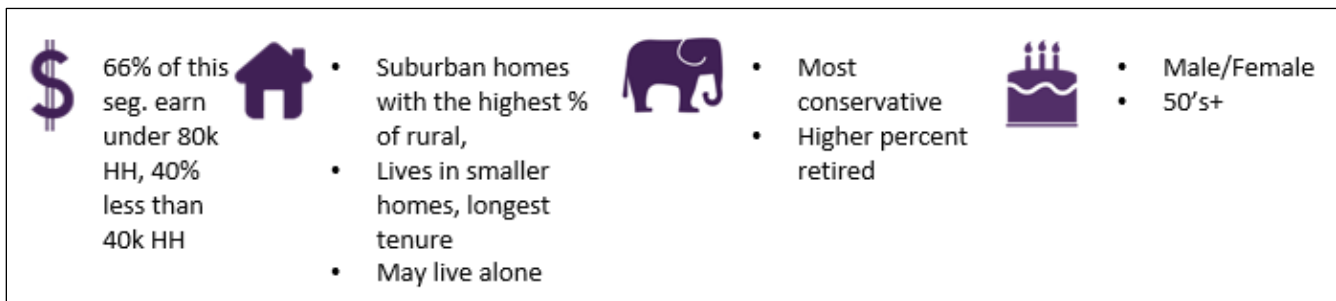


Figure 8. Key Characteristics of Rose, The Day-to-Day

Rose...

- **Has a home that is:** small, existing construction, located in suburban and rural areas.
- **Buys products because:** they will last and won't fail on her. She doesn't have much money to spare so she will purchase only those things that are a necessity.
- **Prioritizes home upgrades based on:** necessity only and to minimize uncertainty or impending emergency situations.
- **Will pay a little more for:** products she can trust will last a lifetime and come recommended from someone she knows.
- **Likes natural gas because:** it is low cost, but she does not have a strong fuel preference.
- **Will respond well to messages that:** reassure her that the products are high quality, won't require maintenance, and come with warranties and lifetime guarantees.
- **Feels confident in information if:** it comes from long-trusted community members and local store owners or friends and family experts.

Rose is the most likely to say that she will only replace appliances or equipment when it breaks (35%) and cost (10%) and not placing importance on having new equipment (10%) are the main reasons why. For those that will replace equipment before it breaks, avoiding an emergency situation (43%), improving energy efficiency (35%) and improving the performance of the equipment (30%) are the main reasons. Rose likes products that are durable and last a lifetime (72%) and that are known for exceptional performance (41%). She turns to the internet (63%) and seeing items in person (62%) when seeking information related to the purchase of a new appliance or equipment for her home.

When making a purchase, Rose needs to hear from people she trusts, that they had a positive experience with the product and that it won't cost her too much or fail. She also needs to feel confident that the product will

last and that she will not be stuck with unexpected bills.

Figure 9 shows the likelihood that Rose will invest in each of the natural gas products featured in the survey and when she will, the purchase triggers that lead to that purchase and which messages and channels will appeal to her.

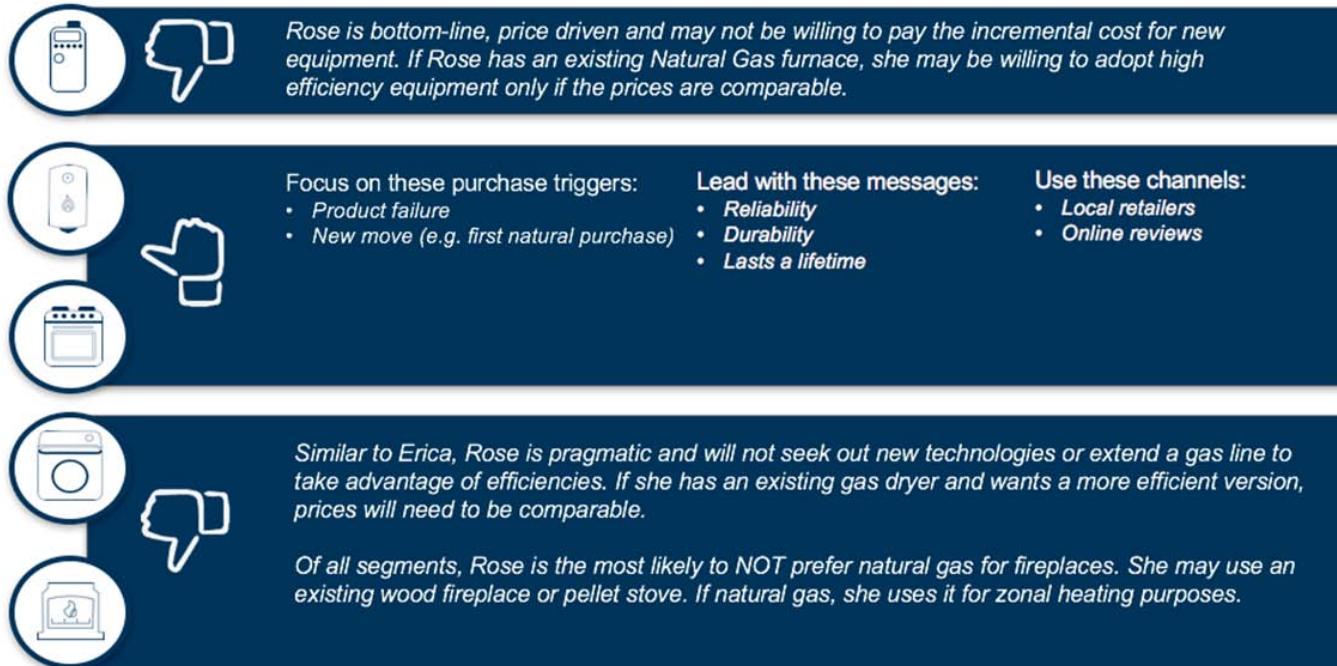


Figure 9. Targeting Rose, The Day-to-Day

Using Descriptive Segmentation to Inform Program Design

At present, NEEA is in the early stages of developing market strategies to support the development of natural gas-focused market transformation initiatives. One of the primary reasons for conducting this research was because very little was known about people who happened to live in a natural gas homes in general, only those who had received utility incentives or otherwise participated in a utility program. Now that they have this information, they are using the characterization of natural gas customers in the northwest provided here and in the full market research report to better reach the market for the products in the NEEA portfolio, including natural gas furnaces, water heaters, clothes dryers, ranges and fireplaces.

One of the ways they have used the study is by including key segment-identifying questions in additional surveys to assign respondents to one of the four natural gas customer segments. As part of the study, we provided a “typing tool” which is a simplified proxy of the algorithm used to assign segments. It was designed to assign segments using the fewest questions and the most cohesive battery of questions that could easily be added to other surveys. Through use of this tool, NEEA gained further insight into the usage habits, brand preferences and awareness and likelihood of purchasing natural gas fireplaces in the next 12 months for each of the segments.

Some of the other ways NEEA is applying this segmentation research are to:

- Identify “quick” and “not so hard” wins, emerging technologies with the highest potential and fastest rate of adoption
- Inform program strategy to segment potential customers and streamline staff efforts by targeting those most likely to purchase or adopt behavior change
- Shape market transformation strategy and support development of market progress indicators
- Inform manufacturers, supply chain, and retail partners on opportunity in the NW market and help these partners target their efforts to amplify adoption at an accelerated rate
- Support local programs by sharing research with funding utilities

- Inform marketing approaches and design
- Shape PR and earned media strategies

Using Descriptive Segmentation in Program Evaluation

Armed with the knowledge gained through a large-scale survey and customer segmentation study such as this one, evaluators begin their job with an understanding of wants, needs, motivations, and a clear picture of the customer in mind. One of the key questions in any process evaluation is to determine what barriers exist to participation in the program and adoption of the energy efficient product or products being promoted. With known customer segments, evaluators can track key barriers to see if there is a reduction in perceived barriers and how that changes by segment, providing segment-specific recommendations to overcome these barriers. For instance, “Will ‘Erica’ become more open to energy efficient natural gas products as she sees them in big box stores and in the homes of friends?”

Evaluators should also monitor the success of segment-differentiated program strategies. We assume that they will be more successful than undifferentiated strategies but does aligning strategies by segment always result in a better outcome? If the answer is no, it is time for further research into areas like the segment-specific adoption of new technologies. Does “Doug” continue to adopt and invest in new natural gas products as we expect him to? Evaluators can dig deeper into that question by conducting periodic segment-specific market assessments to make sure the program in question is understanding and meeting the needs of a specific segment which could lead to new opportunities to provide what the customer wants. This is also an important way to monitor the segment life cycle which can answer questions such as “Will ‘Kyle’ turn into ‘Doug’ as he ages and moves into his ‘forever’ home?”

In the end, all of this information informs better design, better marketing, and better evaluation which in turn makes strong programs stronger.

Conclusions

In sum, there is significant opportunity for high efficiency natural gas initiatives in the Northwest. Of all opportunities, natural gas heating (both space and water) present the greatest opportunity as consumers are most receptive to investing in these products. Further, the key segments of Doug and Kyle are the most receptive to natural gas high efficiency measures. (See Figures 3,5,7, and 9)

That said the low cost of natural gas may serve as a critical barrier to high efficiency product adoption if the incremental cost remains high. Our research suggests consumers are slightly less concerned about conserving natural gas resources compared to electric resources. As a result, consider developing messaging points that are true for high efficiency products and that also align with consumers’ core purchase drivers: the desire for durable, reliable, well-made products that create a comfortable home and give them more control over their heating, cooking, and home.

It is also important to consider positioning these messages well upstream of the purchase decision. The majority of natural gas consumers begin their shopping online for all end use technologies and savvy digital marketing campaigns may be very successful in directing consumers toward high efficiency equipment.

Further, nearly one quarter of all natural gas consumers interviewed indicated that they do nearly all home improvements and considerably more are willing to do some. Consider exploring ways to place high efficiency natural gas options on popular local DIY resources, such as blogs and DIY networks to capture this market.

Once interested in a product, natural gas consumers report key differences in shopping behavior, depending on the equipment. Natural gas consumers report relying on contractors and installers for space or water heating equipment compared to end uses that consumers interact with daily, where “seeing it for themselves” emerged as an important stage in their decision-making process.

Appendix - Segment Overview for Doug, The Natural Gas Pragmatist



Doug...

- **Has a home that is:** large, located in a suburb, and meticulously maintained, and shared with his life-long partner.
- **Buys products because:** they are well-rated, known for exceptional quality, and are made domestically or by a reputable company.
- **Prioritizes home upgrades based on:** the integrity of the home/structure, enhance craftsmanship, increased efficiency.
- **Will pay a little more for:** American made equipment, brands with a long-standing reputation, equipment known for quality and durability.
- **Likes natural gas because:** it is reliable, inexpensive, improves the efficiency of his heating and cooking, and is domestically sourced.
- **Will respond well to messages that:** speak to his desire to have high quality items that contribute to his need to care for and protect his loved ones yet provide a sound rational, payoff.
- **Feels confident in information if:** the product claims are backed by a reputable source or person.
- **Is best reached through:** contractors, home shows, Consumer Reports.

Figure 3: Idea Starters for Doug



DOUG

THE NATURAL GAS PRAGMATIST

“ I have worked my whole life to have what I have. At this point I want to be comfortable and have peace of mind. I buy exactly what I need and I am willing to spend a little more for quality and reliability so I don't have to worry. It's called being smart with my money. That's why I love natural gas – it's dependable and keeps me comfortable. It even saves me some money. It's a no-brainer. ”



45% of this seg. have \$80k+ household income



- Large, suburban
- Washington
- Long tenure
- 2 person

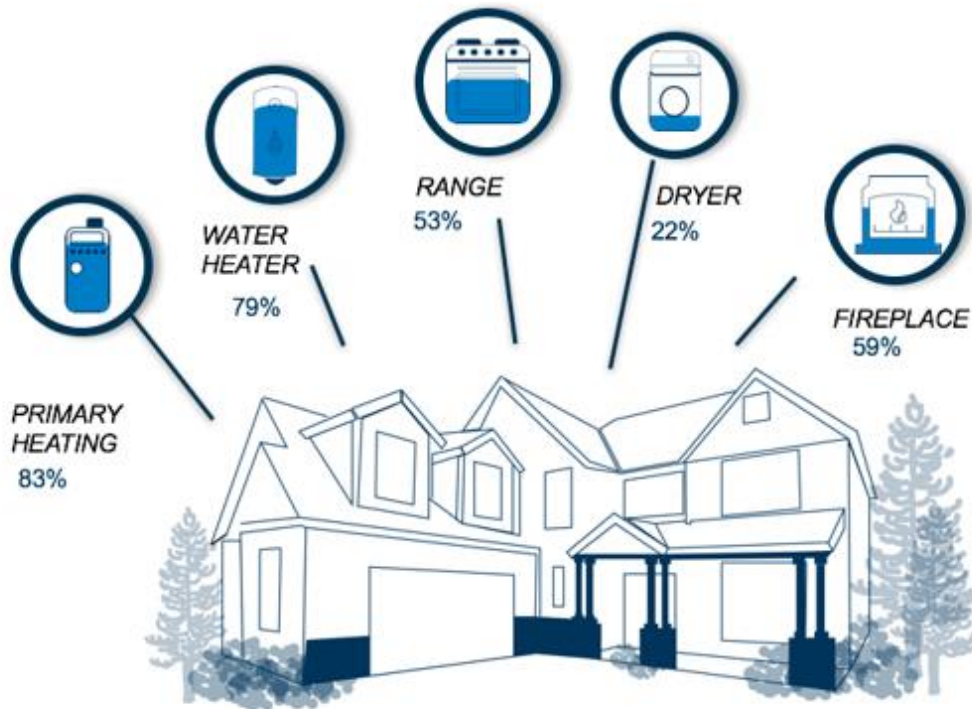


- Leans conservative (likely fiscally),
- Less educated



- Male
- Ages 40's-50's

Figure 4: Reported Natural Gas Appliances in Doug's Home



DOUG'S JOURNEY



Equipment replacement

76% would consider replacing equipment before it fails

- To avoid an emergency situation (44%)
- To improve energy efficiency (39%)
- To improve performance (37%)

24% will only replace equipment when it fails:

- Not important to have new equipment (8%)
- Too expensive (7%)
- It is wasteful/bad for the environment (4%)

Trusted Sources



Appliance Selection



PRODUCT MUST BE

- Durable and last a life time (68%)
- Known for exceptional performance (55%)

PREFERRED CHANNEL

- Sources used to make purchase decisions:
- Contractor (65%)
 - Internet (61%)

PREFERRED INTERNET SOURCES

- Online reviews (42%)
- Consumer Reports (38%)

NEEDS TO HEAR

Durable, reliable, a good investment, performance

NEEDS TO FEEL

Comfortable, informed/smart, protected