

Segmenting Residential Customers: Energy and Conservation Behaviors

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ABSTRACT

Marketing programs and strategies based on conventional demographic and geographic segmentations have limitations in that customers in traditional categories often have very diverse attitudes, values, motivations, beliefs and lifestyles. Psychographic segmentation overcomes these limitations by uncovering groups of people homogeneous in terms of how they think, feel and act – not what they look like, what they possess or where they live. In turn, strategies and campaigns can be developed such that unique segments receive marketing support and messaging that truly resonates and engages them, thus reinforcing the desired objective of, in this case, changing the way they think about and use electricity.

In June 2006, BC Hydro completed a territory-wide end-use survey of 4,191 residential customers that was supplemented with a set of 60 attitudinal and behavioral questions in regards to electricity and conservation. A multi-disciplinary project team determined via k-means statistical analysis that the market – both at the bill payer and household level – could be most effectively represented by six psychographic segments based on the criteria of them being measurable, substantial, accessible, differentiable and actionable.

Subsequent analysis of the six segments by household electricity consumption patterns lends credibility to respondents' attitudes and self-reported behaviors in the survey, and validity to the developed segmentation model.

Background

The British Columbia government's 2006 Energy Plan sets out an ambitious target to acquire 50 percent of BC Hydro's incremental resource needs through conservation by 2020. Success in meeting this aggressive target will be placed, in part, on the shoulders of the corporation's residential customers – in their ability to think about and use electricity differently than ever before.

For BC Hydro, this target will necessitate a fundamental change in the way it tries to influence and empower its residential customers to conserve electricity. The corporation's marketing and advertising teams will need to expand, turning away from programs that are product and end-use centric, and relatively short-term, to campaigns that strive to change engrained consumer behavior over the long-term.

Gaining a much deeper understanding of its residential customers via a psychographic (or behavioral) segmentation can play a foundational role for BC Hydro in moving the energy conservation agenda forward. Marketing programs and strategies based on conventional demographic and geographic segmentations have limitations in that customers in a specific category – such as educated young people, those living in electrically heated single detached homes, or those living in Metro Vancouver – often have very different attitudes and behaviors in regards to energy use.

Psychographic segmentation overcomes these limitations by uncovering sub-groups of people who are homogeneous in terms of how they think and feel – not what they look like, what they possess or where they live. Strategies and campaigns can be developed such that the unique segments receive marketing support and messaging that truly resonates with them, and reinforces the desired objective of changing the way they think about and use electricity.

The main objectives of this study are to (1) segment BC Hydro's residential customers into unique groups based on their attitudes and behaviors toward electricity and conservation; (2) profile the segments on their demographics, household characteristics, end-uses, electricity consumption, and other attitudinal and behavioral dimensions; and (3) uncover and explore underlying motivations to inform long-term program planning and communications strategies.

Methodology

Survey Overview and Data Collection

BC Hydro undertakes biannual quantitative end-use studies with its residential customers to track detailed information about the characteristics and features of customers' homes, as well as the different ways in which electricity is used in them. In addition to collecting the end-use information, the 2006 study also set-out to solicit customer opinions, attitudes and behaviors relating to electricity and conservation in order to facilitate the psychographic segmentation.

The timing of the data collection for this study was fortuitous because it occurred in the late spring of 2006 – prior to the recent and never-before-seen run-up of media coverage around global warming and climate change. While it takes time for attitudes and behaviors to permanently change with conviction, they can be temporarily influenced and elevated in the short-term by such media and political exposure. This study, however, benefits from having captured customer attitudes and behaviors at a more stable and representative time. It also serves as a very comprehensive baseline of what is hoped and expected to be several decades of positive change.

In June 2006, a regionally disproportionate sample of 14,015 surveys was mailed to the billing contact at the service addresses of BC Hydro residential customers across the province metered on the standard rate. Respondents were offered two ways to participate in this study: either complete the survey and return it in the postage-paid envelope via regular mail, or complete the survey on the Internet and submit it electronically. Either way, it is believed that this self-administered methodology helped to mitigate the possibility of a “socially desirable” response bias in attitudes and behaviors that can emerge in interviewer-led data collection. It is also believed that any possible conservation-minded participant bias was mitigated due to the fact that the survey was introduced and positioned as an end-use study, with the banks of attitudinal and behavioral questions placed near the back-end of it.

A total of 4,191 surveys were completed – 2,864 returned via the mail and 1,327 completed on-line – and tabulated for inclusion in the analysis. At the data processing stage, the data was statistically weighted by housing type within sub-region to align the collected sample to the true composition of residential customers.

Segmentation

Dimensions utilized. From nearly 60 attitudinal and behavioral dimensions in the end-use survey, 33 were selected as being suitable for inclusion in the segmentation algorithm based on various criteria, including direct relevance to electricity, conservation and the environment.¹ These are detailed in Table 1. The remaining dimensions in the survey, as well as demographic and end-use information, were later utilized in helping to profile the developed segments.

Table 1. Attitudinal and Behavioral Dimensions Included in the Segmentation Algorithm

General Attitudes	General Habits & Behaviors	Laundry Habits
Extent in thinking about energy issues in BC and how they affect you, your family and friends.	I am an active energy conserver who looks for opportunities to save energy in everything I do.	Only do laundry with full loads.
I really don't care much about energy and see little reason to conserve.	When buying a new appliance, energy consumption is an important consideration in the decision.	Use cold water wash & rinse when doing laundry.
There is not very much any individual can do to conserve energy that will have much effect in the long run.	Donate time or money to environmental causes.	Space Heating/Cooling Habits
We could all use a lot less energy than we do and if many people conserved, we could all make a big difference overall.	Think about ways to save energy.	Use a programmable thermostat or manually turn down the heat at night.
Regardless of whether it makes a difference, everyone has a moral obligation to do the best they can to conserve energy.	Pay more for products that are environmentally friendly.	Use a programmable thermostat or manually turn down the heat when no one is home.
By making my home more energy efficient, I am helping to do my part for the environment.	I am always on the go with little time to research ways to save energy in the home.	Reduce temperature in unused rooms by closing vents or turning down thermostats.
It is worth it to pay MORE for energy in order to NEVER be asked to conserve.	Plug-In Device Habits	Dress more warmly in cold weather and reduce the thermostat to 20 degrees Celsius or below.
I would be willing to do my part of reducing my usage of electricity if it allows the province to reduce importing electricity into BC.	Turn off TV when no-one in the room or actively watching the program.	Leave windows ajar for ventilation in winter.
I would be willing to do my part of reducing my usage of electricity if it allows the province to delay the construction of new electricity generation projects.	Turn off computer and printer when not in use.	Check and re-seal air leaks in the house each fall.
I am knowledgeable about ways to save electricity around my home.	Unplug cell phone chargers when not in use.	Water Habits
Lighting Habits	Dishwashing Habits	Turn off the water heater when no one is in the house for more than 2-3 days.
Turn off lights when no one is in the room.	Only turn on dishwasher when it is full.	Leave water running when washing hands.
Only have the minimum number of lights on in a room for what I am doing.	Air dry the dishes in the dishwasher rather than use the dry cycle.	

¹ Dimensions are measured on either 5-point or 4-point labelled scales.

Data preparation. Data was read into ClustanGraphics statistical software as z-scores so as to standardize responses from the various scales. Principal Component Analysis was then utilized to accomplish two further data preparation tasks.

First, the dimensions underwent orthogonal linear transformation into new variables to reduce multi-collinearity issues – the 33 original dimensions were transformed into 25 new factors. The explanatory power of the factors steps down with each factor as per any Principal Component Analysis, but collectively, they still retained over 90 percent of the variance of the original 33 dimensions. The factors went unnamed, however, as upon completion of segment development, analysis and profiling of the groups at the specific attitudinal and behavioral level yielded much richer insights than at a general factor level.

Second, because the k-means statistical tool does not allow missing values in the data, this particular Principal Component Analysis tool was able to estimate and write factor scores into what previously were cells with missing values.

FocalPoint Clustering. ClustanGraphics' FocalPoint Clustering leverages off k-means analysis where cases are classified into k user-specified clusters (segments) to minimize the sum of the squared Euclidean distances of the cases (based on their 25 factor scores) about the k cluster means – also called the centroids. K-means clustering is an iterative process: for a complete run of the algorithm (one trial), cases are initially assigned into one of k partitions, distances between every case and the k cluster means are computed, and cases are assigned to the nearest cluster as defined by the cluster's mean. Distances and cluster means are re-computed and cases are re-assigned to the nearest cluster until there is no further reduction in the total Euclidean Sum of Squares for all k clusters.

Among other benefits, FocalPoint Clustering allows the completion of a series of randomized trials in which the starting cluster partitions and case order for the k-means analysis can be automatically varied over hundreds or even thousands of runs, yielding the top solutions including the global optimum. Based on user criteria, FocalPoint can also identify “outliers”² (cases that are far away from the densest part of any cluster) as well as “intermediates”³ (cases that are equidistant between two or more clusters and can not be easily classified) and exclude them during the iterative k-means algorithm.

For this study, a 3-segment model was first developed based on the top solution of 10,000 trials. For each trial, the weighted and orthogonally transformed cases were randomly ordered and assigned into one of three randomly seeded partitions for the k-means algorithm. The algorithm was set to treat 4.0 percent of cases as outliers and a 99.5 percent threshold criteria for intermediates, subsequently yielding a net of 170 unclassified cases for the global optimum. This initial 3-segment model was reviewed and evaluated by the working team in terms of the segments being measurable, substantial, accessible, differentiable and actionable.

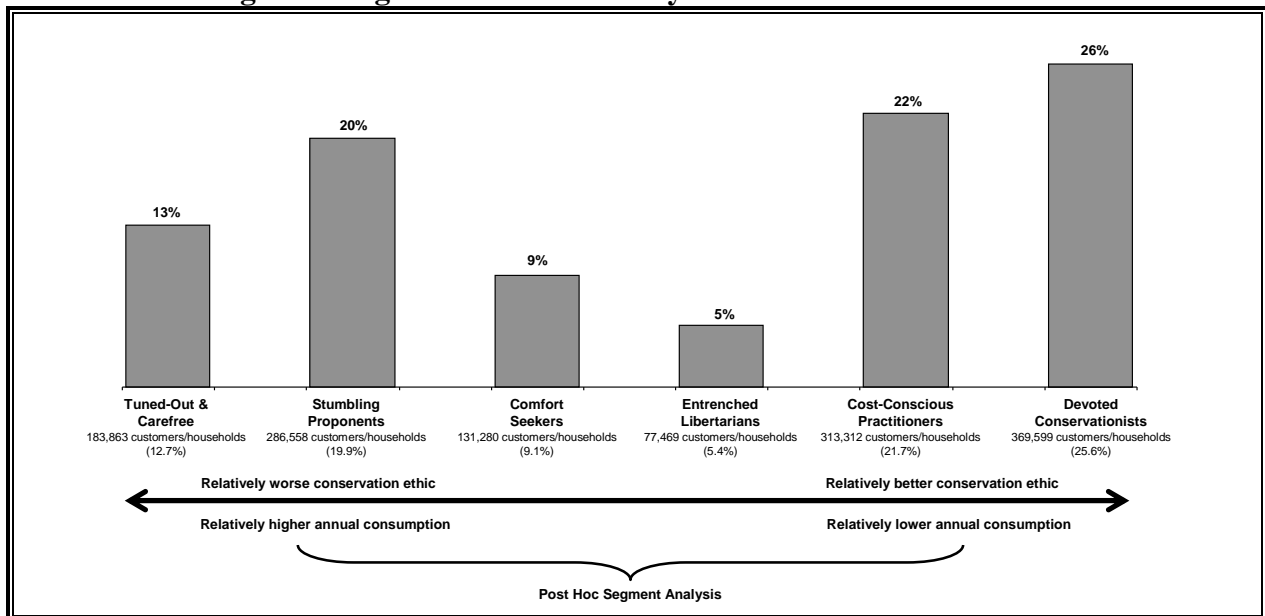
² FocalPoint compiles the distribution of the squared distances (d^2) between all cases and their nearest cluster means. These distances are ordered, and a percentage of them are treated as unclassified, where this percentage can be specified. The distance threshold d^2 for outlier deletion is the next smallest distance prior to deletion found in the distribution of least distances. The distance threshold changes dynamically as running cluster means are computed.

³ If d_1^2 is the distance of a case to its nearest cluster, and d_2^2 is its distance to its second nearest cluster, then a case will be treated as an intermediate and go unclassified if $d_1^2 / d_2^2 > p\%$, where p is a user-specified percentage. These distances change dynamically as running cluster means are computed.

Findings

Through an iterative k-means clustering and evaluation process, the 3-segment model was pushed out to a 4-segment model, all the way out to an 8-segment model. A 6-segment model was deemed most appropriate and likely the most reflective of the population of residential customers in regards to their energy conservation ethic. Figure 1 details the segment names, imparted to generally reflect customer attitudes and behaviors toward electricity and conservation. The six segments vary in size, ranging from a high of 26 percent of customers coined the Devoted Conservationists, to a low of just 5 percent of customers dubbed the Entrenched Libertarians. Approximately 6 percent of customers are unclassified due to identification as outliers or intermediates.⁴

Figure 1. Segment Share of BC Hydro Residential Customers



The segmentation is based on primary payer attitudes and behaviors, and for each of the six segments, the most active member of the household in terms of conserving electricity tends to be the survey respondent or includes the survey respondent. What this safely permits is an extrapolation or projection of the segments – developed at the individual level – to the household level. It is unlikely that a household is conflicted by two completely different conservation ethics, and as explained below, the fact that the energy consumption data by segment corroborates the segment definitions furthers the point.

In other words, if a person is deemed a Devoted Conservationist, his/her collective household membership is also likely to function and “look like” that of a Devoted Conservationist. This premise allows individual attitudes and behaviors in this study to be integrated with household information for a more complete and meaningful analysis.

⁴ Analysis of the unclassified cases revealed that their membership is fairly distributed among the different demographics groups, and that their attitudes and behaviors are no more similar to one particular segment than another.

Model Validation

As described further on, there are differences among the segments in terms of the types of homes they live in, the type of space heating fuels they have, their family compositions, and the number of occupants, etc. – all of which play a part in driving energy consumption. As such, it is critical to control these parameters to draw meaningful comparisons and insights of their electricity usage; for example, the Devoted Conservationists living in single detached houses can not be expected to always have lower electricity bills than the Tuned-Out & Carefree living in much smaller apartments.

After controlling for several of these drivers, actual billing and consumption information for each segment has been found to closely reflect their reported behaviors and their subsequent definitions. This lends credibility to respondents' attitudes and self-reported behaviors in the survey, and validity to the developed segmentation model.

The Segments

Tuned-Out & Carefree

What they think and how they behave. The Tuned-Out & Carefree represent 13 percent of BC Hydro's residential customers and are the most disengaged in the way that they think about and use electricity – in turn, plotting themselves at the undesirable end of the conservation spectrum. Reflecting this, they consistently emerge as having the highest billed electricity consumption after controlling for dwelling type, heating fuel and household size. However, as much as energy and electricity issues do not appear to be pressing concerns for them, many of them do believe – or perhaps “buy” into – the argument that energy conservation is a worthwhile endeavour.

Demographic profile. Among the six segments, the demographic profile of the Tuned-Out & Carefree differs the most from that of the total population. First and foremost is the finding that unlike the population which is evenly divided by gender, the Tuned-Out & Carefree is predominantly comprised of men – 65 percent. They are significantly more likely than all others to be living in Metro Vancouver and while the majority are at least 45 years old as per the total population of residential customers, the proportion is much lower than in most other segments.

While just over one-half of the Tuned-Out & Carefree live in single detached houses, this segment has a slight over-proportion of individuals living in apartments/condos compared to the overall population. It follows that they are less likely than all others to own their own homes. This finding, however, can not be tied to income as the Tuned-Out & Carefree report having the highest household earnings.

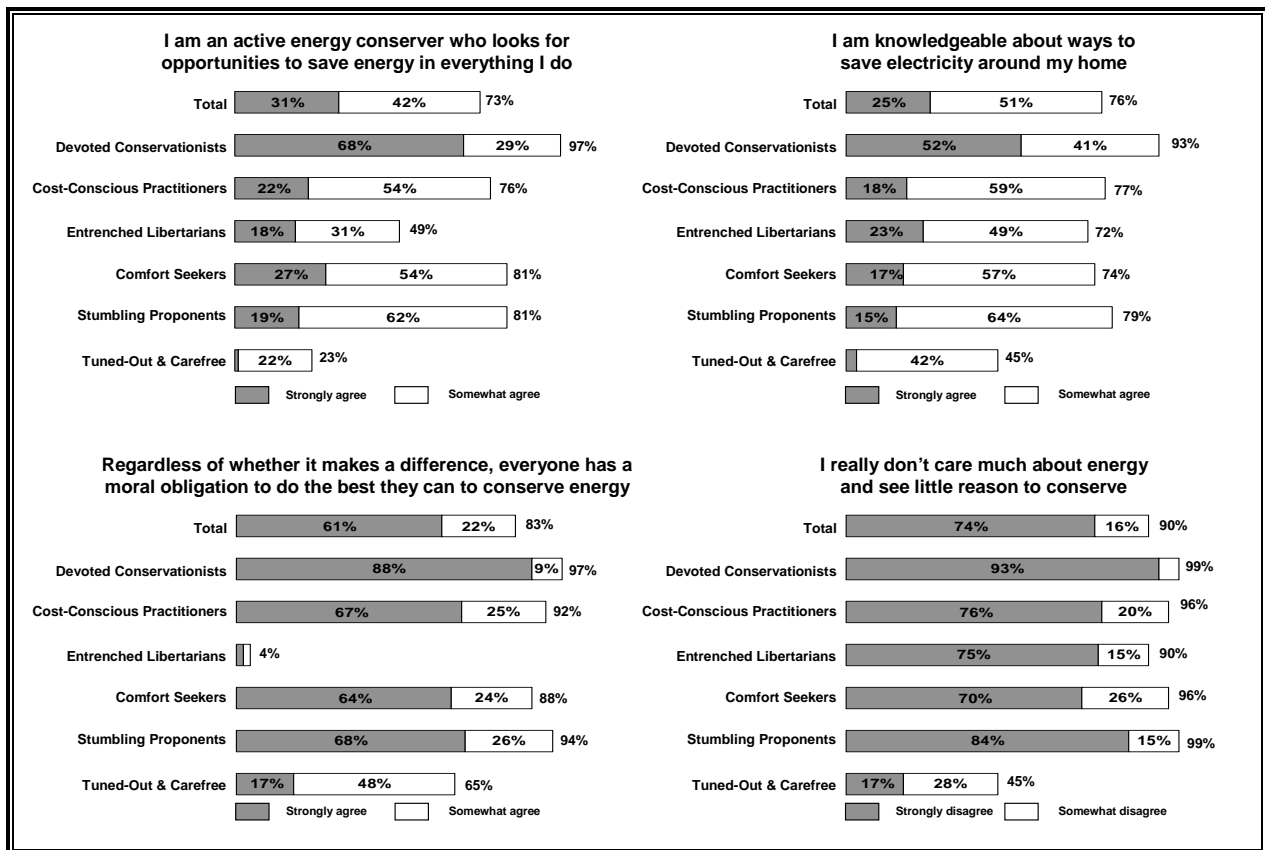
Additional thoughts and insights. The Tuned-Out & Carefree constitute the biggest challenge for BC Hydro in terms of trying to transform their conservation attitudes and behaviors. For them, the burden of a lifestyle change is a bigger barrier than conservation for the good of the environment is a motivator. They aren't cynical, but rather, apathetic. The fact that they are the youngest segment and more likely than others to live in rented apartments or condos may help to explain their levels of detachment – they may believe that “fixing” conservation is someone else's job. Perhaps their attitudes and behaviors will evolve as they age. At this time, and at the

very least, any home retrofit, end-use or rate program would have to be taken to them as they will not reach out for themselves.

Stumbling Proponents

What they think and how they behave. The Stumbling Proponents represent 20 percent of BC Hydro’s residential customers and are fairly conflicted in that their behaviors do not follow in-step with their very well-intentioned attitudes and opinions around conservation. This segment demonstrates some conservation habits, but the extent and consistency to which they exhibit the desired behaviors lag well behind most others. In fact, they are nearly always in the bottom third of the six segments and for several categories, they are the worst offenders. After controlling for dwelling type, heating fuel and household size, the Stumbling Proponents consistently emerge in the high third of the six segments in terms of their annual electricity consumption.

Figure 2. Select Attitudinal Dimensions by Psychographic Segment



The individual charts comprising Figure 2 detail the agreement scores by segment on just four of the attitudinal dimensions that the segmentation is based on.

Demographic profile. The Stumbling Proponents have a disproportionately high incidence of those living in single detached houses, as well as in duplexes, row houses and townhouses – second only to the Entrenched Libertarians. Among all the segments, they are the most likely to have attended and completed a university curriculum. Reflecting this, the Stumbling Proponents report the second highest household earnings.

Additional thoughts and insights. The Stumbling Proponents likely represent one of the key target segments for any demand-side management programs as they are the third largest group, already hold the desired attitudes, and represent a significant capacity for behavioral change. They do not need to be persuaded, but assisted, taught and shown the way. They are among the worst offenders of doing the simple things – turning unnecessary lights off, turning computers/printers off when not in use, unplugging chargers, etc. They report being very receptive to various messaging around the environment, moral obligation, and conserving to reduce importing, so any of these tied to a “turn-it-off” campaign might prove effective. While the Stumbling Proponents might show enthusiasm for time-of-use rates or critical peak pricing, they likely would not be immediately successful in shifting their demand given they have so much difficulty with the basics.

Comfort Seekers

What they think and how they behave. The Comfort Seekers represent 9 percent of BC Hydro’s residential customers and can be viewed as siblings to the Stumbling Proponents in that their pro-conservation views and intentions are not followed-up with the desired behaviors. What makes this segment of customers especially different from all others is their behavior around space heating and space cooling which can be described as nothing short of lackadaisical. For example, the Comfort Seekers very rarely use a programmable thermostat or manually turn down the heat – either *at night* or when *no one is home*. In fact, their habits in this regard are dwarfed by even those of the Tuned-Out & Carefree. The Comfort Seekers are consistently in the middle to high third of the six segments in terms of their annual electricity consumption.

Demographic profile. Like the overall population, the majority of the Comfort Seekers are at least 45 years old. However, they do have the highest incidence of individuals 25 to 44 years old – particularly in the 35 to 44 bracket. Likely reflecting this, the Comfort Seekers segment is more likely than any other segment to have children and young adults living in the household, and to have three or more household members.

The Comfort Seekers are the most ethnically diverse of the six segments, having an over-proportion of customers who primarily speak languages other than English in the household – especially Cantonese, Mandarin, Punjabi and other Asian languages.

The Comfort Seekers segment has a disproportionately high percentage of individuals living in Metro Vancouver, with the shortfall on Vancouver Island. While the majority of the Comfort Seekers live in single detached houses, followed by duplexes, row houses and townhouses, the related proportion of them at six in ten is the lowest of all the segments. In turn, they have the highest incidence of apartment/condo dwellers.

Additional thoughts and insights. Generally speaking, any demand-side management programs aimed at the Stumbling Proponents would be appropriate for the Comfort Seekers. Despite the segment's small size, there are substantial energy savings to be had on a per capita basis on the space heating and cooling fronts by educating the Comfort Seekers about the impact of home heating and cooling on their overall electricity bill, and showing them how to reduce the related loads without sacrificing comfort or lifestyle. Interestingly, the Comfort Seekers are the least likely to have programmable thermostats installed in their homes, so a coupon or rebate program with them might be worth exploring. As this segment is home to the largest families, including the most likely to have children, they may encounter even more difficulty with shifting their usage under time-of-use rates or critical peak pricing programs.

Entrenched Libertarians

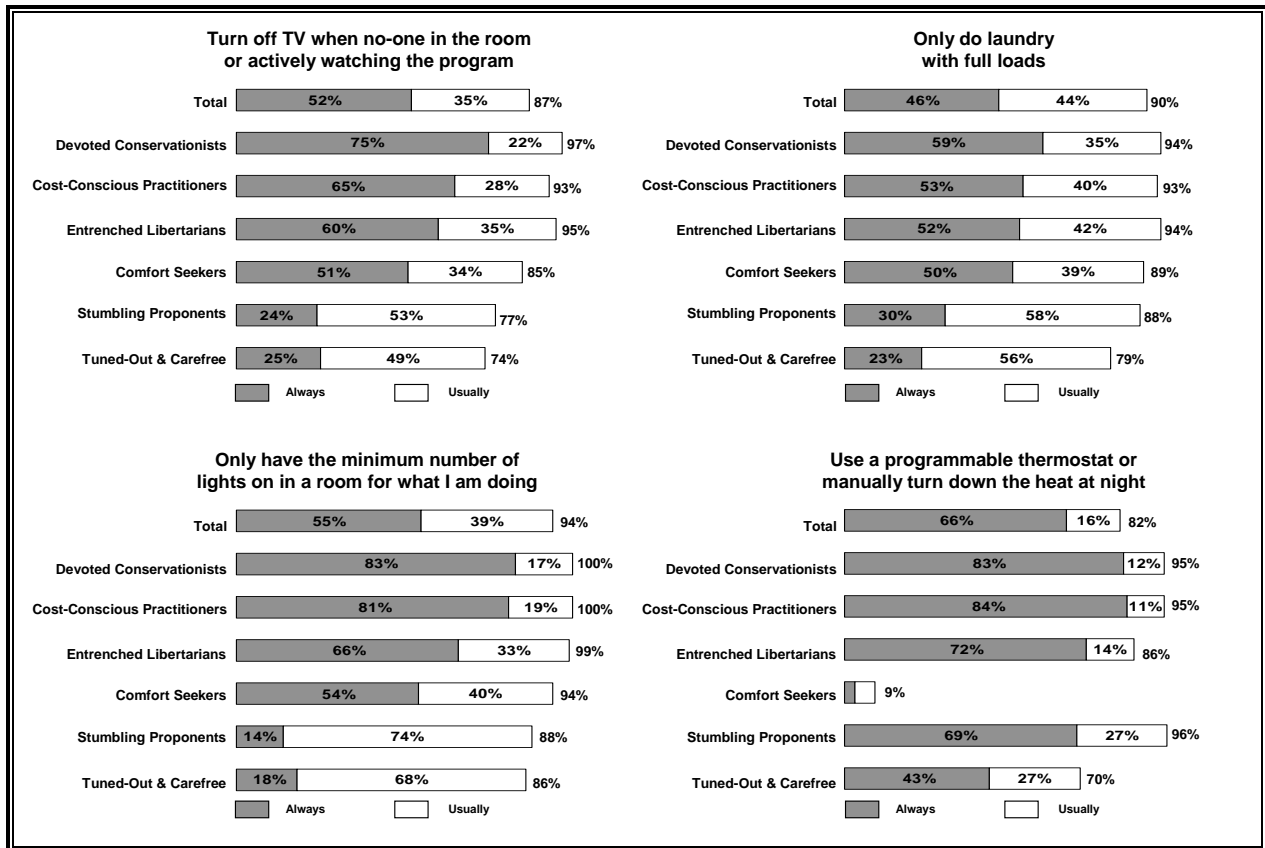
What they think and how they behave. The Entrenched Libertarians represent only 5 percent of BC Hydro's residential customers but are so different from all others in their opinions to warrant such differentiation. It is not as if this segment exhibits a flagrant disregard for the merits around conservation – most do care about energy issues, do see some reason for conserving, and believe that there are things individuals can do that will have some effect in the long-run. In fact, for most end-uses, this segment demonstrates very favourable conservation habits and behaviors. What makes this group profoundly unique is that most of them strongly disagree with the notion that customers have a moral obligation to conserve, that conservation efforts can be substantial, and that their homes' use of energy impacts the environment. When they do conserve, they tend to do it for their own reasons or on their own terms. For most dwelling types, the Entrenched Libertarians fall in the middle third of the six segments in their annual electricity consumption.

Demographic profile. Perhaps in some part reflecting the finding that they like to do things their way and on their terms, the Entrenched Libertarians are significantly more likely than all others to be living in single detached houses, and are also more likely than most others to occupy duplexes, row houses and townhouses. In other words, relatively few of them live in apartments/condos or mobile homes.

The gender and age profile of the Entrenched Libertarians is skewed slightly towards females and the 35-54 age bracket. Notwithstanding the fact that many Entrenched Libertarians have earned university degrees, they are significantly more likely than all others to have an intermediate level of education – college, vocational, technical and only some university courses.

Additional thoughts and insights. Although environmental issues do resonate with the Entrenched Libertarians, they are not likely to respond to conservation messaging that strictly hinges on using less electricity to save the planet. The Entrenched Libertarians might not be pleased with mandatory time-of-use rates, critical peak pricing or other demand-response programs, but they may be likely to opt-in on a voluntary basis. For programs with automated and remote load control, an override feature would be a big selling point. Again, it all comes down to empowering them to do things their way, for their own reasons, and when they want to.

Figure 3. Select Behavioral Dimensions by Psychographic Segment



The individual charts comprising Figure 3 detail the scores by segment on just four of the behavioral dimensions that the segmentation is based on.

Cost-Conscious Practitioners

What they think and how they behave. The Cost-Conscious Practitioners represent 22 percent of BC Hydro’s residential customers and are fairly modest in the different ways they think of themselves as being active energy conservers – so much so that they emerge in fourth position in terms of having the desired attitudes and opinions around electricity and energy conservation. Despite the fact that they don’t talk or think about energy conservation with the same conviction as do some of the other segments, the Cost-Conscious Practitioners report exhibiting much more favourable and consistent behaviors around space heating, water usage, lighting and other plug-in appliances and devices than most others. In fact, they hold second position behind the Devoted Conservationists in their conservation behaviors. All of this can be tied to the fact that the Cost-Conscious Practitioners primarily conserve to save money – not the environment – though it appears they ride the bandwagon of doing things for a greater good. The Cost-Conscious Practitioners generally have the second-lowest annual electricity consumption.

Demographic profile. With few exceptions, the demographic profile of the Cost-Conscious Practitioners most closely reflects the profile of the overall population. Unlike the fairly even gender split among all residential customers, the Cost-Conscious Practitioners are somewhat more likely to be female. This segment is also differentiated by education as they have the lowest incidence of university graduates.

Additional thoughts and insights. Most Cost-Conscious Practitioners likely believe they have already made all the savings possible on their electricity bills, and therefore, may need to be shown how to take the next steps. As the low-hanging or basic conservation behaviors – many which show substantial savings – are already being frequently taken, it may be the little and/or tedious things that have to be done that take them to the next level. In whatever way this may be done, arguments based on environmental benefits will probably not hold much weight – “savings on your electricity bill” is what this segment needs to hear. The Cost-Conscious Practitioners may be suitable targets for time-of-use rates or critical peak pricing, but the potential cost savings attribute would likely have to be the key selling point.

Devoted Conservationists

What they think and how they behave. The Devoted Conservationists represent 26 percent of BC Hydro’s residential customers and are the conservation ambassadors and leaders that the corporation would like everyone else to model and follow. Their attitudes toward and understanding of energy issues, electricity and conservation are unparalleled and certified as genuine, based on demonstrating persistent conservation habits to levels beyond all others and their actual billed electricity consumption – the lowest of all six segments.

Demographic profile. The most discriminating demographic that sets the Devoted Conservationists apart from the rest of the population of residential customers is the finding that they are significantly older than all others – six in ten are at least 55 years old, including one-third over 65. Likely due in part to the belief that many of them are retired, the Devoted Conservationists report having the lowest household incomes among any of the six segments. Only about one-half of the Devoted Conservationists call Metro Vancouver home – the least likely to do so.

Additional thoughts and insights. For the Devoted Conservationists, it is likely that the increased focus on climate change has already reinforced their attitudes, confirming that the choices they have made and the beliefs they have are valid. No different than for the other segments, the Devoted Conservationists need to believe that extra effort is going to be necessary – climate change is a good reason, but understanding the conservation challenge faced by BC Hydro is hoped to add to their determination to make a difference. As with the Cost-Conscious Practitioners, it may be the little and/or tedious things that have to be done that take them to the next level. Due to their lower incomes, the Devoted Conservationists can not be expected to have the same ability as others to invest in home retrofits or new energy efficient appliances.

The Devoted Conservationists may be the most willing segment to make peak capacity sacrifices in the way of time-of-use rates or critical peak pricing, and their household compositions and life stages might give them the greatest amount of flexibility to shift their usage off-peak. Unlike their conservation efforts which go essentially unrewarded as they are incurring lower electricity bills simply by way of lower usage, these demand-side management programs might be especially pleasing to them as they would be rewarded and able to save even more money – if they are successful at shifting their load. On the other hand, the Devoted Conservationists can be forgiven if they take issue with the implications of stepped rates as their very own customer baselines would already be the lowest of any of the segments. Even though they are leading the conservation charge and should be recognized as such, they might feel penalized for having to pay the higher stepped rate on their second block of energy at much lower consumption levels than any other group.

Implementation

Behavioral segmentation in the utility market, as well as associated aspects of marketing and evaluation, has largely been uncharted territory and BC Hydro is proud to be an innovator and trailblazer in this regard.

Subscriber and Participant Profiling

At this writing, BC Hydro is in the early days of leveraging the learnings from this psychographic segmentation. The most immediate application has been profiling residential subscribers to its eNewsletters and Team Power Smart programs, facilitated by dovetailing Discriminant Analysis behind the segmentation model to predict their group membership. The related communications and program design have been fine-tuned to promote maximum uptake in participation and lift in conservation activities.

The Corporation is also developing a Power Smart Ambassadors program whereby a select group of residential customers will be further empowered by BC Hydro to be conservation role models in their community. Again, Discriminant Analysis tied to the segmentation model will be utilized to preliminarily screen candidates as having to be Devoted Conservationists.

Direct Marketing

Geodemographic analysis of the segments is underway to identify opportunities to direct target the segments – via bill insert, mail or newspaper – at the neighborhood or postal code level. Expectations, however, are being kept in-check because although there are strong correlations between socioeconomic variables and residential location, the same is not necessarily true of attitudes, behaviors and values – and in this case – those pertaining to conservation and electricity. The densification and diversification of populated areas further confounds this.

Qualitative Research

It will be essential to conduct qualitative research with the six segments - likely in the form of focus groups – to gain deeper insights into their attitudes and behaviors, and to explore the motivators, barriers and opportunities around demand-side management. Again, the goal is to develop strategies and campaigns such that some of the unique segments receive marketing support and messaging that truly resonates and reinforces the desired objective of changing the way they think about and use electricity.

Messaging that Threads the Segments Together

There are significant cost and logistical benefits if there are strategies or messaging that have traction across all six segments, and BC Hydro’s “net importer” story might be one of them. Focus groups over the past several years have seen countless participants shocked and disappointed to learn that the corporation is a net importer of electricity from out-of-province power suppliers to service its domestic demand. The key to the issue is that it is counter-intuitive – and therefore, all the more powerful – given what they believe is to be the corporation’s abundance of hydro-electric generation, and that it offends “BC pride” in that the province should be self-sufficient without putting itself at the mercy of other jurisdictions.

What weaves the segments together on this front is the finding that there is a very strong willingness among the Devoted Conservations, the Cost-Conscious Practitioners, the Comfort Seekers and the Stumbling Proponents to reduce their electricity usage in order to help reduce the province’s reliance on importing – substantially more willingness than for conserving to delay the construction of new generation. To a lesser degree, even the majority of the Tuned-Out & Carefree and just under one-half of the Entrenched Libertarians also express a willingness to conserve to mitigate importing – and again, much more of a willingness than for conserving to delay the on-set of new generation.

Among all the attitudinal dimensions and conservation triggers explored in this study, the net importing story appears to be one that most resonates with nearly everyone. Qualitative research should be conducted to confirm this hypothesis and to explore it more.

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