

Electric Personalities: A Segmentation of the Ontario Public

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ABSTRACT

The Ontario Power Authority is an independent corporation reporting to the Ontario Minister of Energy. Its mandate is to ensure an adequate, long-term supply of electricity for Ontario. Its objectives include engaging in activities in support of the goal of ensuring adequate, reliable and secure electricity supply and resources in Ontario and that promote electricity conservation and the efficient use of electricity and also to collect and provide information relating to medium and long term electricity needs of Ontario.

In support of those objectives the OPA early in 2007 conducted market research with the Ontario public to identify attitudes towards electricity conservation and individual electricity conservation behaviour. That research showed that conservation behaviour could be predicted by a mix of attitudes and demographics.

This paper reviews the process used to identify the four residential segments which emerged from the analysis. The segments are defined based on claimed number of actions taken to reduce electricity consumption and level of electricity conservation behaviour. They have increasing levels of engagement with electricity conservation and each has a distinct motivation for using electricity wisely.

It reports the key segment results, and finally the paper shows how macro-level market research results were applied in the real world by the OPA and provided for use by individual local electricity utilities.

Introduction

The Ontario Power Authority was created in 2004. It is an independent corporation without share capital and reports to the Minister of Energy. The OPA mandate is to ensure an adequate, long-term supply of electricity for Ontario. Its objectives include engaging in activities in support of the goal of ensuring adequate, reliable and secure electricity supply and resources in Ontario and that promote electricity conservation and the efficient use of electricity and also to collect and provide information relating to medium and long term electricity needs of Ontario, a province of roughly 12.5 million people.

The OPA, in partnership with local utilities, designs and delivers electricity conservation programs across the province of Ontario for the public and for commercial and industrial organizations.

Since the OPA is a relatively young organization it is in the process of building its foundation of knowledge about the consumer and business target groups it serves. One step taken in early 2007 was to conduct a thorough, large-scale quantitative telephone survey, using random-digit dialling as the sampling method, to measure attitudes towards electricity conservation among the Ontario public and to measure individual electricity conservation behaviour. 'Behaviour' in this sense was survey-reported number of actions and types of actions taken to reduce electricity consumption in the home.

One of the research objectives was to enable a segmentation of the Ontario public. This was desirable for three reasons:

- a) To fill a gap in the need for a simplified model for understanding the Ontario public based on electricity conservation attitudes and habits
- b) To inform OPA marketing and conservation program initiatives
- c) To establish a common language for talking about the public within the OPA and with local utilities and other stakeholders

The usage & attitude research showed that conservation behaviour could not be predicted by attitudes alone or by demographics alone.

The next step was to ask the research company's statisticians two questions:

- a) what drives electricity conservation behaviour in Ontario
- b) can the Ontario public be segmented and profiled on those elements?

Analysis revealed four segments based on claimed number and level of electricity conservation behaviour. They have increasing levels of electricity conservation behaviour and each has a distinct motivation for using electricity wisely.

PROCESS

Step 1: Creating Segments

The segments were created by applying factor analysis and Fisher's discriminant analysis to data from the survey of 1,400 Ontario adults (error range = +/- 2.6% at 95% confidence level). A number of scenarios were run, with the one ultimately chosen by consensus among OPA market research, marketing and program staff, the research company's statisticians and project staff to represent the greatest balance between the ability of the segment to predict behaviour, their ability to be easily understood by users at the intuitive level and actionability.

Identities were created for each of the segments as a communications initiative to "bring the data to life". The identities were based on demographic, lifestyle and behavioural information collected in the survey and included segment names/labels, visual icons and illustrations to make them memorable and communicate key characteristics. The identities were created by a team from the OPA and its advertising agency.

Step 2: Validating Segments

The segment model was validated by including the segment questions in another large-scale (n=2,500) survey, done in mid-2007 by a different research supplier and using a different (online) data collection methodology, and with a sample representative of the Ontario public.

The segmentation model was applied to the second survey records and yielded similar results. With that confirmation the OPA Market Research & Planning department signed off on the segments.

Step 3: Acceptance By Decision-Makers and Users

Once the segments were validated in a market research sense the identities created and segment results were presented to several internal OPA audiences, from management level to senior management and the OPA board, for information, comment and acceptance. They were also presented to groups of local utilities for comment and as a “reality check” to ensure they recognized their customers reflected in the segment definitions and identities.

There was positive reaction from those groups, who will need to support the segments if they are to form the basis for action, and especially from local utilities.

Step 4: Bringing Segments To The Real World

The next step taken was to bring the province-wide information to a local level. This was done by geocoding the segments based on home postal codes of participants to both surveys and linking them to a commercially-available cluster system.

This also allowed the linkage of the survey-based OPA segments to a survey database of information on attitudes, values, product purchasing and other lifestyle characteristics accessed commercially through a media research organization. This data was appended to the OPA segment information and identities to enrich our holistic understanding of the segments in ways not directly related to electricity conservation but which enabled more effective targeted communications – messaging as well as tone.

Step 5: Validating Localized Segment Distributions

The geocoding and linkage was validated at the local level by comparing inferred OPA segment results for two markets to survey results for those markets. The survey sample size in each market was large enough to be significant at the 95% level with a fairly narrow (+/- 7.1%) error range.

Once the segments were validated custom segment distributions were created for each of Ontario's 80+ local utilities so the Ontario public could be understood at a local or utility-specific level.

RESULTS

Drivers of Behaviour

Electricity Conservation Behaviour among people in Ontario is NOT solely or even necessarily closely related to their attitudes towards or concern for the environment or climate change. It is driven by a mix of attitudes and demographics.

Behaviour for our purposes was defined as the number and level of actions taken to reduce electricity consumption in the home, and amount of effort expended to learn more about electricity conservation, both as self-reported on the survey.

At a category level, not necessarily in order of importance, the drivers are:

- a) feeling of personal empowerment – the extent to which individuals can make a difference to province-wide electricity issues
- b) awareness that conservation is a political or societal goal
- c) judgement about the wastefulness of institutions with respect to electricity
- d) tradeoff between environmental issues and the economy/jobs
- e) willingness to vote with their consumer dollar: to support companies with good environmental records and avoid those with poor records
- f) feeling self-directed vs. connected to society: propensity to put themselves first or having a personal responsibility to help others, and especially those less fortunate
- g) education level
- h) income
- i) home ownership

Segments

Four segments emerged from the analysis, representing increasing levels of engagement with electricity conservation and increasing levels of electricity conservation action. Capsule descriptions follow. More complete descriptions will be provided as part of the presentation delivered at the AESP 2008 National Energy Services conference.

Live for Today people, 12% of the Ontario population, demonstrate the lowest level of commitment to electricity conservation with over half doing nothing, or claiming to do only one thing, to reduce electricity use. The main activity reported with frequency is 'turning out the lights when I leave the room' which is felt by the OPA to be a rationalization of long-term behaviour and not an incremental, conservation-oriented activity.

Live for Today are not anti-conservation, they are simply not interested – they do not see electricity reliability and environmental issues as their problem to solve and in any event doubt

that individuals can make a difference to the overall provincial situation. They are also mistrustful of institutions and sceptical of messages from government.

Live for Today skews male, is overrepresented among young adults and seniors, tends to moderate education and income levels and is found in smaller centres.

The Budget-Driven segment accounts for 34% of the Ontario population. With proper motivation they will undertake easy-to-do actions to conserve electricity and buy low-value electricity-efficient products.

As the segment name implies the Budget-Driven feel somewhat overwhelmed by day-to-day financial pressures and their sole motivation for reducing electricity use is saving money in the short term.

It is not that they don't care about electricity issues or feel disconnected from broader society – they just feel that they have more than enough to handle taking care of their own needs.

Their ability to take action to reduce electricity use is somewhat limited by their lifestyles: many are renters in apartment buildings and lack decision-making authority over major appliances such as dishwashers, laundry facilities and over Central Air Conditioning. However, they do for example, use programmable thermostats if they are already installed. As well, this segment will respond to money-saving retailer coupons for low value products such as CFL bulbs. Interestingly, it is not the reduced electricity bill that motivates the purchase for many but the fact that the bulbs are longer-lasting and will need replacing less often and the relatively low difference in cost between CFL and incandescent bulbs.

Budget-Driven skews female and inclusion in this segment is somewhat related to stage in lifecycle: it overindexes in young adults – those with less discretionary income since they are just starting out or in early family-formation stages, and seniors – those on fixed incomes.

Budget-Driven have the lowest household incomes and lowest levels of educational attainment across the four segments.

Pragmatic Conservers, 31% of the population, is the first segment to believe in electricity conservation for its own sake. Three in four can name at least two actions they are currently doing to reduce electricity consumption. However, despite their conceptual support for conservation and using electricity wisely they must be convinced that an action also serves their interests before they will take it. They will not sacrifice lifestyle, comfort or pay extra to support their belief that conservation is the right thing to do.

In addition to easy-to-do actions such as turning out lights and turning electronics off when not in use, more Pragmatic Conservers take higher-level actions such as setting thermostats to conservation-recommended levels and participating in appliance retirement programs. In addition to buying low-value electricity-efficient products such as CFL bulbs they also buy Energy Star appliances. Again, perceived product characteristics come into play: in addition to understanding that Energy Star appliances reduce electricity consumption and their utility bills,

they also believe that the build quality of the appliances is higher, leading to better performance and more durability.

Pragmatic Conservers are high per-capita users of electricity: they live in urban or suburban single-family dwellings and are overrepresented in the 25-45 age range – the family formation lifestage. They also have the highest incomes – almost two-thirds have household incomes over \$80,000 – and are highly educated – seven in ten have bachelor’s degrees or higher.

Green Champions, 23% of Ontario, take the highest number of actions to reduce electricity consumption – an average of 2.7 per capita. They are also the most likely to take actions which require greater levels of commitment, such as using fans instead of air conditioning and having home energy audits done. Green Champions conserve electricity as part of a values-driven approach to conservation and sustainability in all forms. They strongly believe that individuals are part of larger systems – societal networks and environmental systems – and have a highly-developed sense of social responsibility. While the size of the segment indicates that not all are activists or even wholehearted, they are willing to do more, pay more and sacrifice comfort to support their beliefs. They are somewhat post-consumerist in their approach and while just as highly educated as Pragmatic Conservers more of them are renters and have moderate incomes.

While Pragmatic Conservers tend to be left-brain thinkers and approach decisions analytically and with their own good in mind, Green Champions evaluate situations from a values perspective and how they relate to the greater good. What they have in common is a higher level of sophistication than either the Live for Today or Budget-Driven segments.

ACTION

Linked back to the OPA objectives for doing the segmentation:

- a) To fill a gap in the need for a simplified model for understanding the Ontario public based on electricity conservation attitudes and habits

The segments have been accepted and are in use by a variety of senior internal and external decision-makers and audiences.

- b) To inform OPA marketing and conservation program initiatives

Pragmatic Conservers and Budget-Driven have been selected as target groups for OPA messaging in 2008 and beyond. The reasons are:

Both are large groups, each representing roughly 4 million people, signifying significant opportunities for reducing residential electricity use and also for moving Ontario towards a culture of conservation.

Both are open to conservation messaging and programs targeted to their own motivations: for Pragmatic Conservers to maintain or improve their quality of life while feeling good about conserving; and for Budget-Driven, saving money.

Complementary profiles in terms of age, gender, income, home ownership, interests, media use and other lifestyle and lifestage areas facilitates targeted communications and marketing.

Creative and communications strategy and delivery channel decisions are being made on a segment-specific basis. Marketing research continues to be done to understand segment-based motivations, barriers and behaviour in more depth with the anticipation that going forward a segment approach will impact program design.

- c) To establish a common language for talking about the public within the OPA and with local utilities and other stakeholders

To date the OPA segments have been shared with Ontario's Ministry of Energy, the Coalition of Large Distributors, the Electricity Distributors Association (an association whose membership includes Ontario local utilities) and individual utilities.

Segment profiles customized for their respective territories have been shared with each Ontario electric utility. Differences in segment distributions are evident across utility areas, signalling the opportunity for localized communications approaches. In addition, and in order to help utilities make use of the information, marketing and program communications from the OPA to utilities include references to segments as program targets.

To engage the public a DIY online version of the segment questions is available on the Ontario Power Authority's consumer website www.everykilowattcounts.com. Visitors to the site can take the Electric Personality Quiz to identify the segment to which they belong and receive tips for electricity conservation written in segment-specific language and reflecting segment-specific motivations.

MORE INFORMATION

A presentation of the OPA segments can be found on the OPA website, at www.powverauthority.on.ca