

Teen Attitudes Towards, and Awareness of, Electricity Conservation in Ontario: Study Highlights

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Outline

- Background
- Objectives
- Methods Used
 - Focus Group Finding Overview
 - Survey Results
- Recommendations



Background

- ❑ The environment is becoming an increasingly important issue in Ontario as evidenced by recent polls (e.g. Environics, 2007)
- ❑ In order to ensure strong leadership in the energy sector in the future, youth need to be encouraged and empowered take action
- ❑ Few studies that have measured the attitudes and awareness of youth towards electricity conservation issues
- ❑ Some indication that young adults place less of an emphasis on the environment than other groups



Background/Literature

- Flanagan et al, 2006
 - Environmental conservatism has declined since the 1990s among US teens; focus on materialism has been increasing over the past decade
 - Teens believe the government holds the main responsibility for addressing environmental issues, although they attribute some responsibility to themselves
- Wray & Flanagan (2006) believe evidence indicates youth attitudes have mimicked the US federal government's over the years



Baseline Research Objectives

Three overall project objectives:

- Establish a benchmark measure of teen attitudes towards electricity conservation which can be repeated in future surveys to measure change – *what do they think now?*
- Determine the context in which teens think about electrical energy conservation to allow the OPA to develop strategies and triggers to manage the issue and develop programs oriented at the teen population – *what kind of message should we convey to teens regarding electricity conservation?*
- Uncover communications techniques – from creative to event suggestions – likely to be persuasive – *how should we talk with them?*



Research Methodology

Phase I: Focus Groups (April 2007)

Two focus groups were conducted with 15 youth from the Region of Waterloo by PMG Consulting. The purpose of the focus groups was to gain an understanding of the general mindset of teens aged 13-17 with regard to energy and electricity conservation before developing the survey.

Phase II: Quantitative Questionnaire (May 2007)

An online survey with a sample size of 500 teens in Ontario aged 13-17 was conducted by Open Venue. The purpose of the survey was to gather baseline quantitative data to assess attitudes and awareness of Ontario teenagers regarding electricity conservation.

Focus Groups

Group Make-up

	FG 1 (N=8)	FG 2 (N=7)
Age group	13 to 14	15 to 17
Location/residence	Kitchener/ Waterloo	Kitchener/ Waterloo
Female/male mix	3 F, 5 M	4 F, 3 M
Households income > \$100,000	3	2
\$85,000-100,000	0	2
\$65,000-85,000	1	1
\$45,000-65,000	3	2
\$30,000-45,000	1	0



Group Make-up

- ❑ No real mix of visible ethnic minorities
- ❑ Some with part-time jobs
- ❑ Mix of those who were, and were not, “gadget freaks” (wanted a mix of those who were and weren’t interested in technology/electronics)



Main Findings of Focus Groups

- Climate change was a prominent issue that came up in discussions (unprompted)
- Electricity was not on the teens' radar, absence came up unprompted and prompted
 - Echos what was found in adult survey
- Teens did appear to attribute a significant portion of the “blame” for environmental concerns to themselves
- Despite many teens' reliance on technology, there were varying views on the role technology should play in electricity conservation



Main Findings of Focus Groups

- Findings from asking about “marketing ideas” to get their friends to pay more attention to electricity conservation:
 - Advertise on buses; websites; IM; pop-ups (not all agreed)
 - School assemblies (not all agreed)
 - Talk to people in person (not TV ads; many thought TV ads were irrelevant)
 - Music videos by popular/edgy artists
 - Showing a video put together by students
 - Turned out lights for the day, compete with other schools
- Reaction to sample TV ads on conservation revealed
 - Take offense to being stereotyped
 - Liked the use of humour

Survey

Survey – Sample Distribution

Sample size: 500

Distribution by area:

GTA: 258 (51.6%)

Outside of GTA: 242 (48.4%)

Age distribution:

13-14 years old: 100 (20%)

15-17 years old: 400 (80%)

Median grade level of teen respondent: 11

Gender	Sample Size	Proportion
Male	227	45.4%
Female	273	54.6%

Age	Sample Size	Proportion
13	21	4.2%
14	79	15.8%
15	63	12.6%
16	133	26.6%
17	204	40.8%

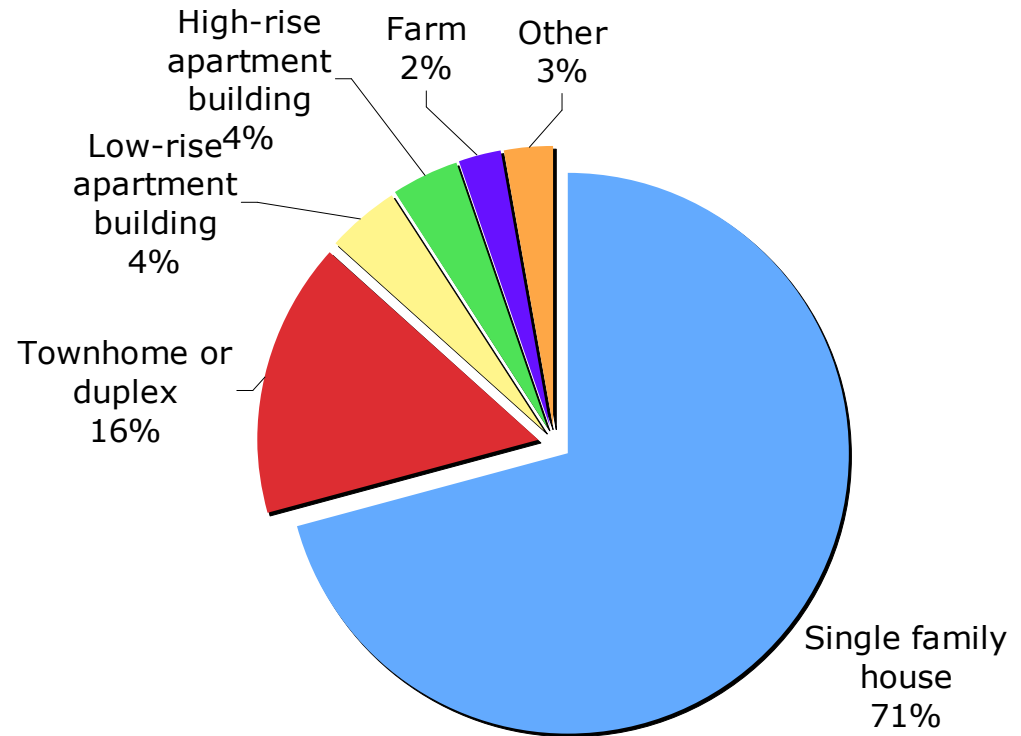


Survey – Sample Distribution

- ❑ Age was the main demographic for which province-representative sampling was not obtained
- ❑ Results cannot be readily generalized to Ontario teen population within a 5% margin of error, 95% of the time
- ❑ However, although the respondent base is skewed toward the older ages, various regression analyses showed little age dependent variation in responses. As such, the frequency data presented here can likely be considered as representing the older age group (i.e. 15-17)

Household Type and Size

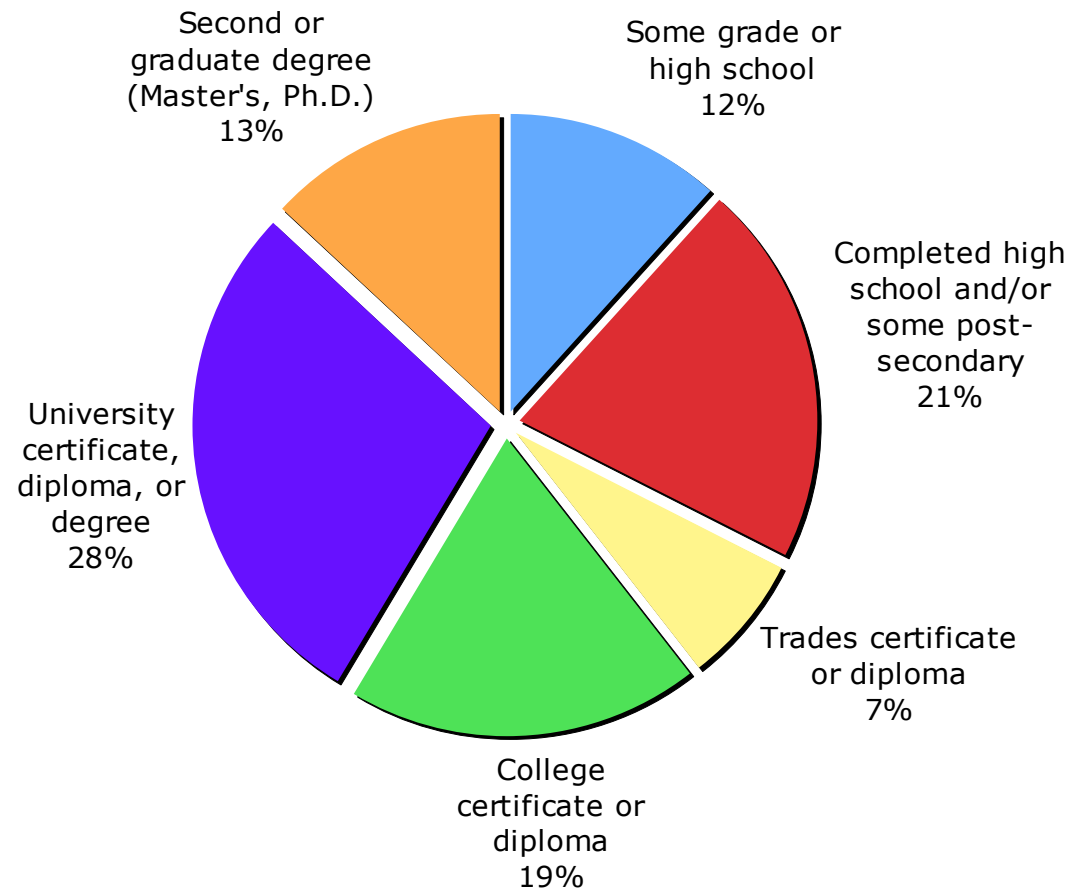
Household Members	%
Grandparents	10
Parents	94
Sibling(s) 18+	27
Sibling(s) (13-18)	46
Sibling(s) (8-12)	23
Sibling(s) (0-7)	8
None of the above	0



Median number of members in household: 4

Proportion which live in a home that is owned: 77%;
rented: 18%

Households Education Levels





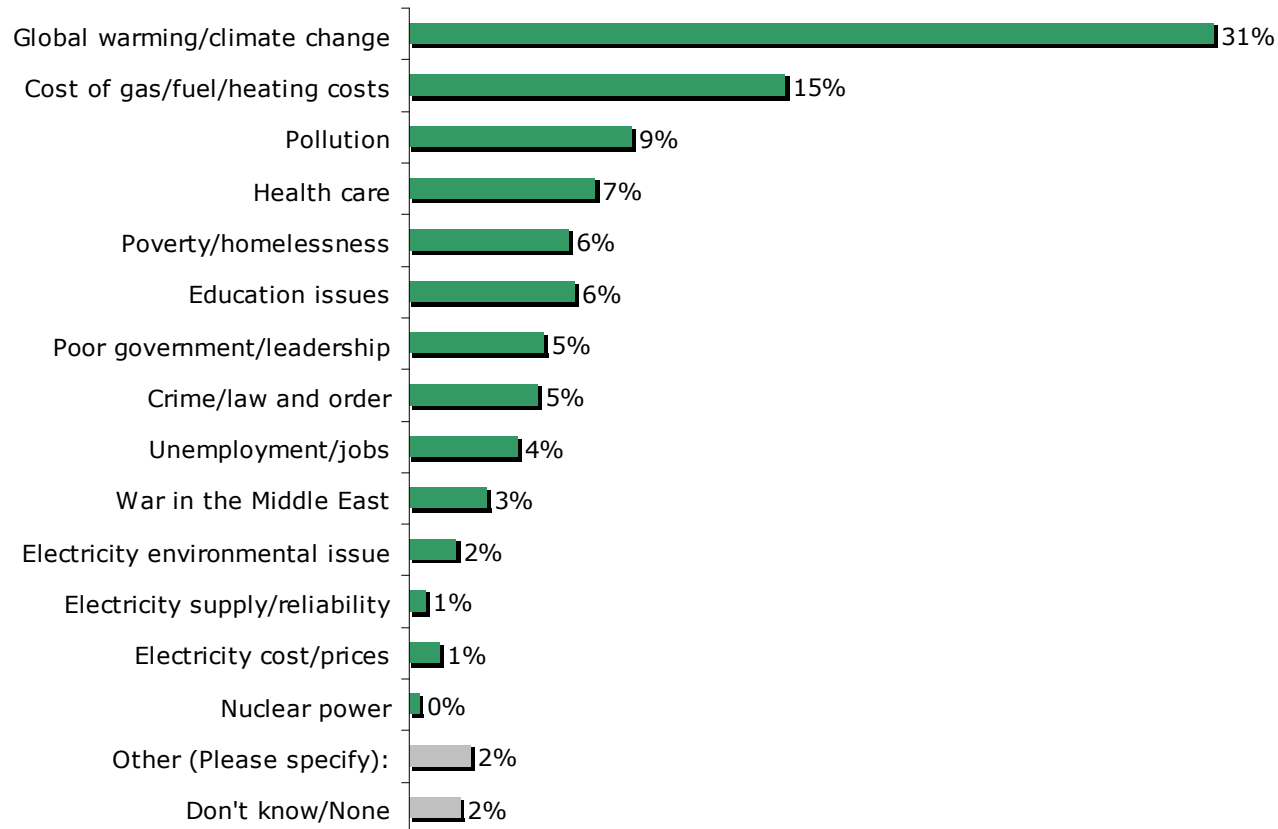
Other Demographics

- 37% currently have a part-time job
 - 47% of 17 year olds (highest)
- 31% have a driver's license
 - 23% of 16 year olds
 - 59% of 17 year olds
- 15% of respondents were born outside of Canada
 - 46% were from Asia
 - 20% were from Europe
 - 10% were from the United States
 - 31% of all those born outside Canada have lived here for 5 years or less

Survey Results

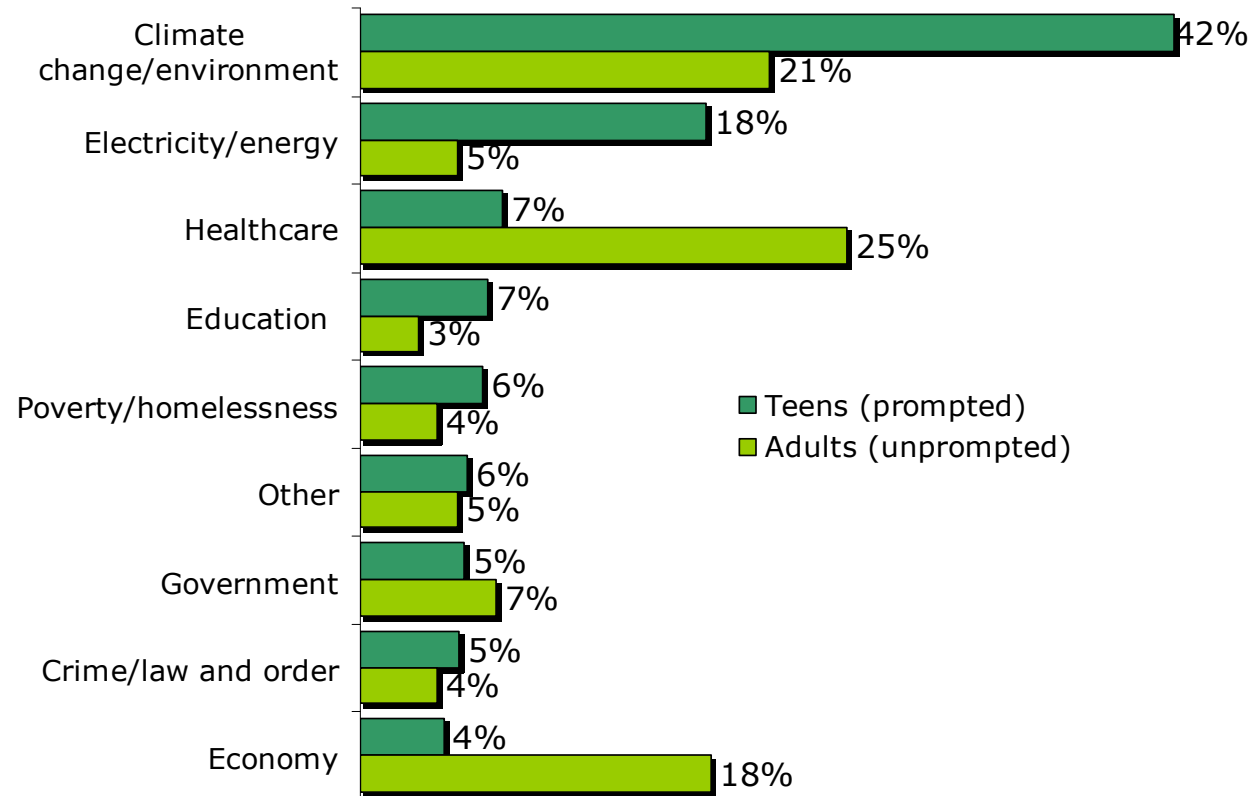
The Big Picture

Most Important Issues Facing Ontario Today



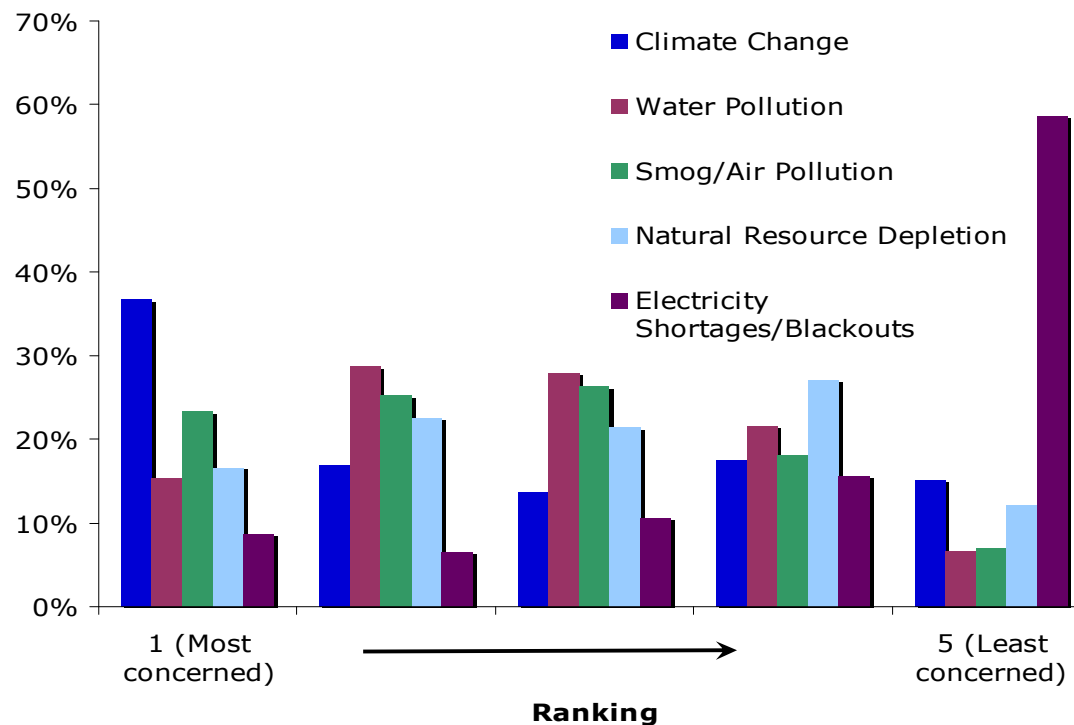
Global warming/climate change is by far the leading concern of teens. 31% listed it as the most important issue facing Ontario today. Following climate change was the cost of gas/fuel/heating costs (14.5%) and pollution (8.5%).

A Comparison with the Adult Survey (Feb 2007)



Majority of “electricity/energy” component is due to concerns with cost (gas, fuel, heating costs).

Ranking of Environmental Issues (prompted)



37% of teens ranked climate change as the issue they are most concerned with, while almost 60% ranked electricity shortages and blackouts as the issue they are least concerned about.

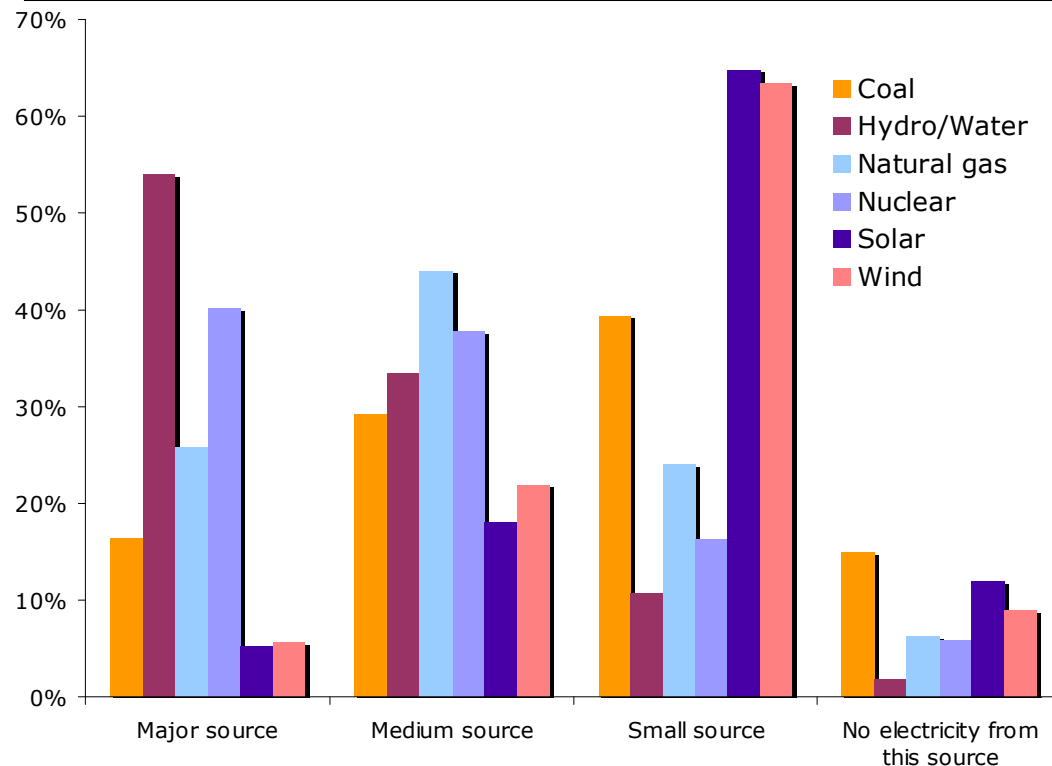


The Big Picture: Synthesis

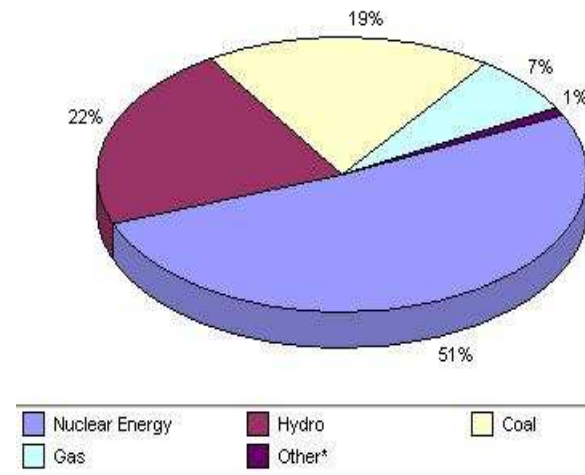
- Climate change is at the top of many teens' list of important issues and is an environmental issue many are strongly concerned about
- Responses show that many teens do not necessarily draw the link between climate change and electricity use, and further confirms what was found in the focus groups – electricity use and conservation is not “on the radar” of many teens

Electricity Issues

Ontario Electricity Generation Sources: Estimations



Electricity Generation by a Diverse Fuel Mix (Energy in TWh), 2006

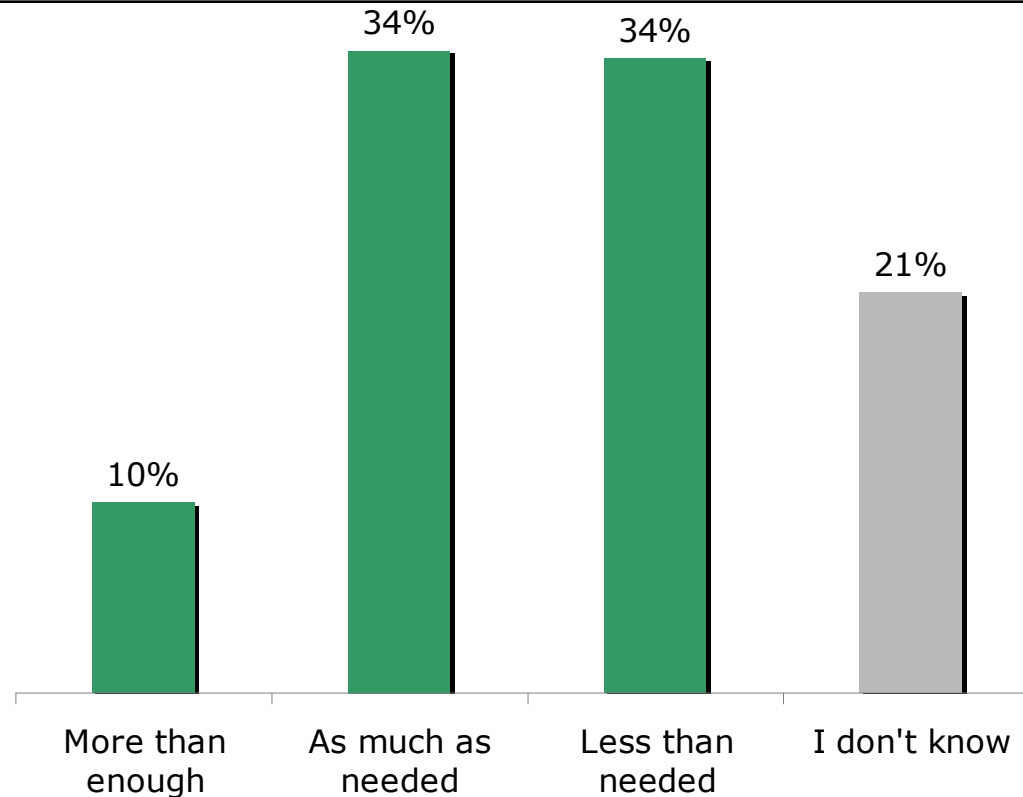


Source: OPA, 2006

An apparent overestimation of the amount of electricity produced by hydro/water and an underestimation of the extent to which Ontario relies on nuclear power. 88% of teens believe that hydro/water is a major or medium source of electricity in Ontario, while 60% of teens believe that nuclear power is a medium, small or not a source of electricity for Ontario.

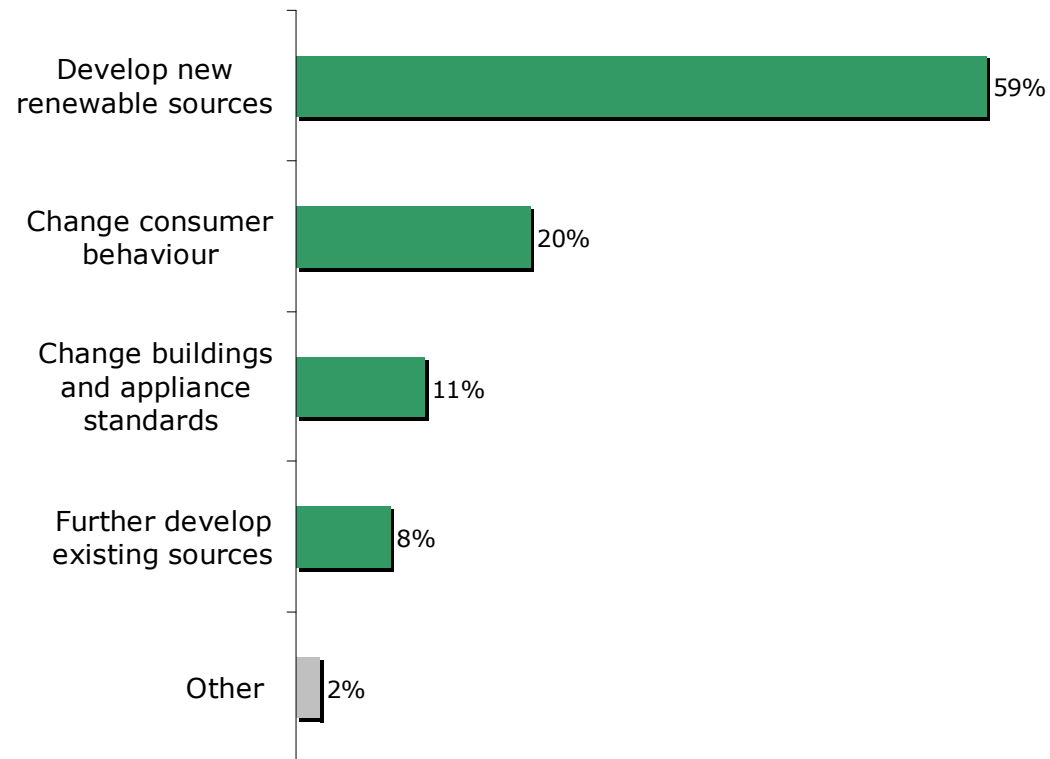
The pie chart illustrates current actual proportions of electricity supply in Ontario.

ON Supply Capacity Over Next Decade



About one-third of teens feel that Ontario has enough electricity supply to meet the province's needs over the next ten years, while one-third feel that it has less supply than needed. This contrasts results of the adult survey in which six out of ten Ontarians were concerned about Ontario's future electricity supply.

Best Way to Meet ON's Needs Over Next Decade



Similar to the adult survey, teens felt that the best way to meet Ontario's future electricity need is to further develop renewable sources (although emphasis on this option was more prominent in the teen survey). Changing consumer behaviour was equally ranked in both the adult and teen survey as a second option.



Electricity Issues: Synthesis

- ❑ Teens overestimate the province's reliance on hydroelectricity as a supply source in Ontario, and underestimate reliance on nuclear power
- ❑ Teens have some awareness of the province's capacity concerns, however, they are less concerned about future electricity supply and blackouts than are adults
- ❑ The future in electricity for teens is in the development of renewable energy sources

Attitudes, Action and Awareness



Teen Attitudes

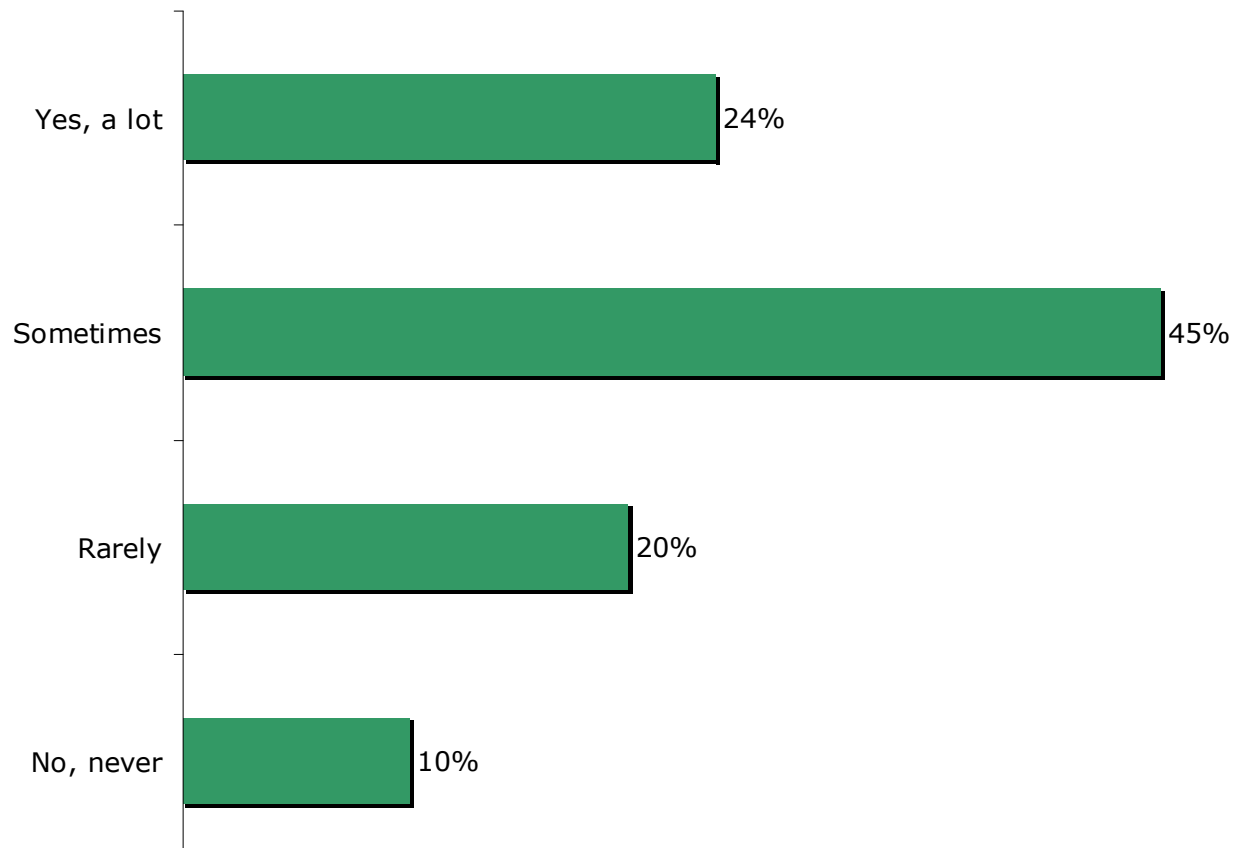
- ❑ 63% of teens report that they are interested or very interested in electricity conservation
- ❑ Just under half of teens believe they are doing something that contributes to electricity conservation but could do a lot more
- ❑ The top reason why teens report they are not doing more to reduce their electricity consumption is because they are “too lazy”. Many also reported they hadn’t really thought about it or that there was a lack of time.
- ❑ Main motivations for reducing their own electricity use included wanting to do their part to fight climate change and air pollution/smog. Another frequently cited motivation was to contribute to a better tomorrow.

First Thing that Comes to Mind when Thinking of Electricity Conservation (top responses)

Action	%
Turning off lights	22
Energy conservation/ not wasting electricity	21
Turning things off (other, non-specific)	11
Renewable and/or clean energy (wind, solar, etc)	7
Using energy efficient lights	5
Using energy star or energy efficient appliances	3

Summary of results from unprompted question reveals not wasting and turning things off as top of mind.

Do You Think About How Much Electricity You Use?



Most teens report that they think about how much electricity they use at least sometimes and 24% report that they think about it quite a bit.

Perceptions on what Activity Uses the Most Electricity in the Daily Routine of Teens

Activity	%
Computer	49
Watching TV	14
Leaving the lights on	9
Using the washer/dryer	5
Taking a shower/bath	4

Unprompted question on what teens think use the most.

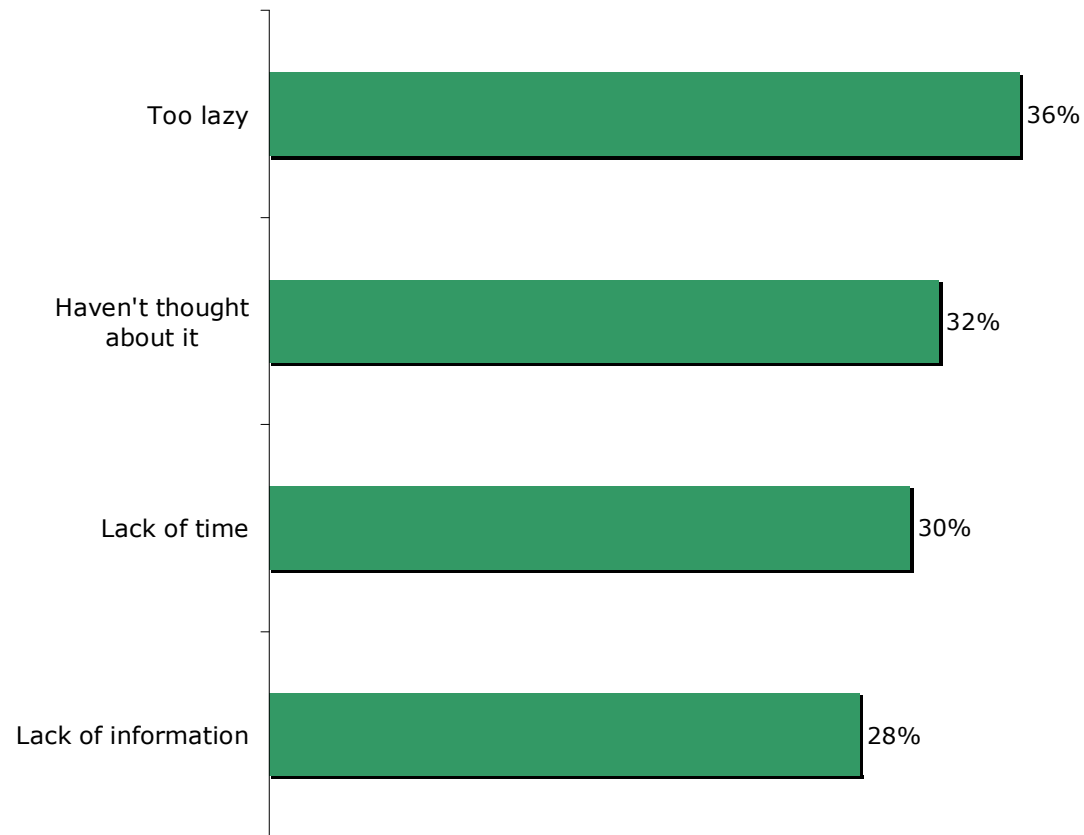
Use of Electronic Devices

Electronic Device	Use on a Regular Basis (%)
Computer	96
iPod/MP3 Player	73
DVD Player	53
Video Games	50
Cell Phone	50
Stereo	46
Digital Camera	39
Hair Dryer	28
Curling/Straightening	27
Electronic music equip	19
DVR	6

Teens are heavy users of a variety of electronic devices in their daily routines, notably computers, iPods/MP3 players, DVD players, video games and cell phones. Most of these devices use standby power and/or rechargers that may stay plugged in all the time.

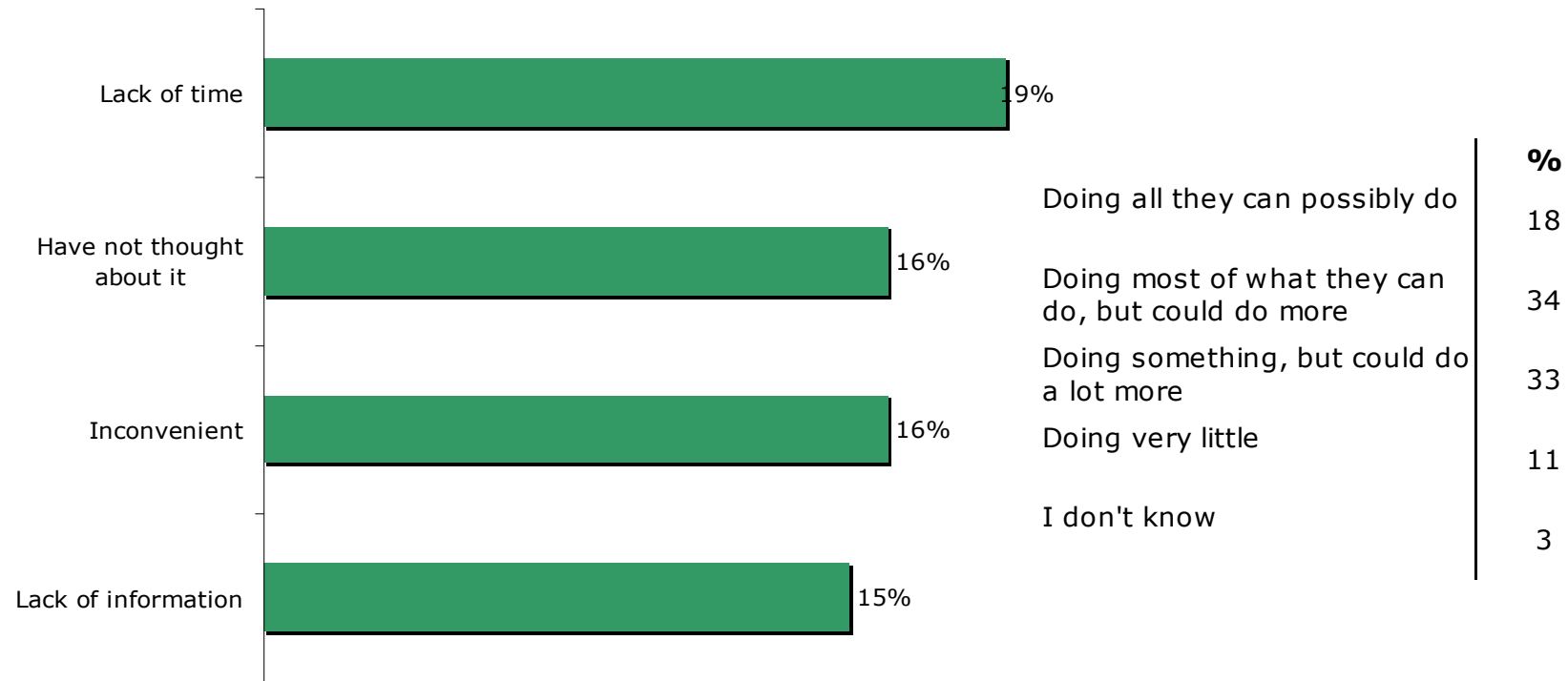
In terms of male/female correlations, males tend to play video games more, whereas females are more likely to use digital cameras, hair dryers and irons.

For Teens Who Could Do More to Conserve: Top Reasons Why They Are Not



Males more likely than females to choose “I’m too lazy” as number 1 reason why they are not doing more.

Attitudes Towards Parents' Conservation Efforts



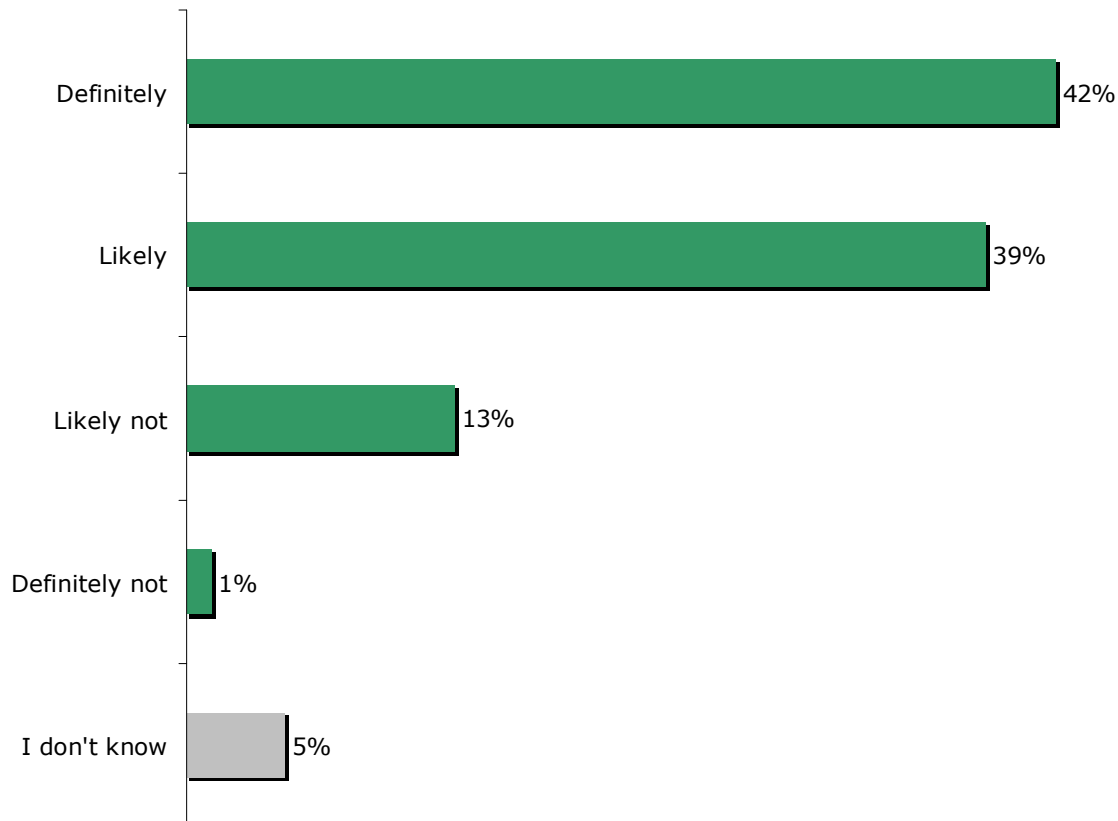
Teens reported similar reasons why their parents are not doing more to conserve electricity, however they put more emphasis on lack of time as a factor in their parents' behaviour. More teens felt that their parents were doing most of what they could do (as compared with their assessment of how much they, as individuals, are doing).

For Teens Who Are Conserving: Main Motivation

Motivation	% ranked first	% ranked 2nd	% ranked 3rd	Total % ranked as one of top three
Do my part to reduce effects of climate	14	8	4	25
Doing my part for a better tomorrow	7	6	9	22
Do my part to reduce air pollution/smog	4	9	7	20
It's wrong to use too much electricity	5	5	5	15
Stop parents from nagging	2	1	4	7
Do my part to avoid another blackout	1	3	3	7
It's cool to care about conservation	0	3	3	6
Conserve to make a point to my parents	1	1	1	3
Other	1	0	0	1

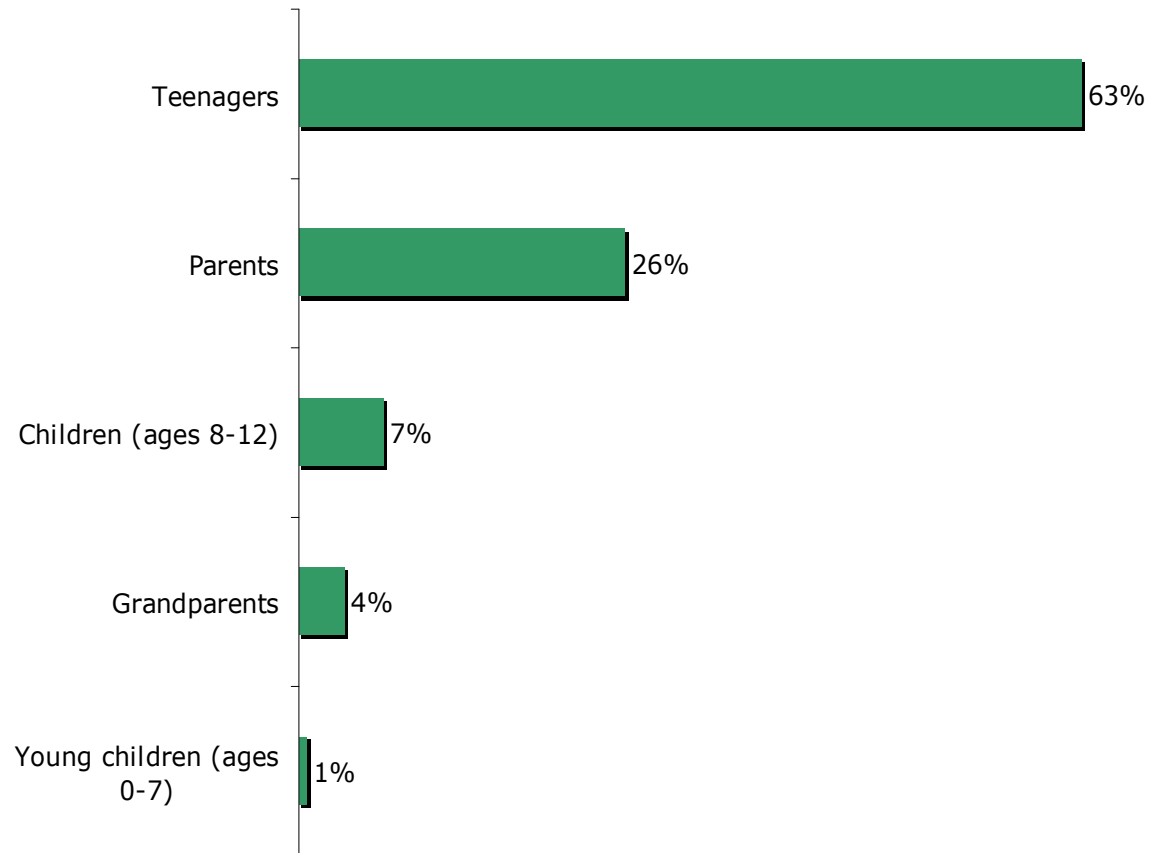
Motivations are mainly environmental, including the catch-all “the need for a better tomorrow”. “Coolness” and making a point to parents were minor motivators.

Can Individuals Make a Difference in Contributing to Conservation?



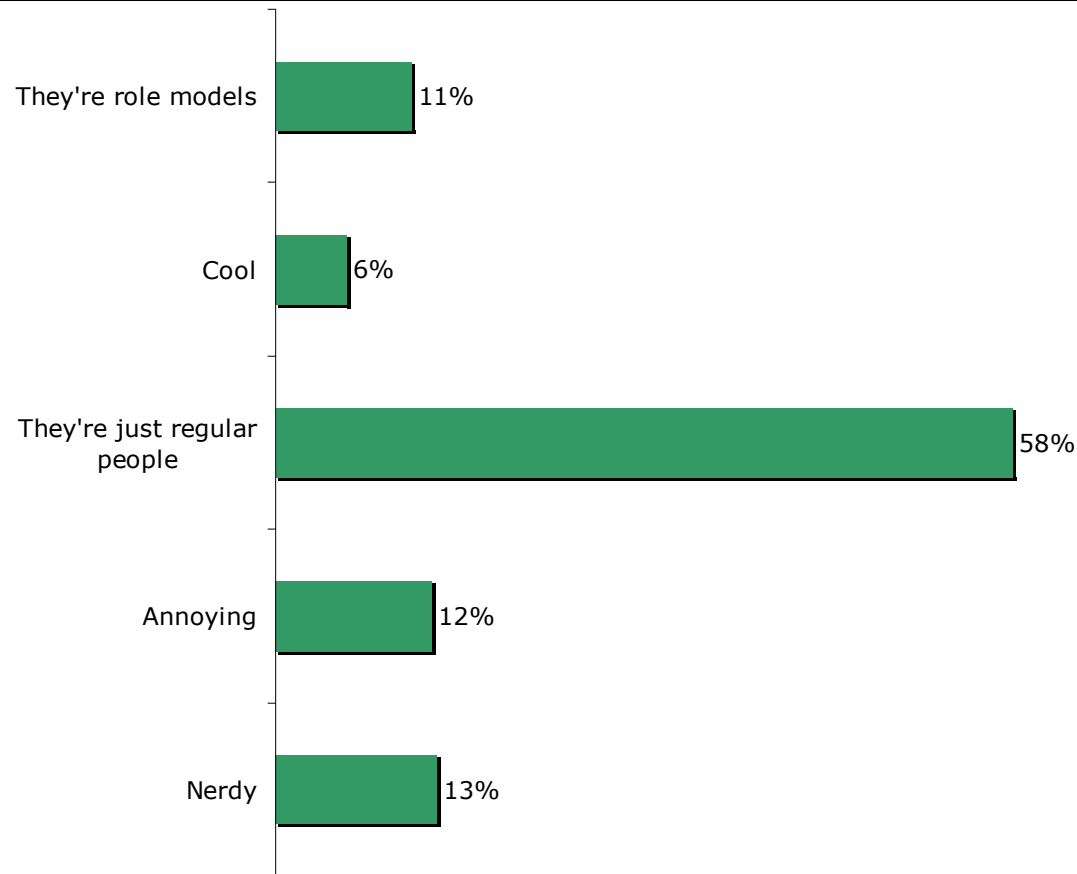
Most teens felt that, as an individual, they could make a difference, however this is lower than in the adult survey in which 59% of respondents reported “definitely”. Teens are perhaps less sure of their ability to make a difference at this point in their lives.

Who Teens Think Use the Most Electricity in a Household



A sizable majority of teens felt that teenagers use the most electricity in a typical household.

How Teens Describe People Interested in Environmental Issues Like Conservation



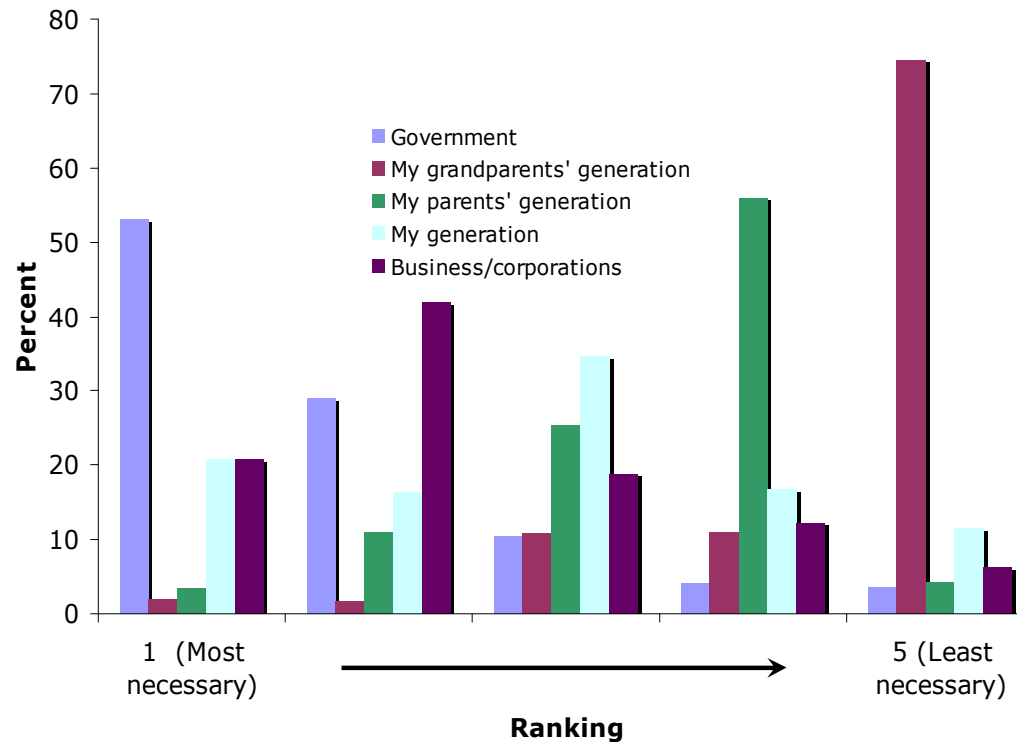
A large proportion of teens describe people who conserve electricity as being just regular people. One quarter of teens responded that electricity conservers are nerdy or annoying and some see them as role models.



Attitudes About Others in Ontario

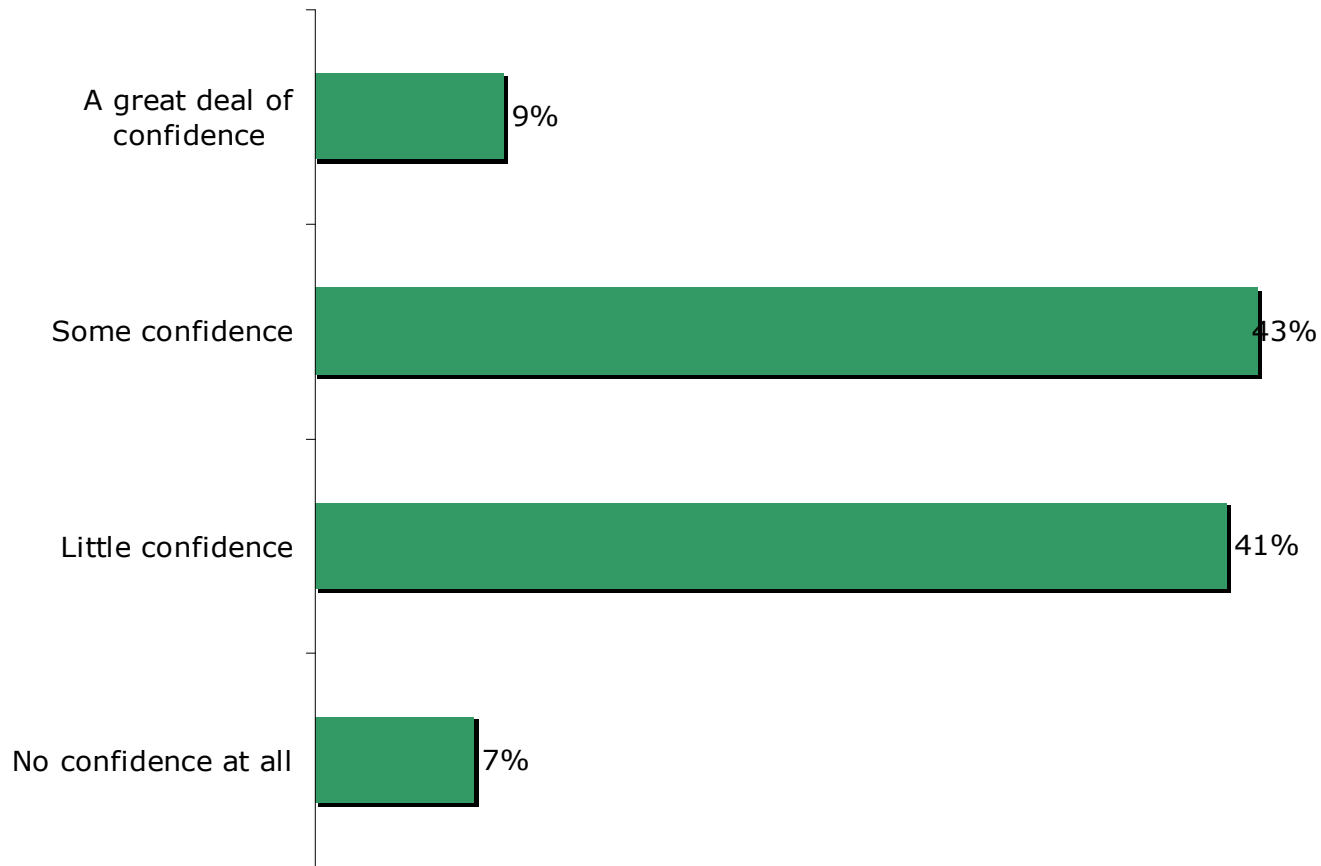
- 75% believe that Ontarians are somewhat to very wasteful in terms of their electricity use
- The top three reasons why teens feel Ontarians are wasteful are:
 - Habit/lifestyle/convenience
 - People don't care
 - Not paying attention
- 72% believe that businesses/corporations in Ontario are somewhat to very wasteful in terms of their electricity use
- 52% feel that their school is somewhat to very wasteful in terms of electricity use
- 44% say that there is no electricity conservation program at their school and 43% don't know if there is one or not

Who Should be Part of the Solution?



More than half felt that governments were a very necessary part of the solution (similar to Flanagan et al, 2006). Just under half ranked business/corporations as second most important. Relatively equal distribution in opinion on whether teens' generation should be part of the solution. Strong consensus that their parents' and grandparents' generation were not that necessary to the solution. Females more likely than males to rank "my generation" as number 1 choice. Males more likely to rank "business" as number 1 choice.

Confidence in Gov to Succeed in Influencing Consumers and Businesses to Conserve



Split between some and little confidence.

Actions Teens Have Taken to Reduce the Consumption of Electricity in their Household

Action	(%)
Turn off lights when not in use	86
Turn off power to electronics when not in use	72
Use microwave instead of oven	54
Be more conscious of using electricity	48
Run dishwasher only when full	47
Wash clothes in cold water	41
Reduce use of clothes dryer	40
Turn down thermostat in winter	37
Encourage parents to conserve	35
Turn up thermostat in summer	32
Run appliances during off-peak hours	22
Other	5
None of the above	5

Frequently reported actions include like turning off lights and turning off computer and other electronic devices when not in use.

Awareness of Existing Electricity Conservation Programs

Program	Teens who have heard of it (%)
Energy Star	53
Energuide	36
Flick Off	35
Energy Rebates	25
Powersmart	25
Powerwise	24
Every Kilowatt Counts	19
None of these programs	16
Summer Savings	11
Retire old beer fridges	8
Lose it, Use it	7
Obviously.ca	7
Peak Saver	6
Other	2
Local utility program	1

Males more likely than females to have heard of Beer Fridge Retirement, although overall numbers low.



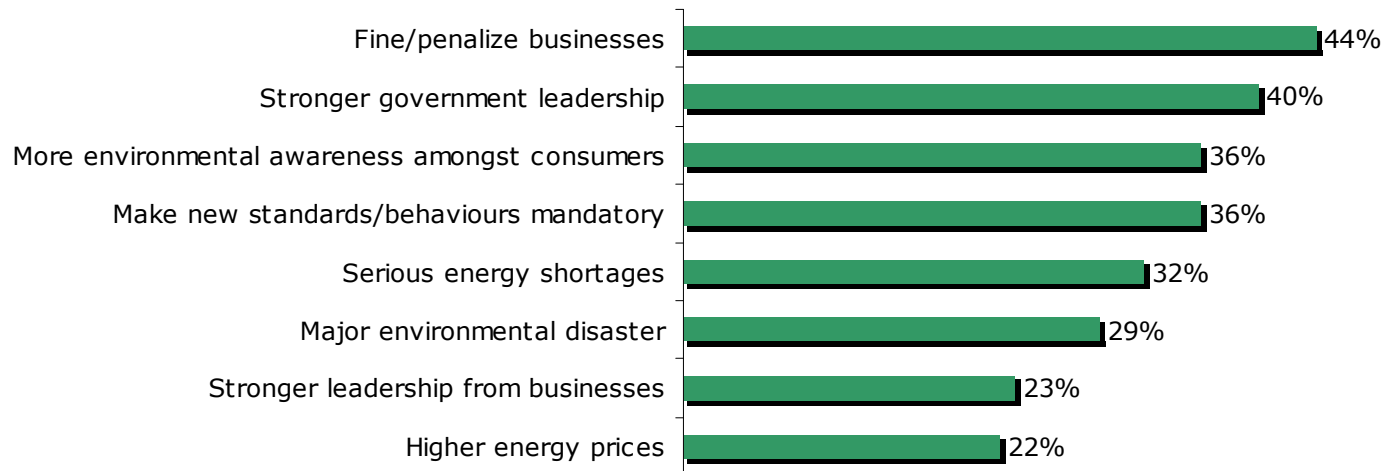
Awareness of the OPA

- 84% were not very or at all familiar with the OPA and its conservation programs
- Of those who were at least somewhat familiar with the OPA programs, 74% believe they are effective (somewhat or totally agree)

Awareness of a Conservation Culture

83% of teens have never heard of the term “conservation culture”, but when given a definition, 80% feel that it is important to Ontario.

What it would take to create a conservation culture? (teens who ranked each as one of top three reasons)



Teens appear to prefer the “stick” over the “carrot” with respect to ways in which Ontario should create a conservation culture and call for stronger government leadership as well as increased consumer awareness.

Females more likely to choose “higher energy prices” as a number 1 choice than males.

Attitudes: Synthesis

- Teens think about conservation...sometimes
- Two-thirds believe they consume the most in a household
- Environment major motivation for wanting to conserve, as well as the desire for a “better tomorrow”
- Believe governments should be the most responsible for taking environmental action; however, they attribute some responsibility to themselves as well; similar to US findings (Flannagan et al, 2006)
- They take on some responsibility, and they believe individuals can make a difference (although not as much as adults do), but...
 - Over 1/3rd say they don't do more because they are “too lazy”
 - Believe penalties and stronger government intervention, as well as raised awareness is required for a conservation culture
- Felt their parents were doing better than they were; limiting factor for their parents was attributed to “lack of time” (as opposed to “too lazy” for the teens)



Attitudes: Synthesis, cont'd

- Most think of other teens who conserve as “regular” people, although 25% think negatively of them

Beyond the teenage realm:

- Majority believe that Ontarians, as well as Ontario businesses are very wasteful with regard to electricity use
- About half believe their schools are wasteful; 11% report their school has an electricity conservation program
- Although majority of teens think government should take the lead, 42% have little confidence in its ability to be successful; a similar had some confidence

Action and Awareness: Synthesis

Action

- Main action taken by teens involves turning things off

Awareness

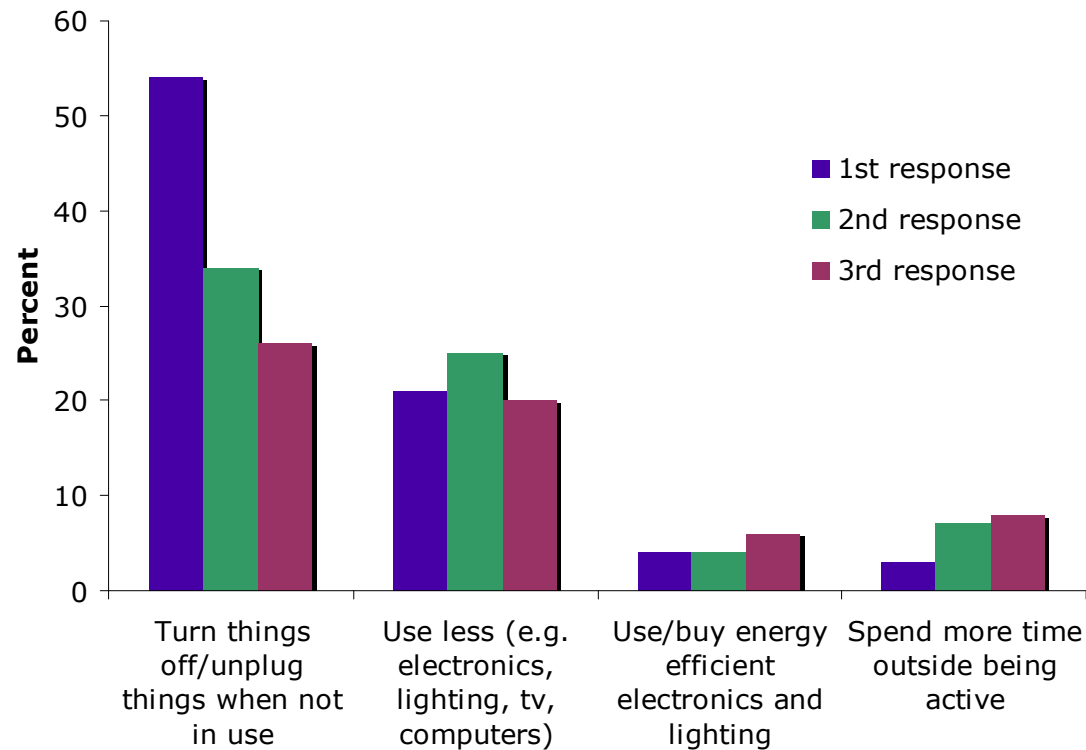
- Main program of which they were aware was Energy Star (53%)...more if logo was included?
- Teen targeted programs: One-third had heard of “flick off” a few weeks into the campaign; fewer (7%) had heard of obviously.ca, even though it had been out longer
- Little recognition of OPA programs not entirely surprising
- Although the vast majority had not heard of the concept of a “conservation culture”, a similar majority felt it was an important idea

Moving Forward: Teens' Suggestions

Potential Ability for Teens to Influence Friends and Family

- 42% report that they have tried to influence someone to conserve electricity
- A large proportion of teens (69%) believe that they could have at least some influence over their *friends* with respect to electricity conservation (more females felt this than males)
- The top three ways that teens feel they could influence their *families'* electricity use habits are:
 1. Turning off lights when done (97% said they could have at least some influence)
 2. Turning off TV or stereo when done (93%)
 3. Buying energy efficient lights (83%)

Suggested “Realistic” Conservation Actions for Other Teens



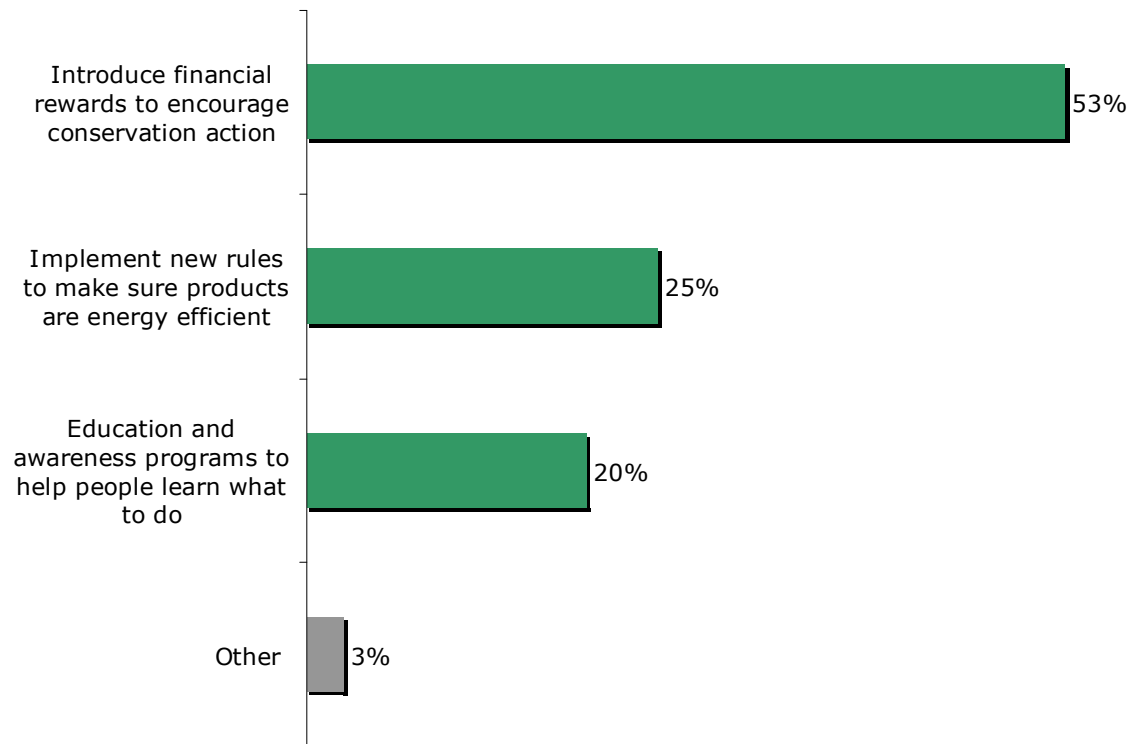
Turning things off, and using less were prominent.

Suggestions to Promote Conservation Amongst Other Teens

Idea	%
Suggest things to do/not do (e.g. turn stuff off, watch less TV)	19
Don't know	14
Ideas to show them the pitfalls for them if they don't take action	11
Incentives/rewards (games/contests/prizes)	10
Education/awareness programs	9
Get a discussion going (talk about it with them)	8

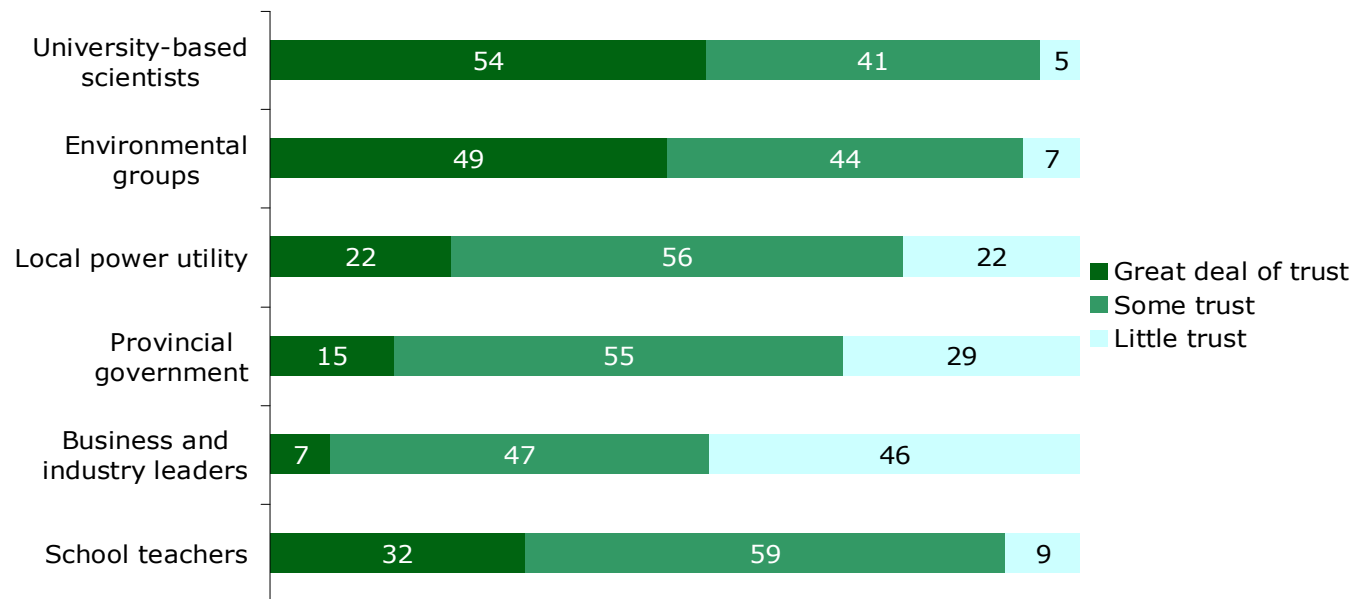
Tips, doom & gloom, and positive encouragement figured in the mix. A substantial percentage did not know.

Preferred Strategies to Encourage Electricity Conservation Amongst Consumers



Teens seem to prefer the “carrot” approach to encourage individual action and the “stick” approach to get businesses to be more conservation conscious (from previous slide on “conservation culture”). (It should be noted that they were not explicitly asked about a “stick” option such as taxes/fines in this question.)

Teens' Trust of Various Information Sources



Teens place the highest level of trust in university scientists and environmental groups, followed by school teachers. The lowest level of trust in business and industry leaders, followed by the provincial government and their local utility company.

Similar to the adults breakdown.

80% trust advice coming from the OPA (n=275).



Moving Forward: Synthesis

- ❑ Teens prefer the “carrot” approach of incentives and rewards for consumers to encourage electricity conservation (contrasting with more a “stick” approach they preferred for businesses)
- ❑ Teens feel they could influence their friends to take action such as turning off lights and other electronic devices
- ❑ Teens place most of their trust in university scientists and environmental groups
- ❑ 6 out of 10 teens like to see solid facts and numbers in information campaigns that they can relate to

Recommendations



Barriers to Overcome

- Teens consider themselves “too lazy” to be active electricity conservers
- A sizable proportion of teens admit they haven’t really thought about electricity conservation
 - Need to get over the “ennui” hump through exciting campaigns



What Kind of Message Should Be Conveyed?

- ❑ Awareness campaigns need to go beyond getting teens to turn off the lights
- ❑ Because of teens' high level of use of electronic devices involving standby power/rechargers, programs should raise awareness about phantom loads



What Kind of Message Should Be Conveyed?

- Communication to teens should make clear the link between electricity use and climate change/greenhouse gases
 - Teens are unclear of sources we use to produce electricity: a starting point in a marketing campaign could be to educate teens on this point



What Kind of Message Should Be Conveyed?

- Leverage teens enthusiasm towards renewable energy sources by designing programs that allow teens to learn about or interact with renewable energy technologies



What Kind of Message Should Be Conveyed?

- Messages should convey “carrot” options for individual electricity conservation and strong leadership from the government that they are making sure businesses are not wasting electricity



What Kind of Message Should Be Conveyed?

- Many teens feel that their school wastes electricity – promote and expand eco-school programs
 - Use schools as model examples for teens
 - Consider partnering with other energy conservation programs aimed at teens



What Kind of Message Should Be Conveyed?

- Teens indicate they believe individuals can make a difference when it comes to conservation, although slightly less so than adults
 - Messages should empower



How Should The Message Be Communicated?

- ❑ TV ads less salient for teens
- ❑ Internet and IM sites
- ❑ Use trusted information sources: university scientists, environmental groups and OPA (more so than business, government and LDCs)



How Should The Message Be Communicated?

- ❑ Cool merchandise to go with campaign that is made from environmentally-friendly and socially responsible sources
- ❑ Ability for teens to get involved and play an advocacy role
- ❑ Interactive websites with blogs, videos and content that is continually changing
- ❑ Messages should be by, and about, “just regular teens”
 - Teens feel that they are high consumers and also that they have influence over their friends = opportunity?

Thank You

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