

Canadian Views of Nuclear Energy

Final Report

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INTRODUCTION

The Canadian Nuclear Association (CNA) is a non-profit organization established in 1960 to represent the nuclear industry in Canada and promote the development and growth of nuclear technologies for peaceful purposes. As part of its communications efforts, the Canadian Nuclear Association (CNA) regularly monitors the Canadian public's perceptions of various nuclear issues, including opinions of residents in particular provinces. As part of this monitoring activity, the Canadian Nuclear Association (CNA) examines such issues as:

- Public support for nuclear electricity generation,
- Public support for other energy sources,
- Perceived benefits and concerns about nuclear technology,
- Confidence in the system to handle nuclear waste, and
- Perceived safety of nuclear power plants in Canada.

On behalf of the CNA, Ipsos Reid recently conducted opinion research among the public in Ontario on these key issues central to developing a secure and sufficient supply of energy for Canada's future.

METHODOLOGY

Ipsos Reid conducted telephone research among 800 residents of Ontario 18 years of age and older, between June 28 and July 2, 2007.

With the provincial sample of 800, the results of the study are considered accurate to within +/- 3.5%, 19 times out of 20.

The data were weighted according to recent census data, to ensure that the results comprise a representative cross-section of Ontarians.

EXECUTIVE SUMMARY

Support for Nuclear Remains Consistent

Since the Canadian Nuclear Association began its tracking exercise with Ipsos Reid, significant changes in Public Opinion towards nuclear power have been noted. However, over the past year and a half or so, the tracking numbers have remained relatively consistent.

With the environmental concerns playing an increasing role in the Ontario political landscape, energy, and the means by which it is produced, would intuitively also be a topic of discourse. However, energy production is not on the top of minds of Ontarians, and nuclear-produced energy is not even on the radar screen of Ontarians.

Nevertheless, Ontarians seem to recognize that the current supply of energy in Ontario is not sufficient to meet increasing demand for energy, nor do they believe that conservation efforts will offset the increasing demand for energy. To this effect, four in ten (40%) believe nuclear power should play a larger role in the future, while just 25% believe that it should play less of a role.

While support for nuclear power hovers around 62%, the degree to which Ontarians support nuclear power decreases somewhat when one begins to speak about location. Four in ten (40%) support nuclear-produced energy no matter where it is located, while 15% adopt a NIMBY approach. 39% oppose nuclear-produced energy no matter where the plant is situated.

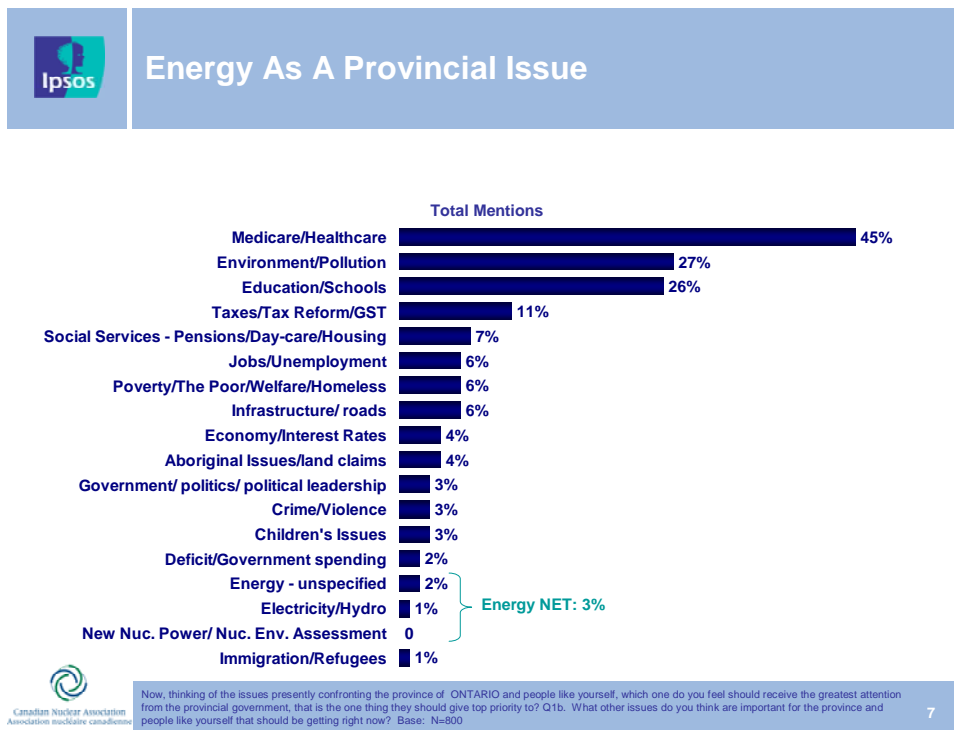
Maintaining its consistency with past results, more Ontarians prefer refurbishing existing nuclear power plants (73%) than building new plants (58%). These numbers have remained consistent over the past year and a half.

DETAILED FINDINGS

ENERGY AS AN ISSUE

Energy As A Provincial Issue

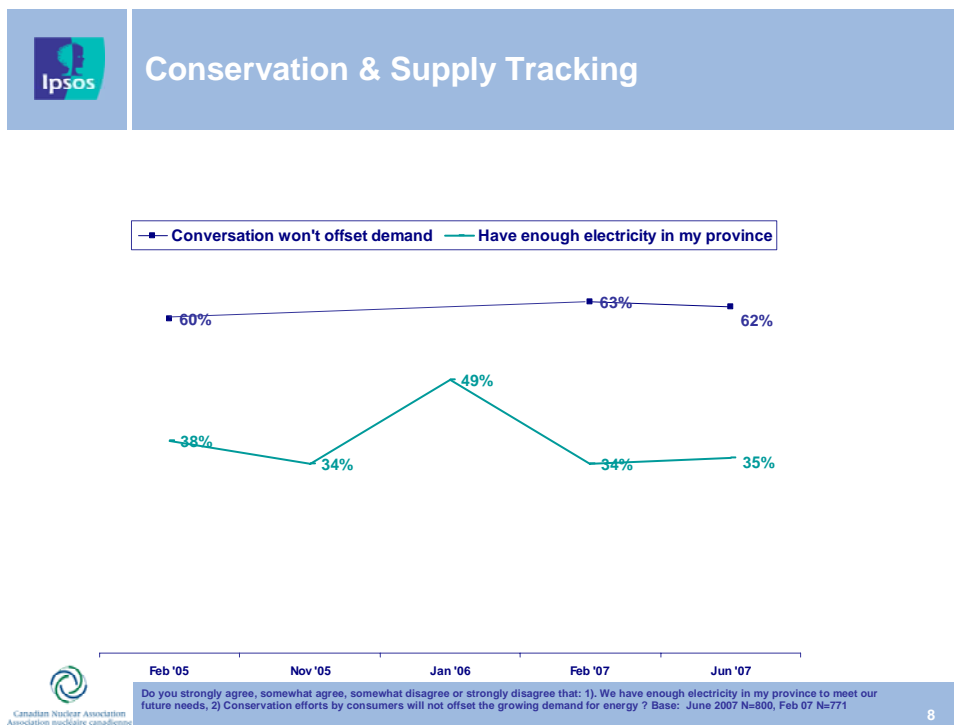
Energy is not on the top-of-mind provincial radar of Ontarians. Just 3% of Ontarians identify it as a top-of-mind provincial issue. Comparatively, 45% of Ontarians mention Medicare/healthcare as the most important issue in Ontario, 27% mention environment and pollution, unaided, and 26% mention education and schools as the most important issue to them, top of mind.



Conservation and Supply

Ontarians are concerned that they might not have enough electricity in their province to meet future demands, and they are equally as concerned that their conservation efforts will not be enough to counteract the increased demand for electricity in Ontario. Just 35% believe that there is in fact enough electricity in the province of Ontario to meet future demands; however, six in ten (62%) are of the opinion that energy conservation efforts will not offset the demand for future electricity.

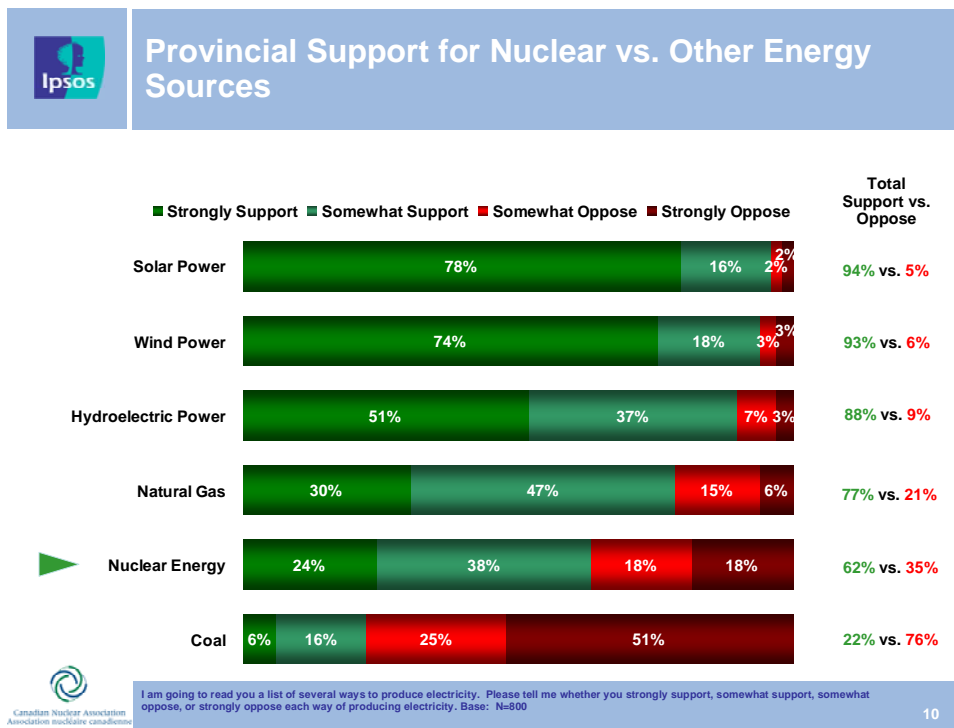
In terms of tracking these numbers since the beginning of the campaign in 2005, it is evident that, despite a brief fluctuation in January of 2006, Ontarians continue to fear that there is not enough electricity in Ontario.



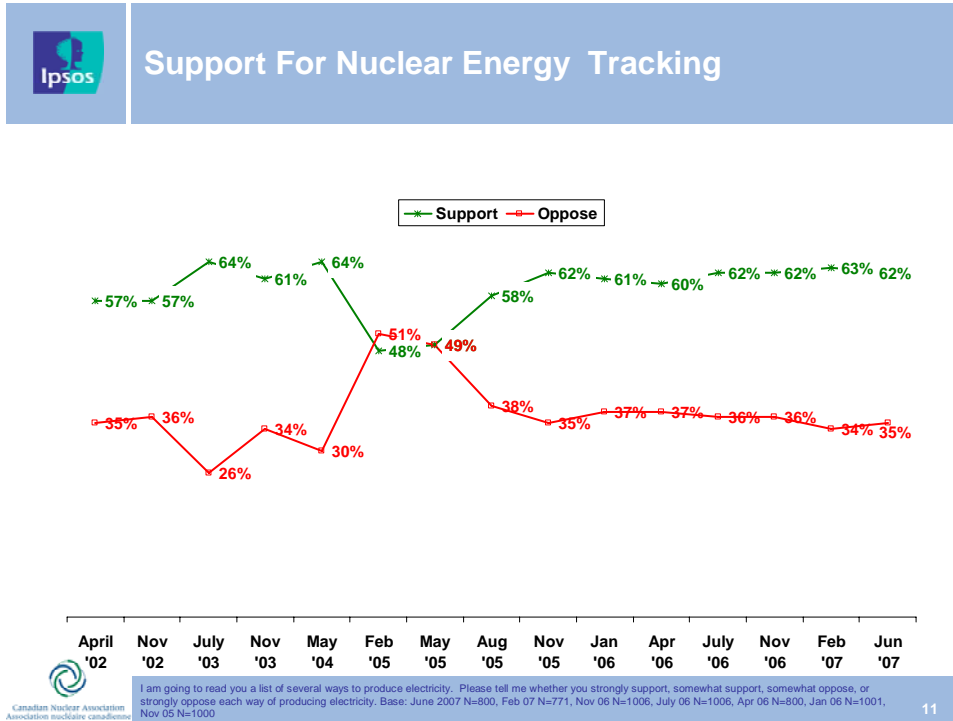
Support for Nuclear

Six in ten (62%) Ontarians currently support nuclear energy, 24% strongly and 38% somewhat. By comparison, 35% oppose (18% somewhat, 18% strongly) nuclear as a source of power.

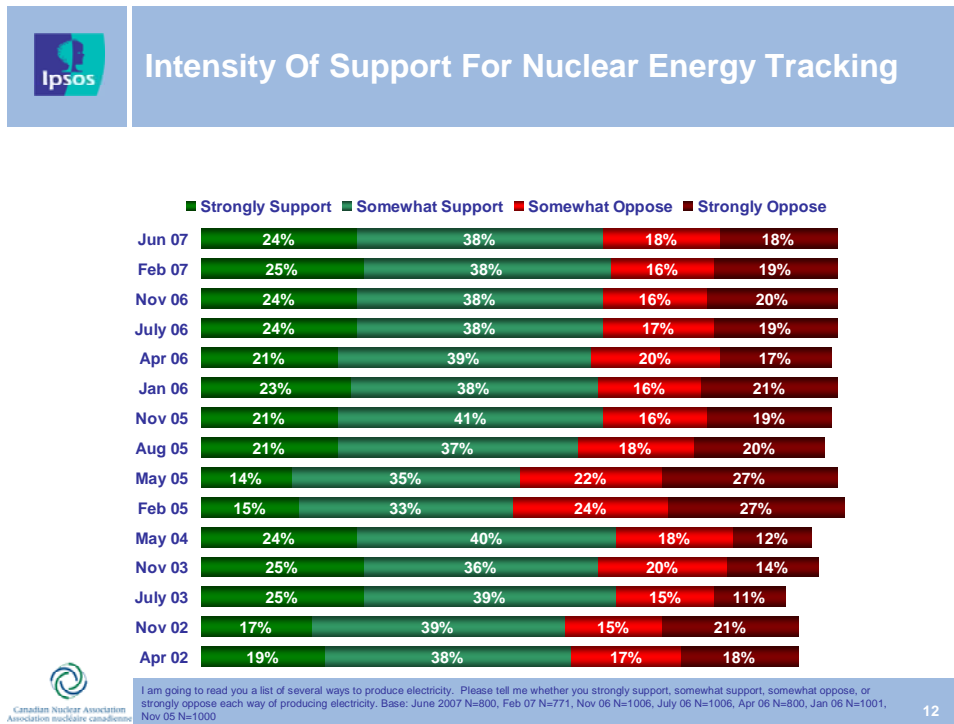
Comparatively, in Ontario, nuclear is ranked fifth of the six energy sources measured, ahead of coal (22%), but trailing natural gas (77%), hydro-electric (88%), wind (93%), and solar power (94%).



Support among Ontarians for this energy source has remained consistent over the past 18 months, however, support is up 13% since May, 2005.




Over the longer-term, support for nuclear power has marginally increased, with the intensity of support for this power source also increasingly nominally. The intensity of opposition, on the other hand, has remained relatively consistent.



In terms of the demographics group from which nuclear power derives a disproportionate amount of support, it appears that men (68%) are more likely than women (55%) to support nuclear power. However, at a 15 percentage point increase since February of 2005, support among women has been growing substantially.

Higher-income (68%) Canadians are the most likely to support nuclear power than lower (57%) and middle-income Canadians (54%). Support among lower-income Ontarians has grown by twenty percentage points in the last two and a half years.

Older Ontarians, and middle-aged Ontarians (both at 65%) are also more likely to support nuclear power, when compared to the level of support among young Ontarian adults (55%).



Support For Nuclear Energy, By Key Demographics

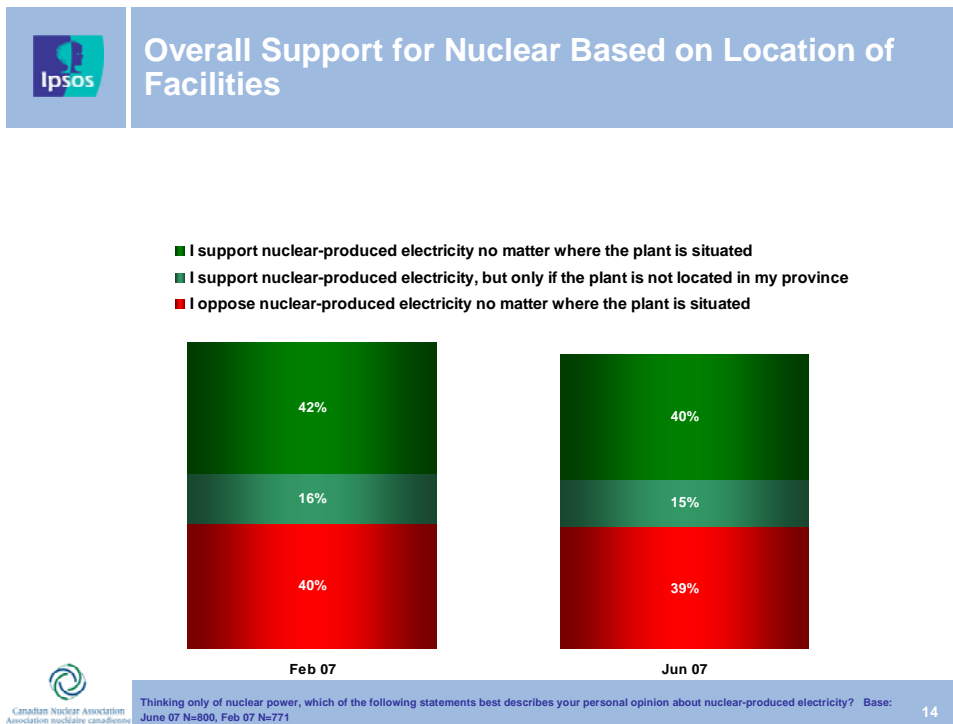
	Baseline Support Nuclear Feb '05	Support Nuclear June '07	Change		Baseline Support Nuclear Feb '05	Support Nuclear June '07	Change
Men	57%	68%	+11	GTA	51%	60%	+9
Women	40%	55%	+15	Central	48%	68%	+20
				Eastern	50%	67%	+17
Young	43%	55%	+12	Southwest	46%	60%	+14
Middle-age	49%	65%	+16	Northern	33%	53%	+20
Older	52%	65%	+13				
Low income	37%	57%	+20				
Mid income	46%	54%	+8				
Upper income	55%	68%	+11				



I am going to read you a list of several ways to produce electricity. Please tell me whether you strongly support, somewhat support, somewhat oppose, or strongly oppose each way of producing electricity. Base: N=800

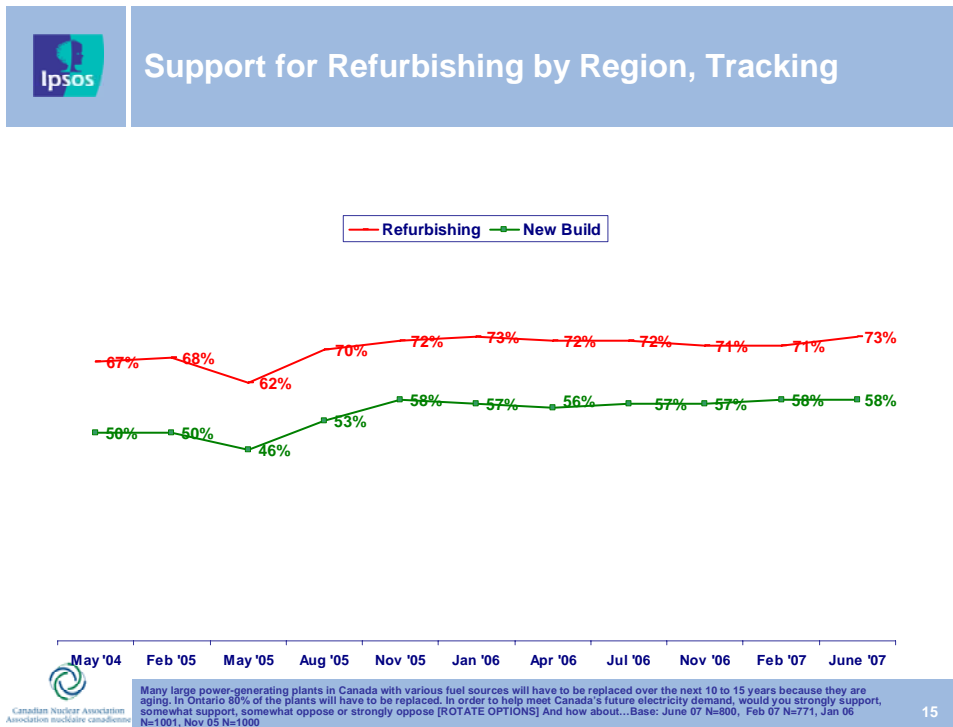
Central (68%) and Eastern Ontario (67%) disproportionately support the use of nuclear-produced energy, but support tapers a bit in the GTA and South-western Ontario (60%), as well as Northern Ontario (53%).

However, support for nuclear drops somewhat when location is broached. Four in ten (40%) Ontarians support nuclear-produced electricity no matter where the plant is situated, while 39% oppose nuclear-produced energy no matter where the plant is situated. 15% of Ontarians adopt a “not in my backyard” approach, identifying that they support nuclear-produced energy, but only if the plant is not located in their own province. Support for the NIMBY concept has remained consistent since February of 2007.

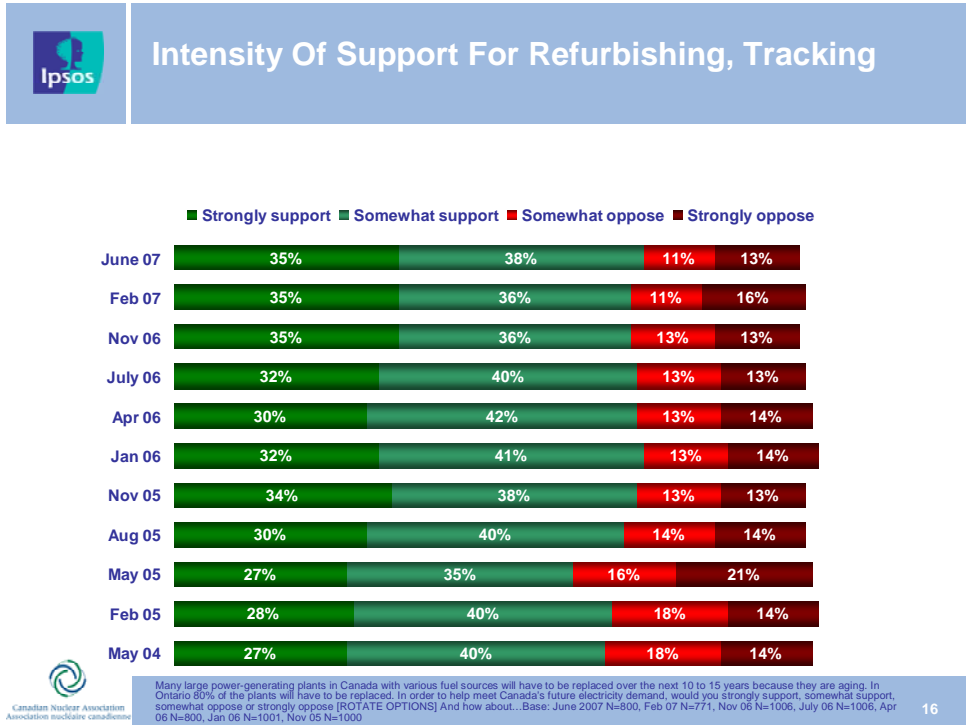


Support for Refurbishing and New Builds

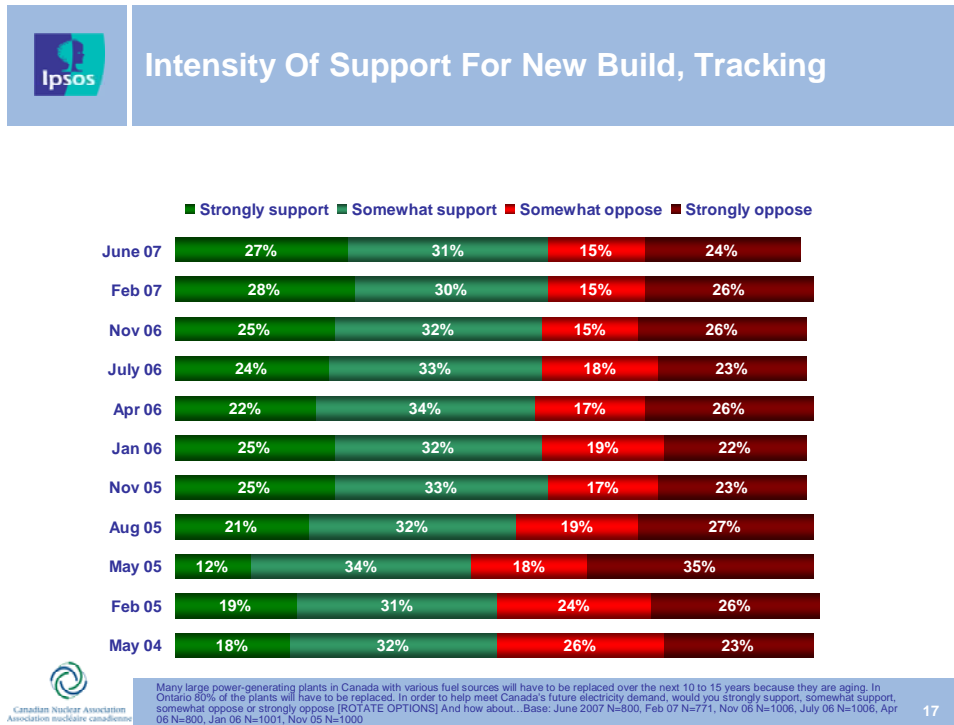
Upgrading and refurbishing existing nuclear facilities is preferred to building new plants. Support is up nominally from February's numbers, with 73% of Ontarians supporting the refurbishment of existing nuclear power plants. Six in ten (58%) are supportive of new builds, which has remained consistent for over a year and a half.



The intensity of support for refurbishing existing nuclear facilities is up slightly over the longer-term in Ontario.



Similarly, the intensity of support for new builds is up somewhat over the longer-term in Ontario as well.



In terms of support among key demographic groups, men (77%), higher-income (77%), and middle-aged Canadians (76%) are among the most likely to support the refurbishment of existing plants. Those living in South-western Ontario (76%) and Central Ontario (75%) are also among the most likely to support refurbishment.




Support for Refurbishing, By Key Demographics

	Baseline Support Refurb Feb '05	Support Refurb June '07	Change		Baseline Support Refurb Feb '05	Support Refurb June '07	Change
Men	68%	77%	+9	GTA	67%	73%	+6
Women	67%	69%	+2	Central	70%	75%	+5
				Eastern	72%	70%	-2
Young	69%	71%	+2	Southwest	66%	76%	+10
Middle-age	69%	76%	+7	Northern	63%	65%	+2
Older	66%	70%	+4				
Low income	66%	70%	+4				
Mid income	64%	68%	+4				
Upper income	72%	77%	+5				



Many large power-generating plants in Canada with various fuel sources will have to be replaced over the next 10 to 15 years because they are aging. In Ontario 80% of the plants will have to be replaced. In order to help meet Canada's future electricity demand, would you strongly support, somewhat support, somewhat oppose or strongly oppose [ROTATE OPTIONS] And how about...Base: N=800

Men (66%) are more likely than women (50%) to support new builds, and also represent one of the larger demographic changes since the tracking exercise began in February, 2005, along with the young and middle-aged, middle-income households, and Central/Northern Ontario residents. Today, upper-income households are also more likely to support new builds.



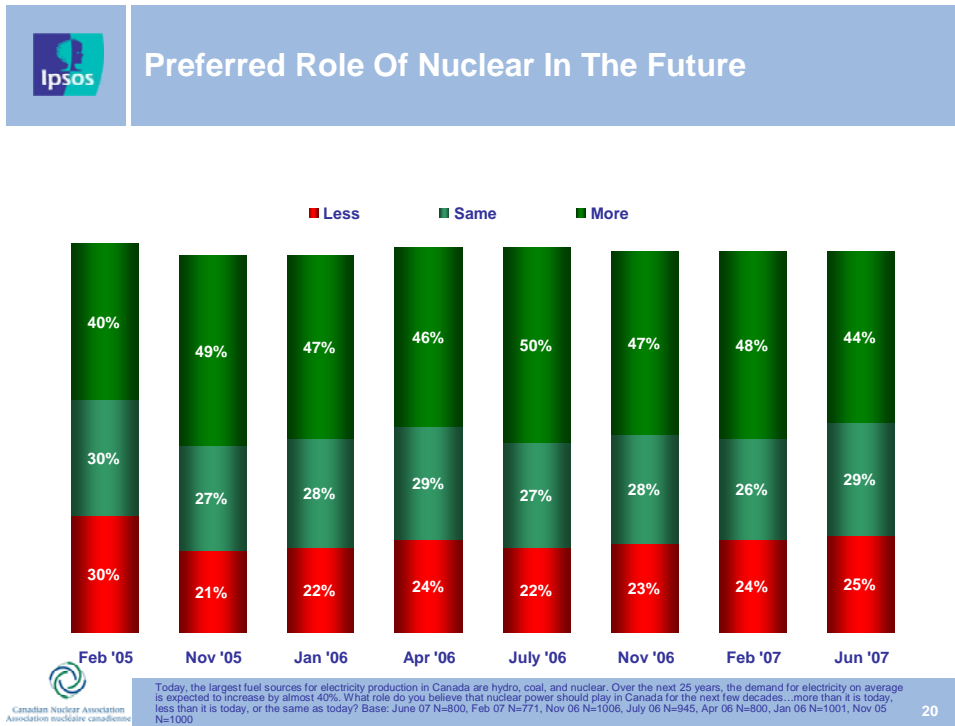
Support for New Builds, By Key Demographics

	Baseline Support New Build Feb '05	Support New Build June '07	Change		Baseline Support New Build Feb '05	Support New Build June '07	Change
Men	56%	66%	+10	GTA	51%	55%	+4
Women	44%	50%	+6	Central	50%	64%	+14
				Eastern	61%	62%	+1
Young	45%	53%	+8	Southwest	48%	56%	+8
Middle-age	51%	61%	+10	Northern	32%	52%	+20
Older	54%	58%	+4				
Low income	46%	50%	+4				
Mid income	45%	57%	+12				
Upper income	55%	61%	+6				



Many large power-generating plants in Canada with various fuel sources will have to be replaced over the next 10 to 15 years because they are aging. In Ontario 80% of the plants will have to be replaced. In order to help meet Canada's future electricity demand, would you strongly support, somewhat support, somewhat oppose or strongly oppose [ROTATE OPTIONS] And how about...Base: N=800

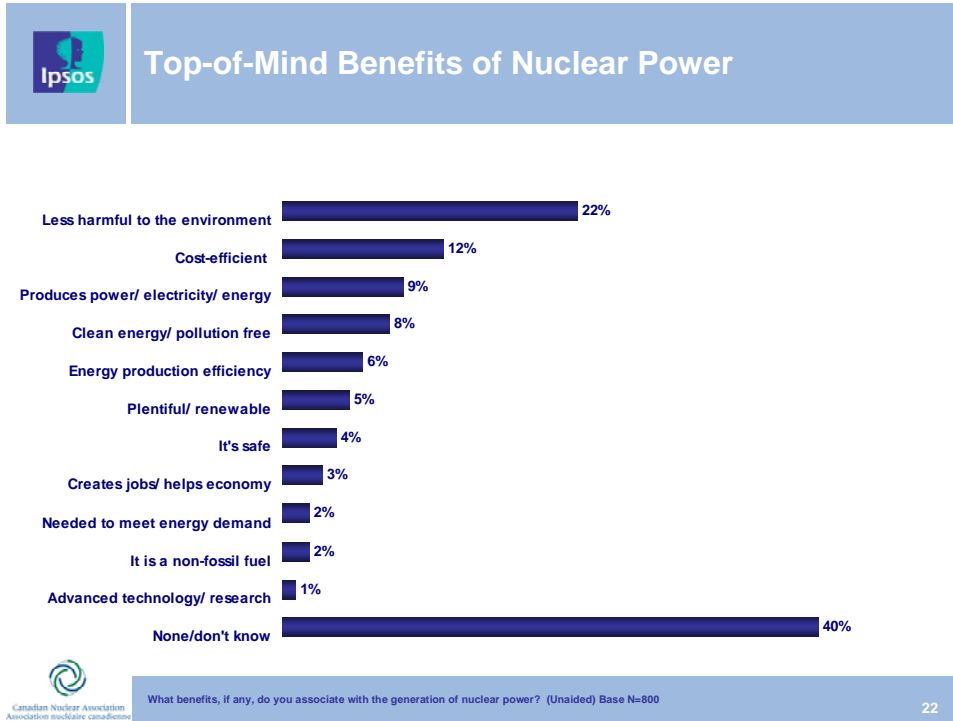
When asked about what role nuclear-produced energy should play in the future, a plurality of Ontarians (44%) believe that it should play more of a roll, while just one quarter (25%) believe that it should play less of a role. Three in ten (29%) believe it should play the same role as it does now.



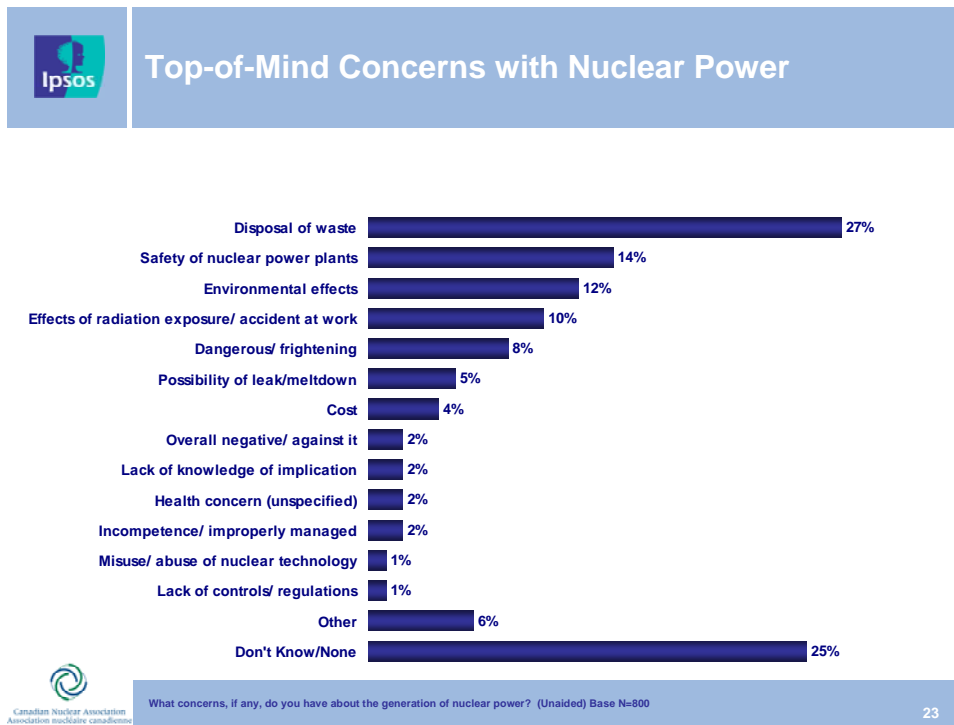
ATTITUDES TOWARDS NUCLEAR ENERGY

Perceived Benefits and Concerns of Nuclear-Generated Power

Four in ten (40%) Ontarians see no top-of-mind benefits to nuclear-generated energy. Others mention, unaided, things such as: less harmful to the environment (26%), cost-efficiency (12%), power benefits (9%), cleanliness (8%), and efficiency (6%).



The most commonly cited concerns with nuclear energy are waste disposal (27%), safety of the nuclear power plants (14%), environmental effects (12%), and the effects of radiation exposure or accidents (10%). One quarter (25%) of Ontarians have no top-of-mind concerns with nuclear power.



APPENDIX I – QUESTIONNAIRE

CANADIAN NUCLEAR ASSOCIATION

ONTARIO TRACKING

JUNE 2007

Hello, this is (Insert Name) calling from Ipsos Reid, a North American research and public opinion company. We are not selling anything. Tonight we are contacting people in your area to discuss a variety of topics related to current events. Are you 18 years of age or older? [IF YES, CONTINUE]

1. First, I would like you to focus on the Ontario provincial government, not the federal government. As you may know, Ontario Premier Dalton McGuinty and his Provincial Liberal party formed a majority government in the last provincial election. Thinking of how you feel right now, if a PROVINCIAL election were held tomorrow, which of the following parties' candidates would you, yourself, be most likely to support? [READ LIST and RANDOMIZE. IF RESPONDENT IS UNSURE, ASK "WHAT PARTY ARE YOU LEANING TOWARDS"]

Liberal
Progressive Conservative
New Democratic Party
Green
Other [do not read]
None [do not read]
Would not vote [do not read]
Would spoil ballot [do not read]

2. Now, thinking of the issues presently confronting the province of Ontario and people like yourself, which one do you feel should receive the greatest attention from the provincial government--that is, the one thing they should give top priority to? [DO NOT READ LIST. RECORD FIRST AND SECOND MENTION SEPERATELY. IF UNSURE, ENCOURAGE BEST GUESS] And do you have a second priority?

Medicare/Healthcare
Education/Schools
Environment/Pollution
Taxes/Tax Reform/GST
Crime/Violence
Electricity/Hydro
New Nuclear Power/
Nuclear Environmental Assessment
Nuclear Waste

Energy - unspecified
Social Services - Pensions/Day-care/Housing
Jobs/Unemployment
Children's Issues
Poverty/The Poor/Welfare/Homeless
Economy/Interest Rates
Security /Terrorism
Immigration/Refugees
Deficit/Government spending
Government/ politics/ political leadership
Garbage/Recycling/Landfill Expansion
Gun control
Police Issues
Provincial By-laws
Other [SPECIFY]
None are important/No others
Don't know/Refused

3. I am now going to read you a list of several ways to produce electricity. Please tell me whether you strongly support, somewhat support, somewhat oppose, or strongly oppose each way of producing electricity. How about... [RANDOMIZE] [INSERT ITEM] [IF NECESSARY: Please tell me whether you strongly support, somewhat support, somewhat oppose, or strongly oppose this way of producing electricity.]

Nuclear energy
Hydroelectric power
Coal
Natural gas
Solar power
Wind power

Strongly support
Somewhat support
Somewhat oppose
Strongly oppose

4. Do you strongly agree, somewhat agree, somewhat disagree or strongly disagree that...?
[RANDOMIZE]

We have enough electricity in Ontario to meet our future needs
Conservation efforts by consumers will not offset the growing demand for energy

Strongly agree
Somewhat agree
Somewhat disagree
Strongly disagree

5. Thinking only of nuclear power, which of the following statements best describes your personal opinion about nuclear-produced electricity? [read 3 statements, choose 1]

I support nuclear-produced electricity no matter where the plant is situated
I support nuclear-produced electricity, but only if the plant is not located in my province
I oppose nuclear-produced electricity no matter where the plant is situated

6. What benefits, if any, do you associate with the generation of nuclear power? [DO NOT READ; ACCEPT ALL RESPONSES] Any others?

Less harmful to the environment than other energy sources
Cost-efficient alternative
Produces power/ electricity/ energy
Energy production efficiency
Medical diagnostics/ research
Plentiful/ renewable
Creates jobs/ helps economy
Advanced technology/ research
Needed to meet energy demand
It is a non-fossil fuel
It is a safe technology/ energy source
Other SPECIFY
None/ no benefits
Don't know/Refused

7. What concerns, if any, do you have about the generation of nuclear power? [DO NOT READ; ACCEPT ALL RESPONSES] Any others?

The effects of radiation exposure/ effects of a nuclear accident on work
The disposal of nuclear waste
The safety of nuclear power plants
The environmental effects of producing nuclear electricity
Dangerous/ frightening
Incompetence/ improperly managed
Weapons/ warfare
Overall negative/ against it
Misuse/ abuse of nuclear technology
Lack of controls/ regulations
Nuclear power plants being possible targets of terrorism
Lack of knowledge of implications
The cost of nuclear-generated electricity
The export of nuclear technology to developing countries
Terrorist access to nuclear weapons
Other SPECIFY
None
Don't know/Refused

9. Today, the largest fuel sources for electricity production in Canada are hydro, coal, and nuclear. Over the next 25 years, the demand for electricity on average is expected to increase by almost 40%. What role do you believe that nuclear power should play in Ontario for the next few decades...more than it is today, less than it is today, or the same as today?

More
Less

Same

10. Many large power-generating plants in Canada with various fuel sources will have to be replaced over the next 10 to 15 years because they are aging. In Ontario, 80% of the plants will have to be replaced. In order to help meet Ontario's future electricity demand, would you strongly support, somewhat support, somewhat oppose or strongly oppose [ROTATE OPTIONS] And how about...

Upgrading and refurbishing existing nuclear power plants
Building new nuclear power plants

Strongly support
Somewhat support
Somewhat oppose
Strongly oppose

Now before I let you go, I just need to ask you a few questions for our statistical calculations. Please remember that this information will be kept strictly confidential.

D1. What year were you born in? [ACCEPT 1900-1989, RECORD ALL FOUR DIGITS]

D2. What is the highest level of formal education that you have completed? READ LIST.

Grade school or some high school
Complete high school
Complete technical or trade school/Community college
Some community college or university, but did not finish
Complete university degree, such as a Bachelor's
Post-graduate degree, such as a Master's or Ph.D.

D3. And which of the following categories best describes your annual household income? That is, the total income before taxes – or gross income – of all persons in your household combined? Just stop me when I reach your category. READ LIST.

Under \$20,000
\$20,000 to just under \$30,000
\$30,000 to just under \$40,000
\$40,000 to just under \$60,000
\$60,000 to just under \$80,000
\$80,000 to just under \$100,000
\$100,000 to just under \$120,000
\$120,000 or more

RECORD REGION

RECORD GENDER Thank you very much for your time.