



CanWEA Alberta Summary
submitted by Nanos, August, 2014

Executive Summary

Wind energy generates highly positive impressions among Albertans on a number of environmental and energy choice considerations according to a recent survey of 500 Albertans conducted by Nanos Research between July 23rd and 29th, 2014.

Although natural gas remains a highly favourable electricity supply option, Albertans express stronger support for wind energy on a range of factors, viewing wind energy as a safer and more environmentally friendly way to generate electricity, and equally competitive in terms of cost to develop. Notably, coal, which is perceived by most as the largest contributor of electricity for the province is rated the poorest on all dimensions.

Albertans express considerable support for wind and other renewable energy sources in reducing greenhouse gases. Increasing the supply of renewable energy (34.1%) and encouraging more energy efficiency and conservation (24.2%) are the top 2 (from a list of 6) advice choices to the Premier. In addition, 85.6% agree or somewhat agree that wind energy is an effective tool to combat greenhouse gas emissions.

Wind Energy, Hydroelectric, and Natural Gas Rated Favourably but Coal Not

- Albertans give wind energy (35.0%) the highest very favourable rating followed by hydroelectric (34.3%) with overall favourability (very + somewhat) slightly higher for natural gas (78.2%) over wind energy (70.5%) and hydroelectric (72.6%). Coal is least favoured (34.5% very + somewhat).
- Albertans think wind energy is a strong energy source for environmentally friendly (mean=7.9/10) and safe (7.6) electricity. In both cases, wind scores higher than the other three. Wind (6.2) does no better than hydroelectric (6.3) and natural gas (6.2) when it comes to keeping electricity rates low. Coal performs poorly on all measures.

Priorities and Policy

- 78.9% think that the Government of Alberta has not done enough to develop renewable energy.
- More wind energy projects (53.9%) and more hydroelectric (23.6%) are the most mentioned top rank for how to reduce greenhouse gases.
- The factors that Albertans think should be most important when considering new energy projects improving air quality (27.4%) followed by lowering greenhouse gas emissions (22.0%). In contrast, ensuring adequate supply of electricity (31.6%) and lowering greenhouse gas emissions (14.5%) are what Albertans think are currently the most important factors.
- Albertans agree that the best policy is a diversified mix (88.9% agree or somewhat agree).

Attitudes about Wind

- 91.4% agree or somewhat agree that renewable sources like wind are an important part of our energy future.
- 83.8% agree or somewhat agree that the government should provide financial support for developing renewable energy like wind and solar.
- 71.4% agree or somewhat agree that wind energy can deliver low-cost electricity.
- Albertans tend to agree (68.9% agree or somewhat agree) that rising greenhouse emissions are a threat to future resource development.

Largest Energy Source in Alberta

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.

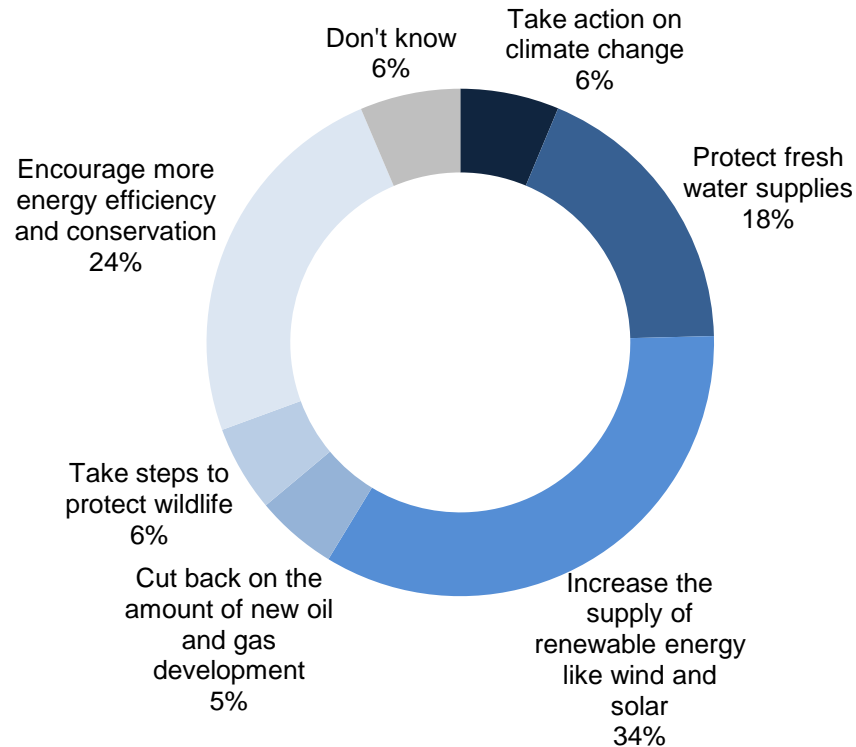
| Source | Total (n=500) |
|--------------|---------------|
| Coal | 34.1% |
| Natural Gas | 16.8% |
| Oil | 14.9% |
| Hydro | 6.7% |
| Wind | 2.8% |
| Power plants | 1.4% |
| Other | 4.6% |
| Unsure | 18.7% |

QUESTION – What is the largest source of energy for generating electricity in Alberta today? [Open-ended]

When asked unprompted to identify the largest source of energy for electricity, 34.1% identify coal with natural gas (16.8%) and oil (14.9%) less mentioned.

Provincial Environmental Advice

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



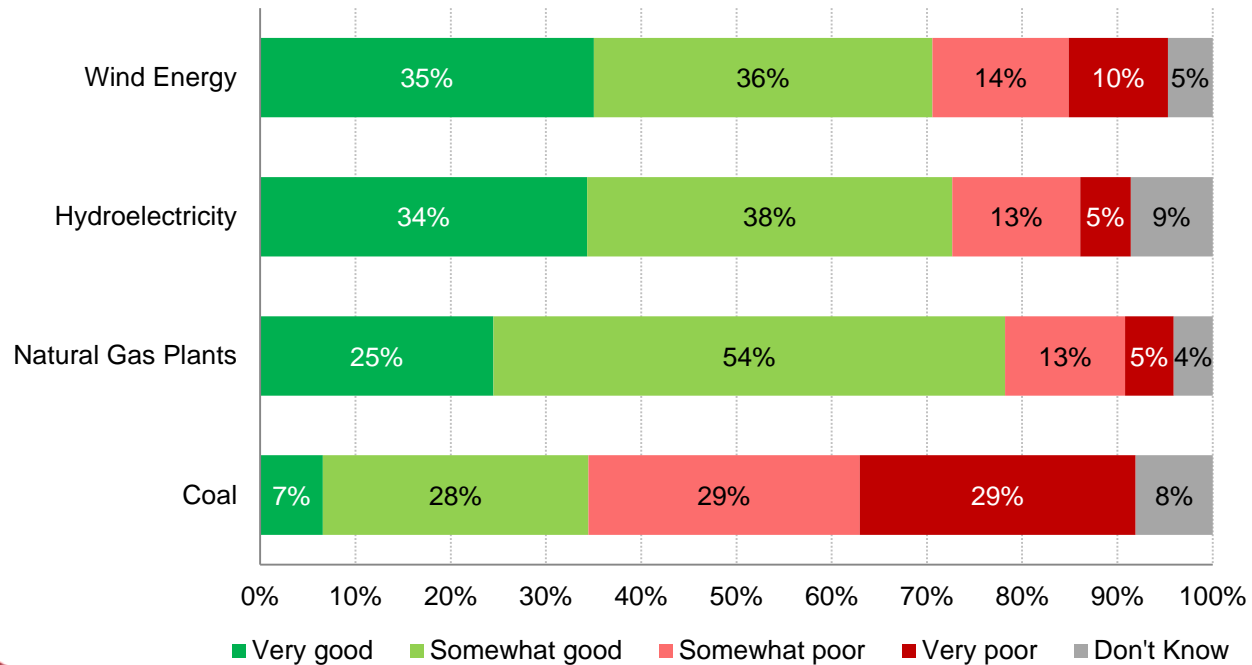
***Note: Charts may not add up to 100 due to rounding**

QUESTION – If you had one piece of advice for the Premier of Alberta on how to demonstrate leadership on the environment, what would it be? [RANDOMIZE]

The advice most offered to the Premier by Albertans from a list of six options is to increase the supply of renewable energy (34.1%). The next most mentioned is to encourage more energy efficiency and conservation (24.2%).

Perceptions of Energy Sources

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.

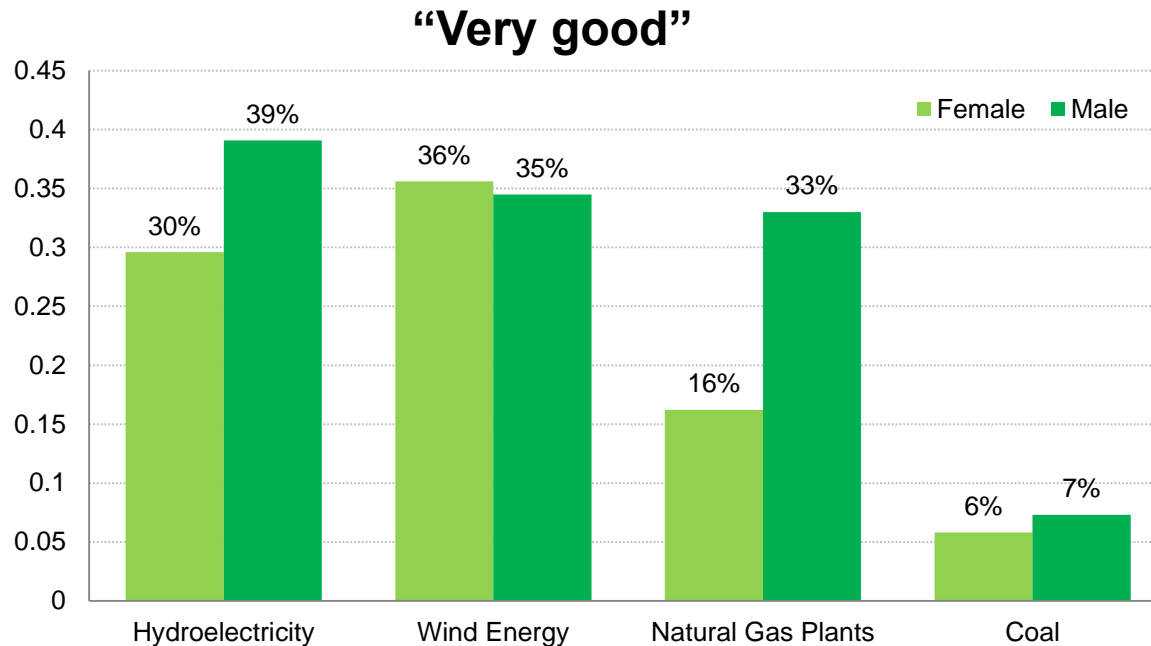


***Note: Charts may not add up to 100 due to rounding**

QUESTION – For the following top sources of generating large-scale electricity in Alberta for communities, industries and businesses please rate your impression as very good, somewhat good, somewhat poor or very poor. [RANDOMIZE 1-4]

Natural gas plants have the highest overall positive impressions (78.2%) with 24.5% very good and 53.7% good. Wind energy (35.0%) and hydroelectric (34.3%) have almost the same proportion of very good ratings suggesting a higher positive intensity for these sources. Coal is the only source with net negative ratings.

Impressions of Energy Sources by Gender



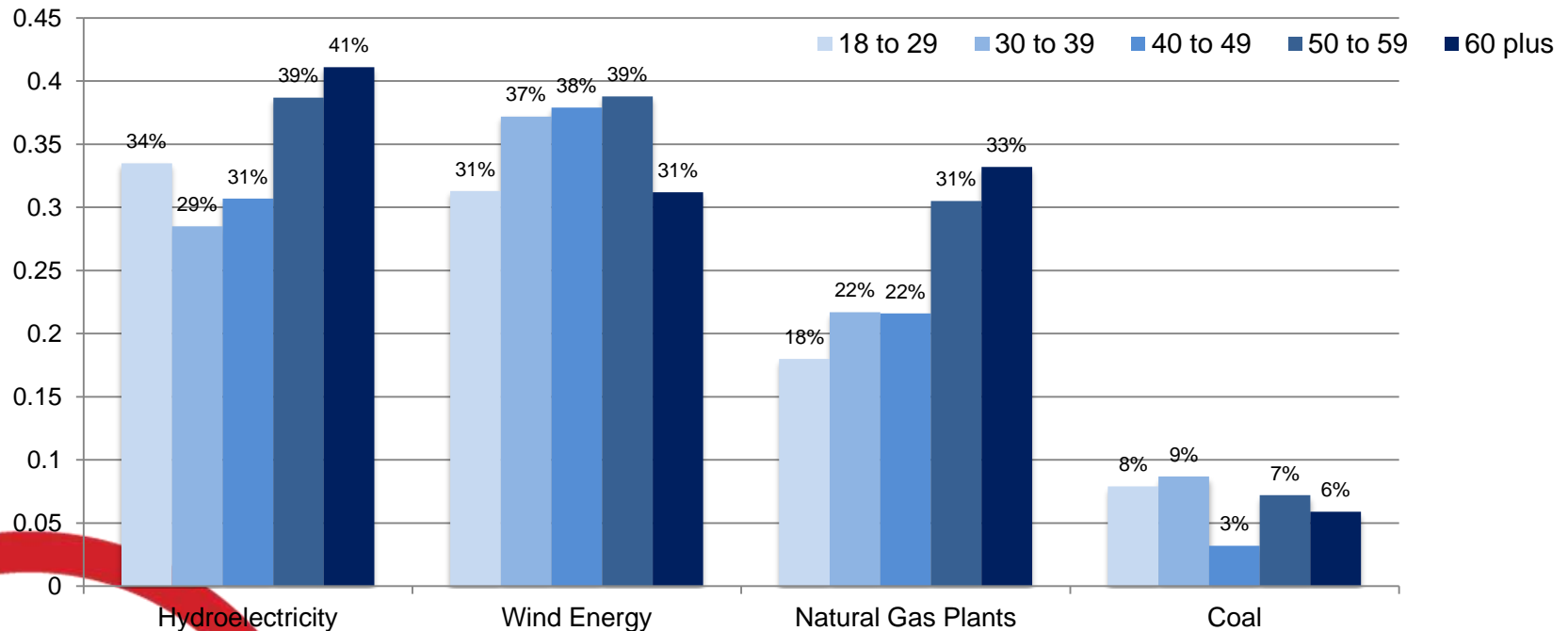
***Note: Charts may not add up to 100 due to rounding**

QUESTION – For the following ways of generating large-scale electricity/ electricity used by communities, industries, businesses, please rate your impression as very good, somewhat good, somewhat poor or very poor. [RANDOMIZE Q1-4]

Men and women differ in their perceptions of hydroelectricity (women are more positive) and natural gas plants (men are more positive), but they share a positive view of wind energy.

Impressions of Energy Sources by Age

“Very good”



*Note: Charts may not add up to 100 due to rounding

QUESTION – For the following ways of generating large-scale electricity/electricity used by communities, industries, businesses, please rate your impression as very good, somewhat good, somewhat poor or very poor. [RANDOMIZE Q1-4]

While all age groups are unlikely to rate coal as very good, there are significant age trends when it comes to perceptions of the other energy sources. Natural gas plants are viewed more favourably by older people as is hydroelectricity. Wind differences are modest and not statistically significant.

Natural Gas Plants Rating

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=666, accurate 4.4 percentage points plus or minus, 19 times out of 20.

| | Very Good/ Somewhat Good (n=522) | Somewhat Poor/ Very Poor (n=122) | Unsure (n=22) |
|--|--|--|------------------|
| Good/Safe/Efficient/Convenient alternative for environment | 16.1% | 2.0% | 15.0% |
| Better than coal/ Clean energy/ Clean fuel | 15.9% | 3.2% | 3.0% |
| Not good for environment/Not renewable/ Not efficient | 7.3% | 37.5% | 7.8% |
| Abundant resource with many available space/options | 7.1% | 0.4% | - |
| Alberta has resources/ experience/ knowledge | 6.9% | - | - |
| It heats our homes/ Depend on it | 6.3% | - | - |
| Affordable | 3.5% | 0.5% | - |
| Lack of knowledge | 3.2% | 3.1% | 33.9% |
| No Reason/Nothing | 3.0% | 2.2% | - |
| There are better alternatives | 2.1% | 11.1% | - |
| I (or someone I know) works at a plant | 1.7% | 0.4% | - |
| It's being exported | 1.3% | 0.8% | - |
| Expensive | 0.7% | 8.9% | 2.2% |
| Lack of space/resources | 0.3% | 5.3% | - |
| Other | 5.7% | 11.1% | 9.1% |
| Unsure | 18.7% | 13.4% | 29.0% |

QUESTION – Why do you have that rating for natural gas plants? [Open-ended] [First ranked responses]

Those who rate gas plants favourably do so because they consider it a good/safe/efficient alternative (16.1%) or that it is better than coal/ it is clean (15.9%). Those who are unfavourable largely do so because of the environmental effect (37.5%).

Wind Power Rating

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=680, accurate 4.4 percentage points plus or minus, 19 times out of 20.

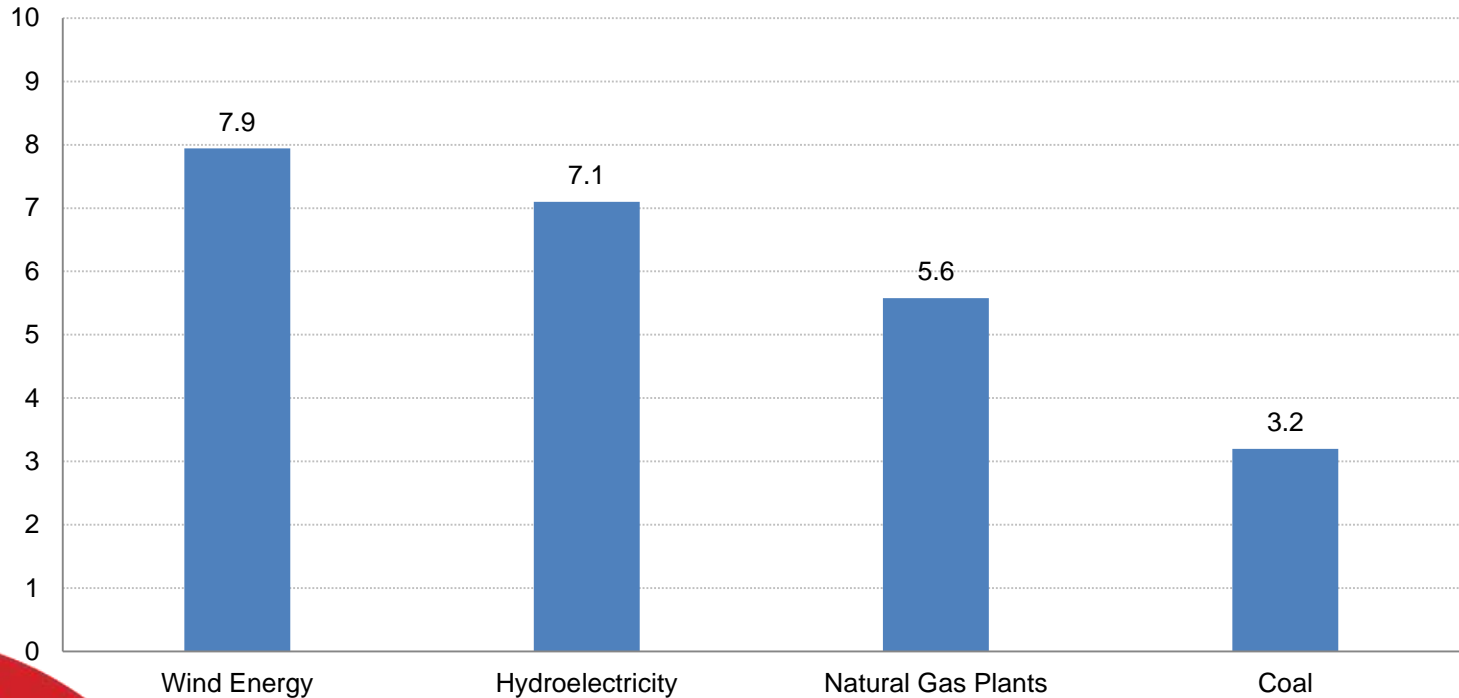
| | Very Good/ Somewhat Good (n=485) | Somewhat Poor/ Very Poor (n=170) | Unsure (n=26) |
|--|--|--|------------------|
| Environmentally friendly alternative/ Clean energy/ Renewable | 36.0% | 0.3% | 5.9% |
| There is an abundance of wind /wind farms available /natural resource | 16.6% | - | 5.4% |
| Best alternative | 7.2% | 7.0% | 1.8% |
| It's harmful and noisy to wildlife/ surroundings/ landscape/health | 5.7% | 13.6% | 2.6% |
| It is good/ I like it/ It works | 5.5% | 0.3% | 3.6% |
| Wind is not always blowing/ Not consistent/ Not reliable/ Inefficient | 5.1% | 16.1% | 7.6% |
| Not yet proven to be the best option/ Needs more research | 4.9% | 8.3% | 7.6% |
| It's expensive | 2.5% | 8.9% | - |
| A lack of knowledge/ Don't see wind turbines around/ Problems associated | 1.5% | 18.4% | 24.0% |
| Need to develop/use it more | - | 4.3% | - |
| Other | 5.2% | 9.4% | 5.9% |
| Unsure | 9.9% | 13.3% | 35.5% |

QUESTION – Why do you have that rating for wind power? [Open-ended] [First ranked responses]

Advocates, those positive about wind, identify two main reasons for their position. The first is the environmentally friendly/ renewable nature (36.0%) and the second is the abundance of the resource (16.6%). Those who are negative about wind cite primarily a lack of knowledge (18.4%), think that wind is not reliable (16.1%), and think it is harmful (13.6%).

Evaluating Energy Sources: Environment

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



QUESTION – Please rate each of the following ways to generate large scale electricity for communities, industries and businesses on a scale of 1 to 10, where 1 is very weak and 10 is very strong. [RANDOMIZE ALL TYPES]

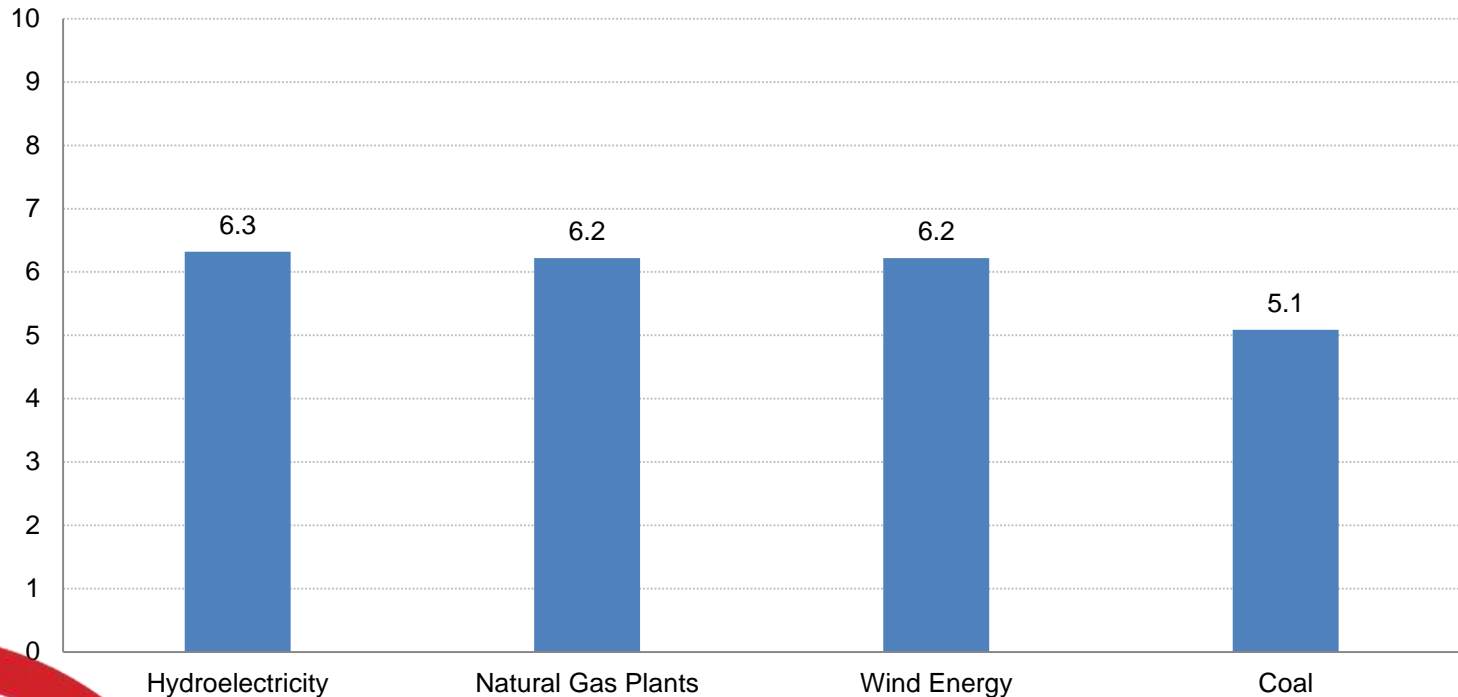
Being environmentally friendly.

Wind is clearly perceived as the best of the four sources for being environmentally friendly (mean=7.9) with coal scoring the least positive on this measure (3.2).

Confidential

Evaluating Energy Sources: Cost of Electricity

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



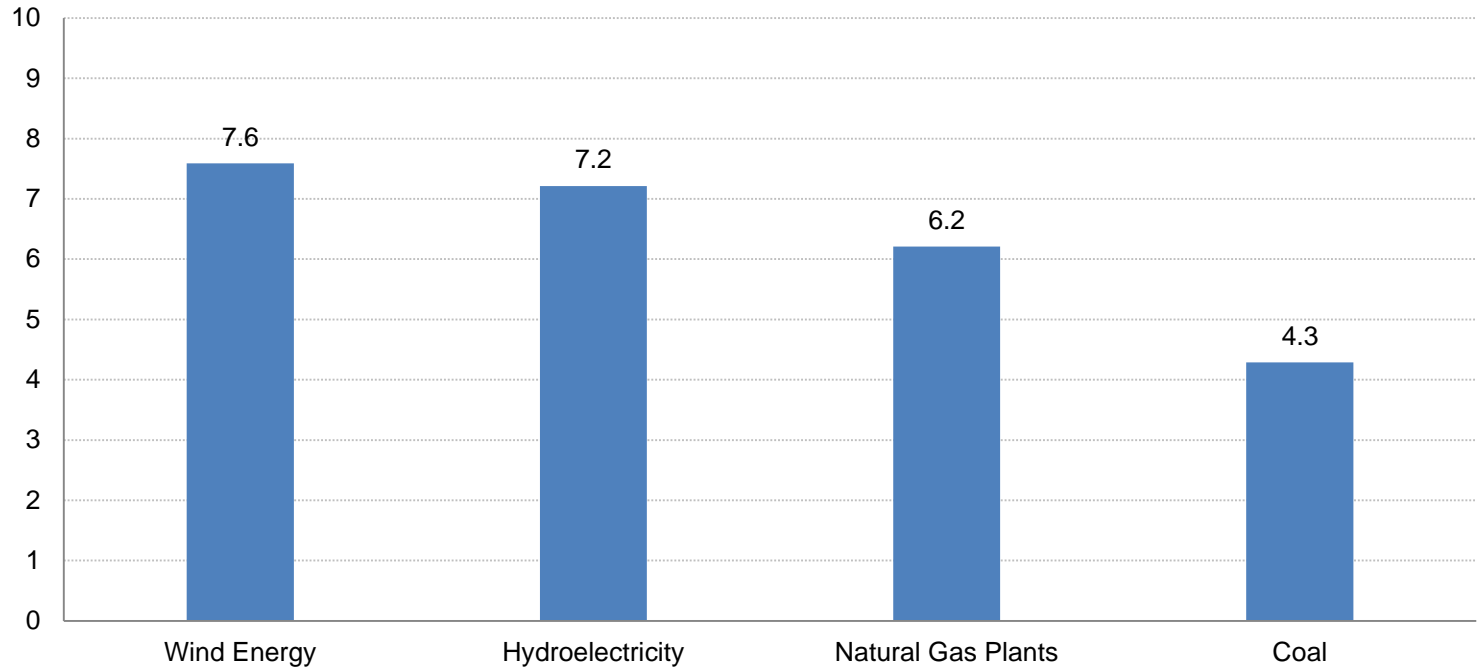
QUESTION – Please rate each of the following ways to generate large scale electricity for communities, industries and businesses on a scale of 1 to 10, where 1 is very weak and 10 is very strong. [RANDOMIZE ALL TYPES]

Keeping electricity prices low.

While coal performs the worse on keeping electricity prices low (mean=5.1), this is the area of the three tested that coal is scores most positively. There is no difference for the other three.

Evaluating Energy Sources: Safety

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



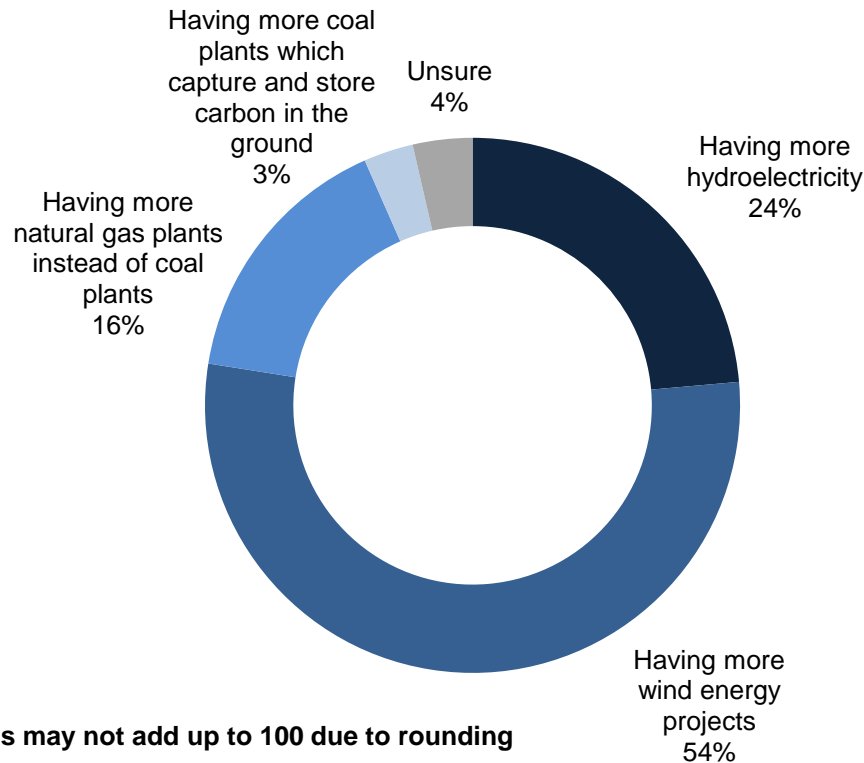
QUESTION – Please rate each of the following ways to generate large scale electricity for communities, industries and businesses on a scale of 1 to 10, where 1 is very weak and 10 is very strong. [RANDOMIZE ALL TYPES]

Being a safe way to generate electricity.

Wind energy is the safest way of the four to generate electricity (mean=7.6) but hydroelectric is a close second. Coal again is rated the poorest at 4.3.

Reducing Greenhouse Gas Emissions

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



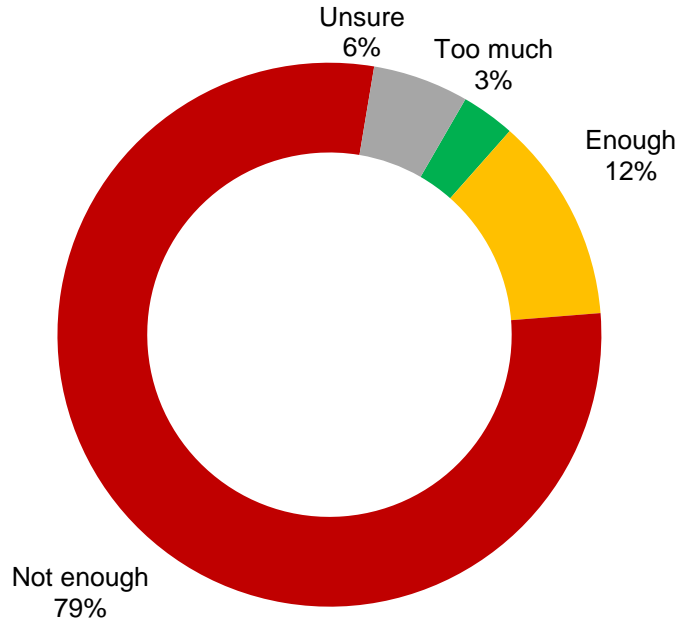
***Note: Charts may not add up to 100 due to rounding**

QUESTION – As you may know, there are a series of options which could help reduce greenhouse gas emissions in Alberta. Please rank your top two preferred ways of reducing greenhouse gas emissions in Alberta from the following list: [First ranked responses]

The number one ranked way, from a list of four, to reduce greenhouse gas emissions in Alberta is to have more wind energy projects (53.9%). The next most mentioned is having more hydroelectric (23.6%). Having more coal which capture and store carbon is the least preferred first option. Women are more likely than men to support more wind energy.

Developing Renewable Energy

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



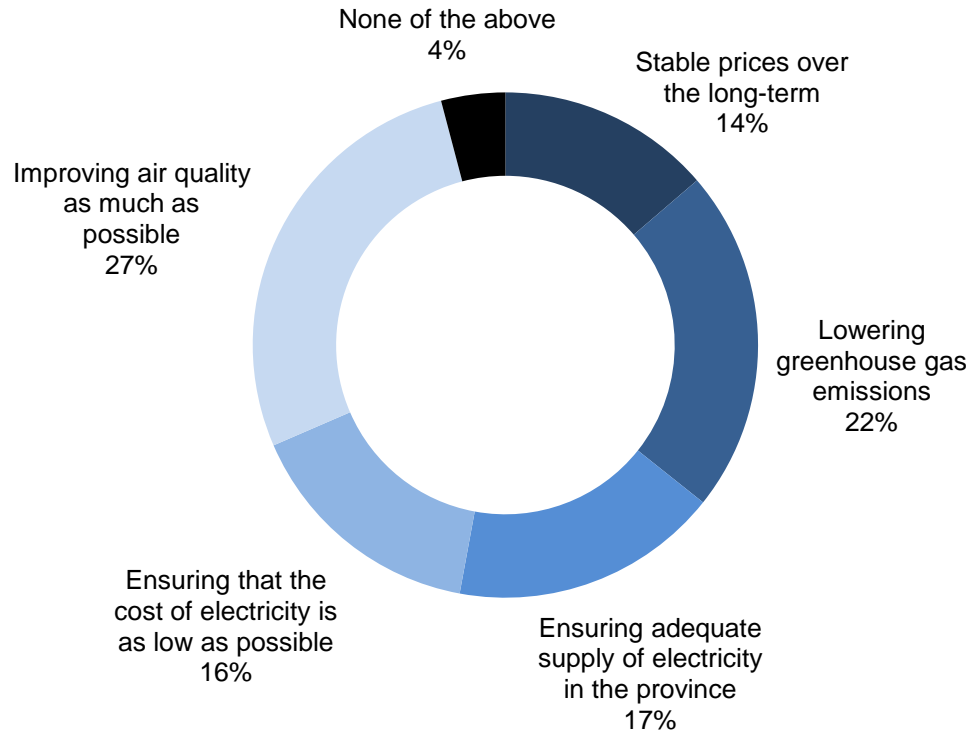
***Note: Charts may not add up to 100 due to rounding**

QUESTION – Do you think the Government of Alberta has done too much, enough, or not enough, to develop renewable energy like wind and solar?

The majority position (78.9%) is that the Government of Alberta has not done enough to develop renewable energy. Women (84.0%) are more likely than men (73.7%) to say not enough has been done.

Most Important Factor

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



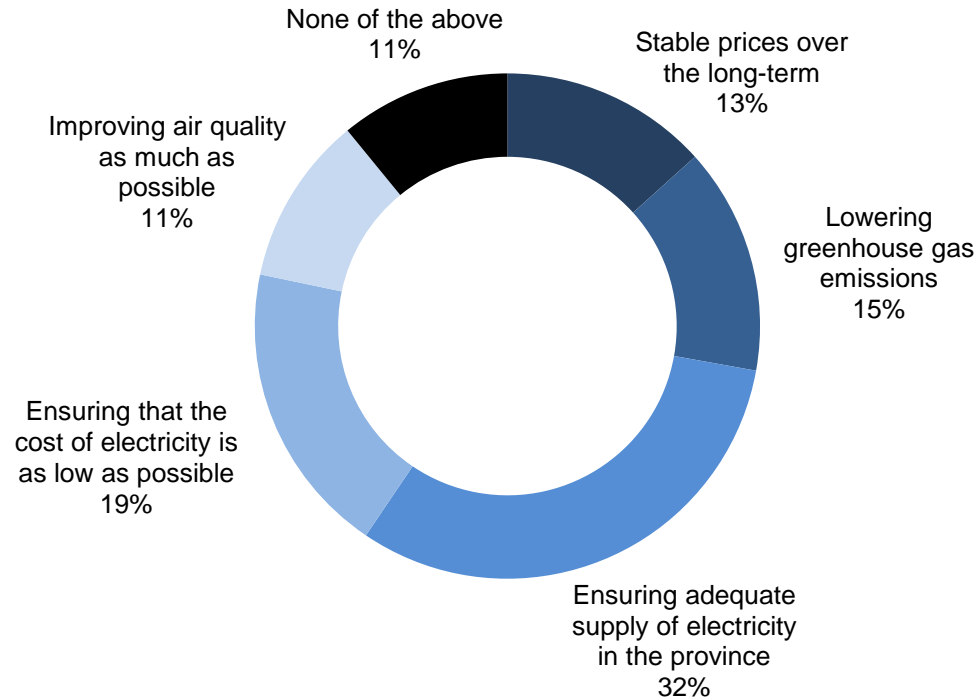
***Note: Charts may not add up to 100 due to rounding**

QUESTION – Of the following list, what SHOULD BE the most important factor to consider when deciding to build new energy projects to produce more electricity in ALBERTA?

Albertans are most likely to think that the most important factor to consider should be improving air quality (27.4%) followed by lowering greenhouse gas emissions (22.0%). Notably, stable prices over the long term is ranked first by only 13.7%. Women place a higher emphasis on lowering greenhouse gases (27.1%) and less on adequate supply (12.6%).

Current Most Important Factor

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



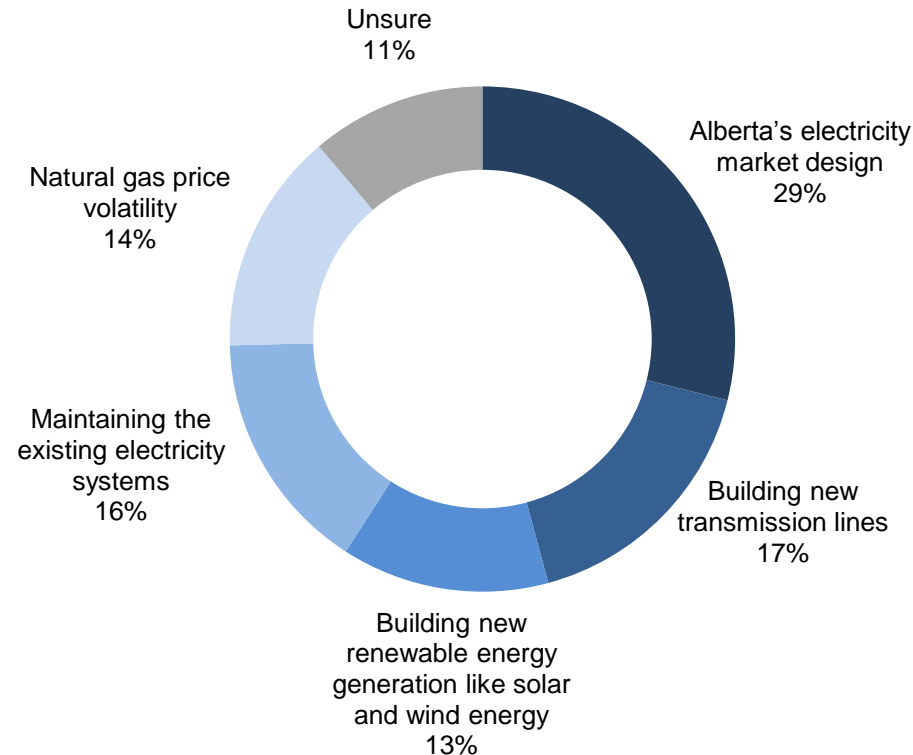
***Note: Charts may not add up to 100 due to rounding**

QUESTION – Of the following list, what do you think is CURRENTLY the most important factor when decisions are made to build new energy projects to produce more electricity in ALBERTA?

At present, ensuring adequate supply of electricity (31.6%) is what Albertans most think is the currently the most important factor. Lowering greenhouse gas emissions (14.5%) is the next most ranked first.

Rising Electricity Rates Contributors

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



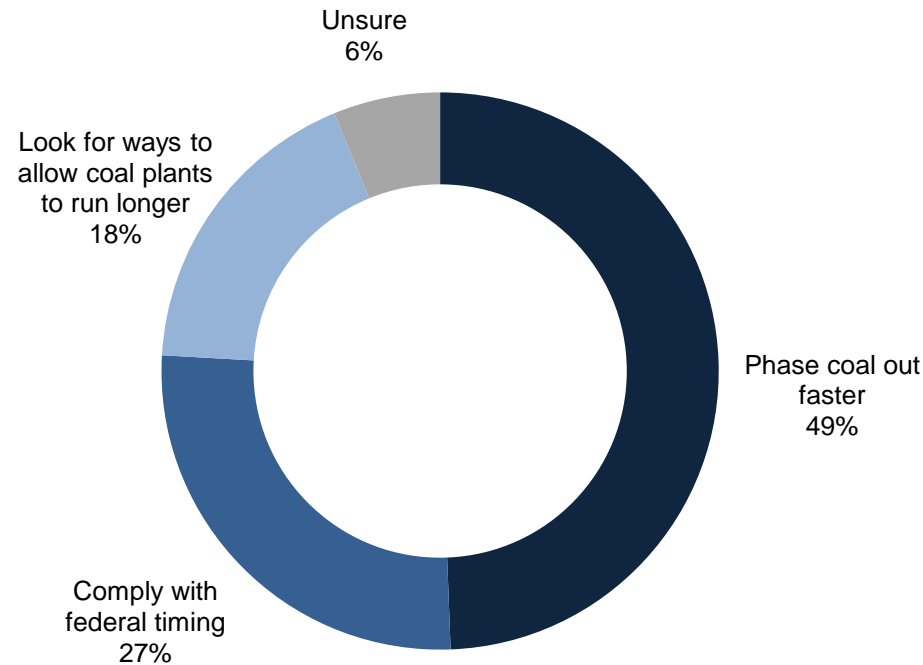
***Note: Charts may not add up to 100 due to rounding**

QUESTION – Alberta has some of the highest electricity prices in Canada. From the following list, please rank the top two reasons which contribute to rising electricity rates in Alberta, where 1 is the top contributor to rising electricity rates and 2 the second most important contributor to rising electricity rates: [ROTATE] [First ranked responses]

When it comes to rising electricity rates, the top reason identified for this is Alberta's electricity market design (28.9%). The next most selected as the top reason are building new transmission lines (16.9%) and maintaining the existing system (15.5%).

Phasing Out Coal Plants

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



***Note: Charts may not add up to 100 due to rounding**

QUESTION – Government of Canada emission regulations will phase out coal in Alberta after plants operate for 50 years. Do you think the Government of Alberta should...

Almost half of Albertans (49.4%) think Alberta should phase out coal faster and only 17.9% would look for ways to allow coal plants to run longer. Although a majority of men would phase coal out faster, a significant number would look for ways to allow coal to run longer (23.9%).

Opinion about Wind Power

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.

It doesn't matter whether it is a natural gas power plant, a wind farm or a transmission line, there will always be some people against any energy project in their area.



Renewable, clean and flexible energy sources like wind power are an important part of our energy future.



Wind energy is an effective tool to combat greenhouse gas emissions.



The Government of Alberta should provide financial support for developing renewable energy like wind and solar.



The Alberta government needs to do more to reduce greenhouse gas emissions.



0% 20% 40% 60% 80% 100%

■ Agree ■ Somewhat agree ■ Somewhat disagree ■ Disagree ■ Unsure

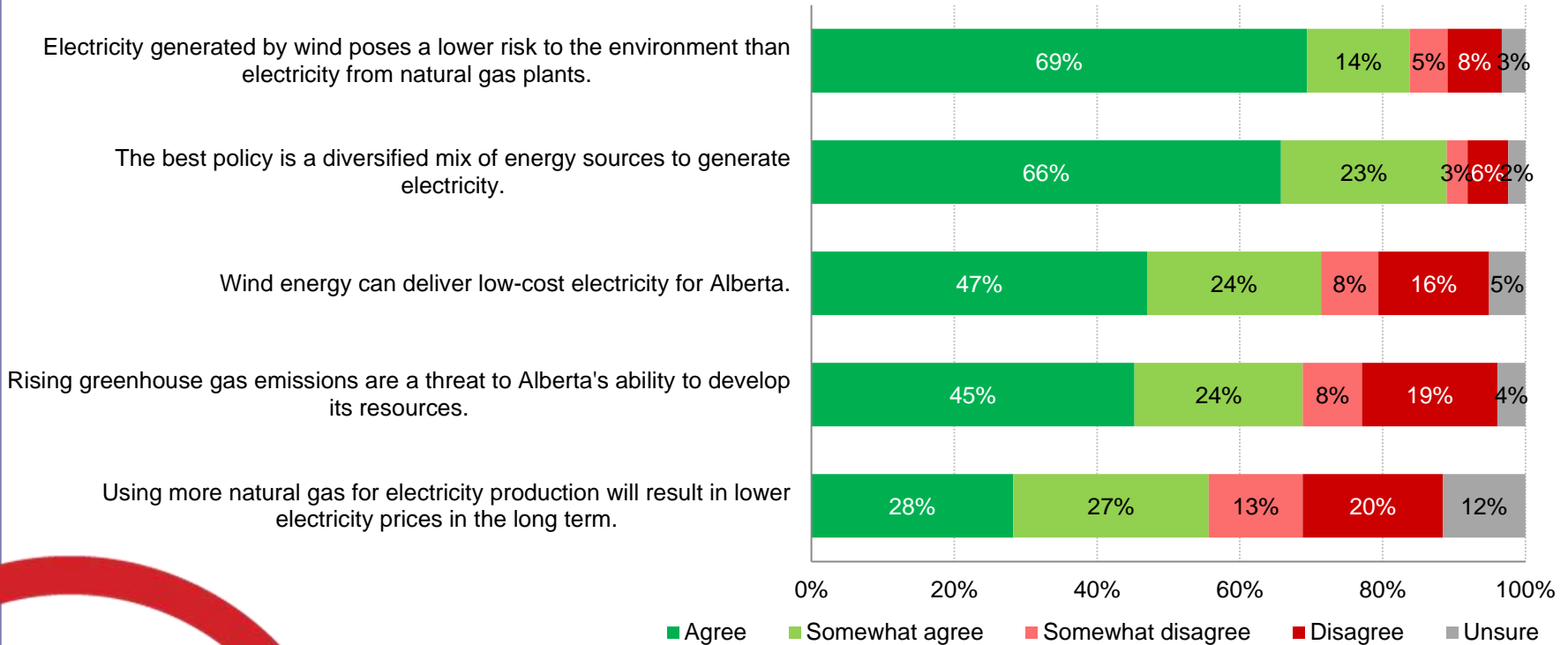
***Note: Charts may not add up to 100 due to rounding**

QUESTION – There are a number of opinions that people have for supporting or opposing new wind energy projects. Please tell me if you agree, somewhat agree, somewhat disagree, or disagree with the following statements. [RANDOMIZE]

Albertans express positive attitudes about wind and the need to support it considering that 78.7% agree and 12.7% somewhat agree that renewable sources like wind are an important part of our energy future. When it comes to providing financial support for developing renewable energy, 72.0% agree and 11.8% somewhat agree that the government should provide financial support.

Opinion about Wind Power

Source: Nanos Research, RDD dual frame random telephone survey in Alberta, July 23 to 29, 2014, n=500, accurate 4.4 percentage points plus or minus, 19 times out of 20.



***Note: Charts may not add up to 100 due to rounding**

QUESTION – There are a number of opinions that people have for supporting or opposing new wind energy projects. Please tell me if you agree, somewhat agree, somewhat disagree, or disagree with the following statements. [RANDOMIZE]

Although 65.7% agree and 23.2% somewhat agree that the best policy is a diversified mix, there is appreciable, though lesser, support (47.0% agree and 24.4% somewhat agree) that wind energy can deliver low-cost electricity. Public opinion also shows that Albertans tend to agree that rising greenhouse emissions are a threat to future resource development (45.3% agree and 23.6% somewhat agree).

Demographic Variations in Attitudes about Wind Power and Alberta Energy

On most questions, demographic differences are not large or significant. On several questions, there are notable differences.

- Men and women differ across a number of attitudes:
 - Women are more likely (84.1% versus 73.1% agree) to say that renewable energy sources like wind power are an important part of the future.
 - More women (51.3% agree) than men (42.6%) think wind energy can delivery low-cost energy.
 - More men (34.6% agree) than women (22.1%) think using more natural gas will result in lower electricity rates.
 - Support for the government providing financial assistance to support the development of renewables is higher for women (81.7%) than men (61.9%).
- Age differences:
 - Those under 30 (85.9% agree) are more likely to say renewables are important for the future than those older (70.8% for those 60+)
 - Young people are somewhat less likely to support a diverse mix of energy sources.
 - Support for the government providing financial assistance to support the development of renewables is higher for young people (83.3% of those under 30 agree) than seniors (60+, 60.4%).
- Rural/ Urban Differences:
 - Rural residents are more likely to think that rising greenhouse gas emissions are a threat to resource development (56.1% agree compared with 42.9% of urban residents).

PATH FORWARD!

DIAGNOSE ENV

WINNING CONDITIONS

REVIEW RESEARCH

VALIDATE

TEST IDEAS



Methodology

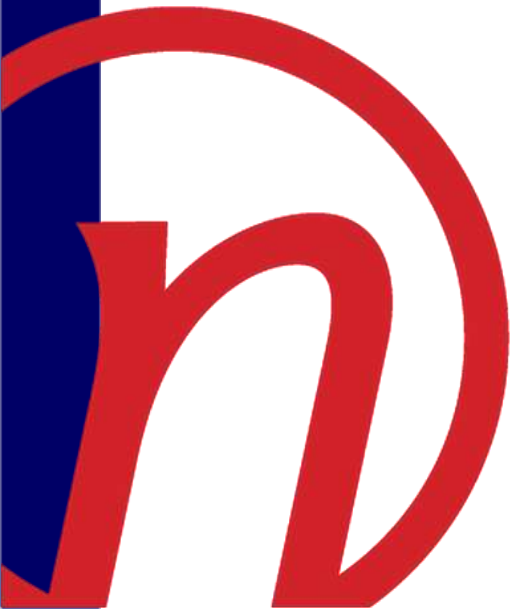
Methodology

The Canadian Wind Energy Association retained Nanos to conduct a RDD dual frame random telephone survey of 500 Albertans between July 23rd and 29th, 2014. The sample included both land- and cell-lines across Alberta. The results were statistically checked and weighted using the latest census data to ensure the data was representative of the Alberta population.

Individuals were randomly called using random digit dialling with a maximum of five call backs.

The margin of error for a random survey of 500 Alberta residents is ± 4.4 percentage points, 19 times out of 20.

Note: Charts may not add up to 100 due to rounding.



About Nanos

Nanos is one of North America's most trusted research and strategy organizations. Our team of professionals is regularly called upon by senior executives to deliver superior intelligence and market advantage whether it be helping to chart a path forward, managing a reputation or brand risk or understanding the trends that drive success. Services range from traditional telephone surveys, through to elite in-depth interviews, online research and focus groups. Nanos clients range from Fortune 500 companies through to leading advocacy groups interested in understanding and shaping the public landscape. Whether it is understanding your brand or reputation, customer needs and satisfaction, engaging employees or testing new ads or products, Nanos provides insight you can trust.



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