

ENERGY EFFICIENCY CHOICES

A citizens' discussion on Alberta's energy
efficiency policies and programs

REPORT ON CITIZENS' VIEWS



A L B E R T A

Energy Efficiency Alliance

Who we are

The **Alberta Energy Efficiency Alliance** is a multi-sector organization that collects and provides input on energy efficiency issues to the provincial government. Our members include energy utilities, municipalities, oil and gas companies, consulting firms, product and service providers and non-profits. All of these organizations recognize the important role energy efficiency has in responsible energy production and consumption. You can find out more about us at www.aeea.ca.

Funding for this project comes from **Alberta Climate Dialogue** (ABCD), a community–university research alliance that aims to make a positive difference in how Albertans understand and respond to climate change, and to transform how Alberta municipalities and the provincial government engage citizens to solve tough environmental issues. ABCD helps to design and implement citizen involvement processes on climate issues, and brings strong research capacity to understanding issues of partnership and design, how citizens experience the deliberations and change because of them, and what impact the deliberations have on policies and practices. This research, together with other resources, is shared at www.albertaclimatedialogue.ca.

Thanks to

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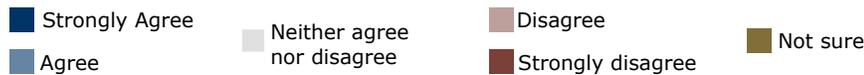
Summary

In the fall of 2013, the Alberta Energy Efficiency Alliance brought together 164 Albertans, randomly recruited from across the province, to discuss their views on energy efficiency programs and policies for Alberta. The citizen participants were provided with the background information included in this summary report, given an opportunity to ask questions and discuss their views with other participants, and asked for their input on a number of key questions. These questions focused on two areas of importance for government decision makers:

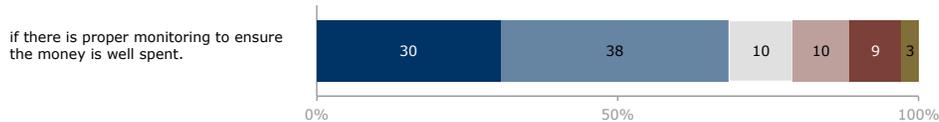
- 1) how to fund energy efficiency programs
- 2) whether or not to regulate minimum energy efficiency levels for certain products.

The results of the citizen deliberation and follow-up survey show significant support for funding energy efficiency programs in the province, with the greatest level of support for funding programs through payments that large industrial facilities currently make as a result of their greenhouse gas (GHG) emissions.

It is also interesting to note that citizen support for funding of energy efficiency programs through utility bills or a new tax or fee increased significantly when there is a way to ensure low- and fixed-income households won't be adversely affected or if it can be assured the money will be used for energy efficiency programs.



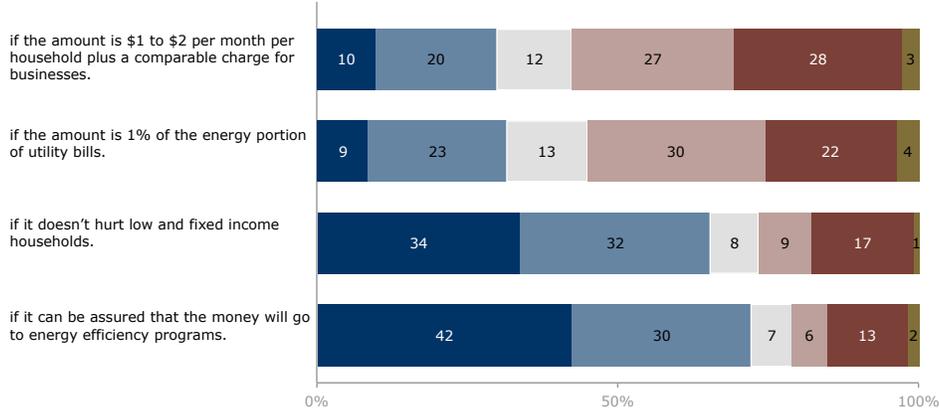
I support funding energy efficiency programs through general revenue...



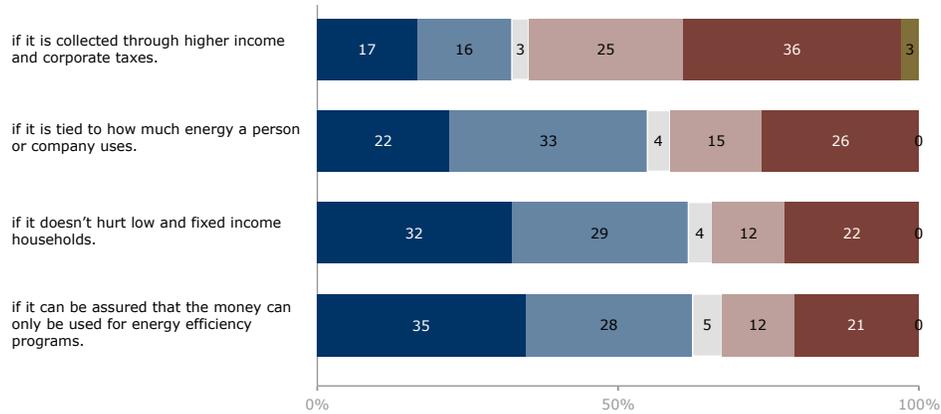
I support funding energy efficiency programs using industry GHG payments...



I support funding energy efficiency programs through utility bills...



I support funding energy efficiency programs using a new tax or fee...



The results of the deliberation and follow-up survey also shows significant support for regulating minimum energy efficiency levels for energy-using products, particularly if regulations are easy to enforce.

I support the Alberta Government establishing new energy efficiency regulations...



The significant levels of support demonstrated from citizens for energy efficiency is very encouraging for efforts to increase energy efficiency levels in Alberta. This information will be used during ongoing engagement of the provincial government to help advance energy efficiency programs and policies in the province.

Energy Efficiency Choices

Alberta Energy Efficiency Alliance presented Energy Efficiency Choices: a citizens' discussion on Alberta's energy efficiency policies and programs in Fall 2013.

The Alberta government is currently researching energy efficiency programs that it could potentially offer within the province. The government's 2013 budget included their desire to "***Build initiatives to make Alberta the national leader in energy efficiency and sustainability.***"

Energy Efficiency Choices was an opportunity for Albertans to tell the provincial government what they want when it comes to energy efficiency. This project::

- Gathered citizens' feedback on the available approaches and tools for increasing energy efficiency in Alberta
- Increased citizen understanding about the benefits of energy efficiency: both in reducing costs, and in addressing environmental impacts including climate change
- Communicated to the Alberta government about participants' energy efficiency recommendations

These citizen discussions focused on how government can fund energy efficiency programs, and on when and how to regulate energy efficiency standards.

How citizen participation can make a difference

The government has made the development of new energy efficiency initiatives a high priority. If the province listens to the input of citizens, industry, environmental groups and other organizations, the new energy efficiency programs and policies it is designing will be better and more successful.

One hundred and sixty-four participants from across Alberta joined in this discussion about energy efficiency policies and programs. These participants were randomly recruited to help ensure they represent the diversity of Alberta. A breakdown of demographics for the participants can be found in Appendix A.

The Alberta Energy Efficiency Alliance is also collecting input from our members and other organizations from across Alberta on how the government should move forward on energy efficiency.

How citizens participated

To gather input from citizens on potential government policies and programs, a team of professionals designed a process to:

- Provide background information on the topic (summarized in this report)
- Ask questions about the background information
- Discuss their perspectives with other citizens (in small groups on the phone)
- Provide their thoughts on the topic via surveys both before and after the group discussions
- Review the information collected and provide additional feedback on it

Each participant attended a two hour phone call to participate in the phone discussion. A total of 164 participants attended the discussion sessions.

The input provided by citizens is summarized in this report.



Contents

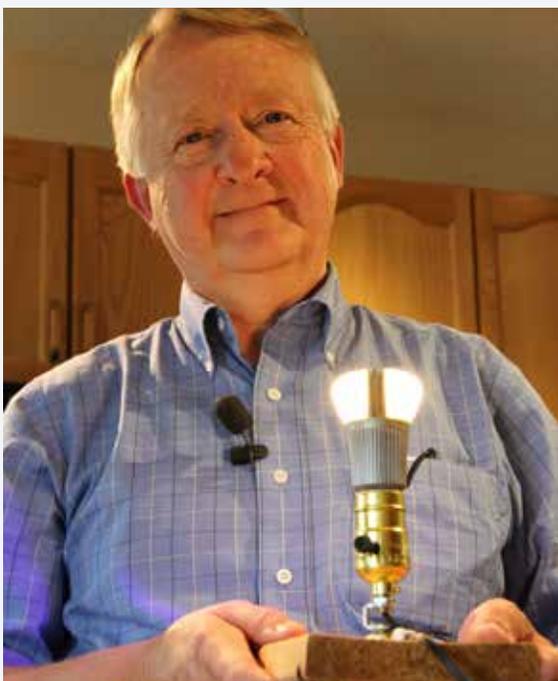
Summary	3
Energy Efficiency Choices	5
Background Information Provided to Participants	7
Participants' Views and Information on Funding for Energy Efficiency Programs.....	10
General Revenues.....	11
GHG Payments From Industry	13
Utility Bills	15
New Tax.....	17
Regulations.....	19
Glossary	21
References	22
Appendix A – Demographic breakdown of 162 participants	23
Appendix B – Individual Comments.....	24
Appendix C – Post-Event Survey Results.....	28

Background Information Provided to Participants

What is energy efficiency?

Simply defined, **energy efficiency means using less energy for the same level of service.** Here are some examples:

- LED lightbulbs use 90% less electricity than regular lightbulbs but produce the same amount of light.
- Cars of the same size and type may use different amounts of gasoline to go the same distance.
- An industrial motor that adjusts its speed based on demand uses less electricity than a motor that always runs at its highest speed no matter the conditions.
- If electricity is generated close to where it is needed — whether by large-scale power plants or even solar panels on a house — it does not need to be transmitted long distances, which reduces the amount of power lost in transmission.
- Efficiency can also come through energy conservation, which means not using energy when it isn't needed at all — for example, by turning off lights or equipment when they're not needed, or turning down a thermostat at night.



Why is energy efficiency important?

Because it...

- **Saves money** – Energy efficiency upgrades often pay back as well as or better than investments in the stock market.
- **Reduces environmental impact (including greenhouse gas emissions)** – Energy efficiency is widely recognized as the most cost-effective way to reduce the environmental impact of energy use, including the impacts of climate change.
- **Is a net creator of jobs and economic activity** – Energy efficiency projects tend to employ more people per dollar spent than the energy supply sector does.
- **Improves business competitiveness and helps create a resilient economy** – Energy efficiency lowers costs to businesses and households; increases business profits and disposable income; and makes it easier for everyone to handle spikes in energy prices.
- **Could be good for our province's reputation and ability to grow Alberta's economy** – Reducing environmental impacts in Alberta will help to alleviate some of the concerns regarding Alberta's oilsands industry. This helps to increase the province's ability to export oil and grow Alberta's oil industry.
- **Is a major contributor to Alberta's climate change commitments** – Energy efficiency is one of the province's three main strategies for reducing greenhouse gas emissions (the others are carbon capture and storage, and renewable energy).

Energy efficiency is using less energy for the same level of service.

Why is the Alberta government working on energy efficiency? What commitments have they made?

- Governments have opportunities for increasing energy efficiency that are not available to other sectors. This includes programs for businesses, industry and/or consumers.
- Building initiatives to make Alberta the national leader in energy efficiency and sustainability was identified as a priority for three ministries under the 2013 provincial budget.
- The provincial government has also committed to reducing GHG emissions while still growing the economy. Energy efficiency is the most cost-effective way to do this.

What approaches are available to government for advancing energy efficiency? What are the impacts of each?

There are typically three main ways governments have been able to significantly increase energy efficiency in the past. These are:

- **Information** – such as advertising and training programs

- **Incentives** – such as rebates for energy efficiency upgrades
- **Regulations** – such as minimum energy efficiency standards for buildings, vehicles, equipment

See how these three approaches work together in Figure 2 below.

Past experience has shown that the biggest energy efficiency savings come through incentives or regulations.

While information programs haven't been able to create major savings on their own, they are considered an essential part of creating successful incentive programs and putting in place new regulations.

In fact, information programs, incentives and regulations are often used together in stages to increase the energy efficiency of the entire marketplace for a given type of product as shown in Figure 2 below.

These approaches can be applied to residential, commercial and industrial sectors. Each has its strengths and challenges, as outlined in Table 1.

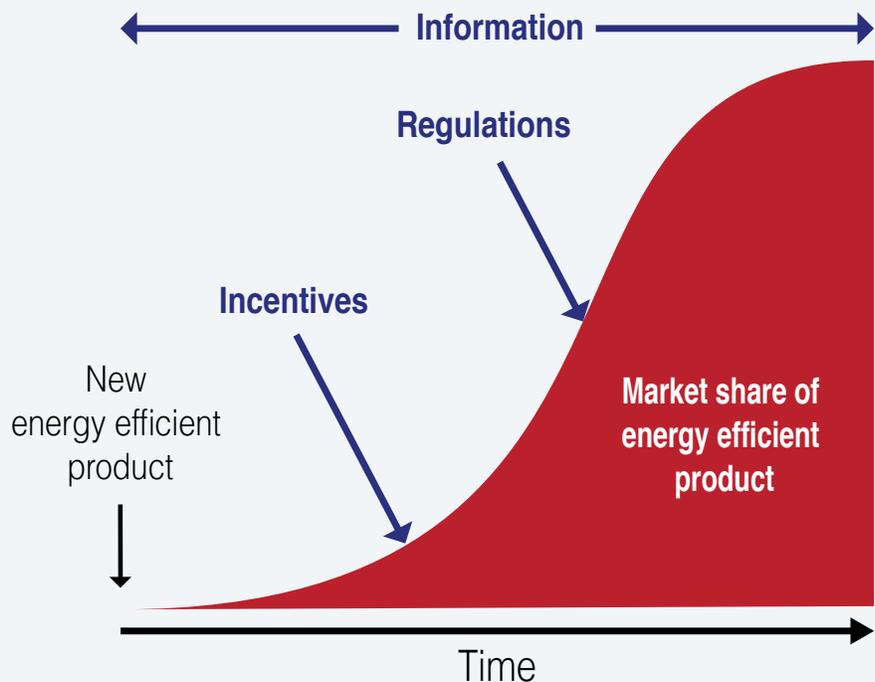


Figure 2. Approaches to energy efficiency and their effects on the market

What questions did participants give input on?

People are generally supportive of programs that provide information and incentives, but there is less agreement is around how can governments *fund* these programs. There is also less agreement around when and how to *regulate* energy efficiency standards. Thus, the two main categories we collected input on are:

- Funding for energy efficiency programs
- Energy efficiency regulations

These are described in more detail on the following pages, along with discussion questions and points we asked participants to consider.

Table 1. Summary of energy efficiency approaches

ENERGY EFFICIENCY APPROACH	STRENGTHS	CHALLENGES
INFORMATION Examples include advertisements or training of trades people	Not contentious Increases success of other stages	Limited impact on its own
INCENTIVES Examples include rebates for energy retrofits	Can motivate between 10% and 30% of consumers Can be used as a transition to new regulations Households and companies like receiving incentives Can be designed to save more money than they cost	Only shifts part of a market Highest cost for government (of the stages listed here) Needs new budget allocation, tax, fee, or to be built into utility costs Some households and companies benefit more than others
REGULATIONS Examples include minimum energy efficiency standards for buildings, vehicles, equipment	Market-wide impact possible Can be designed to save more money than they cost	Can be unpopular with people or businesses required to change

Participants' Views and Information on Funding for Energy Efficiency Programs

Energy efficiency programs are usually focused on raising *awareness* of energy efficiency opportunities in the residential, commercial and industrial sectors, and providing *incentives* for individuals and businesses to adopt a new energy efficient product or behaviour, or to undertake a range of energy efficiency upgrades for their buildings or facilities.

Energy efficiency incentive programs have a history of saving consumers more money than they cost.

Past incentive programs have included:

- Rebates for energy efficiency upgrades of houses or businesses
- Rebates for high efficiency appliances
- Grants for energy efficiency audits
- Direct funding for industrial energy efficiency projects.

Incentives such as these are one of the few proven ways to notably increase energy efficiency across an entire province. However, incentive programs require sizeable sources of funding. As well, the benefits of some types of programs do not continue once the funding ends.

Participants looked at four potential sources for government funding of energy efficiency programs:

- A. General revenues
- B. GHG payments from industry
- C. Utility bills
- D. New tax

Although participants considered each potential funding source on their own, they were reminded that the Alberta government might apply a mix of some, all or none of these approaches.



Energy efficiency incentive programs have a history of saving consumers more money than they cost. Improved insulation could reduce this homeowner's heating costs.

Funding Source A

General Revenues

Participants considered a first option for government funding of energy efficiency programs: using general revenues. This money mostly comes from *existing* taxes such as income taxes. It could also come from resource royalties, which is the money paid by companies for the ability to extract natural resources (like oil and natural gas).

Funding for a provincial energy efficiency program in the range of \$45 to \$60 million per year would take up approximately 0.13% of the provincial budget. This range of funding would place Alberta in the middle of the pack compared with other Canadian provinces on a per person basis (see Table 1).

This funding level is similar to what the Alberta government currently spends on programs such as Workplace Standards (approximately \$44 million per year).

FUNDING SOURCES

Existing taxes

Existing resource royalties

STRENGTHS

Already being collected

CHALLENGES

Competes with other priorities and / or increases spending

Funding could be withdrawn as budget priorities shift

OTHER FEATURES

Could be used by itself or in combination with other potential funding sources.

Energy efficiency incentive programs could be run for every sector (residential, commercial and industrial) and could include rebates, grants and/or additional support for energy efficiency audits and upgrades.



PARTICIPANTS' VIEWS

Effective use of funding from general revenues was the primary concern for participants during this discussion. Participants emphasized the need for a good return on investment if a new provincial tax or fee were to be created to fund energy efficiency programs.

Other common areas of comment were related to:

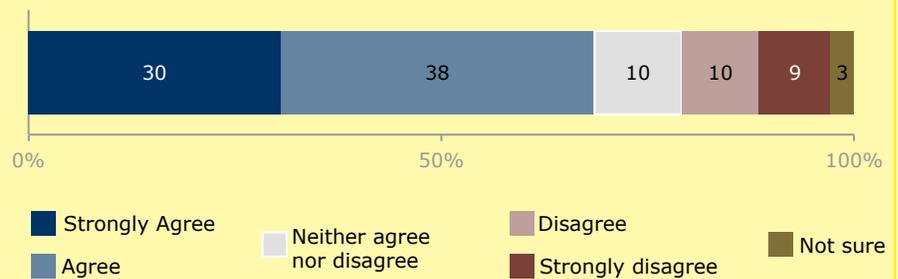
- Concerns that funding from general revenues may come and go and therefore the programs would not be funded appropriately over time.
- Concerns that businesses may benefit from programs more than citizens.

Comments that were raised only once or twice are listed in Appendix B.

69% of participants support funding energy efficiency programs through general revenue if there is proper monitoring to ensure the money is well spent. (18% oppose and 13% did not indicate whether they support or oppose.) See Appendix C for full results.

I support funding energy efficiency programs through general revenue...

if there is proper monitoring to ensure the money is well spent.



Funding Source B

GHG Payments From Industry

Participants considered a second option for government funding of energy efficiency programs: using funds collected from industry through the Province's *Climate Change Strategy*. This Strategy includes a regulation where large industries can meet their greenhouse gas (GHG) emission reduction targets by:

- Reducing emissions
- Buying emission reductions from others (offsets)
- Paying into a technology fund

The technology fund, also known as a carbon levy, is currently used to provide grants for the development of new technologies for reducing GHG emissions. Payments into the fund in 2011 were \$55.4 million. This system is currently under review and payments from industry may be increased.

Under either the existing system or an adjusted system, payments from industry could be used to fund energy efficiency incentive programs. For an adjusted system, it is estimated that between \$20 million and \$50 million per year could be generated for funding energy efficiency programs in the province. This level of funding would roughly place Alberta between Saskatchewan and Nova Scotia in terms of per capita energy efficiency spending.

FUNDING SOURCE

Payments from industrial facilities exceeding greenhouse gas emission targets (carbon levy) — part of the existing Alberta Climate Change Strategy

STRENGTHS

Already being collected

May be increased

Can create budgetary consistency to allow multi-year programming

CHALLENGES

If changes are not made to the system, funding energy efficiency programs will decrease the amount currently spent on developing new emission reduction technologies

OTHER FEATURES

Could be used by itself or in combination with other potential funding sources.

Incentive programs could be run for every sector (residential, commercial and industrial) and could include rebates, grants and/or additional support for energy efficiency audits and upgrades.



PARTICIPANTS' VIEWS

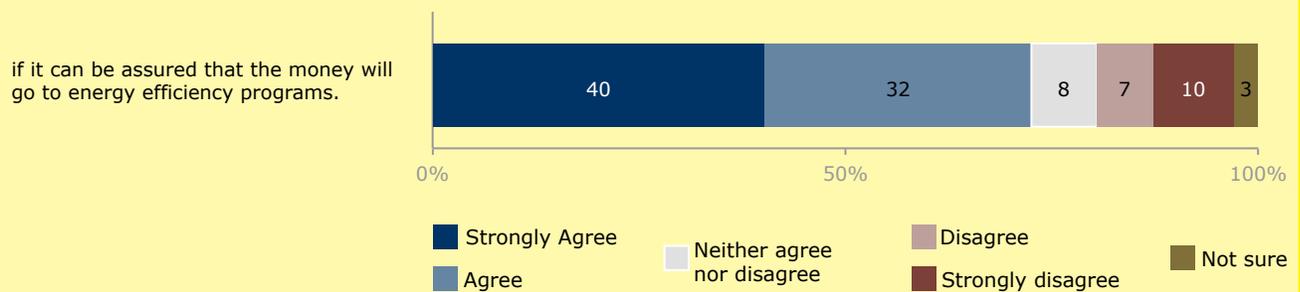
The most common issue raised by participants in this discussion were questions around how the technology fund is currently spent, and how effective the existing investment is compared to potential new energy efficiency programs. In response, the conveners of Energy Efficiency Choices referenced research that shows that energy efficiency programs are one of the most cost effective ways to reduce emissions. Energy efficiency programs also result in the greatest overall cost savings for consumers. Projects currently funded using industry GHG payments, on the other hand, are generally focused on developing new technologies for reducing emissions and are needed for existing industries to meet emission reduction targets over the next several decades.

The second most common issue raised by participants was related to concerns that the money collected would not go into energy efficiency programs, but be used for another purpose.

Comments that were raised only once or twice are listed in Appendix B.

78% of participants support funding energy efficiency programs through payments made by industry based on their greenhouse gas emissions. (22% oppose). See Appendix C for full results.

I support funding energy efficiency programs using industry GHG payments...



Funding Source C

Utility Bills

Participants next considered the option of funding energy efficiency programs through utility bills. This would be a new approach in Alberta, but most Canadian provinces and American states use utility bills as the primary way to fund energy efficiency programs. The amount of the charges varies by jurisdiction, but is typically between 0.5% and 2% of bills.

For a residential customer, this would mean a 0.5% to 2% increase in electricity and/or natural gas bills. In return, residents would have access to programs that would provide support and incentives for upgrading the energy efficiency of their homes, thus reducing the monthly energy costs.

FUNDING SOURCE

Percentage charge on utility bills

STRENGTHS

Common way to fund energy efficiency programs

Can create budgetary consistency to allow multi-year programming

Alberta Utilities Commission (a provincial regulatory body) would likely oversee spending to ensure consumers see a net benefit

CHALLENGES

Consumers required to pay up-front for potential future savings

Limited to energy utilities (electricity and natural gas)

OTHER FEATURES

Could be used by itself or in combination with other potential funding sources.

Utility bill charges and related programs often cover all sectors (residential, commercial and industrial). Charges are then used for programs in the sector where the funds were collected to provide grants, rebates and/or other support for energy efficiency audits and upgrades.



PARTICIPANTS' VIEWS

With regards to funding energy efficiency through an additional charge on utility bills, the most common issue raised was the potential impact on low and fixed income households. There was significant concern that an additional charge on utility bills would be a burden for these households.

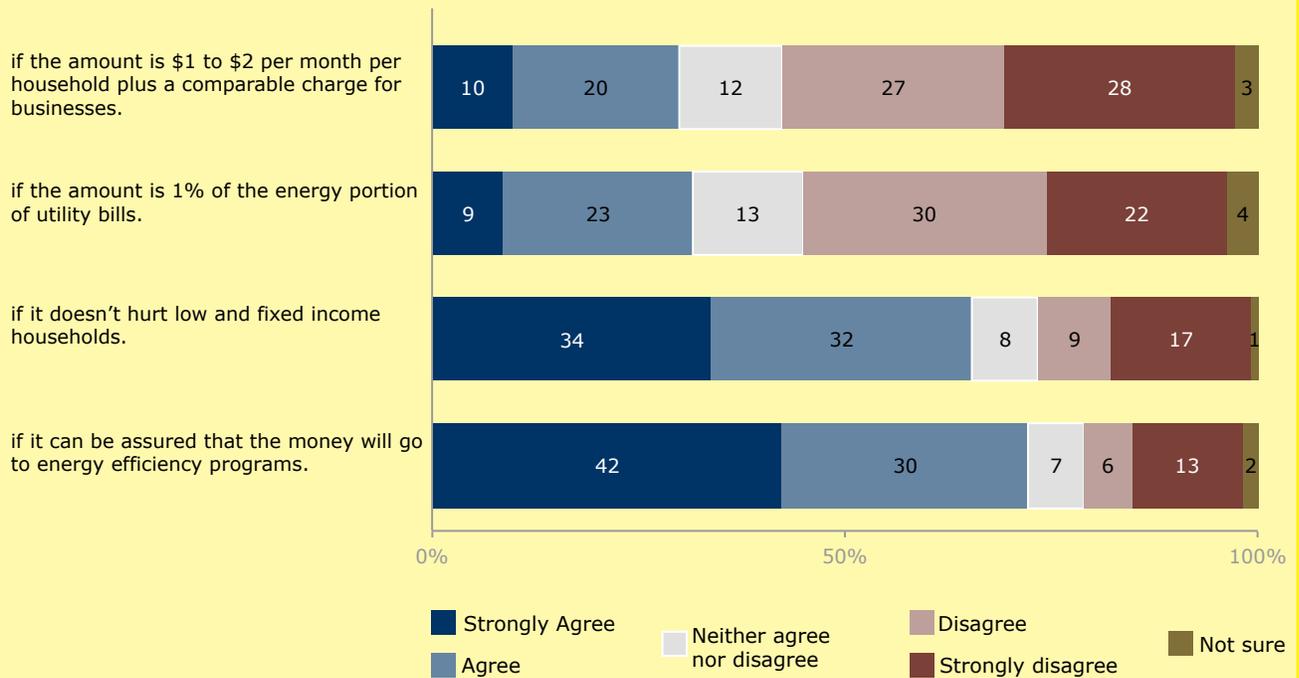
The next most common comment was that some participants wanted assurances that the money would actually be used for energy efficiency programs and not be kept by utilities or the government.

Of the people supportive of using this as a funding source, half wanted to see a flat charge of a couple dollars a month added to utility bills, while the other half wanted the charge to be based on how much energy is used (e.g., 1% of the energy charges on a bill).

Comments that were raised only once or twice are listed in Appendix B.

Less than 32% of respondents support funding energy efficiency programs through utility bills unless low and fixed income households will not be hurt by the increased costs. With this condition in place, the number of respondents that support funding energy efficiency programs jumps to 65%. (26% oppose and 9% did not indicate whether they support or oppose.) Participants also showed strong support for funding energy efficiency programs through utility bills if it can be assured the money will go to energy efficiency programs. See Appendix C for full results.

I support funding energy efficiency programs through utility bills...



Funding Source D

New Tax

Another funding option that participants considered for government-led energy efficiency programs is the development of a new tax, such as a charge on all greenhouse gas emissions or fossil fuels, or a tax increase, such as an increase to existing income taxes or corporate taxes.

Sufficient funding for energy efficiency programs would require either an approximately 0.5% to 2% increase in the cost of buying energy, or a income and/or corporate tax increase of a similar size.

Either of these approaches would give Alberta similar per capita funding of energy efficiency programs as other Canadian provinces.

FUNDING SOURCE

Increase income and / or corporate taxes

Tax on all GHG emissions or purchase of fossil fuels

STRENGTHS

Could provide consistent funding

Could be related directly to energy use

CHALLENGES

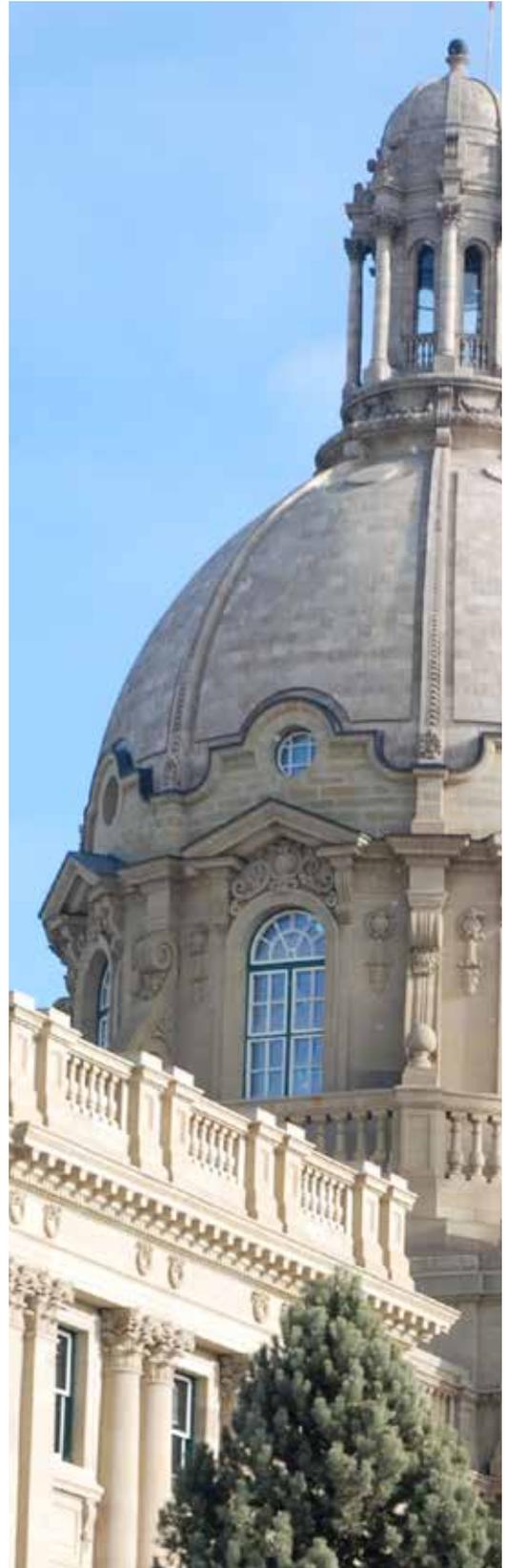
Politically unpopular for some

Will benefit some people and activities, and disadvantage others

OTHER FEATURES

Could be used by itself or in combination with other potential funding sources.

Incentive programs could be run for every sector (residential, commercial and industrial) and could include rebates, grants and/or additional support for energy efficiency audits and upgrades.



PARTICIPANTS' VIEWS

The potential impact on low and fixed income households was the most common issue raised during participant discussions about a new tax or fee to fund energy efficiency programs. Participants suggested that any new tax or fee should be designed so it doesn't add costs to low and fixed income households

The next most common comment was that participants preferred to have a tax or fee that is tied to energy consumption as opposed income taxes.

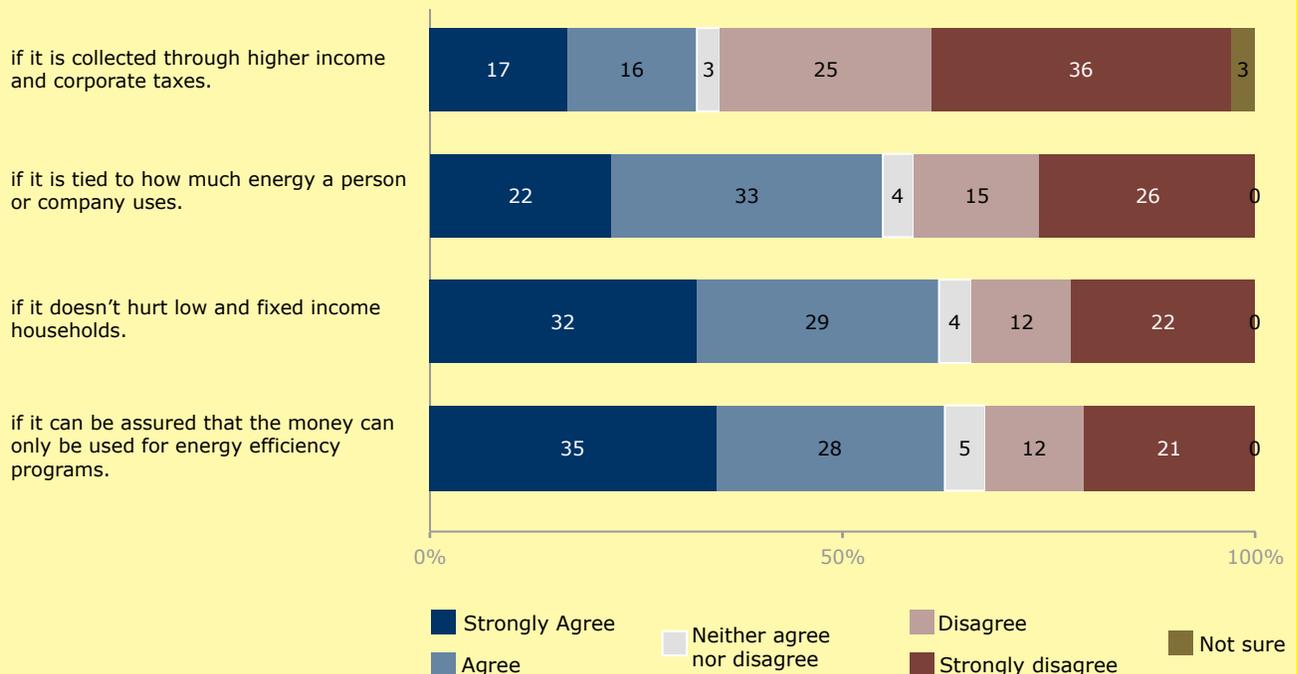
Other areas with a notable number of comments were related to:

- Concerns that the funding would not be used for energy efficiency programs.
- Concerns that the energy efficiency programs may eventually be cancelled and the new tax or fee would go into general revenues.

Comments that were raised only once or twice are listed in Appendix B at the end of this document.

Only 33% of respondents support funding energy efficiency programs through income or corporate taxes. The number jumps to 55% support when a new tax or fee is tied to energy use and the amount of support climbs to 62% if the new tax or fee doesn't hurt low and fixed income households. (34% oppose and 4% did not indicate whether they support or oppose.) Respondents also showed strong support for funding energy efficiency programs through utility bills if it can be assured the money will go to energy efficiency programs. See Appendix C for full results.

I support funding energy efficiency programs using a new tax or fee...



Regulations

A common way of increasing the energy efficiency of products is through regulations. Energy efficiency regulations have been used in the past in North America and other jurisdictions to increase the energy efficiency of vehicles, appliances, electronics, furnaces and buildings.

Regulations are often set at a level that is readily achievable by existing product producers and increased over time as new, more energy efficient versions of products are developed.

Energy efficiency regulations sometimes cause increases in the cost of products (because the products are more sophisticated). However, regulations are typically set at levels where consumers are expected to save more money through energy savings (over time) than the increased cost of a product.

Recouping cost of regulations

There are three general scenarios for how the cost of regulation can be recouped through energy savings. Two of these are straightforward, while the third is more complex.

1. In the simplest case, an appliance, piece of equipment or vehicle is purchased directly. The buyer pays more money for the product and it often takes several years to recover the extra cost through energy savings. However, the cost is more than recovered over the expected lifetime of the product.
2. With larger purchases that require financing, higher energy efficiency standards will generally increase the price and the cost of payments. However, this increase is more than recovered by annual energy savings. An example would be the cost of an energy efficient house, where the reduced utility costs offset the increased mortgage.
3. In other cases, the person who incurs the extra cost may not be the one who benefits from the savings. For example, a developer who constructs a building may have higher construction costs due to energy efficiency regulations. However, if the occupants pay the utility bills, they will see the savings. The developer may or may not be able to recover the building cost from their tenants' rental fees or when the building is sold.

Regulations are often used to 'lock in' energy efficiency improvements to products once they are relatively common and available at a reasonable cost.

REGULATION

Minimum energy efficiency standards for buildings, vehicles, equipment, building materials or industrial facilities

STRENGTHS

Broad reach

Can reduce the cost of energy efficiency through economies of scale

Ongoing cost savings

CHALLENGES

Usually increases upfront costs

Reduced flexibility when purchasing a new product or constructing a new building or facility

A SUMMARY OF WHAT WE HEARD

The majority of participants were in favour of the government establishing new energy efficiency regulations.

Enforcement was the most common concern raised by participants about new energy efficiency regulations. Participants recommended that regulations not be too complex, or difficult or expensive to enforce.

The second most common consideration raised by participants was the importance of communicating with the public about any new regulations and why they are beneficial to help ensure the public understands why the regulations are being put in place.

Other commonly heard comments about possible new energy efficiency regulations include:

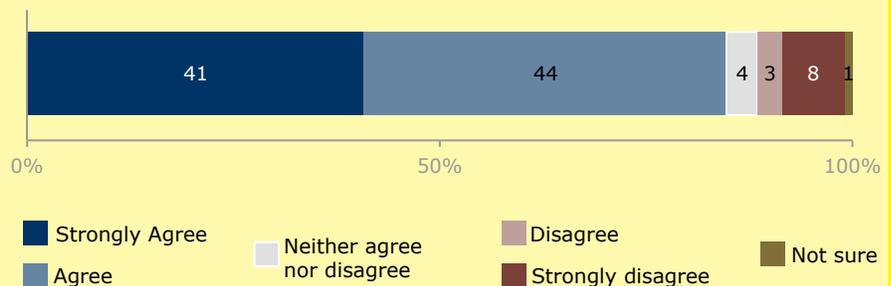
- New buildings are a good place to start.
- Concerns that homeowners would need to upgrade their existing houses.
- Concerns that the energy savings may not occur.
- Concerns that low or fixed income households may be adversely affected.

Comments that were raised only once or twice are listed in Appendix B at the end of this document.

85% of respondents support the Alberta Government establishing new energy efficiency regulations if the regulations are reasonably easy to enforce (e.g. through existing approaches like building inspections). (10% oppose and 5% did not indicate whether they support or oppose.) See Appendix C for full results.

I support the Alberta Government establishing new energy efficiency regulations...

if the regulations are reasonably easy to enforce (e.g. through existing approaches like building inspections).



Glossary

Commercial sector	Businesses and other organizations not included in the industrial sector.
Consumer	A person who purchases goods and services.
Energy	Power derived from natural or chemical resources, especially to provide light and heat or to run machines.
Energy efficiency	Using less energy for the same level of service.
Energy efficiency audit	Review of a particular building or facility by an energy expert to identify opportunities for energy efficiency upgrades.
Energy efficiency upgrade	Increasing the energy efficiency of a building, facility or vehicle through a change its construction, equipment and/or operation.
Grant	Money received for a particular purpose (typically from a government or non-profit organization).
Greenhouse gas emissions	The production and discharge into the earth's atmosphere of gases like carbon dioxide, which contribute to the greenhouse effect.
Incentive programs	A plan that rewards specific actions. Examples include rebates for energy efficient upgrades.
Industrial sector	Facilities where physical products are produced.
Information programs	A plan that provides facts and reasons about products or behaviours. Examples include advertising and training programs.
LED	Light emitting diodes. LED is a highly efficient way to create light.
Rebate	Receiving money for a past purchase.
Regulation	A rule made and maintained by the government. Examples include minimum energy efficiency standards for buildings, vehicles and equipment.
Residential sector	Includes houses, apartments and personal vehicles.
Resource royalties	The money paid by companies for the ability to extract natural resources (like oil and natural gas).
Sector	A distinct part of a nation's economy or society.
Tax	A fee charged by the government on income, profits or the cost of some goods and services.
Utility	Company that generates and distributes electricity, gas, or water to consumers.

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Appendix A – Demographic breakdown of 162 participants

GENDER

Female: 70 (43%)

Male: 92 (57%)

AGE

18-29: 3 (2%)

30-49: 33 (20%)

50+: 126 (78%)

ETHNIC BACKGROUND

Prefer not to answer: 10 (6%)

Chinese or South Asian: 5 (3%)

Not a visible minority: 147 (91%)

INCOME

Prefer not to answer: 23 (14%)

Under 30,000: 12 (7%)

30-59,000: 16 (10%)

60-89,000: 39 (24%)

90,000+: 72 (45%)

ABORIGINAL

Prefer not to answer: 8 (5%)

Yes: 4 (2%)

No: 150 (93%)

CHILDREN UNDER 18

Yes: 34 (21%)

No: 128 (79%)

EDUCATION

Prefer not to answer: 3 (2%)

High school or less: 13 (8%)

College or apprenticeship: 45 (28%)

University: 101 (62%)

Appendix B – Individual Comments

The following comments were captured during the citizen deliberations, but not included in the summary report because these ideas were heard only once or twice during the discussions.

Participants met in small, facilitated groups to explore how to fund and implement potential new energy efficiency programs.

General Revenues

- The fines for not fulfilling energy efficiency requirements should be increased because companies often find it cheaper to pay fines than to improve practices. We need to set some standards for energy efficiency in buildings; if buildings don't meet those standards, let's put fines on them. In Calgary, for example, there is one huge complex that's terribly inefficient.
- I'd propose using a hybrid system to provide funds from both sources — use some GHG funds to complement general revenues, but no new taxes.
- Only way it's feasible (to use general revenues) is to increase royalties, along with an industry carbon tax, and when those taxes become part of general revenue then use general revenues.
- Would not use existing revenues. It's ridiculous that the Province is looking for ways to reduce GHG while at the same time allowing a coal-fired powerplant to be built even though the Federal government has set regulations for no new ones to be built (2015). (Discussion ensued about whether this project was actually going forward.)
- Definitely wouldn't be in favour of a new tax. Corporations that are involved in producing GHG's don't pay enough. Yes they do need to pay more, but it needs to be balanced so it doesn't just get passed on to consumers because it's such a huge increase. It depends about where the current general revenues come from — what doesn't get funded — whether I'll support that. If it comes from education or health care — no I don't support that. If there was a review of government programs to determine which are not working effectively, then those current funds could/should be transferred to energy efficiency programs. Not concerned with current deficit.
- Alberta is currently under-taxed. We are suffering from self-inflicted wounds. Alberta could easily increase sales tax, corporate taxes etc. and still maintain a competitive position compared to other provinces.
- Yes we could increase taxes and take it out of general revenue, but also get GHG emitters to pay more.
- A carbon levy might be appropriate. Those who use more should pay more.
- The only way I'd feel positive about this option is in case of self-funding: if the money were put into consumers' pockets.
- Instead of having the money come from government coffers, why not offer the money to consumers by way of tax credits?
- Gov't is a major consumer of goods and services. Why not build energy efficiency into tendering criteria? Is what we're buying the best fit between resource and use? Thinks big pickup trucks that drive around empty is good example.
- Prefer market-based solutions, where energy efficiency is a sales point on a particular product.
- Find ways to get the evil doers to fund stuff like this. (For example funding police officers by catching speeders.)
- I think industry in Canada are doing a good job of maximizing efficiencies and are paying the price for any lack they have. Hammering them with an extra cost wouldn't be good for them.

GHG Payments from Industry

- Worried about impact on oilsands / economy.
- Consider other priorities, e.g. energy efficiency vs encouraging clean energy
- Questions about the long-term stability of the funds. If it is designed based on GHG emissions and industry is successful at reducing emissions does that compromise this as a potential funding source?
- Alberta alone reducing its CO₂ emissions is a small effort — it is a worldwide effort/control or it's pointless.
- Posed a question/statement about alternative/renewable energy (didn't address), and talked about how it's a cumbersome process to use and used sun-powered batteries as an example. (This is) unfortunate because we can use sun power and wind power.
- Yes, should use GHG money to encourage people to use power in a better way. Identified communal building as an example of where there's high potential for energy savings, as residents don't pay attention to their consumption/usage.
- We have so much going up here (agricultural/rural area). We do not even have proper recycling bins – so we have to drive 30 mins to recycle cardboard. The things that are inefficient should have a surtax. People might have a greater interest in consuming less and putting energy efficient products in their homes. If someone has all LED lights, but never turns them off – it defeats the purpose.
- Concerned about various taxes – different taxes have different impacts – e.g., sin tax on gas guzzlers – as their agricultural livelihood needs to use large vehicles
- This funding collected from the industry, should be utilized within Alberta or at least western Canada to promote research here. The other thing that'd be nice would be offsetting import charge...specifically high usage from BC...maybe BC should have a GHG levy on it so that Alberta remains competitive.
- The government allows for royalty increases... which in my opinion are grossly under taxed.... doesn't allow for development of business here.
- When is industry supposed to meet targets? If there are no set deadlines, then they will just keep paying and won't worry about any consequences. Need to make sure companies are meeting the set targets. Give them incentives so companies will spend money on research to improve their efficiency. Need to avoid that they just pay and get away without making any changes. Buying credits is just evading the issue and gives them a way to cop out. Don't know if there is any way to enforce unless to penalize to the extent that it would really hurt them. Most corporations are trying hard to reduce GHG emissions. Who receives funding? Need to delegate where would do the most good. Carbon levy given to new technology. Need to find alternative sources of energy other than carbon. What timeframe are we looking at? 5 years, 10? Connected to energy is the quality of the environment.
- One way to incentivize oil, energy and gas is: let's increase royalties.

Utility Bills

- Concern that a small fee could be introduced but slowly increased over time without any due process or public input.
- Concern about forced participation, but was also a concern raised about the 'flat fee' approach which would not give people the opportunity to adjust their behaviour to lessen the impact.
- Questions were raised about the effectiveness of energy efficiency. For example the rebound effect whereby energy used becomes cheaper so people end up using more overall.
- I installed a more efficient furnace, but still paying the same bill as a result of price increases on energy.
- The government should research what other jurisdictions have done/what works elsewhere
- How would this impact low income households?
- Education for energy efficiency is needed.
- Rather than putting that 5 or 2 percent on everyone's bill. If you want to do upgrades, put it on your property taxes. You could have a program where the city pays for up-front costs and you pay it back over time. PACE Property assessed clean energy is generally used for green energy like solar but could be used for energy efficiency as well. Multifamily dwellings would include seniors' residences. Generally those buildings are not built energy efficient and they are still finding some residences with asbestos insulation in them.
- Capital people need to put up front a barrier. If they create a fund, it could lend out to home owners for energy efficiency upgrades and which they pay back over time. If they took all the GHG levies and put them in separate funds there would be a chunk of money where they could do this.
- We have built 2 super insulated energy efficient houses. Municipal taxes are based on outside measurement of the house. With 1 foot thick wall our house was 1500 sq ft on the outside and 1340 sq ft on the inside – we are penalized for energy efficiency.
- Would like to see tax incentives for distributed generation and co-gen.
- Providing funding should be used for incentive

loans. Reasonable discount rate – 1-2%.

- If Alberta didn't have a flat tax we could tax higher incomes more, and that would solve that problem. People like me are paying the same as someone paying a \$50k income. Alberta is the only province with a flat rate income tax.
- While new taxes are a pass through, some situations may not work well for pass through. By example, a landlord who pays utility bills charges \$1000 a month for an apartment. The landlord has an increase of \$32 to cover the utility tax. The landlord is not likely (or cannot change under a lease agreement) to increase the rent to \$1032 per month. The increased cost would be borne solely by the landlord and not the actual consumer (the tenant).
- We need to educate where we are losing energy. In school, teach that if there is no snow on the roof, we are losing energy.

New Tax or Fee

- Equity concerns: Urban vs Rural. Focused primarily on vehicle use and a carbon tax. Urban residents have more opportunity to use alternate means of transportation (transit, cabs, car pool, etc) where rural residents often require large vehicles (gravel roads, farmers etc).
- Some participants raised concerns about the effectiveness of EE programs, what kind of EE programs existed and what kind of programs would potentially be funded. Made it difficult to deliberate how they should be funded when no consideration given to whether they should be funded.
- Concern of double taxation by Provincial / Federal gov'ts.
- I have some reservations because as I mentioned in the other group, I have no problem with the government collecting taxes..gasoline tax...they're so dependent on that for building roads, if we switched to diesel fuel and changed the mileage, they'd only get half the revenue, which is why they don't encourage diesel is because they'd lose money...so that'd worry me.
- Don't like taxes because it seems to also require administrative costs.

- They might be better off spending time reducing the tax on energy efficiency products so the money stays in the pocket of the consumer. Maybe lobby the feds to eliminate the GST on energy efficient products.
- Onus should be on both the manufacturer and the consumer. Need to balance manufacturer output of large and small engines.
- People don't need as much as they usually have.
- Good idea to have a sliding scale based on size of vehicle.
- Want to know how much money is dedicated to efficiency programs and what is effective.
- Europe has higher taxes for larger vehicles—annual fee registration proportionate to size of vehicles.
- Natural resources belong to all. If restrict increased use/development of natural resources, energy efficiency would naturally occur.
- Recognized that Alberta's population is too small for many regulations requiring efficiencies, but for autos, buildings, yes.
- Medical equipment, farm equipment... once we start making exemptions you are getting lost. She has friends who are farmers who will have to make changes to their motors etc... We need to strive to do this across the board and industries. Including ICU (at the hospital, where she works). We've lost more quality in outsourcing rather than making products more EE. We need to maintain quality.
- Can appreciate why the focus is on product and what we use. Regulations should maybe be used for different industries that also consume and use energies.
- I don't think you can buy an appliance anymore that isn't energy efficient. I think it would be futile to worry about how much energy a fridge uses...we need to look at different areas.
- People need to be trained to build in the new ways. People react very well to knowing how their neighbors are doing with energy use and how much people are using; you don't want to force though regulations. Machinery and equipment are big issues; that is how you get into national path.

Regulations

- One of the big issues is that there are two levels of government. Something like regulations on motor vehicles by a provincial government are too small to make any real difference, so all that would do is limit choices for residents. Regulation should be on Province specific things that Alberta can make a difference on like buildings.
- A good place to pilot regulations would be on government buildings before we establish new mandates for homes.
- Only place maybe Alberta could be more aggressive is industries specific to Alberta, like oil and gas and power production.
- New products can be hard to test.
- We should make sure that housing has energy efficiency included in the design.
- Oil sands are already using less energy. Not much different from what already doing. (Q: need to be tougher than now?) No. As long as they're trying, that's good enough.
- It is necessary to do this on automobiles, and anything else that is effective.

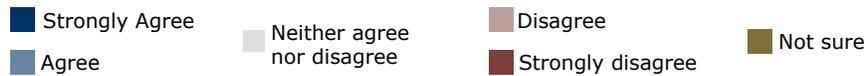
Other

- I find this exceedingly painful...we the people being polled are being asked to approve the government way of moving within a very narrow compass. No one seems to be asking the government if they're willing to commit to energy efficiency and if so, what programs they're willing to support...I find it insulting.

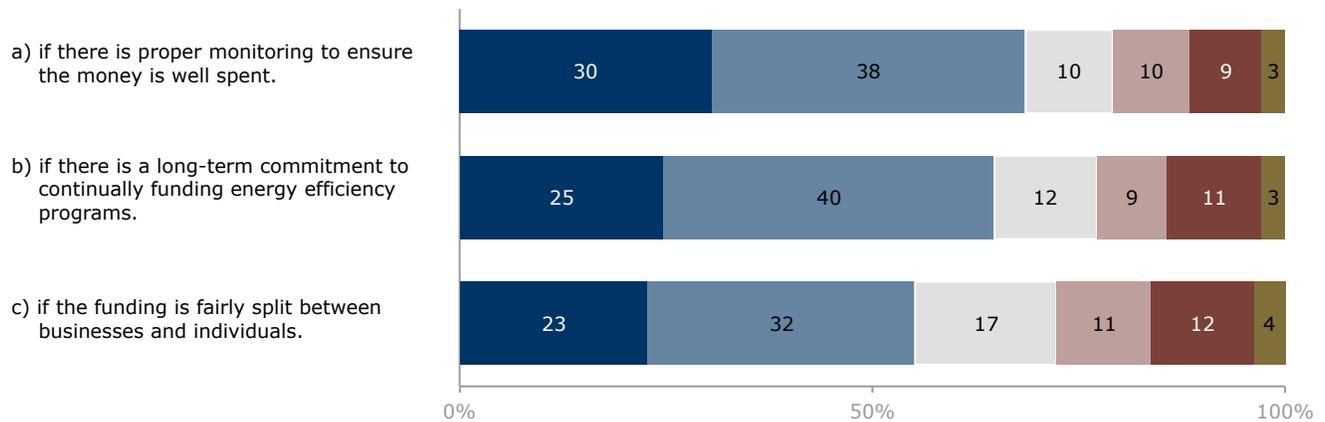
Appendix C – Post-Event Survey Results

A survey was conducted after the discussion events in order to measure participants' support for various funding options and regulatory approaches if particular concerns identified during the discussions could be addressed. The survey was conducted online between December 17, 2014 and January 3, 2015. Portions of this survey are included in the body of the report.

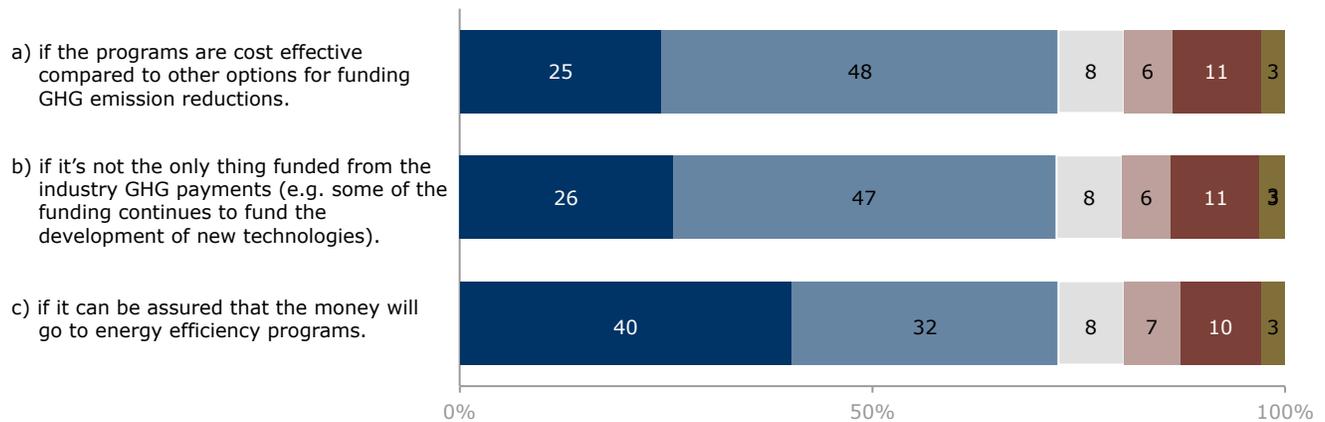
Graphs show percentage of respondents who indicated their level of agreement with the statements.

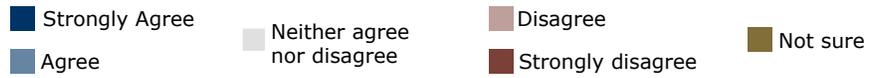


I support funding energy efficiency programs through general revenue...

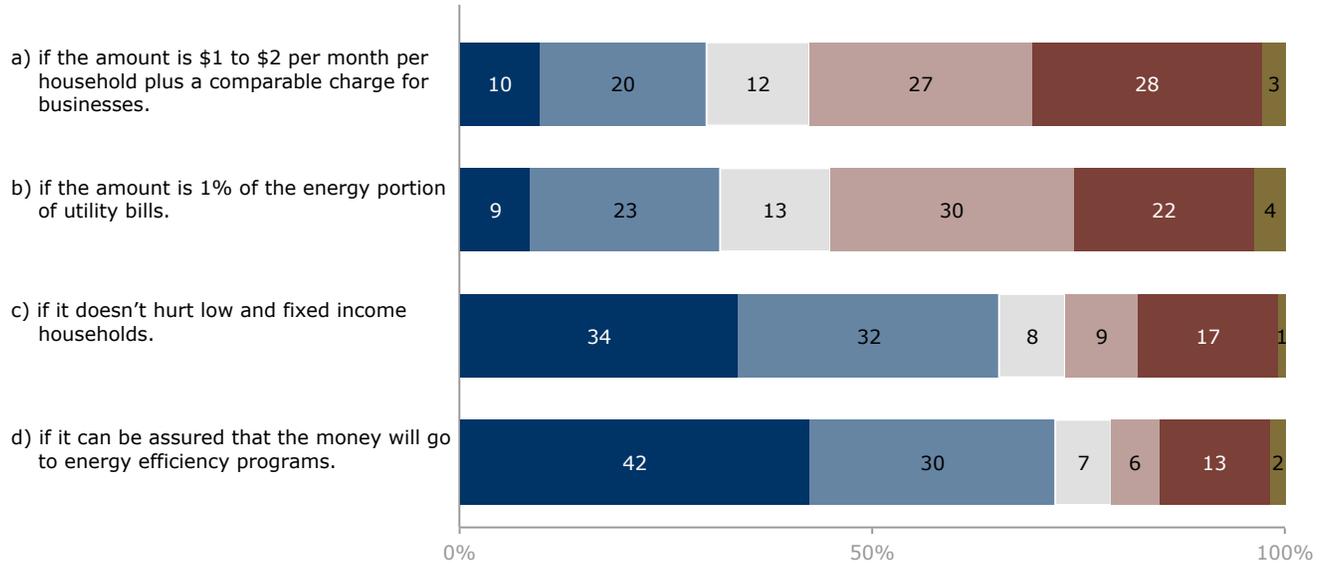


I support funding energy efficiency programs using industry GHG payments...

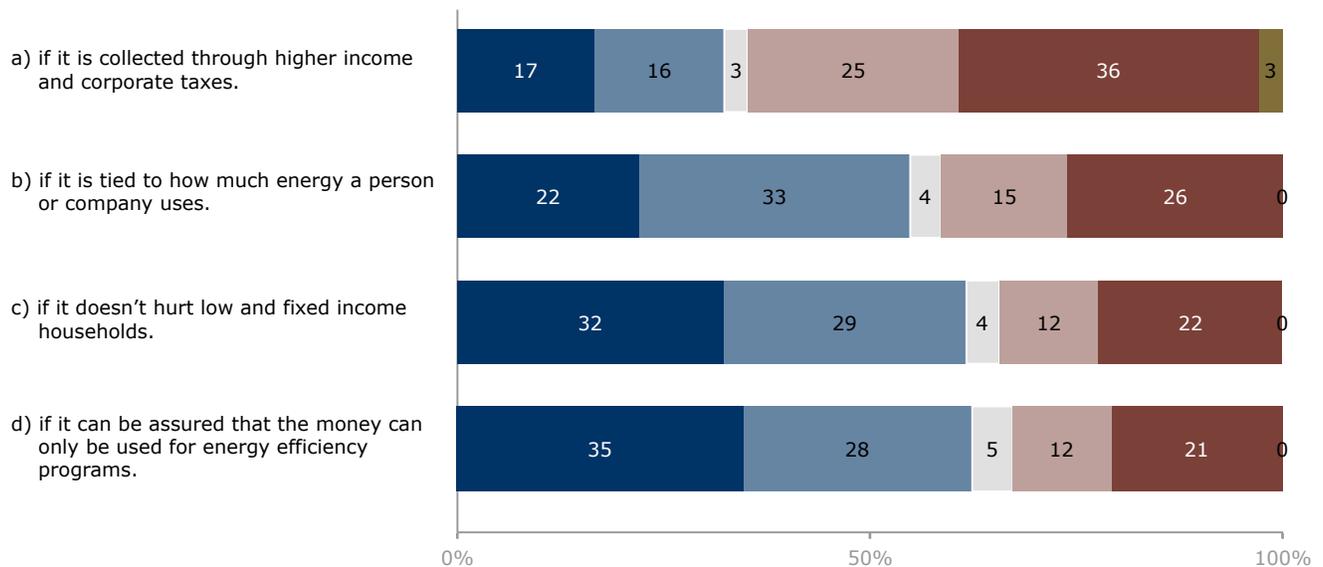


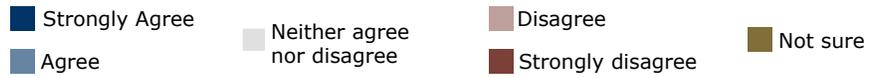


I support funding energy efficiency programs through utility bills...

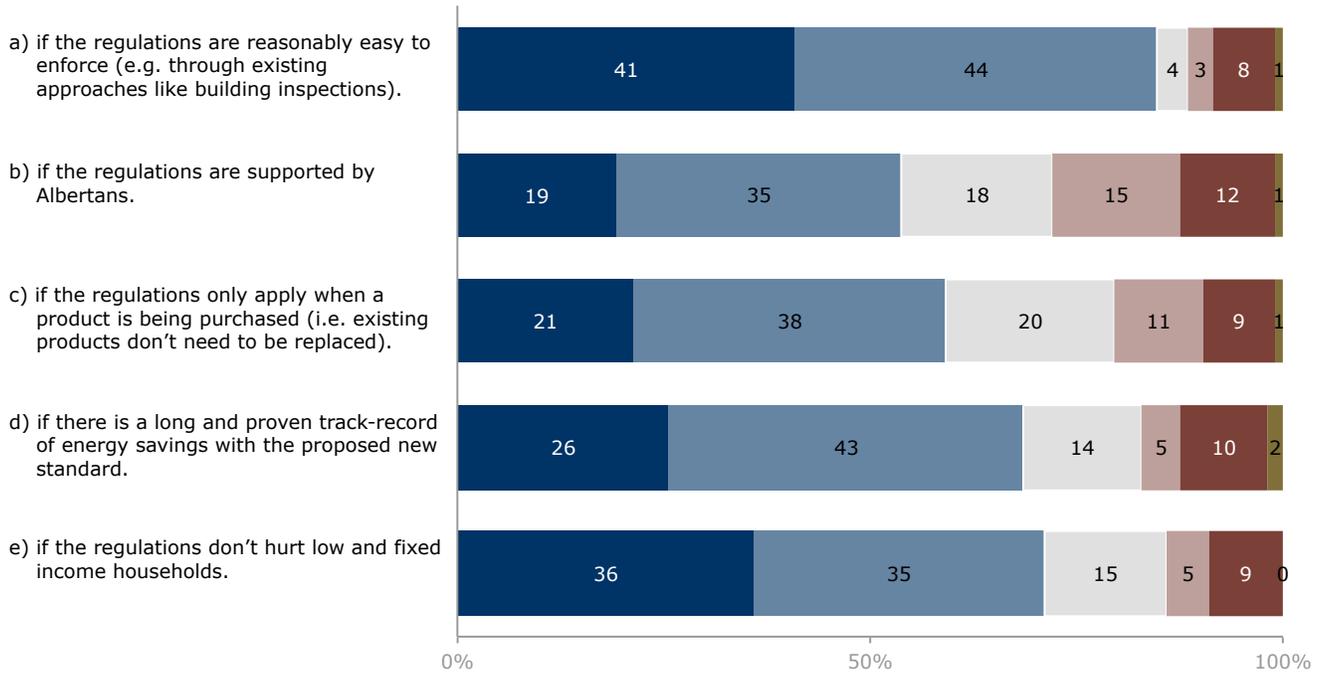


I support funding energy efficiency programs using a new tax or fee...





I support the Alberta Government establishing new energy efficiency regulations...



Additional research being undertaken in partnership with Alberta Climate Dialogue can be found at www.albertaclimatedialogue.ca.



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