

NARRATIVE RESEARCH

# **Climate Change and Energy Perceptions Report**

September 2020

Prepared for: The City of Edmonton

Edmonton



#### Background

The City of Edmonton has various programs working together to meet the goals of the Energy Transition Strategy. This strategy aims to make Edmonton a more energy sustainable and resilient city, by reducing the City's greenhouse gas emissions, reducing and conserving energy, and promoting local generation of energy. The support and participation of residents in the programs is essential to the success of these programs. To be able to market, target and adapt these programs effectively, the City of Edmonton seeks to understand its audiences, their perceptions, what motivates them and their barriers to action. For this purpose, the City of Edmonton has commissioned research in past years, the most recent being an online survey in September 2019. The purpose of the current survey is to compare results to previous survey iterations in 2019 and 2018, and the baseline established in 2017, thereby facilitating an assessment of changes in awareness and perceptions, while also measuring the effectiveness of current messaging.

#### **Research Objectives**

The following are the specific objectives of the current survey:

- To measure and compare changes in behaviours and perceptions regarding climate change and energy efficiency.
- To measure and compare awareness and perceptions regarding City programs such as Change for Climate, the EnerGuide home evaluation and the residential solar program, against the results obtained in previous years.
- To measure the effectiveness of marketing campaign messages and images.



### **Target Audience**

• Residents of the City of Edmonton, 18 years of age or older. It is noteworthy that the data collection for this study was undertaken during the COVID-19 pandemic period.

### Approach

- Online survey using a general population online panel provided by Dynata (formerly Research Now).
- To meet current needs, changes were made to the 2020 Climate Change and Energy Perceptions Survey from the previous version, including the addition of new questions, deletion of certain questions, and changes in the wording of selected questions.
- Data was statistically weighted by age, gender, and region (quadrants) using 2016 Census data to reflect the City's population along these dimensions.
- As this is a general population non-probability panel survey, to report a margin of error is inappropriate. If this were a probability sample, the margin of error would be +/- 3.1 percentage points, 19 times out of 20, based on this sample size.
- Percentage point changes year-over-year are noted throughout the report. It should be stated that mention of these changes does not imply statistical significance.
- The first iteration of this survey was conducted in 2017.





#### **Feelings Toward Climate Change**

Edmontonians continue to agree (74%) that climate change is a concern, and that there is a need to act now to address this issue (75%), consistent with the 2019 results. A total of 71% of Edmonton residents also agree that climate change is caused mostly by human activities, 67% say that their individual actions contribute to the global impacts of climate change, 70% say that Edmonton residents should be doing more to help prevent climate change, and 69% agree that they want to do more personally to help prevent climate change. Agreement on these four measures is generally consistent with the results observed in 2019. A total of 66% of Edmontonians affirm they are taking action to prevent climate change, compared with 63% last year.

In addition to expressing their own personal opinions on these matters, residents were also asked their perceptions of how Edmontonians in general feel in regards to climate change. As in 2019, residents are more so inclined to agree that they themselves hold progressive perceptions vis-à-vis issues related to climate change, as compared to the general public of Edmonton as a whole. Edmontonians want the City to either increase (43%) or maintain (23%) its efforts to address climate change. While 25% of residents are unsure what the City should do, 8% want the City to decrease such efforts. A total of 36% of residents perceive the City of Edmonton is taking the right actions to address climate change, compared with 39% in 2019.



#### Feelings Toward Climate Change (Continued)

Substantial proportions of Edmontonians recognize economic and employment opportunities associated with energy efficiency and addressing climate change. Specifically, 71% agree that investing in energy efficiency provides job opportunities for Edmonton, 67% agree that transitioning to renewable sources of energy provides job opportunities for the city, and 64% agree that efforts to prevent climate change present economic opportunity for Edmonton (with this final figure for 2020 being four points above the 2019 result). There is also widespread knowledge of the impacts of greenhouse gas emissions and various human actions (e.g., transportation choices, home as well as workplace heating/cooling and electricity use, food choices, and so forth) on climate change (with between 61% and 78% agreement).

Agreement on the impact of *food* as well as *other consumption* choices on climate change has increased by at least five percentage points from 2019 results, with 61%-66% of residents agreeing with these two statements. A total of 76% of Edmontonians agree that climate change affects the health and well-being of individuals, and 60% believe human caused climate change is linked to the occurrence of natural disasters. Both these measures are consistent with 2019 results.

A total of 42% of Edmontonians have become more supportive of taking action on climate change in the past year, a decline of six percentage points from the 2019 result for this measure. Among these residents, the most prevalent reasons for becoming more supportive of taking action on climate change include becoming more mindful of the impact of individual actions on the environment, belief that climate change is becoming more evident, becoming more aware of or educated on climate change, recognizing severe weather changes, and a recognition that action is needed to combat climate change. A total of 70% of Edmontonians think it is important to talk about climate change. While 69% (unchanged since 2019) of residents feel comfortable talking about climate change with their family, friends, or colleagues, 42% (compared with 45% last year) of residents mentioned regularly doing so.



#### **Home Energy Efficiency**

Residents' knowledge of their home's impact on climate change remains relatively stable, with 70% agreeing their home does have an impact. A total of 60% of Edmontonians indicate they have taken actions to either increase energy efficiency in their homes in the past year, and/or have reduced their greenhouse gas emissions that contribute to climate change in the past year. Taking action is relatively stable compared with 2019, although taking action to increase home energy efficiency is down from levels observed two and three years ago (e.g., 47% in 2020 compared with 61% in 2017). Those who have taken actions to increase home energy efficiency have largely done so by making investments in home energy efficiency (63%), rather than via behavioural changes (43%). Among the 39% of Edmonton residents taking action to reduce their greenhouse gas emissions in the past year, 73% have made changes in their behaviour to reduce greenhouse gas emissions (such as less driving, taking public transit, and so forth).

Edmonton residents also identify various benefits of having an energy efficient home, with lower utility costs (79%) and reduced energy use (73%) being the top two *benefits*. In contrast, the cost of making renovations (50%) and the cost of purchasing energy efficient appliances (36%) are the top two *barriers* to making homes more energy efficient. A total of 40 % of Edmontonians are aware of the EnerGuide home evaluation program, the same as in 2019.

#### **Solar Energy and Energy Efficiency**

Results for various measures in this domain have not appreciably changed since 2019 with 71% of Edmontonians agreeing that having solar panels installed in their homes decreases their homes' impact on climate change. A total of 26% of Edmontonians are aware of a program that helps home-owners install solar panels on their home to generate electricity, consistent with 2019 results. However, only four percent of Edmonton residents currently have solar panels installed on their home. Edmontonians do appear open to solar panels, as 15% of Edmonton home-owners are likely to either install solar panels for the first time, or add additional panels in the next three years . Edmontonians also place considerable importance in the energy efficiency of the buildings in which they work, study, play, or shop, as 68% of residents indicate that energy efficiency is important for such buildings.



#### **Electric Vehicles**

A total of 56% of Edmonton residents are aware of public charging stations for electric vehicles in Edmonton, down five percentage points from 2019 results. While 61% of residents also indicated they have no experience with electric vehicles, a total of 22% of residents have researched electric vehicles, while 15% have spoken with an electric vehicle owner. A total of 14% of residents have driven or been a passenger in an electric vehicle, and four percent either currently owns an electric vehicle or owned one in the past. This pattern of results is largely the same as the preceding year.

A total of 60% of residents are not likely to purchase an electric vehicle in the next three years (up five points since 2019), with price being the primary barrier. That said, 14% of Edmontonians are likely to purchase an electric car in the next three years, with motivation for purchase being centered more so around economic benefits or purchase incentives, rather than environmental concerns.

#### **Electric Bicycles**

New this year, Edmontonians were asked about their likelihood of purchasing an electric bicycle. A total of 66% of Edmontonians are not likely to purchase an electric bicycle in the next three years, while 11% are likely to purchase. Residents provide a range of factors that might motivate them to purchase an electric bicycle, including improved health and fitness, incentives, reducing greenhouse gas emissions, replacing trips taken by car, and increased ability to cycle. A total of 37% of residents say none of the factors would motivate them to purchase an electric bicycle. The price of an electric bicycle is the dominant factor preventing Edmontonians from purchasing one.





#### **Transportation Choices & Greenhouse Gas Emissions**

Residents were also asked about their transportation choices in the past month. Driving a motor vehicle was most frequently mentioned by Edmontonians as a means of transportation used in the past 30 days, followed by walking, and being a passenger on private transportation. These results are consistent with those observed in 2019. The COVID-19 pandemic likely explains the decline in the percentage of Edmontonians who have used public transportation recently, and likely also is the reason for an upward tick in the proportion who have used a non-motorized bicycle. A total of 28% say they are likely to walk, bike, take public transit or car share to reduce their impact on climate change, while 14% mentioned that they already do these types of activities, marking an increase of five percentage points from 2019 results.

#### Campaigns

A total of 17% of residents recall, unaided, seeing or hearing about climate change programs or advertisements from the City of Edmonton. When prompted or aided with specific campaign images, 39% of Edmontonians recall at least one of the nine specific images from the *Change for Climate* campaign. Residents who recalled, unaided, seeing or hearing about climate change programs or advertisements are generally more likely to agree with statements regarding impact on climate change, and taking action to prevent climate change.



#### **Synopsis**

Overall, the survey results are generally consistent with those observed in 2019 with respect to climate change perceptions. Certain upward trends nonetheless also are evident. For example, small gains have been made in the agreement on the impact of food and other consumption choices on climate change, and there has been a gradual but sustained increase over the past three years in the proportion agreeing they are taking action to help prevent climate change. Another noteworthy survey finding is that in many instances younger Edmontonians as well as women tend to be more concerned about climate change and want to see more action, as compared to their counterparts.

At the same time, there seems to be downward movement on selected measures. For example, a slight decline is evident in the proportion mentioning they have become more supportive of taking action on climate change in the past year (although the percentage who expressly disagree with this statement essentially has remained flat). Agreement that there have been actions taken to improve energy efficiency in the home has also declined. It is noteworthy, however, that for the most part the COVID-19 pandemic seemingly has not had a marked impact on the attitudes and behaviours of Edmontonians.

Agreement that efforts to prevent climate change presents an economic opportunity for Edmonton has shifted modestly upward over the past year, suggesting an opportunity to leverage this public disposition in future dialogue with the business community. Other opportunities include encouraging dialogue on climate change. Behaviourally, there is an opportunity to, among other things, increase the use of environmentally friendly transportation choices to reduce impact upon climate change. As well, another opportunity would be to further increase awareness of the EnerGuide program. Solar panels, electric vehicles and electric bicycles currently also have opportunities for greater incidence among Edmonton's population as well. Moreover, there is a modest opportunity to educate Edmontonians concerning actions that the City is undertaking. Finally, there is an opportunity to educate (particularly younger) Edmontonians on how to make homes more energy efficient.



NARRATIVE RESEARCH



# Feelings Towards Climate Change





# Concern About Climate Change

A total of 74 percent of Edmonton residents are concerned about climate change, including 41 percent who strongly agree they are concerned. These results are consistent with those observed in 2019.

Concern is elevated among younger Edmonton residents as compared to older residents. As well, women are <u>more</u> inclined than men to be concerned about climate change.

### I am Concerned about Climate Change

% agree (strongly/somewhat agree), on 5-pt. agreement scale



Q.1a: The next few statements are about how you **personally** feel about climate change. To what extent do you agree or disagree with the following statements? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001) \*Due to rounding.



A total of 75 percent of Edmonton residents believe immediate action is required to address climate change, consistent with the previous year's results.

Younger residents are <u>more</u> likely than older residents to perceive an immediate need for action on climate change. Also, women are <u>more</u> inclined than men to believe immediate action is required to address climate change.

### I Think We Need to Act Now to Address Climate Change

% agree (strongly/somewhat agree), on 5-pt. agreement scale



Q.1f: The next few statements are about how you **personally** feel about climate change. To what extent do you agree or disagree with the following statements? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001)



# Human Action and Climate Change

A total of 71 percent of Edmontonians believe climate change is caused mostly by human activities, while 67 percent believe their individual actions contribute to the global impacts of climate change. Results are two points and three points, respectively, above those from a year ago.

Agreement that climate change is caused mostly by human activities is elevated among younger residents.

Agreement that individual actions contribute to the global impacts of climate change is also elevated among younger residents, and to a lesser extent among female residents compared to their male counterparts.

### **Extent Agree with Statement About Climate Change**

% agree (strongly/somewhat agree), on 5-pt. agreement scale



Q.1b-c: The next few statements are about how you **personally** feel about climate change. To what extent do you agree or disagree with the following statements? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001) \*Due to rounding.



# Desire to Do More to Prevent Climate Change

A total of 70 percent of Edmontonians believe residents of the city should be doing more to prevent climate change, while 69 percent want to do more personally to prevent climate change. Agreement is consistent, in both instances, with that observed in 2019.

Younger residents are more inclined than older residents to think that Edmontonians should be doing more to help prevent climate change. Females are also slightly more inclined than males to agree with this statement.

The sentiment to do more personally to help prevent climate change is elevated among younger residents compared to older residents.

### **Extent Agree with Statement About Climate Change**

% agree (strongly/somewhat agree), on 5-pt. agreement scale

- Strongly agree
   Neither agree nor disagree
   Strongly disagree
- Somewhat agree
   Somewhat disagree
   Not sure



Q.1d-e: The next few statements are about how you **personally** feel about climate change. To what extent do you agree or disagree with the following statements? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001)



# Action to Prevent Climate Change

A total of 66 percent of Edmonton residents are taking actions to help prevent climate change. This result is three points above that of 2019, and has been trending upwards since 2017.

Younger residents are modestly more inclined than older residents to confirm they are taking action to help prevent climate change. Females are also slightly more inclined than males to be taking preventive action.

### I am Taking Action to Help Prevent Climate Change



Q.1g: The next few statements are about how you **personally** feel about climate change. To what extent do you agree or disagree with the following statements? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001) \*Due to rounding.



Like the previous three years, residents are more so inclined to agree that they themselves hold progressive perceptions vis-à-vis issues related to climate change, as compared to the general public of Edmonton as a whole. The gap is relatively stable between the two measures: personal opinion and perceived agreement among Edmontonians.

Younger residents are generally <u>more</u> likely than older residents to believe that Edmontonians as a whole hold progressive perceptions regarding matters concerning climate change.

Those with lower annual household incomes are also generally <u>more</u> likely than those with higher household incomes to believe Edmontonians have progressive attitudes on climate change.

### **Opinions on Climate Change**

% agree (strongly/somewhat agree), on 5-pt. agreement scale

	Per	ceived Agre Edmon		ong	<b>GAP*</b> (% Personally - % Edmontonians)					
	2017 (n=506)	2018 (n=1000)	2019 (n=1003)	2020 (n=1001)	2017 (n=506)	2018 (n=1000)	2019 (n=1003)	2020 (n=1001)		
Concerned about climate change	39%	47%	47%	47%	34%	25%	27%	27%		
Need to act now to address climate change	41%	48%	50%	49%	31% 25%		25%	26%		
Climate change is caused mostly by human activities	48%	54%	52%	55%	20%	14%	17%	16%		
Individual actions contribute to the global impacts of climate change	37%	44%	43%	44%	24%	19%	21%	23%		
Edmonton residents should be doing more to help prevent climate change	3 <mark>6</mark> %	47%	47%	47%	24%	18%	23%	23%		
Want to do more personally to help prevent climate change	35%	44%	44%	43%	25%	21%	25%	26%		
Taking action to prevent climate change	25%	34%	32%	32%	30%	28%	31%	34%		

Q.2a-g: The next few statements are about how you think <u>Edmontonians</u> feel about climate change. To what extent do you agree or disagree with the following statements? \*Note: The GAP figures presented here are based on calculations rounded to the nearest percent.



Edmontonians clearly want the City to either increase or maintain its efforts to address climate change. That said, there has been a shift this year with more residents uncertain on whether the City needs to change its effort, and fewer agreeing it should increase its efforts.

Agreement regarding increasing efforts to address climate change has declined to approximately the level observed in 2018.

Opinion that the City of Edmonton should increase its efforts address climate change is elevated among younger residents as compared to older residents.

### Perception of the City of Edmonton's Efforts to Address Climate Change



Q.3: Based on what you may know or have heard about climate change and what the City is doing about it, do you think the City should increase, decrease or maintain its efforts to address climate change? Note: Change in question wording in 2020, previously: "Do you think the City of Edmonton [should be doing more than it currently is/is currently doing the right amount/should be doing less than it currently is/not sure] to address climate change?" \*Change in wording in 2020, previously: "Should be doing more". ‡Change in wording in 2020, previously: "Currently doing the right amount". •Change in wording in 2020, previously: "Should be doing less".



Thirty-six percent of residents in 2020 perceive that the City of Edmonton is taking the right actions to address climate change, compared with 39 percent in 2019.

Younger residents are more likely to agree in this regard as compared to older residents. Male residents are also slightly more likely than female residents to agree the City is taking the right actions to address climate change.

## Extent Agree that City of Edmonton Is Taking the Right Action to Address Climate Change

% agree (strongly/somewhat agree), on 5-pt. agreement scale



Q.4d: To what extent do you agree or disagree with the following statements about climate change? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001)



# **Economic and Employment Impacts**

Between 64 percent and 71 percent of Edmontonians recognize economic and employment opportunities associated with concepts examined in the research regarding energy efficiency and addressing climate change. Of note, agreement that efforts to prevent climate change presents an economic opportunity for Edmonton has shifted four points upward.

The perception that investment in energy efficiency provides Edmontonians with job opportunities has shifted upward three points since last year, while the perception that transitioning to renewable sources of opportunity provides job opportunities has shifted downward by one point.

Agreement levels are elevated among younger residents aged 18 to 34 years for all three instances presented in the graph to the right.

### **Economic and Employment Impacts**

% agree (strongly/somewhat agree), on 5-pt. agreement scale

Investing in energy officiancy	2020	35%	36%	71%
Investing in energy efficiency provides job opportunities for	2019	30%	38%	68%
Edmonton	2018	28%	40%	69%*
	2017	n/a		
	2020	35%	33%	67%*
ransitioning to renewable sources of energy provides job	2019	29%	38%	68%*
opportunities for Edmonton	2018	27%	40%	66%*
	2017	n/a		
Fffe to the manual allimate allowers	2020	29%	35%	64%
Efforts to prevent climate change present an economic opportunity	2019	24%	36%	60%
for Edmonton	2018	25%	37%	62%
	2017	28%	38%	66%

Strongly agree Somewhat agree

Q.4a-c: To what extent do you agree or disagree with the following statements about climate change? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001) \*Due to rounding.



# Impact on Climate Change

Knowledge remains generally widespread regarding the impact of various human actions and greenhouse gas emissions on climate change. Agreement that greenhouse gas emissions contribute to climate change is on par with 2019. Approximately three-quarters agree that transportation choices have an impact on climate change, and a similar percentage agree that workplace heating/cooling and electricity use contributes to climate change.

Younger residents are slightly <u>more</u> likely than older residents to agree with each of the three statements regarding impact on climate change.

Please note, readers are reminded that the wording of these statements (as well as others in this report) has changed somewhat over the years of this tracking research study, to meet the evolving needs of the City. Mention of such instances is made underneath the graphic displayed on this slide.

### Impact of Actions on Climate Change

% agree (strongly/somewhat agree), on 5-pt. agreement scale

	2020	48%	31%	78%*	
Greenhouse gas emissions	2019	43%	35%	78%	
contribute to climate change	2018	42%	35%	77%	
	2017	48%	28%	76%	
	2020	38%	36%	74%	
My transportation choices have an	2020	34%	37%	70%*	
impact on climate change‡	2018	33%	40%	73%	
	2017	43%	35%	78%	
	2020	240/	200/	720/	
Workplace heating/cooling and	2020 2019	<b>34%</b> 28%	<b>39%</b> 40%	<b>73%</b> 68%	
electricity use contribute to climate change•	2018	31%	41%	73%*	
	2017	40%	37%	77%	

Strongly agree Somewhat agree

Q.4e, g, i: To what extent do you agree or disagree with the following statements about climate change? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001) \*Due to rounding. ‡Change in wording in 2019, previously: "My transportation choices impact greenhouse gas emissions". •Change in wording in 2019, previously: "Workplace heating/cooling and electricity use contribute to greenhouse gas emissions".



# Impact on Climate Change

Seventy-two percent of residents agree that home heating/cooling has an impact on climate change, and 70 percent agree that home energy use makes a climate change contribution. Meanwhile, 62 percent of residents agree that driving electric vehicles instead of combustion vehicles reduces the impact on climate change.

Agreement on all three measures declines with age.

Impact of Actions on Climate Change

% agree (strongly/somewhat agree), on 5-pt. agreement scale

	2020	32%	40%	72%
Home heating/cooling and	2019	24%	44%	68%
electricity use contribute to climate change•	2018	29%	43%	72%
	2017	40%	33%	6 73%
	2020	29%	42%	70%
My home's energy use and what I	2019	26%	42%	68%
do in my home has an impact on climate change~	2018	26%	44%	70%
	2017	31%	39%	70%
	2020	27%	35%	62%
Driving electric vehicles instead of	2019	26%	39%	65%
combustion vehicles reduces the impact on climate change	2018	n/a		
	2017	n/a		

Strongly agree Somewhat agree

Q.4f, h, o: To what extent do you agree or disagree with the following statements about climate change? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001) "Due to rounding. •Change in wording in 2019, previously: "Home heating/cooling and electricity use contribute to greenhouse gas emissions". "Change in wording in 2019, previously: "My home and what I do in it has an impact on climate change".

Agreement that driving electric vehicles instead of combustion vehicles reduces the impact on climate change is more likely among those with annual household incomes of up to \$60,000.



Seventy-one percent of Edmontonians agree that having solar panels installed in their homes decreases the impact their homes have on climate change. Meanwhile, more than six in ten agree their consumption choices have an impact on climate change, reflecting an upward shift in the past year.

For all three measures, level of agreement decreases with age. In other words, younger residents are more inclined to agree with each of the three statements, than are their older counterparts.

## Impact of Actions on Climate Change

#### % agree (strongly/somewhat agree), on 5-pt. agreement scale



Q.4j, k, n: To what extent do you agree or disagree with the following statements about climate change? 2019: (n=1003); 2020: (n=1001) \*Due to rounding.



# Impact of Climate Change

A total of 76 percent of Edmontonians agree that climate change impacts the health and well-being of individuals, on par with 2019. Meanwhile, a less robust proportion of 60 percent believe that human caused climate change is linked to the occurrence of natural disasters (up two points).

For both measures, the level of agreement decreases with age. In other words, younger residents are more inclined to agree with each of the statements, as compared to their older counterparts.

Women are also more inclined than men to agree with each of the statements.

### Impact of Climate Change % agree (strongly/somewhat agree), on 5-pt. agreement scale





Forty-two percent of Edmontonians have become more supportive in the past year of taking action on climate change, a decline of six percentage points from the 2019 results. Meanwhile, 47 percent residents are neither more nor less supportive of taking action on climate change, an increase of five points. Stable with previous years' results, 11 percent residents have become less supportive of taking action on climate change in the past year.

The likelihood of becoming more supportive of taking action on climate change in the past year is elevated among younger residents aged 18 to 34 years of age.

### Shift in Support of Taking Action on Climate Change in Past Year

■ 2018 (n=1000) ■ 2019 (n=1003) ■ 2020 (n=1001)



Q.5: In the past year, have you become more or less supportive of taking action on climate change?



Among the 42 percent of Edmontonians who have become more supportive of taking action on climate change in the past year, there are a wide variety of reasons for this change.

42%

More supportive

The most prevalent reasons for becoming more supportive of taking action on climate change include becoming more mindful of the impact of individual actions on the environment, belief that climate change is becoming more evident, becoming more aware of or educated on climate change, recognizing severe weather changes, and a recognition that action is needed to combat climate change.



#### **Reasons More Supportive of Taking Action on Climate Change**

Q.6: **[IF MORE SUPPORTIVE IN Q.6]** Why has your level of support for taking action on climate change changed in the last year? Please be as specific as possible. (n=415) *Note: Question allowed for multiple responses to be selected.* 



The 11 percent of Edmontonians who have become less supportive of taking action on climate change in the last year have a variety of reasons for this change in opinion.

The most prevalent reasons for becoming less supportive of taking action on climate change are that residents believe that climate change is natural and not caused by humans, that there is a lack of progress in minimizing it, and that climate change is not important.



#### **Reasons Less Supportive of Taking Action on Climate Change**

Q.6: **[IF LESS SUPPORTIVE IN Q.6]** Why has your level of support for taking action on climate change changed in the last year? Please be as specific as possible. (n=104) *Note: Question allowed for multiple responses to be selected.* 



A total of 70 percent of Edmontonians think it is important to talk about climate change, down three percentage points since 2019. While 69 percent of residents feel comfortable discussing climate change with their family, friends, or colleagues (unchanged), 42 percent mentioned regularly talking about it (down three points).

Younger residents aged 18 to 34 years are more inclined to agree on each of the three measures.

Leasers or renters are also slightly more likely than home-owners to think it is important to talk about climate change (75% versus 68%). It is noteworthy on this matter that younger Edmontonians (18-34) are more inclined than their middle-aged (35-54) or older (55+) counterparts to say it is important to talk about climate change, regardless of whether they own their home or whether they lease/rent.

# **Talking About Climate Change**

#### % agree (strongly/somewhat agree), on 5-pt. agreement scale



Q.7a-c: To what extent do you agree or disagree with the following statements about climate change? 2019: (n=1003); 2020: (n=1001) "Due to rounding.



NARRATIVE RESEARCH



# Home Energy Efficiency





Sixty percent of Edmontonians have taken actions to reduce greenhouse gas emissions <u>and/or</u> improve home energy efficiency, consistent with 2019 results.

As improving energy efficiency in the home is a means of reducing greenhouse gas emissions, a combined overall total was derived for those who have improved their home's energy efficiency, <u>and/or</u> confirmed that they have taken actions to reduce greenhouse gas emissions.

Overall, by this calculation, 60 percent of Edmontonians have taken actions to reduce greenhouse gas emissions and/or improve home energy efficiency, consistent with 2019 results.

### Taken Actions to Reduce Greenhouse Gas Emissions – Improved Home's Energy Efficiency and/or Other Actions % 'Yes'



Q.8: Have you taken any actions to increase the energy efficiency <u>of your home</u> in the past year? / Q.10: Have you taken any actions to <u>reduce your greenhouse gas emissions that contribute to</u> <u>climate change</u> in the past year? 2018: (n=1000); 2019: (n=1003); 2020: (n=1001) Slight change in question wording in 2018 and 2019.



2017

A total of 47 percent of Edmontonians indicate they have taken actions to increase energy efficiency in their homes in the past year. This metric has gradually declined over the years.

 Taken Actions to Increase Home's Energy Efficiency in Past Year

 % 'Yes'
 % 'Yes'

 61%
 56%

Q.8: Have you taken any actions to increase the energy efficiency of your home in the past year? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020 (n=1001)

2019

2020

2018

A total of 47 percent of Edmontonians indicate they have taken actions to increase energy efficiency in their homes in the past year, three points below the 2019 result.\*

The likelihood of having taken actions to increase energy efficiency in the past year is <u>less</u> among condominium or apartment dwellers as well as leasers or renters. The proportion who took action among condominium or apartment dwellers remains stable after the notable decline evident in 2019. Further, it was revealed that 51 percent of those who own a Fully or Semi Detached home or Townhome, have taken actions to increase energy efficiency in the past year.

\* It is important to note that the incidence of home-owners in the survey population, as well as the incidence of leasers/renters, is essentially the same for both 2019 and 2020.

### Taken Actions to Increase Home's Energy Efficiency in Past Year

By home ownership and dwelling type

	Home Ownership								Dwelling Type							
	Own				Lease/Rent			Fully/Semi Detached or Townhome				Condo/Apartment				
	2017 (n=369)	2018 (n=732)	2019 (n=681)	2020 (n=678)	2017 (n=129)	2018 (n=268)	2019 (n=322)	2020 (n=323)	2017 (n=375)	2018 (n=741)	2019 (n=717)	2020 (n=725)	2017 (n=110)	2018 (n=242)	2019 (n=266)	2020 (n=256)
% Yes	62%	62%	56%	51%	56%	42%	39%	40%	63%	59%	55%	51%	52%	47%	37%	37%

Q.8: Have you taken any actions to increase the energy efficiency of your home in the past year?



While 63 percent of Edmontonians made an investment in their home, 43 percent changed their behaviour in the past year to increase energy efficiency in their homes. Installing energy efficient light bulbs and replacing windows are the top investments taken to increase the energy efficiency of one's home.

Older Edmontonians aged 35 plus years, along with residents with higher household incomes, those living in detached and townhouses, as well as home-owners, are <u>more</u> likely to have **made investments** in the past year. Meanwhile, younger residents aged 18 to 34 years, those with lower household incomes, apartment or condominium dwellers and leasers/renters are <u>more</u> likely to have **changed behaviour** in the past year.

While both women and men are <u>equally</u> likely to have changed behaviours in the past year, women are slightly <u>more</u> likely to have made investments in the past year.



Q.9: **[IF 'YES' IN Q.8]** What actions have you taken to increase the energy efficiency of your home in the past year? Please be as detailed as possible and reference any City of Edmonton programs that have helped you undertake these actions. (n=467) *Slight change in question wording in 2019. Note: NETs include categories not listed in this key mentions table.* 



Beyond considerations vis-a-vis increasing their home energy efficiency, 39% percent of Edmontonians have taken actions to reduce their greenhouse gas emissions in the past year, up four percentage points from 2019.



Taken Actions to Reduce Greenhouse Gas Emissions

Q.10: Have you taken any actions to <u>reduce your greenhouse gas emissions that contribute to climate change</u> in the past year? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001) *Slight change in question wording in 2018 and 2019*.

Younger residents aged 18 to 34 years are <u>more</u> likely than older residents to have taken actions to reduce greenhouse gas emissions. The likelihood of having taken actions to reduce greenhouse gas emissions in the past year <u>increases</u> with the level of education of residents. That said, it is relatively consistent among subgroups by home-ownership status and dwelling type.



# Actions to Reduce Greenhouse Gas Emissions

Among Edmontonians who have taken actions to reduce their greenhouse gas emissions, changing behaviour continues to be more common than making investments (e.g., energy efficient purchases), with actions involving changes in transportation habits such as driving less, taking public transit, walking, along with recycling representing the most commonly identified changes in behaviour. Actions Taken to Reduce Greenhouse Gas Emissions

Changing one's behaviour to reduce greenhouse gas emissions is more likely to be mentioned by women. Of note, younger residents aged 18 to 34 years are less likely than older residents to mention driving less as a measure to reduce greenhouse gas emissions.

The likelihood of changing behaviour to reduce greenhouse gas emissions is slightly higher among leasers/renters, as well as condominium/apartment dwellers. Home-owners are twice as likely as leasers/renters to have made an investment.

Please note that "investments made" in this question refers to investments by Edmontonians towards reducing greenhouse gas emissions, while those discussed previously referred to investments made particularly towards home energy efficiency improvements.



in Past Year



Q.11: [IF 'YES' IN Q.10] What actions have you taken to reduce your greenhouse gas emissions that contribute to climate change in the past year? Please be as detailed as possible and reference any City of Edmonton programs that have helped you undertake these actions. (n=391) Slight change in question wording in 2018 and 2019. Note: NETs include categories not listed in this key mentions table.



# Awareness of EnerGuide Program

Forty percent of Edmontonians indicate awareness of the City's EnerGuide home evaluation program, consistent with 2019 results.



Q.12: Have you heard of a program that helps residents make their homes more energy efficient by providing an EnerGuide energy evaluation and incentives for home improvements? 2017: (n=506); 2018: (n=1000); 2019: (n=1003); 2020: (n=1001) *Slight change in question wording in 2019*.

Awareness of the EnerGuide program increases with age. Home-owners are more likely than leasers or renters to report awareness of the program, although the gap is narrower than in the preceding year.

#### Aware of EnerGuide Program

By home ownership and dwelling type



	Home Ownership							Dwelling Type								
	Own				Rent/Lease			Fully/Semi Detached or Townhouse			Condo/Apartment					
	2017 (n=369)	2018 (n=732)	2019 (n=681)	2020 (n=678)	2017 (n=129)	2018 (n=268)	2019 (n=322)	2020 (n=323)	2017 (n=375)	2018 (n=741)	2019 (n=717)	2020 (n=725)	2017 (n=110)	2018 (n=242)	2019 (n=266)	2020 (n=256)
% Yes	34%	37%	44%	42%	33%	27%	31%	34%	35%	35%	42%	41%	28%	32%	36%	39%

Q.12: Have you heard of a program that helps residents make their homes more energy efficient by providing an EnerGuide energy evaluation and incentives for home improvements? Slight change in question wording in 2019.



# **Benefits of Energy Efficient Home**

Edmontonians identify several benefits of having an energy efficient home, with lower utility costs and reduced energy use being the top two benefits.

New in 2020, Edmonton residents were asked to select the benefits of having an energy efficient home from a list provided to them. At least seven in ten residents identified lower utility costs and reduced energy use. Approximately six in ten identify reducing greenhouse gas emissions and healthier homes.

Each of higher resale value, well maintained home, and comfort are identified by approximately four in ten residents. Better quality of construction is least often identified, by one-quarter of residents.

Residents aged 35 plus years as well as home-owners are more likely to identify lower utility costs and reduced energy use as benefits of having an energy efficient home. Identification of several benefits including higher resale value, having a well maintained home, and increased year-round comfort are more prevalent among older residents.

Females are notably more likely than males to identify a healthier home as a benefit.

### **Benefits of Having an Energy Efficient Home**



Q.16: In your opinion, what are the benefits of having an energy efficient home, if any? Please select all that apply. (n=1001) *Note: New question in 2020. Question allowed for multiple responses to be selected.* 



Edmontonians also identify various factors preventing them from making their home more energy efficient, with the cost of making renovations, followed by the cost of purchasing energy efficient appliances being the top two factors.

Also new in 2020, Edmonton residents were asked to select the factors preventing them from having a more energy efficient home from a list provided to them. Topping the list with one-half of residents identifying it is the cost of renovations. This is followed by the cost of replacing old appliances, identified by just over one-third of residents. These are the top two factors across all demographic segments, except among renters/leasers and condo/apartment dwellers – these residents are just as likely to have noted it is not their decision.

Of note, 20 percent of Edmontonians state that they do not know how to make their homes more energy efficient or where to start, with younger residents being less confident in where to start than older residents. As well, younger residents are more inclined to cite not having the time to do so.

### Factors Preventing You From Making Home More Energy Efficient



Q.16a: What, if anything, is preventing you from making your home more energy efficient? Please select all that apply. (n=1001) Note: New question in 2020. Question allowed for multiple responses to be selected. \*Response could not be selected with any other response.


NARRATIVE RESEARCH



# Solar Energy and Energy Efficiency





Twenty-six percent of Edmontonians are aware of a program that helps home-owners install solar panels on their home, consistent with 2019 results.

# Heard of Program That Helps Owners Install Solar Panels on Their Home to Generate Own Electricity

% 'Yes'



Q.18: Have heard of a City of Edmonton program that helps home owners install solar panels on their home to generate their own electricity? 2019: (n=1003); 2020: (n=1001)



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## Solar Panels Currently Installed In Homes

The vast majority of Edmontonians do <u>not</u> have solar panels installed in their homes. Four percent residents currently have solar panels at their home, down one point from the 2019 result.

The likelihood of having solar panels installed is more so elevated among younger residents.



Q.20: Do you currently have solar panels at home? 2019: (n=1003); 2020: (n=1001)



In the next three years, 15 percent of Edmonton home-owners are likely to install additional or first-time solar panels on their homes, as compared to 17 percent in 2019.

The likelihood of installing solar panels decreases with the age of residents. Edmontonians living in detached houses or townhouses are <u>more</u> likely than condominium or apartment owners to install solar panels.

Further analysis indicates that those who agree that having solar panels on their home decreases the home's impact on climate change, are <u>more</u> likely to have panels installed in the next three years.

#### Likelihood of Installing Solar Panels on Home in Next 3 Years

Among those who own their primary residence



Q.21: [IF 'OWN' IN Q.17 AND 'NO' IN Q.20] How likely is it that you will install solar panels on your home in the next 3 years? / [IF 'OWN' IN Q.17 AND 'YES' IN Q.20] How likely is it that you will install additional solar panels on your home in the next 3 years? Slight change in question wording in 2019.



## Importance of Energy Efficient Buildings

Edmontonians place considerable importance on the energy efficiency of the buildings in which they work, study, play, or shop, as 68 percent of residents indicate that energy efficiency is important for such buildings, down one point since 2019.

Edmonton leasers or renters are <u>more</u> inclined than home-owners to place importance on the energy efficiency of buildings. Importance of energy efficient buildings decreases with age.

### Importance of Building Where People Work, Study, Play, and Shop Being Energy Efficient

■ 2018 (n=1000) ■ 2019 (n=1003) ■ 2020 (n=1001)



Q.24: How important or unimportant is it that buildings you work, study, play, or shop in are energy efficient? \*Due to rounding.



NARRATIVE R E S E A R C H







Fifty-six percent of Edmontonians are aware that there are public charging stations for electric vehicles in Edmonton. This marks a decline of five points in awareness from 2019 results.

Awareness is elevated among younger residents aged 18 to 34 years (63%).

# Aware That There Are Public Charging Stations for Electric Vehicles in Edmonton

% 'Yes'



Q.26: Are you aware that there are public charging stations for electric vehicles in Edmonton? 2019: (n=1003); 2020: (n=1001)



## **Experience with Electric Vehicles**

With results essentially unchanged over the past year, 61 percent of Edmontonians indicate having no experience with electric vehicles. While 22 percent of residents have researched electric vehicles, 15 percent have spoken with an electric vehicle owner. A total of 14 percent of residents have driven or been a passenger in an electric vehicle, and four percent either currently own an electric vehicle or have owned one in the past.

Older residents aged 55 plus years, women, and residents earning up to \$100,000 in annual household income are <u>more</u> likely than their respective counterparts to have no experience with electric vehicles.

Older residents aged 55 plus years and women are also <u>less</u> likely to have researched electric vehicles.

### Statements That Personally Apply in Terms of Electric Vehicles



Q.27: Which of the following statements apply to you personally in terms of electric vehicles? Please select as many as apply to you. *Note: Question allowed for multiple responses to be selected.* 



While 14 percent of Edmontonians are likely to purchase an electric car in the next three years, 60 percent are not likely to purchase an electric vehicle. The proportion likely to purchase remains stable compared with 2019, but the proportion stating they are not likely is up five percentage points.

The likelihood of buying an electric car in the next three years decreases with age (18-34 years: 21%; 35-54 years: 13%; 55+ years: 4%).

#### Likelihood of Buying Electric Car in Next 3 Years



Q.28: How likely or unlikely are you to buy an electric car in the next three years? "Due to rounding. ""Slight wording change in 2020.



Motivating factors for purchasing an electric vehicle are multi-faceted and similar to a year ago, with economic benefits or incentives ranking higher than environmental concerns or innovation.

Younger residents are <u>more</u> inclined to cite reduced greenhouse emissions as a motivating factor for purchasing an electric vehicle (18-34 years: 49%; 35-54 years: 36%; 55+ years: 22%). Economics is less important to those 55 or older, albeit it is still one of the top two important factors to this age cohort.

Incentives to purchase an electric vehicle are identified more often among those with annual household incomes above \$60,000.

#### **Factors Motivating Electric Vehicle Purchase**



Q.29: Which, if any, of the following factors might motivate you to purchase an electric vehicle in the future? Note: Slight question wording change in 2020. Question allowed for multiple responses to be selected.



## **Barriers to Purchase**

The price of an electric vehicle is the top factor preventing the purchase of an electric vehicle, followed by issues with access to or distance between charging stations. Results are similar to those from 2019.

Price is most often identified as the factor preventing the purchase of an electric vehicle, a finding consistent across all demographic subgroups. Two-thirds of residents identify price.

Charging station issues (access and distance) are more likely to be cited by those with annual household incomes above \$60,000.

#### **Factors Preventing Electric Vehicle Purchase**



Q.30: Which, if any, of the following factors might <u>prevent</u> you from purchasing an electric vehicle in the future? Please select as many as apply to you. *Note: Slight question wording change in 2020. Question allowed for multiple responses to be selected.* 



NARRATIVE R E S E A R C H







Sixty-six percent of Edmontonians are not likely to purchase an electric bicycle in the next three years, while 11 percent are likely to purchase.

New this year, Edmontonians were asked about their likelihood of buying an electric bicycle. The likelihood of purchasing an electric bicycle decreases with age (18-34 years: 16%; 35-54 years: 10%; 55+ years: 4%).

Of note, one percent of Edmontonians already own an electric bicycle.

#### Likelihood of Buying Electric Bicycle in Next 3 Years



Q.31: How likely or unlikely are you to buy an electric bicycle (e-bike) in the next three years? (n=1001) *New question in 2020. \*Due to rounding.* 



Edmonton residents provide a range of factors that might motivate them to purchase an electric bicycle. However, 37 percent of residents say none of the factors would motivate them to purchase one.

Edmonton residents were asked to select the factors (from a list) that might motivate them to purchase an electric bicycle. Several such factors were identified as being most compelling, with improved health benefits and incentives to purchase an electric bicycle being the top motivating factors. Other factors from the list were identified by at least 21 percent of residents, except innovation. Innovation as a motivating factor was identified by nine percent of residents.

Younger residents are more likely to identify these factors as motivating consideration, as compared to older residents. Of note, the top two motivating factors among 18 to 34 year-olds are improved health and fitness, and reducing greenhouse gas emissions.

Older residents are more inclined to indicate that none of the factors would motivate them to purchase an electric bicycle.



Factors Motivating Electric Bicycle Purchase

Q.31b: Which, if any, of the following factors might <u>motivate</u> you to purchase an electric bicycle (e-bike) in the future? Please select as many as apply to you. (n=1001) *Note: New question in 2020. Question allowed for multiple responses to be selected.* 



## **Barriers to Purchase**

Price of an electric bicycle is the dominant factor preventing Edmontonians from purchasing an electric bicycle.

Edmonton residents were asked to select from a list the factors preventing them from purchasing an electric bicycle. Several such factors were identified as being most compelling, with the price of purchasing being by far the dominant factor. Of note, 31 percent of residents state that they do not cycle, while 16 percent relate that they are limited in their ability to cycle. Twenty percent also identified the price of operating an electric bicycle as a preventing factor.

#### **Factors Preventing Electric Bicycle Purchase**



Q.31c: Which, if any, of the following factors might <u>prevent</u> you from purchasing an electric bicycle (e-bike) in the future? Please select as many as apply to you. (n=1001) *Note: New question in 2020. Question allowed for multiple responses to be selected.* 



NARRATIVE RESEARCH

# **Transportation Choices and Climate Change Impact**





## Transportation Used in the Past Month

Driving a motor vehicle is the most frequently mentioned means of transportation used in the past 30 days, followed by walking on foot, and riding as a passenger in private transportation.

Of note, the proportion who used public transportation in the last 30 days has declined notably from 2019 results (18% in 2020 versus 40% in 2019), although it is very likely that this decline is attributable to the COVID-19 pandemic.

Older residents aged 55 plus years are most likely to have been a driver of a motor vehicle in the past 30 days and least likely to have taken the public transport.

While home-owners are more likely to have been a driver of a motor vehicle in the past 30 days, leasers or renters are more likely to have taken public transport.

#### Transportation Used in Past 30 Days



Q.40: In the past 30 days, which of the following modes of transportation have you used for getting around? \*New category in 2020. Note: Question allowed for multiple responses to be selected. Two respondents in 2019 and three respondents in 2020 failed to provide an answer for this question.



While 36 percent of residents indicate they are <u>not</u> likely to walk, bike, take public transit or car share for the majority of trips to reduce their impact on climate change, 28 percent believe they are likely to perform such activities. Fourteen percent mentioned they already do these activities, an increase of five points from 2019 results.

Although there is a decline in the likelihood of making eco-friendly transportation choices, there is also an increase in the proportion who confirmed they already do such activities. It is important to note, however, that there was a change in the question wording this year, as in past iterations the query inquired vis-à-vis greenhouse gas emissions, while this year the question focused on the impact upon climate change.

Older residents aged 55 or above are less likely to make such transportation choices, as compared to younger residents.

#### Likelihood of Walking, Biking, Taking Public Transit, or Car Sharing for a Majority of Trips to Reduce Impact on Climate Change

■ 2018 (n=1000) ■ 2019 (n=1003) ■ 2020 (n=1001)



Q.32: How likely or unlikely are you to walk, bike, take public transit, or car share for the majority of your trips to reduce your impact on climate change? Note: Change in question wording in 2020, previously: "How likely or unlikely are you to walk, bike, take public transit, or car share for the majority of your trips to reduce your greenhouse gas emissions?" "Due to rounding.



NARRATIVE R E S E A R C H







Seventeen percent of residents recall, unaided, seeing or hearing about climate change programs or advertisements from the City of Edmonton, down four percentage points. When prompted to recall what residents saw or heard, 21 percent mentioned e-bike rebates or incentives along with other less frequently mentioned aspects.

No single element was recalled, unaided/unprompted, by a substantial proportion of residents. Rather, a wide variety of topics were identified among those who recall messaging of this nature, with only a small number of residents citing any given aspect. Apart from the mentions of e-bike rebates, other topics identified included promoting public transit/switching to electric buses, the City's initiatives to combat climate change, solar energy or solar panels, information about climate change, obligation to do one's part for climate change, and reducing greenhouse gas emissions.



Q.34: [IF 'YES, DO RECALL' IN Q.33] Please describe what you recall seeing or hearing about climate change programs or advertisements from the City of Edmonton? Please be as detailed as possible. (n=168)



# Awareness of Change for Climate Campaign

When aided or prompted with specific campaign images, 39 percent of residents recall at least one of the nine individual images from the City of Edmonton's Change for Climate campaign. This marks a decline of five percentage points as compared to last year's results.



Q.35a-i: Which, if any, of the following images related to the City of Edmonton's Change for Climate campaign do you recall seeing? (n=1001) This question was asked in 2018 and 2019, but tracking is not provided as different campaign images were tested.



NARRATIVE R E S E A R C H





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## Demographics

The following summarizes the weighted demographic profile of survey respondents.

	(n=1001)
Gender	
Woman/Girl	50%
Man/Boy	49%
Age	
18-24	12%
25-34	23%
35-44	18%
45-54	16%
55-64	15%
65 or older	15%
Highest Level of Education Completed	
Some high school	2%
Completed high school	14%
Some community college/technical college/CEGEP	8%
Completed community college/technical college/CEGEP	21%
Some university	10%
Completed university	30%
Post-graduate degree	14%
Prefer not to answer	1%

	(n=1001)
Household Income in 2019	
Up to \$40,000	19%
\$40,001 - \$60,000	14%
\$60,001 - \$80,000	13%
\$80,001 - \$100,000	13%
\$100,001 - \$150,000	17%
More than \$150,000	10%
Prefer not to answer	14%
Dwelling Type	
Fully detached house	57%
Condo/apartment	26%
Townhouse/row house	8%
Semi-detached house/duplex	6%
Other	2%
Not sure	1%
[If currently rent or lease] <i>Planning to Buy a Home in Next 12 Months</i>	(n=323)
Yes	13%
No	64%
Not sure	23%



NARRATIVE RESEARCH

# **Climate Change and Energy Perceptions Report**

September 2020

Prepared for: The City of Edmonton

Edmonton