



2020 Integrated Resource Plan survey results

Conducted by:



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2020 Integrated Resource Plan survey





Scope and methodology

During the spring of 2020, Platte River Power Authority, in coordination with Longmont Power and Communications, conducted an Integrated Resource Plan survey to measure residential and commercial end-user favorability toward Platte River, opinions about the importance of receiving noncarbon energy, economic elasticity of renewables, and to collect basic residential demographic and commercial firmographic data.

Survey responses were received from 259 randomly selected residential customers and 117 commercial customers. The results of the residential survey have a margin of error of +/-6.1% at a 95% degree of probability. The results of the commercial survey have a margin of error of +/-8.4%. For any given statistic, there is a 95% chance that the result does not vary by more than 6.1% for the actual total population of residential customers and 8.4% for the actual total population of commercial customers.

Of the 259 residential survey completions, all completions were completed online by customers responding to either a postcard mailing or email notice. Of the 117 commercial survey completions, 47 (40%) were completed online. Following the online completions, 70 (60%) surveys were completed by callers conducting phone interviews.

The survey was conducted as part of a research project coordinated by Platte River Power Authority. Four communities served by Platte River participated in the project, including the Town of Estes Park, City of Fort Collins, City of Longmont and City of Loveland.

The 2020 survey results are compared with the previous surveys conducted in 2018 to identify trends that can be used to improve services and customer opinions. Several questions in this survey involve responses on a 10-point sliding scale. These responses are evaluated using "top box" analysis – that is, calculating the frequency percentage of respondents in the 8 to 10 ratings on the sliding scale. Along with top box analysis, weighted averages are also calculated for these questions. Due to rounding, response percentages may not always total 100%.

This survey was developed and conducted by Inside Information, Inc.®, Smithville, Mo., as a research project commissioned by Platte River Power Authority, Fort Collins, Colo.

Executive summary



Platte River Power Authority

- 55% of residential customers and 59% of commercial customers are aware Platte River Power Authority provides electricity generation and transmission services to their utility
- Up 25%, the level of awareness among commercial customers increased considerably from 34% to now 59%; however, the level of awareness among residential customers decreased 5%
- 54% of commercial customers rate Platte River somewhat or very favorably, increasing 11% from 2018
- 53% of residential customers rate Platte River somewhat or very favorably, decreasing 4% from 2018
- Both customer groups rate Platte River 6.6 for showing concern for the environment and 6.5 for offering the Efficiency Works program
- Same as in 2018, customers who are aware Platte River provides G&T services to their utility rate Platte River higher in overall favorability, showing concern for the environment, and offering the Efficiency Works program
- On a 10-point scale, high percentages of residential and commercial customers rated Platte River a 5 for showing concern for the environment and offering the Efficiency Works program – most likely due to their lack of awareness of Platte River and its services
- Compared to all generating forms used by Platte River, Longmont's customers have the lowest awareness of Platte River's hydropower



Renewable resource options

- Service reliability is seen as the most important service characteristic by all customers 87% of residential and 94% of commercial customers view it as somewhat or very important
- Only 52% of commercial customers view noncarbon resources as somewhat or very important, compared to 63% of residential customers
- When considering how much more they would be willing to pay to receive noncarbon energy, customers said most often about 2.2% more each year to receive 60% noncarbon energy by 2030 with 99.99% reliability (29% of residential and 37% of commercial customers)



Demographics

- Median age is 59
- Median length of service for residential customers is 13 years
- 96% of residential respondents have post-high school education
- 39% earn \$100,000 or more per year median household income is \$86,666



- Median length of service for commercial customers is nine years
- Nearly 8 in 10 businesses have fewer than 10 employees
- The common business types responding are service (50%) and other (19%)
- 82% of businesses have an annual revenue of \$1 million or less
- Most businesses (58%) report electric costs as less than 5% of their overall business expenses





Integrated Resource Plan survey results

Overview

Integrated Resource Plan survey 2020



Estes Park • Fort Collins • Longmont • Loveland



During the spring of 2020, Platte River Power Authority, in coordination with Longmont Power and Communications, conducted an Integrated Resource Plan survey to measure residential and commercial end-user favorability toward Platte River, opinions about the importance of receiving noncarbon energy, economic elasticity of renewables, and to collect basic residential demographic and commercial firmographic data.

These results include online and phone survey replies from 259 residential end-users and 117 commercial customers.

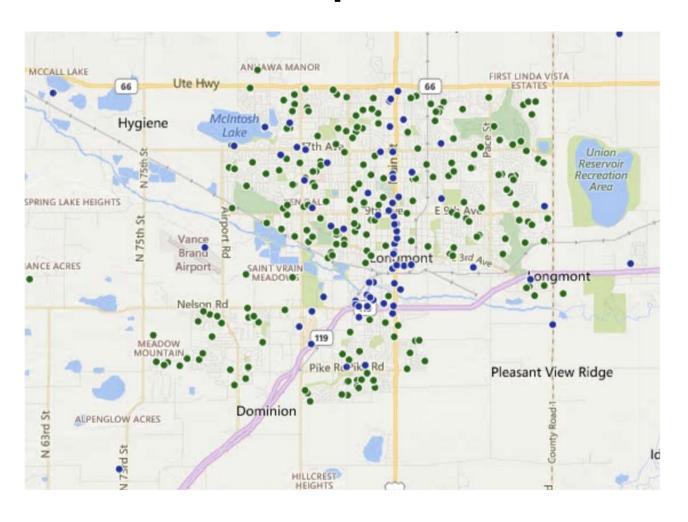
Highlights

- 55% of residential customers and 59% of commercial customers are aware Platte River Power Authority provides electricity generation and transmission services to their utility
- Up 25%, the level of awareness among commercial customers increased considerably from 34% to now 59%; however, the level of awareness among residential customers decreased 5%
- 54% of commercial customers rate Platte River somewhat or very favorably, increasing 11% from 2018
- 53% of residential customers rate Platte River somewhat or very favorably, decreasing 4% from 2018
- Both customer groups rate Platte River 6.6 for showing concern for the environment and 6.5 for offering the Efficiency Works program
- Same as in 2018, customers who are aware Platte River provides G&T services to their utility rate Platte River higher in overall favorability, showing concern for the environment, and offering the Efficiency Works program
- On a 10-point scale, high percentages of residential and commercial customers rated Platte River a 5 for showing concern for the environment and offering the Efficiency Works program most likely due to their lack of awareness of Platte River and its services

Highlights

- Compared to all generating forms used by Platte River, Longmont's customers have the lowest awareness of Platte River's hydropower
- Service reliability is seen as the most important service characteristic by both residential and commercial customers 87% of residential and 94% of commercial customers view it as somewhat or very important
- Only 52% of commercial customers view noncarbon resources as somewhat or very important, compared to 63% of residential customers
- When considering how much more they would be willing to pay to receive noncarbon energy, most customers said about 2.2% more each year to receive 60% noncarbon energy by 2030 with 99.99% reliability (29% of residential 37% of commercial customers)
- Longmont's residential customers have a median age of 59, median length of service of 13 years, and median household income of \$86,666
- Longmont's commercial customers are primarily small businesses with 82% having an annual revenue of \$1 million or less and 78% having fewer than 10 employees

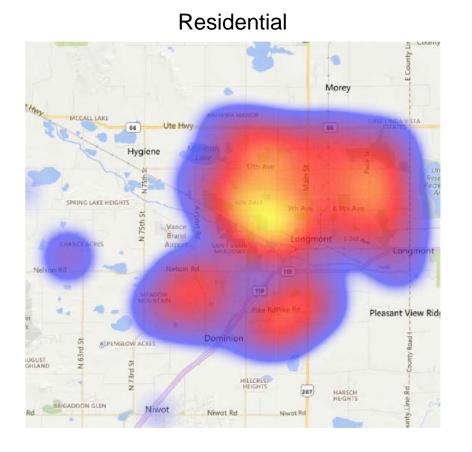
Respondents



- Residential
- Commercial

Respondents

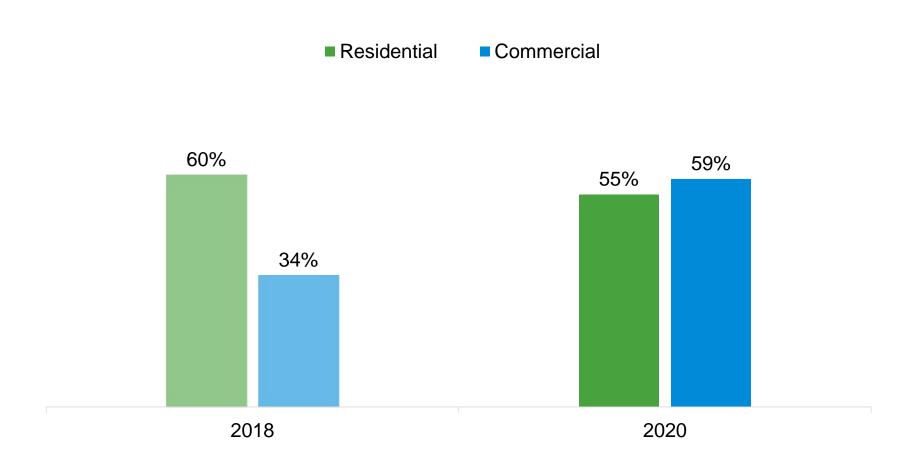
Response density



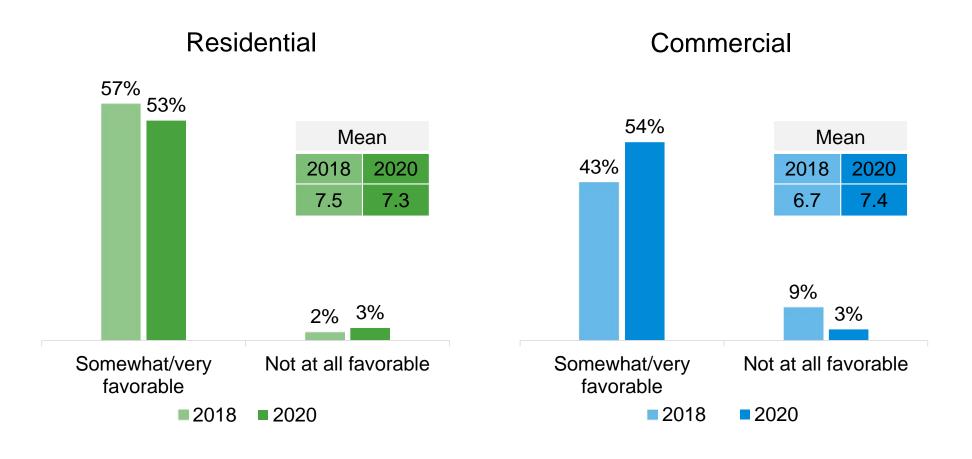
Commercial FIRST LINDA VISTA E 3rd Ave Longmont Pleasant View Rid



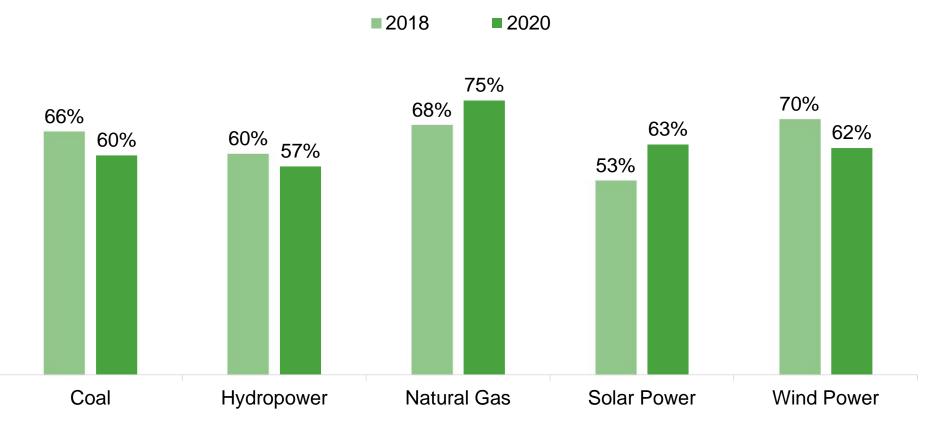
Aware Platte River provides generation



Opinion of Platte River

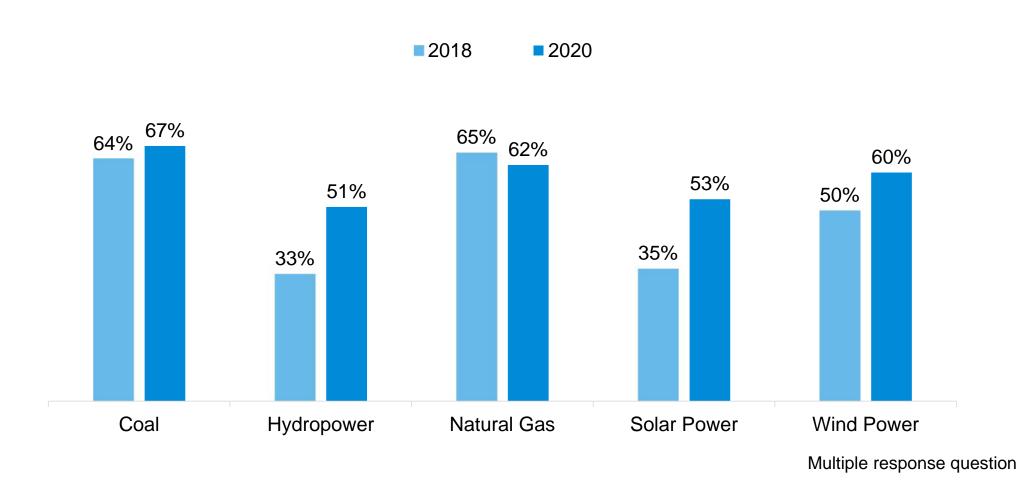


Perceived generation source - residential



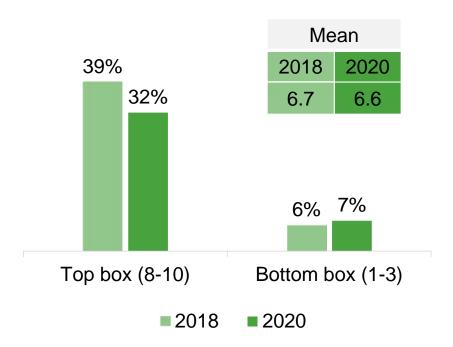
Multiple response question

Perceived generation source - commercial

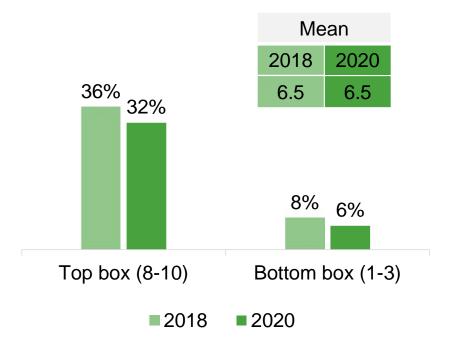


Energy efficiency ratings - residential

Shows concern for the environment



Offers Efficiency Works program

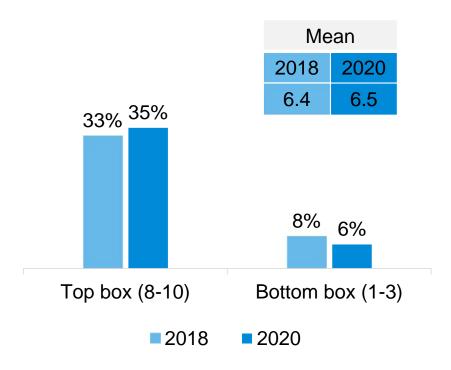


Energy efficiency ratings - commercial

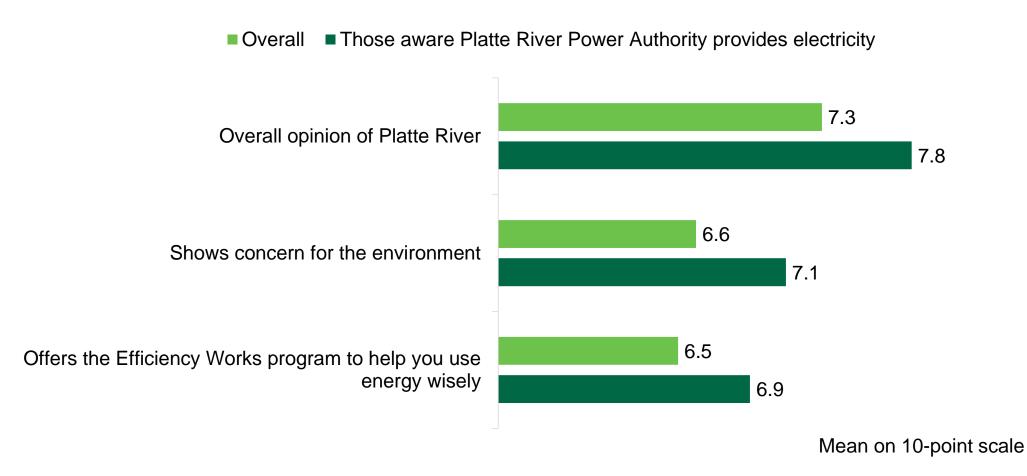
Shows concern for the environment

Mean 2018 2020 6.6 6.6 6% 7% Top box (8-10) Bottom box (1-3) 2018 2020

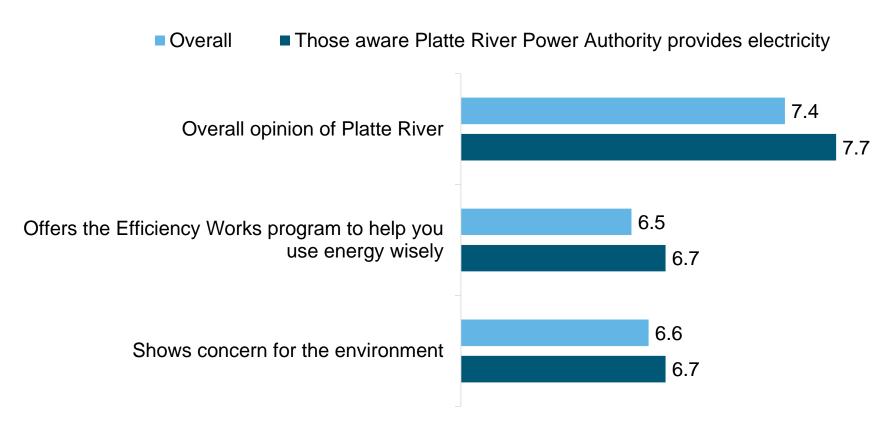
Offers Efficiency Works program



Opinion comparison - residential



Opinion comparison - commercial

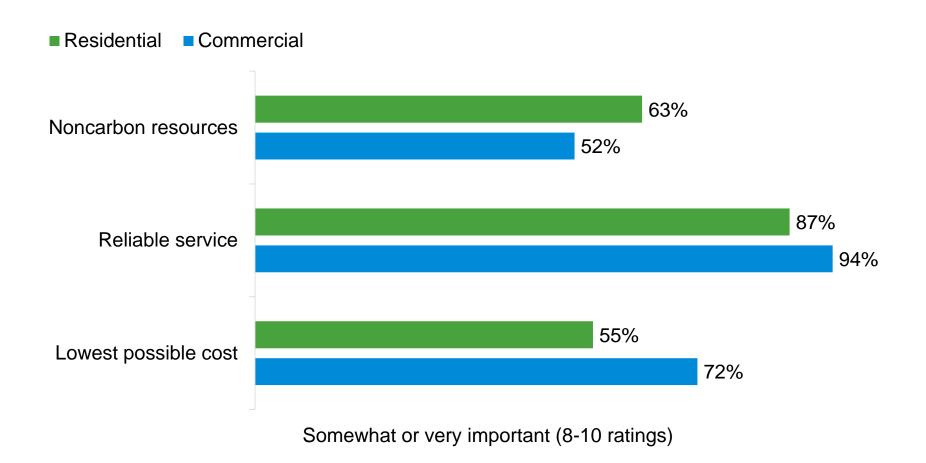


Mean on 10-point scale

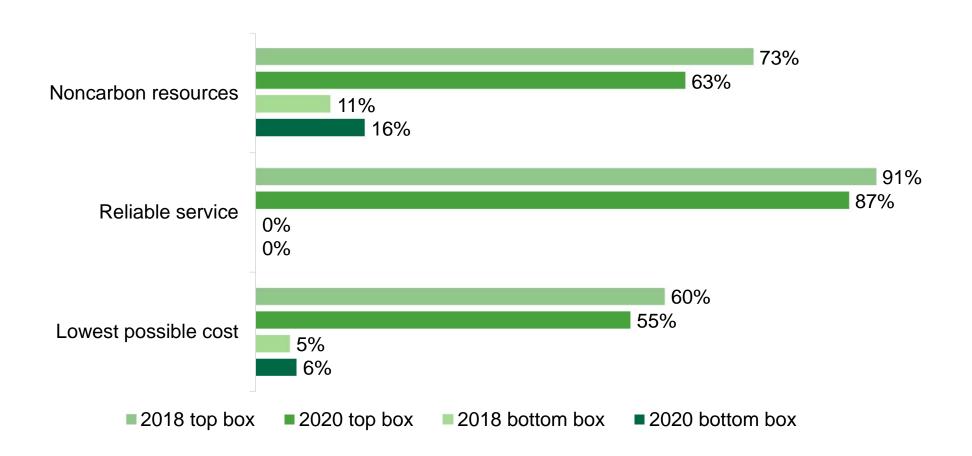


Renewable resource opinions

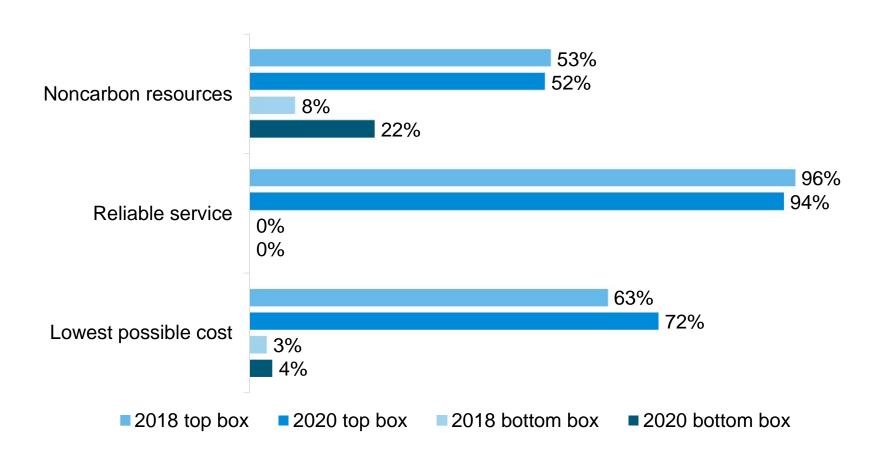
Service characteristics importance



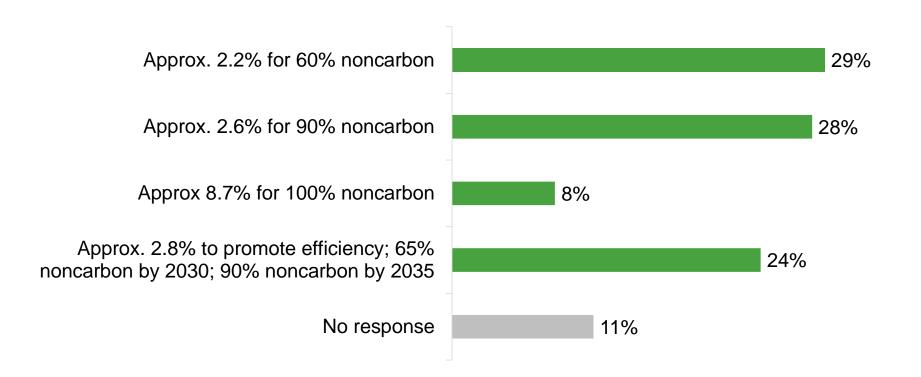
Service characteristics importance - residential



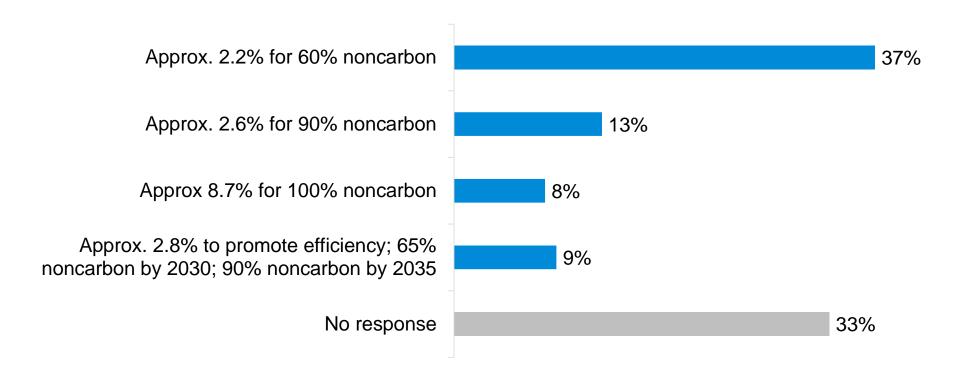
Service characteristics importance - commercial

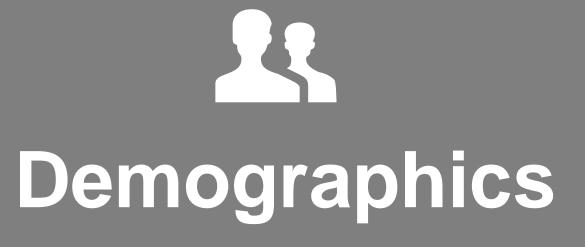


Additional monthly amount willing to pay for noncarbon energy by 2030 - residential



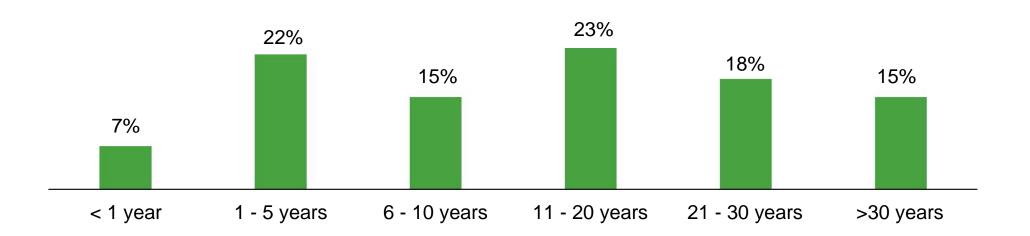
Additional yearly amount willing to pay for noncarbon energy by 2030 - commercial





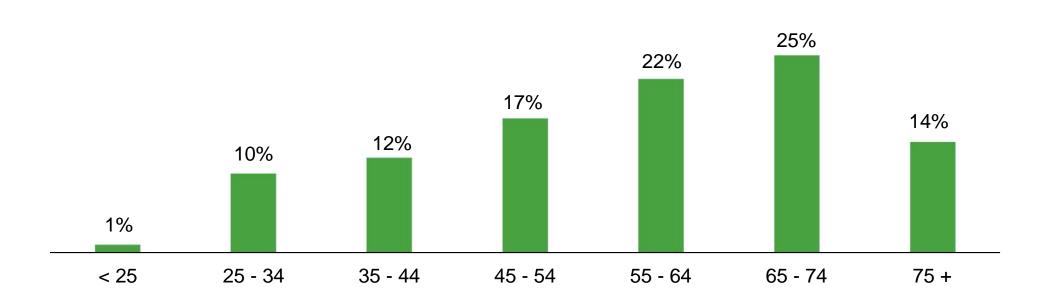
Length of service

Median: 13 years

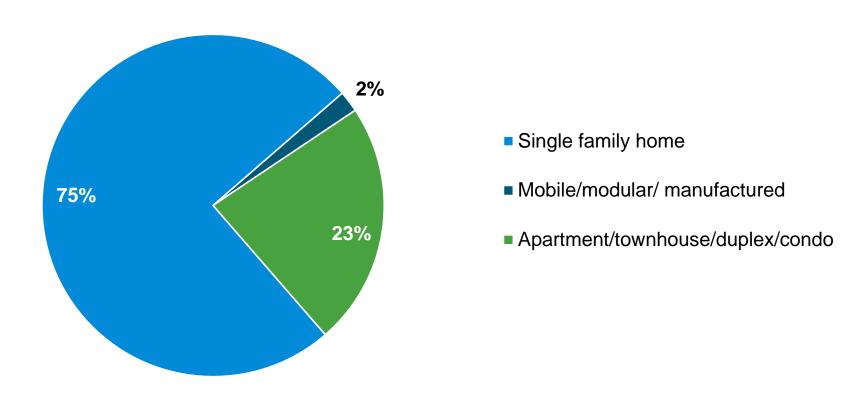


Respondent age

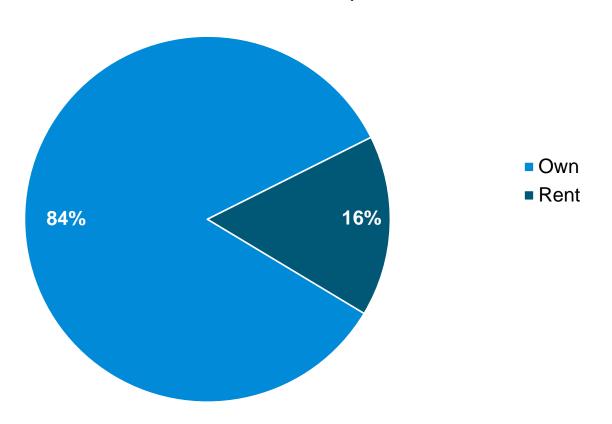
Median: 59



Type of residence

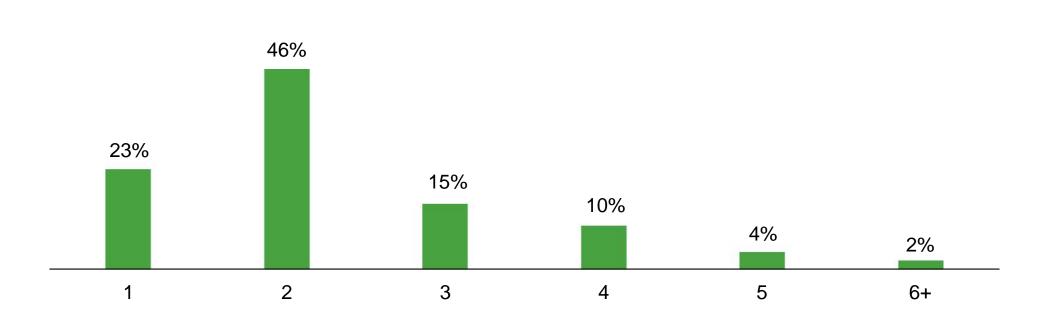


Home ownership

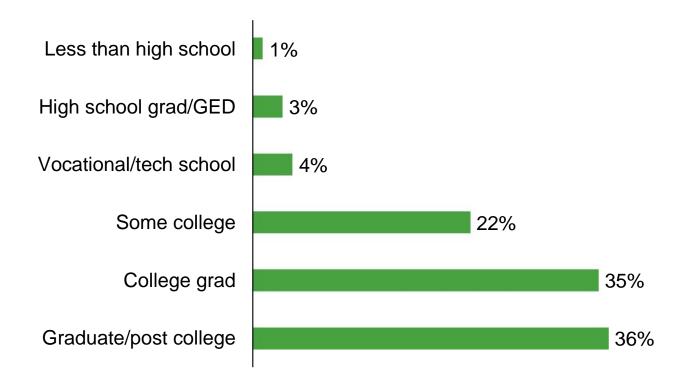


Number of residents per household

Mean: 2.3

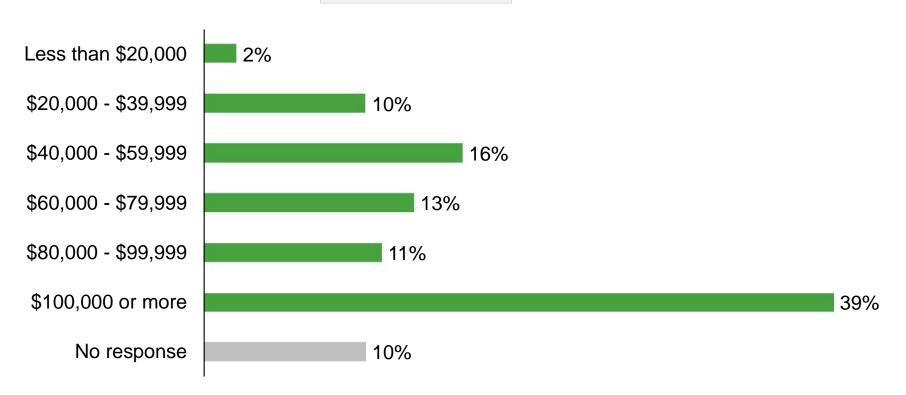


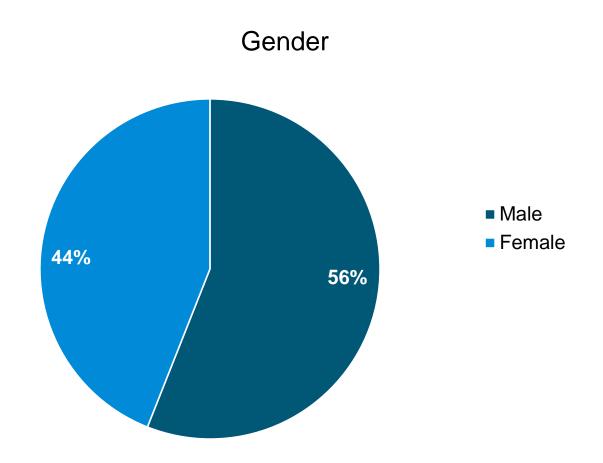
Education



Income

Median: \$86,666

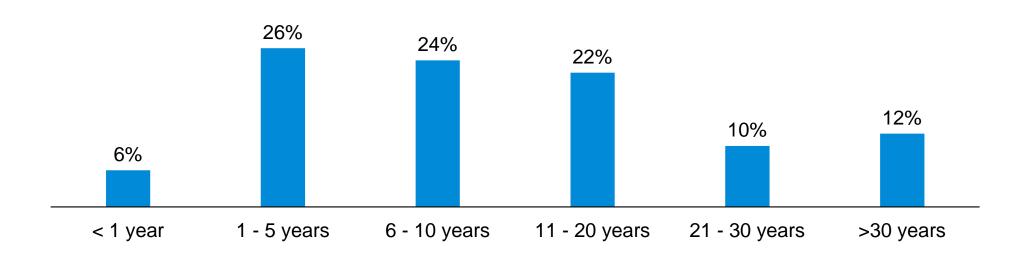




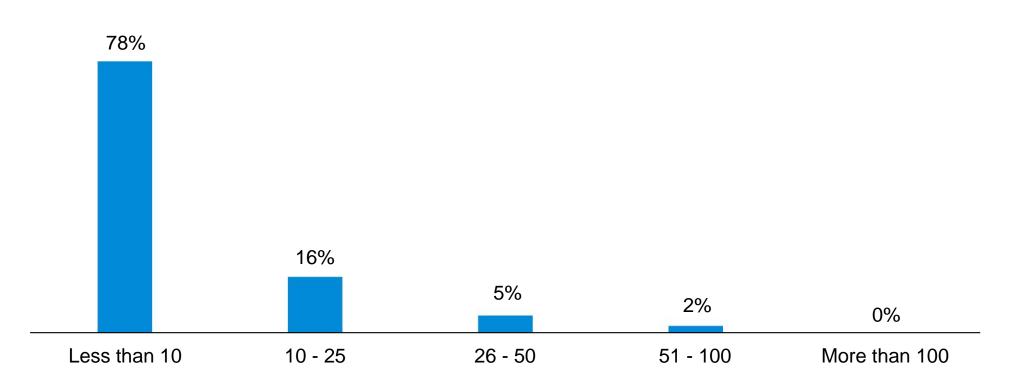


Length of service

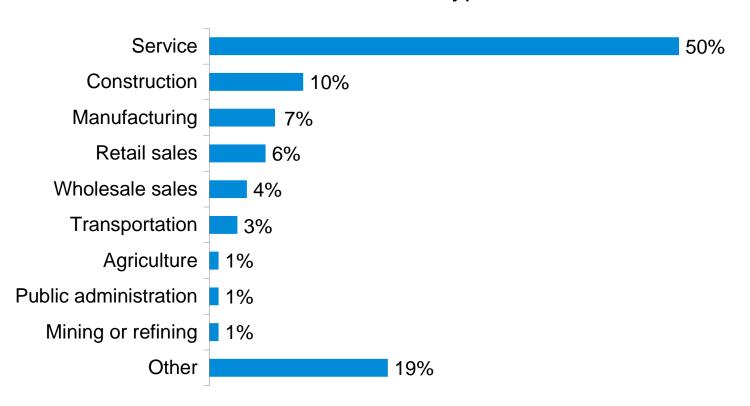
Median: 9 years



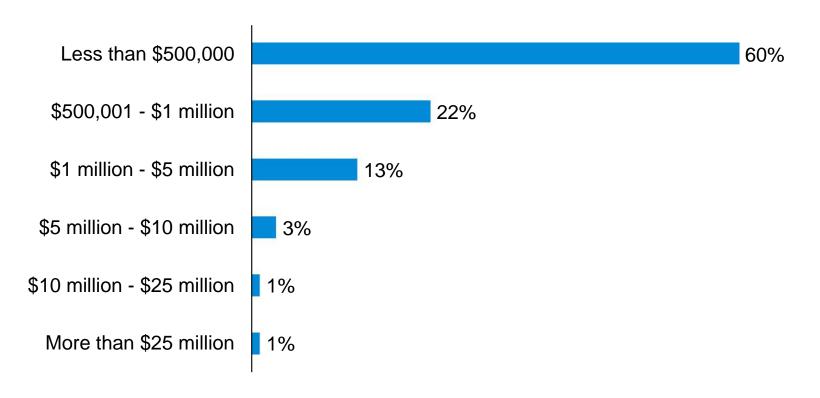
Number of employees



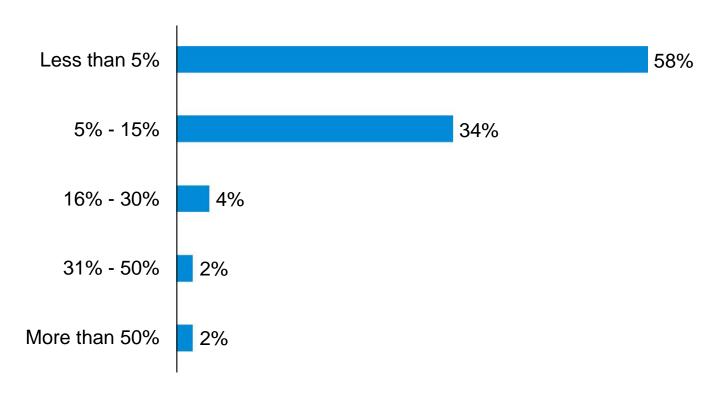
Business type



Annual revenue



Electric costs as percentage of overall expense



Customer notification



As the wholesale power provider to Longmont Power & Communications, Platte River Power Authority seeks your input to help shape northern Colorado's energy future.

You have been selected to take part in this survey project to provide feedback about the future energy resources you want to power your homes and businesses.

Complete the survey online anytime before March 20, 2020



Go to: www.bit.ly/respr20 and enter the survey ID shown at the top left on the reverse of this postcard



Customers who do not complete the survey online may receive a call inviting participation by phone



Questions? Call 303.651.8386

Survey questions

- How long have you received electric service from City of Longmont Power & Communications?
- Are you aware that Platte River Power Authority provides wholesale electricity generation and transmission services to City of Longmont Power & Communications?
- > Based on what you know, what is your opinion of Platte River Power Authority?
- What resources do you think Platte River Power Authority uses to provide your community with electricity? (all that apply)
- Please rate your level of agreement with the following statements regarding Platte River Power Authority.
 - Shows concern for the environment
 - Offers the Efficiency Works program to help you use energy wisely
- Please rate the importance of the following electric service characteristics:
 - Lowest possible cost
 - Most reliable
 - Noncarbon resources
- > How much more would you pay on your utility bill to receive noncarbon energy?

Demographics (residential)

- > How old are you?
- > What type of residence do you live in?
- > Do you own or rent your home?
- > How many people live in your household?
- What is the highest level of education you have completed?
- > What is your household income?
- > Respondent's gender

Firmographics (commercial)

- > How many employees does your business have?
- > What type of business do you have?
- > What is the annual revenue of your business?
- > What is the percentage of electricity costs to your overall business costs?





	Online	Phone										
Residential: Results based on 259 responses	100%	0%										
Commercial: Results based on 117 responses	40%	60%										
	1070	3075					1			l		
1. How long have you received electric service from City of Longmont Powe	r & Commun	ications?										
	Residential	Commercial										
Less than 1 year	7%	6%										
1 - 5 years	22%	26%										
6 - 10 years	15%	24%										
11 - 20 years	23%	22%										
21 - 30 years	18%	10%										
More than 30 years	15%	12%										
Median length of service	13	9										
2. Are you aware that Platte River Power Authority provides wholesale elect			mission	services	to City o	f Longn	ont Pow	er & Cor	nmunica	tions?		
	Residential	Commercial										
Yes	55%	59%										
No	45%	41%										
		ı	ı	_		I				ı	_	
3. Based on what you know, what is your opinion of Platte River Power Auth	-											
		Not at all favor								T		
	1	2	3	4	5	6	7	8	9	10	Average	
Residential	1%	0%	2%	1%	25%	9%	8%	19%	15%	19%	7.3	53%
Commercial	2%	0%	1%	2%	28%	6%	7%	14%	13%	27%	7.4	54%
*Top Box = 8 - 10 ratings combined, or highest opinion.												
4. What resources do you think Platte River Power Authority uses to provide	your comm	unity with ele	ctricity?	(all that	apply)							
	Residential	Commercial										
Coal	60%	67%										
Hydropower	57%	51%										
Natural gas	75%	62%										
Solar power	63%	53%										
Wind power	62%	60%										
		1		1		ı		1	1		1	1





	Online	Phone										
Residential: Results based on 259 responses	100%	0%										
Commercial: Results based on 117 responses	40%	60%										
			'	,		'						
5. Please rate your level of agreement with the following statements regard	ling Platte Riv	er Power Auth	nority.									
*Top Box = 8 - 10 ratings combined, or strongest level of agreement.		Strongly disag	ree				> St	rongly ag	ree			
Residential	1	2	3	4	5	6	7	8	9	10	Average	Тор Вох
Shows concern for the environment	2%	1%	4%	3%	31%	12%	16%	11%	8%	13%	6.6	32%
Offers the Efficiency Works program to help you use energy wisely	1%	2%	3%	3%	32%	12%	14%	10%	9%	13%	6.5	32%
Commercial	1	2	3	4	5	6	7	8	9	10	Average	Тор Вох
Shows concern for the environment	4%	2%	1%	1%	31%	11%	10%	17%	9%	14%	6.6	40%
Offers the Efficiency Works program to help you use energy wisely	4%	1%	1%	2%	34%	10%	12%	15%	7%	13%	6.5	35%
6. Please rate the importance of the following electric service characteristic	cs:											
*Top Box = 8 - 10 ratings combined, or most important.		Not at all imp	oortant				> Very	/ importal	nt			
Residential	1	2	3	4	5	6	7	8	9	10	Average	Тор Вох
Lowest possible cost	1%	2%	3%	2%	15%	9%	13%	15%	12%	28%	7.5	55%
Most reliable	0%	0%	0%	0%	6%	1%	5%	17%	17%	53%	8.9	87%
Noncarbon resources	10%	2%	4%	4%	8%	3%	6%	12%	16%	35%	7.3	63%
Commercial	1	2	3	4	5	6	7	8	9	10	Average	Тор Вох
Lowest possible cost	1%	2%	1%	2%	8%	8%	6%	18%	8%	46%	8.2	72%
Reliable service	0%	0%	0%	0%	0%	3%	3%	8%	13%	73%	9.5	94%
Noncarbon resources	14%	3%	5%	1%	11%	4%	11%	17%	8%	27%	6.7	52%
			,	,		,						,
7. How much more would you pay on your utility bill to receive noncar	bon energy?	•										
	Residential	Commercial										
About 2.2% more each year to receive 60% noncarbon energy by 2030												
with 99.99% reliability	29%	37%										
Approximately 2.6% more each year to receive 90% noncarbon energy by												
2030 with 99.99% reliability	28%	13%										
Approximately 8.7% more each year to receive 100% noncarbon energy												
by 2030 although Platte River cannot maintain system reliability	8%	8%										
About 2.8% more each year to promote more efficiency, rooftop solar,												
EVs, etc. You would receive 65% noncarbon energy by 2030 and 90% noncarbon energy by 2035 with 99.99% reliability		9%										
3, ,		33%									+	
No response	11%	33%										[





	Online	Phone										
Residential: Results based on 259 responses	100%	0%										
Commercial: Results based on 117 responses	40%	60%										
		Demographic	cs									
D1. How old are you?												
Under 25	1%		45 - 54	17%		75+	14%					
25 - 34	10%		55 - 64	22%								
35 - 44	12%		65 - 74	25%								
	N	/ledian age: ร	59									
										,		
D2. What type of residence do you live in?												
Single-family home	75%											
Mobile, modular or manufactured home	2%											
Apartment, townhouse, duplex or condominium	23%											
D3. Do you own or rent your home?	Own	84%		Rent	16%							
D4. How many people live in your household?												
	1	2	3	4	5	6+						
	23%	46%	15%	10%	4%	2%		Average:	2.3			
	Ţ		_		ı	ı				ı		_
D5. What is the highest level of education you have completed?												
Less than high school	1%					e college						
High school graduate/GED	3%					graduate						
Vocational-technical school	4%		Gradi	uate or po	ost-colleg	je school	36%					
20.00					I						1	
D6. What is your household income?	00/					***						
Less than \$20,000	2%					\$99,999						
\$20,000 to \$39,999	10%					or more						
\$40,000 to \$59,999	16%				No i	response	10%					
\$60,000 to \$79,999	13%		20.000									
	Media	an income: \$8	86,666									
D7 Beanandant's gander	Molo	56%		Female	44%						1	
D7. Respondent's gender	Male	20%		remale	44%							





	Online	Phone							
Residential: Results based on 259 responses	100%	0%							
Commercial: Results based on 117 responses	40%	60%							
		Firmographics							
F1. How many employees does your business have?									
Less than 10	78%								
10 to 25	16%								
26 to 50	5%								
51 to 100	2%								
More than 100	0%								
F2. What type of business do you have?									
Service	50%			Agriculture		1%			
Retail sales	6%			Mining or refining					
Wholesale sales	4%			Transportation					
Manufacturing	7%		P	ublic admi	nistration	1%			
Construction	10%				Other	19%			
					,				
F3. What is the annual revenue of your business?									
Less than \$500,000	60%								
\$500,001 to \$1 million	22%								
\$1 million to \$5 million	13%								
\$5 million to \$10 million	3%								
\$10 million to \$25 million	1%								
More than \$25 million	1%								
							1		
F4. What is the percentage of electricity costs to your overall business cost									
Less than 5%	58%								
5% to 15%	34%								
16% to 30%	4%								
31% to 50%	2%								
More than 50%	2%								

Longmont IRP Residential S				
	n=263	n=259		
Aware Platte River Provides Service to Longmont	2018	2020	Trend	Average
Yes	60%	55%	-5%	58%
Opinion of Platte River Power Authority	2018	2020	Trend	Average
Somewhat/very favorable (top box)	57%	53%	-4%	55%
Not at all favorable (bottom box)	2%	3%	1%	3%
Average (mean, based on 10-point scale)	7.5	7.3	-0.2	7.4
	2010	2000		
Perceived Generation Source	2018	2020	Trend	Average
Coal	66%	60%	-6%	63%
Hydropower	60%	57%	-3%	59%
Natural gas	68%	75%	7%	72%
Solar power	53%	63%	10%	58%
Wind power	70%	62%	-8%	66%
Energy Efficiency Ratings (8-10 top box)	2018	2020	Trend	Average
Shows concern for the environment	39%	32%	-7%	36%
Average (mean, based on 10-point scale)	6.7	6.6	-0.1	6.7
Offers the Efficiency Works program to help you use energy wisely	36%	32%	-4%	34%
Average (mean, based on 10-point scale)	6.5	6.5	0.0	6.5
Importance of Electric Service Characteristics (8-10 top box)	2018	2020	Trend	Average
Lowest possible cost	60%	55%	-5%	58%
Average (mean, based on 10-point scale)	7.7	7.5	-0.2	7.6
Reliable service	91%	87%	-4%	89%
Average (mean, based on 10-point scale)	9.2	8.9	-0.3	9.1
Renewable resource	73%	63%	-10%	68%
Average (mean, based on 10-point scale)	7.9	7.3	-0.6	7.6
Length of Service	2018	2020	Trend	Average
Less than 1 year	5%	7%	2%	6%
1 - 5 years	24%	22%	-2%	23%
6 - 10 years	16%	15%	-1%	16%
11 - 20 years	28%	23%	-5%	25%
21 - 30 years	11%	18%	7%	14%
More than 30 years	16%	15%	-1%	16%
Median	12	13	1	13
THOUGHT.	,,,	, 0	,	
Age	2018	2020	Trend	Average
< 25	1%	1%	0%	1%
25-34	8%	10%	2%	9%
35-44	16%	12%	-4%	14%
45-54	21%	17%	-4%	19%
55-64	24%	22%	-2%	23%
65-74	21%	25%	4%	23%
75 and up	10%	14%	4%	12%
			1	

Longmont IRP Residential Survey Trends									
Type of Residency	2018	2020	Trend	Average					
Single-family home	93%	75%	-18%	84%					
Mobile, modular or manufactured home	1%	2%	1%	1%					
Apartment, townhouse, duplex or condominium	6%	23%	17%	14%					
Own or Rent Home	2018	2020	Trend	Average					
Own	89%	84%	-5%	87%					
Rent	11%	16%	5%	14%					
Number of People in Household	2018	2020	Trend	Average					
1	18%	23%	5%	21%					
2	45%	46%	1%	46%					
3	16%	15%	-1%	16%					
4	16%	10%	-6%	13%					
5	4%	4%	0%	4%					
6+	1%	2%	1%	2%					
Average	2.5	2.3	-0.2	2.4					
Highest Level of Education	2018	2020	Trend	Average					
Less than high school	0%	1%	1%	1%					
High school graduate/GED	7%	3%	-4%	5%					
Vocational-technical school	3%	4%	1%	3%					
Some college	16%	22%	6%	19%					
College graduate	37%	35%	-2%	36%					
Graduate or post-college school	37%	36%	-1%	37%					
Household Income	2018	2020	Trend	Average					
Less than \$20,000	3%	2%	-1%	2%					
\$20,000 to \$39,999	9%	10%	1%	10%					
\$40,000 to \$59,999	13%	16%	3%	14%					
\$60,000 to \$79,999	11%	13%	2%	12%					
\$80,000 to \$99,999	15%	11%	-4%	13%					
\$100,000 or more	36%	39%	3%	38%					
No response	13%	10%	-3%	12%					
Average	\$99,323	\$86,666	-\$12,657	\$92,995					
Gender	2018	2020	Trend	Average					
Male	56%	56%	0%	56%					
Female	44%	44%	0%	44%					

	n=263	n=259		
Aware Platte River Provides Service to Longmont	2018	2020	Trend	Average
Yes	34%	59%	25%	47%
163	3470	3370	2070	77 /0
Opinion of Platte River Power Authority	2018	2020	Trend	Average
Somewhat/very favorable (top box)	43%	54%	11%	49%
Not at all favorable (bottom box)	9%	3%	-6%	6%
Average (mean, based on 10-point scale)	6.7	7.4	0.7	7.1
Perceived Generation Source	2018	2020	Trend	Average
Coal	64%	67%	3%	65%
Hydropower	33%	51%	18%	42%
Natural gas	65%	62%	-3%	64%
Solar power	35%	53%	18%	44%
Wind power	50%	60%	10%	55%
-				
Energy Efficiency Ratings (8-10 top box)	2018	2020	Trend	Average
Shows concern for the environment	34%	40%	6%	37%
Average (mean, based on 10-point scale)	6.6	6.6	0.0	6.6
Offers the Efficiency Works program to help you use energy wisely	33%	35%	2%	34%
Average (mean, based on 10-point scale)	6.4	6.5	0.1	6.5
Importance of Electric Service Characteristics (8-10 top box)	2018	2020	Trend	Average
Lowest possible cost	63%	72%	9%	68%
Average (mean, based on 10-point scale)	7.8	8.2	0.4	8.0
Reliable service	96%	94%	-2%	95%
Average (mean, based on 10-point scale)	9.6	9.5	-0.1	9.6
Renewable resource	53%	52%	-1%	53%
Average (mean, based on 10-point scale)	7.4	6.7	-0.7	7.1
Lawardh of Carries	2010	2020	Two mod	Average
Length of Service	2018 8%	2020 6%	Trend -2%	Average 7%
Less than 1 year 1 - 5 years	31%	26%	-5%	29%
•	15%	24%	10%	19%
6 - 10 years 11 - 20 years				
	29% 6%	22%	-7% 4%	26%
21 - 30 years	12%	10% 12%		8% 12%
More than 30 years Median	12%	9	0% -8	12%
iviculari	17	9	-0	73
	2018	2020	Trend	Average
Number of employees	76%	78%	2%	77%
Number of employees Less than 10	7070		•	4004
Less than 10	15%	16%	1%	16%
Less than 10 10 to 25		16% 5%	1% 1%	16% 5%
	15%			

Longmont IRP Commercial	Survey Tre	nds		
Type of Business	2018	2020	Trend	Average
Service	66%	50%	-16%	58%
Retail sales	15%	6%	-9%	10%
Wholesale sales	2%	4%	2%	3%
Manufacturing	7%	7%	0%	7%
Construction	5%	10%	5%	8%
Agriculture	2%	1%	-1%	1%
Mining or refining	0%	1%	1%	1%
Transportation	3%	3%	0%	3%
Public administration	0%	1%	1%	1%
Other	0%	19%	19%	10%
Annual Revenue	2018	2020	Trend	Average
Less than \$500,000	67%	60%	-7%	64%
\$500,001 to \$1 million	16%	22%	6%	19%
\$1 million to \$5 million	14%	13%	-1%	13%
\$5 million to \$10 million	2%	3%	1%	2%
\$10 million to \$25 million	1%	1%	0%	1%
More than \$25 million	1%	1%	0%	1%
Percentage of Electricity Costs to Overall Business Costs	2018	2020	Trend	Average
Less than 5%	63%	58%	-5%	60%
5% to 15%	29%	34%	5%	31%
16% to 30%	7%	4%	-3%	6%
	40/	20/	40/	40/
31% to 50%	1%	2%	1%	1%