



**Platte River**  
Power Authority

Estes Park • Fort Collins • Longmont • Loveland

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# 2018 Integrated Resource Plan Survey Results

Conducted by:



**(a solutions company)**



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# 2018 Integrated Resource Plan Survey



## Scope and Methodology

During the fall of 2018, Platte River Power Authority conducted an Integrated Resource Planning Survey to measure residential and commercial end user favorability toward Platte River, opinions about the importance of receiving non-carbon energy, economic elasticity of renewables, and to collect basic demographic and firmographic data.

The survey was conducted as part of a research project coordinated by Platte River Power Authority and involved four municipalities served by Platte River. The participating municipalities were the Town of Estes Park, City of Fort Collins, City of Longmont and City of Loveland.

Survey responses were received from a total of 1,108 randomly-selected residential customers and 788 commercial customers. The number of responses from each utility are as follows:

	<b>Residential</b>	<b>Commercial</b>
<b>Estes Park</b>	307	115
<b>Fort Collins</b>	272	280
<b>Longmont</b>	263	142
<b>Loveland</b>	266	251

The results of the residential survey have a margin of error of +/-2.9 percent at a 95 percent degree of probability. That means for any given statistic, there is a 95 percent chance that the result does not vary by more than 2.9 percent in the actual total population. The results of the commercial survey have a margin of error of +/-3.4 percent.

Of the 1,108 residential surveys, 586 (53 percent) were taken online by customers responding to a postcard or email notification. Following the online completions, 522 (47 percent) surveys were completed by callers conducting phone interviews. In completing the 522 phone surveys there were 88 refusals or disconnects, for a refusal rate of 14 percent. Of the 788 commercial surveys, 120 (15 percent) were completed online, and 668 (85 percent) were completed by phone. In completing the 668 phone surveys there were 101 refusals or disconnects, for a refusal rate of 13 percent.

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 percent.

This survey was developed and conducted by Inside Information, Inc.<sup>®</sup>, Smithville, MO, as a research project commissioned by Platte River Power Authority, Fort Collins, CO.

# Executive Summary

\* ratings are on a 10-point scale, or the percentage of 8-10 responses (top box)



## Platte River Power Authority

- More than half (56 percent) of residential customers are aware Platte River Power Authority provides electricity generation and transmission services to their utility – fewer than half (47 percent) of commercial customers are aware
- 55% of residential customers and 51% of commercial customers rate Platte River somewhat or very favorably overall
- Customers who are aware Platte River Power Authority provides G&T services to their utility rate Platte River Power Authority higher in overall favorability, showing concern for the environment, and offering adequate energy efficiency programs
- Generally lower awareness among commercial customers of the resources Platte River Power Authority uses to provide electricity
- Of the resources used by Platte River Power Authority to provide electricity, highest awareness is of coal and natural gas – lowest awareness is of solar power



## Renewable Resource Options

- Residential and commercial customers prioritize reliability and cost in similar measures – residential customers are markedly more concerned about the utilization of renewables
- Reliability is the most important service characteristic to residential and commercial customers by a considerable margin
- About half of residential customers are willing to pay \$5 to \$20 per month more on their bill for electricity generated from renewable resources – 4 in 10 are not willing to pay more
- 4 in 10 commercial customers are willing to pay 1 percent to 10 percent more per month for renewable energy – another 4 in 10 are not willing to pay more



## Demographics

- Mix of ages responding to the residential survey, but more older customers – median age is 57, median length of service is 11 years
- Considerable income and education levels – median annual income is \$74,041, approximately 7 in 10 have a college degree



## Firmographics

- Median length of service for commercial customers is 10 years – 7 in 10 of the businesses have fewer than 10 employees
- More service businesses responding (62 percent) to the commercial survey, followed by retail sales (18 percent), manufacturing (7 percent), and construction (6 percent)
- More than half of businesses have annual revenue of less than \$500,000, 4 in 10 report electric costs as 5 percent or more of their overall business expense



# **Integrated Resource Plan Survey Results**

**2018**

# Overview

## Integrated Resource Plan Survey 2018



During the fall of 2018, Platte River Power Authority conducted an Integrated Resource Planning Survey to measure residential and commercial end user favorability toward Platte River Power Authority, opinions about the importance of receiving non-carbon energy, economic elasticity of renewables, and to collect basic demographic and firmographic data.

These results include online and phone survey replies from 1,108 residential end users and 788 commercial responses.

# Highlights

More than half (56 percent) of residential customers are aware Platte River Power Authority provides electricity generation and transmission services to their utility – fewer than half (47 percent) of commercial customers are aware

55% of residential customers and 51% of commercial customers rate Platte River somewhat or very favorably overall

Customers who are aware Platte River Power Authority provides G&T services to their utility rate Platte River Power Authority higher in overall favorability, showing concern for the environment, and offering adequate energy efficiency programs

Generally lower awareness among commercial customers of the resources Platte River Power Authority uses to provide electricity

Of the resources used by Platte River Power Authority to provide electricity, highest awareness is of coal and natural gas – lowest awareness is of solar power

Residential and commercial customers prioritize reliability and cost in similar measures – residential customers are markedly more concerned about the utilization of renewables

Reliability is the most important service characteristic to residential and commercial customers by a considerable margin

# Highlights

About half of residential customers are willing to pay \$5 to \$20 per month more on their bill for electricity generated from renewable resources – 4 in 10 are not willing to pay more

4 in 10 commercial customers are willing to pay 1 percent to 10 percent more per month for renewable energy – another 4 in 10 are not willing to pay more

Mix of ages responding to the residential survey, but more older customers – median age is 57, median length of service is 11 years

Considerable income and education levels – median annual income is \$74,041, approximately 7 in 10 have a college degree

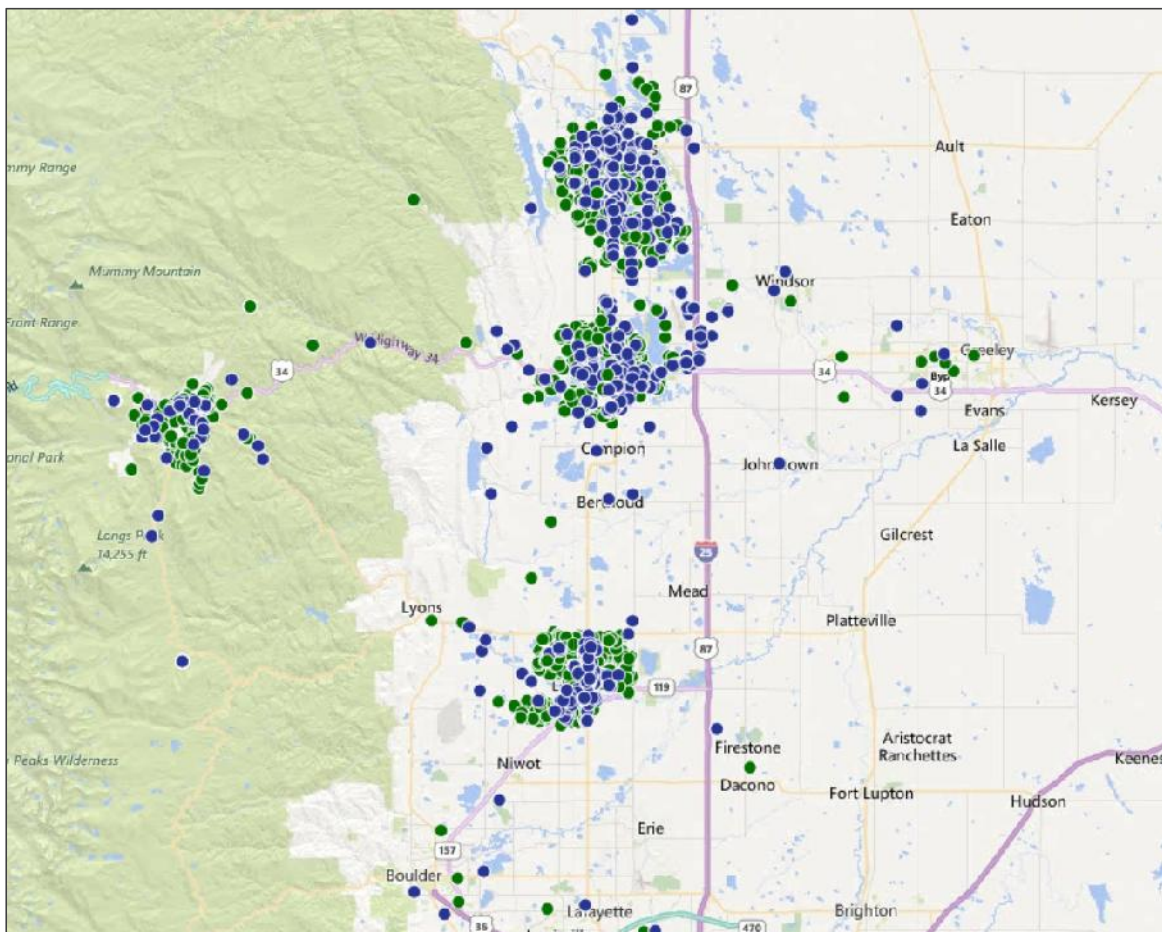
Median length of service for commercial customers is 10 years – 7 in 10 of the businesses have fewer than 10 employees

More service businesses responding (62 percent) to the commercial survey, followed by retail sales (18 percent), manufacturing (7 percent), and construction (6 percent)

More than half of businesses have annual revenue of less than \$500,000, 4 in 10 report electric costs as 5 percent or more of their overall business expense



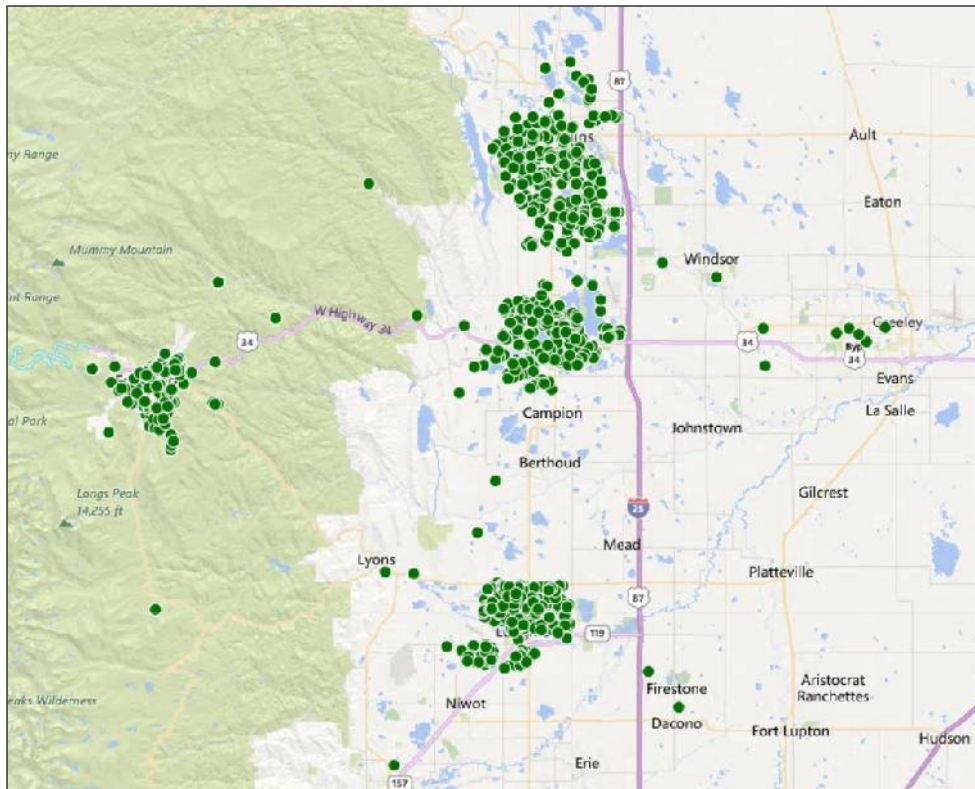
# Respondents



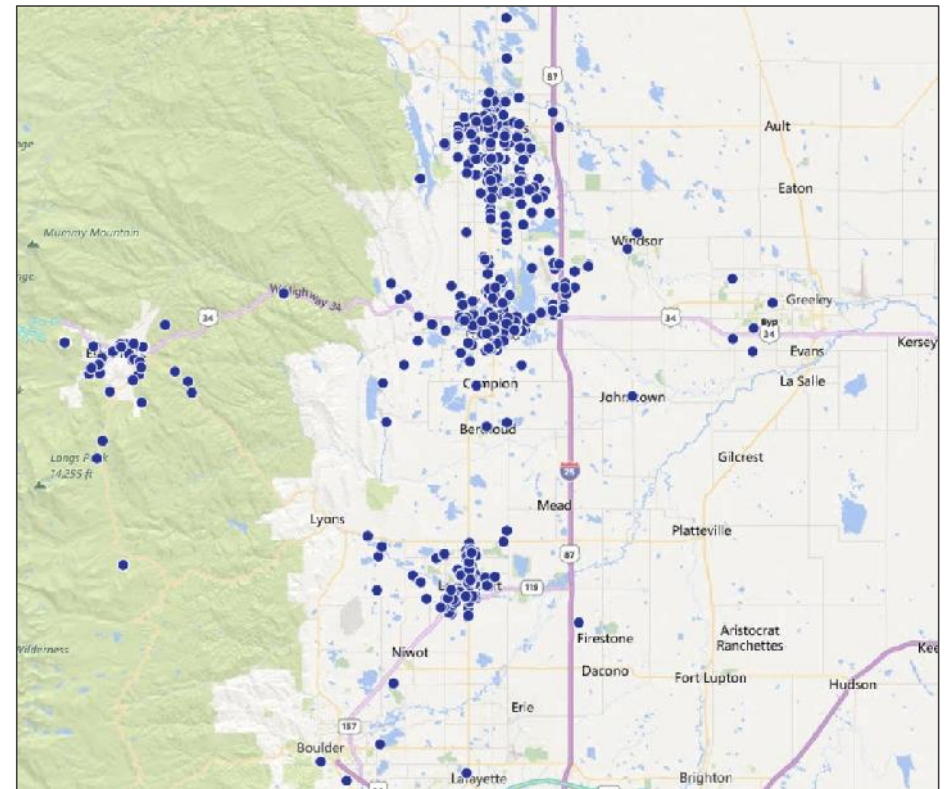
- Residential
- Commercial

# Respondents

Residential



Commercial

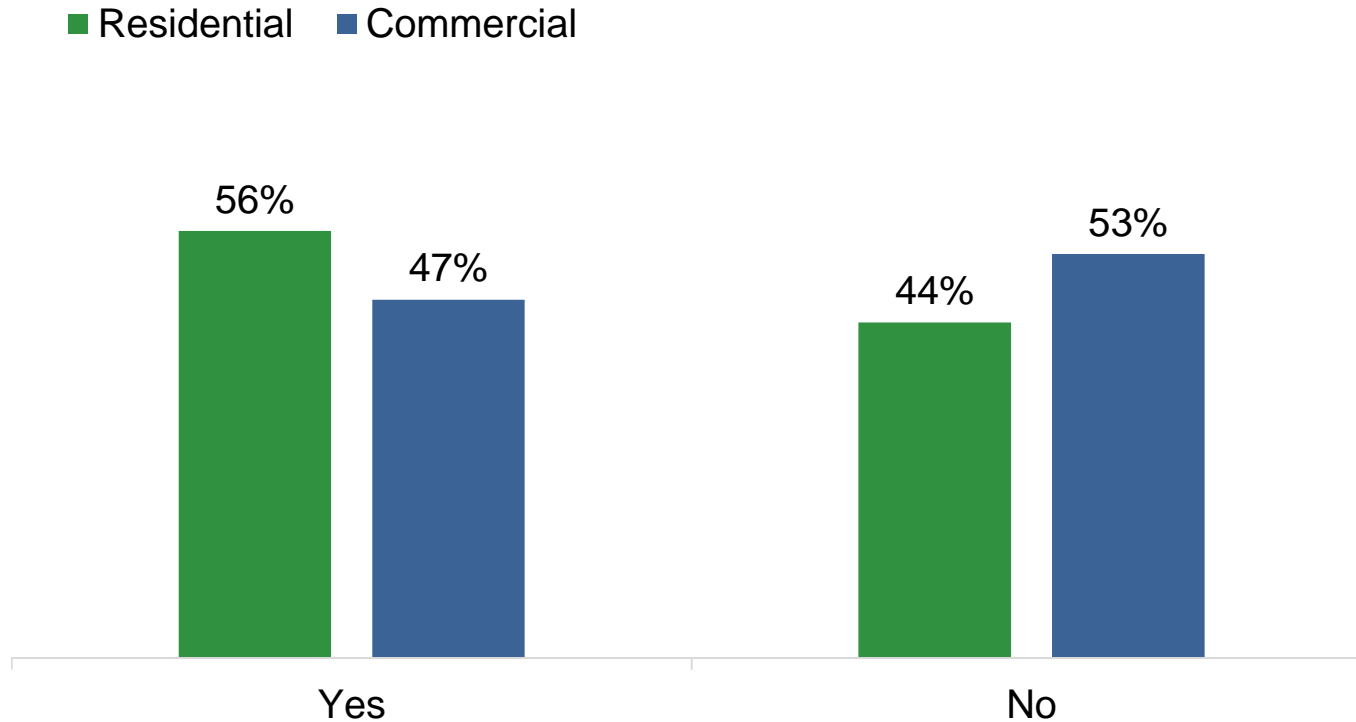




# **Platte River Power Authority**

# Platte River Power Authority

Aware Platte River Power Authority provides generation



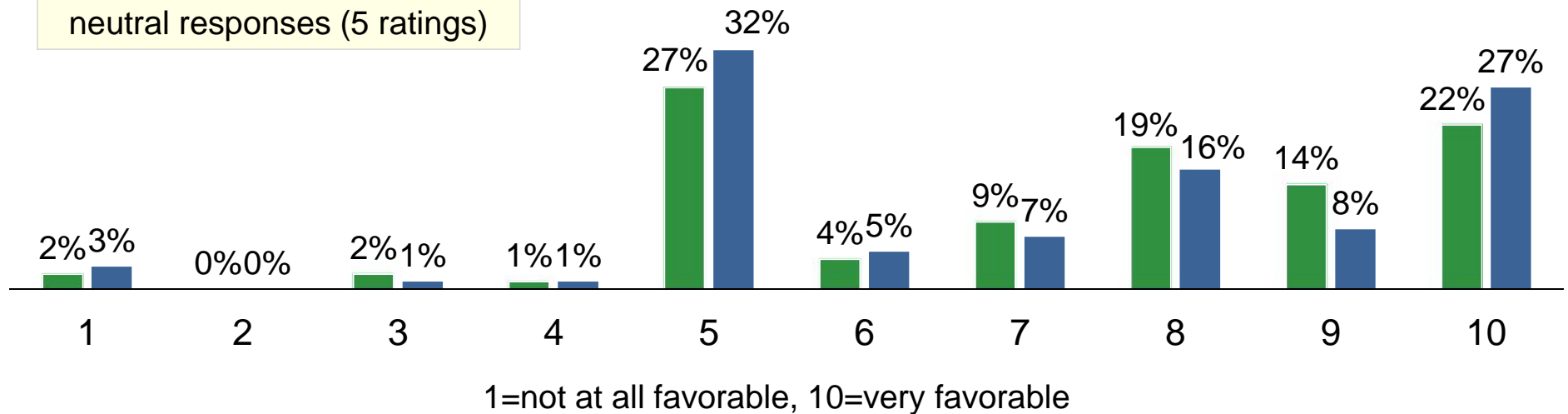
# Platte River Power Authority

## Opinion of Platte River Power Authority

■ Residential ■ Commercial

	Residential	Commercial
Top box (8-10 ratings)	55%	51%
Bottom box (1-3 ratings)	4%	4%
Mean	7.3	7.2

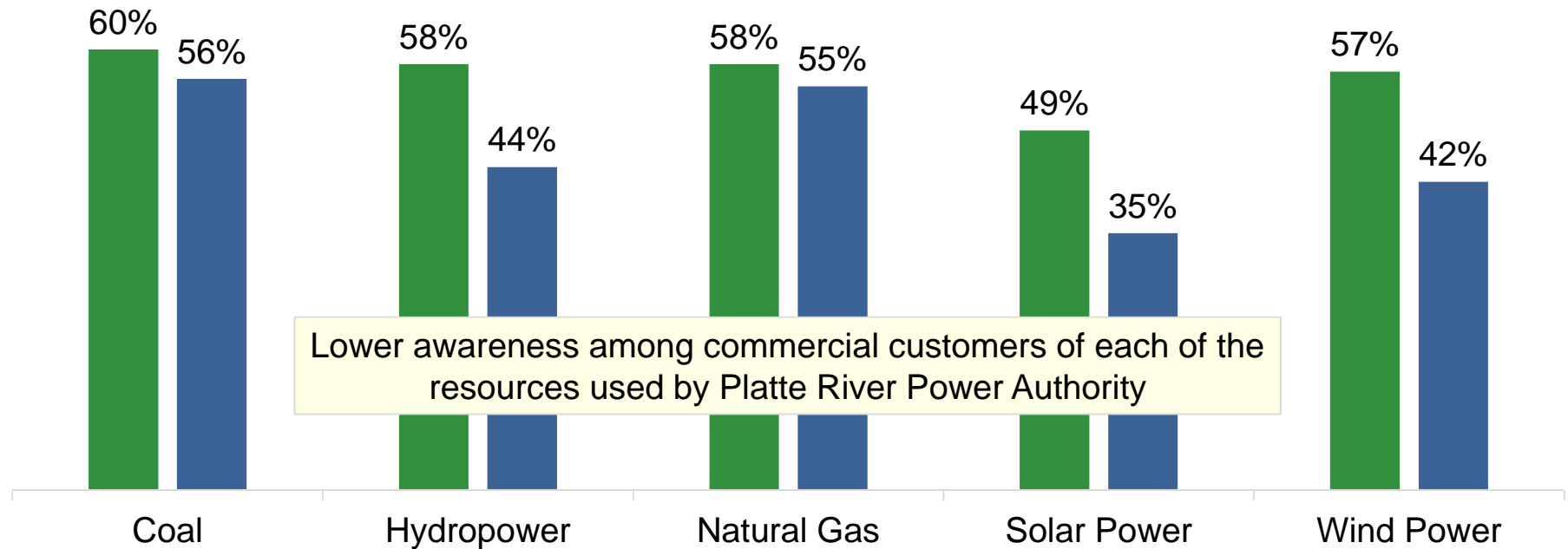
Considerable number of neutral responses (5 ratings)



# Platte River Power Authority

## Resources used by Platte River Power Authority

■ Residential ■ Commercial

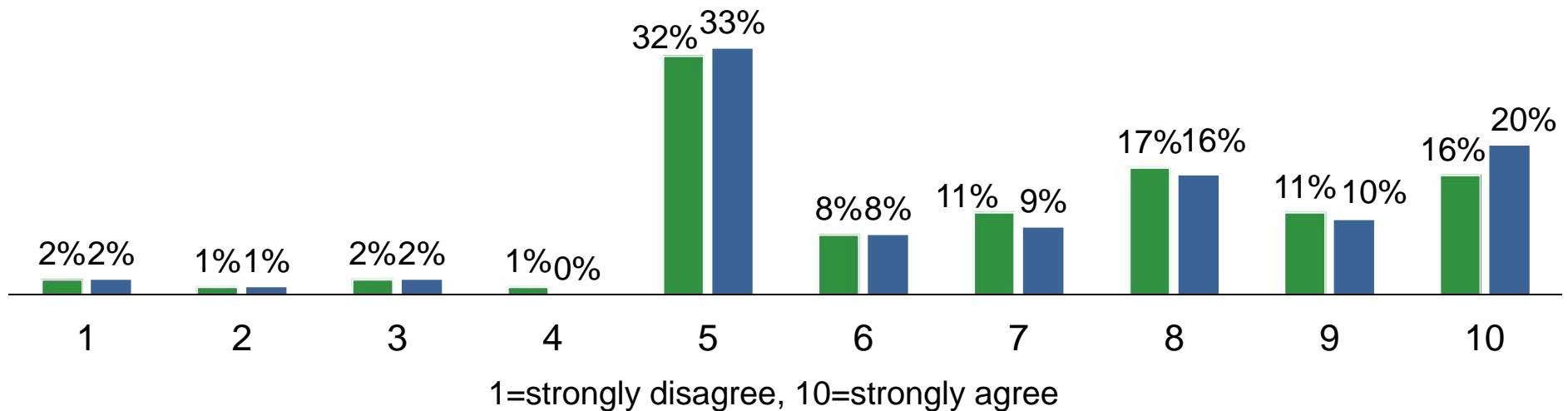


# Platte River Power Authority

Platte River Power Authority shows concern for the environment

■ Residential ■ Commercial

	Residential	Commercial
Top box (8-10 ratings)	44%	46%
Bottom box (1-3 ratings)	5%	5%
Mean	6.9	7.0

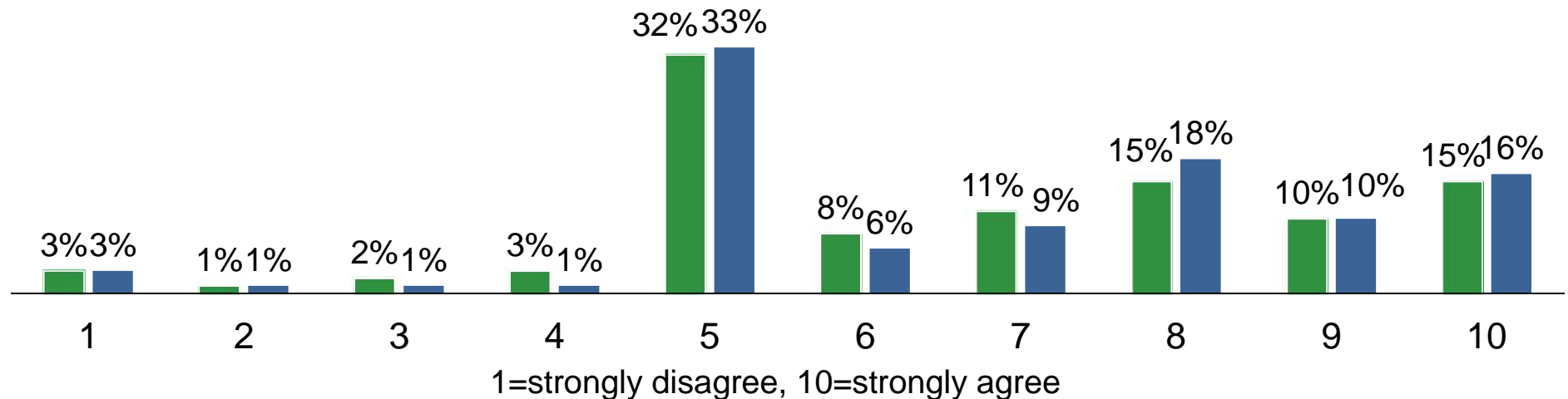


# Platte River Power Authority

Platte River Power Authority offers adequate programs to help use energy efficiently

■ Residential ■ Commercial

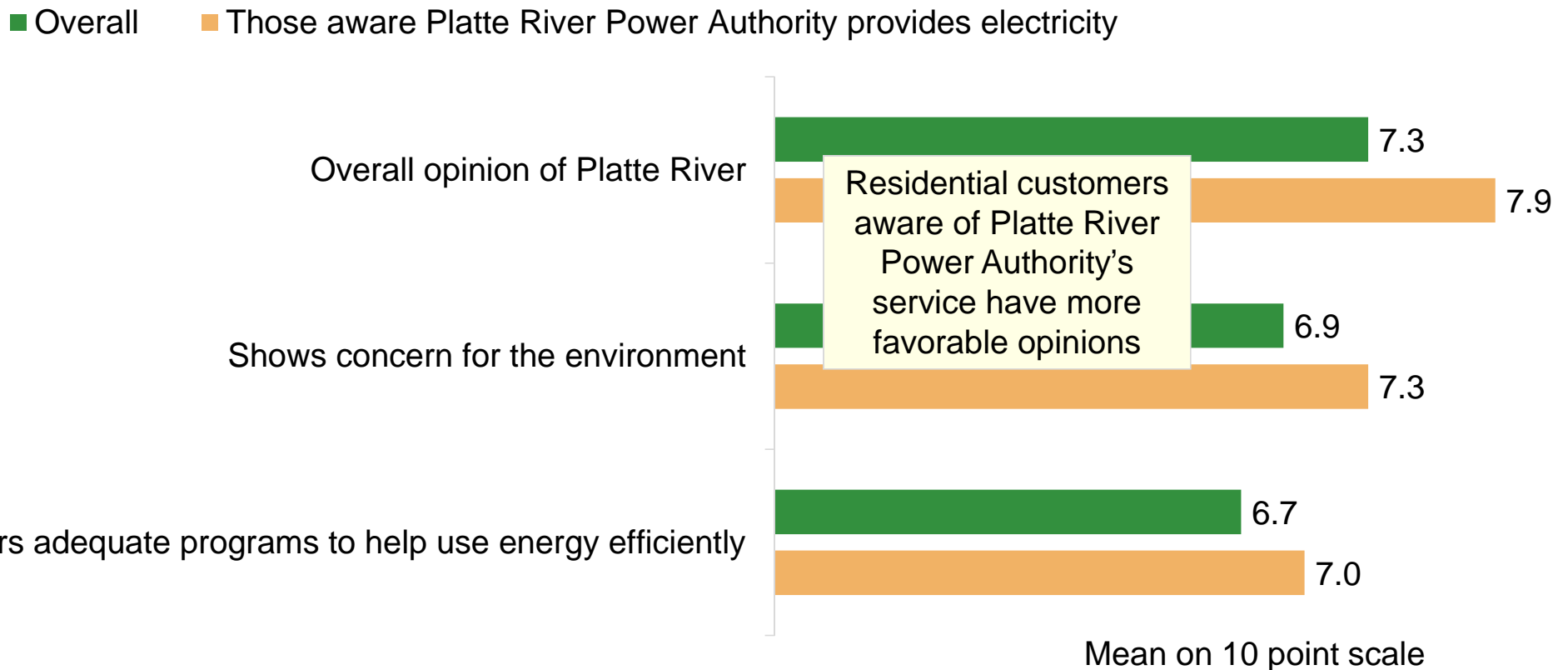
	Residential	Commercial
Top box (8-10 ratings)	40%	44%
Bottom box (1-3 ratings)	6%	5%
Mean	6.7	6.8





# Platte River Power Authority

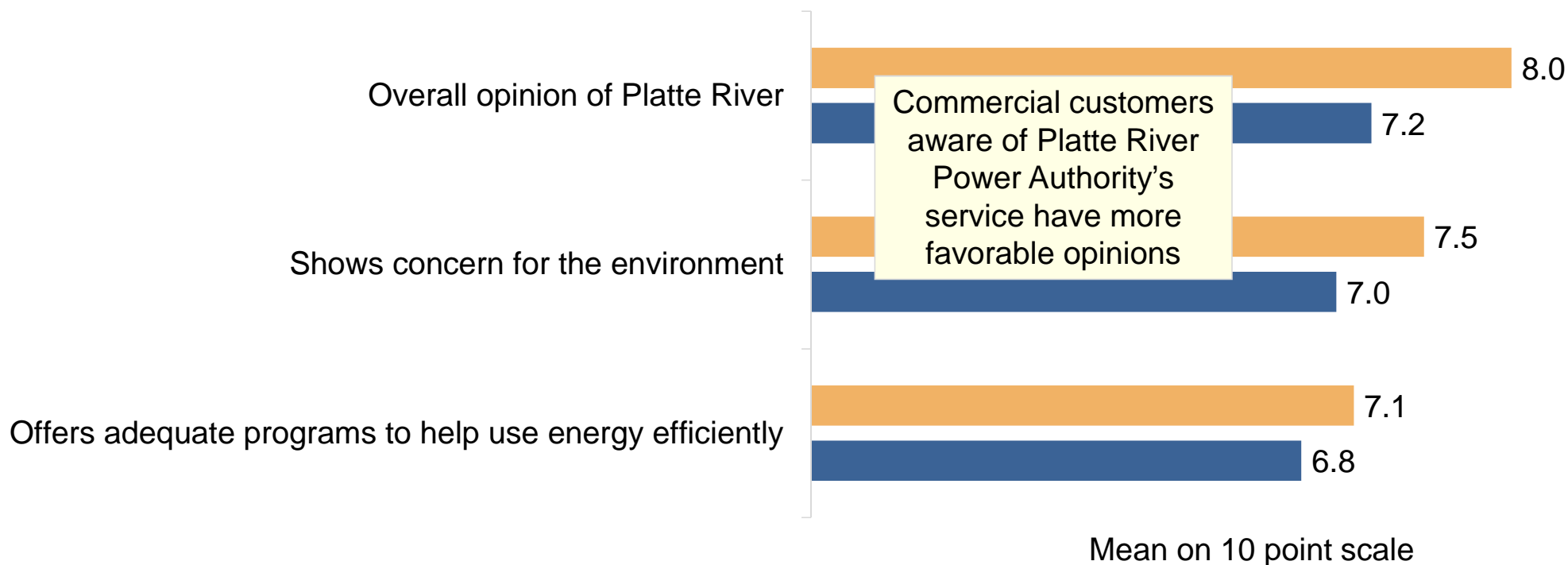
## Opinion comparison - residential

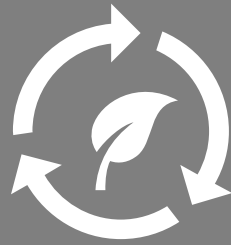


# Platte River Power Authority

## Opinion comparison - commercial

■ Those aware Platte River Power Authority provides electricity ■ Overall





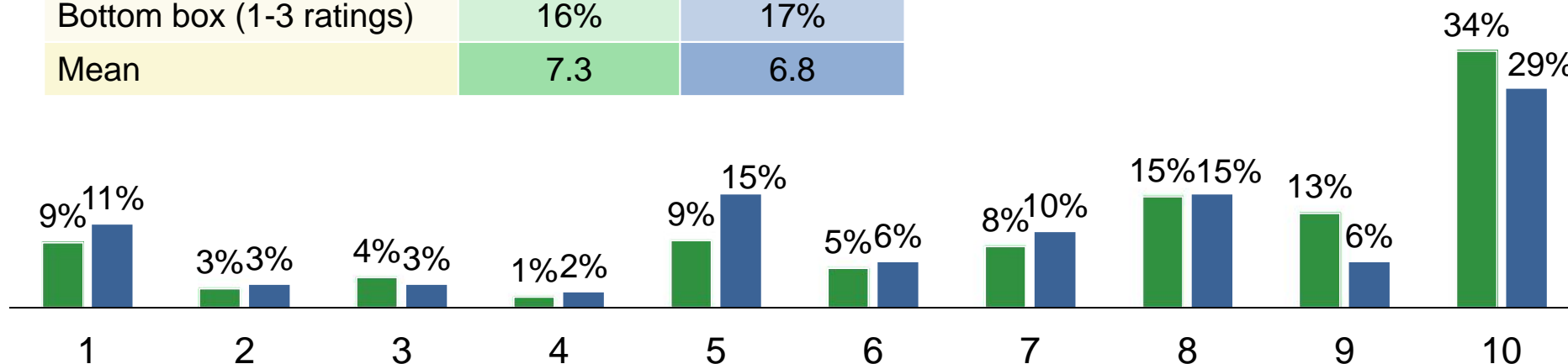
# **Renewable Resource Opinions**

# Renewables

How important is it that 100 percent of the energy you receive comes from renewable resources?

■ Residential ■ Commercial

	Residential	Commercial
Top box (8-10 ratings)	61%	50%
Bottom box (1-3 ratings)	16%	17%
Mean	7.3	6.8



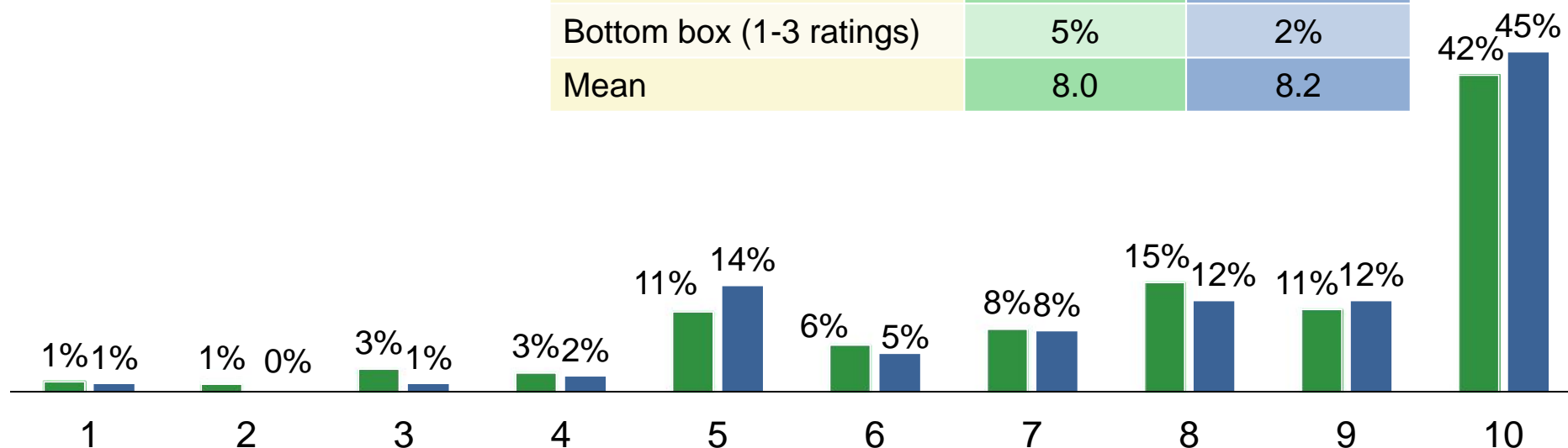
1=not at all important, 10=very important

# Renewables

## Importance of lowest possible cost

■ Residential ■ Commercial

	Residential	Commercial
Top box (8-10 ratings)	67%	69%
Bottom box (1-3 ratings)	5%	2%
Mean	8.0	8.2



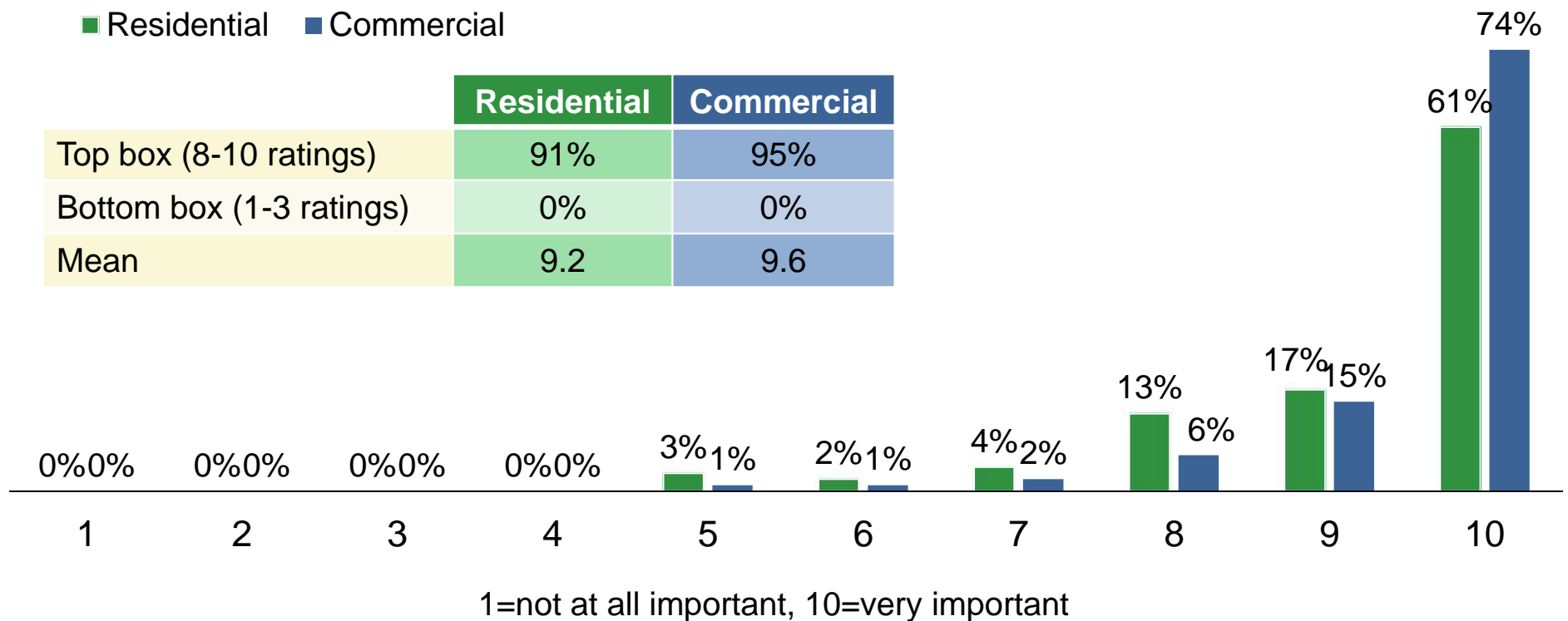
1=not at all important, 10=very important

# Renewables

## Importance of reliable service

■ Residential ■ Commercial

	Residential	Commercial
Top box (8-10 ratings)	91%	95%
Bottom box (1-3 ratings)	0%	0%
Mean	9.2	9.6

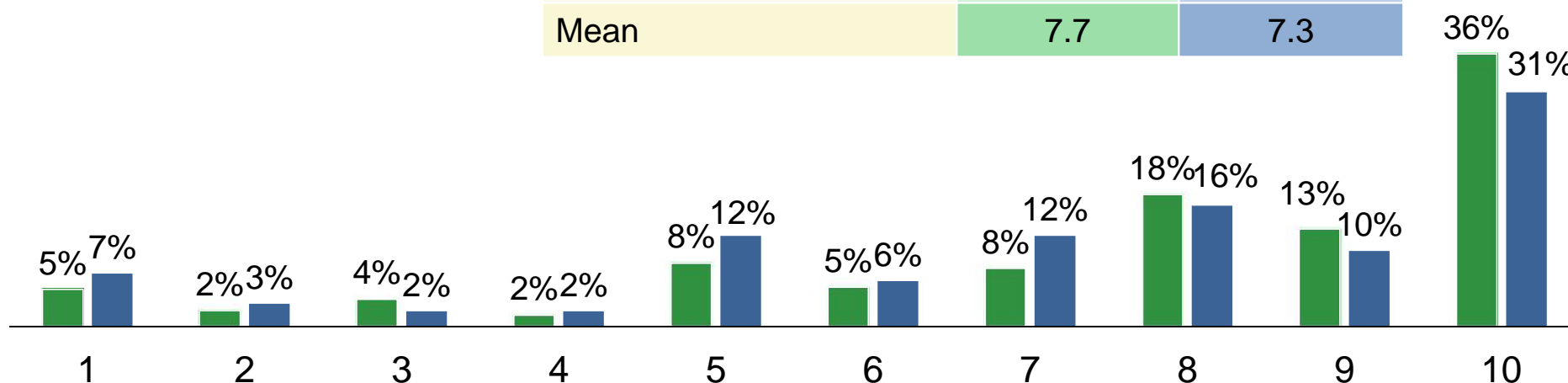


# Renewables

## Importance of renewable resources

■ Residential ■ Commercial

	Residential	Commercial
Top box (8-10 ratings)	67%	57%
Bottom box (1-3 ratings)	11%	12%
Mean	7.7	7.3

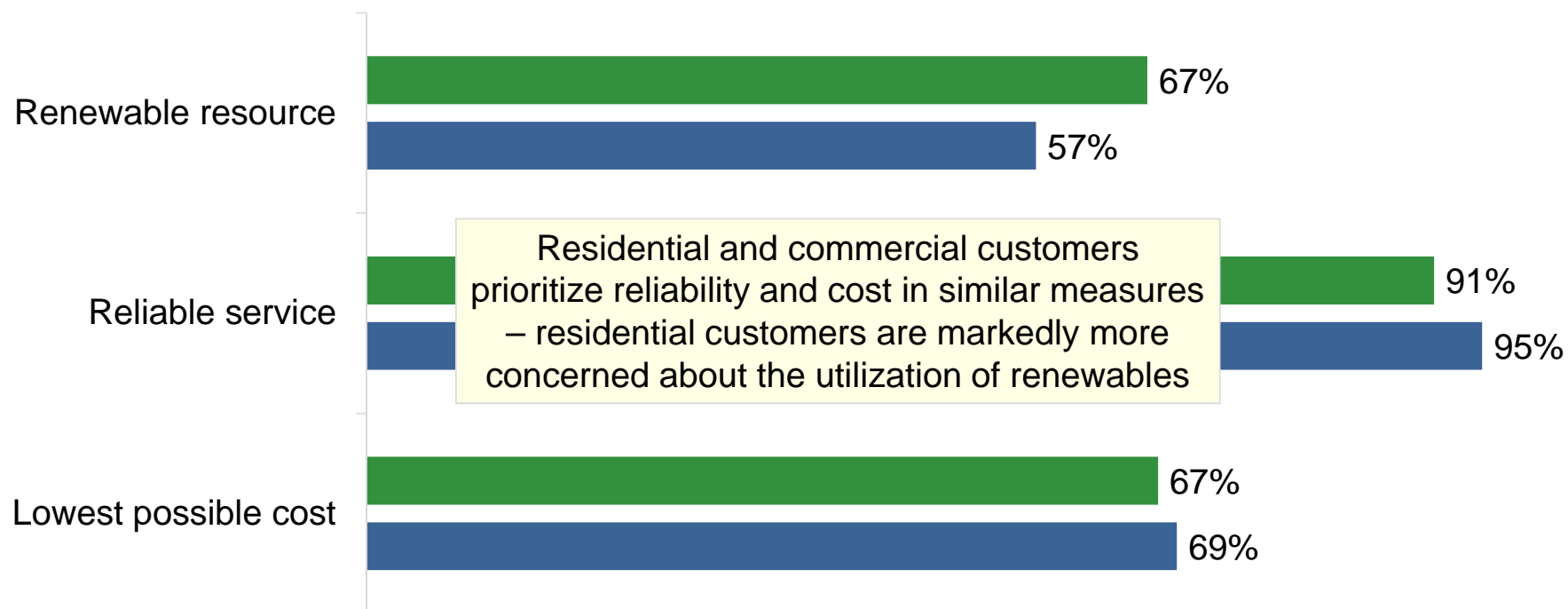


1=not at all important, 10=very important

# Renewables

## Service characteristics importance

■ Residential ■ Commercial



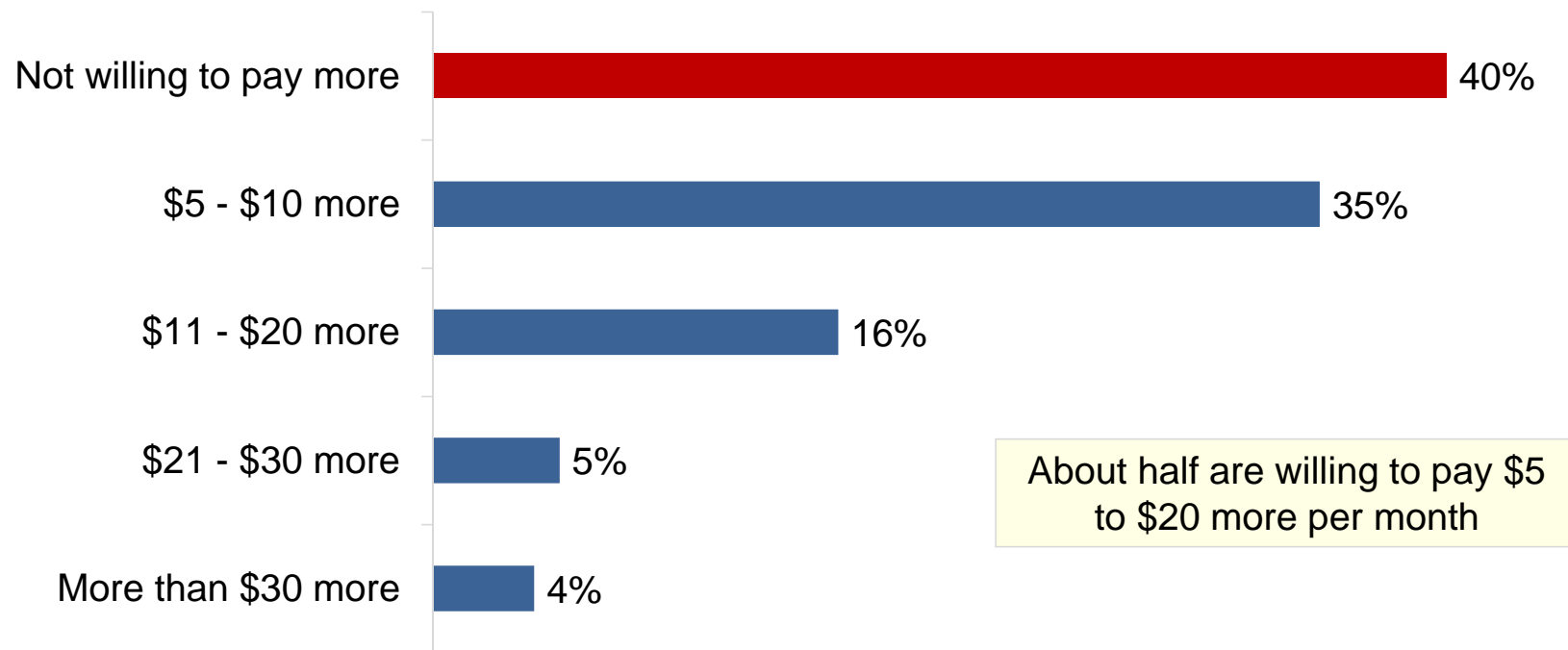
Residential and commercial customers  
prioritize reliability and cost in similar measures  
– residential customers are markedly more  
concerned about the utilization of renewables

Somewhat or very important (8-10 ratings)



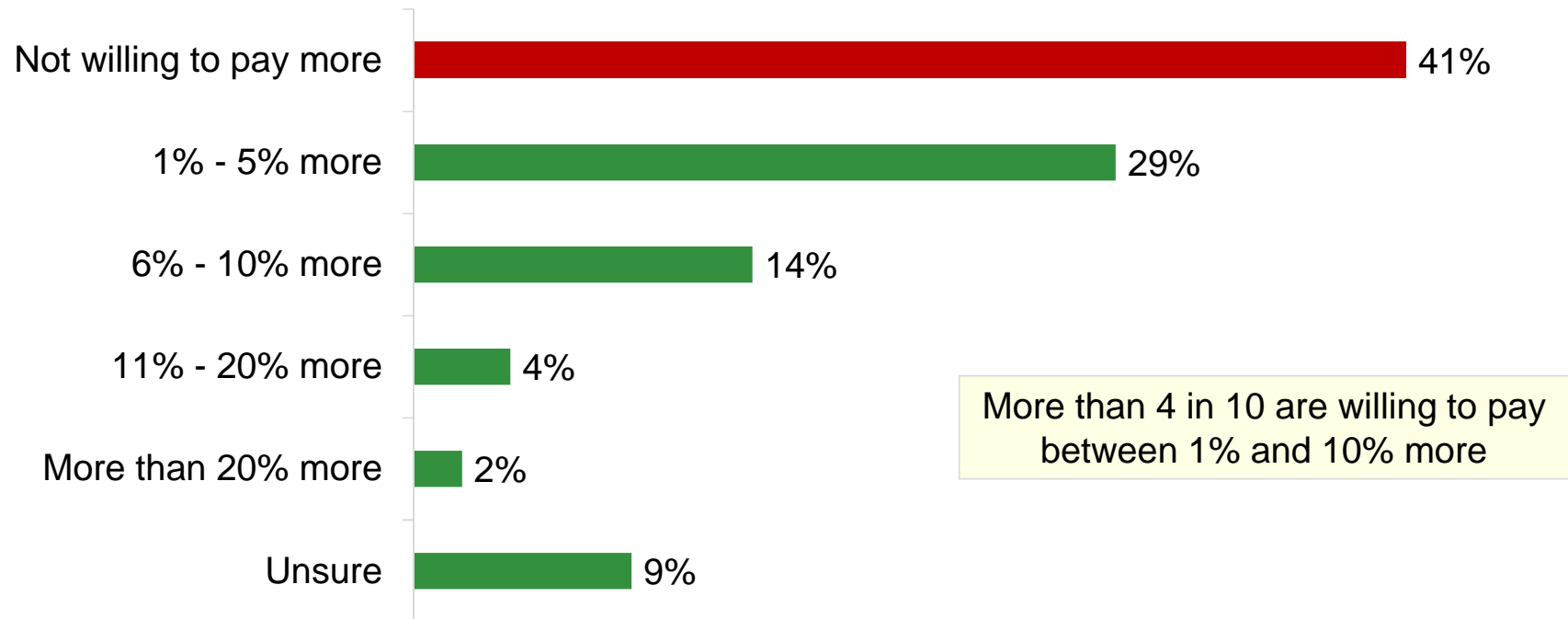
# Renewables

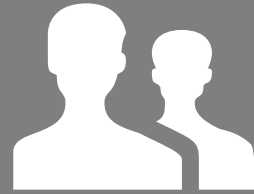
Additional monthly amount willing to pay for renewable energy - residential



# Renewables

## Additional monthly amount willing to pay for renewable energy - commercial



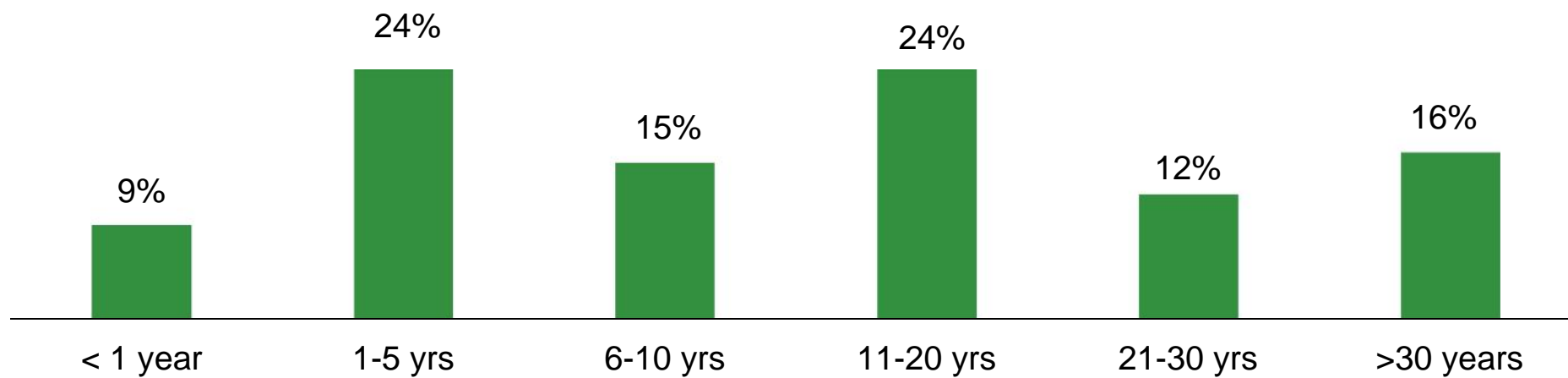


# Demographics

# Demographics

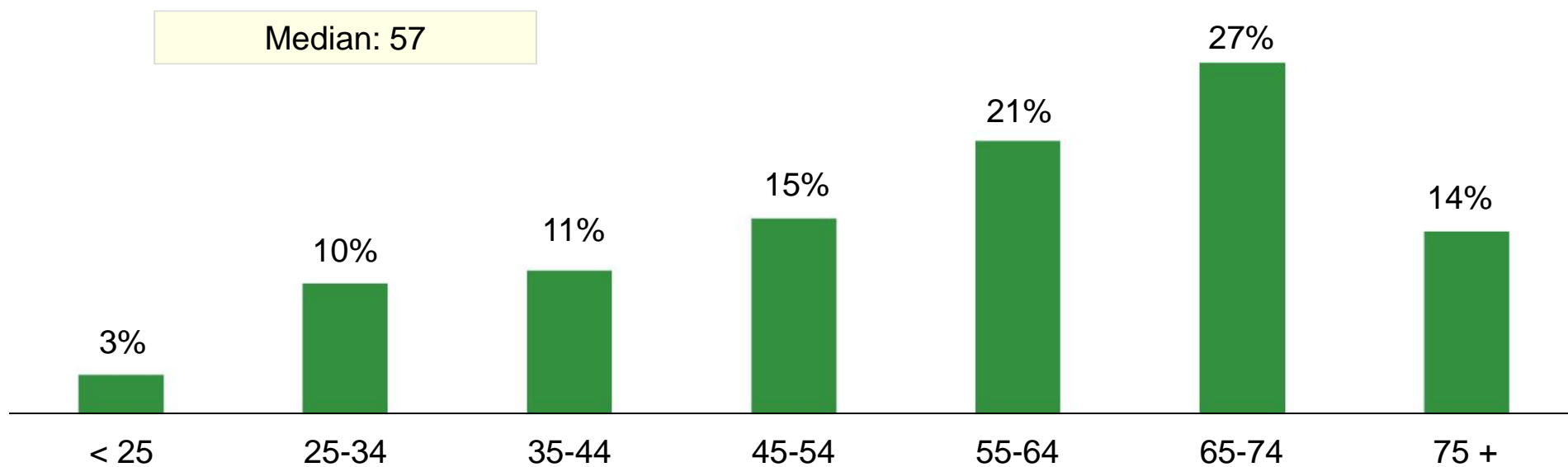
## Length of service

Median: 11 years



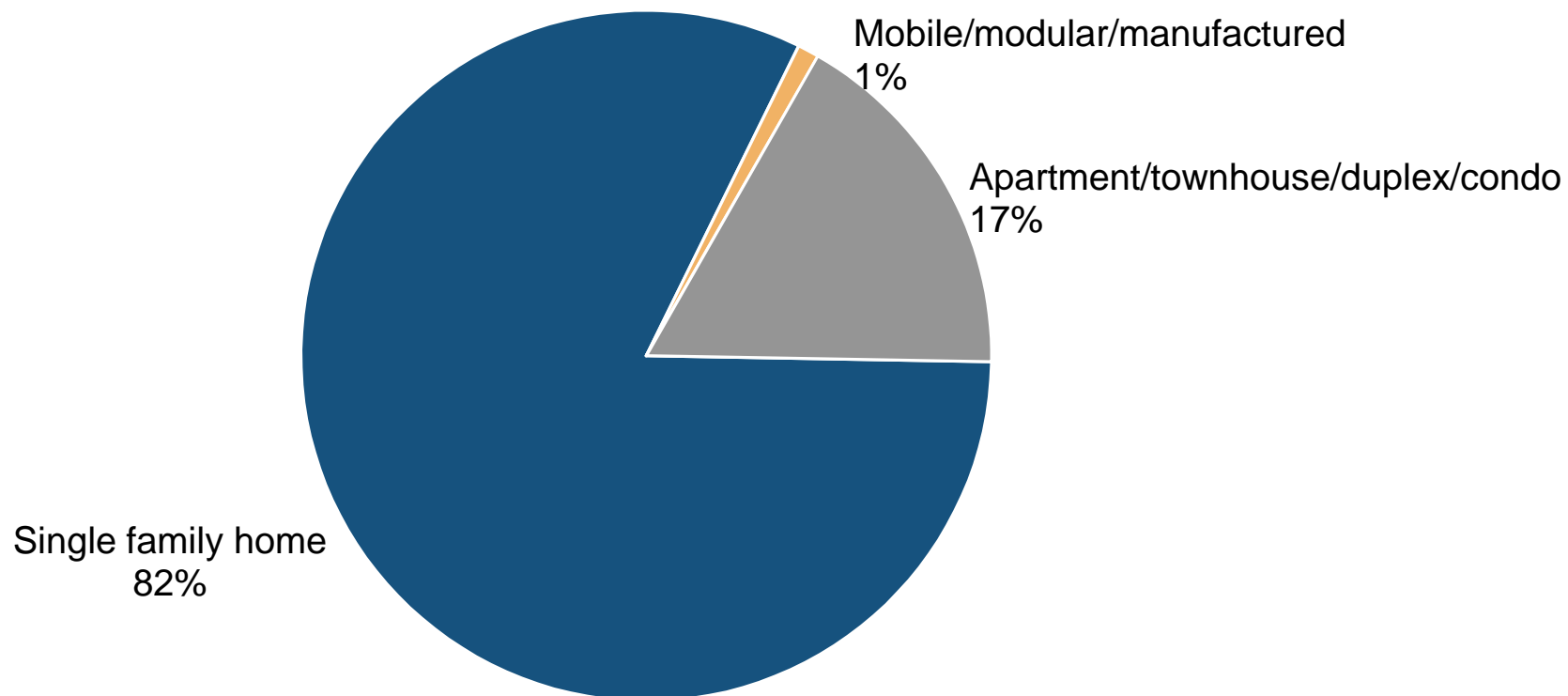
# Demographics

Respondent age



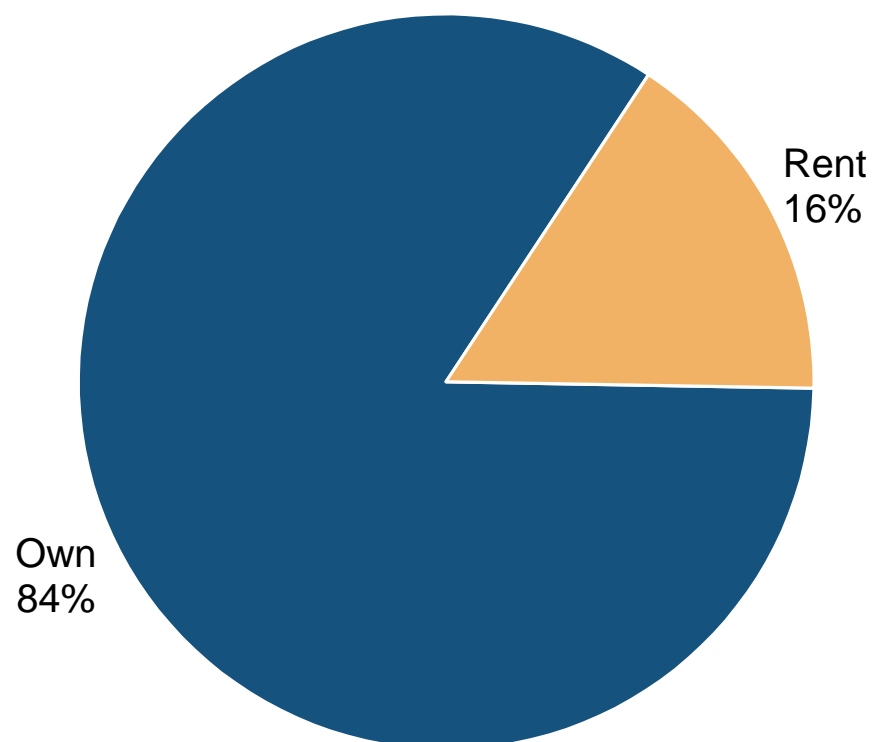
## Demographics

### Type of residence



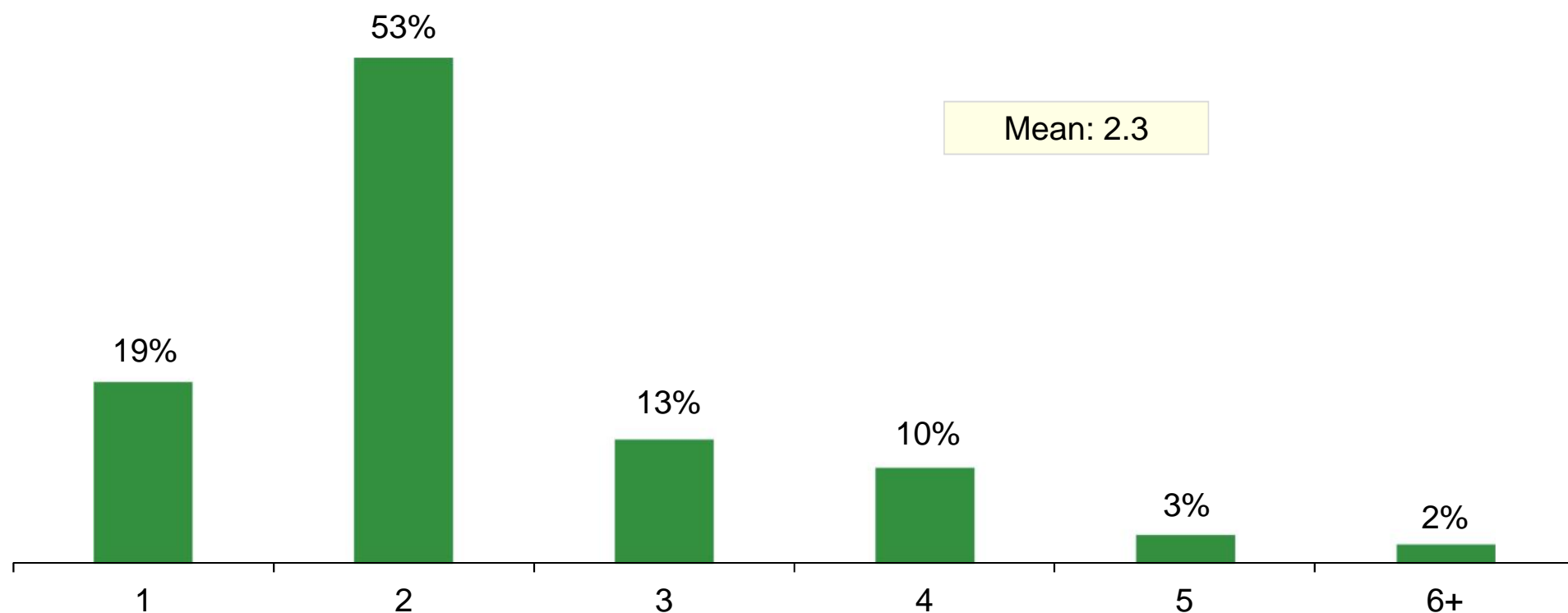
## Demographics

### Home ownership



# Demographics

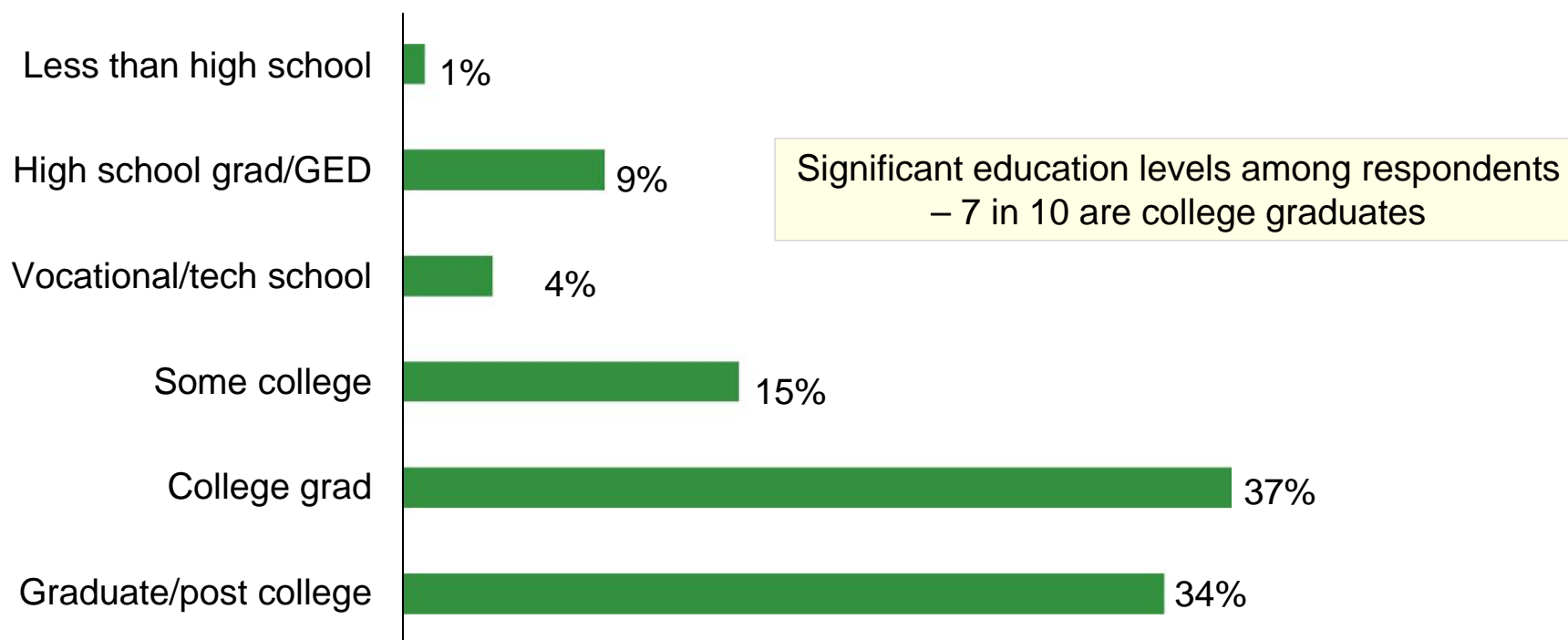
Number of residents per household





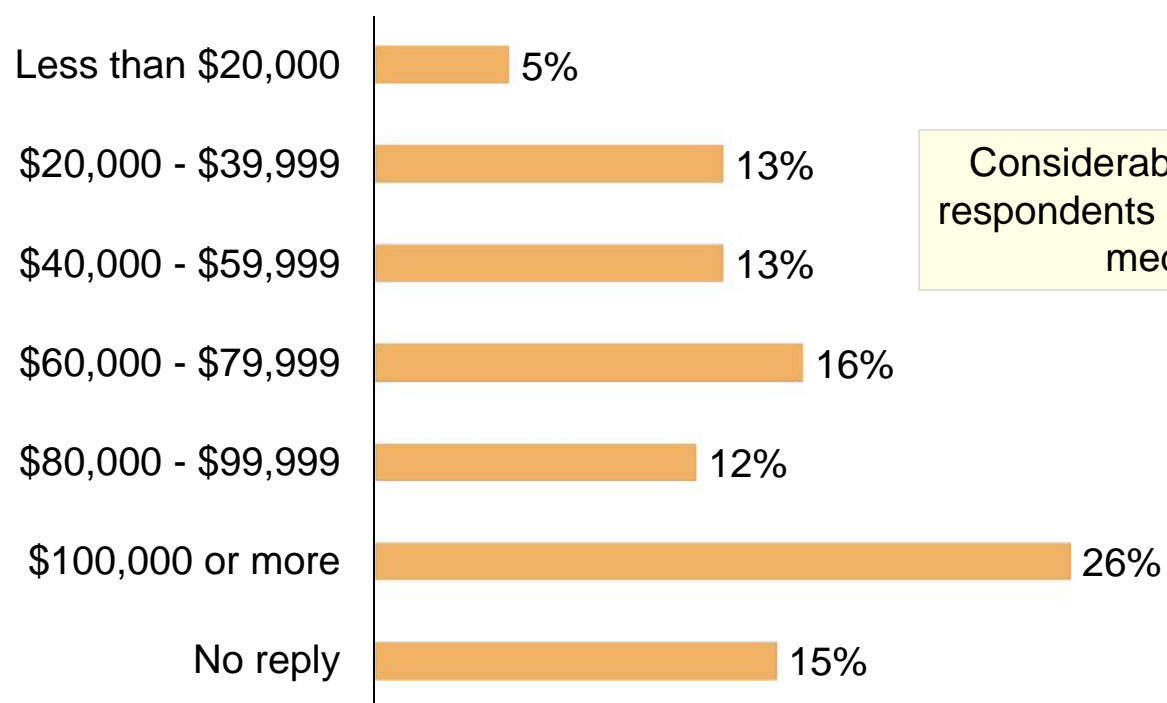
# Demographics

## Education



# Demographics

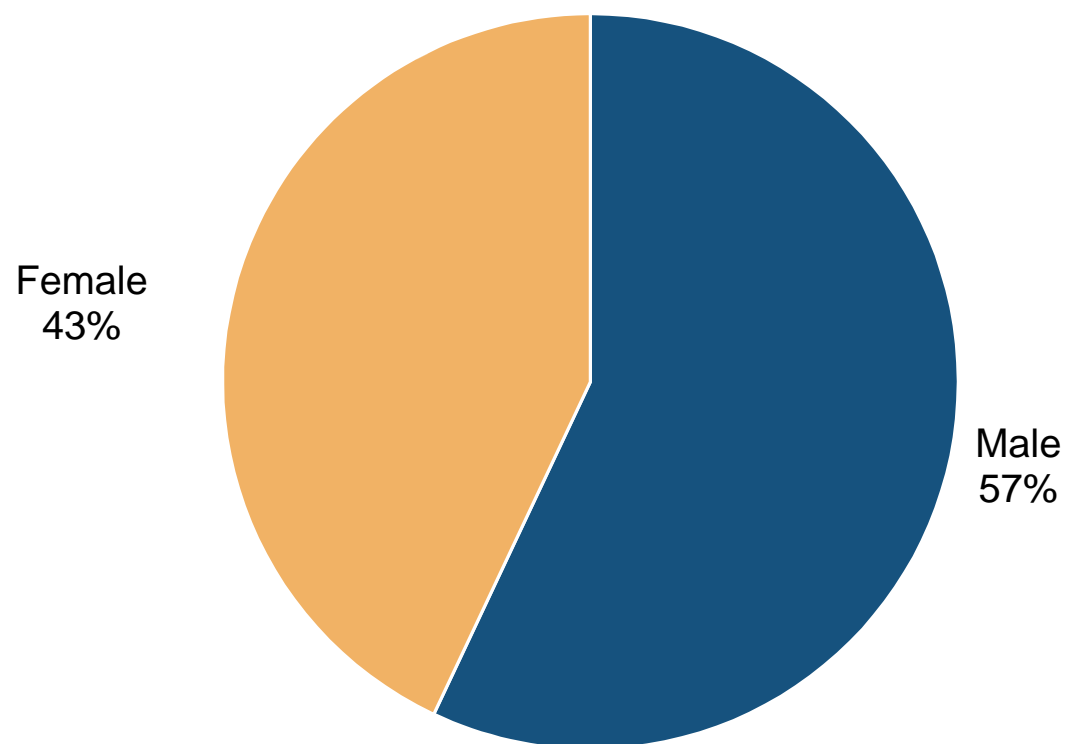
## Income



Considerable income levels, about 4 in 10 respondents earn \$80,000 or more per year – median income is \$74,041

## Demographics

### Gender



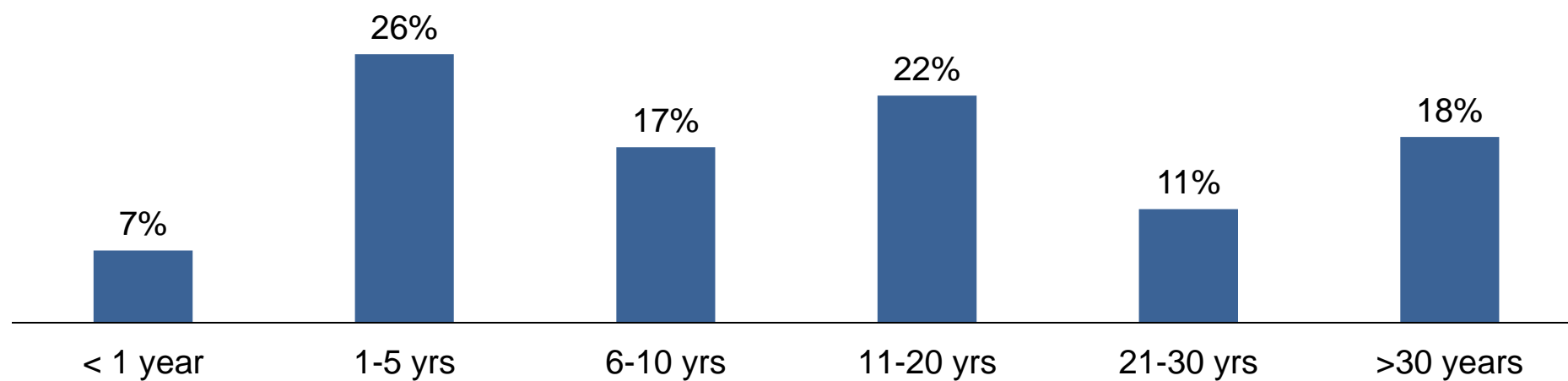


# Firmographics

# Firmographics

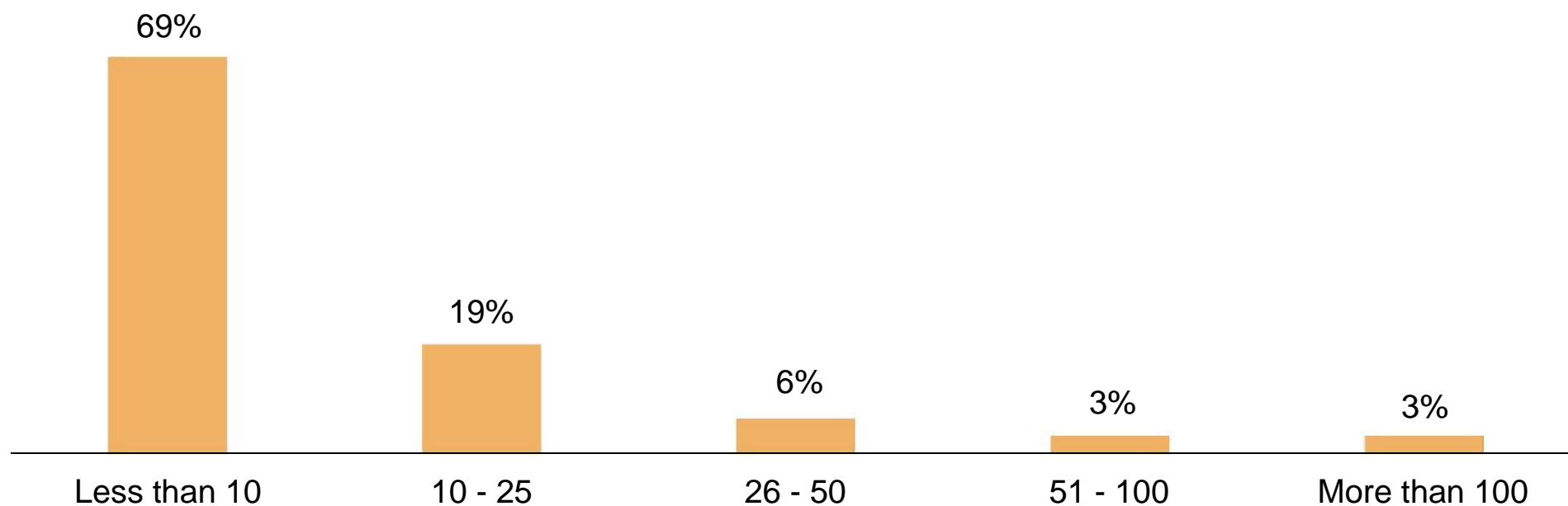
## Length of service

Median: 10 years



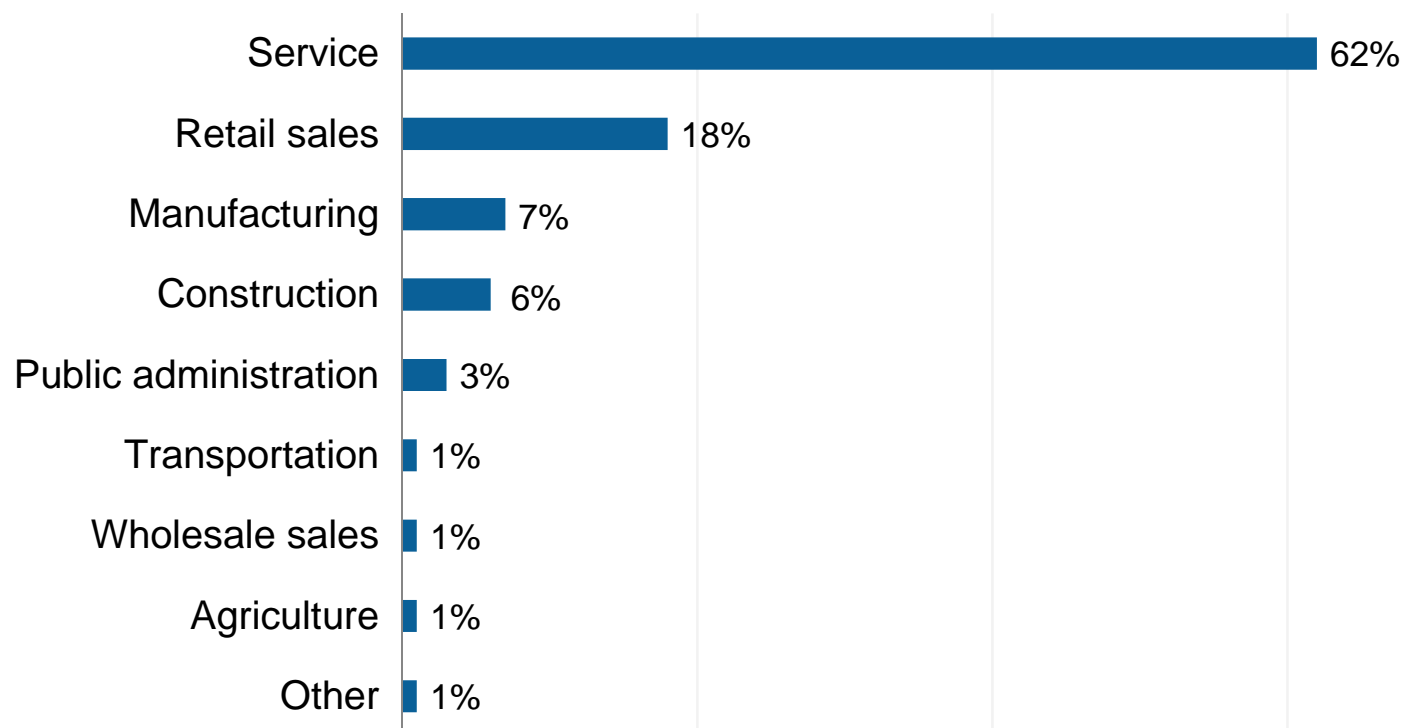
# Firmographics

Number of employees



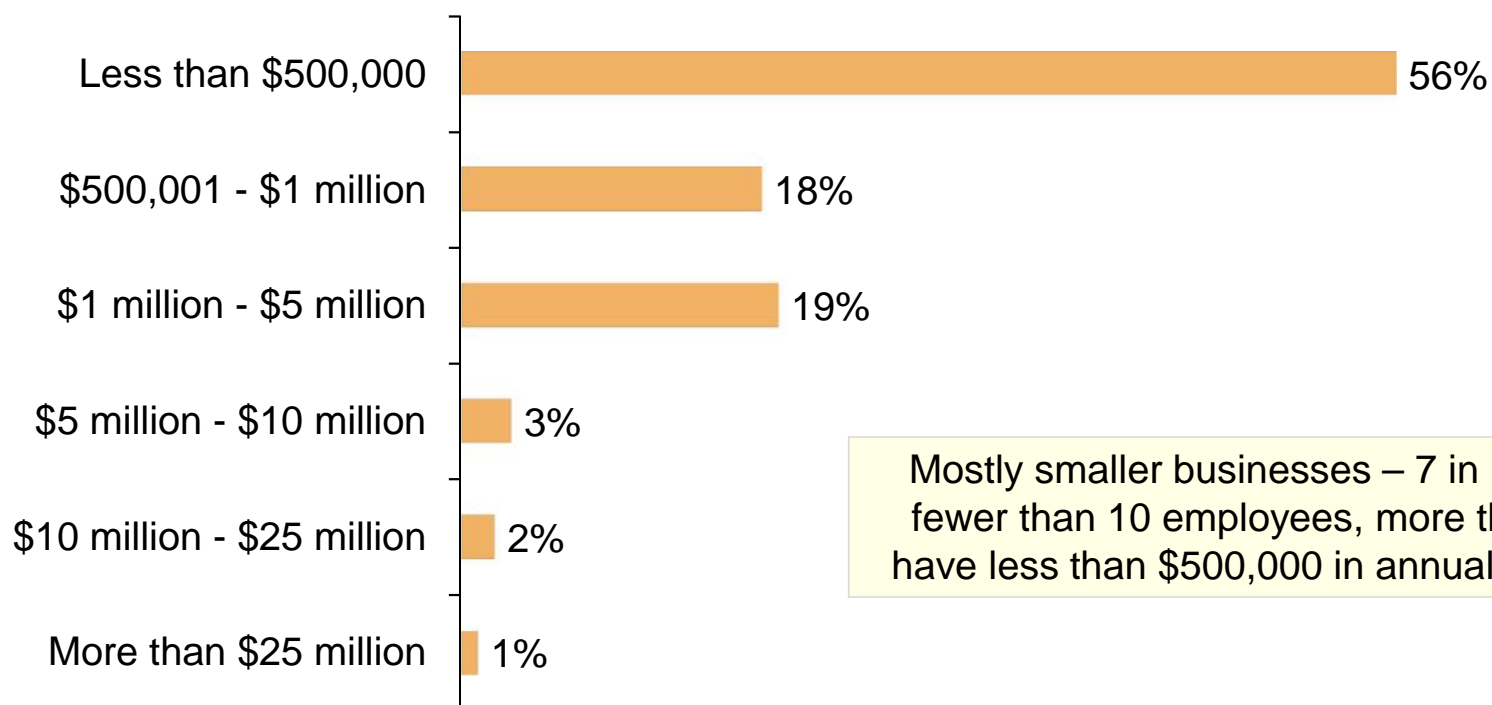
# Firmographics

## Business type



# Firmographics

## Annual revenue

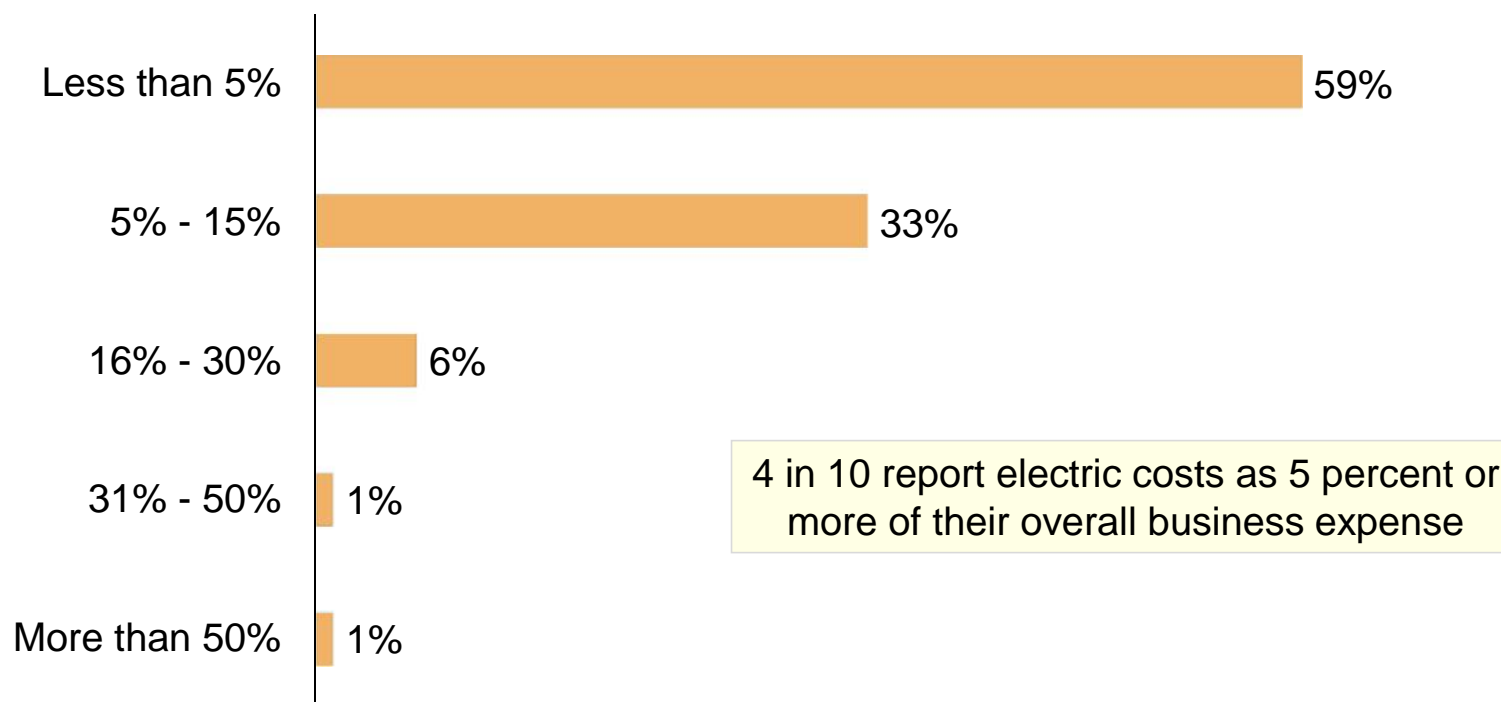


Mostly smaller businesses – 7 in 10 have fewer than 10 employees, more than half have less than \$500,000 in annual revenue



## Firmographics

### Electric costs as percentage of overall expense



# Survey Questions

- › How long have you received electric service from the municipality?
- › Are you aware that Platte River Power Authority provides wholesale electricity generation and transmission services to the municipality?
- › 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 municipality 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 adequate programs to help you use energy efficiently
- › How important is it to you that 100 percent of the energy you receive comes from renewable resources, such as hydro, solar and wind?
- › Please rate the importance of the following electric service characteristics:
  - Lowest possible cost
  - Reliable service
  - Renewable resource
- › Are you willing to pay more on your monthly bill to receive energy from renewable resources, and if so, how much more?

## **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										
<b>Residential: Results based on 1108 responses</b>	53%	47%										
<b>Commercial: Results based on 788 responses</b>	15%	85%										
<b>1. How long have you received electric service from Platte River Power Authority?</b>												
	<b>Residential</b>	<b>Commercial</b>										
Less than 1 year	9%	7%										
1 - 5 years	24%	26%										
6 - 10 years	15%	17%										
11 - 20 years	24%	22%										
21 - 30 years	12%	11%										
More than 30 years	16%	18%										
Median length of service	11	10										
<b>2. Are you aware that Platte River Power Authority provides wholesale electricity generation and transmission services?</b>												
	<b>Residential</b>	<b>Commercial</b>										
Yes	56%	47%										
No	44%	53%										
<b>3. Based on what you know, what is your opinion of Platte River Power Authority?</b>												
	<i>Not at all favorable -----&gt; Very favorable</i>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Average</b>	<b>Top Box</b>
<b>Residential</b>	2%	0%	2%	1%	27%	4%	9%	19%	14%	22%	<b>7.3</b>	<b>54.6%</b>
<b>Commercial</b>	3%	0%	1%	1%	32%	5%	7%	16%	8%	27%	<b>7.2</b>	<b>51.0%</b>
<i>*Top Box = 8 - 10 ratings combined, or highest opinion.</i>												
<b>4. What resources do you think Platte River Power Authority uses to provide your municipality with electricity? (all that apply)</b>												
	<b>Residential</b>	<b>Commercial</b>										
Coal	60%	56%										
Hydropower	58%	44%										
Natural gas	58%	55%										
Solar power	49%	35%										
Wind power	57%	42%										

<b>5. Please rate your level of agreement with the following statements regarding Platte River Power Authority:</b>												
<i>*Top Box = 8 - 10 ratings combined, or strongest level of agreement.</i>												
	<i>Strongly disagree -----&gt; Strongly agree</i>											
<b>Residential</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Average</b>	<b>Top Box</b>
Shows concern for the environment	2%	1%	2%	1%	32%	8%	11%	17%	11%	16%	<b>6.9</b>	<b>44.1%</b>
Offers adequate programs to help you use energy efficiently	3%	1%	2%	3%	32%	8%	11%	15%	10%	15%	<b>6.7</b>	<b>40.1%</b>
<b>Commercial</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Average</b>	<b>Top Box</b>
Shows concern for the environment	2%	1%	2%	0%	33%	8%	9%	16%	10%	20%	<b>7.0</b>	<b>46.0%</b>
Offers adequate programs to help you use energy efficiently	3%	1%	1%	1%	33%	6%	9%	18%	10%	16%	<b>6.8</b>	<b>44.0%</b>
<b>6. How important is it to you that 100% of the energy you receive comes from renewable resources, such as hydro, solar and wind?</b>												
	<i>Not at all important -----&gt; Very important</i>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Average</b>	<b>Top Box</b>
<b>Residential</b>	9%	3%	4%	1%	9%	5%	8%	15%	13%	34%	<b>7.3</b>	<b>61.2%</b>
<b>Commercial</b>	11%	3%	3%	2%	15%	6%	10%	15%	6%	29%	<b>6.8</b>	<b>50.0%</b>
<i>*Top Box = 8 - 10 ratings combined, or highest importance.</i>												
<b>7. Please rate the importance of the following electric service characteristics:</b>												
	<i>Not at all important -----&gt; Very important</i>											
<b>Residential</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Average</b>	<b>Top Box</b>
Lowest possible cost	1%	1%	3%	3%	11%	6%	8%	15%	11%	42%	<b>8.0</b>	<b>67.4%</b>
Reliable service	0%	0%	0%	0%	3%	2%	4%	13%	17%	61%	<b>9.2</b>	<b>90.9%</b>
Renewable resource	5%	2%	4%	2%	8%	5%	8%	18%	13%	36%	<b>7.7</b>	<b>66.5%</b>
<b>Commercial</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Average</b>	<b>Top Box</b>
Lowest possible cost	1%	0%	1%	2%	14%	5%	8%	12%	12%	45%	<b>8.2</b>	<b>69.0%</b>
Reliable service	0%	0%	0%	0%	1%	1%	2%	6%	15%	74%	<b>9.6</b>	<b>95.0%</b>
Renewable resource	7%	3%	2%	2%	12%	6%	12%	16%	10%	31%	<b>7.3</b>	<b>57.0%</b>
<b>8. Are you willing to pay more on your monthly bill to receive energy from renewable resources, and if so, how much more?</b>												
	<b>Residential</b>					<b>Commercial</b>						
Not willing to pay more	40%	Not willing to pay more				41%						
\$5 to \$10 per month	35%	1% to 5% per month				29%						
\$11 to \$20 per month	16%	6% to 10% per month				14%						
\$21 to \$30 per month	5%	11% to 20% per month				4%						
More than \$30 per month	4%	More than 20% per month				2%						
		Unsure/unknown				9%						

Demographics												
<b>D1. How old are you?</b>												
Under 25	3%		45 - 54	15%		75+	14%					
25 - 34	10%		55 - 64	21%								
35 - 44	11%		65 - 74	27%								
Median age: 57												
<b>D2. What type of residence do you live in?</b>												
Single-family home	82%											
Mobile, modular or manufactured home	1%											
Apartment, townhouse, duplex or condominium	17%											
<b>D3. Do you own or rent your home?</b>												
Own	84%		Rent	16%								
<b>D4. How many people live in your household?</b>												
1	2	3	4	5	6+							
19%	53%	13%	10%	3%	2%	Average:	2.3					
<b>D5. What is the highest level of education you have completed?</b>												
Less than high school	1%			Some college	15%							
High school graduate/GED	9%			College graduate	37%							
Vocational-technical school	4%			Graduate or post-college school	34%							
<b>D6. What is your household income?</b>												
Less than \$20,000	5%			\$80,000 to \$99,999	12%							
\$20,000 to \$39,999	13%			\$100,000 or more	26%							
\$40,000 to \$59,999	13%			No response	15%							
\$60,000 to \$79,999	16%											
Median income: \$74,041												
<b>D7. Respondent's gender</b>												
Male	57.0%		Female	43.0%								

Firmographics												
<b>F1. How many employees does your business have?</b>												
Less than 10	69%											
10 to 25	19%											
26 to 50	6%											
51 to 100	3%											
More than 100	3%											
<b>F2. What type of business do you have?</b>												
Service	62%					Agriculture	1%					
Retail sales	18%					Mining or refining	0%					
Wholesale sales	1%					Transportation	1%					
Manufacturing	7%					Public administration	3%					
Construction	6%					Other	1%					
<b>F3. What is the annual revenue of your business?</b>												
Less than \$500,000	56%											
\$500,001 to \$1 million	18%											
\$1 million to \$5 million	19%											
\$5 million to \$10 million	3%											
\$10 million to \$25 million	2%											
More than \$25 million	1%											
<b>F4. What is the percentage of electricity costs to your overall business costs?</b>												
Less than 5%	59%											
5% to 15%	33%											
16% to 30%	6%											
31% to 50%	1%											
More than 50%	1%											