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# NPPD Customer Feedback on Decarbonization

## Survey Results

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# Executive Summary

In August - September 2021, NPPD/EPRI conducted an online survey to understand customer perceptions, attitudes and preferences with respect to decarbonization. The survey collected responses from 2,031 NPPD customers, providing inputs to inform NPPD's long-term carbon reduction goals and plans for power generation resources in the future.

## **The survey focuses on three research questions:**

1. Do constituents view carbon emissions from generation as a business risk for NPPD?
2. How do constituents prioritize the core principles of electricity service as NPPD pursues a carbon goal?
3. What type of carbon goal do constituents think is right for NPPD?

## **This report summarizes results by four customer classes:**

- End-users (retail customers of NPPD or its wholesale partners)
- Wholesale rural customers
- Wholesale municipal customers
- Retail leaders\*

\* City Managers or City Council Members who are parties to NPPD service agreements.

# Executive Summary (cont'd)

## 1. Do constituents view carbon emissions from generation as a business risk for NPPD?

- Attitudes towards decarbonization differ among NPPD’s constituents. 59% of end-users consider decarbonization very or somewhat important, compared to only 26% of wholesale rural customers.
- However, constituents also perceive risks in pursuing decarbonization
  - Respondents in all four customer classes associate decarbonization as “expensive”
  - Wholesale rural customers are most likely to consider decarbonization as “unreliable” and leading to “more outages”

Q: In your opinion, how important is decarbonization?

■ Very Important      ■ Somewhat Important  
 Neutral/No opinion      ■ Somewhat Unimportant  
■ Not Important at all



% of respondents of the class selecting the option\*

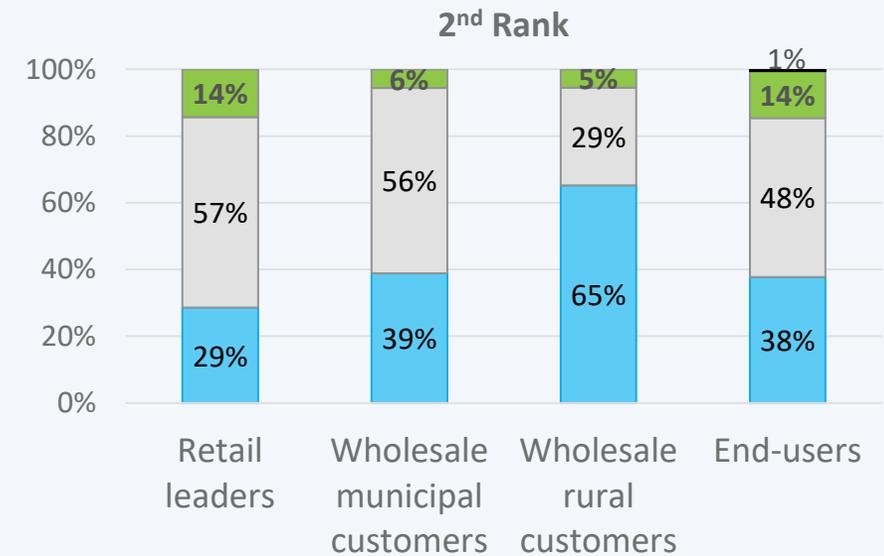
\*Statistical generalizability not guaranteed due to nonprobability sampling

# Executive Summary (cont'd)

## 2. How do constituents prioritize the core principles of electricity service as NPPD pursues a carbon goal?

- Affordability is the most important priority for retail leaders and wholesale municipal customers, while Reliability is most important to Wholesale Rural Customers
- Sustainability is a distant 3<sup>rd</sup> priority for wholesale customers and Retail Leaders
- Among end-users, the range is much less, with 24% ranking sustainability as the highest priority
- End-users are nearly equally divided between affordability and reliability/resilience as their highest priority

Q: How would you prefer that NPPD prioritize its efforts & resources in affordability, reliability & resilience, and sustainability?



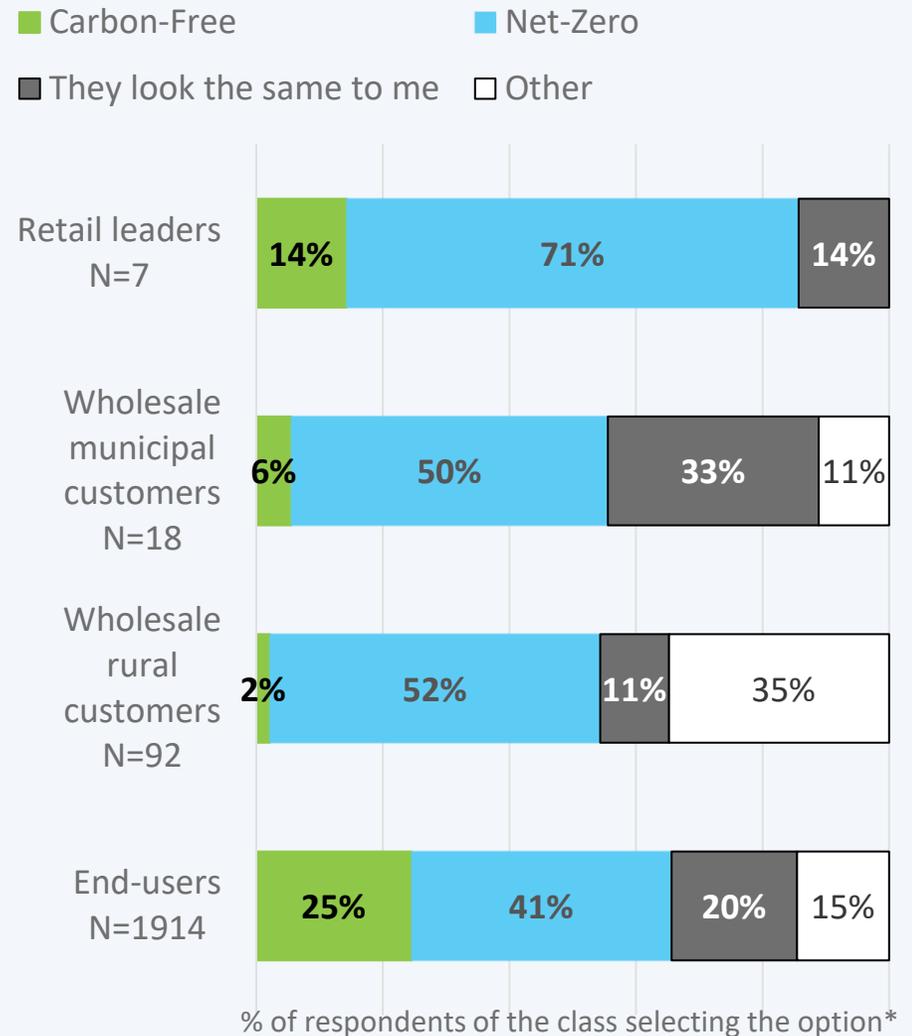
■ Affordability ■ Reliability & Resilience ■ Sustainability □ Other

# Executive Summary (cont'd)

## 3. What type of carbon goal do constituents think is right for NPPD?

- Over half of customers (across all classes) care very much about NPPD's decarbonization goals
- This "caring" generally polarizes as support largely from retail customers and resistance from wholesale customers; very few are indifferent
- All customer classes prefer that NPPD frame its long-term decarbonization goal as "Net-Zero" rather than "Carbon-Free"
- But 25% of end-users prefer "Carbon-Free", the highest among the four classes
- Cost and feasibility are the two leading factors in deciding the type of decarbonization target (across all classes)
- Support for nuclear power appears decoupled from support for decarbonization
  - 73% of wholesale rural customers support more nuclear power while only 26% of them consider decarbonization important
  - Only 45% of end-users (retail customers) support more nuclear power while 59% of them consider decarbonization important

Q: Which type of decarbonization target do you think is better for NPPD and its customers in the long term?



\*Statistical generalizability not guaranteed due to nonprobability sam

# Summary by Customer Class

## End-users

- Decarbonization is a polarizing issue; while some associate it with “renewable” and “clean air”, others associate it with “expensive” and “politics-driven”
- 55% “care very much” about decarbonization
- Likely to rank affordability or reliability & resilience as their highest priority
- Likely to prefer framing a goal in terms of “net-zero” rather than “carbon-free”; more supporters of carbon-free than wholesale customers

## Wholesale rural customers

- Over 70% consider decarbonization “expensive” and “politics-driven”; most likely to associate it as “unreliable” and leading to “more outages”
- Most likely to consider decarbonization as unimportant; do not want decarbonization goals to be “too ambitious”
- Most likely to prioritize reliability & resilience, followed by affordability and sustainability
- About half prefer framing a carbon reduction goal as “net-zero” rather than “carbon-free”, with 35% preferring neither
- 73% support more nuclear power; most likely to positively associate nuclear as clean, reliable, and affordable; least concerned about safety and nuclear waste

# Summary by Customer Class (cont'd)

## Wholesale municipal customers

- Likely to associate decarbonization with “renewable energy”, “expensive”, “regulations” and “politics-driven”
- Most likely to rank affordability first, followed by reliability & resilience and sustainability
- About half prefer framing a carbon reduction goal as “net-zero” vs. “carbon-free” (similar to wholesale rural customers); about 1/3 consider them the same
- Second only to wholesale rural customers in positive perception of nuclear power and interest in greater nuclear use, but with more concern about safety and waste

## Retail leaders \*

- Associate decarbonization with both positive (“clean air”) and negative (“expensive”) impressions
- Likely to rank affordability first, reliability second and sustainability last
- 5 of 7 prefer framing a carbon reduction goal as “net-zero”
- 4 of 7 are undetermined about the future of nuclear power in generation mix

\* Only 7 respondents, so comparisons are inconclusive

# Content outline

- [Project background](#)
- [Results by customer class](#)
- [Results by demographics](#)
- [Appendix: results of non-NPPD customers and unable-to-validate respondents](#)

# NPPD Public Outreach on Decarbonization

## Objectives

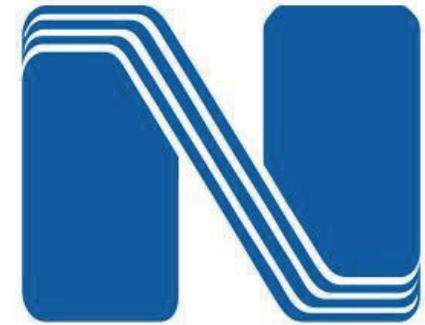
Acquire public input from constituents to inform proposed carbon reduction goals

Educate public on carbon considerations to inform opinions

## Methods

Designed and fielded a customer survey

Prepared and presented educational materials at five public events throughout Nebraska in August



**NPPD is including customers into the carbon conversation as key stakeholders**

# Survey design and delivery

EPRI development with NPPD review and feedback

Perceptions of carbon reduction

Education embedded with questions – carbon considerations and business risks

Iterative edits with NPPD staff and Board

Fielded by NPPD survey vendor

Results analysis

Progress  25%

Every decision involves tradeoffs. At NPPD, the key measures of success are affordability, reliability & resilience, and sustainability. How would you prefer that NPPD prioritize its efforts & resources in these three areas? Please rank the areas in order of priority where 1 is the highest priority. If you include Other in your ranking, please specify what the other area is in the open end box.

	Rank #
<b>Affordability</b> – keep electricity bills affordable for all customers	<input type="text"/>
<b>Reliability &amp; Resilience</b> – keep outages rare and recover quickly when they happen (or withstand extreme weather events)	<input type="text"/>
<b>Sustainability</b> – impact on the environment and natural resources like air and water	<input type="text"/>
Other, please specify	<input type="text"/>

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What factors are important to you in deciding which type of decarbonization target is right for NPPD in the long-term?

Please select all that apply.

- How straightforward is it?
- How feasible is it?
- How effectively can it reduce carbon emissions?
- How costly is it, both for NPPD and potentially for me as a customer, to achieve the target?
- How similar is it to decarbonization targets set by other utilities in Nebraska?
- Other (please specify)

Progress  48%

Which type of decarbonization target do you think is better for NPPD and their customers in the long term?

- Carbon-Free (i.e., produce electricity without carbon emissions)
- Net-Zero (i.e., net carbon impact of electricity is zero when offsets are included)
- They look the same to me
- Other, or more complicated than just one target (please specify)

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# Respondents of four NPPD customer classes

## 4,241 respondents in total:

- 2,031 NPPD customers
  - 7 **Retail leaders** (city managers and city council members who sign/vote on the service agreement with NPPD to be the city electricity provider)
  - 18 **Wholesale municipal customers**
  - 92 **Wholesale rural customers**
  - 1,914 **End-users** (NPPD retail customers and NPPD's wholesale customers' retail customers)
- 1,143 Non-NPPD customers (results provided in appendix)
  - Respondents who clearly stated that they are NOT NPPD customers
- 1,067 “Unable-to-Validate” (results provided in appendix)
  - Respondents whose status as NPPD customers could not be reasonably determined based on the demographic information provided

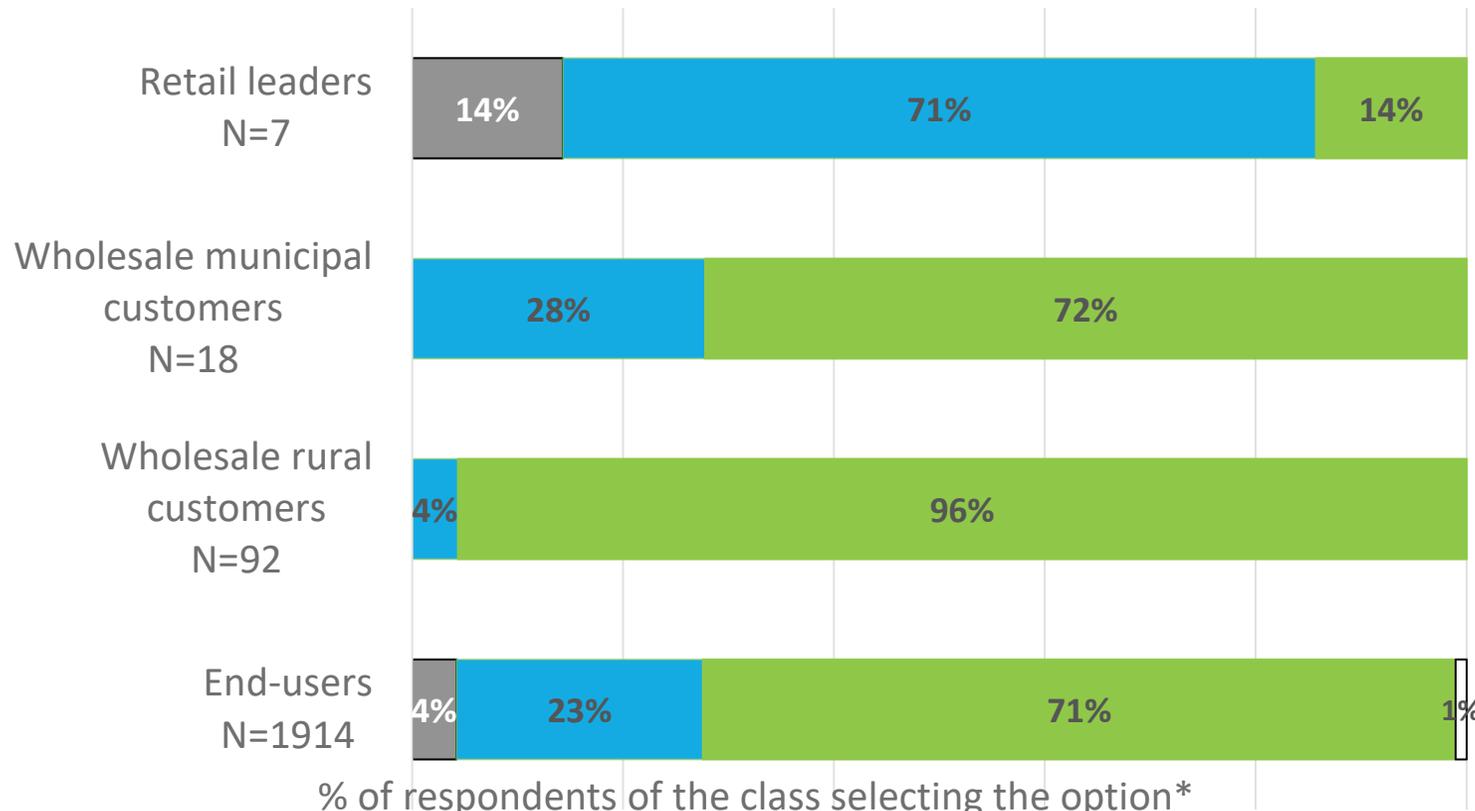


# Results by customer class

# Majority of wholesale customers and end-users feel that they are familiar with the term “decarbonization”, especially wholesale rural customers

**Q: How familiar are you with the term “decarbonization”?**

■ Never heard of it ■ Heard of it, but know very little ■ Feel familiar with it □ Other



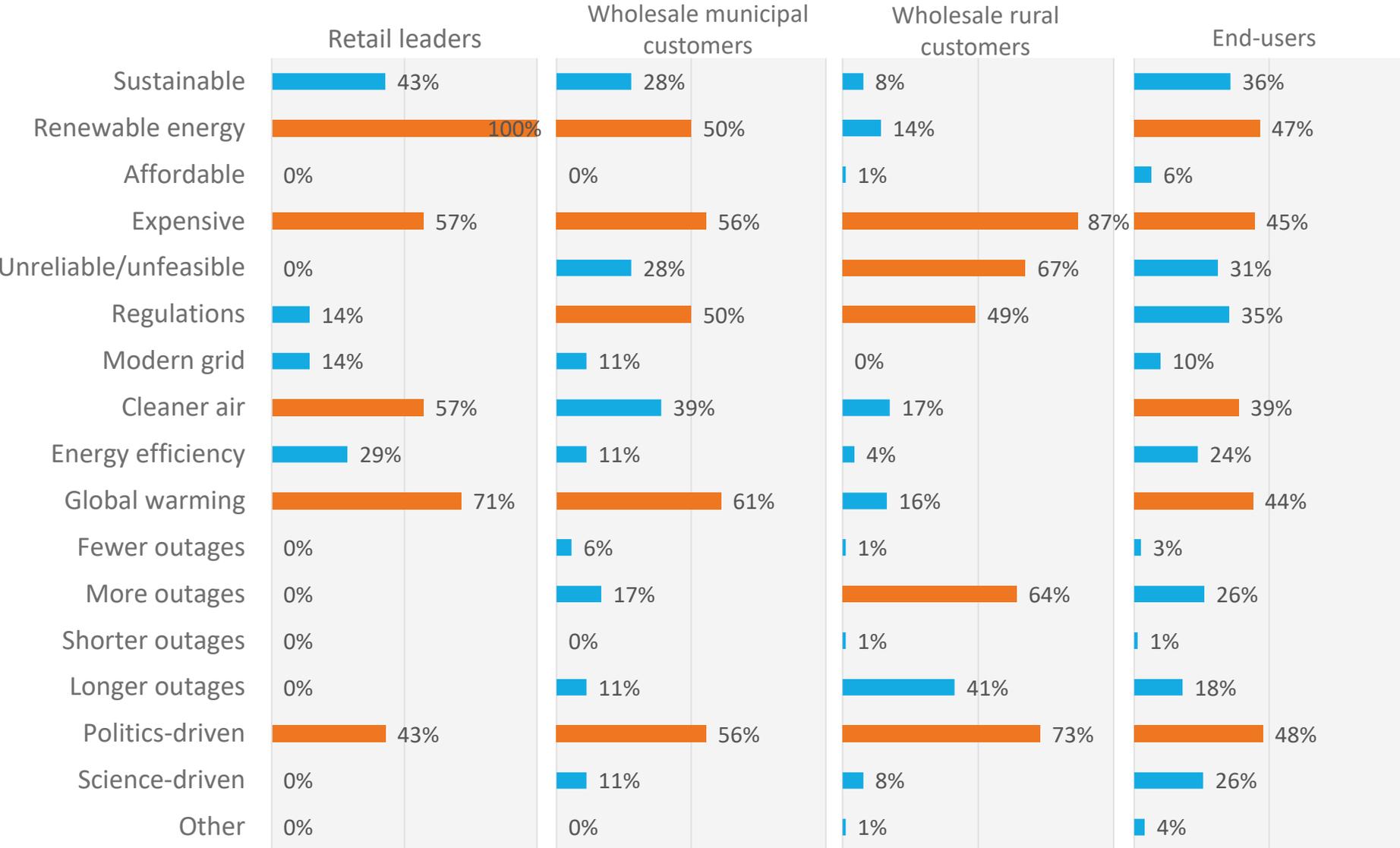
\*Statistical generalizability not guaranteed due to nonprobability sampling

Retail leaders are the least familiar with “decarbonization”. 5 of 7 feel they know very little about decarbonization, while only 1 of 7 feels familiar with term.

Almost all wholesale rural customers claim they are familiar with the term “decarbonization”.

# Among four customer classes, wholesale rural customers are most likely to associate decarbonization with negatives such as “expensive”, “unreliable” and “more outages”

Q: What comes to mind when you hear the term “decarbonization”?



Top five phrases selected in each class\*

\*Statistical generalizability not guaranteed due to nonprobability sampling

# Wholesale rural customers are most likely to consider decarbonization as unimportant

Q: In your opinion, how important is decarbonization?

- Very Important
- Somewhat Important
- Neutral/No opinion
- Somewhat Unimportant
- Not Important at all



Only 26% of wholesale rural customers consider decarbonization very/somewhat important

By contrast, 59% of end-users consider decarbonization very/somewhat important

% of respondents of the class selecting the option\*

\*Statistical generalizability not guaranteed due to nonprobability sampling

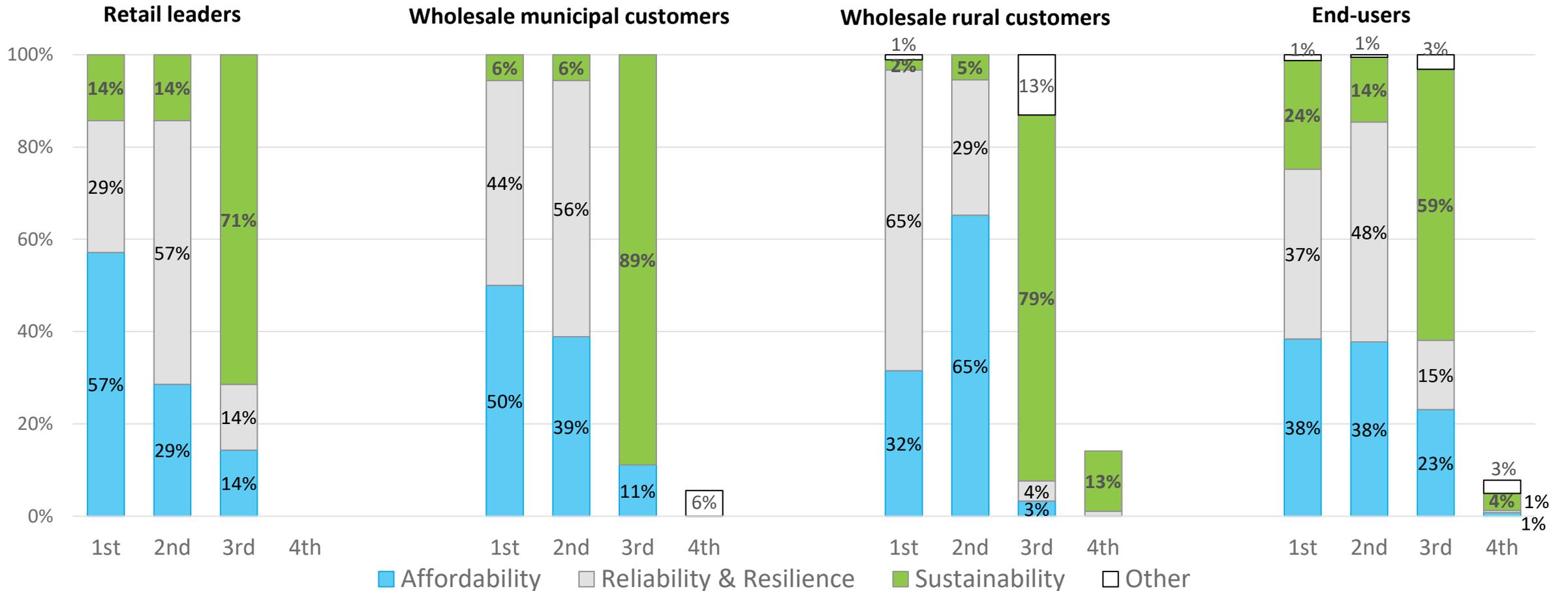
# Majority of wholesale customers and retail leaders rank sustainability behind affordability and reliability/resilience among priorities of electric service

Retail leaders likely to rank affordability 1st, reliability/resilience 2<sup>nd</sup>

Wholesale municipal customers likely to rank affordability 1st, reliability/resilience 2<sup>nd</sup>

Wholesale rural customers likely to rank reliability/resilience 1st, affordability 2<sup>nd</sup>

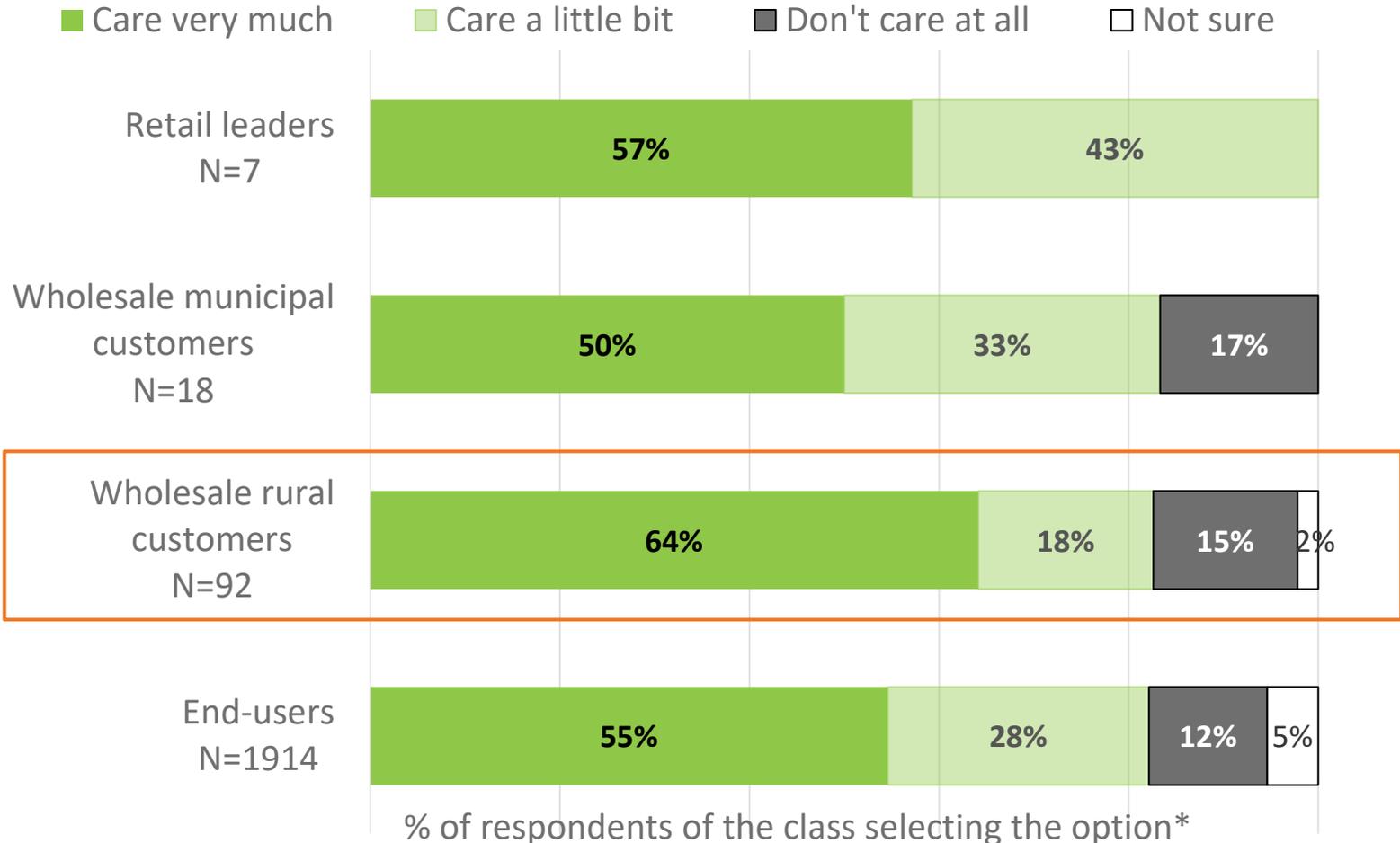
End-users also likely to rank sustainability 3<sup>rd</sup>, but 24% rank sustainability 1<sup>st</sup> - highest among all four classes



\*Statistical generalizability not guaranteed due to nonprobability sampling

# Over half of customers across all classes state that they care very much about NPPD's decarbonization goals.

Q: How much do you care about NPPD's decarbonization goals?



Wholesale rural customers have the highest share of respondents (64%) who claim to “care very much” about decarbonization goals

\*Statistical generalizability not guaranteed due to nonprobability sampling

# Cost and feasibility are the two leading factors customers consider in deciding the type of decarbonization target

Q: What factors are important to you in deciding which type of decarbonization target is right for NPPD in the long-term?



Retail leaders are more likely to balance among feasibility, effectiveness and cost

Effectiveness of the goal is less important for wholesale rural customers than for the other three classes

\*Statistical generalizability not guaranteed due to nonprobability sampling

# Other factors considered by customers in deciding decarbonization goal

## Reliability

- “Reliability, able to sustain base loads in any weather/climate conditions now and in the future”
- “How will these changes affect reliability?”

## Cost consideration

- “What is the cost to the environment to increase wind and solar?” (including manufacturing and disposal)
- “How evasive is it to the landowners and residents of Nebraska?”
- “How well can it actually be tracked and how well defined it is?”
- “Renewable sources that provide the same energy (cost and reliability) w/o government subsidies. ”

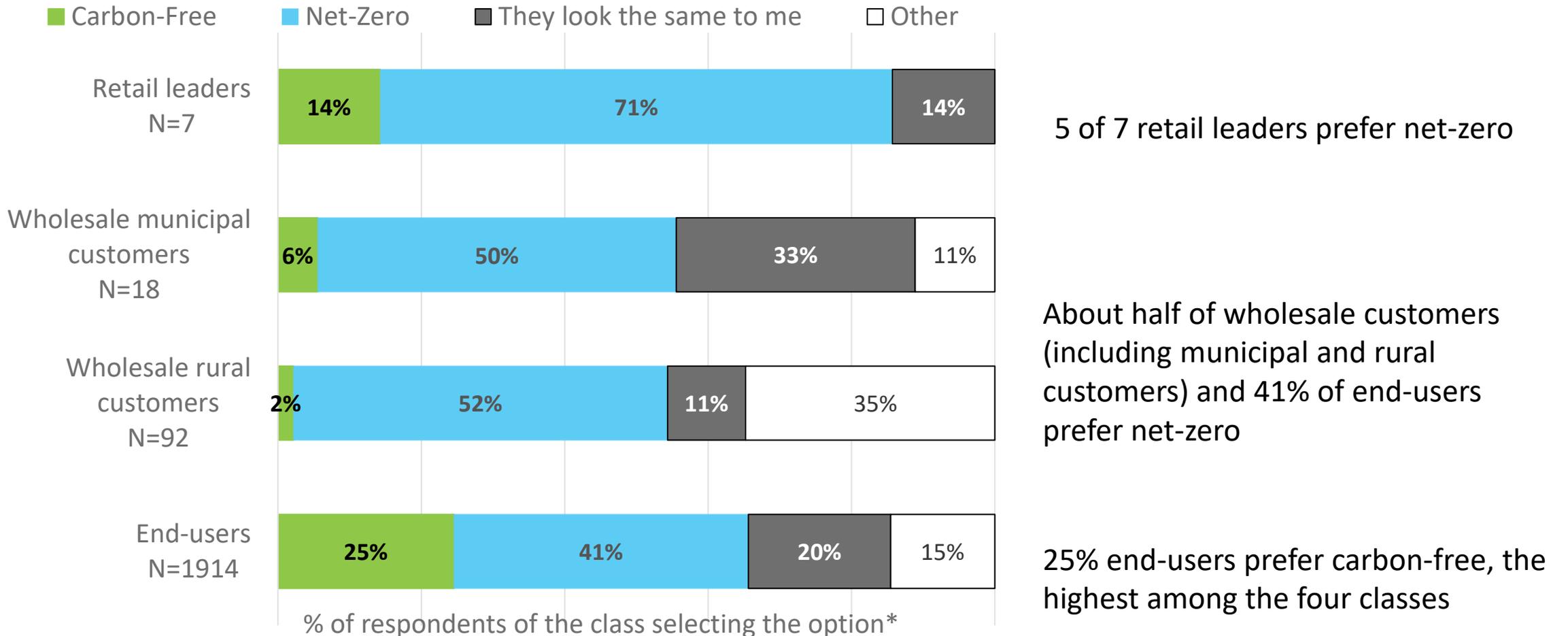
## Resources and dependency

- “Reducing coal dependency for Nebraska power”
- “Making sure the risks of shutting down coal are truly understood”
- “Change...move to better, more efficient sustainable energy generation for the sake of better diversification and the preservation of resources for future generations.”
- “I fear the Board will act too soon to close base load (coal/gas/nuclear) generation...and increase reliance on unreliable generation sources”

Selected verbatim answers submitted by survey respondents, sorted by theme

# Retail leaders, wholesale customers and end-users are more likely to prefer that NPPD frame its long-term decarbonization goal as “Net-Zero” rather than “Carbon-Free”

**Q: Which type of decarbonization target do you think is better for NPPD and its customers in the long term?**



5 of 7 retail leaders prefer net-zero

About half of wholesale customers (including municipal and rural customers) and 41% of end-users prefer net-zero

25% end-users prefer carbon-free, the highest among the four classes

\*Statistical generalizability not guaranteed due to nonprobability sampling

# Other considerations for an NPPD decarbonization goal

## Current Generation Mix is Fine

- “Keep the current generation mix...decarbonization goal is not needed at this time”
- “Keep the current diverse energy portfolio so we can maintain reliability.”

## Power Resources

- “More nuclear generation would solve these issues. Manufacturing wind turbines and solar increases the problem.”
- “Keep using coal until it is no longer available.”
- “100% renewable by 2030”
- “I think Nebraska is uniquely positioned with its location to cheap available coal and reliable nuclear and I don’t want to see decarbonization get rid of or reduce our use of those steady reliable sources.”

## Neither

- “Neither – just make sure you get power to customers in effective ways”
- “Don't force decarbonization on us at all. Use the most efficient and reliable sources available.”
- “I think at this stage neither one has enough technology invested to make either entirely feasible.”
- “Reduced carbon, but not necessarily carbon-free or net-zero. Consider also other environmental consequences of low carbon measures”

Selected verbatim answers submitted by survey respondents, sorted by theme

## Other considerations for an NPPD decarbonization goal (cont'd)

### Both

- “Net Zero is the most likely goal for the near future. Carbon Free is the ultimate goal.”
- “We need to stop emitting AND remove carbon from the atmosphere.”
- “A combination of the two makes sense to me”

### About the drivers

- “Is it politically driven or actual science and economic driven?”
- “Reliability and mix of generation driven by engineering and economics, not politicians

### Resource life cycle and long-term consideration

- “What is the long-term effect of wind blades, broken down solar panels, and batteries – landfills? Is there limited natural resources for these products? What are the environmental hazards of mining the materials used to build renewable products?”
- “A slow and consistent transition to zero emissions in a way that the consumer can still afford to keep the lights on. Those who are capable of solar or wind energy should be the first to transition in short term, followed by remaining customers slowly transitioning in the long term.”

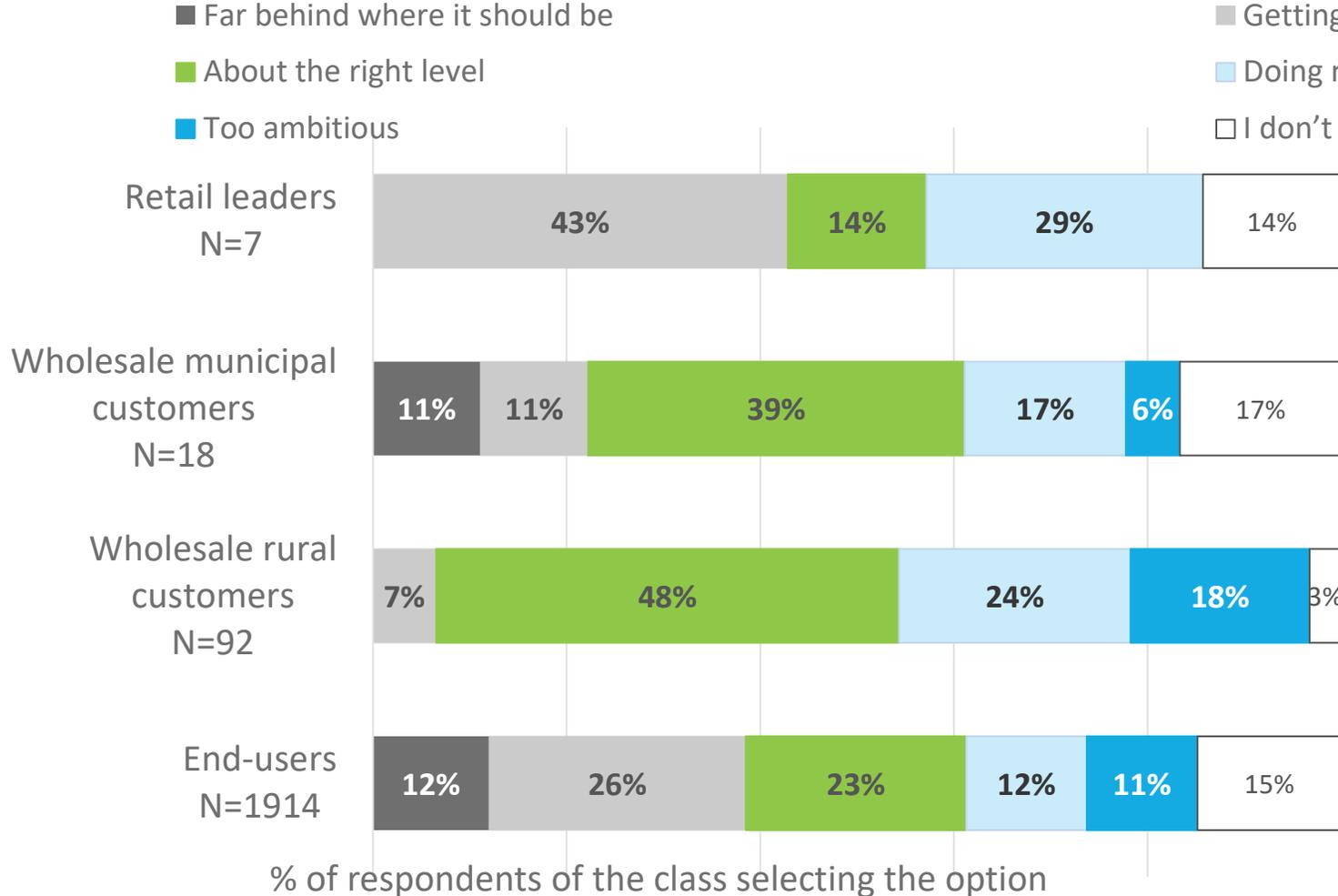
### Not care about the goal so much

- “Everyone is calculating differently”. “I do not know how anyone can compare.”
- “Be more worried about reliability and cost-effective”
- “Until compliance is achieved worldwide, NPPDs efforts are minimal on the global scale”

Selected verbatim answers submitted by survey respondents, sorted by theme

# Most wholesale rural customers consider NPPD's current generation mix as sufficient or ambitious from a decarbonization standpoint

Q: Which of the following best describes how you feel about NPPD's current generation mix in achieving decarbonization?



48% of wholesale rural customers consider NPPD's current generation mix has the right level of carbon intensity, highest among all classes; moreover, 18% feel current pace is too ambitious

End-Users have highest expectation for deeper decarbonization – 12% consider the current status is far behind pace; 26% think NPPD can do even better

\*Statistical generalizability not guaranteed due to nonprobability sampling

# Wholesale customers are most likely to perceive nuclear power as clean, reliable and affordable

Q: Which of the following describes how you feel about nuclear power as a generation resource?



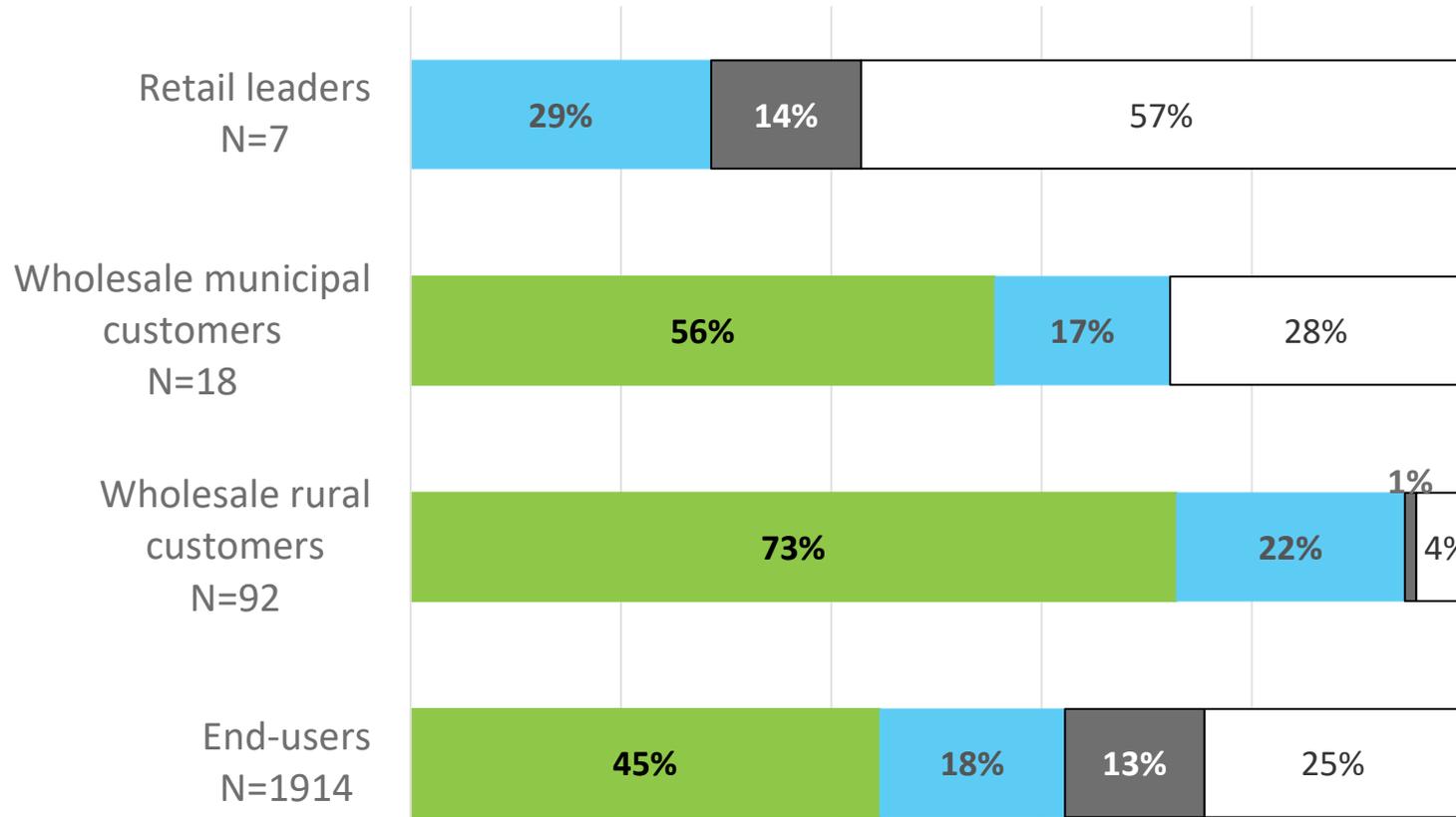
Wholesale rural customers are the least concerned about safety and nuclear waste

\*Statistical generalizability not guaranteed due to nonprobability sampling

# Wholesale rural customers are most supportive of increasing nuclear power in the generation mix

Q: How do you feel about the amount of nuclear power in the generation resources mix in the future?

■ Should have more nuclear power in the future  
 ■ Already have the right amount  
■ Should rely less on nuclear power in the future  
  Need more information to decide



4 of 7 retail leaders need more information to make up their mind about nuclear power for the future

73% of wholesale rural customers support more nuclear power in the future, while only 45% of end-users feel the same way; moreover, 13% of end-users feel that NPPD should rely less on nuclear power in the future

% of respondents of the class selecting the option

\*Statistical generalizability not guaranteed due to nonprobability sampling

# Open-end comments

**Q: Are there any comments or thoughts that you would like to share with NPPD as they are considering setting the decarbonization goal?**

## Reliability and Cost

- “Safe, reliable, and affordable electricity is my main concern.”
- “Caution and long-term thinking is needed to prevent unintended negative consequences as a result of decisions regarding decarbonization.”
- “I would prefer not to have rolling blackouts and keep our power controlled by our REA.”
- “There needs to be a balance between reliability, affordability & environmental awareness. These decisions also need to be made on a local level, not federal or global regulations being forced upon us.”

## Positive about Decarbonization

- “Modernizing makes Nebraska more enticing to investors & lays groundwork for successful economic future.”
- “We as a society, including our power production sector, MUST reduce the emission of green house gases”
- “I'd love for NPPD to take the lead among the Midwest states to show how FAST decarbonization can occur... I'd like to see NPPD's goal be for 100% decarbonization reached within the next 15 years.”

- “We need to reduce and eventually eliminate fossil fuels dependency”

## Current Generation Mix is Fine

- “Slow down and don't jump into the future too fast”
- “Keep it diverse. Seems like a good ratio now.”

## About the Perception of “Politics Driver”

- “Unfortunately, polarization in politics is a very serious barrier to science-based decision-making and does make people question what is true...”
- “Please don't let politics be the only thing driving the bus.”
- “We need to keep the politics out of our power usage and supply”
- “I think it's very important in order to minimize our impact on the environment and the effects of climate change, but also prefer government regulations to play as little a role as possible.”

Selected verbatim answers submitted by survey respondents, sorted by theme

# Open-end comments (cont'd)

## About Coal

- “We cannot afford to lose our large, cheap, reliable coal plant. Install carbon capture technology if you must.”
- “Back off on dirty coal. Coal ash is a pollution nightmare that needs more regulation. We must transition out of fossil fuels. “

## About Renewables

- “I think we need to find new ways to harness wind energy and to store energy for when we need it. We need to cut back on coal usage.”
- “Wind seems unreliable and too costly.”
- “I would like to see hydrogen power.”
- “Solar Power with natural habitat is the way to go.”
- “Solar and wind are not reliable! I like clean coal technology”
- “I believe that government funding should focus on getting solar power to everyone, with poor people being fully funded by the government. We still need NPPD, and the grid, but our power sources should start with free, clean solar power.”
- “‘Clean’ energy from wind or solar systems that doesn't take into account manufacturing carbon emissions is a sham.”

- “find a way to recycle those wind turbines”
- Providing a net metering program or a or another incentive for residents to pursue alternative energy sources such as solar
- Please choose solar and free planting, and no wind turbines. The setbacks are hugely insufficient to be built anywhere near homes

## About Nuclear Power

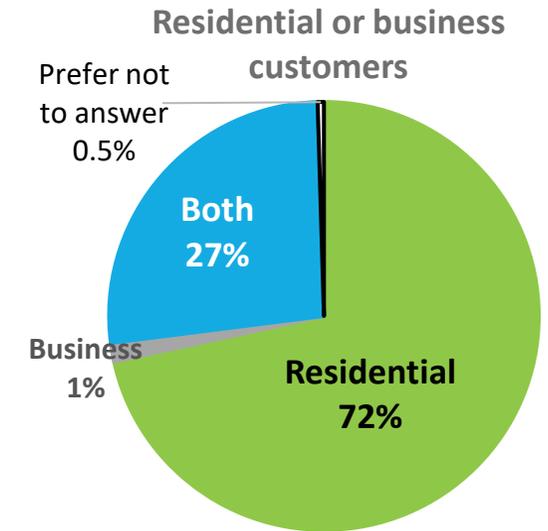
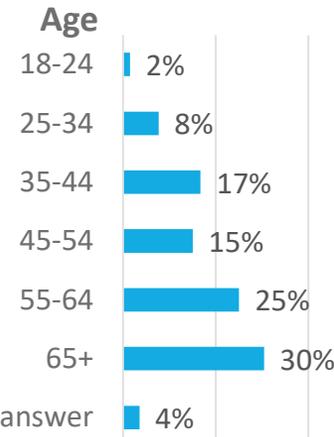
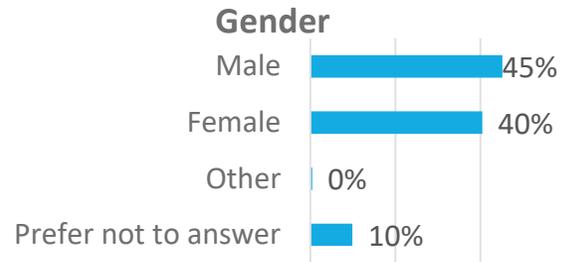
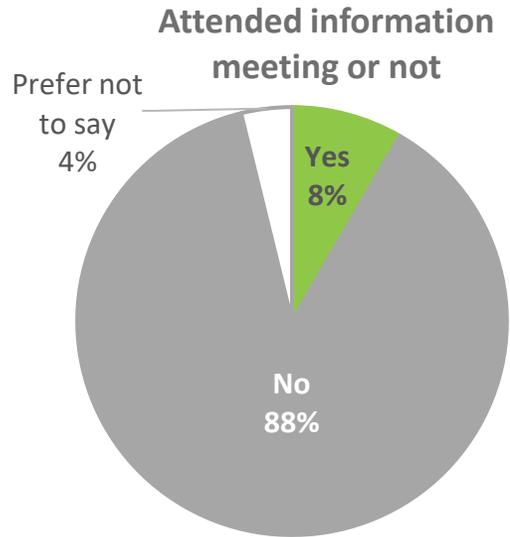
- “I honestly feel after touring the nuclear plant in southeast Nebraska that our country should be pursuing the use of nuclear plants as a primary source of power. It seems to me to be the most reliable, cost effective and sustainable source for power we have at the current time.”
- “Nuclear power is more expensive and takes more time per KW to build than other options and this cost must be amortized over the life of the equipment. ”
- “I worry about disposal of nuclear waste.”

Selected verbatim answers submitted by survey respondents, sorted by theme



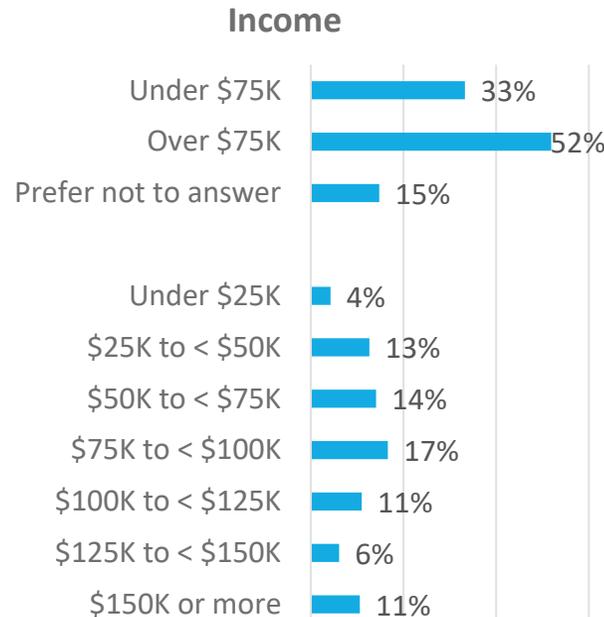
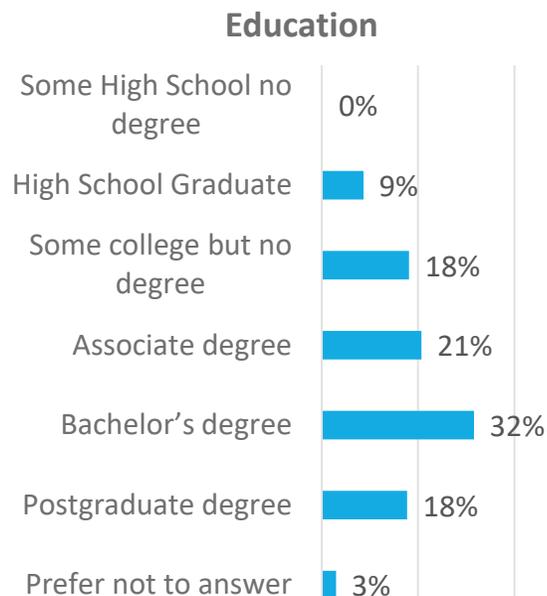
# Results by demographics

# End-users: 1,914 respondents

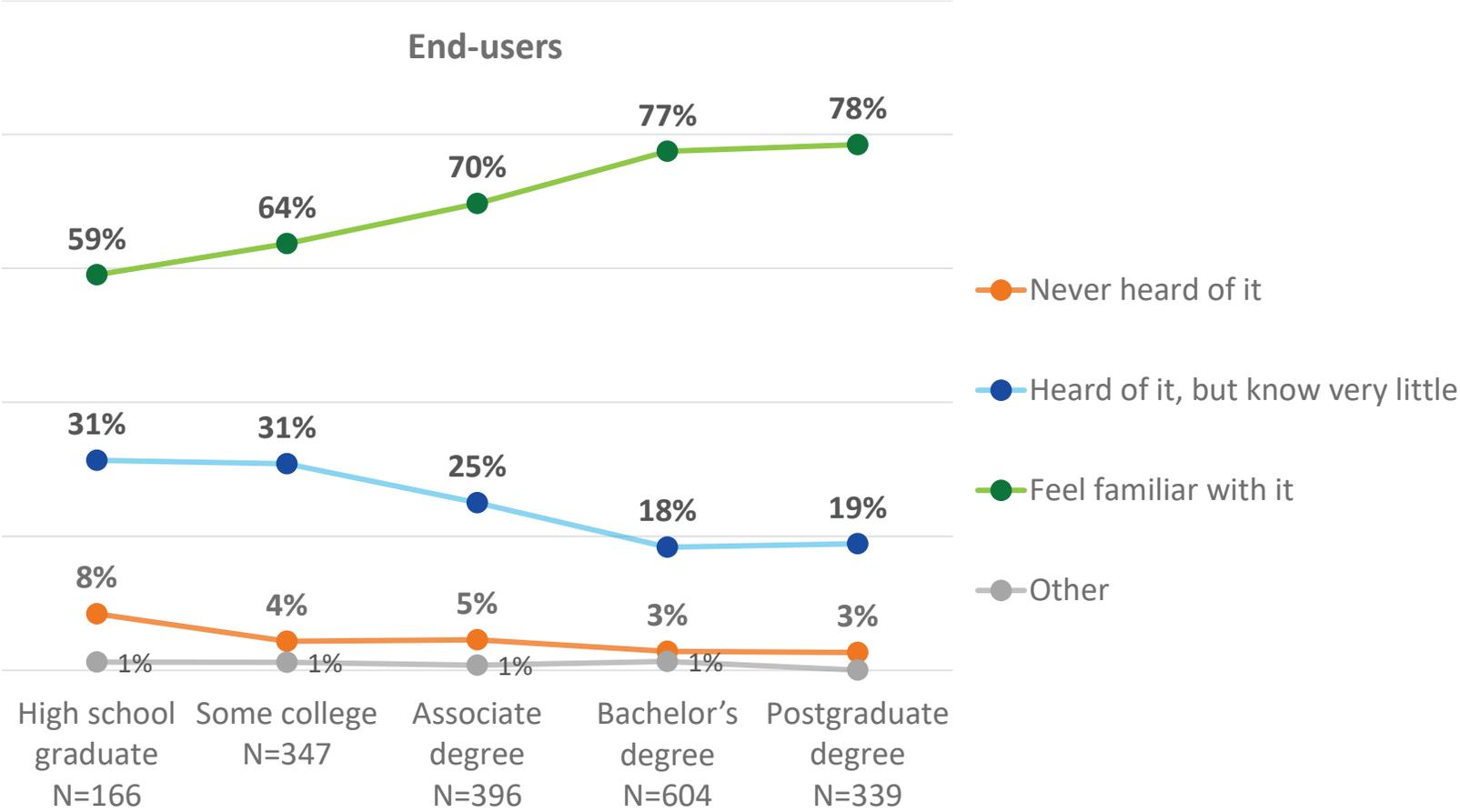


## Number of respondents in business segments

Agriculture	319
Accommodation and Food Services	6
Arts, Entertainment, and Recreation	3
Construction	23
Educational Services	4
Finance and Insurance	14
Health Care and Social Assistance	21
Information Technology	6
Manufacturing	15
Mining	0
Professional, Scientific, and Technical Services	16
Public Administration	2
Real Estate and Rental and Leasing	21
Retail Trade	17
Transportation and Warehousing	10
Utilities	10
Wholesale Trade	3
Other (please specify)	35
Prefer not to answer	11

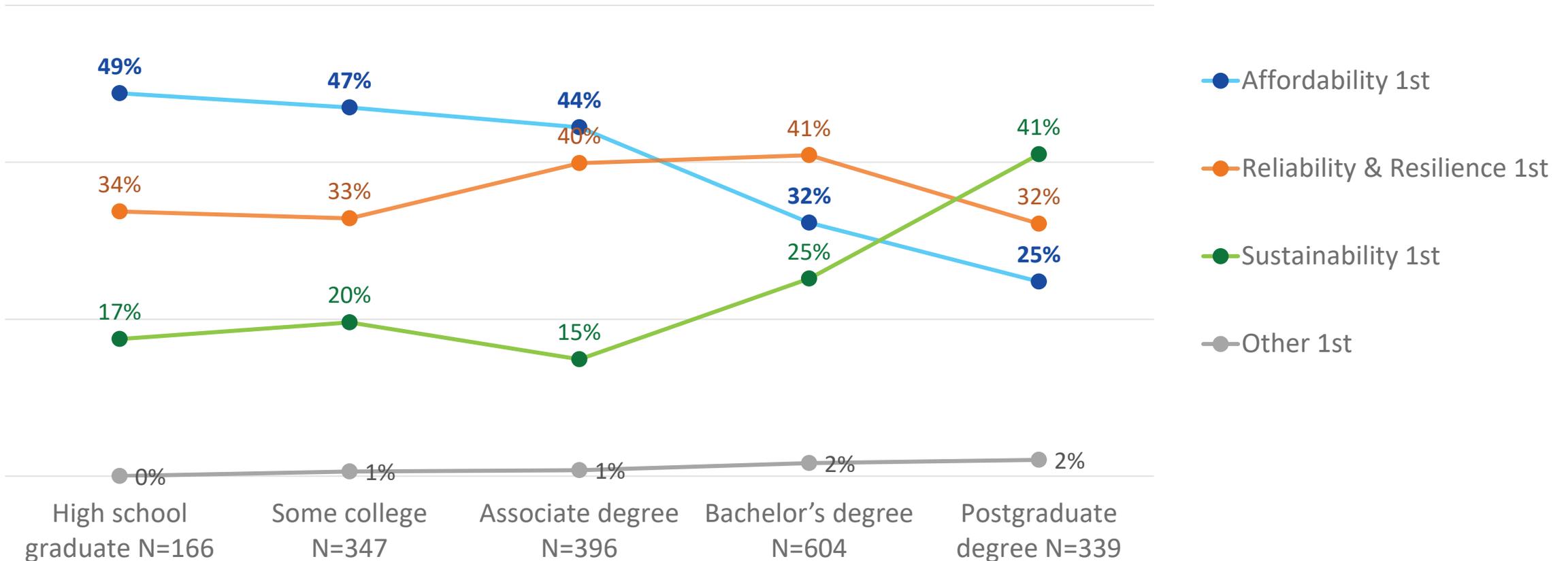


# Familiarity with the term “decarbonization” positively relates to education level



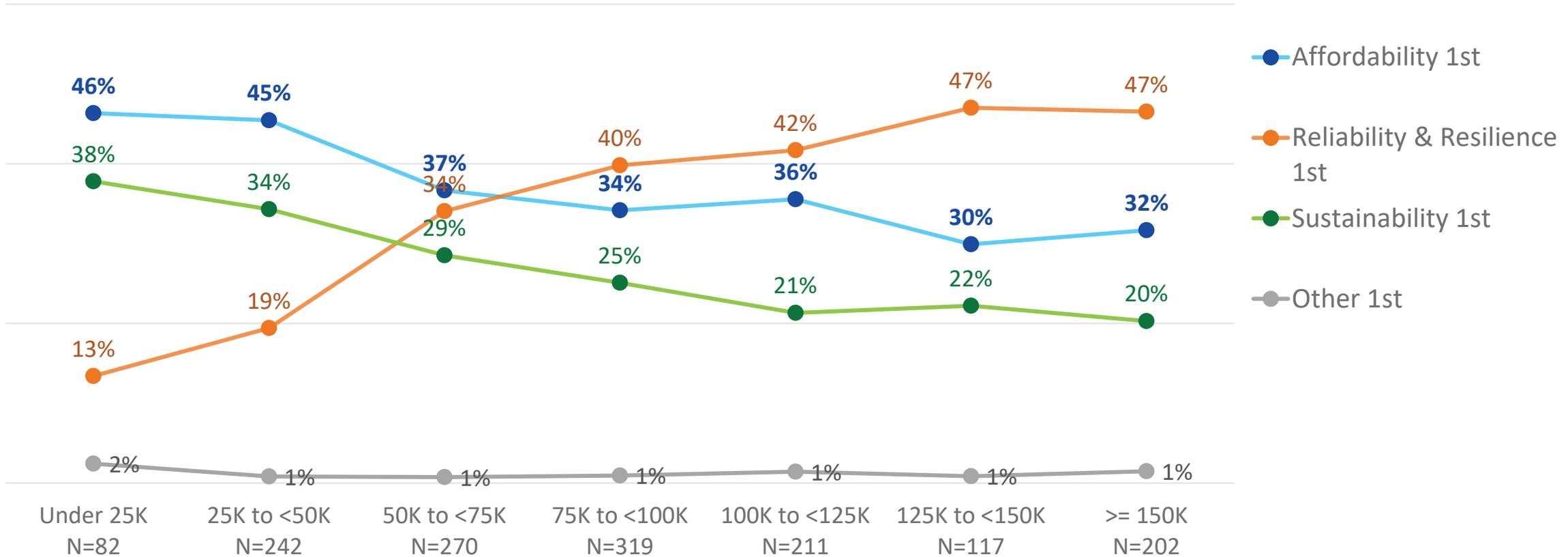
\*Statistical generalizability not guaranteed due to nonprobability sampling

# End-users with a postgraduate degree are most likely to rank sustainability as their top priority for electric service and least likely to rank affordability first (among all education levels)



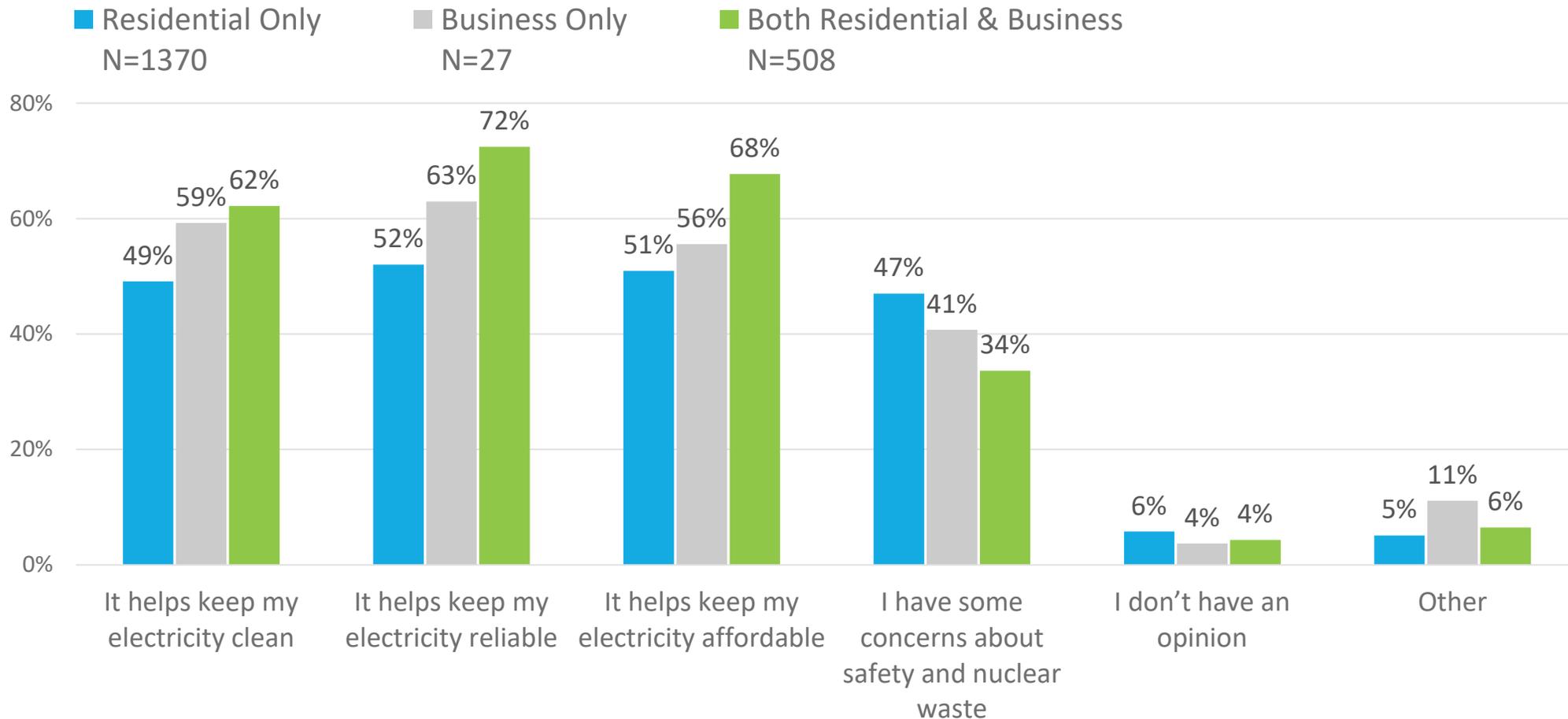
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# As income levels rise, the share of NPPD end-users who consider “reliability & resilience” as the most important priority of electric service increases, while affordability and sustainability decrease in priority



\*Statistical generalizability not guaranteed due to nonprobability sampling

# Business customers regard nuclear power more positively than residential customers, and are less concerned about safety and waste



\*Statistical generalizability not guaranteed due to nonprobability sampling

# Customers who are both residential & business are more likely to support increased nuclear power than residential-only or business-only customers

- Should have more nuclear power in the future
- Already have the right amount
- Should rely less on nuclear power in the future
- Need more information to decide



\*Statistical generalizability not guaranteed due to nonprobability sampling

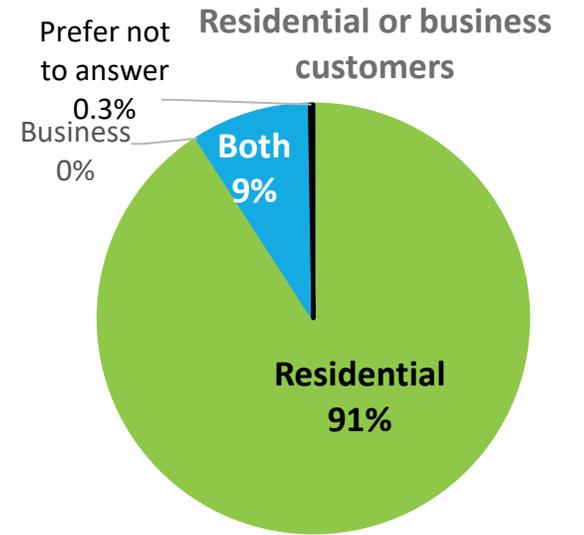
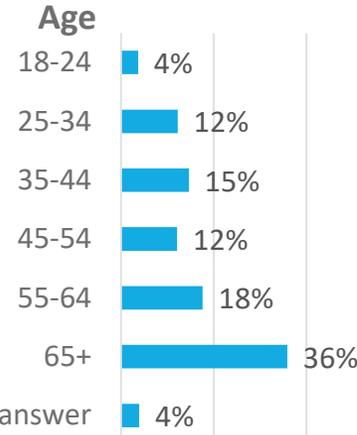
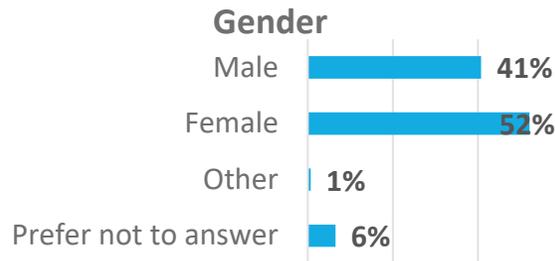
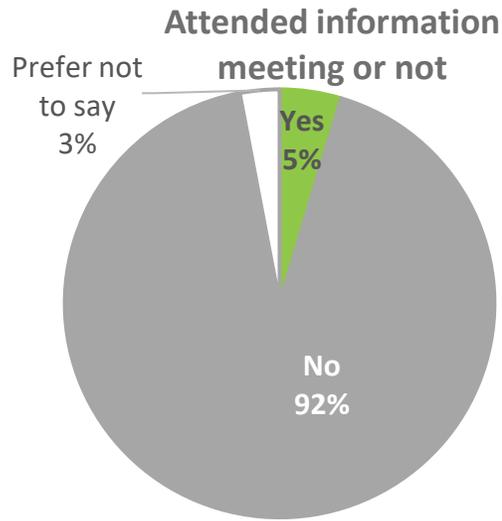


# Appendix: Results of non-NPPD customers and unable-to-validate respondents

# Non-NPPD customers & unable-to-validate respondents

- Two classes of respondents are included in this appendix.
  - **Non-NPPD customers:** respondents who clearly stated that they were not an NPPD customer
  - **Unable-to-validate:** respondents whose status as NPPD customers could not be reasonably determined based on the demographic information provided
- Respondents sorted to “non-NPPD customers” or “unable-to-validate respondents” may reside either in Nebraska or out-of-state

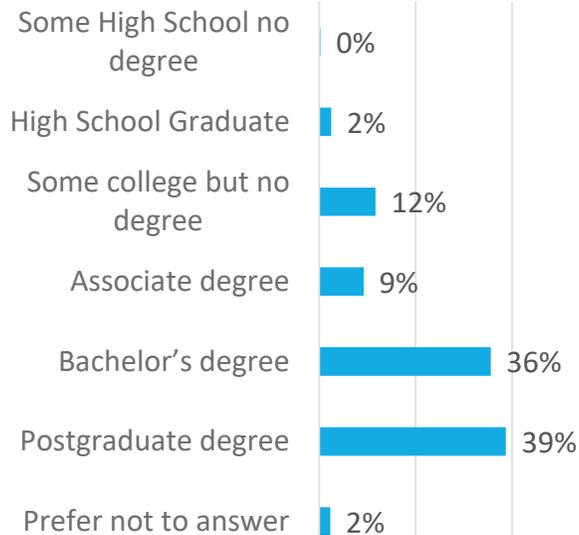
# Non-NPPD customers: 1,143 respondents



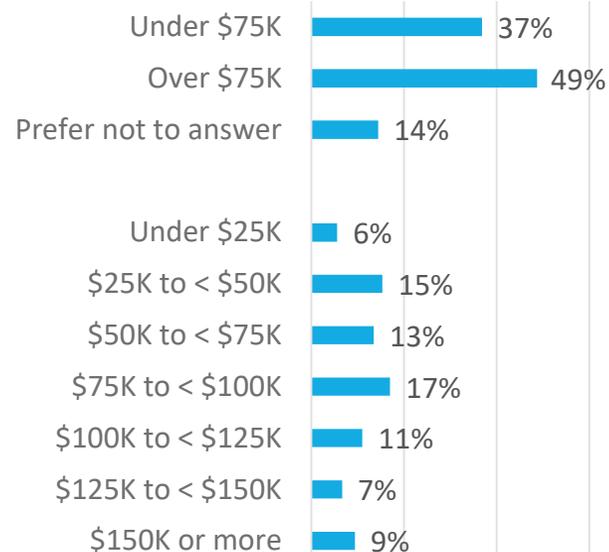
## Number of respondents in business segments

Agriculture	34
Accommodation and Food Services	1
Arts, Entertainment, and Recreation	1
Construction	7
Educational Services	3
Finance and Insurance	2
Health Care and Social Assistance	10
Information Technology	4
Manufacturing	2
Mining	0
Professional, Scientific, and Technical Services	5
Public Administration	0
Real Estate and Rental and Leasing	5
Retail Trade	4
Transportation and Warehousing	2
Utilities	5
Wholesale Trade	1
Other (please specify)	9
Prefer not to answer	6

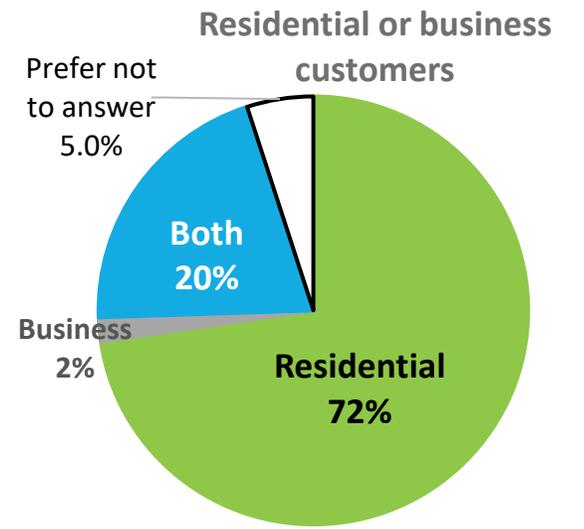
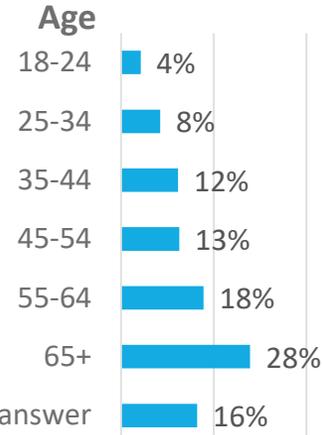
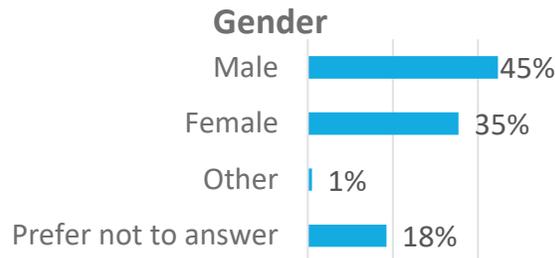
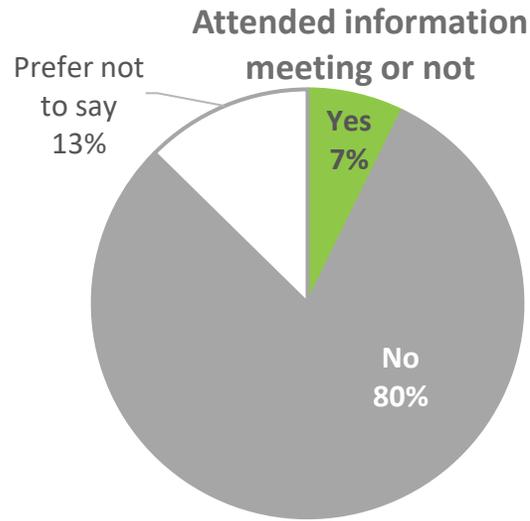
## Education



## Income



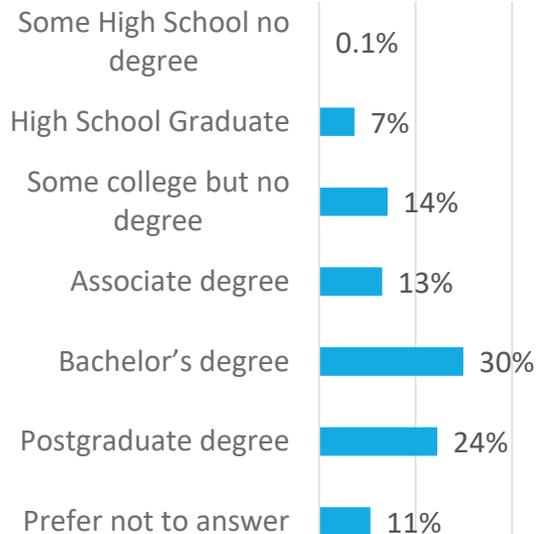
# Unable-to-validate respondents: 1,067 respondents



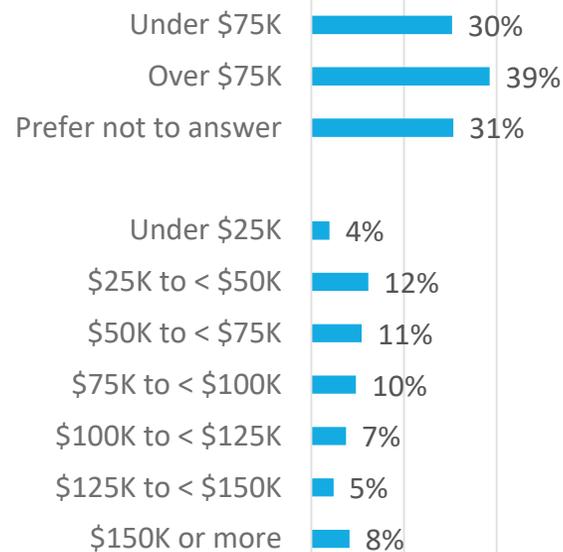
## Number of respondents in business segments

Agriculture	123
Accommodation and Food Services	2
Arts, Entertainment, and Recreation	1
Construction	9
Educational Services	4
Finance and Insurance	8
Health Care and Social Assistance	10
Information Technology	5
Manufacturing	11
Mining	0
Professional, Scientific, and Technical Services	13
Public Administration	1
Real Estate and Rental and Leasing	6
Retail Trade	6
Transportation and Warehousing	5
Utilities	1
Wholesale Trade	1
Other (please specify)	9
Prefer not to answer	24

## Education

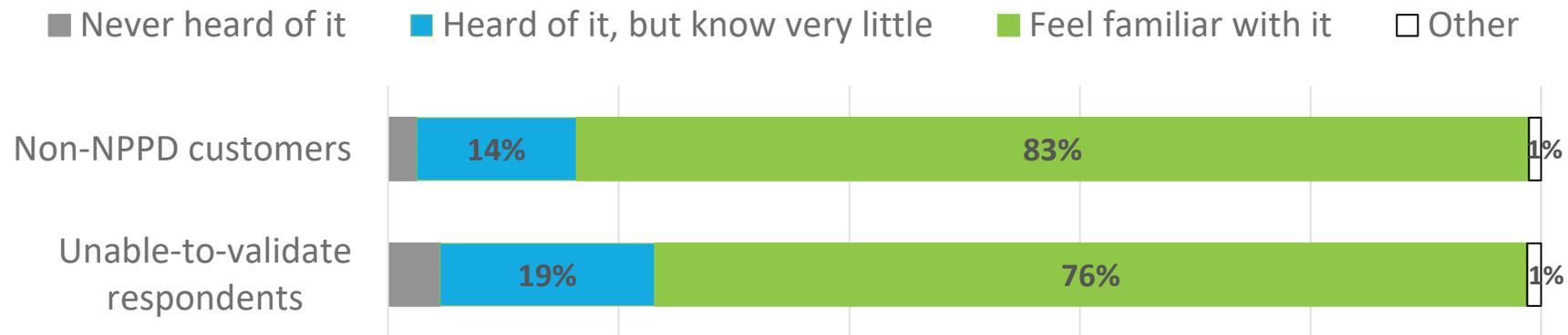


## Income



# 83% of non-NPPD customers and 76% unable-to-validate respondents claim that they are familiar with the term “decarbonization”

Q: How familiar are you with the term “decarbonization”?

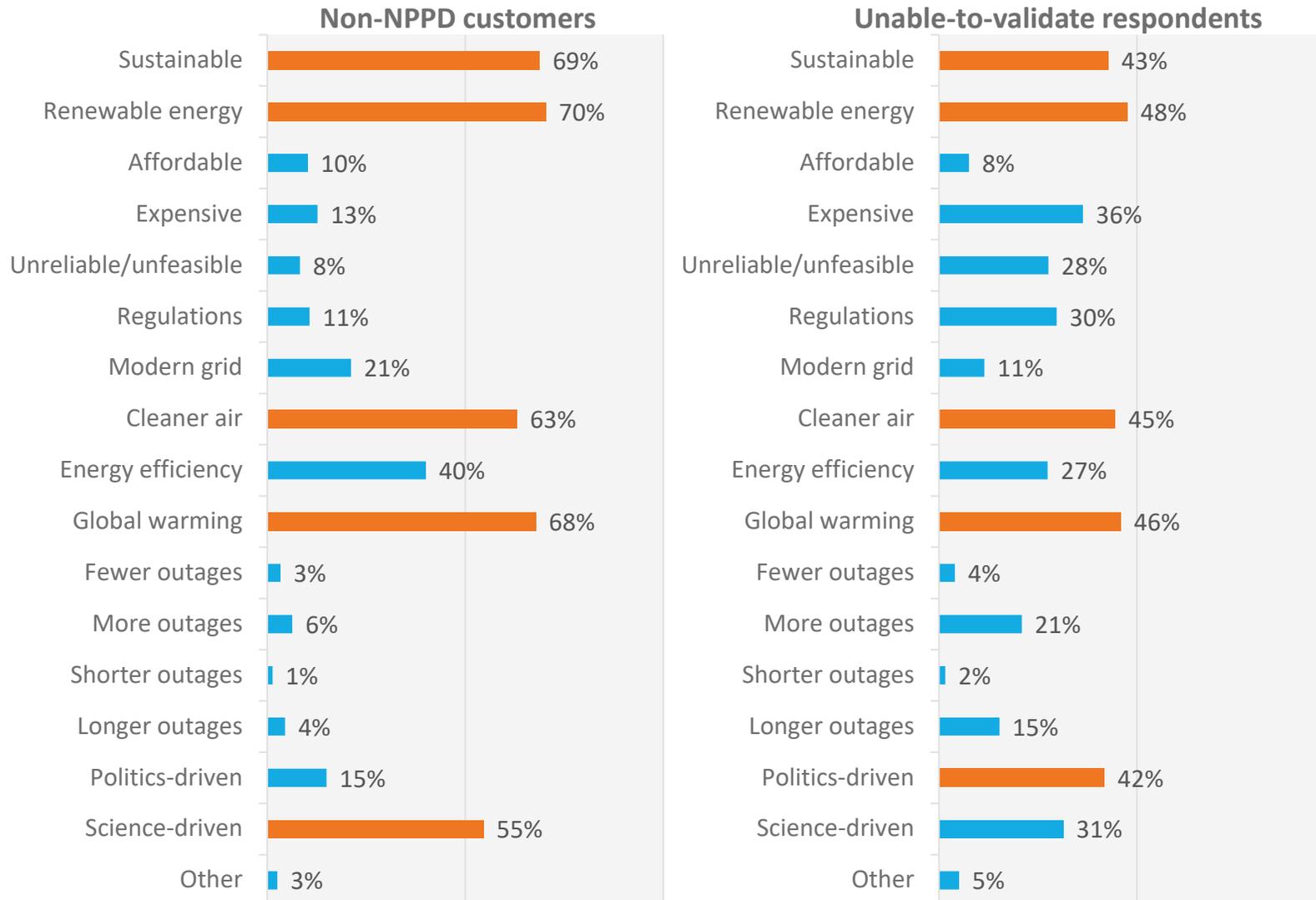


% of respondents of the class selecting the option

\*Statistical generalizability not guaranteed due to nonprobability sampling

# Both non-NPPD customers and unable-to-validate respondents are likely to associate decarbonization with “sustainable”, “renewable energy”, “cleaner air”, and “global warming”

Q: What comes to mind when you hear the term “decarbonization”?



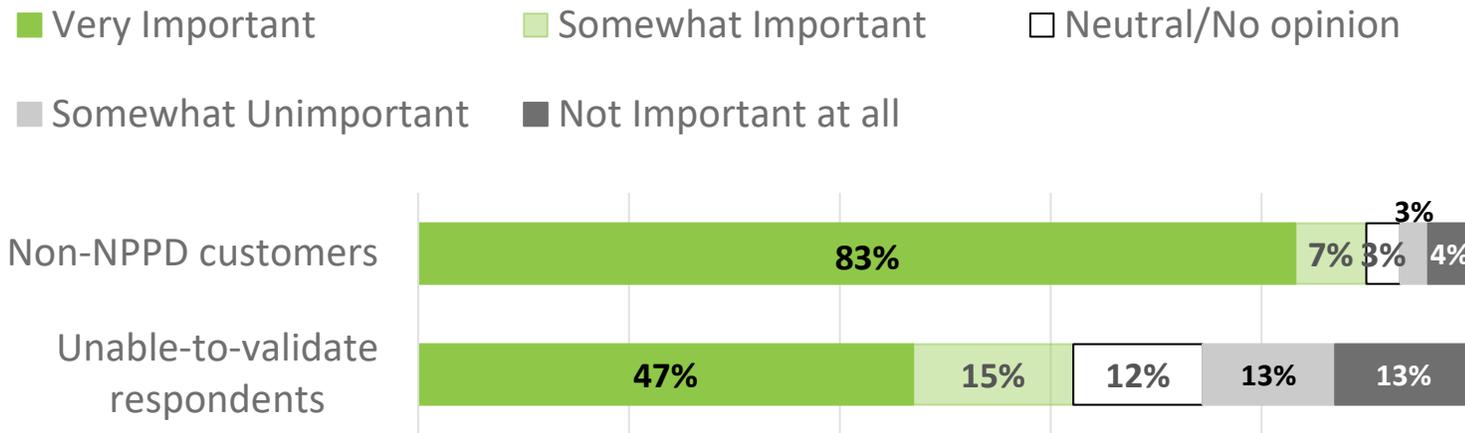
Non-NPPD customers are more likely to think of “science-driven” when hearing “decarbonization”, while unable-to-validate respondents are more likely to think of “politics-driven”.

Top five phrases selected

\*Statistical generalizability not guaranteed due to nonprobability sampling

# 83% of non-NPPD customers consider decarbonization very important

Q: In your opinion, how important is decarbonization?

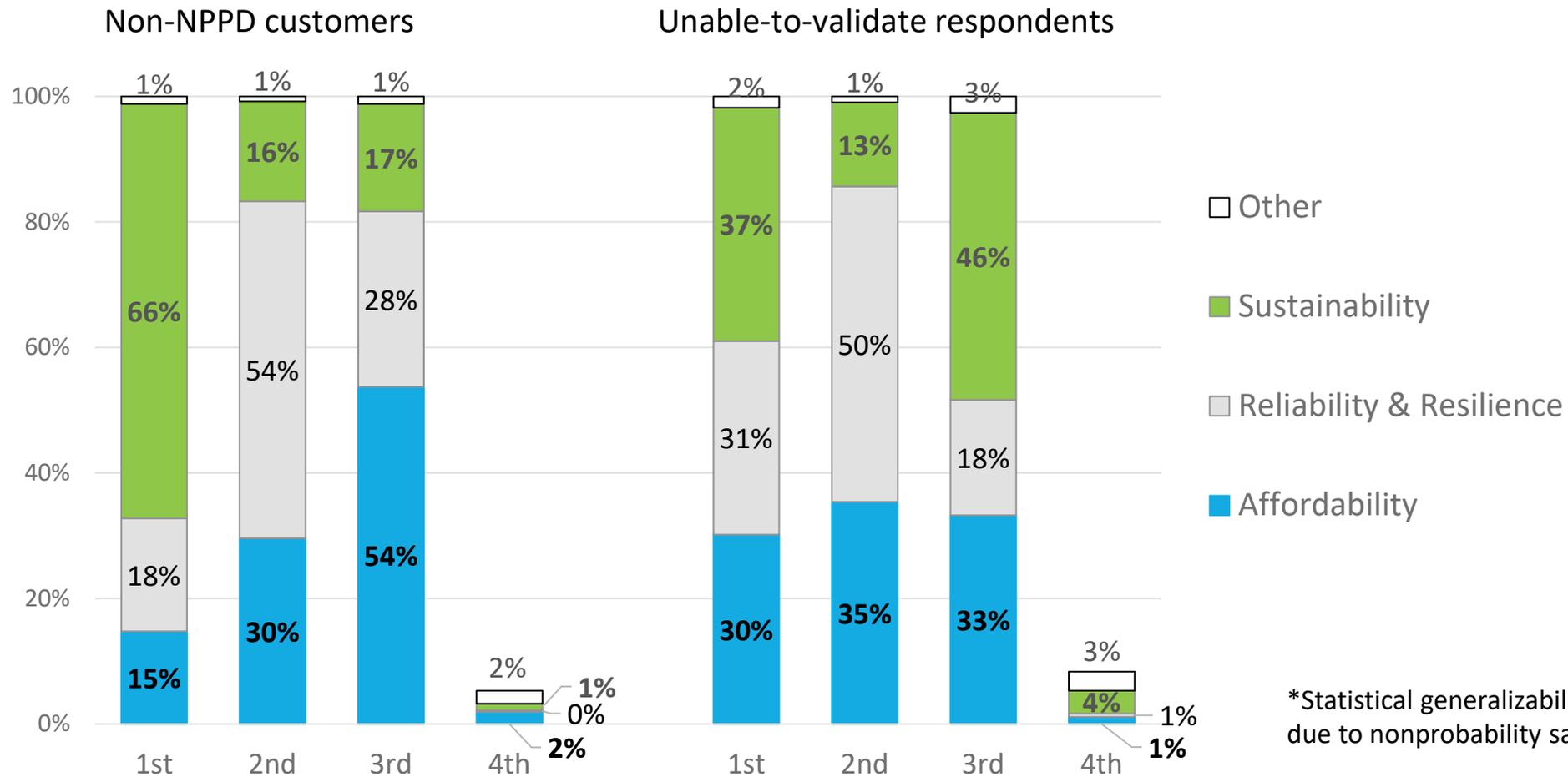


Non-NPPD customers are more likely to consider decarbonization very/somewhat important than unable-to-validate respondents – 90% vs 62%.

% of respondents of the class selecting the option

\*Statistical generalizability not guaranteed due to nonprobability sampling

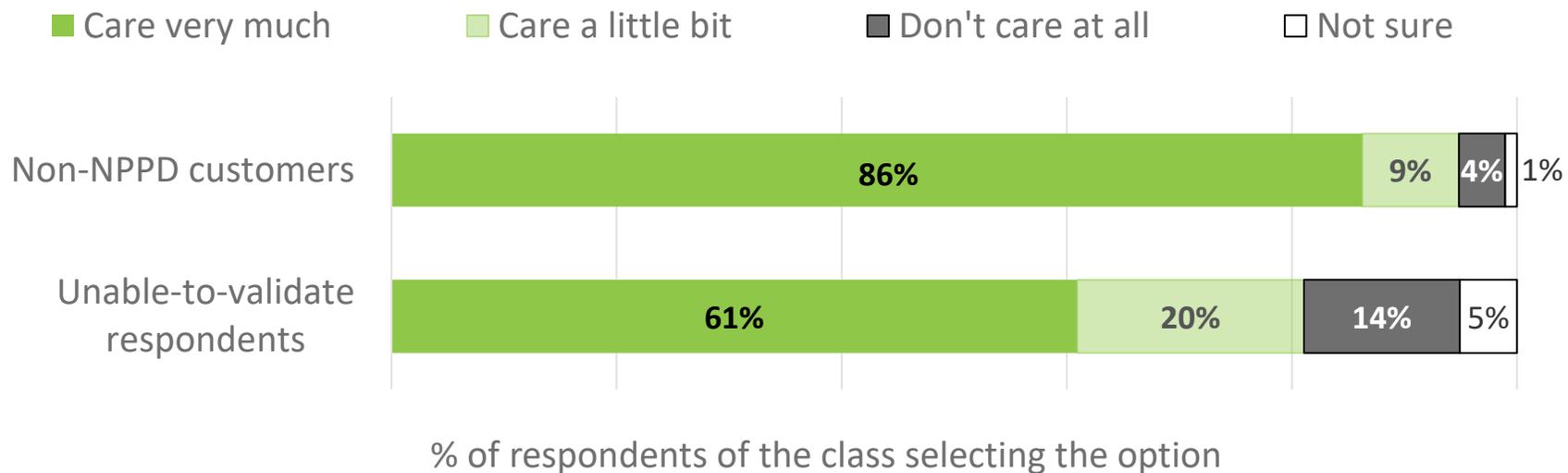
**About 66% of non-NPPD customers who responded rate sustainability as their highest priority for electric service; only 37% unable-to-validate respondents rate sustainability in the same way.**



\*Statistical generalizability not guaranteed due to nonprobability sampling

# 86% of non-NPPD customers and 61% unable-to-validate respondents state they care very much about NPPD's decarbonization goals

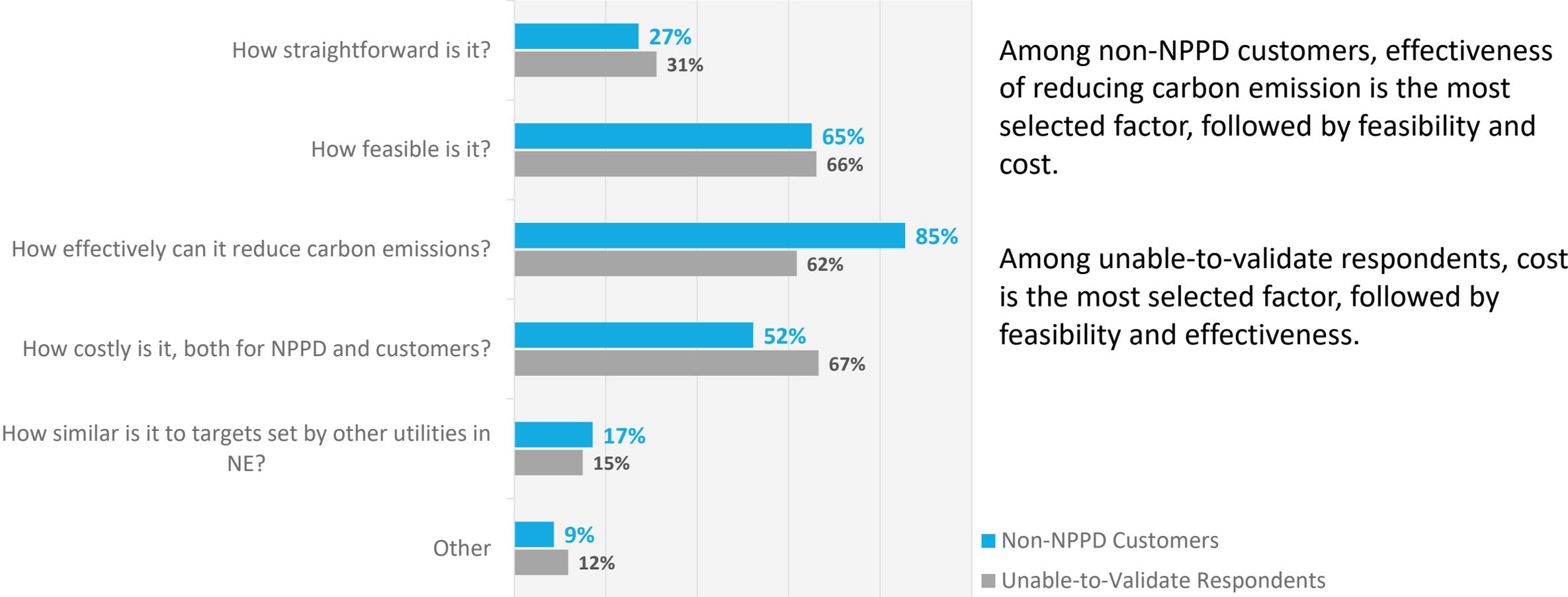
Q: How much do you care about NPPD's decarbonization goals?



\*Statistical generalizability not guaranteed due to nonprobability sampling

# Effectiveness, feasibility and cost are the top three important factors when deciding decarbonization goals.

**Q: What factors are important to you in deciding which type of decarbonization target is right for NPPD in the long-term?**



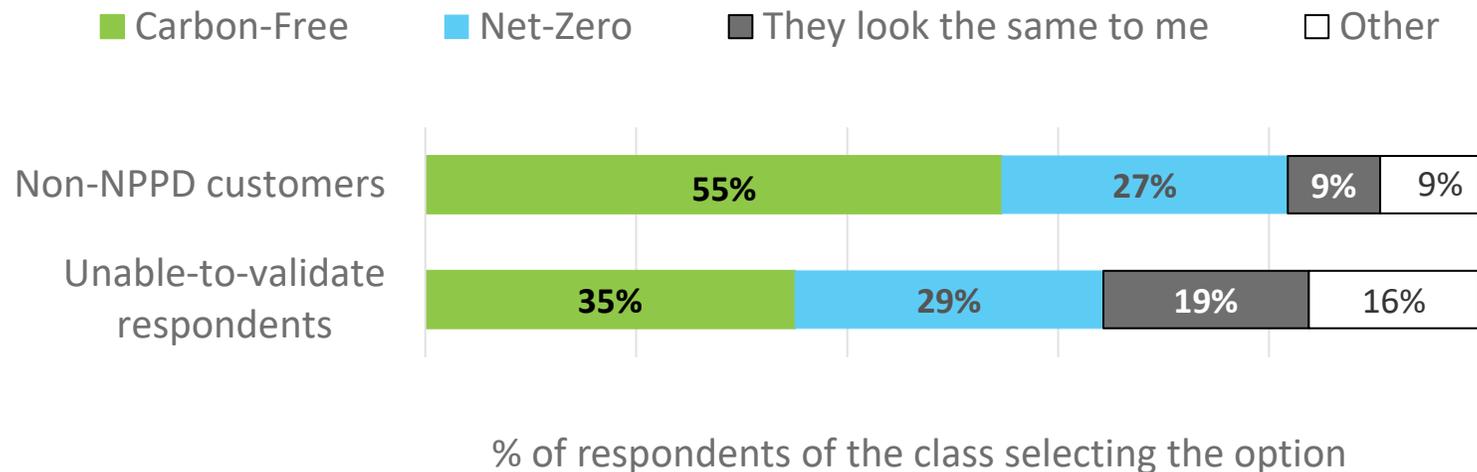
Among non-NPPD customers, effectiveness of reducing carbon emission is the most selected factor, followed by feasibility and cost.

Among unable-to-validate respondents, cost is the most selected factor, followed by feasibility and effectiveness.

\*Statistical generalizability not guaranteed due to nonprobability sampling

# 55% non-NPPD customers and 35% unable-to-validate respondents responded that they prefer a carbon reduction goal structured as “Carbon-Free” vs. “Net-Zero”.

Q: Which type of decarbonization target do you think is better for NPPD and their customers in the long term?

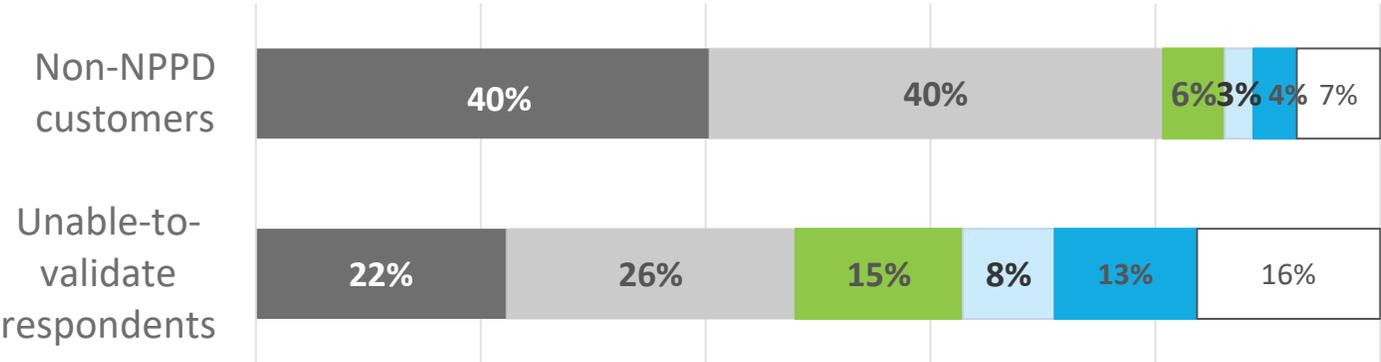


\*Statistical generalizability not guaranteed due to nonprobability sampling

# 80% of non-NPPD customers vs 48% unable-to-validate respondents expect deeper decarbonization in NPPD's generation mix.

Q: Which of the following best describes how you feel about NPPD's current generation mix in achieving decarbonization?

- Far behind where it should be
- Getting there, but can do even better
- About the right level
- Doing more than enough, but not too ambitious
- Too ambitious
- I don't have an opinion

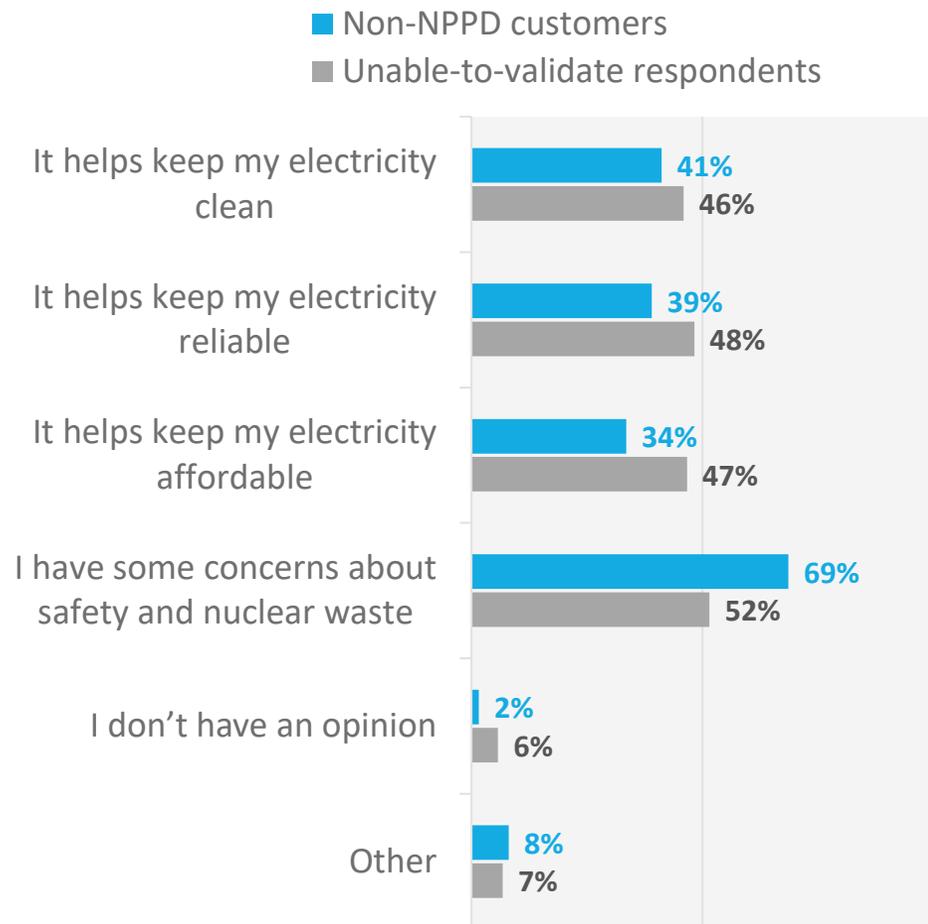


% of respondents of the class selecting the option

\*Statistical generalizability not guaranteed due to nonprobability sampling

# Non-NPPD customers expressed greater concern about nuclear safety and waste handling than positive perceptions of nuclear power, and expressed lower support for expanding nuclear power compared to unable-to-validate respondents

Q: Which of the following describes how you feel about nuclear power as a generation resource?

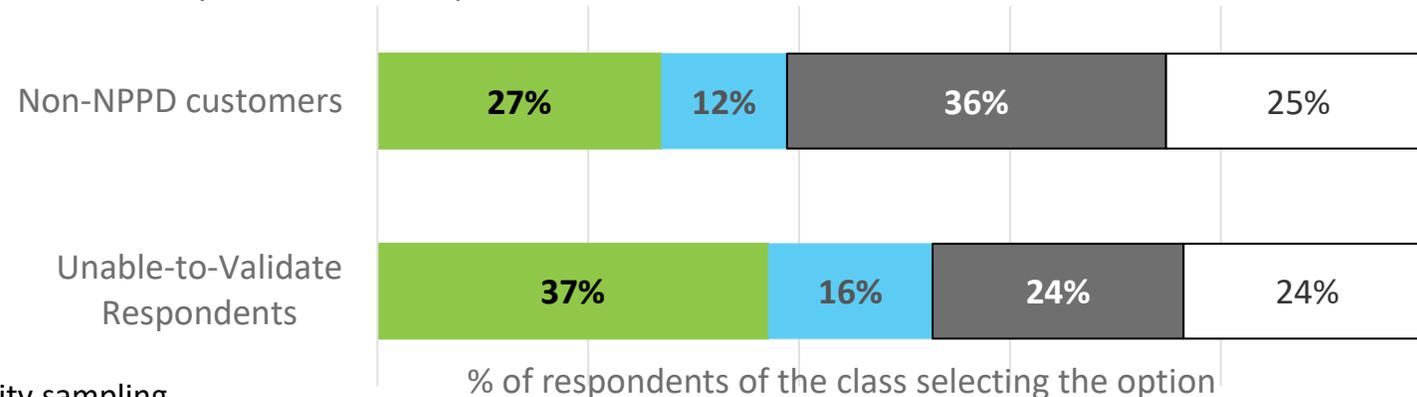


Only 27% of non-NPPD respondents support expanding nuclear power. Moreover, 36% favor less reliance on nuclear power.

37% of unable-to-validate respondents support having more nuclear power in the future, while 24% prefer less reliance on it.

Q: How do you feel about the amount of nuclear power in the generation resources mix in the future?

■ Should have more nuclear power in the future  
 ■ Already have the right amount  
 ■ Should rely less on nuclear power in the future  
  Need more information to decide



\*Statistical generalizability not guaranteed due to nonprobability sampling

A blue-tinted photograph of four people, two men and two women, standing in a row. They are all wearing white lab coats with the EPRi logo on the left chest. The woman on the far right is wearing a blue hard hat. They are all smiling and looking towards the right. The background is a solid blue color.

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