Statewide Survey Results: Alaskans Views of Energy Options
House Resources Committee

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Agenda

Overview of the survey

PART 1

- Perspectives and reality - cost of energy in Alaska
  - Peripheral Railbelt areas
  - Rural Alaska

PART 2

- General perspectives on energy technologies
- Perspectives on AKLNG project
- Perspectives on nuclear energy

Acknowledgement

Special thanks to S360 for conducting the survey, and to Nicole Jacobs and Peter Fix for their support with data analysis.

2025 survey was conducted with support from the U.S. Department of Energy's Nuclear Energy University Program (NEUP), Award No. DE-NE0009299.

Charts prepared by S360 or ACEP unless otherwise noted.

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Purpose of ACEP Public Polling

ACEP has conducted annual public polling since 2023 to:

- Understand perceptions of different energy options
- Gather information on energy burden
- Assess awareness of emerging technologies, including advanced nuclear and carbon capture and storage (CCS)
- Examine regional differences in attitudes

Survey Methodology and Sample Characteristics

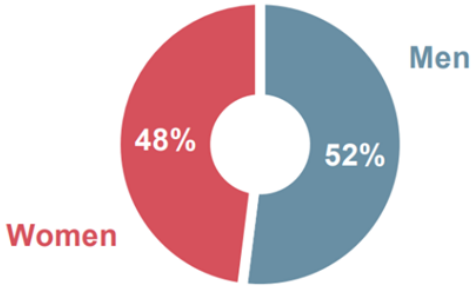
Sample Size:
2023: N=500 (includes Fairbanks oversample); 2024: N=600; 2025: N=489 (includes Nome & Kotzebue oversamples)

Key Demographics:
Respondents skew slightly older and more highly educated, with otherwise balanced age and gender representation relative to Alaska's population

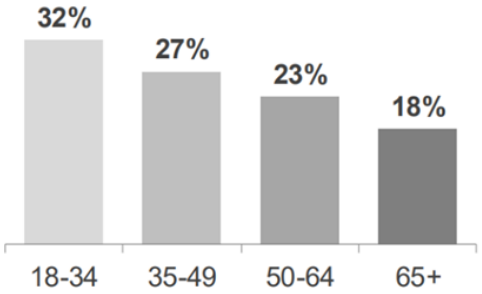
Note: Convenience sample reflecting participant perspectives; Results are directional, not fully representative of all Alaskans; Demographic weights applied by pollster (S360)

Who Responded (2025)?

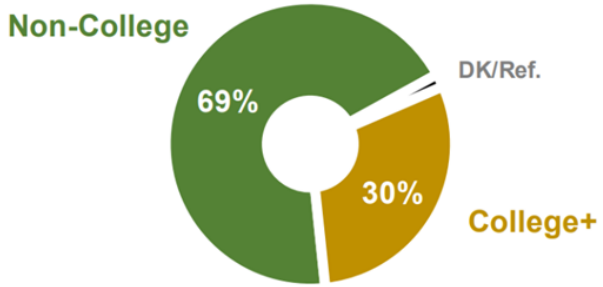
Gender



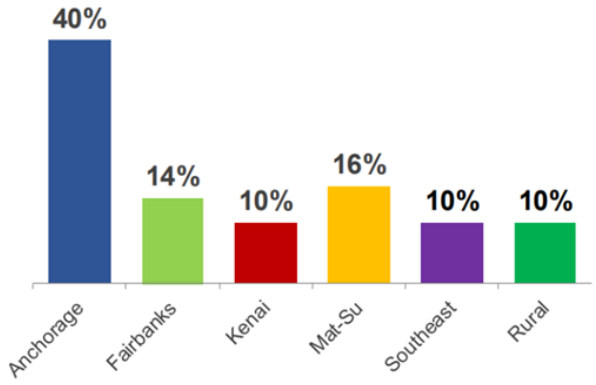
Age



Education



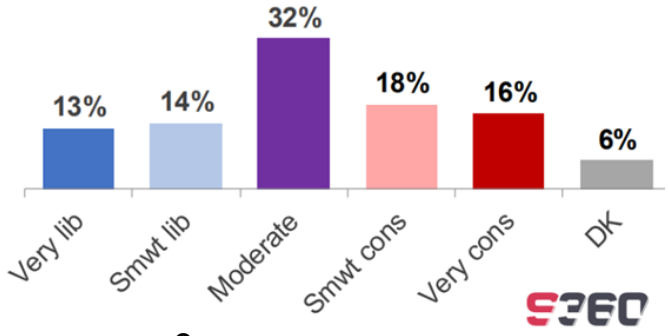
Region



Race

White or Caucasian	62%
Alaskan Native or American Indian	12%
Hispanic or Latino	7%
Asian American or Pacific Islander	7%
Mixed/Multi-ethnic	3%
Black or African American	3%
Something Else / Other	6%

Ideology



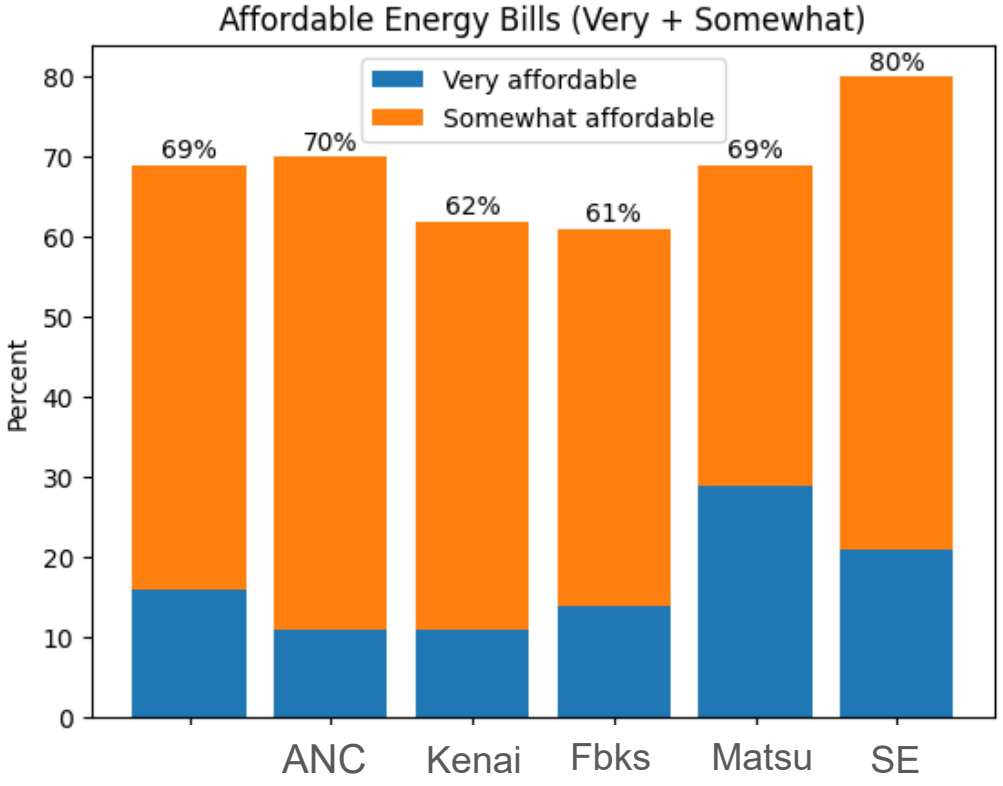
PART 1:

Perspectives and reality – cost of energy in Alaska

1a. Peripheral Railbelt areas

1b. Rural Alaska

How affordable is your electric power bill?

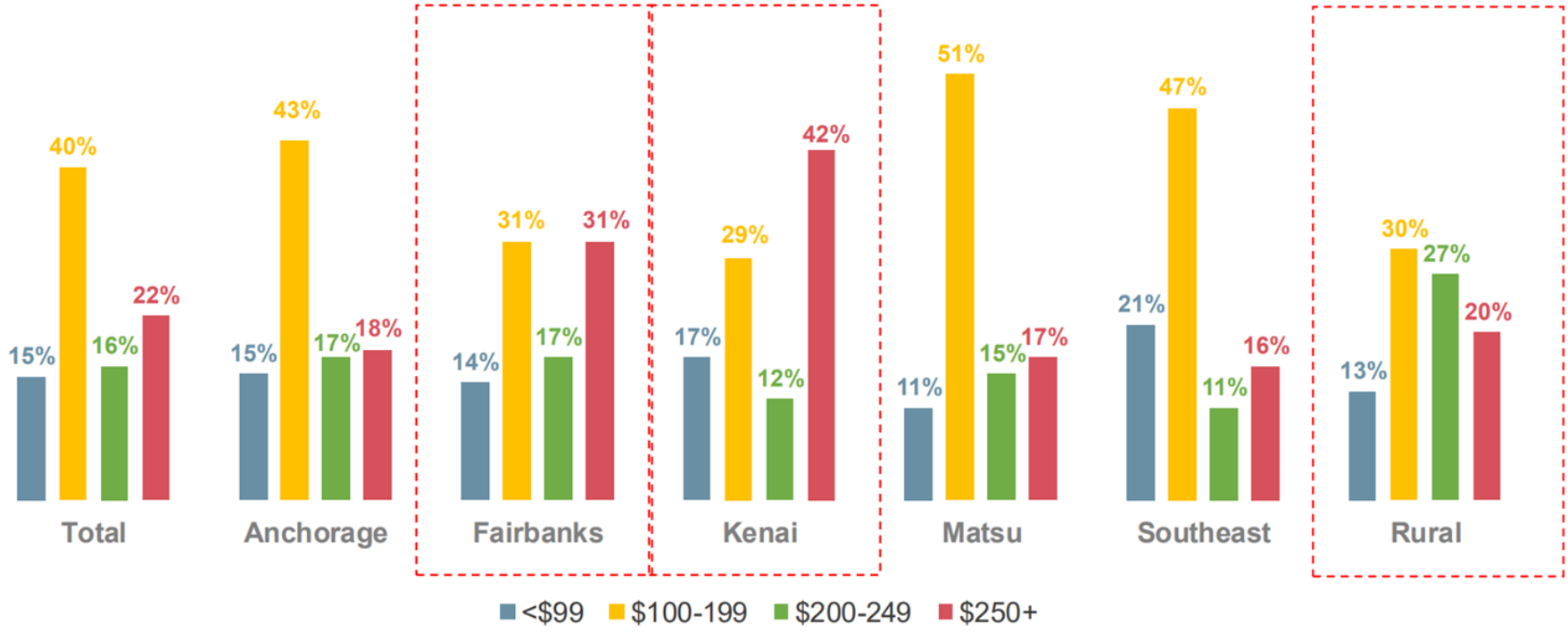


~80% of Alaskans say they pay close attention to their energy bills

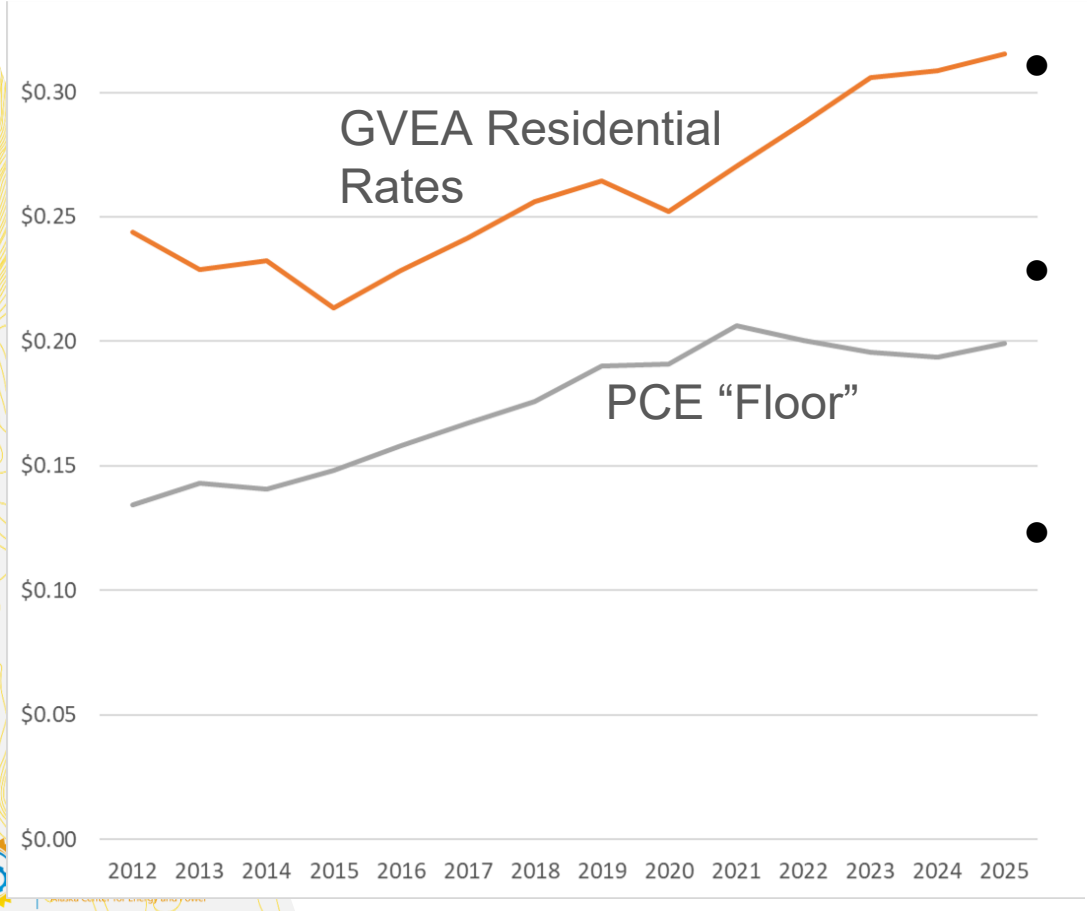
Effective cost of power today:

- ANC - 22.4-26 cents/kWh
- Kenai - 32.1 cents/kWh
- Fbks - 32.9 cents/kWh
- Matsu - 25.2 cents/kWh
- Juneau - 13.7 cents/kWh

Estimated Monthly Electric Bill by Region



Fairbanks (Peripheral Railbelt Residents)



- Fairbanks residents have been paying ~10 cents/kWh more than the PCE “floor” for a long time
- This year, Fairbanks residents are paying more for electricity than ~140 of 188 PCE eligible communities
- Residents in communities who achieve the “PCE floor” are paying 11.5 cents/kWh less than Fairbanks today (first 750 kWhs used)

* inflation adjusted; customer fees not included in calculation

Role of natural gas in GVEA's power supply mix

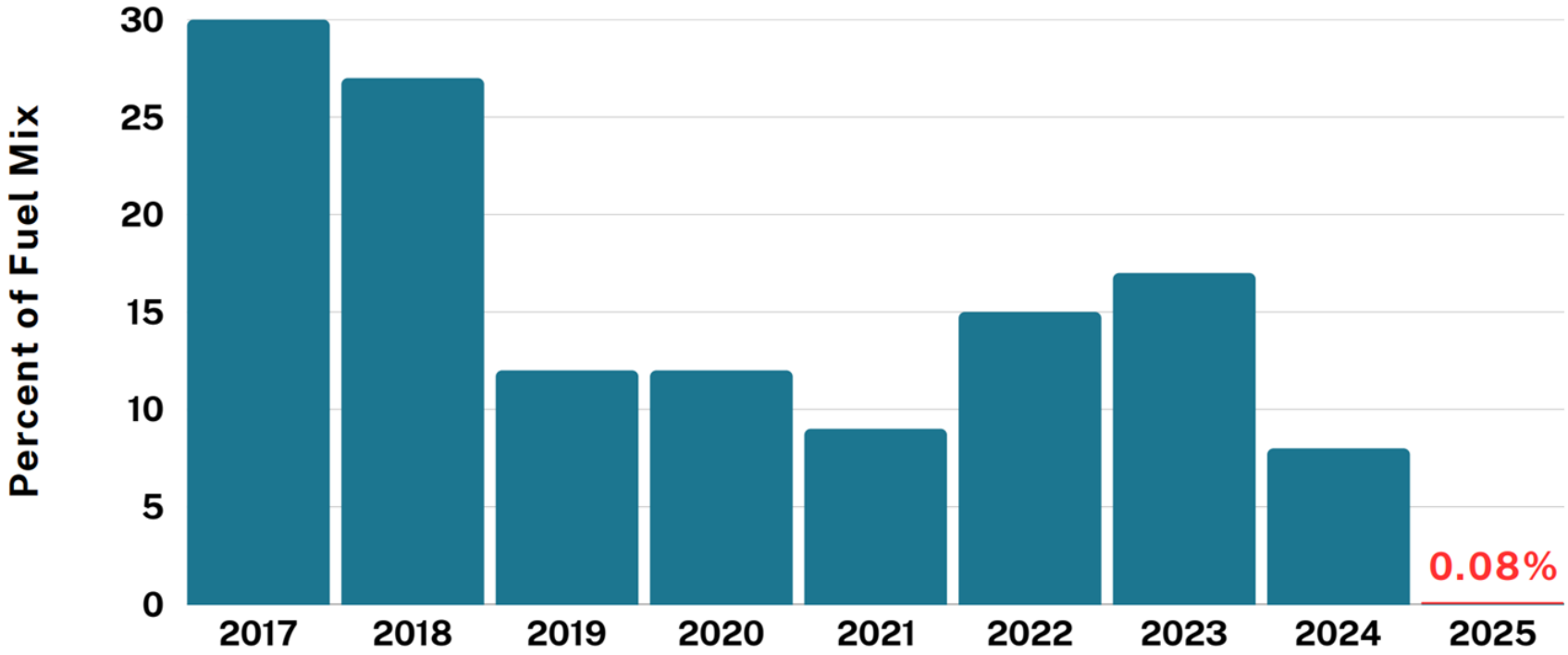


Chart provided by GVEA from public presentation April 1, 2026

GVEA Daily use of Diesel

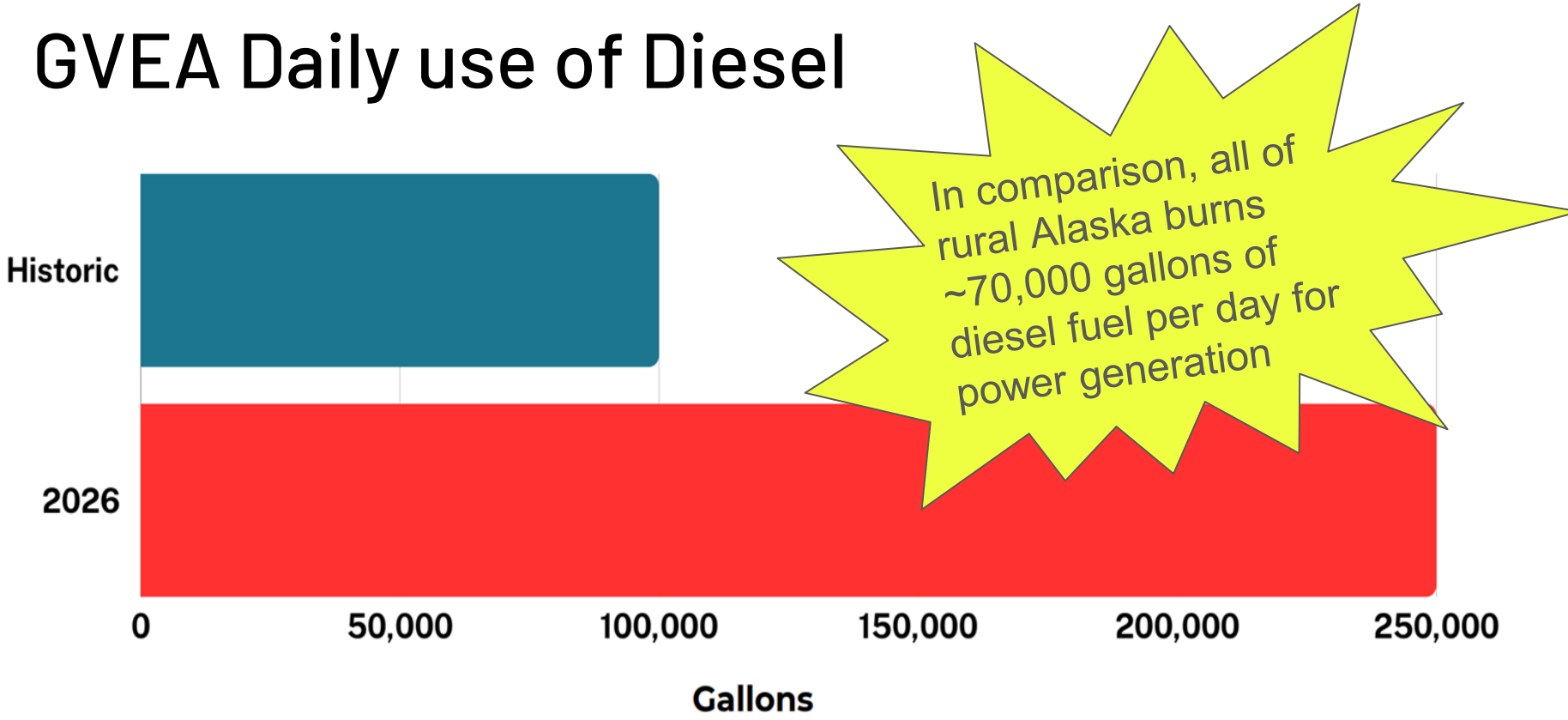
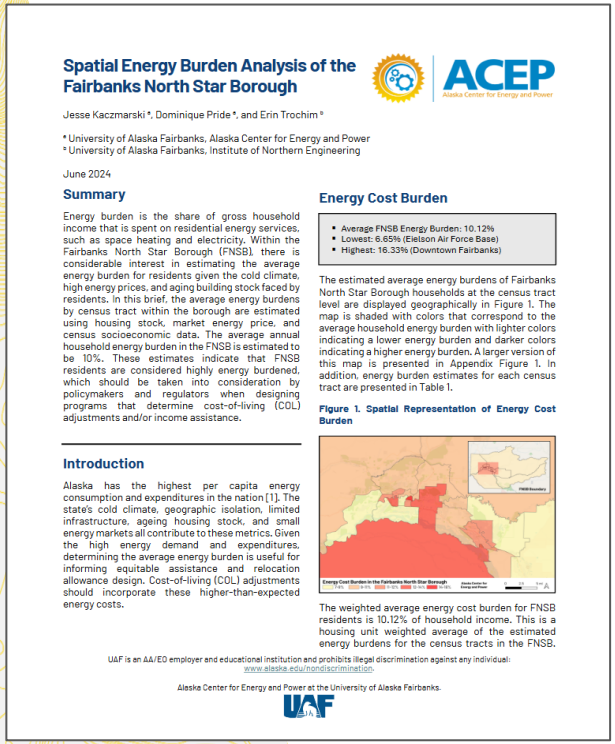


Chart provided by GVEA from public presentation April 1, 2026

Fairbanks / other peripheral Railbelt customers



Spatial Energy Burden Analysis of the Fairbanks North Star Borough

ACEP Alaska Center for Energy and Power

Jesse Kaczmarski [a], Dominique Pride [a], and Erin Trochim [b]

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Summary

Energy burden is the share of gross household income that is spent on residential energy services, such as space heating and electricity. Within the Fairbanks North Star Borough (FNSB), there is considerable interest in estimating the average energy burden for residents given the cold climate, high energy prices, and aging building stock faced by residents. In this brief, the average energy burdens by census tract within the borough are estimated using housing stock, market energy price, and census socioeconomic data. The average annual household energy burden in the FNSB is estimated to be 10%. These estimates indicate that FNSB residents are considered highly energy burdened, which should be taken into consideration by policymakers and regulators when designing programs that determine cost-of-living (COL) adjustments and/or income assistance.

Introduction

Alaska has the highest per capita energy consumption and expenditures in the nation [1]. The state's cold climate, geographic isolation, limited infrastructure, ageing housing stock, and small energy markets all contribute to these metrics. Given the high energy demand and expenditures, determining the average energy burden is useful for informing equitable assistance and relocation allowance design. Cost-of-living (COL) adjustments should incorporate these higher-than-expected energy costs.

Energy Cost Burden

- Average FNSB Energy Burden: 10.12%
- Lowest: 6.65% (Eielson Air Force Base)
- Highest: 16.33% (Downtown Fairbanks)

The estimated average energy burdens of Fairbanks North Star Borough households at the census tract level are displayed geographically in Figure 1. The map is shaded with colors that correspond to the average household energy burden with lighter colors indicating a lower energy burden and darker colors indicating a higher energy burden. A larger version of this map is presented in Appendix Figure 1. In addition, energy burden estimates for each census tract are presented in Table 1.

Figure 1. Spatial Representation of Energy Cost Burden

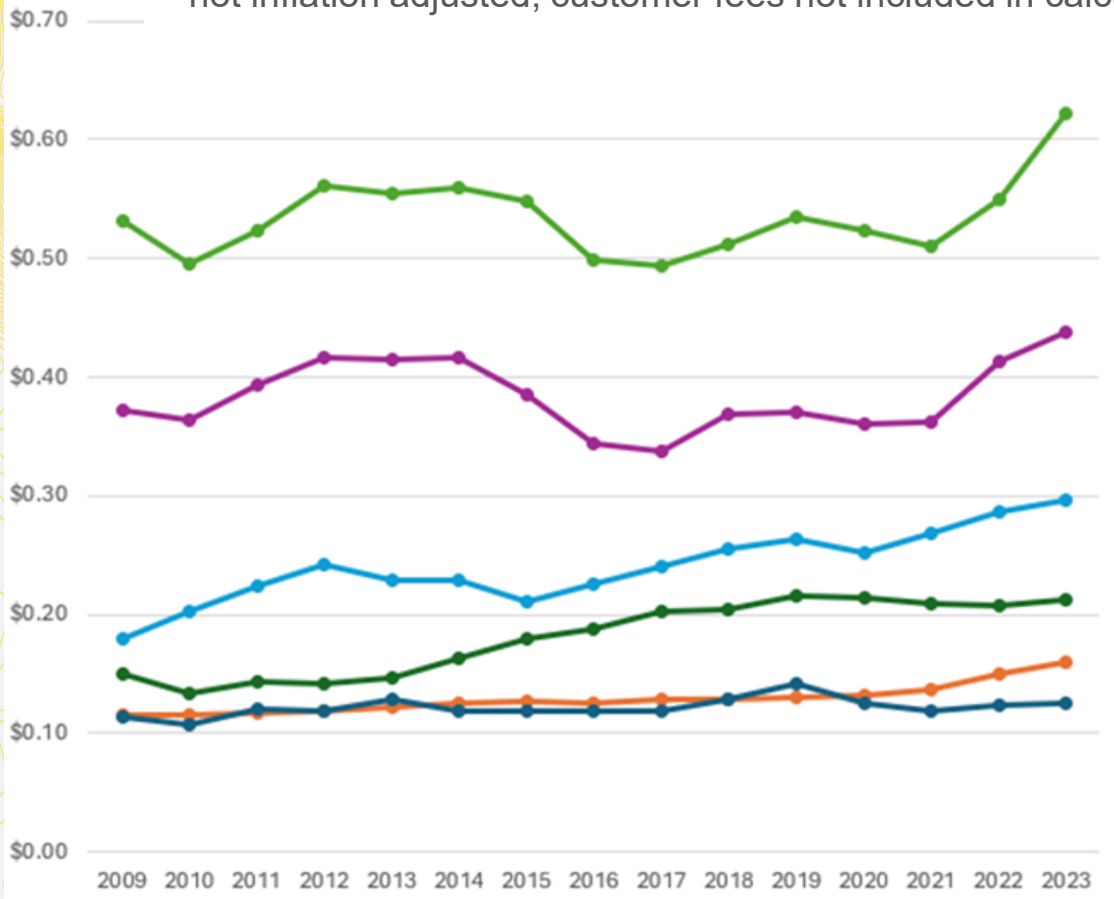
The weighted average energy cost burden for FNSB residents is 10.12% of household income. This is a housing unit weighted average of the estimated energy burdens for the census tracts in the FNSB.

Alaska Center for Energy and Power at the University of Alaska Fairbanks.

- Average energy burden in the FNSB is 10% (>3% is considered high energy burden in the U.S.)
- Electric power could be as high as 34-35 cents/kWh in the next quarter
- FNSB Energy Burden Estimator: https://fnsb-energy-burden.acep.uaf.edu/
- Similar dynamic exists (for different reasons) with respect to electric power on Kenai Peninsula

Residential Customer Rates ($/kWh)

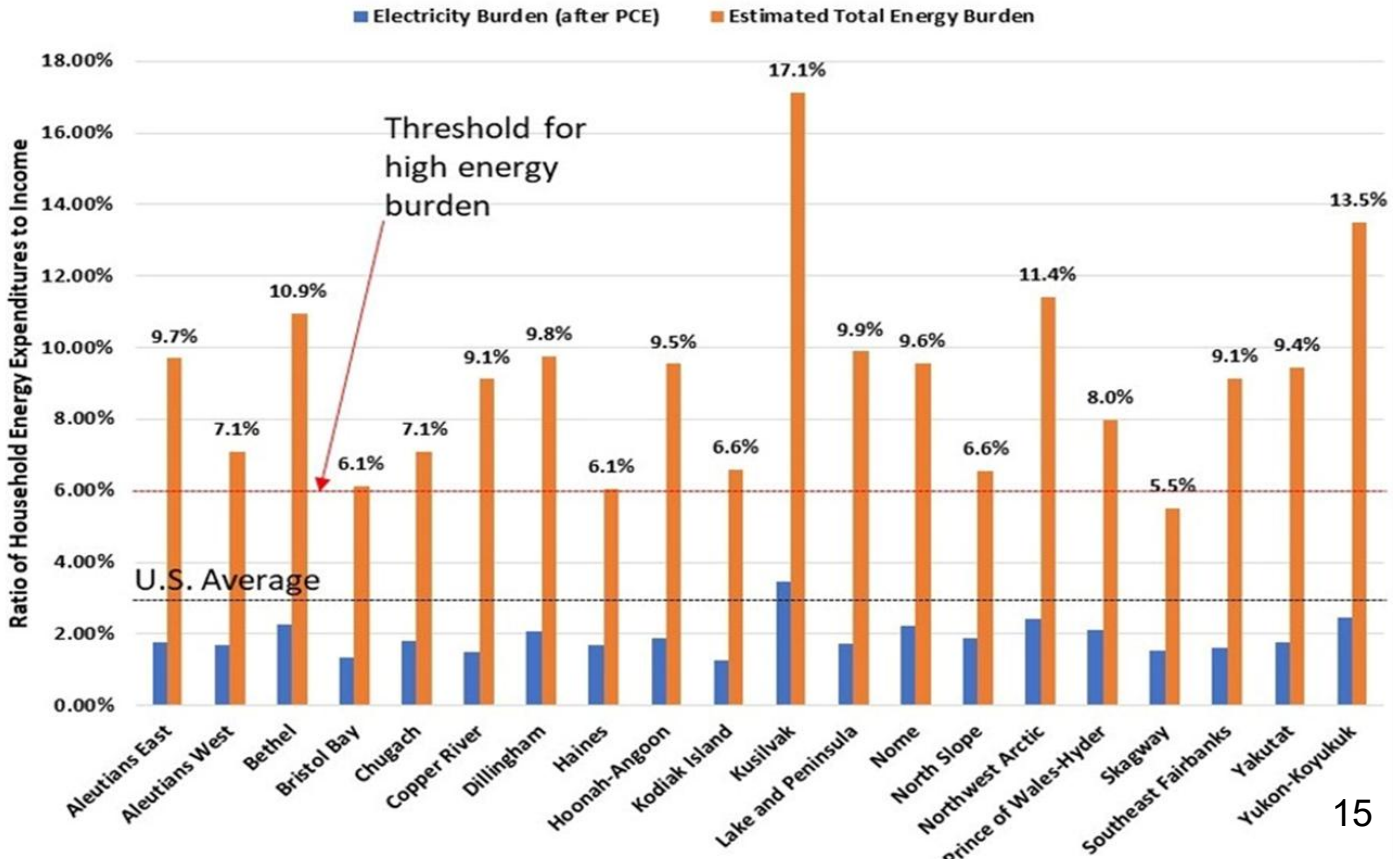
* not inflation adjusted; customer fees not included in calculation



Retail rate in rural Alaska is 2-3 times higher than "urban" AK

25-30% of kWh sales are eligible for PCE

Annual Household Energy Burden Estimates for Rural/PCE eligible communities (2022)



Note: U.S. average energy burden of ~3% is across all energy demand

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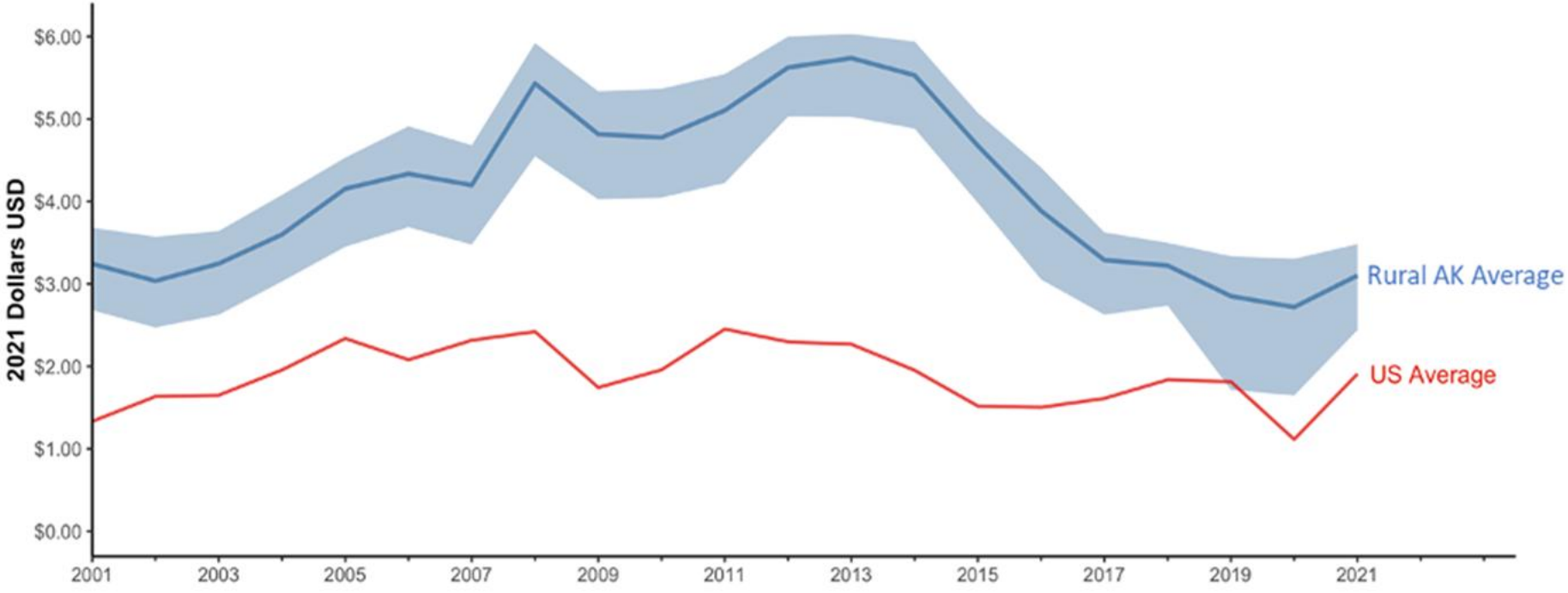
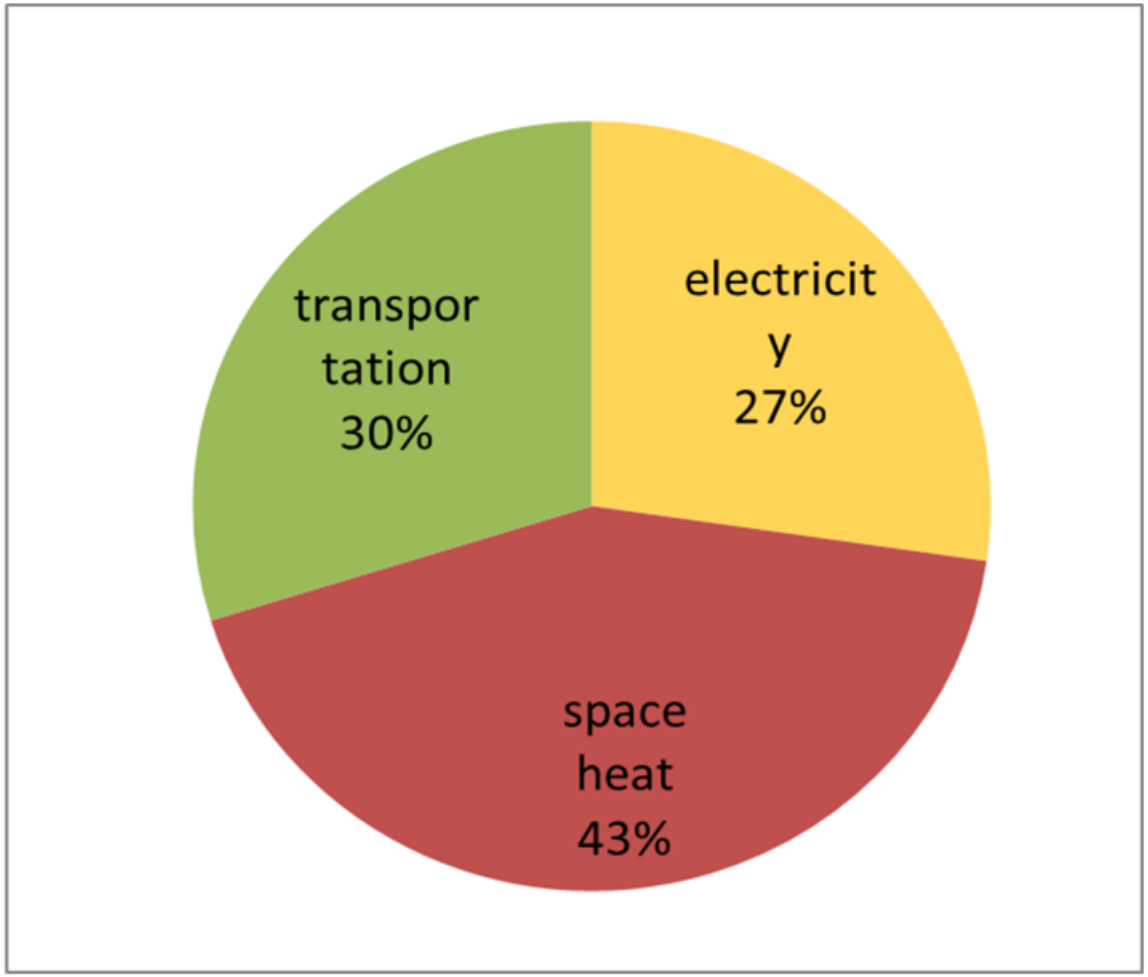
Price of heating oil in rural AK compared to U.S. average (historical)



PCE price data was adjusted to inflation using FRED CUUSA427SAH2, Fuels and Utilities in Urban Alaska.
US average price was inflation adjusted using FRED CUSR0000SEHE, Fuel Oil and Other Fuels, US City Average.
PCE fuel data includes #1 and #2 fuel oils, US fuel data is #2 fuel oil.
PCE N = 3522



S. Colt estimates, circa 2011

Total diesel use 1,272 gallons per person per year, in PCE communities

Projected extra cost burden from increase cost of fuel in rural AK due to Iran War

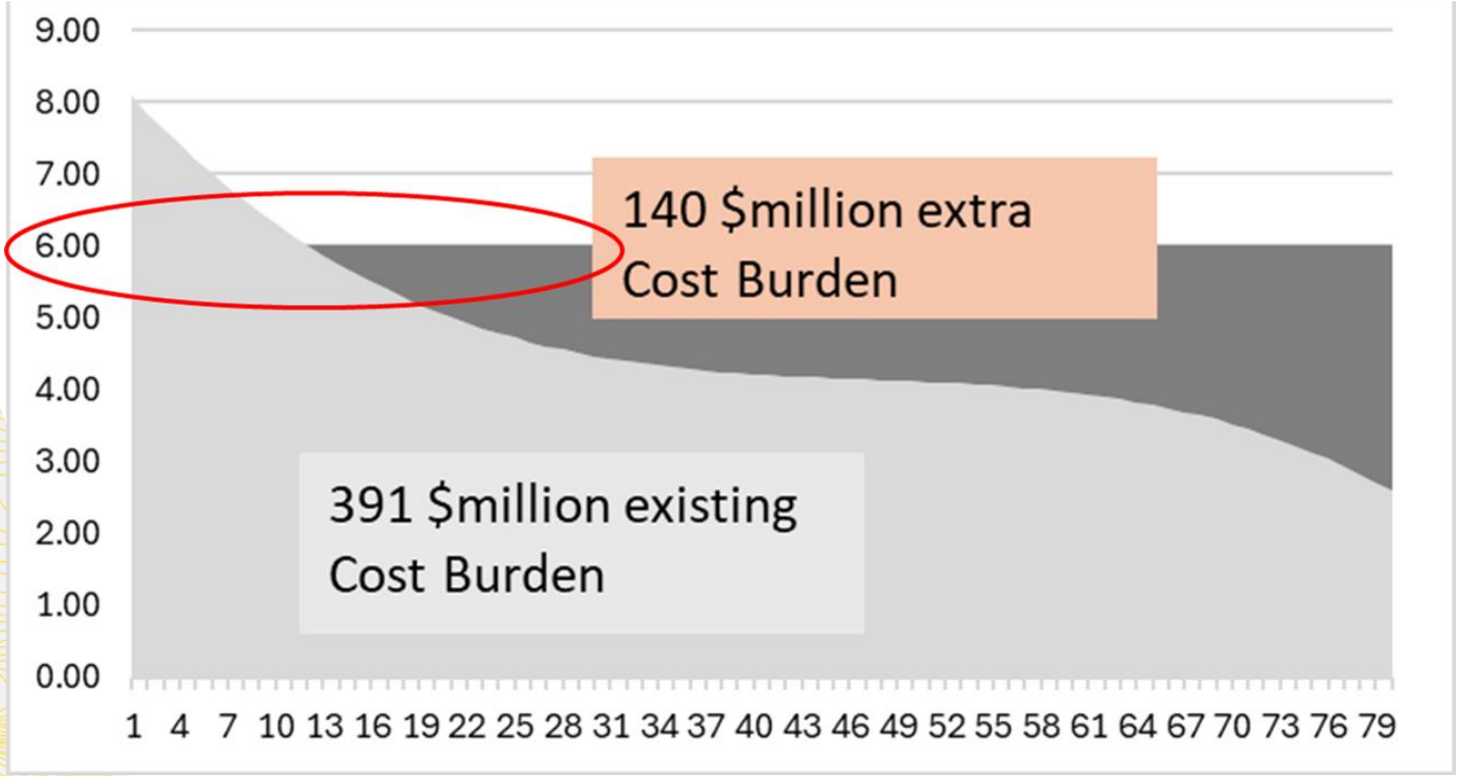


Chart by S. Colt (ACEP)

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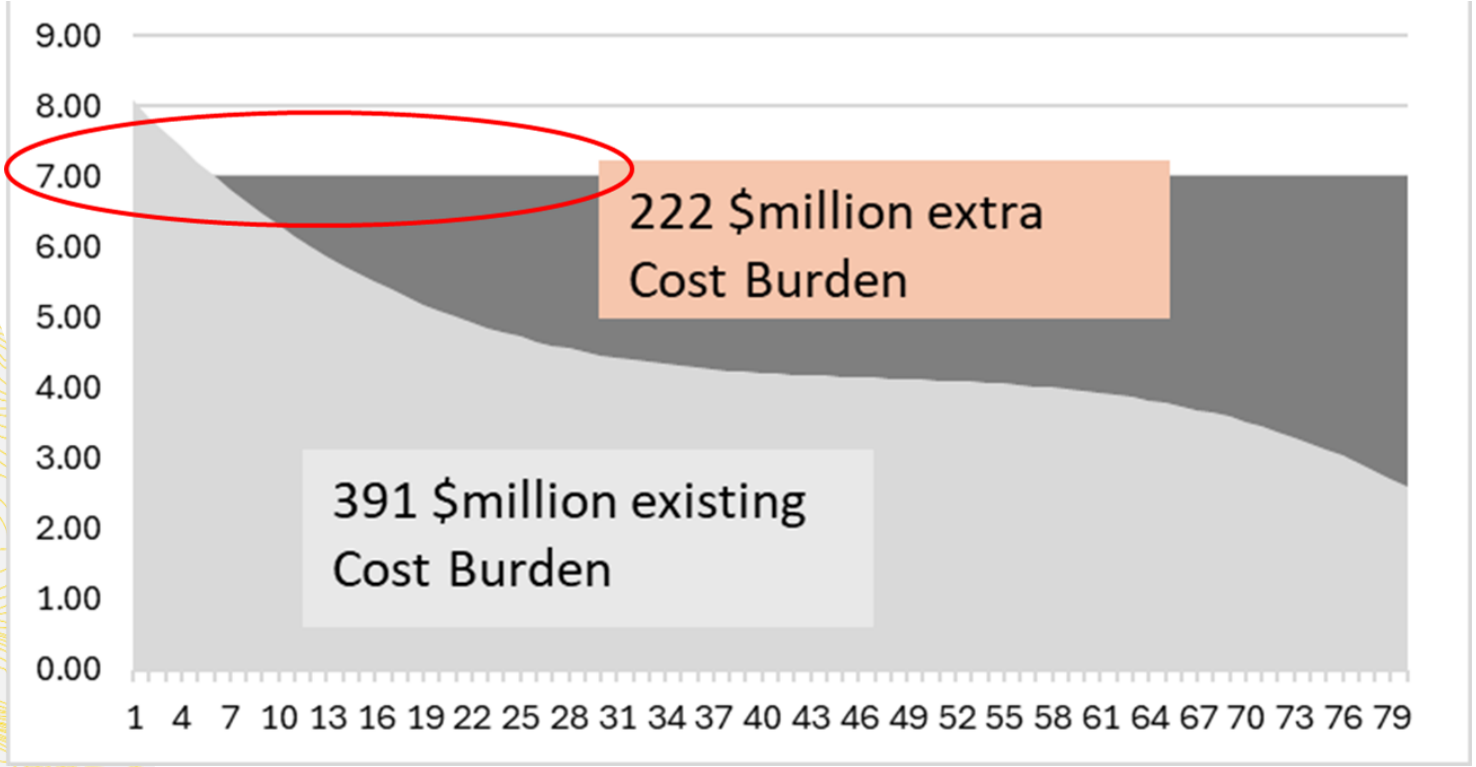

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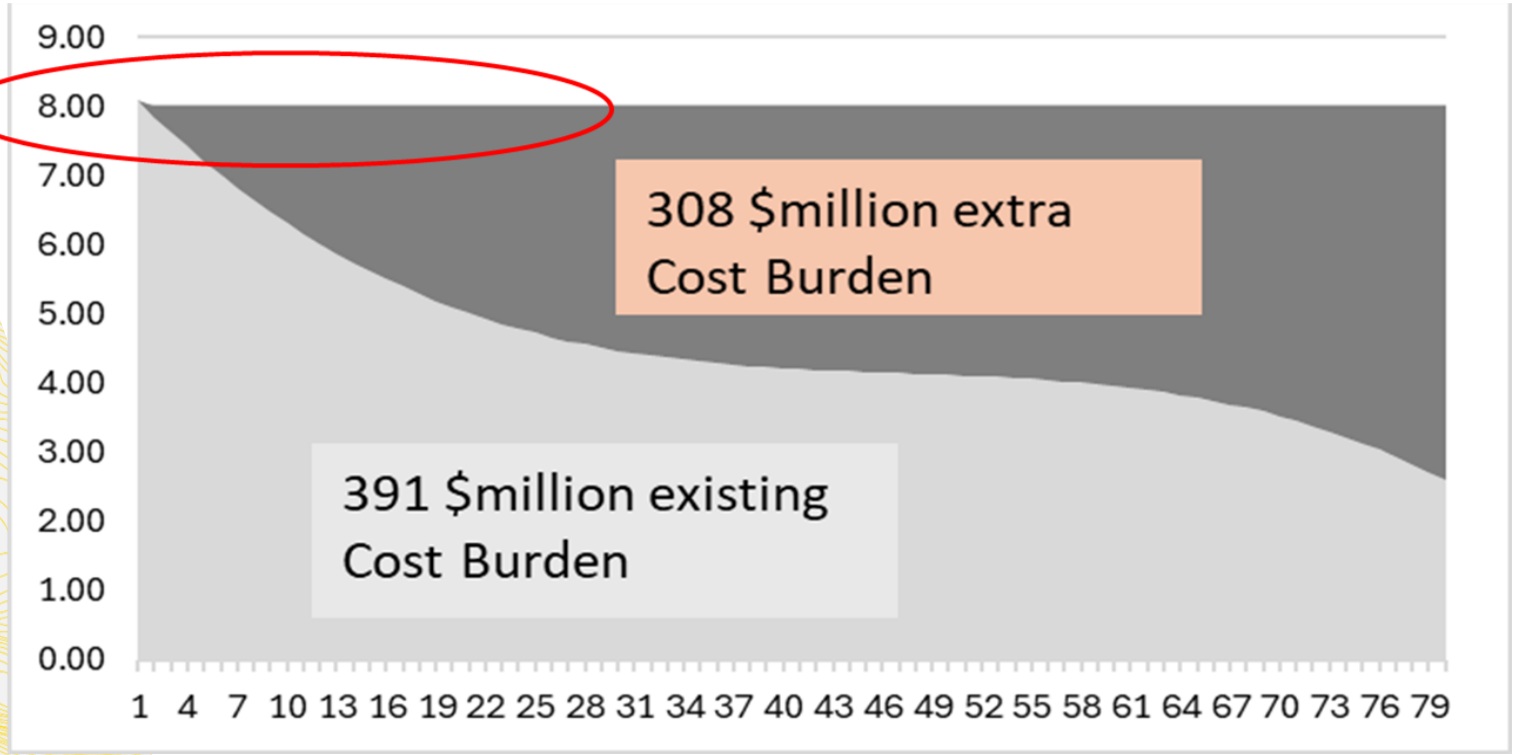

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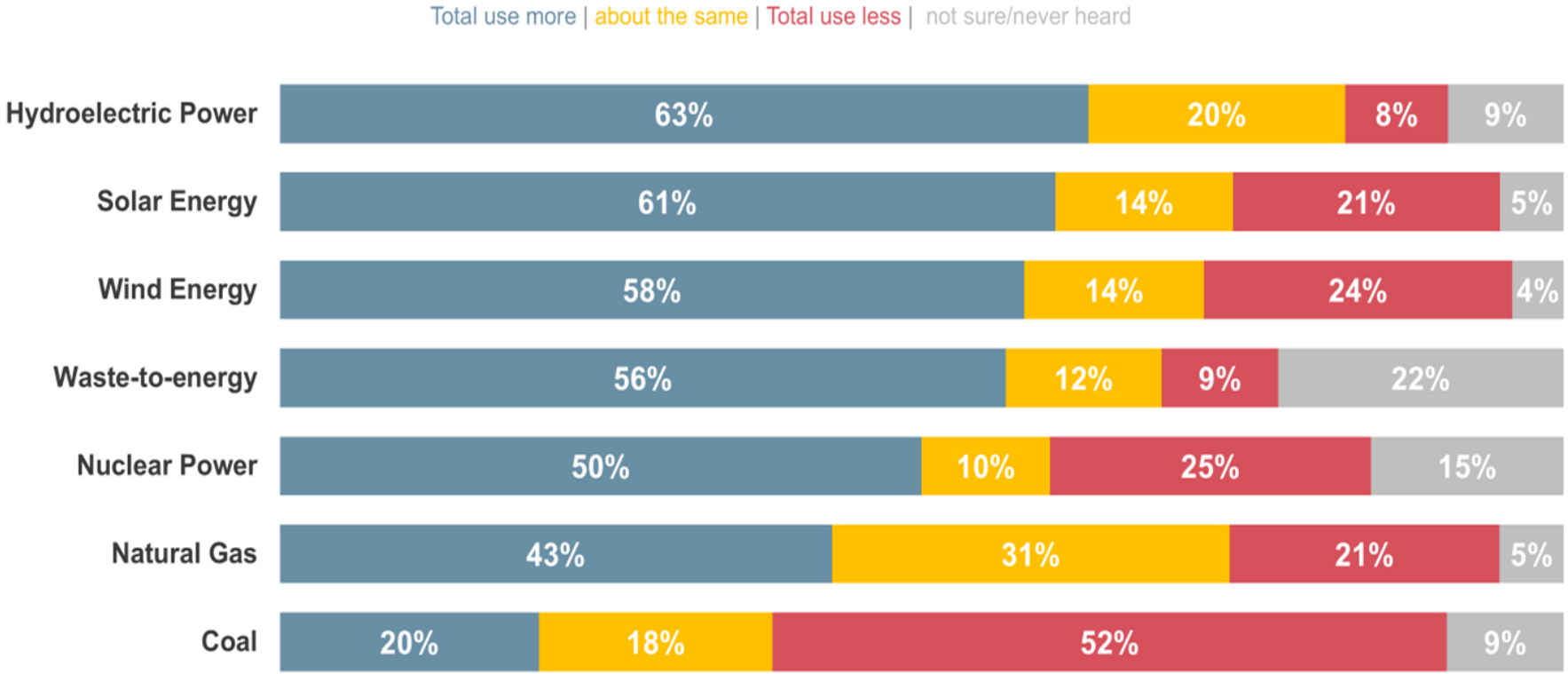
PART 2:

Perspectives and reality - cost of energy in Alaska

- General perspectives on energy technologies
- Perspectives on AKLNG project
- Perspectives on nuclear energy

Should Alaskans use more or less?

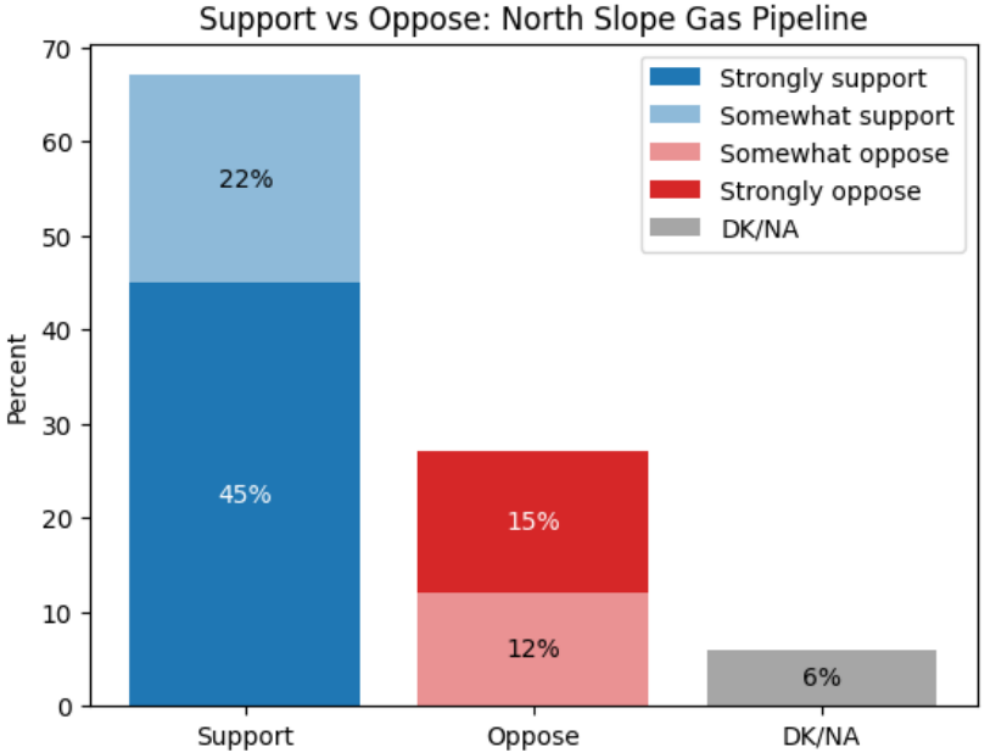


Poll results indicate Alaskans are interested in choices that reduce their energy costs:

- 72% support their utility moving toward clean energy, but only 48% are willing to pay more for it.
- Biggest reason for moving toward renewables is the reduce the long-term cost of energy (35%).
- Support/non-support for nuclear partly tied to perceptions it will be cheaper or more expensive than other alternatives.
- Support for a pipeline partly tied to the belief it will reduce energy prices in Alaska.

Perspectives on: AK LNG Project

Support for a natural gas pipeline

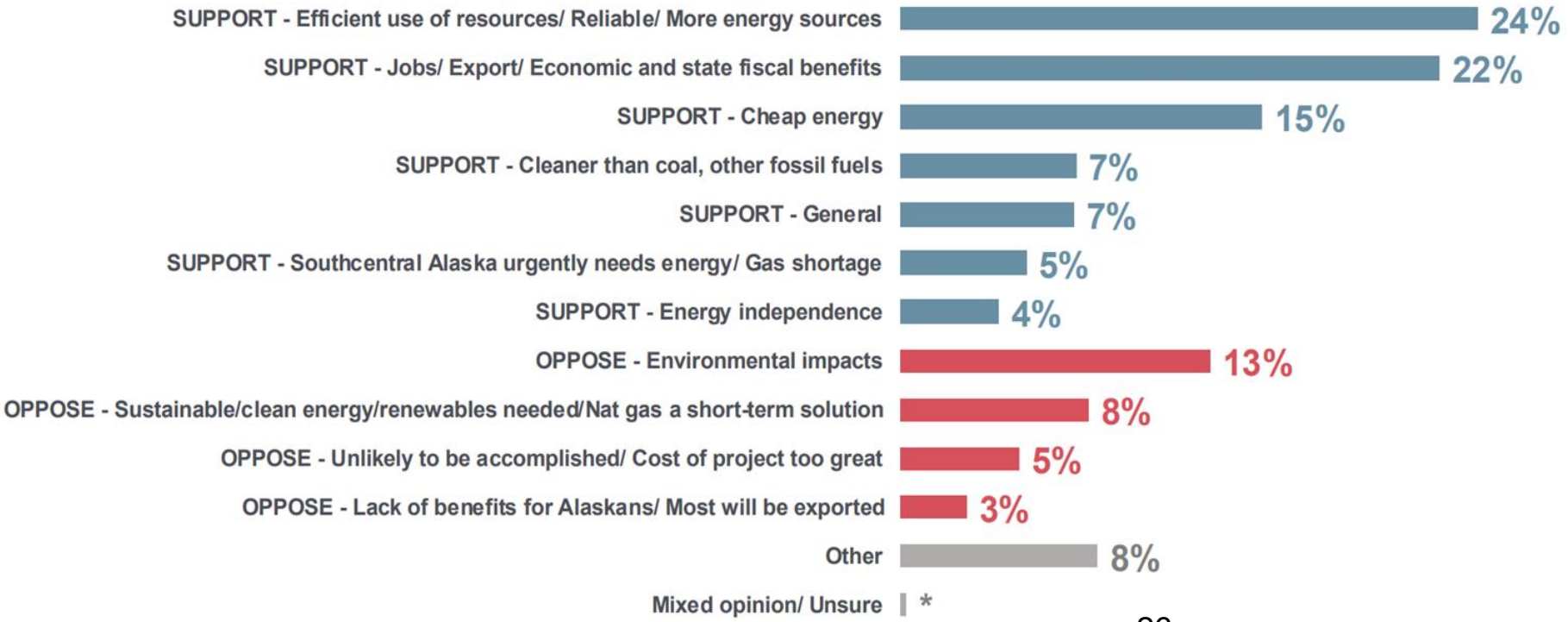


Would you say you support or oppose building a new natural gas pipeline from the North Slope to Southcentral Alaska?

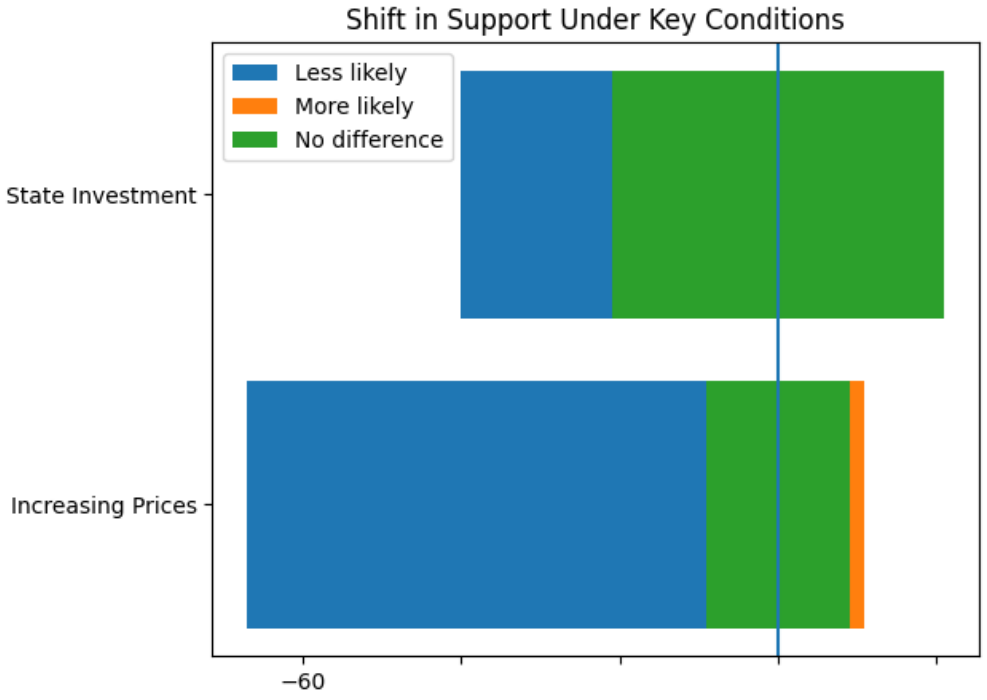
Support strongest in Mat-Su (83%) and lowest in Southeast (59%)

Public polling consistently shows strong baseline support for a North Slope gas pipeline in Alaska, often in the 70–80% range

In your own words, why do you support or oppose a natural gas pipeline?



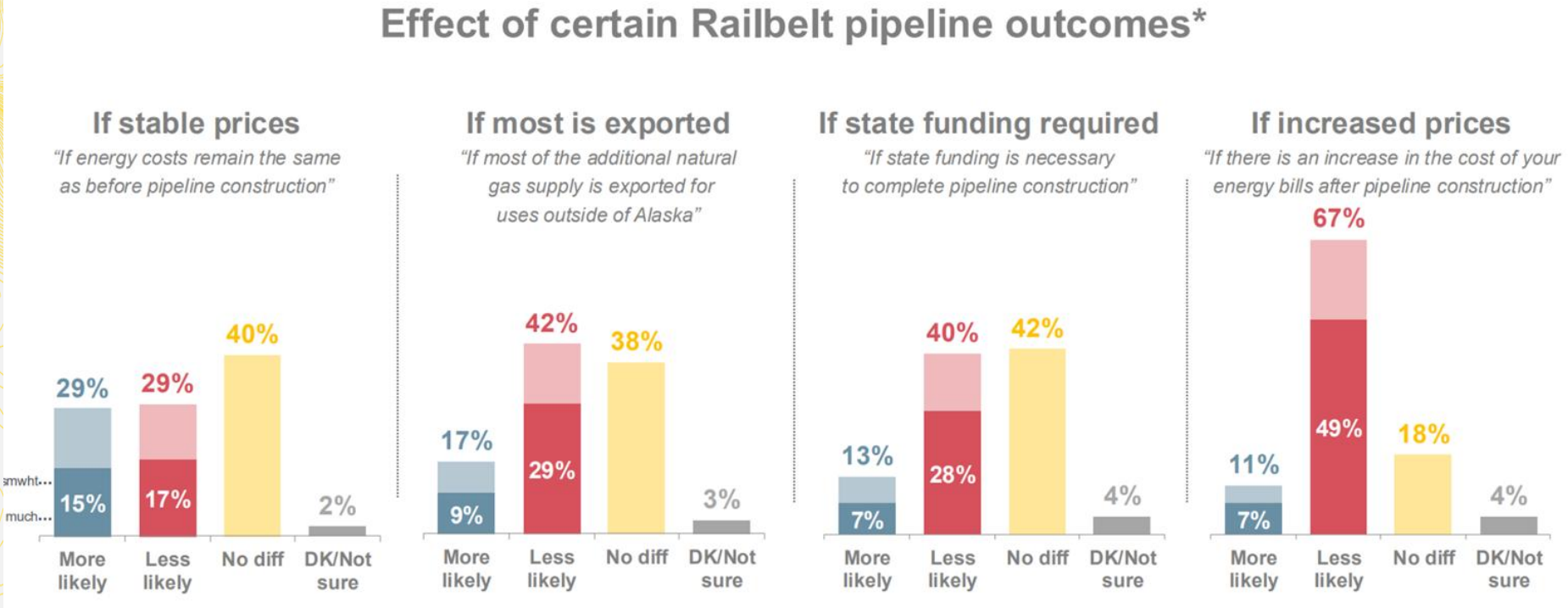
Public support is sensitive to costs



How would support for the pipeline change under different conditions?

- If the project requires additional state investment: –27%
- If energy costs increase compared to today: –56%

Public support is sensitive to costs



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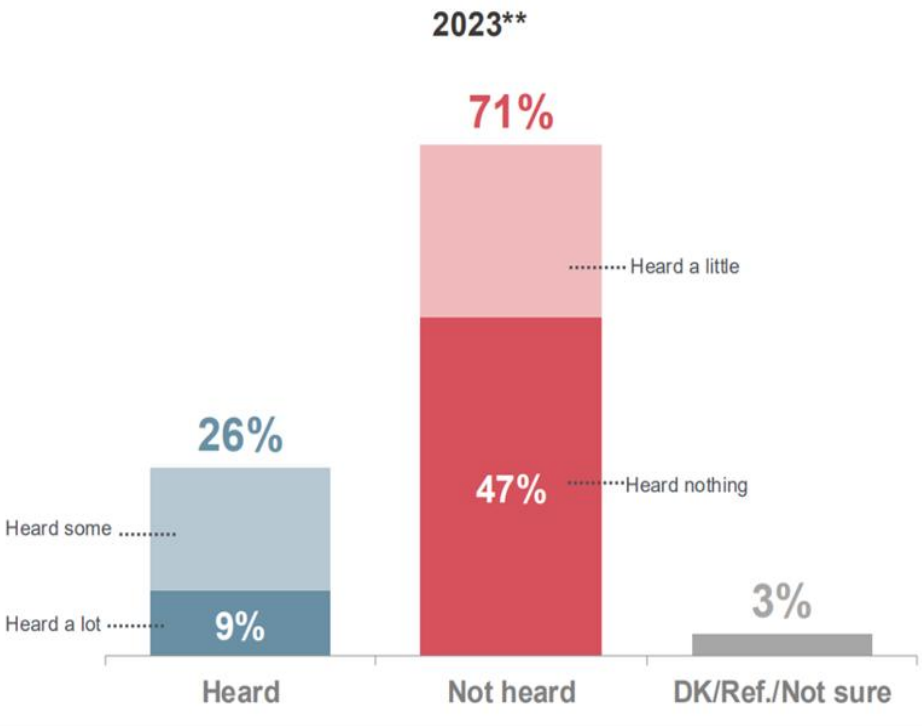
Perspectives on: Nuclear Energy

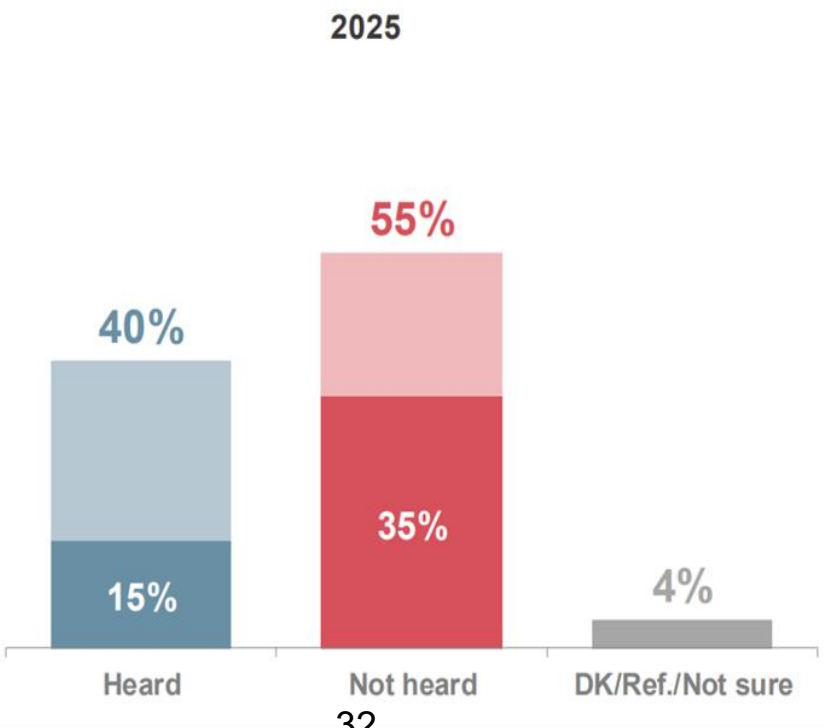
What are advanced nuclear reactors?

"Advanced nuclear" refers to a group of newer reactor designs that differ from the large commercial nuclear power plants built in the United States between the 1960s and 1990s. These designs are being developed to be:

Life-sized mockup of the Westinghouse eVinci 5 MW reactor at the Saskatchewan Research Council (SRC) facility in Saskatoon, SK

Awareness of microreactors has increased but a majority of Alaskan residents remain unaware



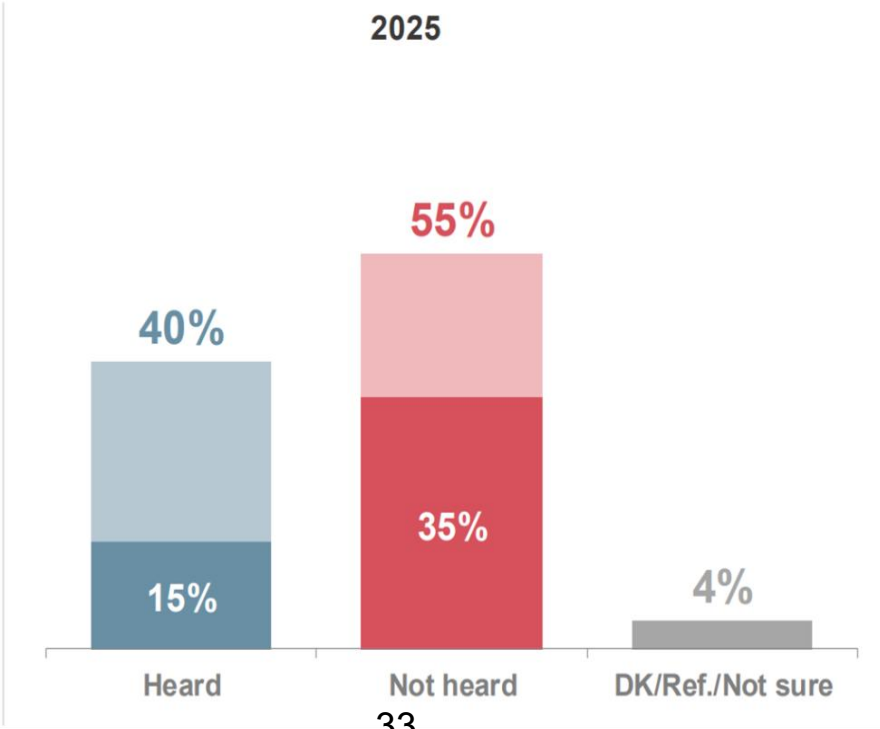


Awareness of microreactors has increased but a majority of Alaskan residents remain unaware

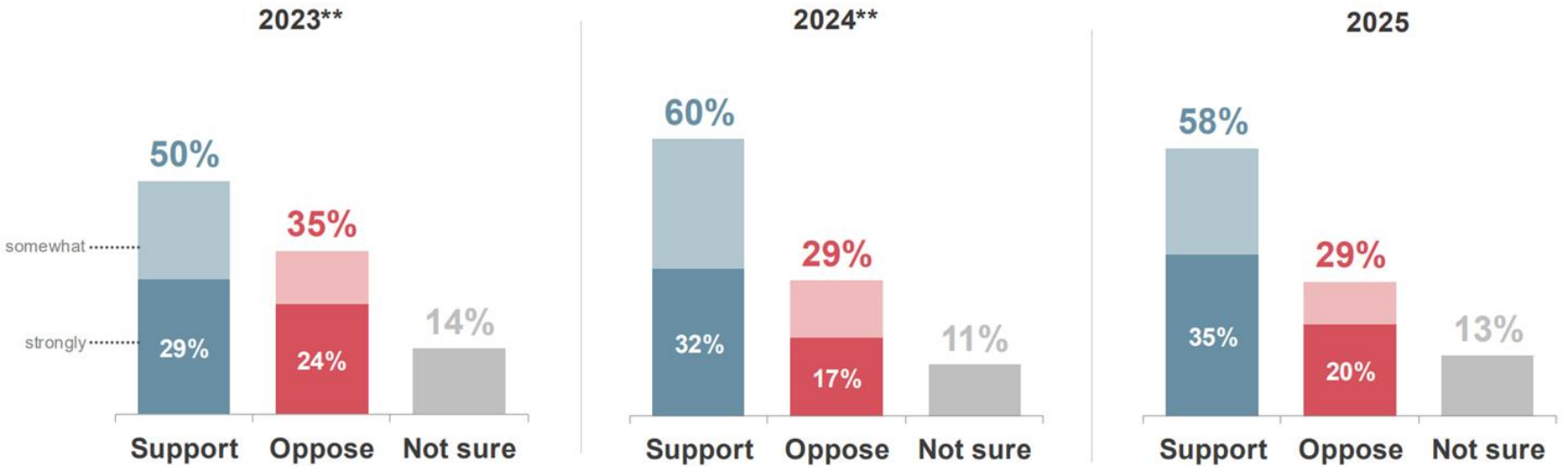
	Heard a Lot / Some – Heard a Little / Nothing
Anchorage	44-53
Fairbanks	54-44
Kenai	36-50
Mat-Su	28-70
Southeast	30-65
Rural	39-50

Regional Differences Exist:

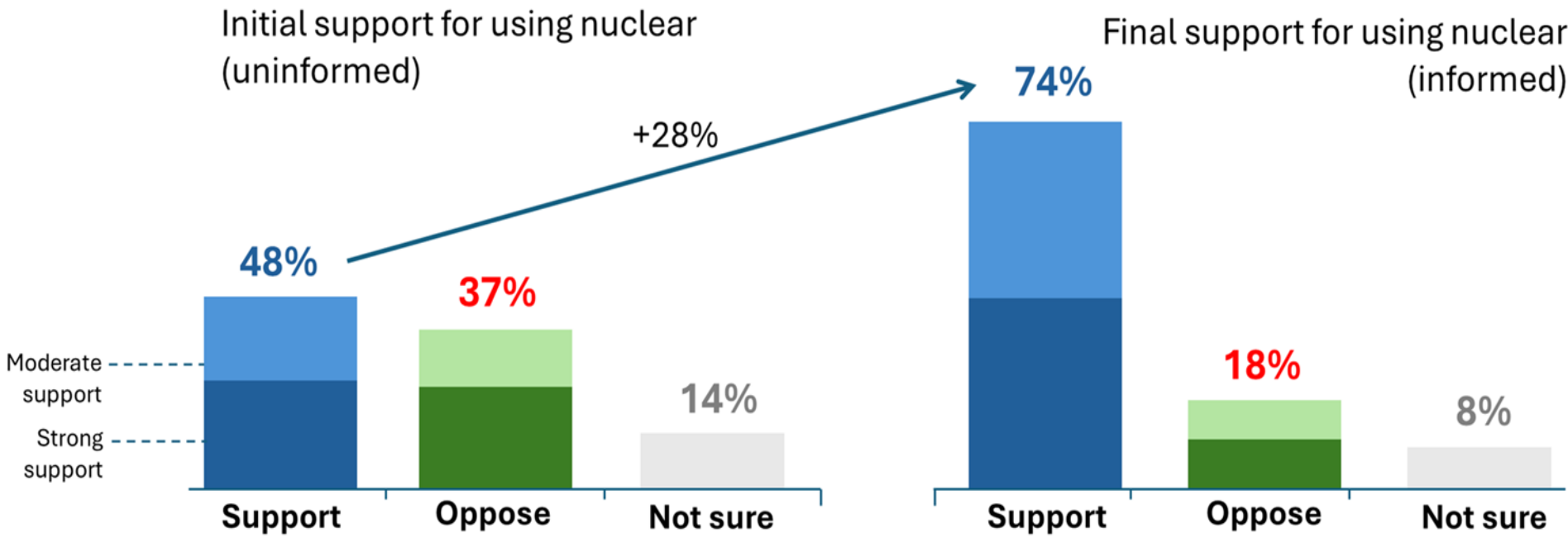
- Highest familiarity in Fairbanks
- Lowest in Mat-Su and Southeast



Change in support for using nuclear energy in Alaska (2023-2025)



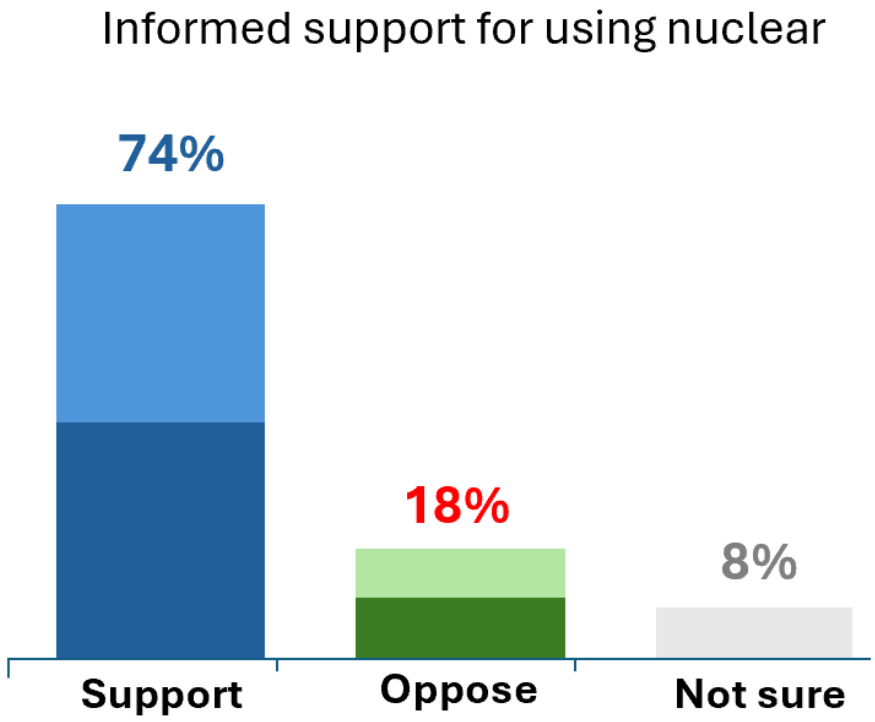
Support for nuclear microreactors increases significantly when respondants are given additional information about the technology



*** A nuclear microreactor is a small nuclear reactor that is much smaller than conventional nuclear technology. Microreactors are essentially a small nuclear-powered battery. They vary in size based on the manufacturer, but in general would be small enough to fit inside a shipping container and produce around 10 megawatts, which could power around 7,000 homes and also provide heat. Because of their small size, microreactors use much less nuclear fuel and have enahnced safety features. They also do not require water for cooling. After learning more, do you support or oppose the idea of Alaska exploring the use of microreactors to supply energy to Alaskans?*

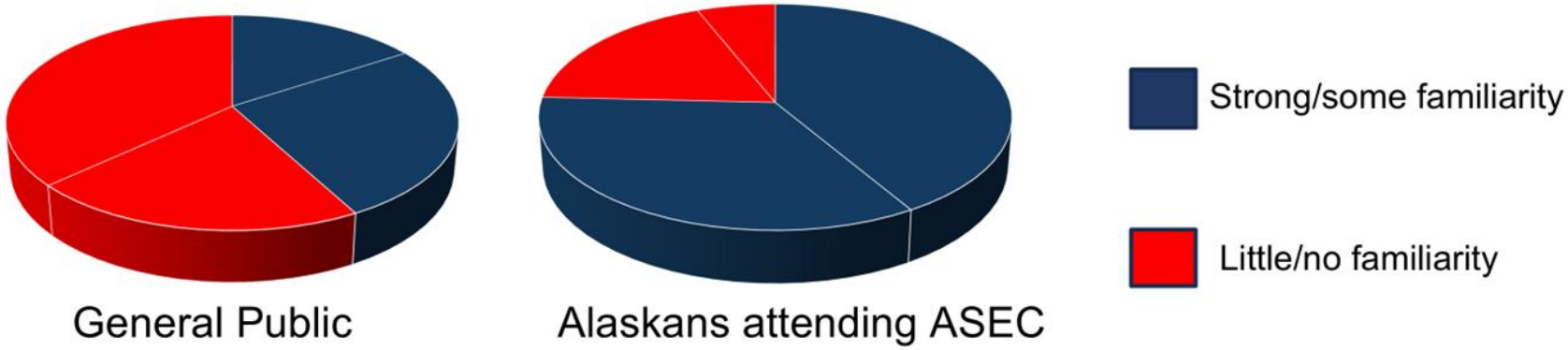
Informed support holds across regions, ages, and political leanings

	support – oppose
Anchorage	75-15
Fairbanks	85-7
Kenai	75-11
Mat-Su	80-13
Southeast	81-12
Rural	75-19
Age 18-34	77-14
35-49	78-14
50-64	76-16
65+	82-13
Liberal	75-17
Moderate	76-16
Conservative	83-11
Male	83-12
Female	72-17



Public awareness of advanced reactors

Based on public polls and surveys conducted by ACEP over the past three years, most public survey respondents have heard little or nothing about microreactors, while energy-focused audiences including people in leadership positions tend to show higher familiarity.



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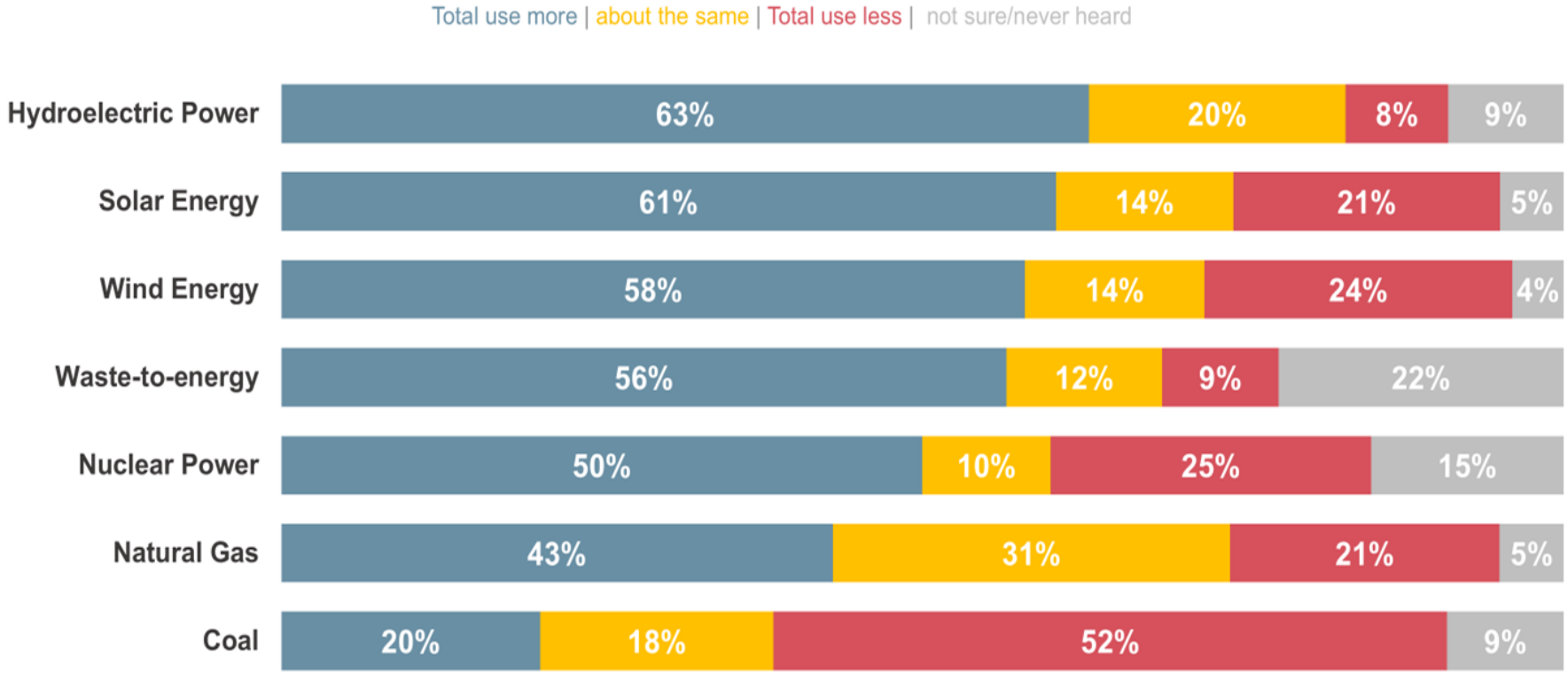

The Alaska Energy Data Gateway

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THANK YOU!

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