

Natural Gas and the 2021-22 Winter Heating Season

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The American Gas Association (AGA) represents companies delivering natural gas safely, reliably, and in an environmentally responsible way to help improve the quality of life for their customers every day. AGA's mission is to provide clear value to its membership and serve as the indispensable, leading voice and facilitator on its behalf in promoting the safe, reliable, and efficient delivery of natural gas to homes and businesses across the nation.

Committed to utilizing America's abundant, domestic, affordable and clean natural gas to help meet the nation's energy and environmental needs.

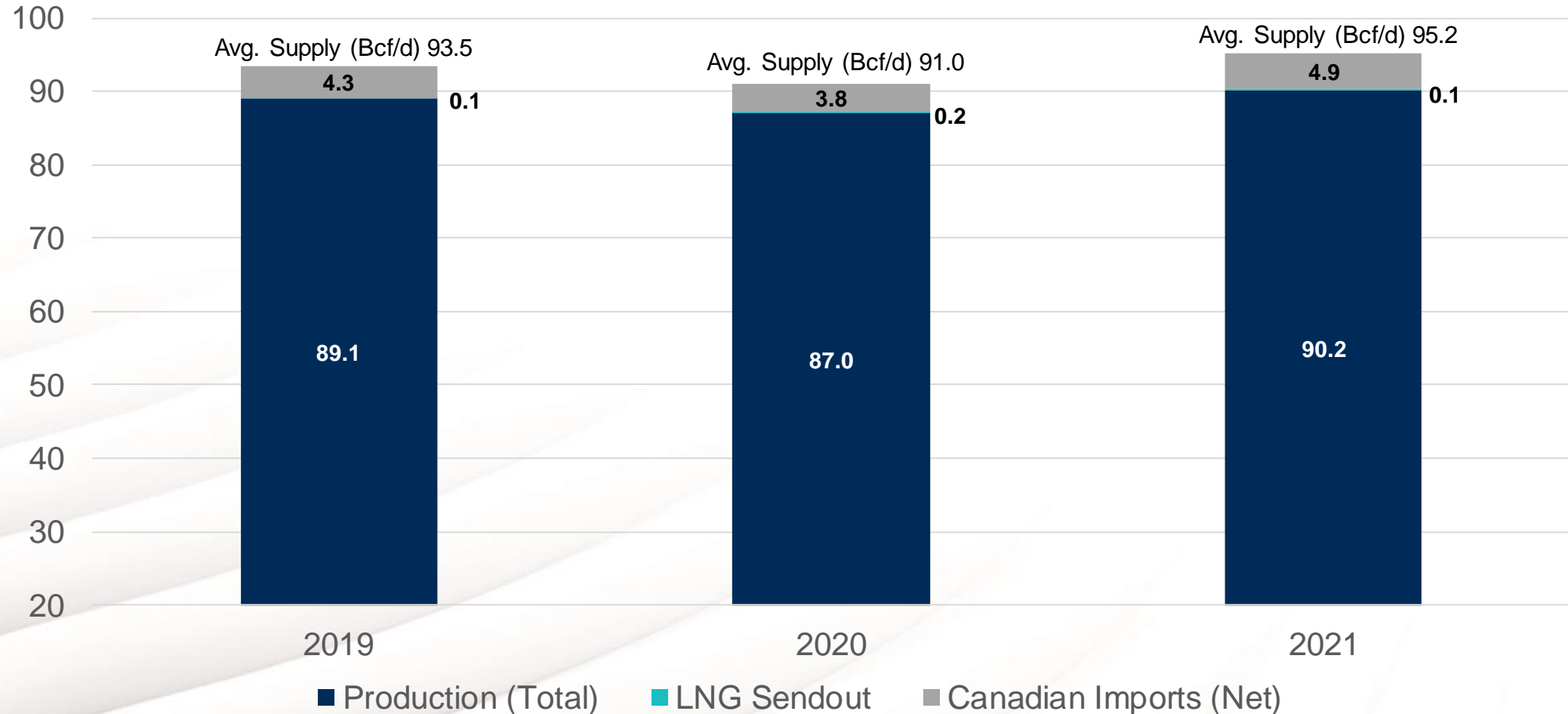
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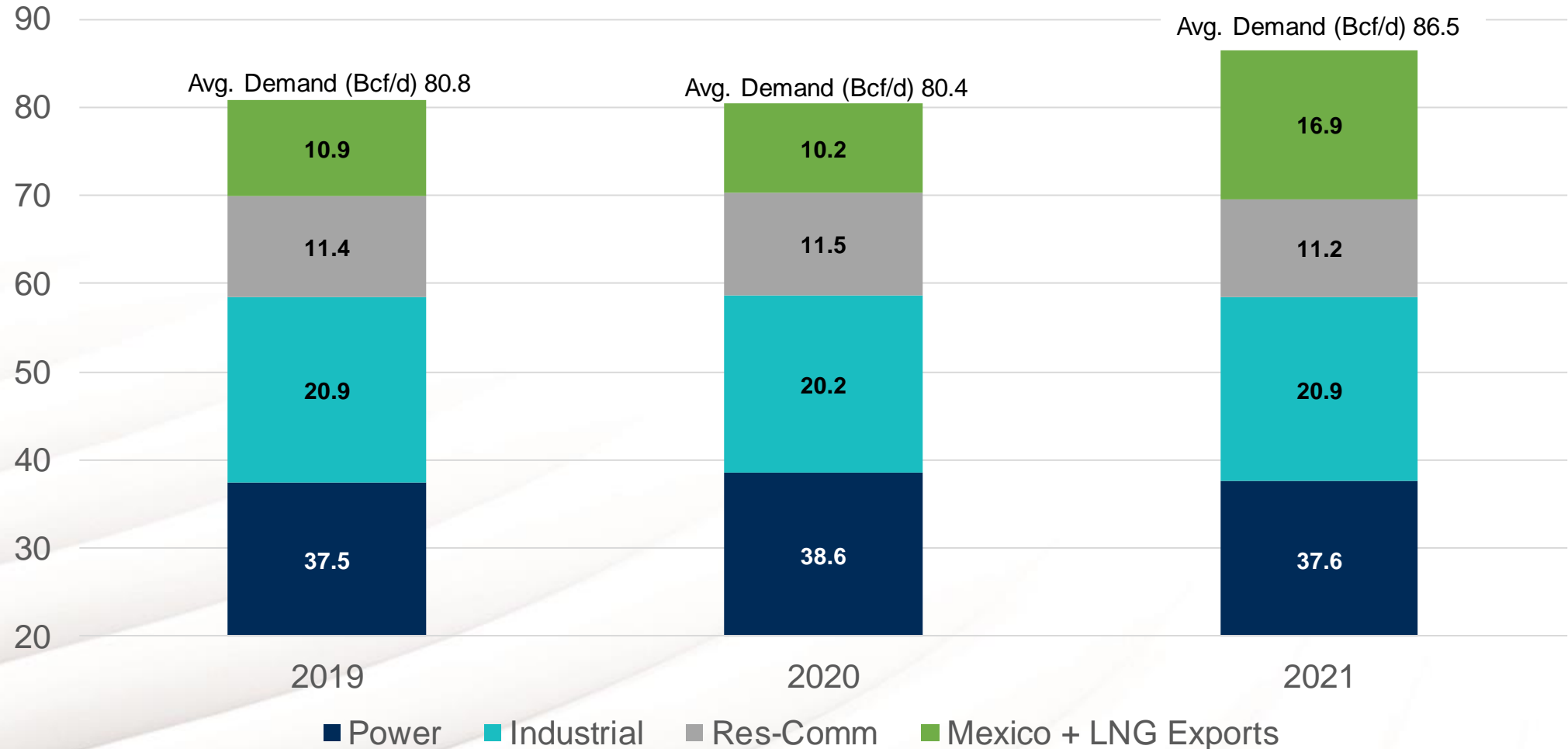
Supplies have grown from the slowdown of 2020 but have not kept pace with demand.

June - September US Supply Stack
Bcf per day



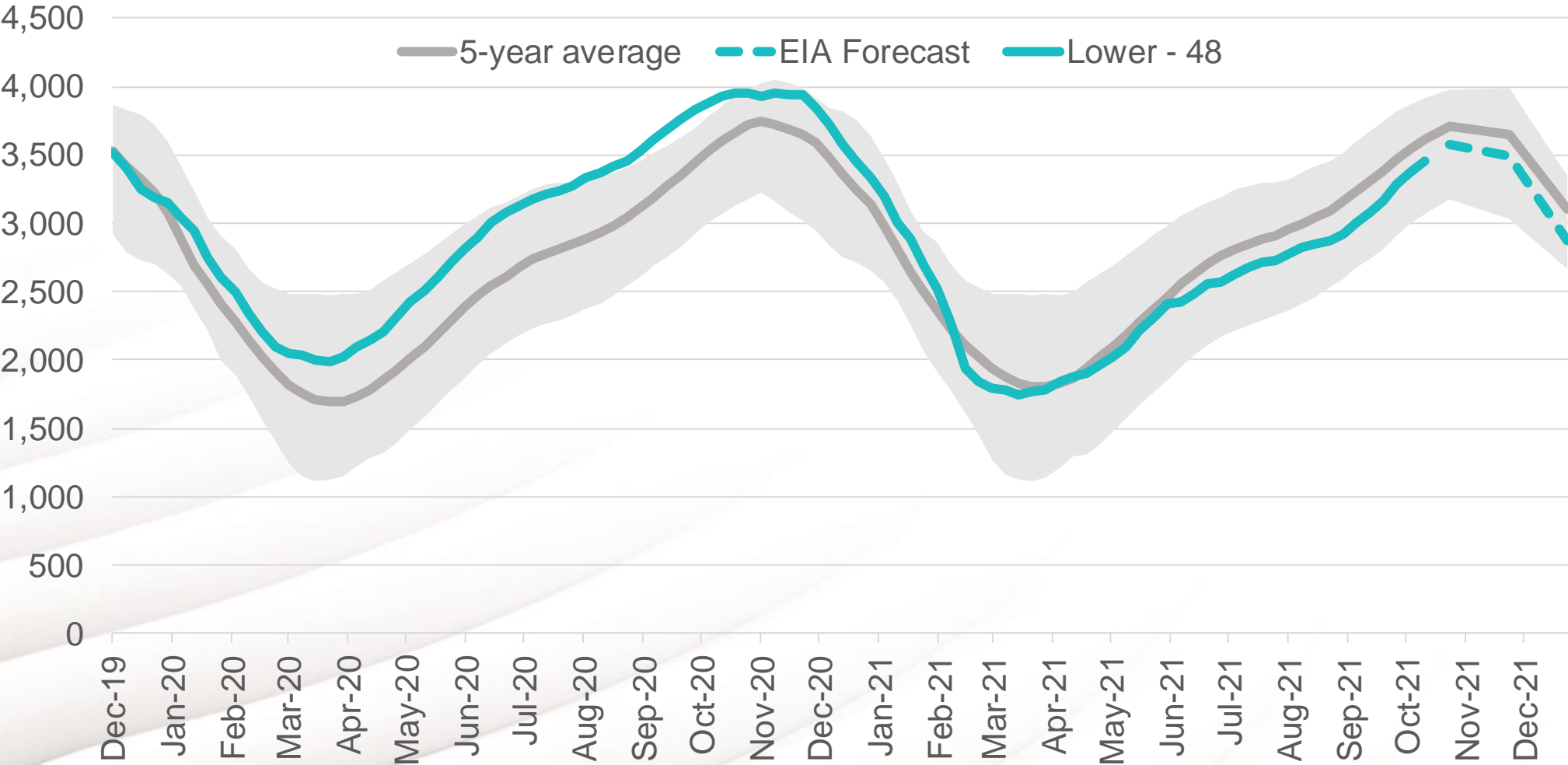
Demand has been strong, with growth almost entirely from LNG exports and pipeline gas to Mexico.

June - September US Demand Stack
Bcf per day



Storage inventories will begin the winter heating season below the five-year average in every region

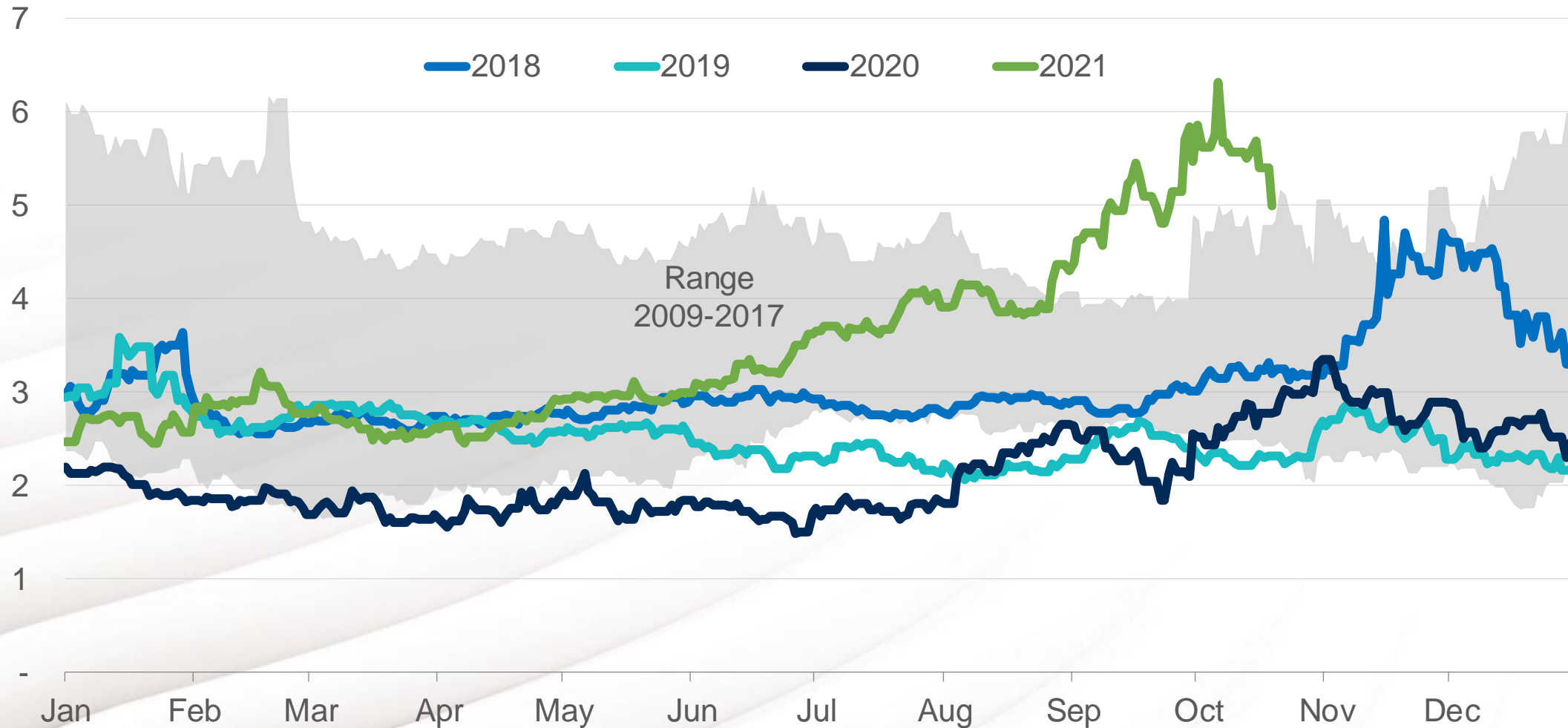
Working Gas in Underground Storage Lower-48 States (billion cubic feet)



Source: Energy Information Administration, Forecast based on EIA's October Short-Term Energy Outlook

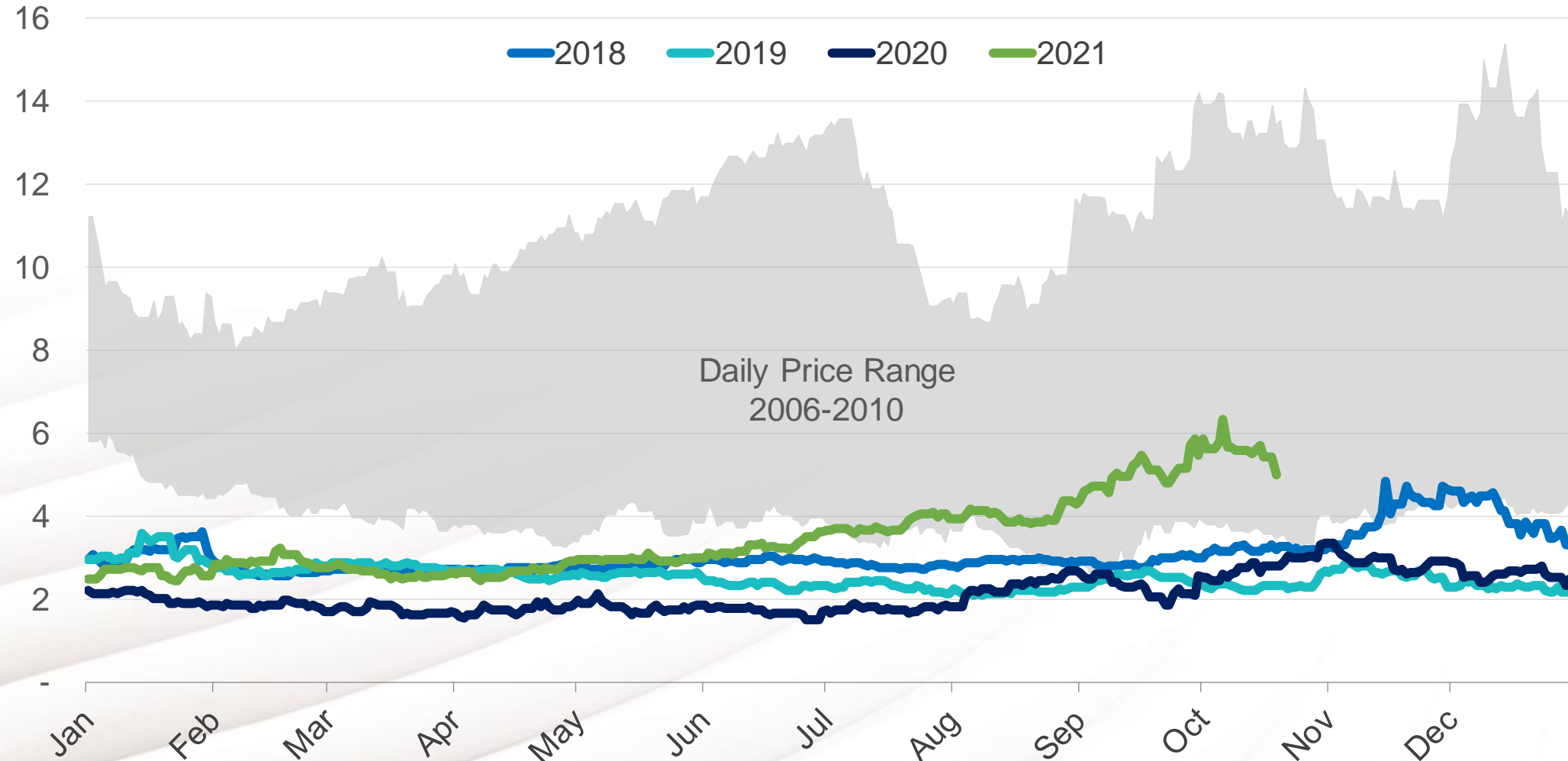
Henry Hub future prices facing pressure headed into the winter

Natural Gas Prices Prompt-Month Futures at Henry Hub
\$/MMBtu



Within a larger span of history, prices remain low and stable

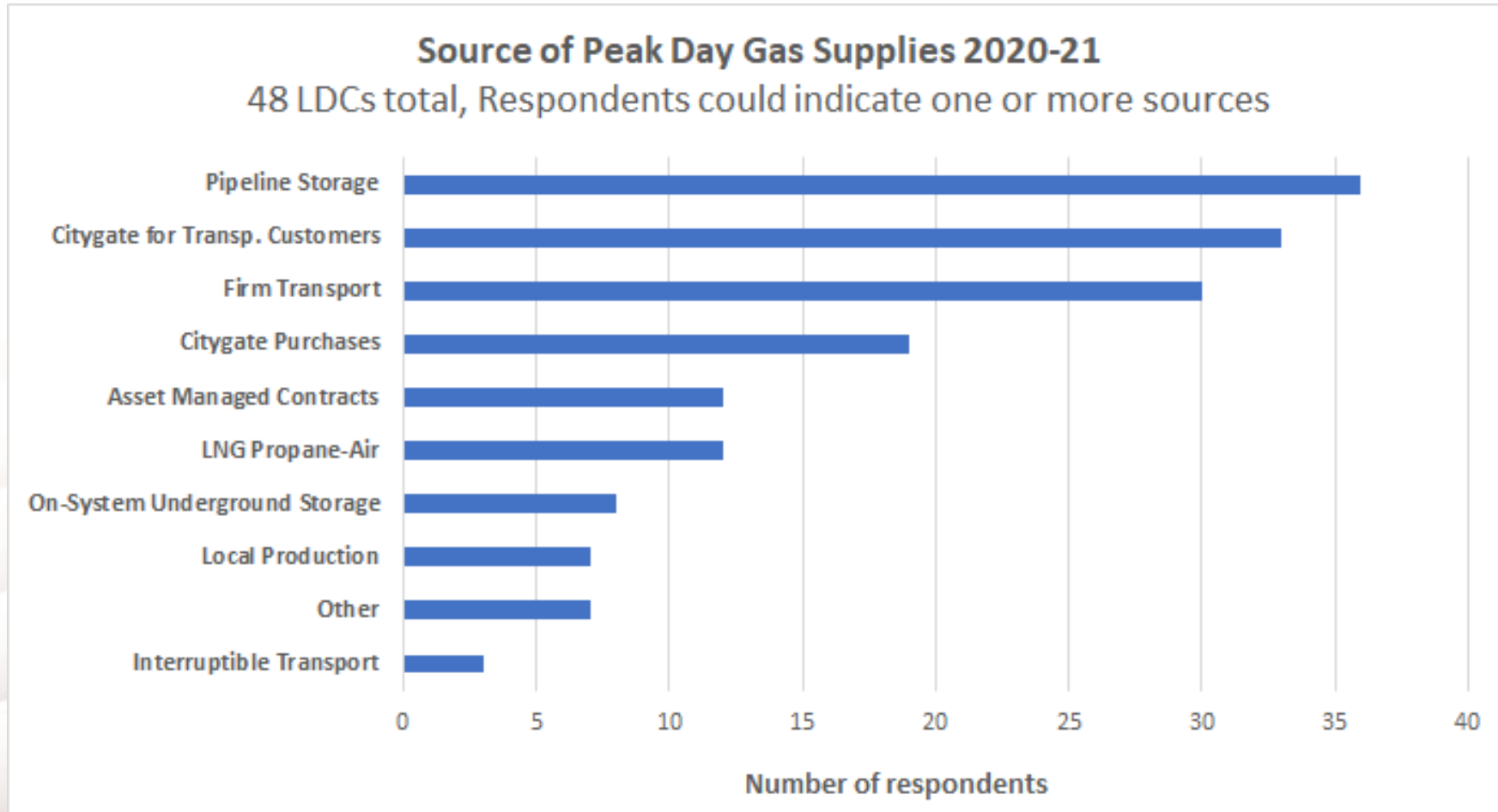
Daily Natural Gas Prices Prompt-Month Futures at Henry Hub (\$/MMBtu)



Why do utilities plan for the Winter Heating Season?

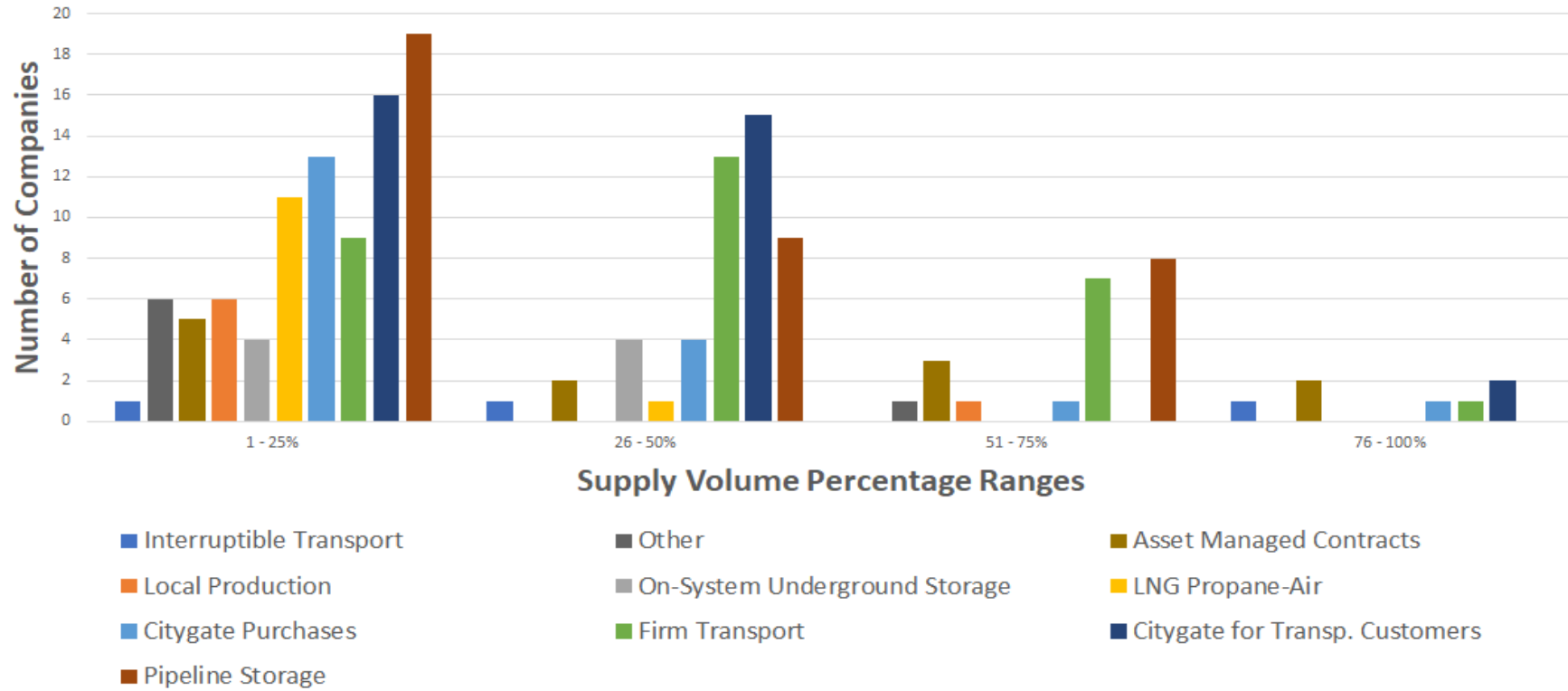
- Anticipate demand
- Mitigate physical flow and market fluctuations
 - Extreme day to day demand and consumption fluctuations due to weather
- Diversify sources of gas
 - Balances consumption with domestic and international suppliers
- Deliver low-cost and reliable natural gas to customers
 - On the coldest day, week and year of the season

Utilities employ a set of diverse physical assets to meet supply obligation.



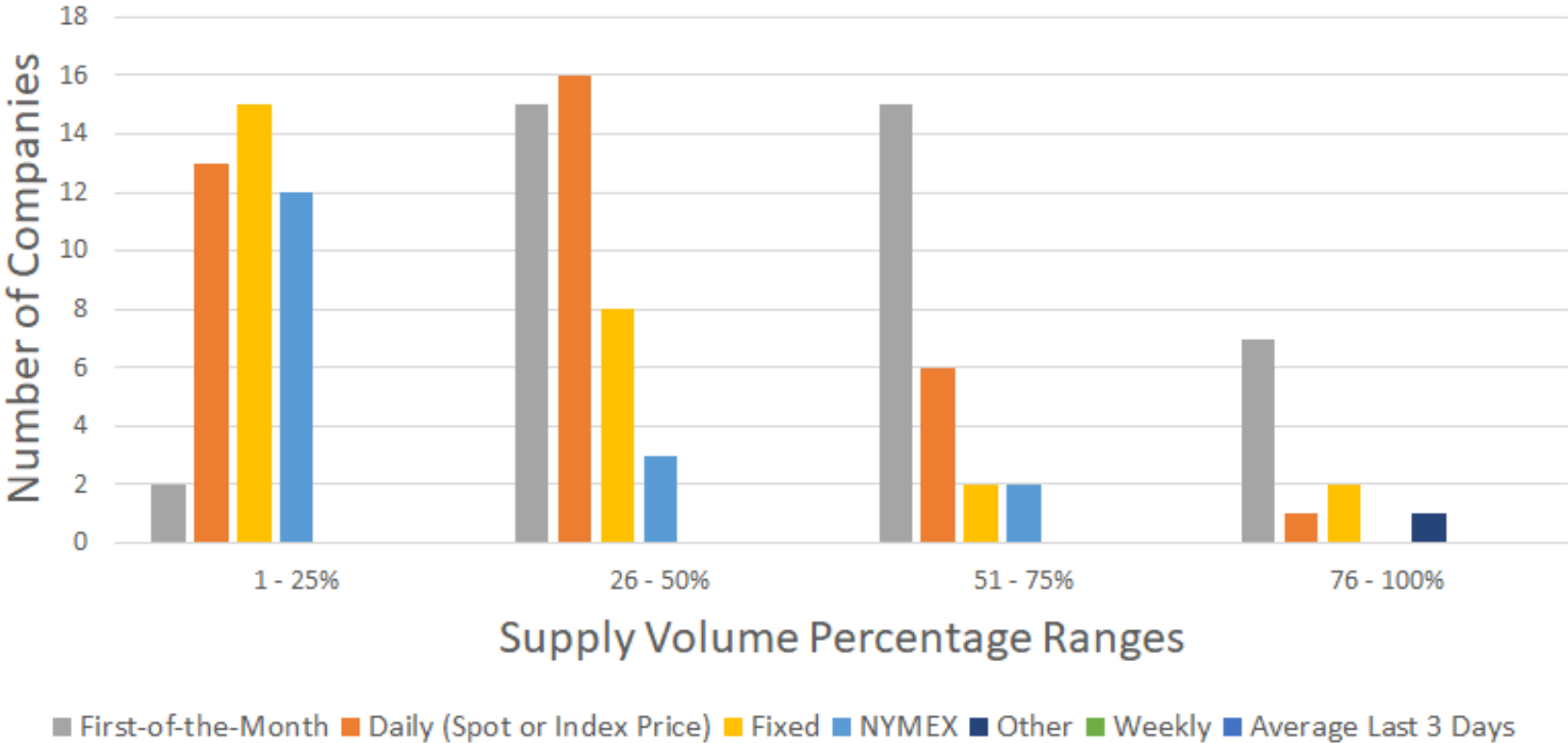
Utilities diversify their supply strategy in increments to ensure a balanced portfolio.

Sources of Peak-Day Gas Supplies by Number of Companies
2020 - 2021 Winter Heating Season
(48 Local Distribution Companies)



Utilities utilize a set of diverse financial mechanisms to meet supply requirements.

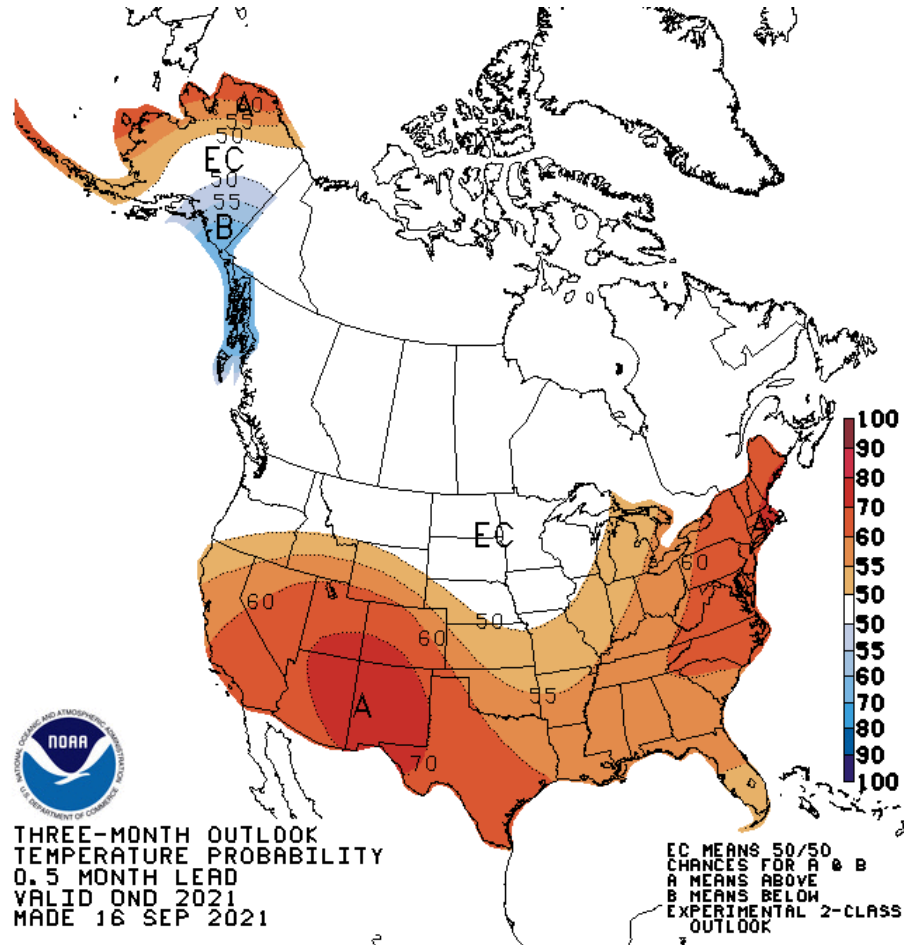
Gas Supply Pricing Mechanisms
2020 - 2021 Winter Heating Season
(48 Local Distribution Companies)



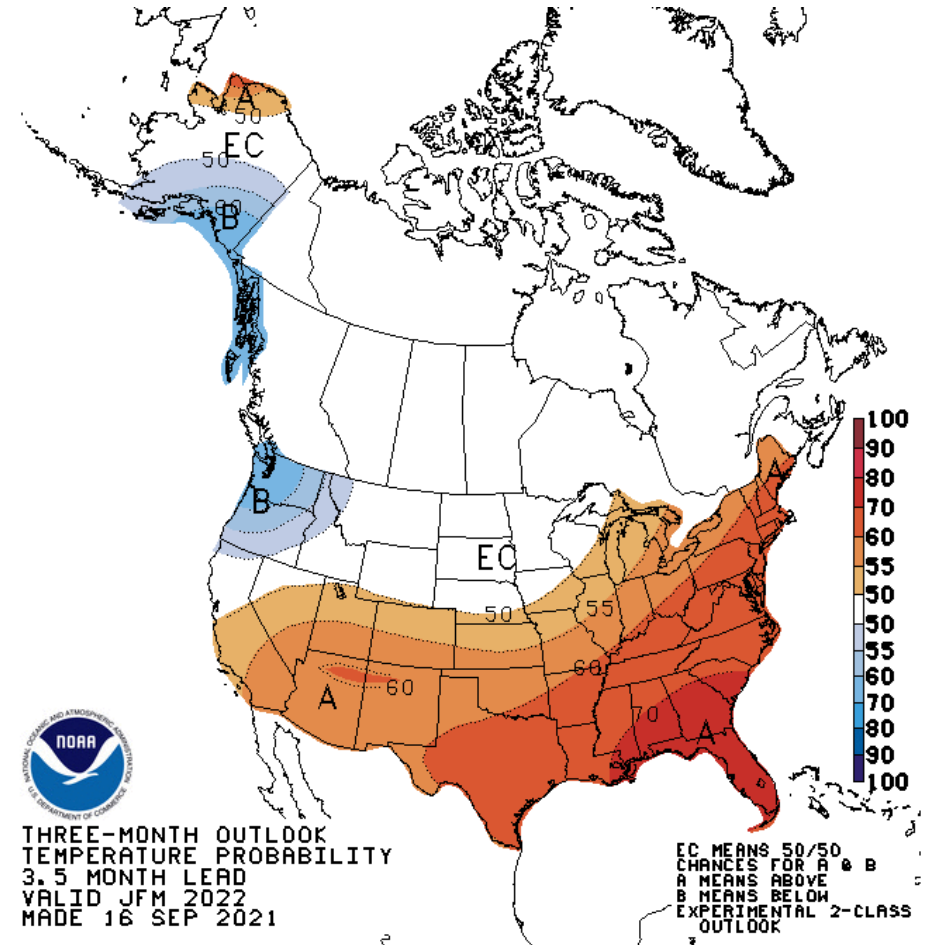
Sources: [AGA Winter Heating Season Report](#)

Expectations for 2021-2022 Winter Weather

NOAA Forecast November-January

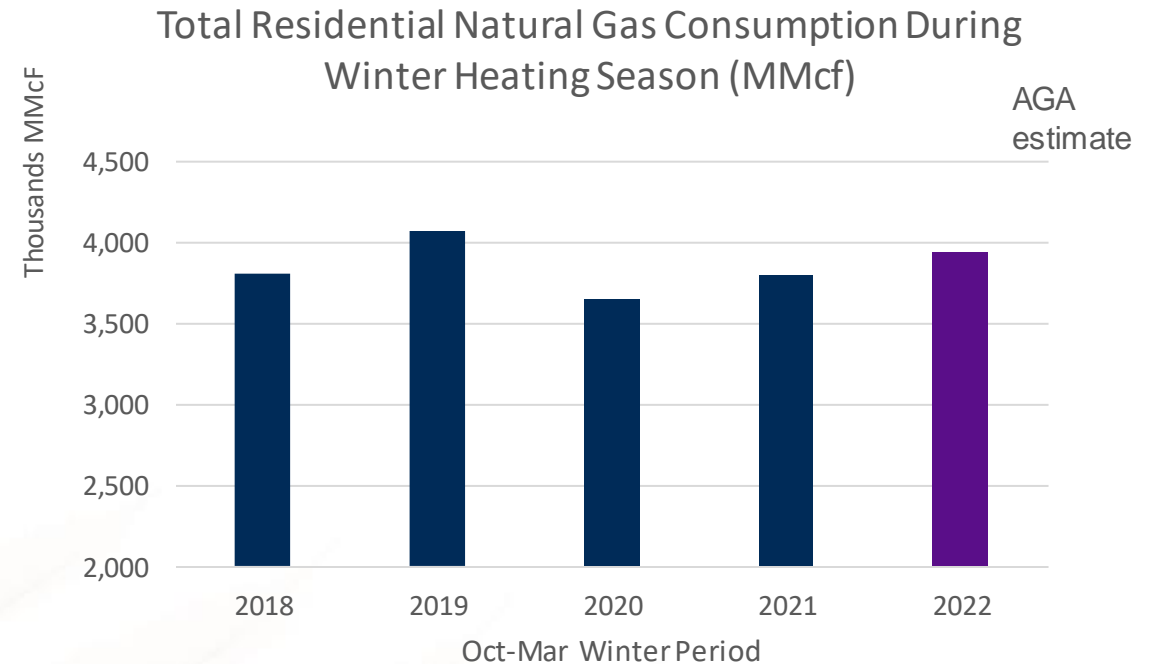
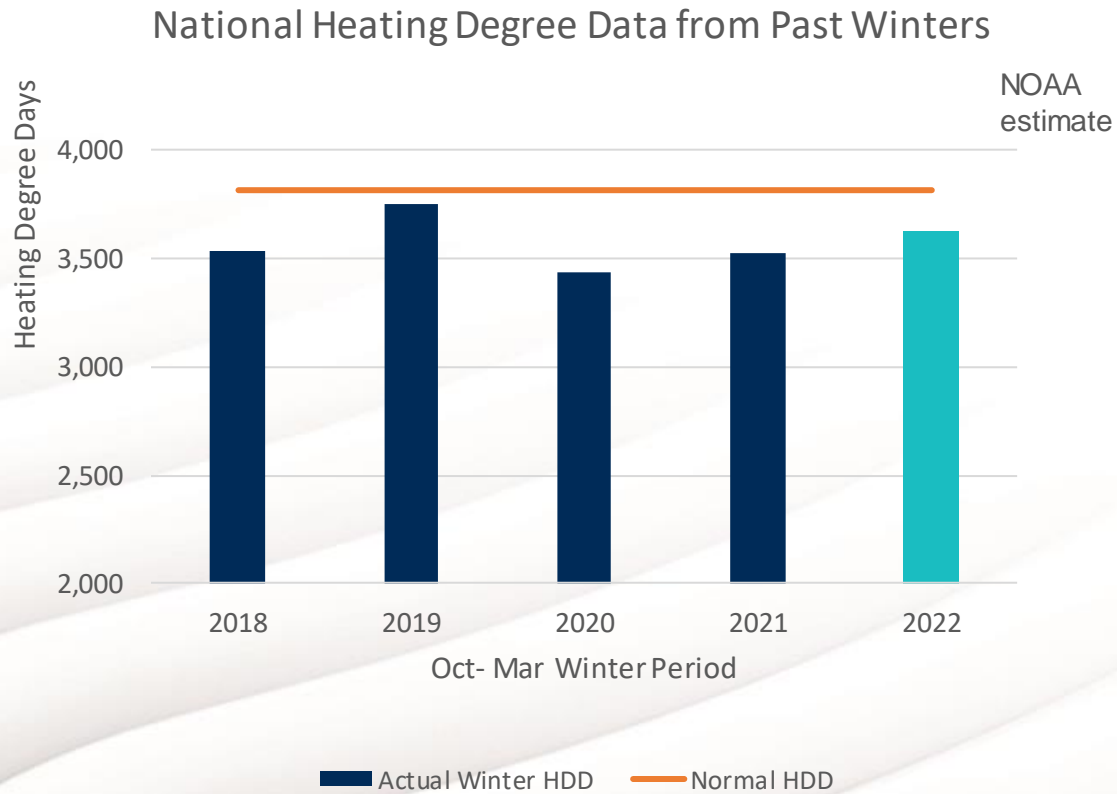


NOAA Forecast January-March



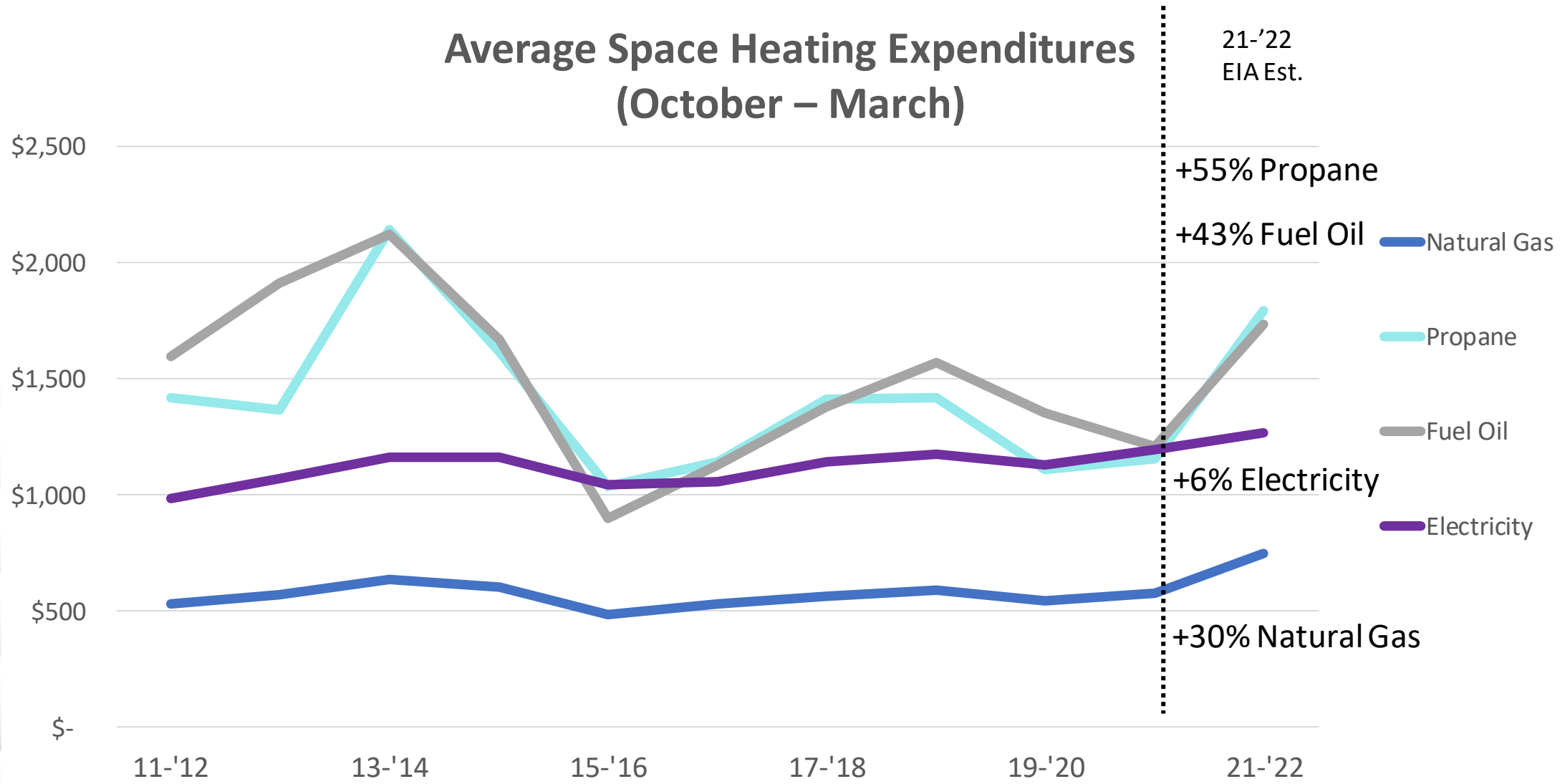
Temperatures are a key variable that will drive consumption

- NOAA's forecast is expected to be below normal in terms of total heating degree days.
- Estimated usage for 2022 based on an AGA survey of its members suggests an increase in throughput of 4 percent.



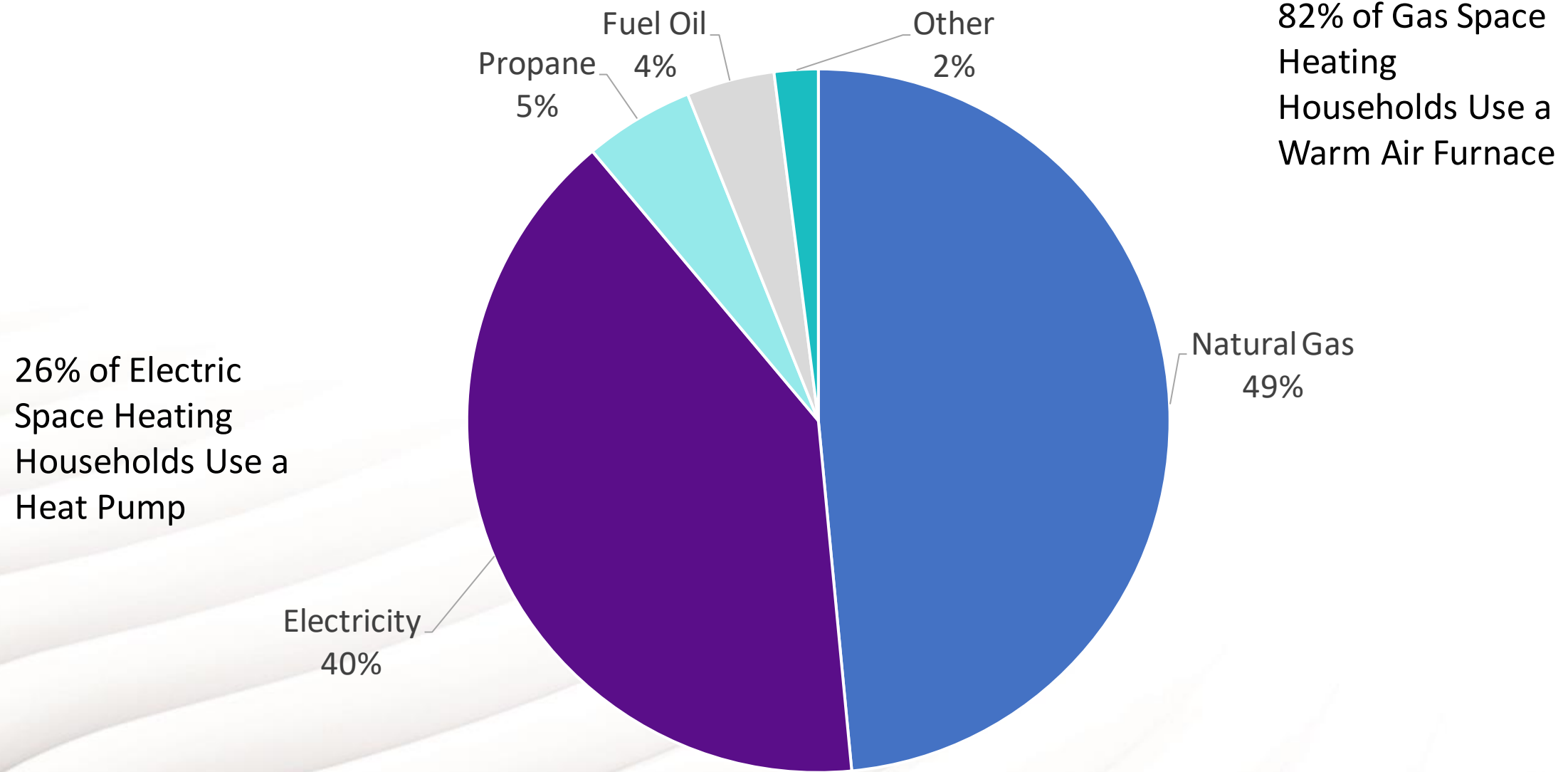
Average Winter Household Energy Expenditures

Average Space Heating Expenditures (October – March)



Sources: Energy Information Administration, Winter Fuels Outlook 10/13/2021

Main Heating Fuel by Household



EIA's Current Winter Heating Outlook

Natural Gas Winter Heating Season

	17-'18	18-'19	19-'20	20-'21	21-'22	
Consumption (Mcf)	57.6	60.2	55.5	56.3	57.7	2.4%
Price (\$/Mcf)	\$ 9.82	\$ 9.72	\$ 9.73	\$ 10.17	\$ 12.92	27.1%
Expenditures (\$)	\$ 565	\$ 586	\$ 540	\$ 573	\$ 746	30.2%

Electric Winter Heating Season

	17-'18	18-'19	19-'20	20-'21	21-'22	
Consumption (kWh)	9,051	9,256	8,764	9,079	9,193	1.3%
Price (\$/kWh)	\$ 0.126	\$ 0.127	\$ 0.129	\$ 0.131	\$ 0.138	5.0%
Expenditures (\$)	\$ 1,142	\$ 1,174	\$ 1,128	\$ 1,192	\$ 1,268	6.3%

Heating Degree Days (Oct - Mar Only)	3610	3788	3433	3529	3620	2.6%
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Survey of AGA Members

Question:

Do you expect normalized residential heating bills to go up this winter compared to last?

Response:

92 percent said yes, 8 percent said no.

Question:

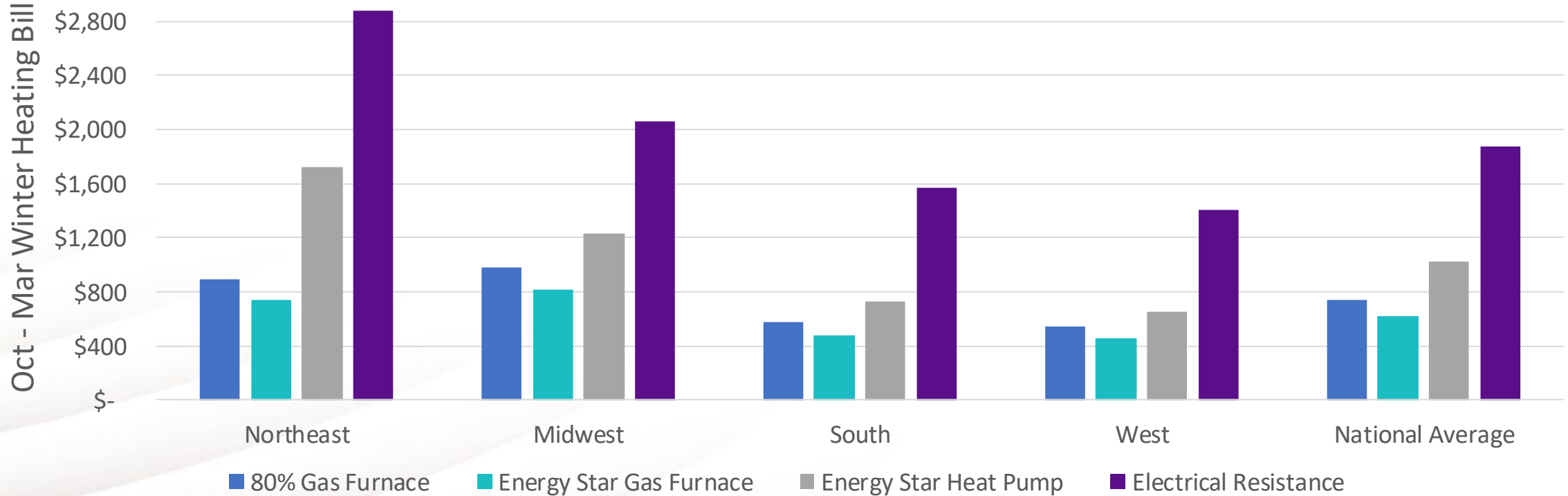
By what percent will bills and throughput change compared to last winter?

Response:

18 **percent increase** in bills and 4 **percent increase** in throughput. Averages weighted by number of customers.

The Cost to Heat With Electric vs Gas This Winter

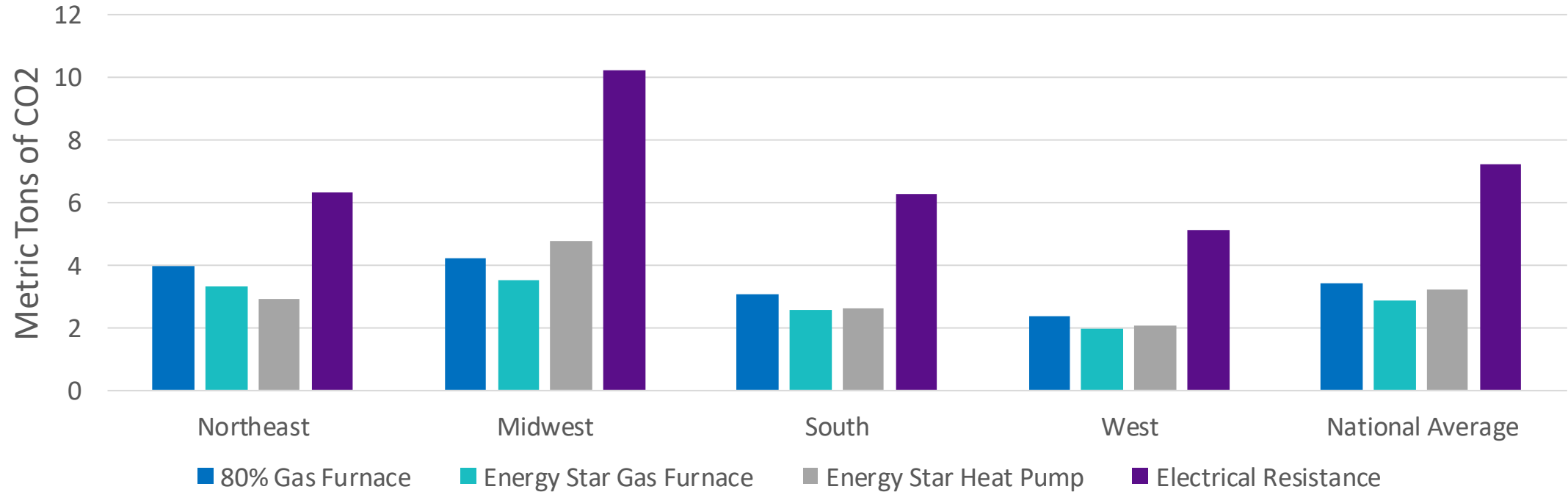
2021 - 2022 Winter Heating Cost by Furnace Type



- Findings show, homes heating with natural gas this winter could **save between 28% and 67%** compared to an electrical alternative. These findings are consistent with EIA's own winter fuels forecast.

Potential Emissions Impact from the Winter Heating Season

2021 - 2022 Winter Heating Emissions by Furnace Type (Metric Tons CO₂e)



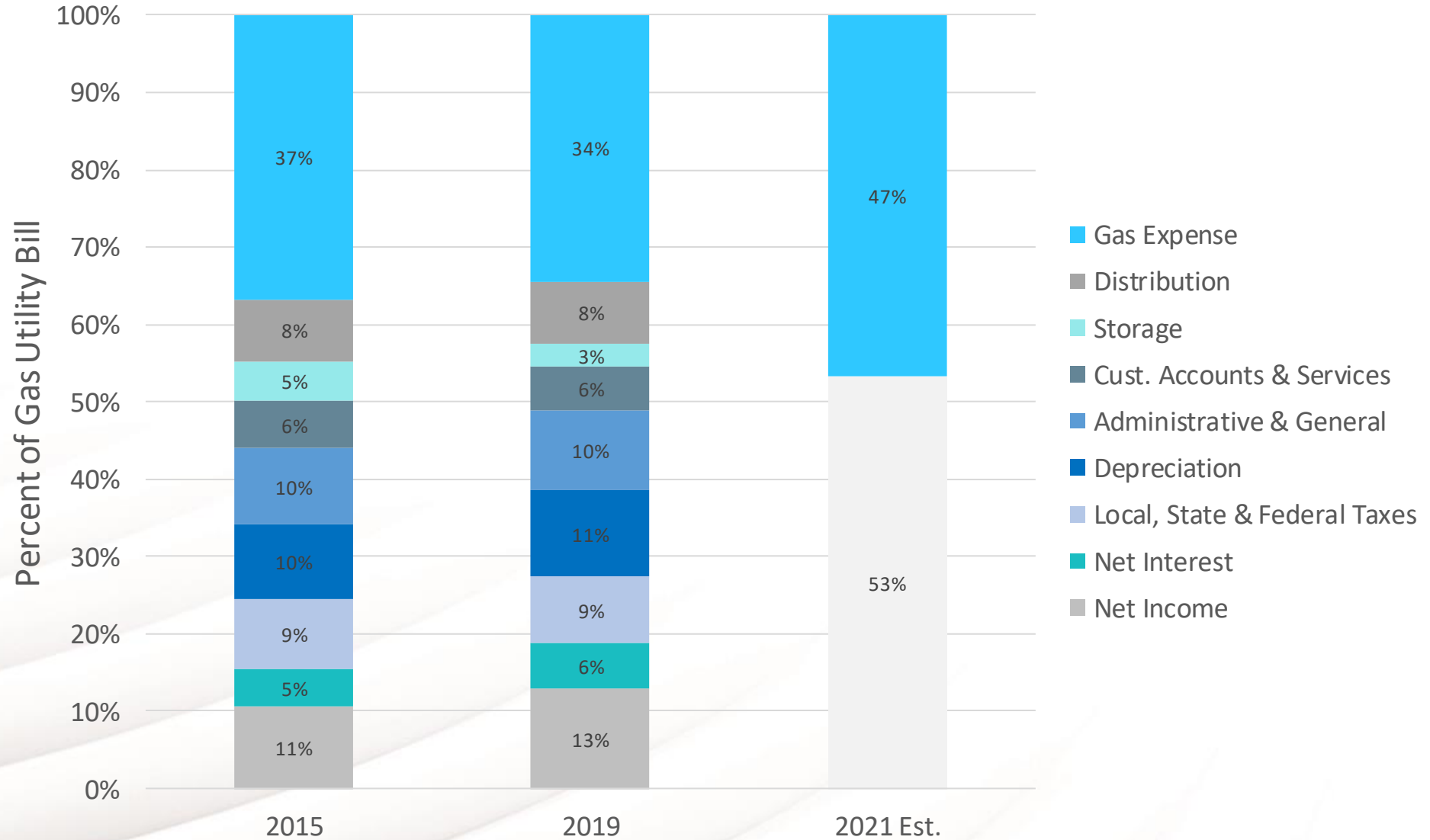
- The energy star gas household could have a **carbon footprint that is 11% lower** this winter compared to an Energy Star rated heat pump; **60% lower emissions** compared to an electrical resistance furnace.

How Much of the Final Bill Accounts for the Cost of Gas?



Source: AGA Gas Facts, 2019 Data

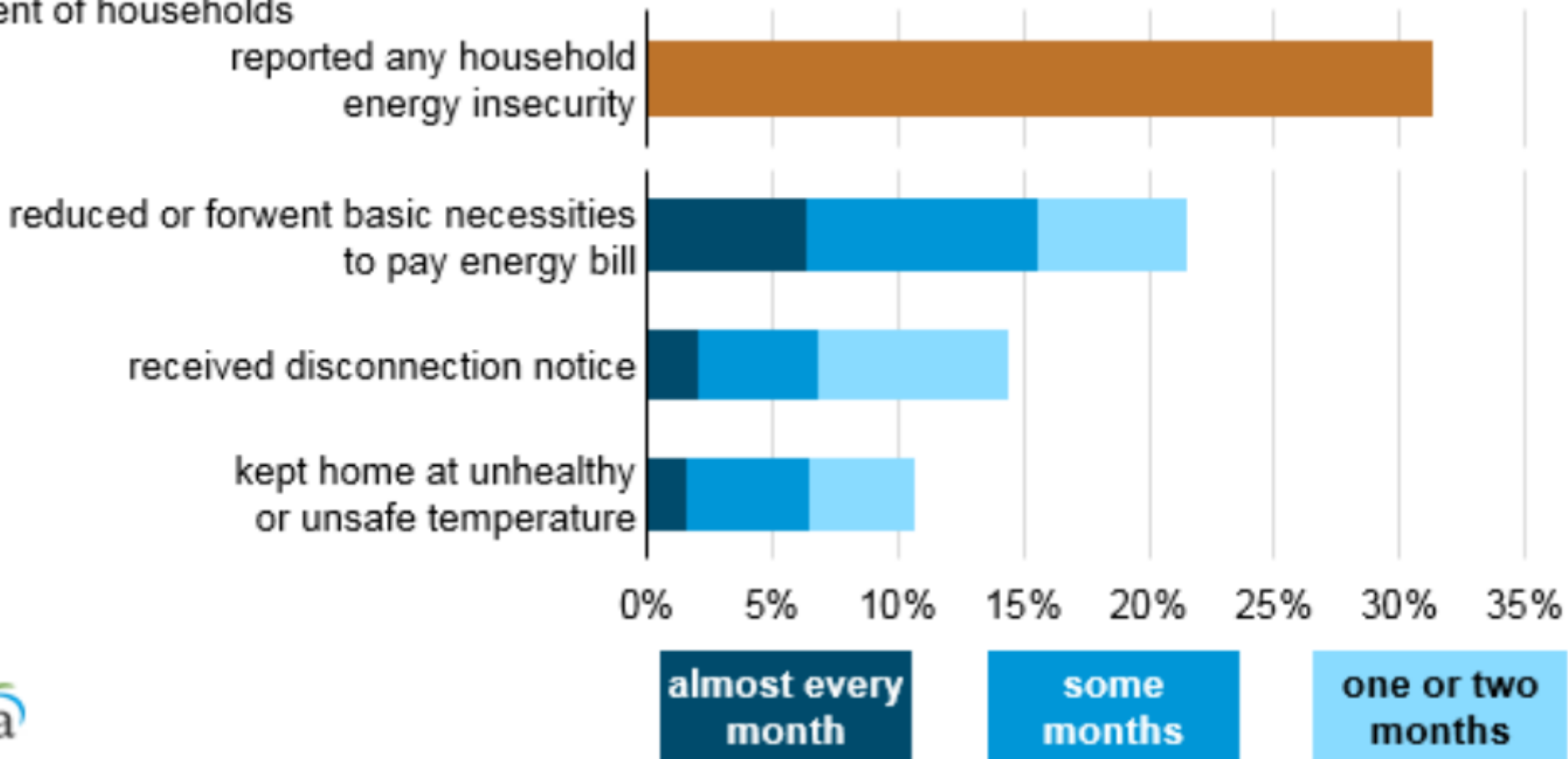
How Much of the Final Bill Accounts for the Cost of Gas?



One in three U.S. households faces a challenge in meeting energy needs

Households that experienced energy insecure situations, 2015

percent of households



Source: U.S. Energy Information Administration, *Residential Energy Consumption Survey 2015*

2020 Study on Energy Insecurity – Indiana University

- 2381 adults interviewed in April and May 2020.
 - 13% were unable to pay an energy bill
 - 9% received a shutoff notice
 - 4% had their service disconnected
 - 22% had to forgo food or medicine expenses to pay bill
 - 17% of households below FPL did not pay their bill last month
 - 13% of households between 100-150% of FPL were unable to pay their bill last month
 - 7% of households between 150-200% of FPL were unable to pay their bill last month.


Source: Memmott, Trevor, et al. "Sociodemographic disparities in energy insecurity among low-income households before and during the COVID-19 pandemic." *Nature Energy* 6.2 (2021): 186-193.


Energy Assistance Programs

Natural gas utilities offer and participate in several energy assistance programs to help customers in need.

- **LIHEAP, State, and Local Funds** – Energy cost assistance for low-income and non-low-income households.
- **Budget Billing** – Customers spread cost equally across 12 months, effectively prepaying a portion of heating season bills during the cooling season.
- **Weatherization Assistance** – Provides qualifying customers with weatherization assistance to ensure household is winter ready.
- **Payment plans and deferments** – Customers may spread high bills over several months, or postpone bill payments.
- **Voluntary Non-terminations** – Certain utilities do not terminate customers during the heating season



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