

Winter Heating Outlook

Preparations and Expectations



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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Observations

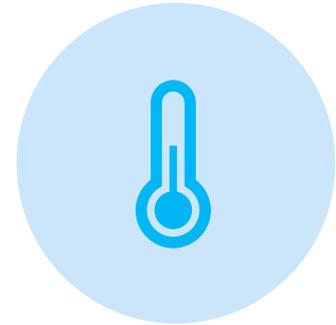
Heading into the **winter heating season**



ENERGY PRICES CLIMBED THIS
SUMMER BUT HAVE SINCE
FALLEN



GAS UTILITIES ARE **PREPARED**
THROUGH SUPPLY PLANNING
AND ASSISTANCE PROGRAMS

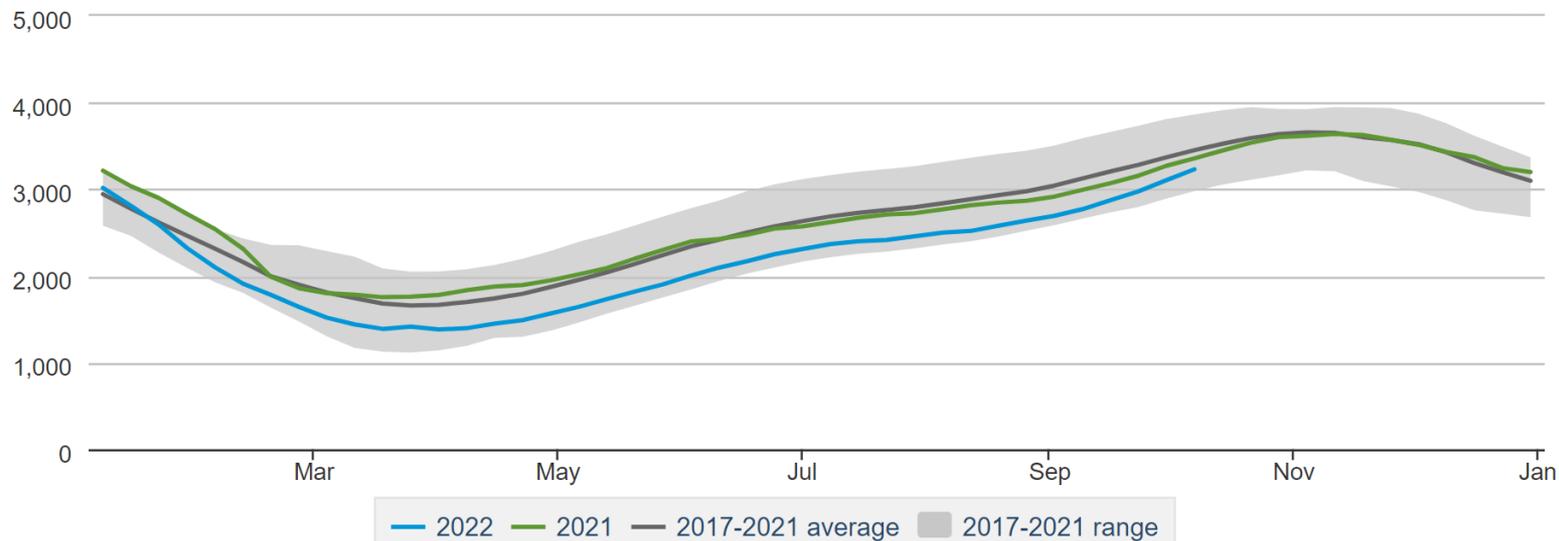


NATURAL GAS REMAINS
MOST AFFORDABLE
HOME HEATING FUEL

Storage rebuild is accelerating right before winter

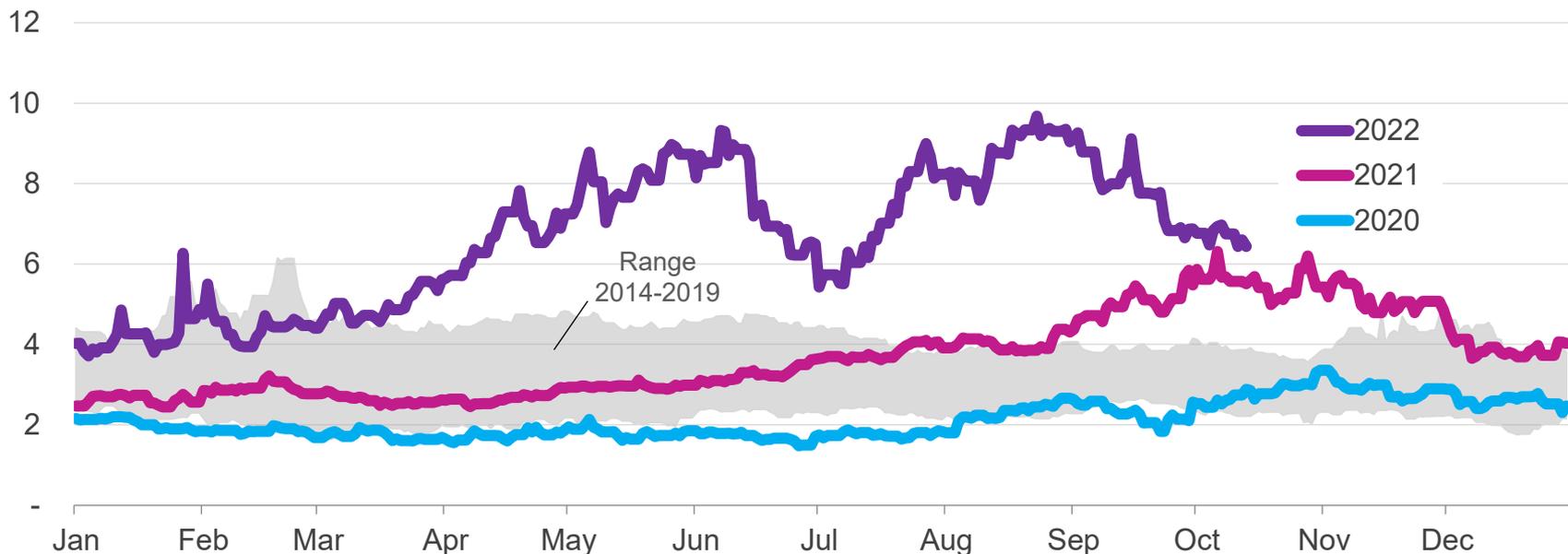
Lower 48 weekly working gas in underground storage

billion cubic feet



US natural gas futures are trading above recent history

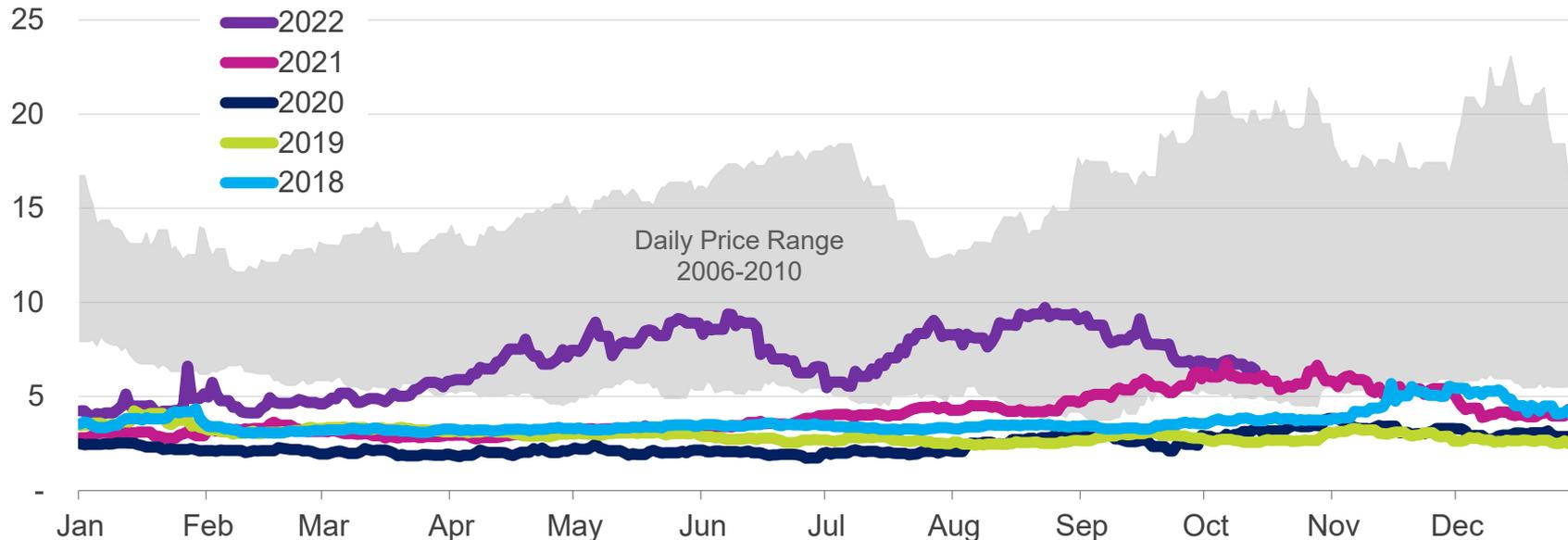
Natural Gas Prices Prompt-Month Futures at Henry Hub
\$/MMBtu



Source: Energy Information Administration
Analysis & Chart: American Gas Association

US natural gas prices remain within historical bounds

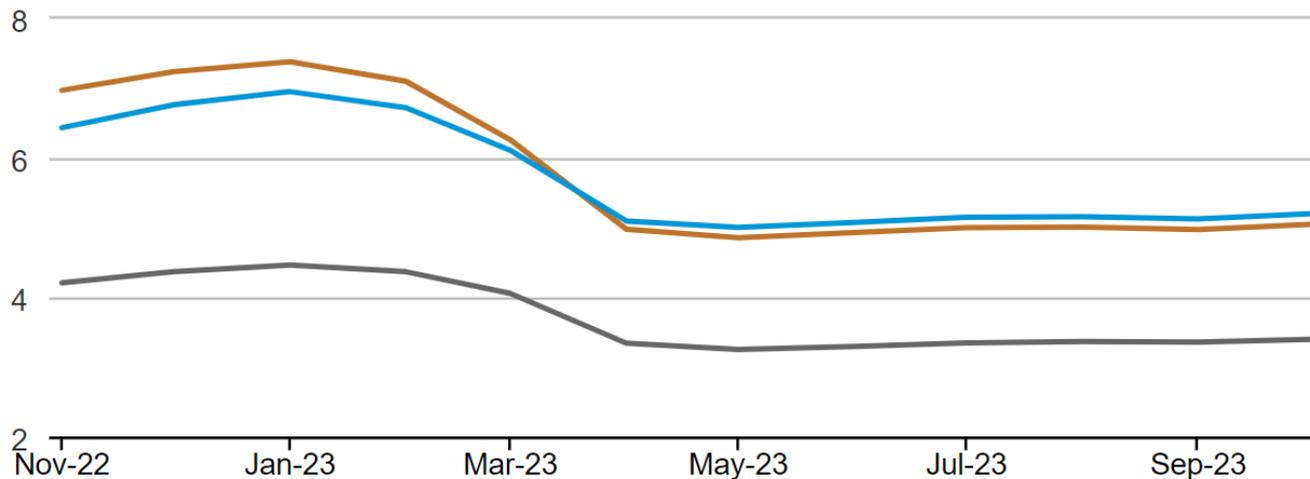
Daily Natural Gas Prices Prompt-Month Futures at Henry Hub, Inflation Adjusted (Sept. 2022\$/MMBtu)



Natural gas futures prices decline by end of winter

Natural gas futures price (twelve-month strip)

dollars per million British thermal units



— Current reporting week — Prior reporting week — Year ago

Supply growth to overtake demand in 2023, according to EIA Short-Term Energy Outlook

Natural Gas Balances (Bcf per Day)

						Forecast	
	2017	2018	2019	2020	2021	2022	2023
Dry Gas Production	74.9	84.3	92.9	91.5	94.6	97.6	99.6
LNG Net Exports	1.7	2.8	4.9	6.4	9.7	10.9	12.3
Pipeline Net Exports	-1.4	-0.8	0.4	1.1	0.8	0.7	2.1
Total Consumption	74.4	82.6	85.3	83.4	84.0	87.9	85.3
December Working Gas Inventories (Bcf)	3,033	2,708	3,188	3,341	3,210	2,857	3,163
Net Inventory Change	-0.7	-0.9	1.4	0.5	-0.2	-1.0	0.8

Short-Term Energy Outlook, October 2022

Notable forecast changes in EIA Short-Term Energy Outlook

- Natural Gas Prices in 2022 Q4 (Henry Hub Spot, \$/MMBtu)
 - Was: \$9.03
 - Now: \$7.41
 - Change: -18%
- Residential natural gas consumption (Billion cubic feet per day):
 - Was: 16.76
 - Now: 16.84
 - Change: +0.5%

How do utilities plan for the Winter Heating Season?

- Anticipate consumer demand, manage physical flows, and mitigate market fluctuations
 - Utilities must manage extreme demand due to weather
- Diversify sources of supply
 - Balances consumption with domestic and international suppliers
 - Utilize a range of physical and financial mechanisms
- Ready to deliver natural gas safely and reliably
 - Meeting consumer needs on the coldest days, weeks, and months

Gas utilities build supply portfolios to meet delivery seasonal and peak delivery requirements

Source of Peak Day Gas Supplies



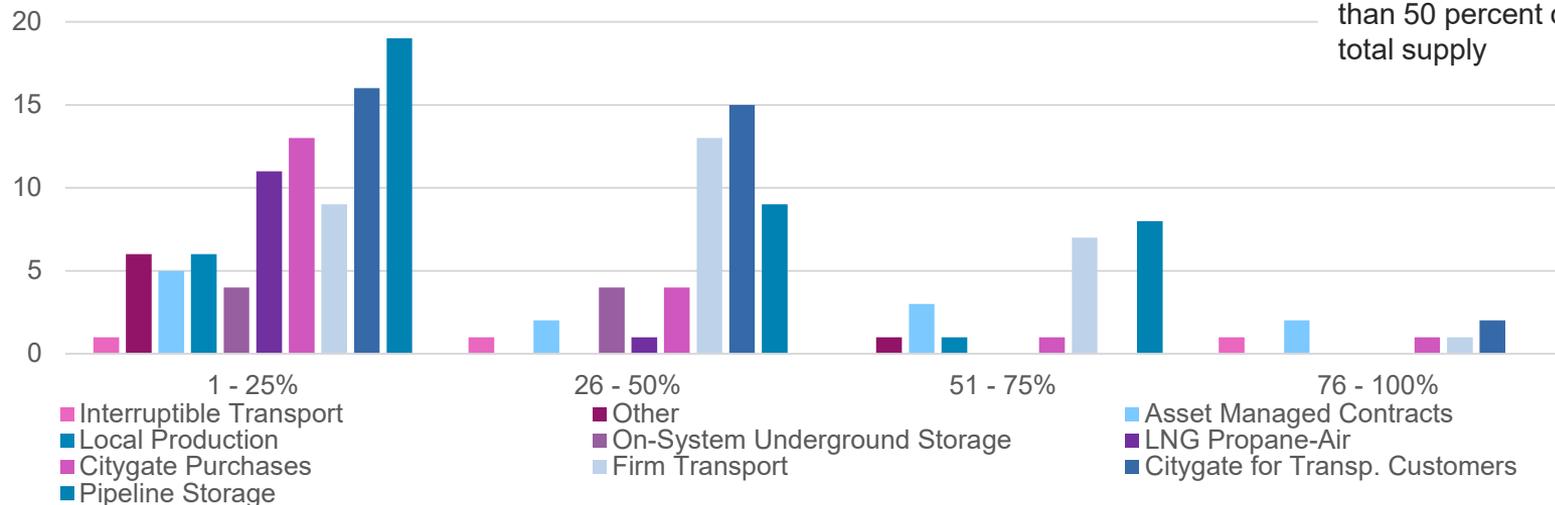
- 1 Since last year, the option for pipeline storage and Citygate supplies for transportation customers were the most used sources of peak gas supplies for the 2020 – 2021 winter heating season.
- 2 Besides pipeline transportation, other gas supply sources are also important for peak-day deliveries such as Citygate purchases for sales customers, LNG / Propane-air / SNG, local production, on-system underground storage, purchases moved via firm transportation, and asset-managed contracts.
 - The other also included purchases to supplement imbalances with third-party suppliers, on-system balancing and lineupack.
- 3

Gas utility strategies utilize a diversity of supplies and operational tools

Sources of Peak Day Gas Supplies by Number of Companies

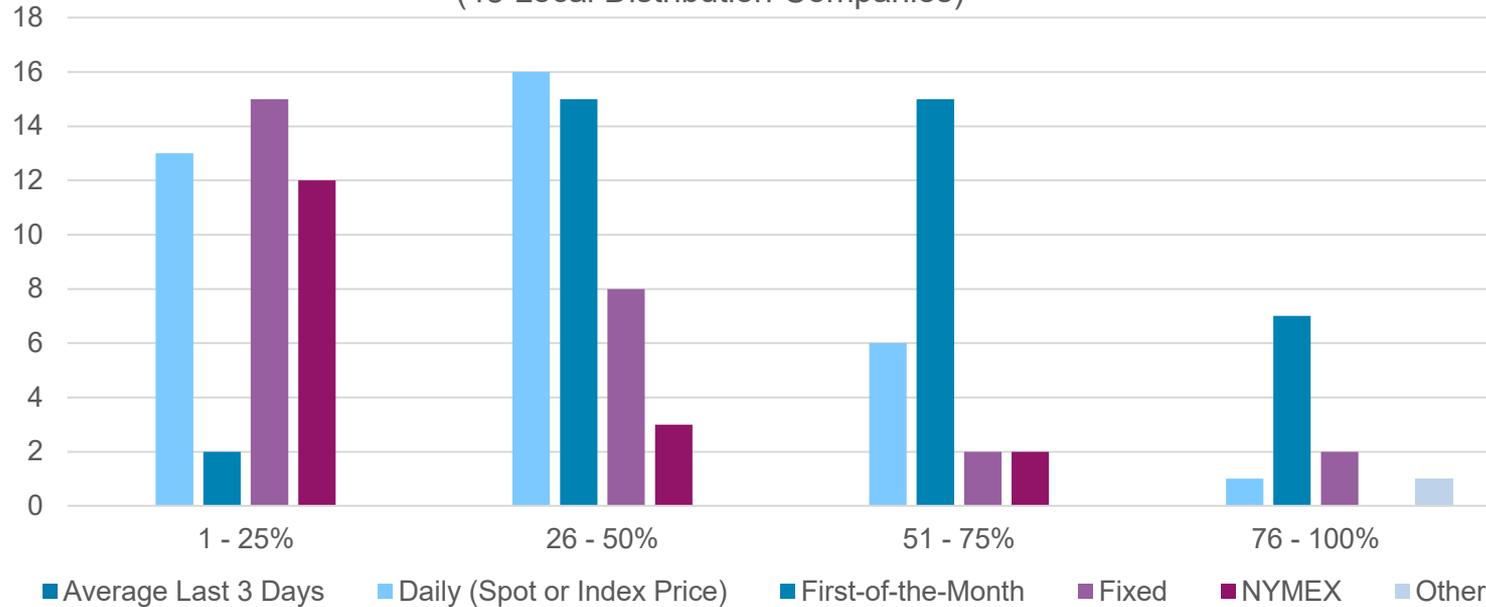
2020-2021 Winter Heating Season

Companies tend to diversify their supply strategy in increments that often amount to less than 50 percent of their total supply



Gas utilities use several tools to reduce the effects of market volatility on customer bills to reliably and economically procure gas supplies

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



Even state regulator-approved pricing mechanisms may appear favorable one year while less so the next. [Flexibility and constructive policy reviews](#) can have a positive effect on the delivery of natural gas and services to customers at the lowest possible cost.



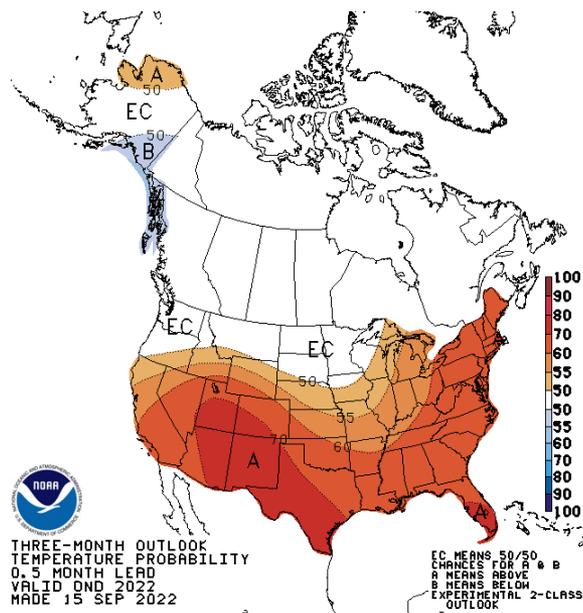
Natural gas utility preparations include continual work with customers through energy efficiency and weatherization programs

U.S. Natural Gas Efficiency Program Investments (Million Dollars)

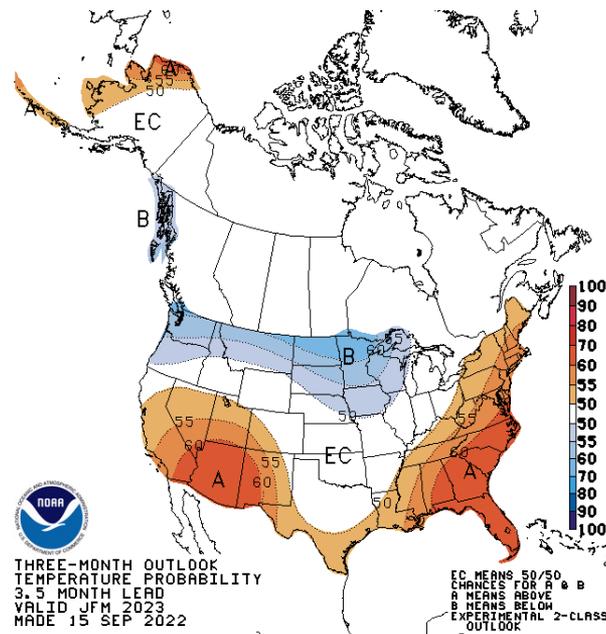


Expectations for 2022-2023 Winter Weather

NOAA Forecast October-December

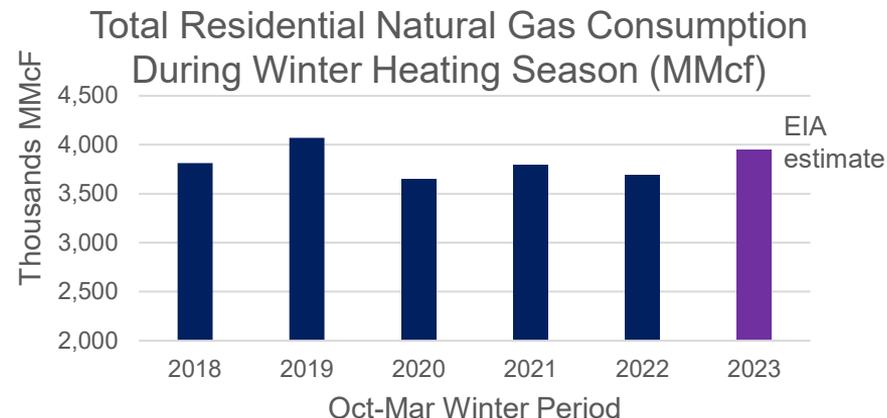
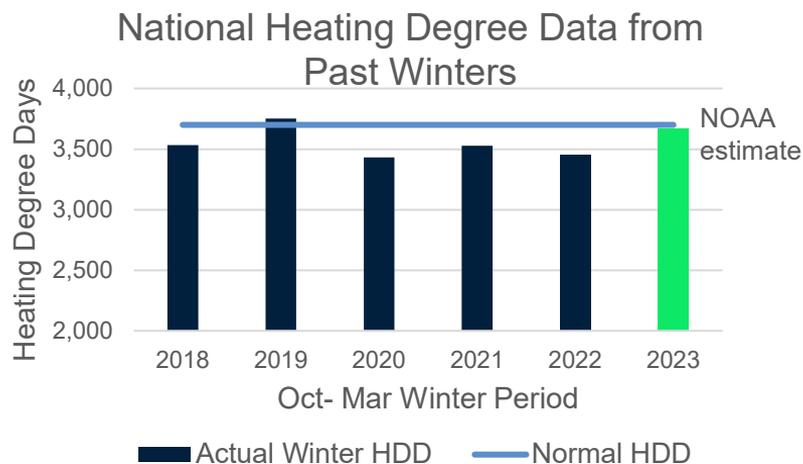


NOAA Forecast January-March



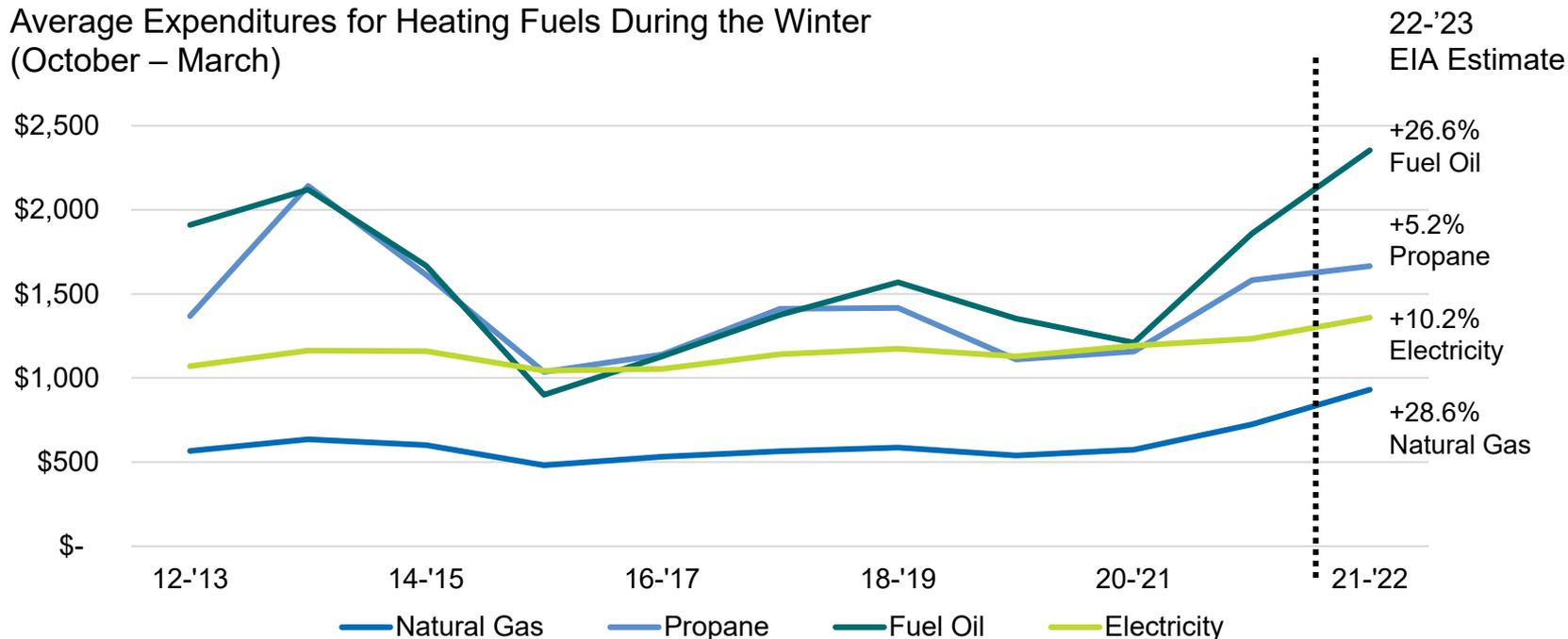
Temperatures will drive energy consumption

- NOAA's forecast expects temperatures to be close to normal in terms of total heating degree days.
- Estimated usage for 2022/23 based on NOAA and EIA Winter Season Forecast.



Natural gas remains the most affordable home heating fuel

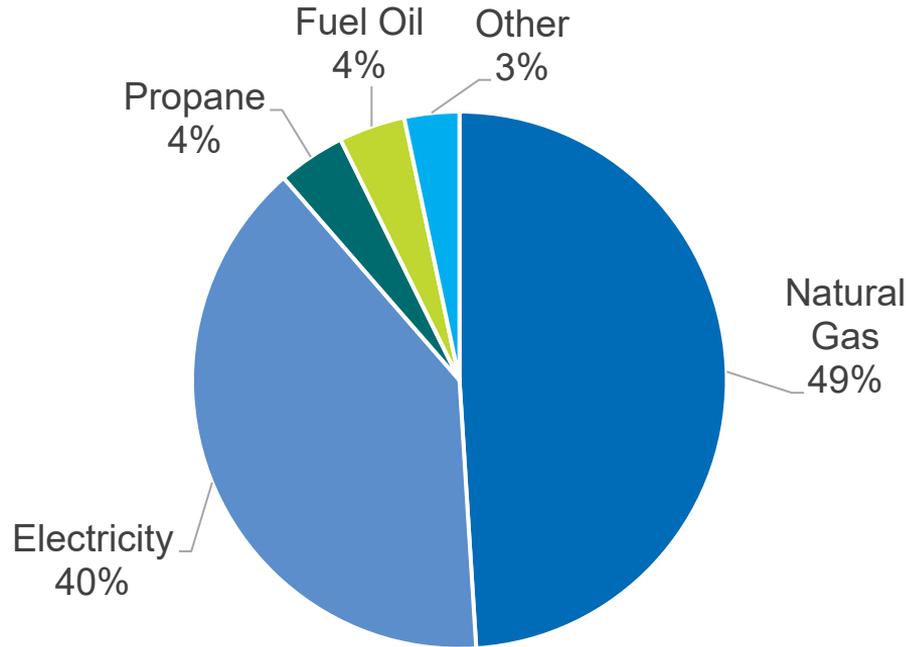
Average Expenditures for Heating Fuels During the Winter
(October – March)



Natural gas is the principal heating fuel across much of the country

75% of Electric Space Heating Households Live in the South

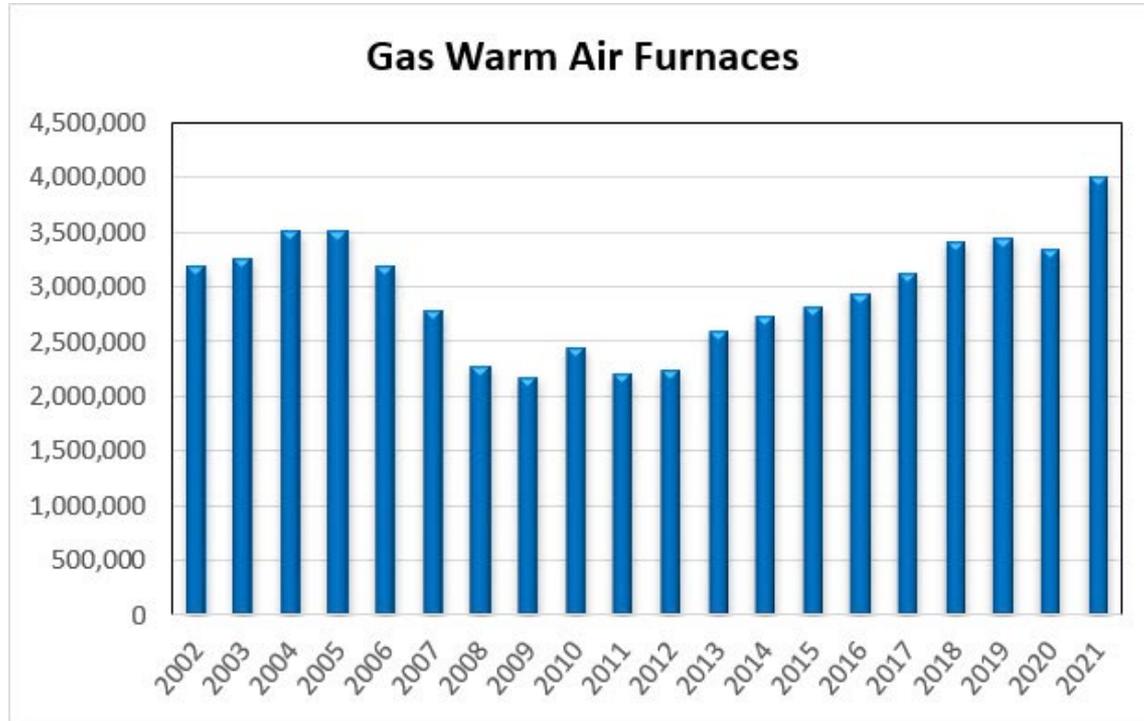
36% of Electric Space Heating Households Use a Heat Pump, 88% in the South



84% of Gas Space Heating Households Use a Warm Air Furnace

57% of Gas Space Heating Households Live in the North

Shipments of gas warm-air furnace increase in 2021



Source: Monthly Shipments, Air-Conditioning, Heating, & Refrigeration Institute 2022

EIA Winter Heating Outlook

Natural Gas Winter Heating Season

	17-'18	18-'19	19-'20	20-'21	21-'22	22-'23	
Consumption (Mcf)	57.6	60.2	55.5	56.3	55.6	58.4	4.9%
Price (\$/Mcf)	\$ 9.82	\$ 9.72	\$ 9.73	\$ 10.17	\$ 13.02	\$ 15.95	22.5%
Expenditures (\$)	\$ 565	\$ 586	\$ 540	\$ 573	\$ 724	\$ 931	28.5%

Electric Winter Heating Season

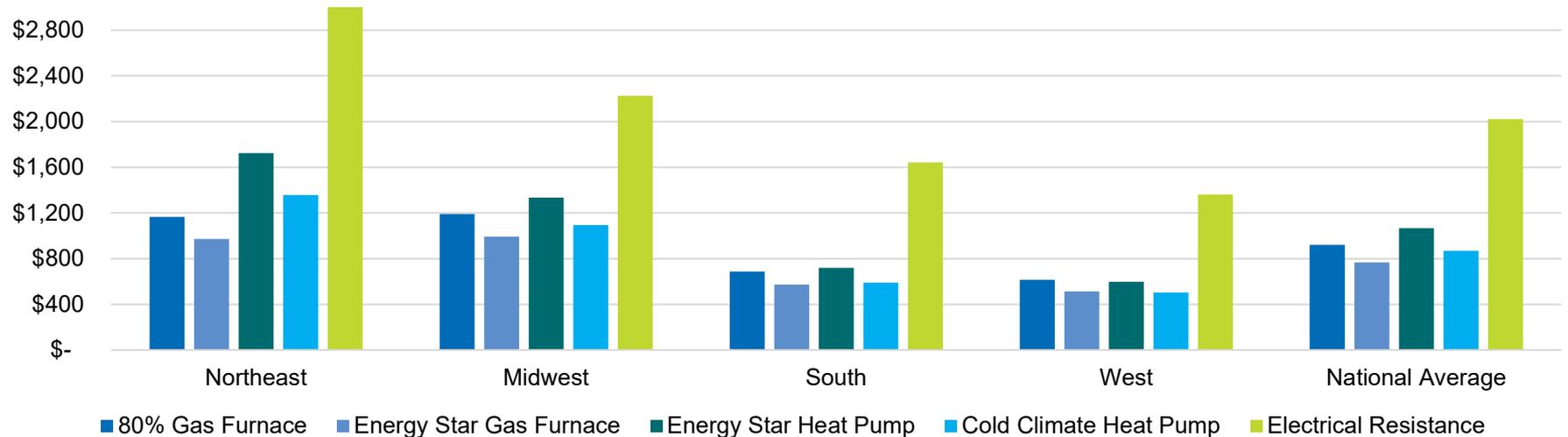
	17-'18	18-'19	19-'20	20-'21	21-'22	22-'23	
Consumption (kWh)	9,051	9,256	8,764	9,079	8,833	9,189	4.0%
Price (\$/kWh)	\$ 0.126	\$ 0.127	\$ 0.129	\$ 0.131	\$ 0.140	\$ 0.148	5.9%
Expenditures (\$)	\$ 1,142	\$ 1,174	\$ 1,128	\$ 1,192	\$ 1,233	\$ 1,359	10.2%

Heating Degree Days (Oct - Mar Only)	3610	3788	3433	3530	3455	3671	6.3%
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The cost to heat with electric vs gas this winter varies by location and the efficiency of end-use equipment

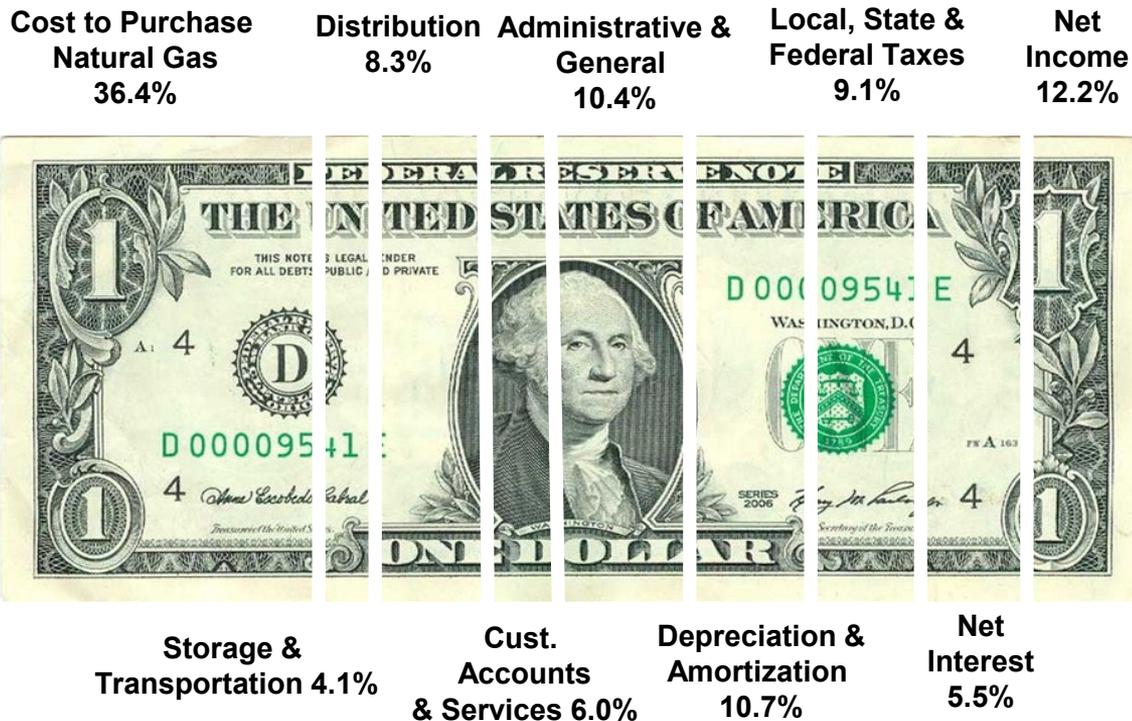
2022 - 2023 Winter Heating Cost by End-Use Equipment Type

Winter Heating Bill, October-March



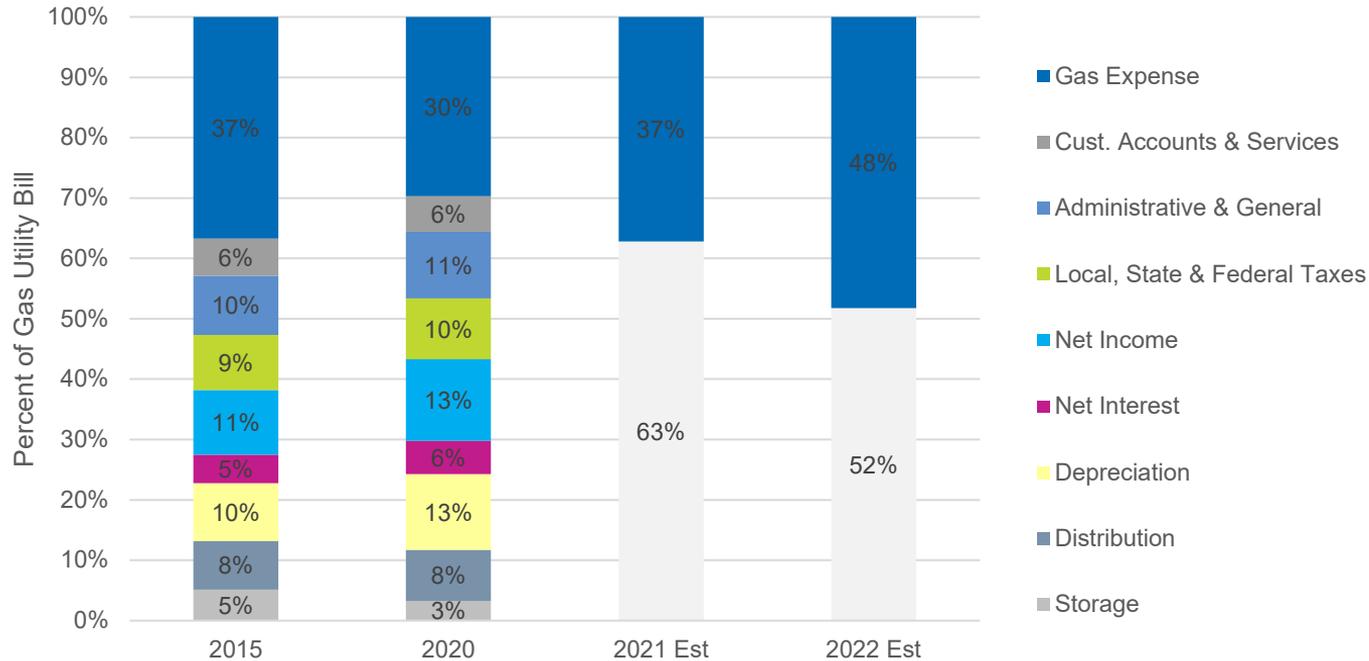
- Findings show **homes heating with natural gas this winter could save between 12% and 62%** compared to an electrical alternative. These findings are consistent with EIA's own winter fuels forecast.

Average breakdown of a natural gas utility bill



Source: AGA Gas Facts, 5 Year Average Customer Bill 2016-2020

The cost of gas may account for a larger share of utility bills this year

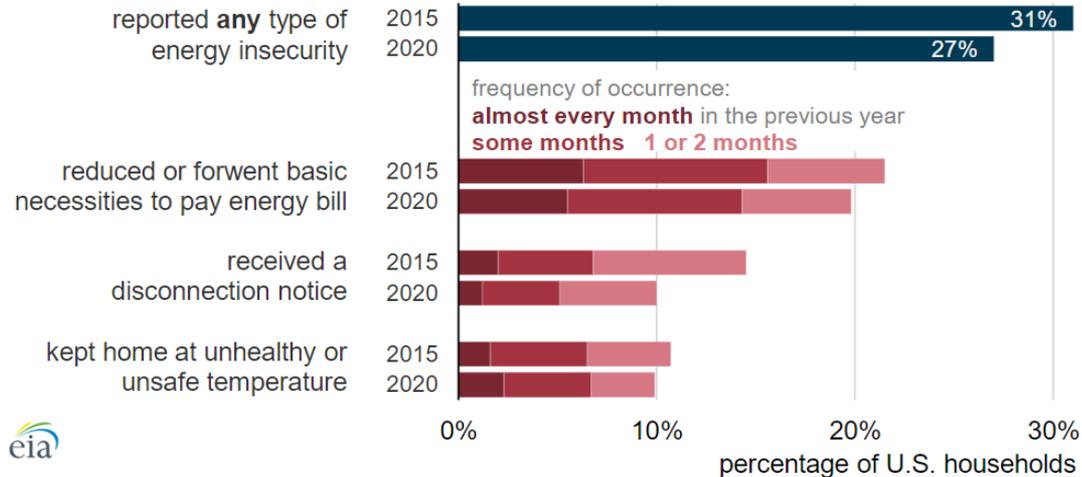


Source: AGA Gas Facts 2015, 2020 Data, EIA Short Term Energy Outlook

Households are facing energy insecurity

In 2020, 27% of U.S. households had difficulty meeting their energy needs

U.S. household energy insecurity measures (2015 and 2020)



Energy assistance programs are available to help consumers in need

Natural gas utilities offer and participate in several energy assistance programs

- **LIHEAP, State, and Local Funds** – Energy cost assistance for low-income households
- **Budget Billing** – Customers spread costs 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 a household is winter-ready
- **Payment plans** – Customers may spread high bills over several months
- **Voluntary Non-terminations** – Certain utilities do not terminate customers during the heating season

Final thoughts

- Weather and a growing economy have spurred energy demand growth
- Natural gas production setting new records as winter begins
- Natural gas pricing has dropped, and the market indicates further easing
- Natural gas remains the most affordable fuel for home heat
- Gas utilities are well-positioned to serve customers reliably

Questions?

