



Natural Gas Supply Association

2024-2025 WINTER OUTLOOK

MARKETS MATTER

ngsa.org



Upward market pressure



Flat market pressure



Downward market pressure

LOOKING AHEAD TO WINTER 2024-2025



Market Pressure Points



Production/Supply



Weather



Economy



Demand



Storage



Wild Card Factors



Winter Expectations

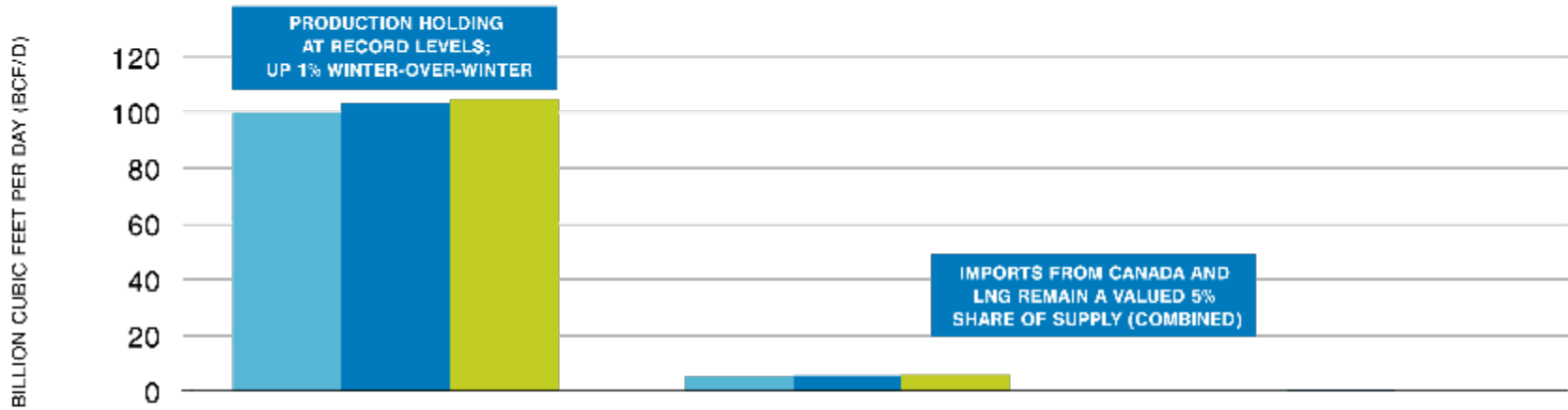
SUMMARY

Supply: Winter Production to Surpass Previous Records But Growth Rate Slows

WINTER 2024-2025 SUPPLY FORECAST: 111.6 BCF/D

PREVIOUS 3-YEARS AVERAGE: 105.6 BCF/D

LAST WINTER'S AVERAGE: 109.1 BCF/D

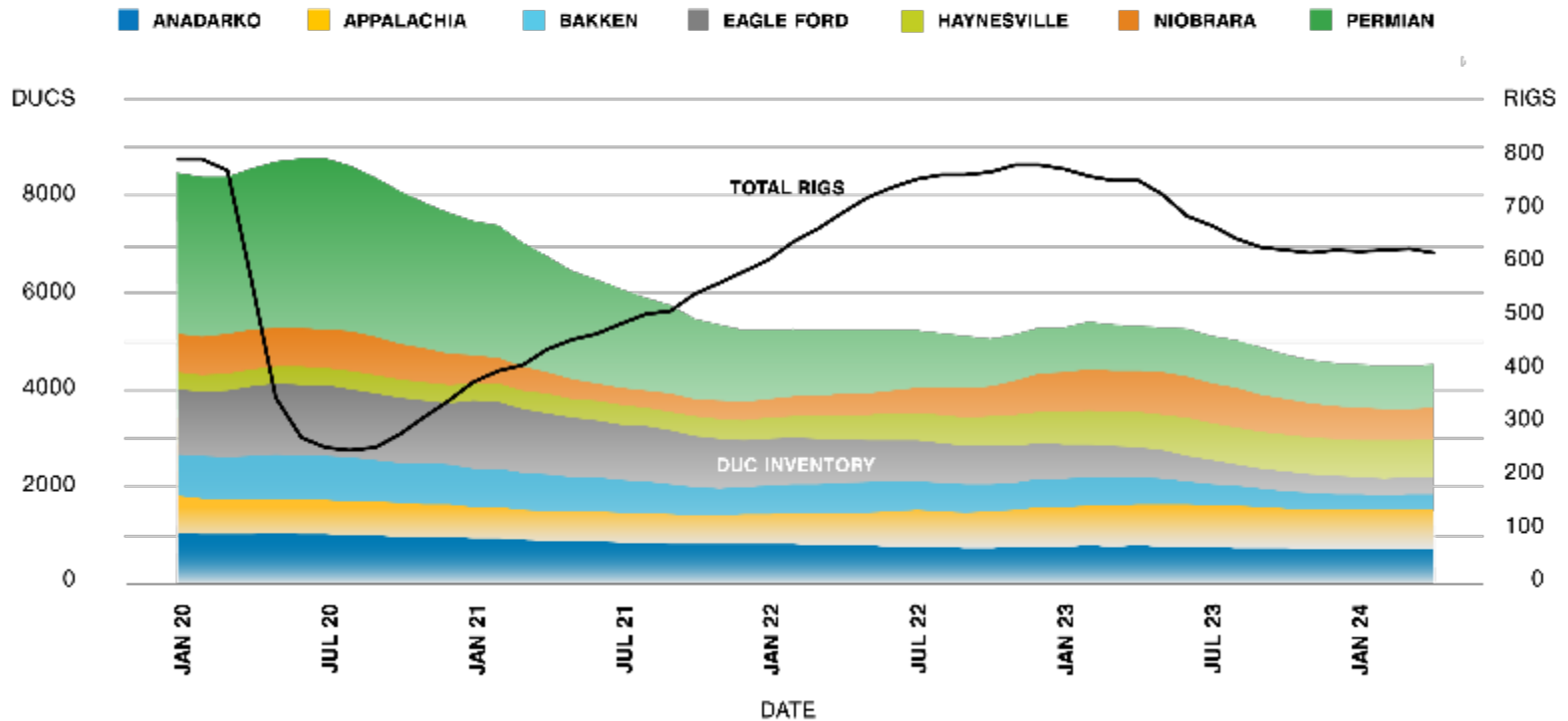


	DRY PRODUCTION	NET CANADIAN IMPORTS	LNG IMPORTS
3YR AVG	99.9	5.5	0.1
2023-2024 ACTUAL	103.2	5.6	0.3
2024-2025 PROJECTED	104.5	5.7	0.1

Source: Energy Ventures Analysis

Winter-to-winter pressure on natural gas prices

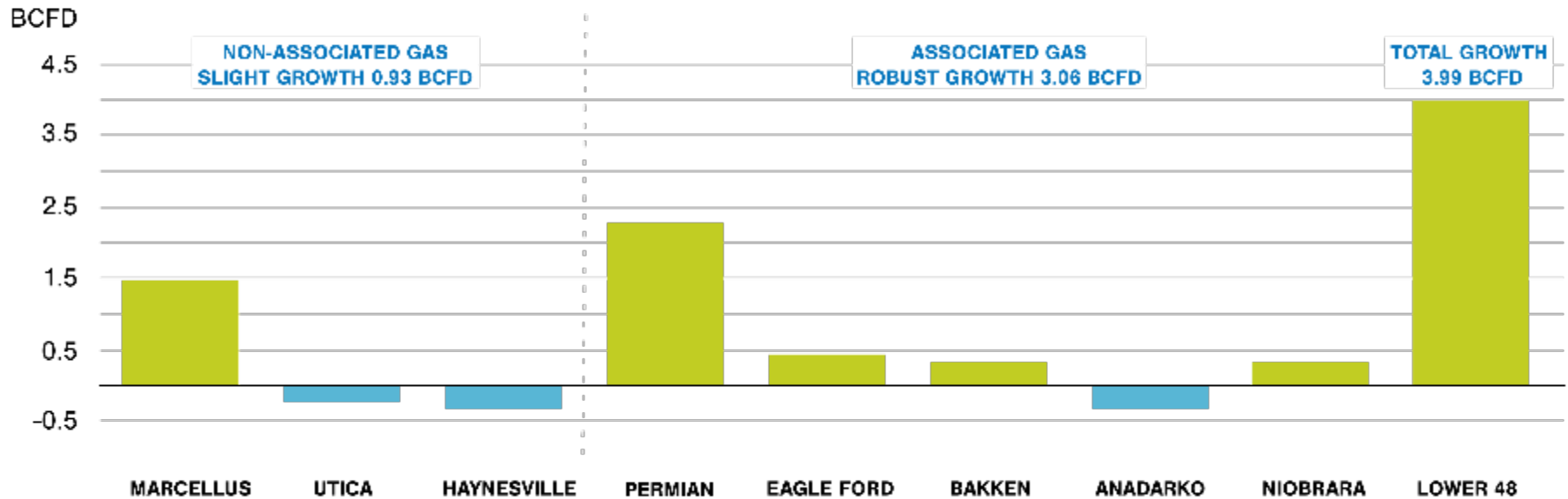
RIGS AND DRILLED UNCOMPLETED WELLS (DUCs) DROPPING, BUT NATURAL GAS OUTPUT STRONG DUE TO PRODUCTION EFFICIENCIES



Source: Energy Ventures Analysis, BakerHughes

Slight Growth in Non-Associated Gas Adding to Continued Growth of Associated Gas

PRODUCTION GROWTH BY BASIN: COMPARISON OF TWO RECENT WINTERS (2022-2023 WINTER VS. 2023-2024 WINTER)



Source: Energy Ventures Analysis, EIA

LAST WINTER | 2023-2024 ACTUAL

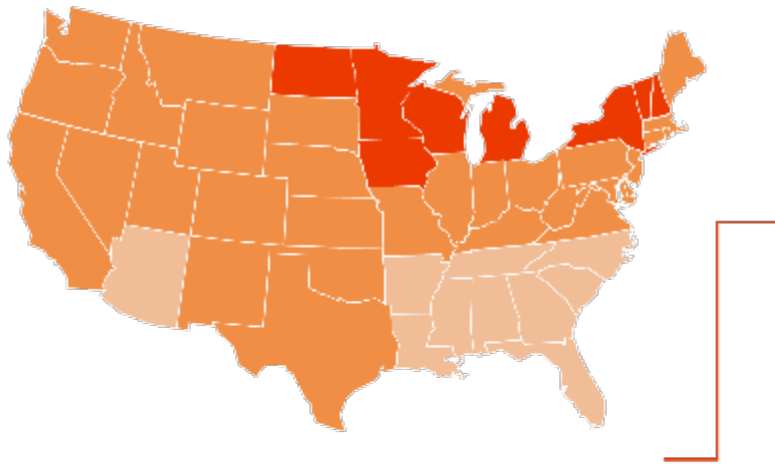
ACTUAL: 3,219 HEATING DEGREE DAYS

THIS WINTER | 2024-2025 FORECAST

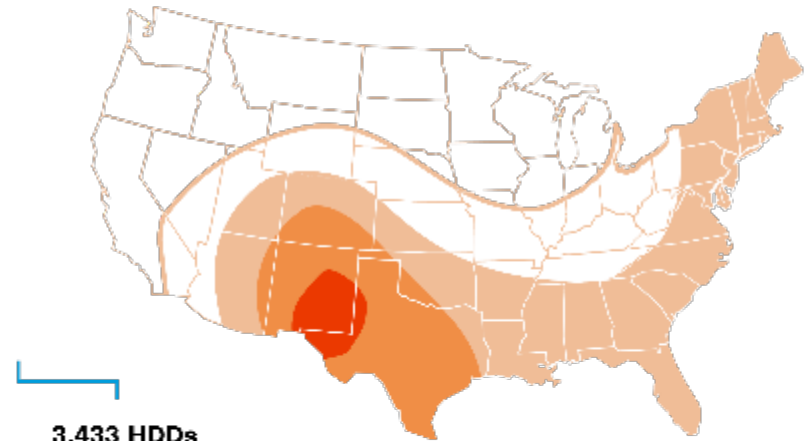
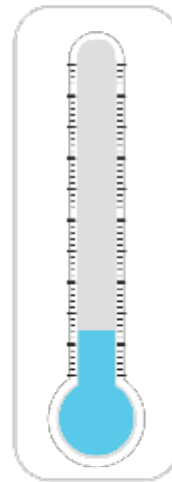
3,433 HEATING DEGREE DAYS

7% cooler than last winter
4% cooler than last three winters

AVERAGE
 ABOVE AVERAGE
 MUCH ABOVE AVERAGE
 NEAR-RECORD WARMTH



3,359 HDDs
Actual Winter
2023-2024



3,433 HDDs
Forecast Winter
2024-2025

Source: Energy Ventures Analysis; NOAA

Winter Season Period-to-period change	Last Winter 2023-2024 ACTUAL	This Winter 2024-2025 FORECAST
GDP Growth	4%	4%
Manufacturing (actual July 23 v. July 24)	79%	78%
Unemployment rate (actual Aug 23 v Aug 24)	3.8%	4.2%
CPI (annual)	3.4%	2.6%
Consumer Confidence (actual Aug 23 v Aug 24)	69%	67%

Winter-to-winter pressure on natural gas prices

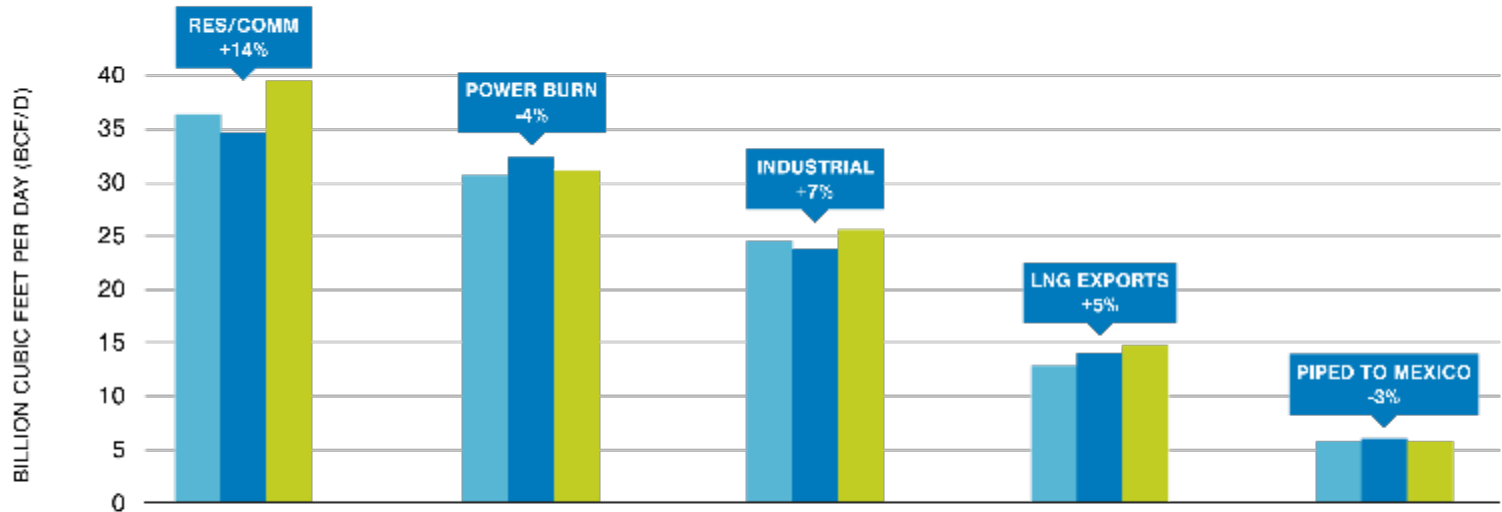
Data Sources: Moody's Analytics, Bureau of Labor Statistics, Bureau of Economic Analysis, University of Michigan, Energy Ventures Analysis

Demand: Demand Projected 5% Higher Than Last Winter

WINTER 2024-2025 FORECAST: 125.6 BCF/D

PREVIOUS 3-YEARS AVERAGE: 117.8 BCF/D

LAST WINTER'S AVERAGE: 118.9 BCF/D



	RES/COMM	POWER SECTOR	INDUSTRIAL	LNG IMPORTS	PIPED TO MEXICO
3YR AVG	36.4	30.6	24.4	12.7	5.6
WINTER 2023-2024 ACTUAL	34.6	32.3	23.7	13.9	5.9
WINTER 2024-2025 FORECAST	39.5	31.1	25.5	14.6	5.7

Source: Energy Ventures Analysis

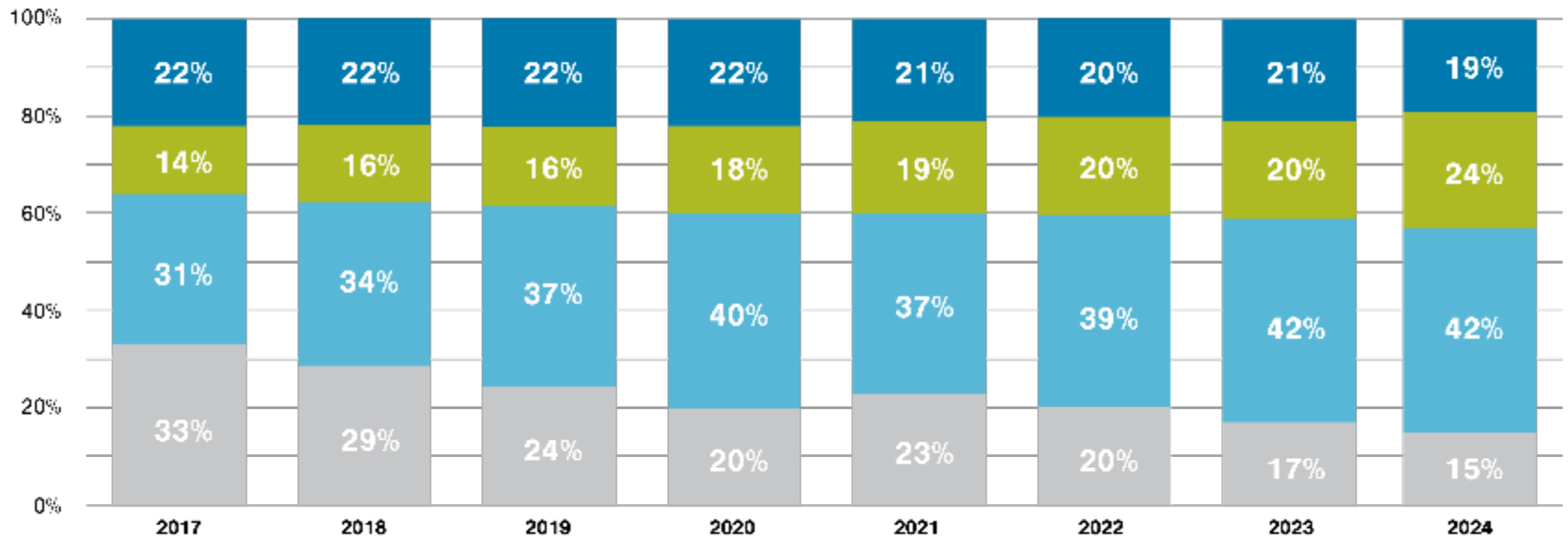
Winter-to-winter pressure on natural gas prices



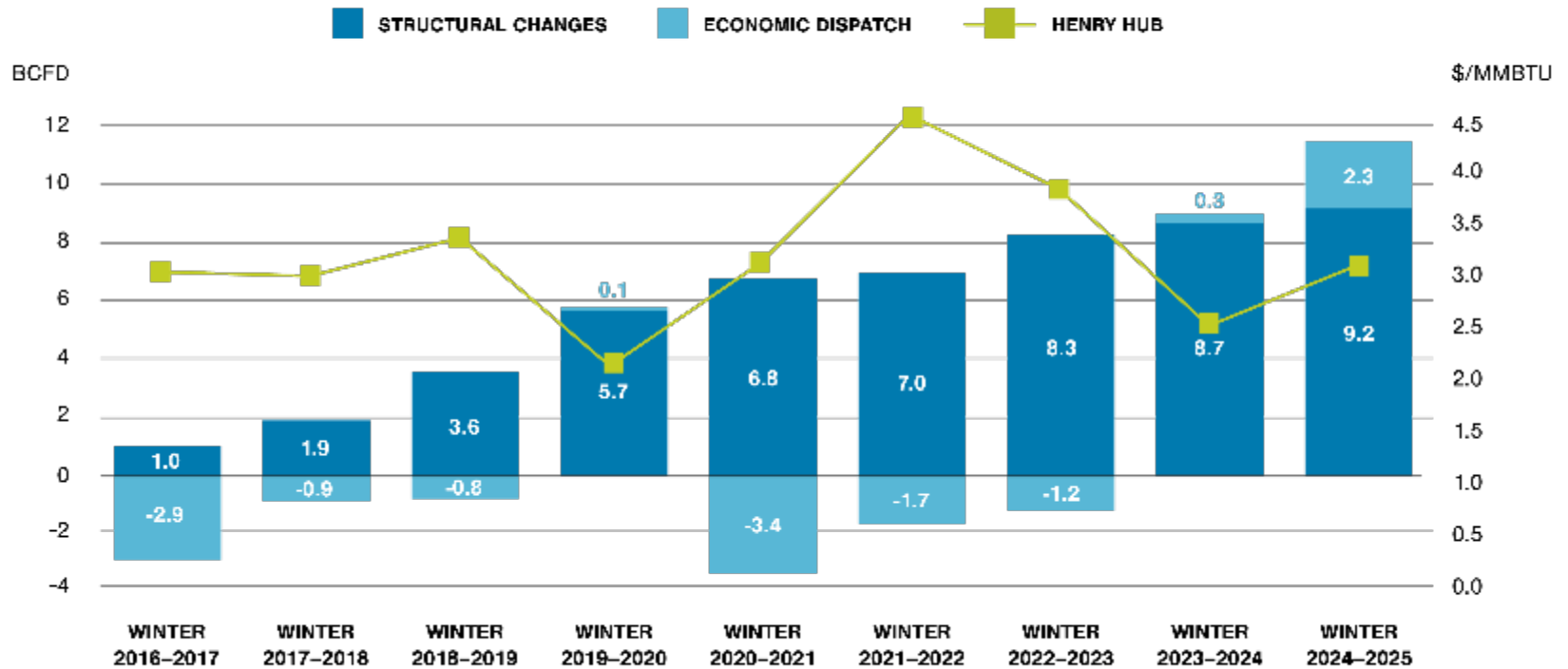
The Growth of Natural Gas in the Fuel Mix 2017-2024

COAL
 GAS
 RENEWABLES
 NUCLEAR & OTHER

% SHARE



POWER BURN GROWTH: STRUCTURAL GROWTH VS. ECONOMIC SWITCHING

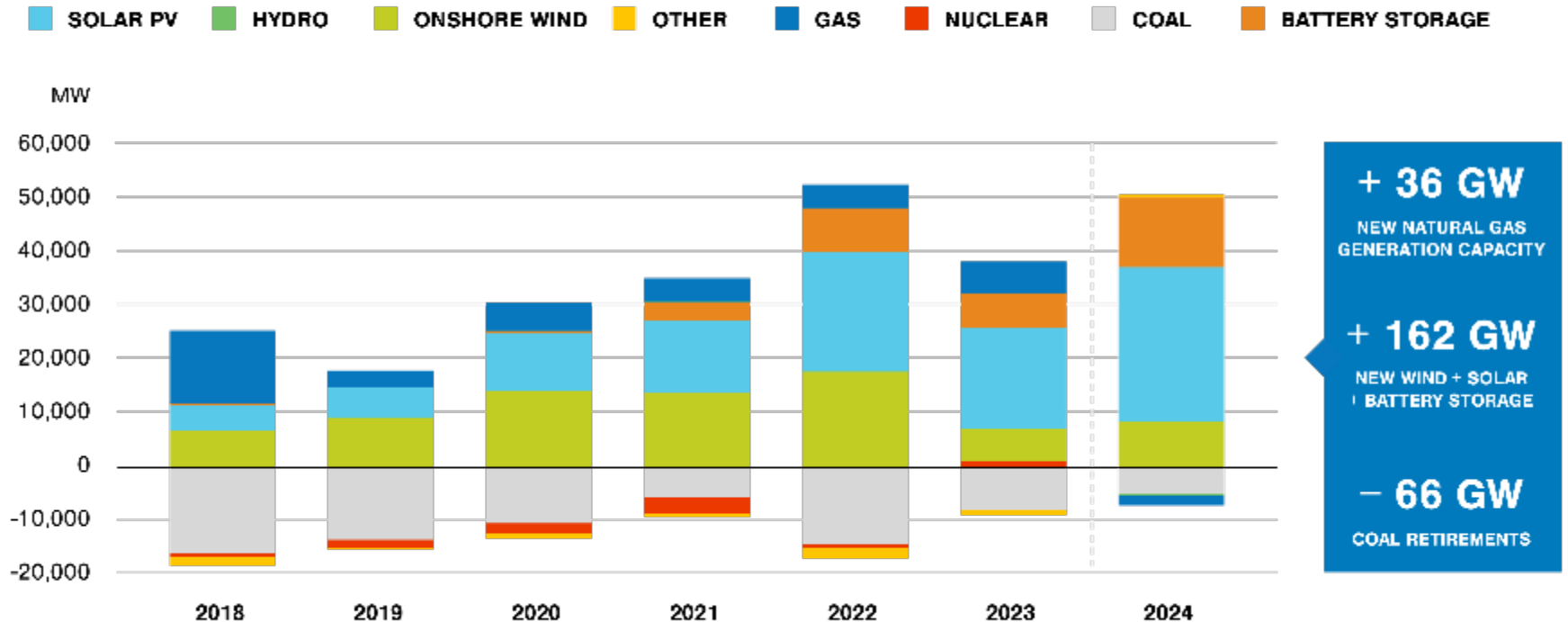


Source: Energy Ventures Analysis

Source: Energy Ventures Analysis
Henry Hub prices are NYMEX settlements as of 8/12/2024

U.S. POWER GENERATION FUEL MIX

NET CHANGE IN THE U.S. GENERATING CAPACITY



Source: Energy Ventures Analysis, EIA

NATURAL GAS SPURRING 76 MAJOR INDUSTRIAL PROJECTS 2017–2028

**\$135 Billion
Investment to Build**

**Increase of 2.75 BCFD
by 2028**



NEW PROJECTS

7 Petrochemical
5 Fertilizer
1 Steel
1 Gas-to-Liquids



EXPANSIONS

4 Fertilizer
1 Petrochem



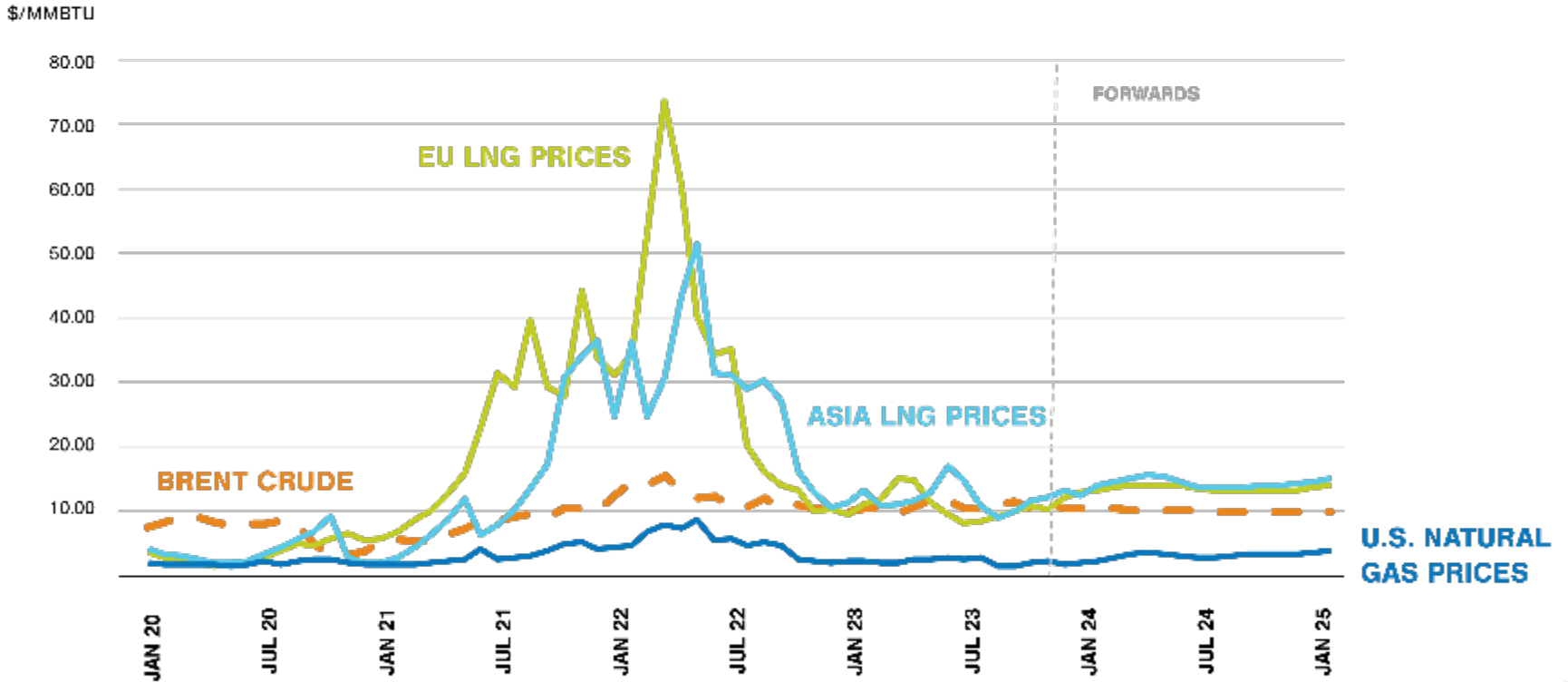
COMPLETED PROJECTS

**representing \$88
billion and 1.7 BCFD
from 2017–2023**

Source: Energy Ventures Analysis, September 2021

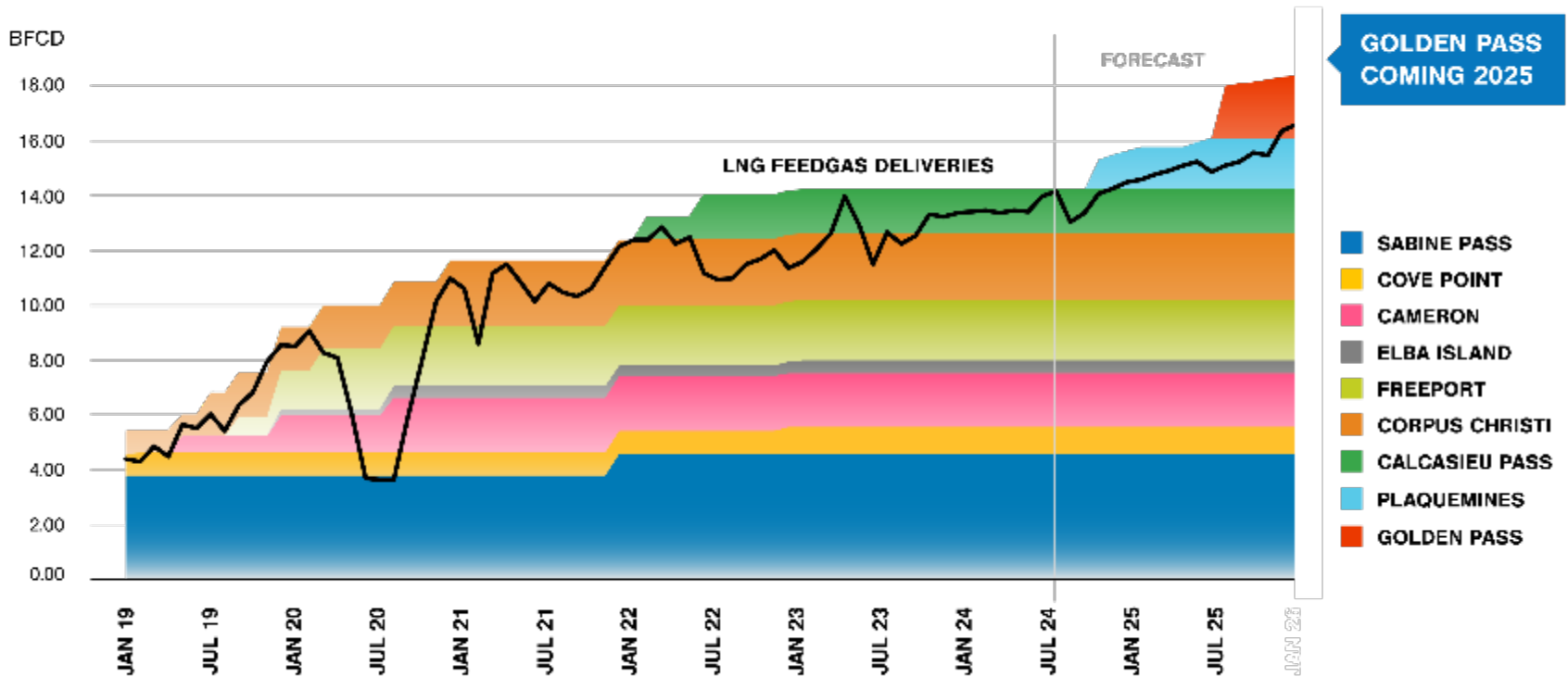
U.S. Natural Gas Prices Exponentially Lower Than EU, Asia

GLOBAL LNG PRICE



Source: ICE, Future curves are based on August 2024 settlements

U.S. LNG EXPORT CAPACITY VS. FEEDGAS DELIVERIES



Source: EVi, Energy Ventures Analysis

Winter Season Period-to-period change	Last Winter 2023-2024 ACTUAL	This Winter 2024-2025 FORECAST
Start-of-winter inventory	3,761 Bcf	3,947 Bcf
Compared to 5-year average	5% higher	6% higher
Average daily withdrawal from storage	9.8 Bcf	14 Bcf
New storage capacity	No material change	No material change

Winter-to-winter pressure on natural gas prices



Winter Season
Period-to-period change

This Winter
2024-2025 FORECAST

Winter production + imports



Weather



Economy



Overall demand



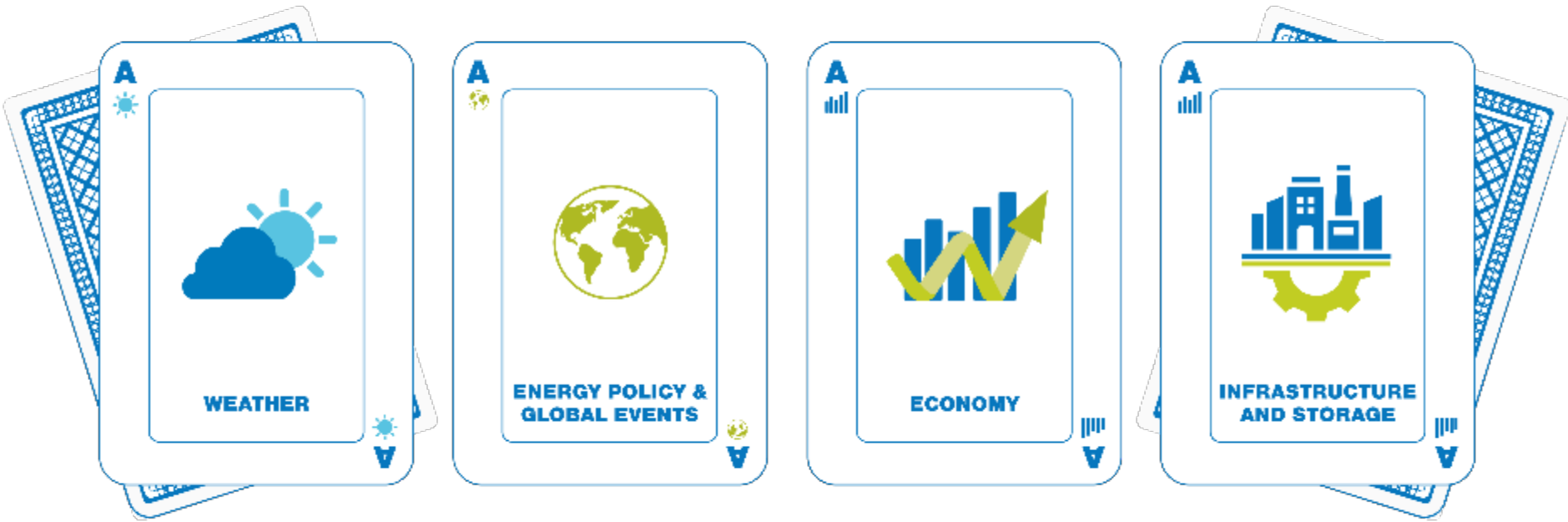
Storage



**Winter-to-winter pressure
on natural gas prices**



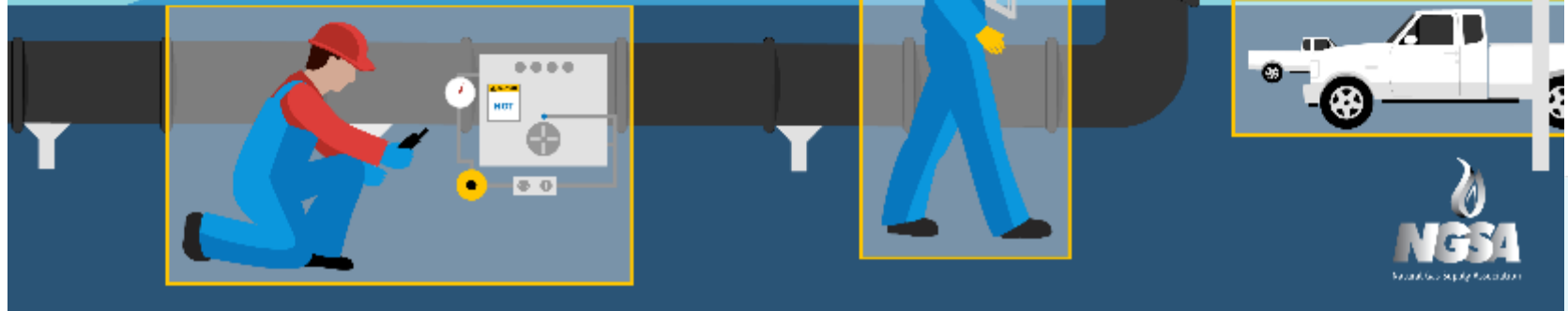
WINTER OUTLOOK: WILD CARDS



WINTER PREPAREDNESS SNAPSHOT: INVESTING IN FACILITIES AND EQUIPMENT

Members invest in many types of actions for winter preparedness at our facilities, helping them to better withstand extreme winter conditions. There are a wide range of actions that producers use to protect upstream facilities including:

- Pre-staging of existing and additional personnel across production areas to speed up actions
- Use of catalytic heaters, methanol injection, wrapped insulation, and/or application of heat trace
- Burial of natural gas or fluid lines where suitable
- Implementing backup power systems
- Increasing electrification
- Centralizing field facilities to concentrate on protection measures on one location instead of multiple sites



- Represents major producers and suppliers of domestic natural gas
 - Integrated and independent companies: 9 members
 - Founded in 1965
- Only national natural gas association representing producers and suppliers with a dedicated focus on downstream issues
- Promotes benefits of competitive natural gas markets, resulting in reliable and efficient transportation and delivery, increased supply and demand
- Includes the Center for LNG
- Tagline: “Markets Matter”



Natural Gas Supply Association

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