

EMBARGOED UNTIL OCT. 7, 2021



Natural Gas Supply Association

# 2021-2022 WINTER OUTLOOK

## MARKETS MATTER

[ngsa.org](https://ngsa.org)



## Understanding the Symbols



Upward market pressure

---



Flat market pressure

---



Downward market pressure



# 2021-2022 Winter Outlook: Outline

## LOOKING AHEAD TO WINTER 2021-2022



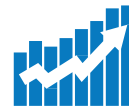
### Market Pressure Points



Economy



Weather



Demand



Production/Supply



Storage



### Wild Card Factors



### Winter Expectations

## SUMMARY



## Demand: Economy

Winter Season Period-to-period change	Last Winter 2020-2021 ACTUAL	This Winter 2021-2022 FORECAST
Economy	Rebound faltered	Gaining momentum
GDP Growth	0.6%	10%
Unemployment Rate	6.4%	5.2%
Consumer Sentiment Index	79.6	70.3 now

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



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



# Demand: Winter Weather (November-March Heating Season)

## Last Winter

2020-2021 ACTUAL

Actual winter heating season:

3% *colder* than previous winter

1% *warmer* than last three winters

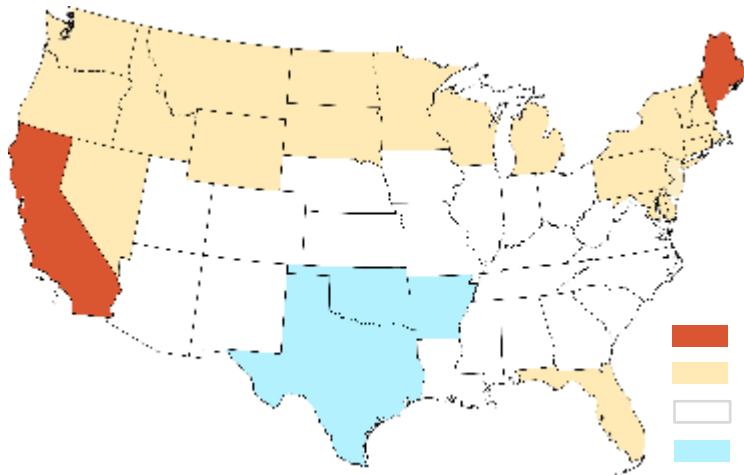
## This Winter

2021-2022 FORECAST

Forecast:

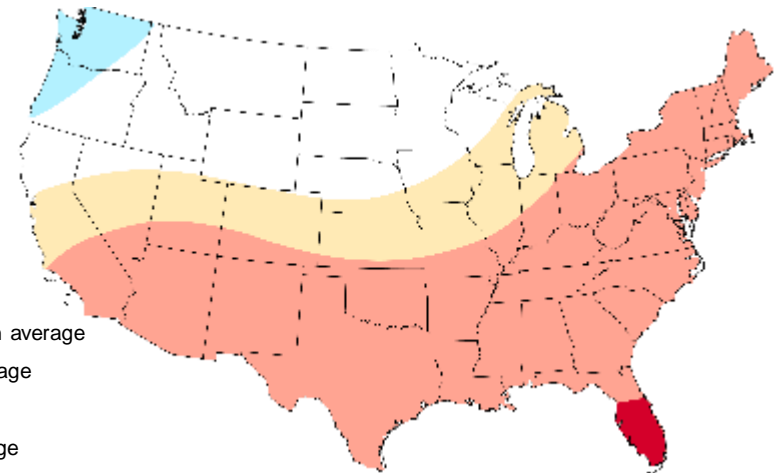
1% *colder* than last year

Same as last three winters



Maps depict Dec-Feb

- Much warmer than average
- Warmer than average
- Average
- Colder than average



3,398 Heating degree days (NOAA)

3,410 Heating degree days (EVA)

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

Data Source: Energy Ventures Analysis.



# Demand: Customer Demand

Winter Season  
Period-to-period change

Last Winter  
2020-2021  
ACTUAL

This Winter  
2021-2022  
FORECAST

PREVIOUS 3-  
YEAR  
WINTER  
AVERAGE

## Domestic Demand

- Residential/Commercial
- Power burn
- Industrial

37.3 Bcf/d

37.1 Bcf/d

37.9 Bcf/d

26.7 Bcf/d

24.5 Bcf/d

27.2 Bcf/d

23.9 Bcf/d

24.9 Bcf/d

24.7 Bcf/d

*Subtotal*

*87.9 Bcf/d*

*86.5 Bcf/d*

*87.0 Bcf/d*

## Exports

- Pipeline exports - Mexico
- LNG exports

5.4 Bcf/d

6.4 Bcf/d

5.1 Bcf/d

10.3 Bcf/d

12.0 Bcf/d

7.8 Bcf/d

*Subtotal*

*15.7 Bcf/d*

*18.4 Bcf/d*

*12.9 Bcf/d*

## Total Natural Gas Demand\*

**110.9 Bcf/d**

**111.9 Bcf/d**

**109.9 Bcf/d**

Growth sector

Exports +15%

Exports +17%

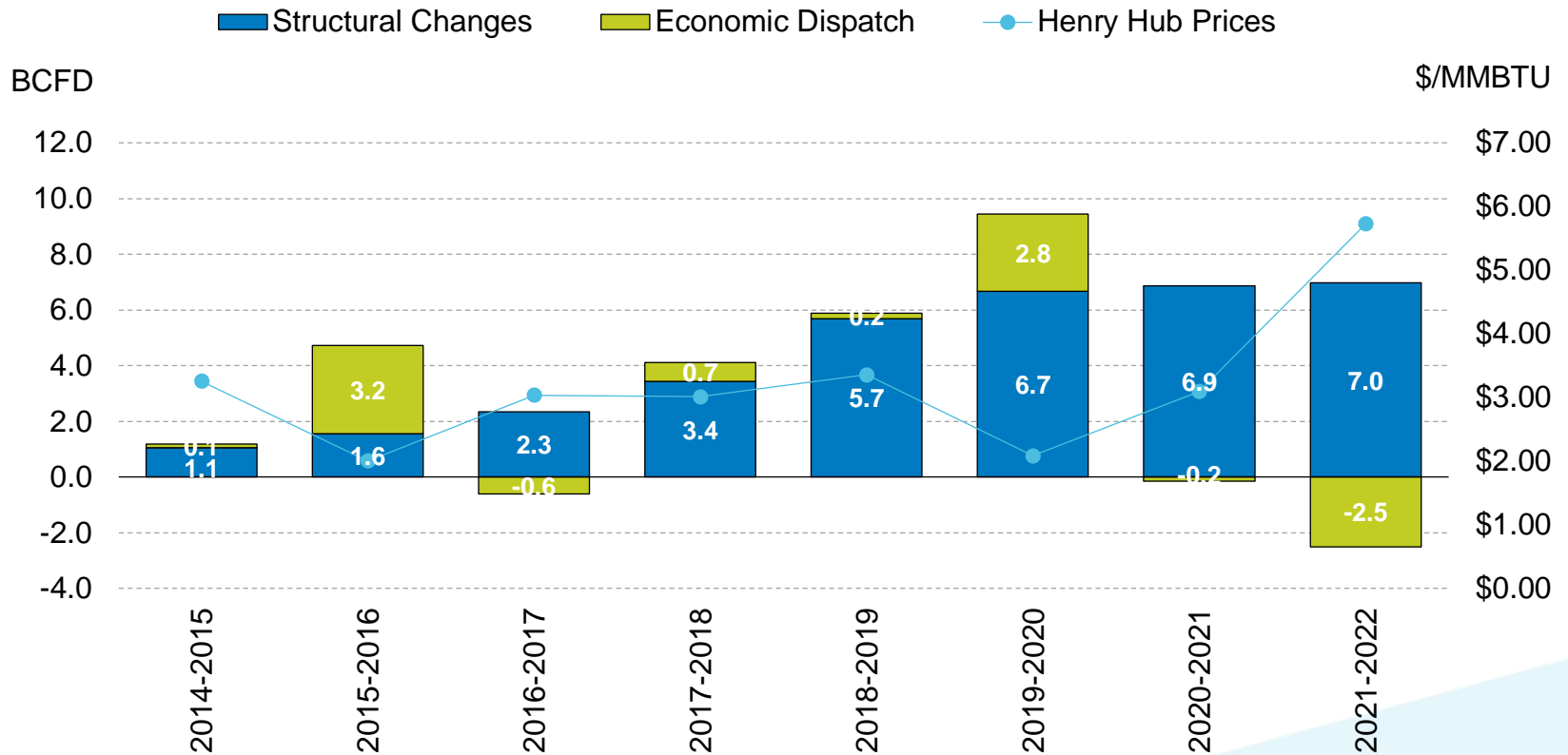
## Winter-to-winter pressure on natural gas prices

\*includes "Lease, Plant and Pipeline Fuel"  
Data Source: Energy Ventures Analysis.



# Electric Growth: Structural Growth vs. Economic Switching

## Power Burn Increase from 2013-2014 Winter: Structural Growth vs. Economic Switching



Data Source: Energy Ventures Analysis  
Note: 2021/22 winter prices are NYMEX settlements as of 9/27



## Focus: Industrial Demand Peak Growth Phase

### Natural Gas Spurring 22 Major Industrial Projects 2021-2024

\$32 Billion  
Investment to Build

Increase of  
1.0 Bcf/d by 2024

#### 18 New Projects

- 14 Petrochemical
- 2 Steel
- 2 Fertilizer

#### 3 Expansions

- 2 Fertilizer
- 1 Steel

#### 1 Re-start

- 1 Steel

*In addition to*

**53 COMPLETED**

**Projects** for additional  
\$79 billion and 1.7  
Bcf/d from 2016-2020

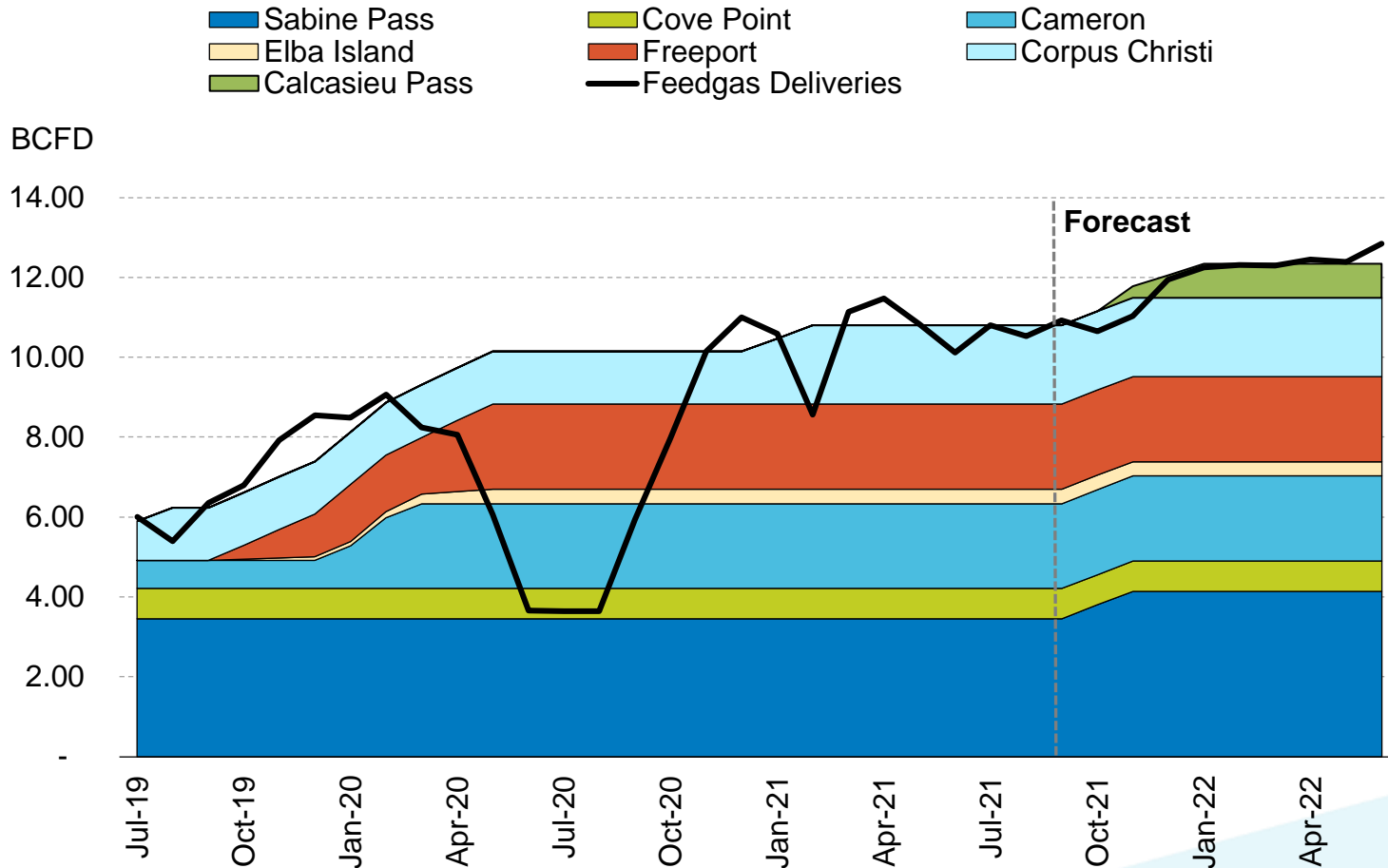






# U.S. LNG Exports: Steady Growth Expected to Continue

## U.S. LNG Export Capacity vs. Feedgas Deliveries



Data Source: Energy Ventures Analysis, EIA



# Supply: Winter Production and Imports

Winter Season Period-to-period change	Last Winter 2020-2021 ACTUAL	This Winter 2021-2022 FORECAST	3-YEAR WINTER AVERAGE
Winter average production (Lower 48)	89.9 Bcf/d	93.7 Bcf/d	91.2 Bcf/d
Canadian imports (net)	5.5 Bcf/d	5.2 Bcf/d	5.0 Bcf/d
LNG imports	0.1 Bcf/d	0.3 Bcf/d	0.3 Bcf/d

## Winter-to-Winter pressure on natural gas prices

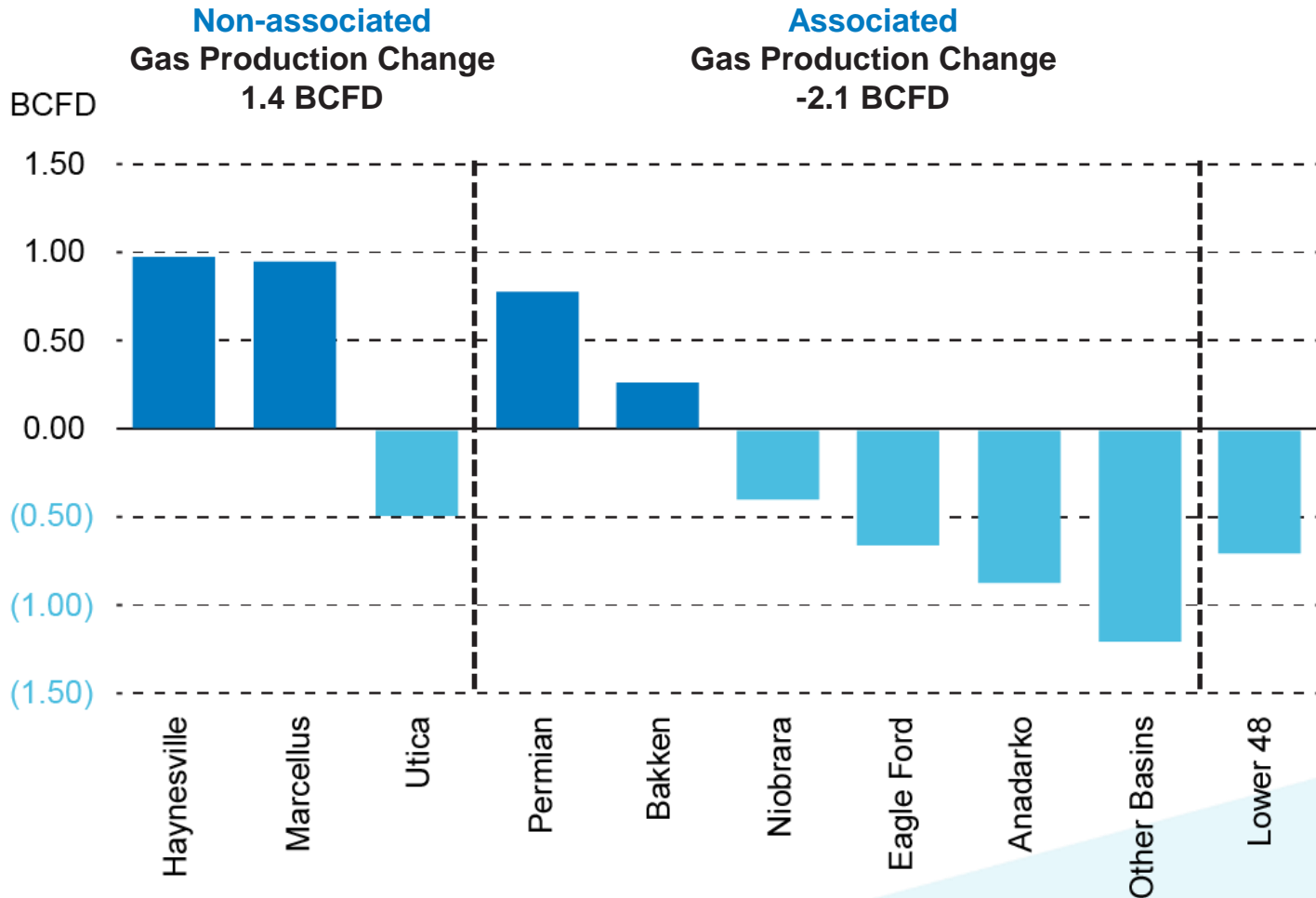


Data Source: Energy Ventures Analysis.



# Recession Impact: Growth of Associated Gas Production Slows

## Production Growth by Basin, 2021 vs. 2020 (through August)

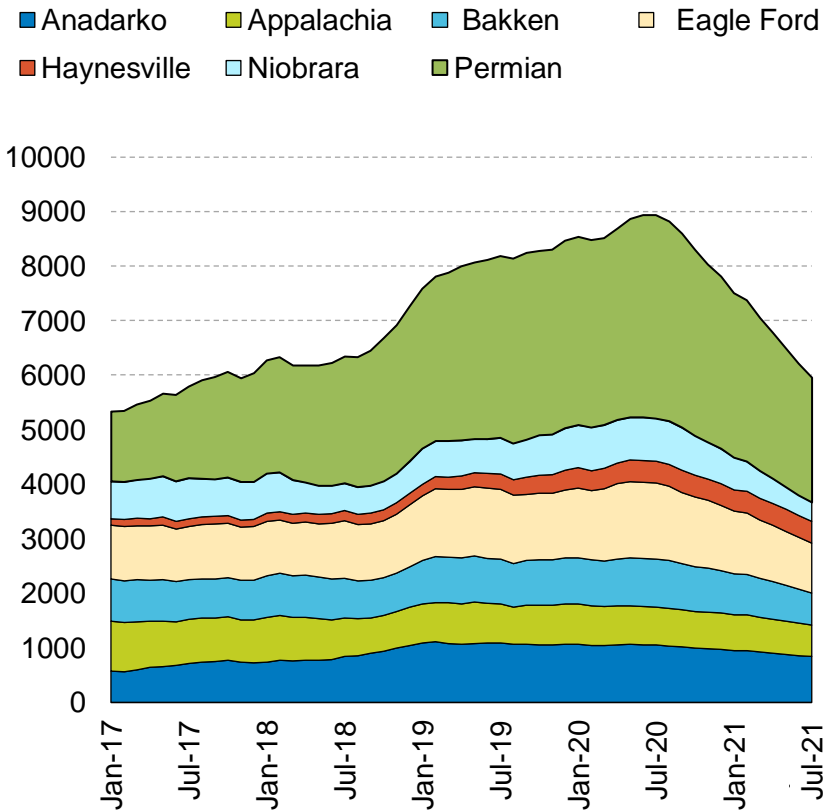


Data Source: EIA, Energy Ventures Analysis.



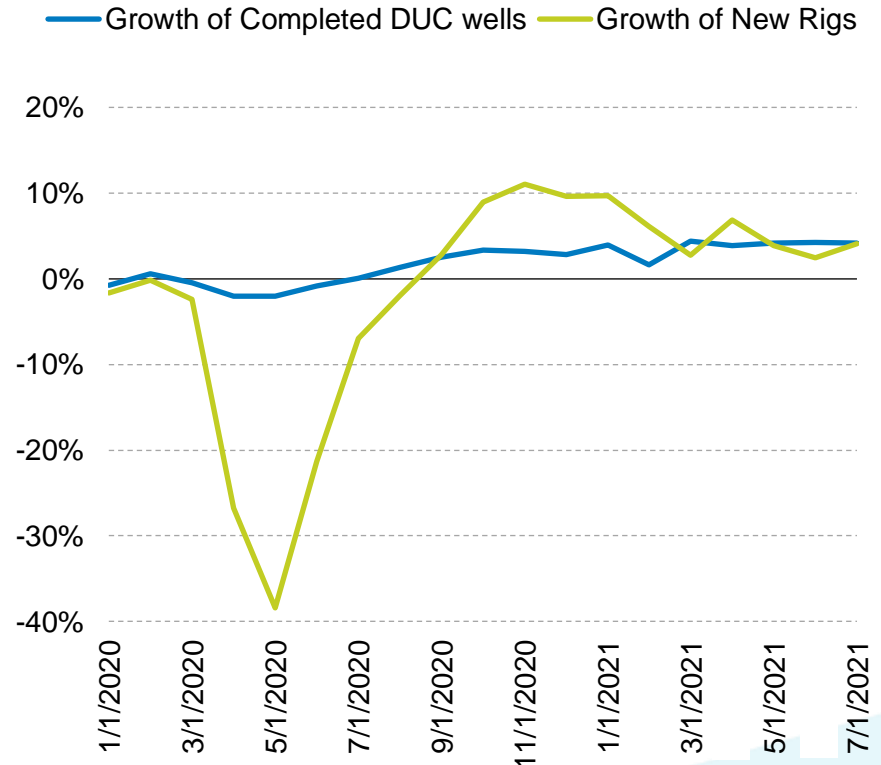
# Efficiencies in Production, Drilling

## Drilling Uncompleted Wells Inventory in Major U.S. Producing Areas



Data Source: EIA

## New Gas Supply Source Growth Indicators: DUC vs Rig

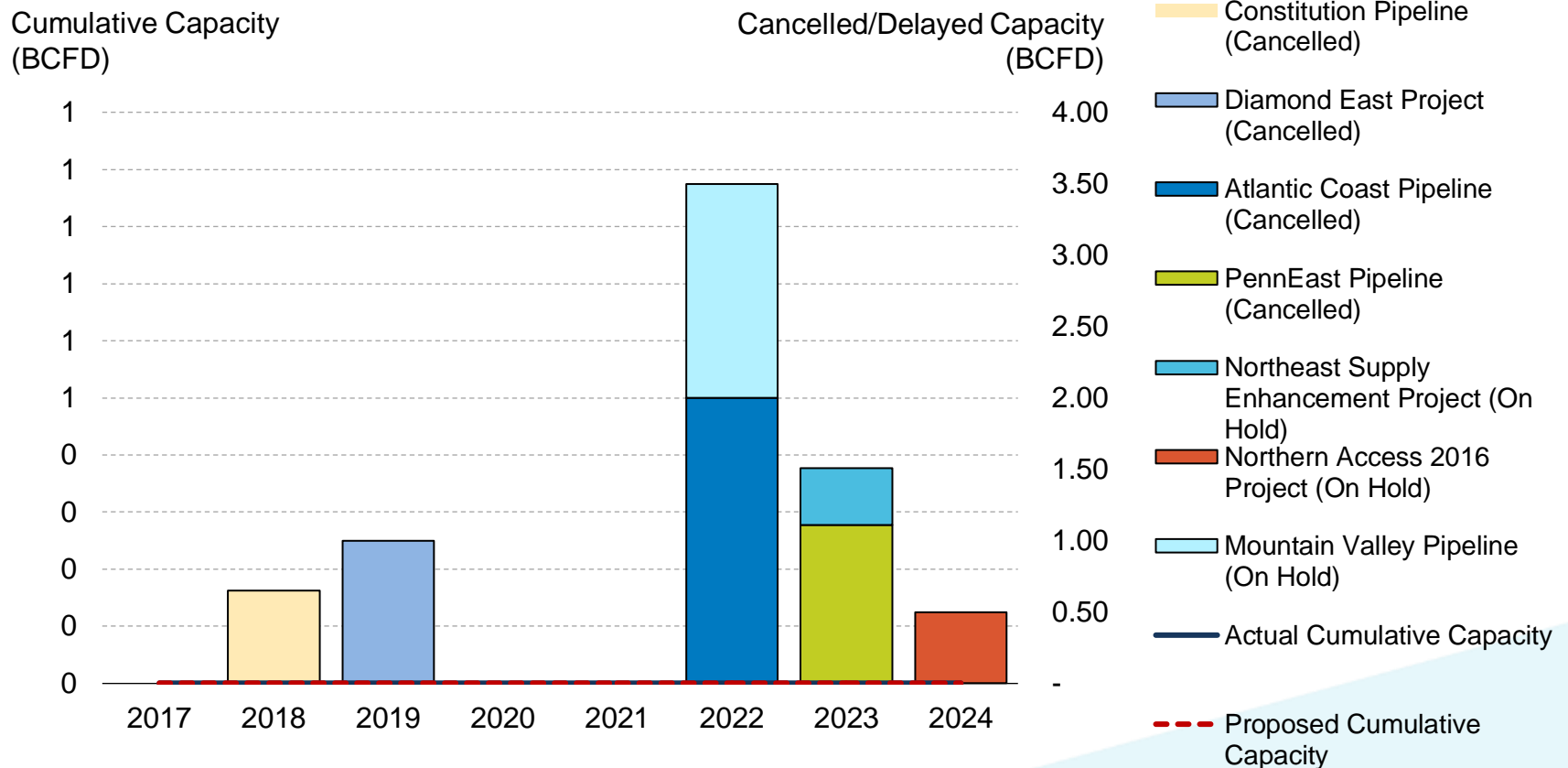


Data Source: EIA; Energy Ventures Analysis



# Pipeline Delays and Cancellations in the Northeast

## Northeast Production Pipeline Takeaway: Annual Expansion vs. Total

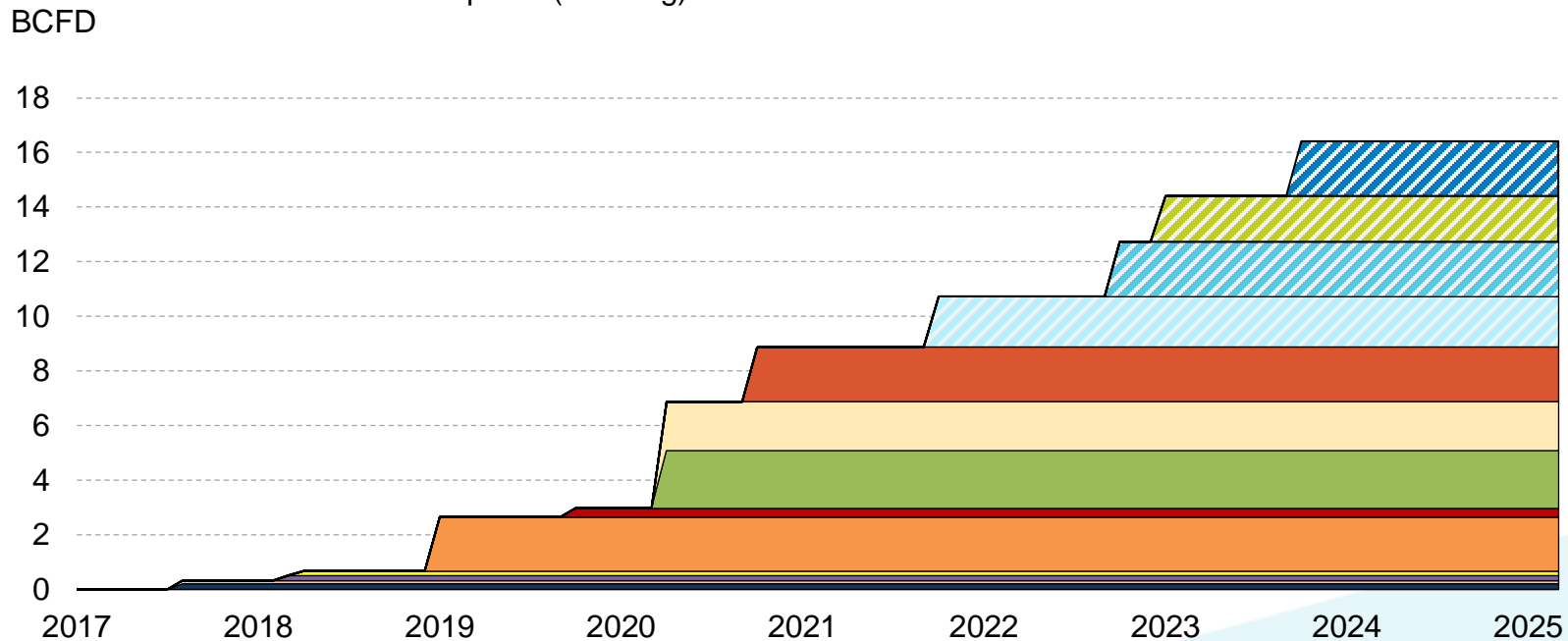




# New Pipeline Capacity Bringing Long-Awaited Relief to Permian

## Permian Production Takeaway Capacity

- Bakersfield Compressor Station
- Permian North Expansion-El Paso
- Gulf Coast Express
- Permian Highway Pipeline
- Whistler
- Permian Pass (Pending)
- Bluebonnet Market Express (Pending)
- WT-1 Compressor Station Modification
- North Texas
- El Paso South Mainline Expansion
- Agua Blanca Expansion
- Pecos Trail (Pending)
- Permian to Katy (Pending)





## Supply: Winter Storage

Winter Season Period-to-period change	Last Winter 2020-2021 ACTUAL	This Winter 2021-2022 FORECAST
Start-of-winter inventory	3,924 Bcf	3,627 Bcf
Compared to 5-year average (Percent of total storage inventory)	1% higher	3% lower
Average daily withdrawal from storage	15.3 Bcf	12.9 Bcf
New storage capacity	+ 0 Bcf	+ 0 Bcf

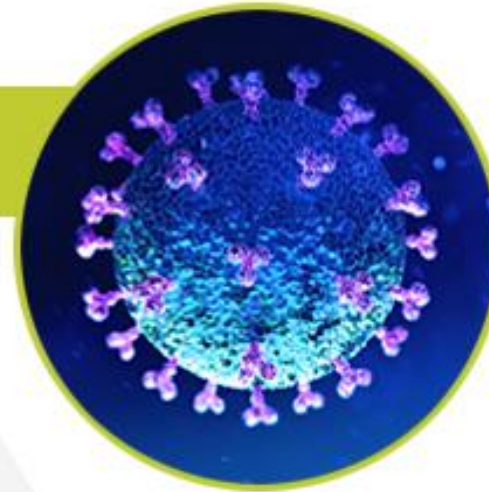
### Winter-to-winter pressure on natural gas prices





## Winter Outlook: Wild Cards

COVID Wave ?



LNG Exports

Weather







# This Season's Winter Outlook

Winter Season  
Period-to-period change

This Winter  
2021-2022 FORECAST

Economy



Weather



Overall demand



Winter supply



Storage



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





## Natural Gas Outlook: Flexible, Responsive Gas Market

- Exports grow strong and steady along with new gas-fired generation and increased industrial demand
  - Exports – LNG and pipeline increase as production and supply issues trouble Europe and Asia
  - Power burn fueled by structural growth
  - Economic recovery boosts industrial demand
- Winter supply combination of production and storage
  - Efficiencies in drilling and production continue to make non-associated gas economic
  - Non-associated gas growth outpaces associated gas
  - Production, storage, Canadian imports support supply growth



## About NGS

- Represents major producers and suppliers of domestic natural gas
  - Integrated and independent companies: 8 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
- Combined with the Center for LNG



Natural Gas Supply Association

**Contact:**

Daphne Magnuson  
dmagnuson@ngsa.org  
@natgas\_ngsa  
[www.ngsa.org](http://www.ngsa.org)



# Last Year's Projection: How Did We Score? (Background Slide)

Predicted Pressure on Prices	Actual Pressure on Prices	Score
▼	▼	☑

## Correctly predicted:

**We correctly projected record-breaking demand and supply. However, supply abundance outpaced demand due to very warm winter and new pipeline capacity. Result: Downward pressure on prices**



- Last winter 2020-2021 average Henry Hub price = \$3.09 MMBtu
- Previous winter 2019-2020 average Henry Hub price = \$2.08 MMBtu