



Natural Gas Supply Association

# **2021-2022 WINTER OUTLOOK**

## **MARKETS MATTER**

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

## Understanding the Symbols



Upward market pressure

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Flat market pressure

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Downward market pressure

### LOOKING AHEAD TO WINTER 2021-2022



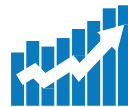
#### Market Pressure Points



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%	4.8%
Consumer Sentiment Index	79.6	82%

**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)

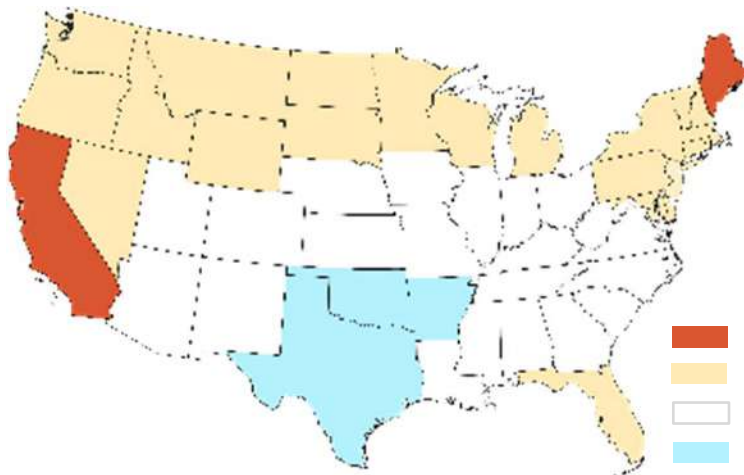
### Last Winter

2020-2021 ACTUAL

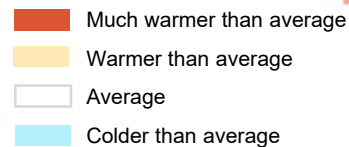
Actual winter heating season:

3% *colder* than previous winter

1% *warmer* than last three winters



Maps  
depict  
Dec-Feb



3,398 Heating degree days (NOAA)

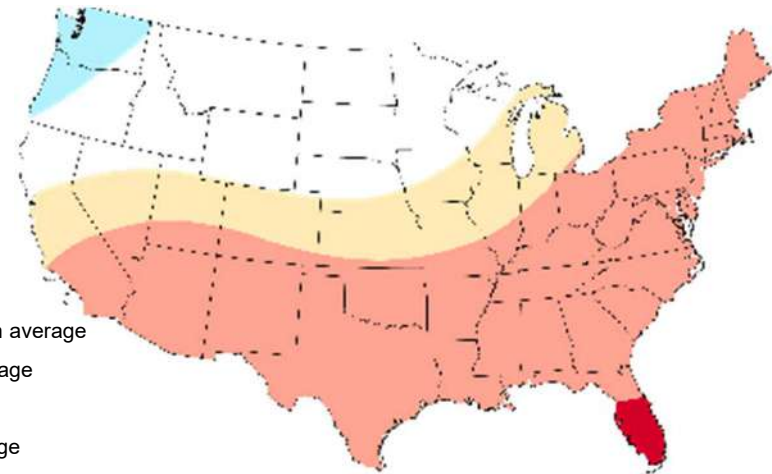
### This Winter

2021-2022 FORECAST

Forecast:

1% *colder* than last year

Same as last three winters



3,410 Heating degree days (EVA)

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

Data Source: Energy Ventures Analysis.

## Demand: Customer Demand

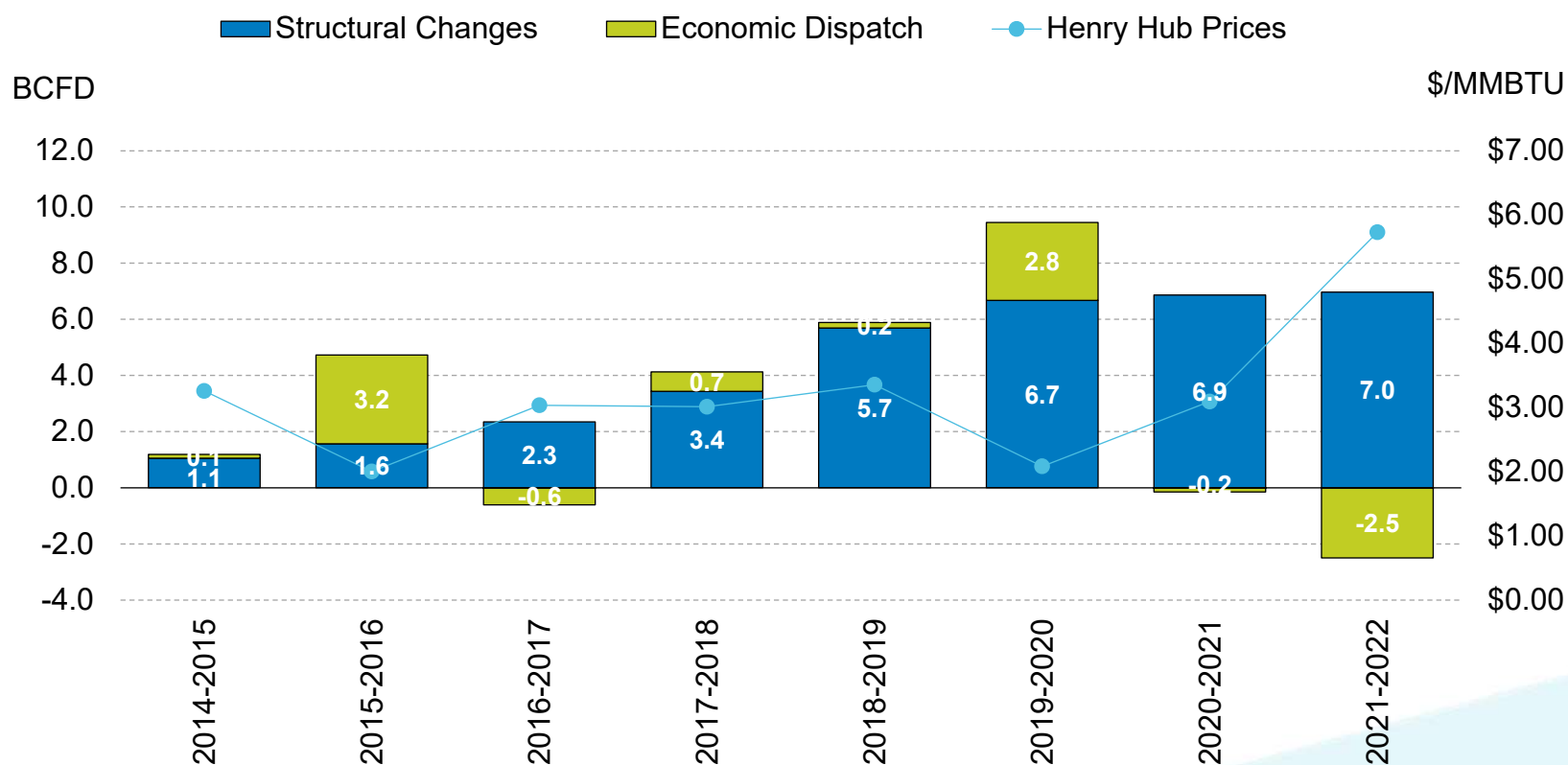
Winter Season Period-to-period change	Last Winter 2020-2021 ACTUAL	This Winter 2021-2022 FORECAST	PREVIOUS 3- YEAR WINTER AVERAGE
<b>Domestic Demand</b>			
▪ Residential/Commercial	37.3 Bcf/d	37.1 Bcf/d	37.9 Bcf/d
▪ Power burn	26.7 Bcf/d	24.5 Bcf/d	27.2 Bcf/d
▪ Industrial	23.9 Bcf/d	24.9 Bcf/d	24.7 Bcf/d
<i>Subtotal</i>	<i>87.9 Bcf/d</i>	<i>86.5 Bcf/d</i>	<i>87.0 Bcf/d</i>
<b>Exports</b>			
▪ Pipeline exports - Mexico	5.4 Bcf/d	6.4 Bcf/d	5.1 Bcf/d
▪ LNG exports	10.3 Bcf/d	12.0 Bcf/d	7.8 Bcf/d
<i>Subtotal</i>	<i>15.7 Bcf/d</i>	<i>18.4 Bcf/d</i>	<i>12.9 Bcf/d</i>
<b>Total Natural Gas Demand*</b>	<b>110.9 Bcf/d</b>	<b>111.9 Bcf/d</b>	<b>109.9 Bcf/d</b>
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

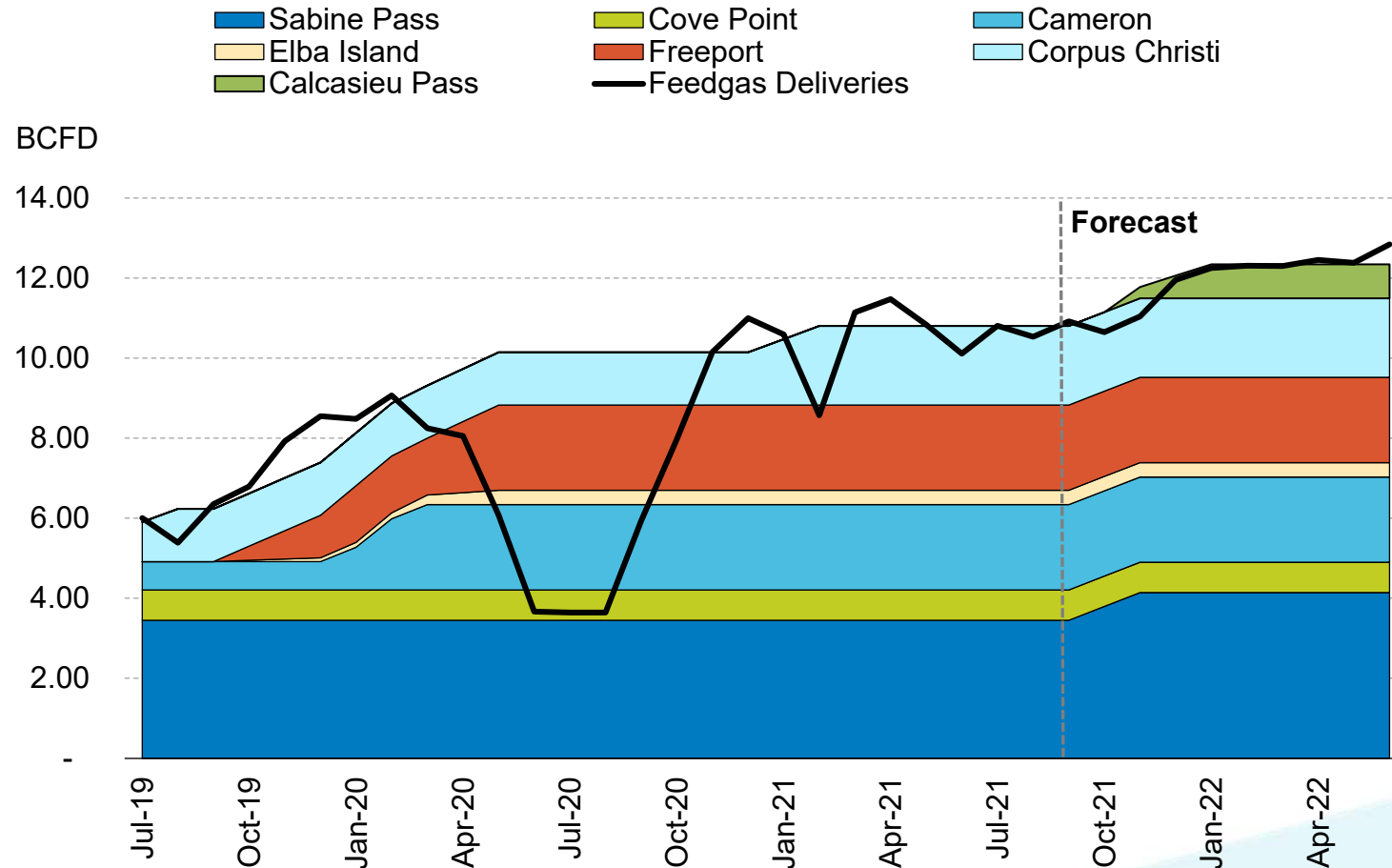
*In addition to*

**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

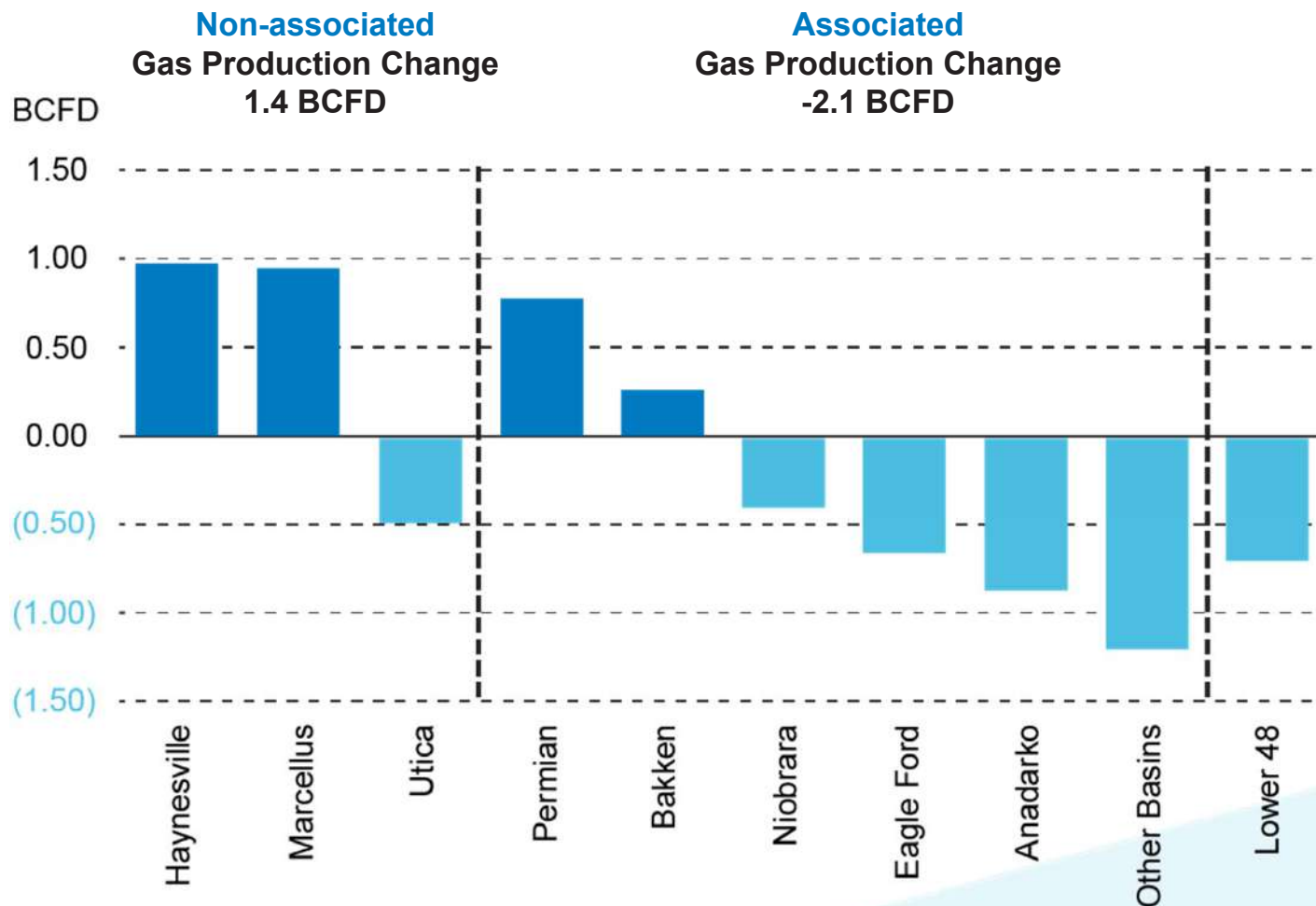
**Winter-to-Winter  
pressure  
on natural gas prices**

*Data Source: Energy Ventures Analysis.*



## Recession Impact: Growth of Associated Gas Production Slows

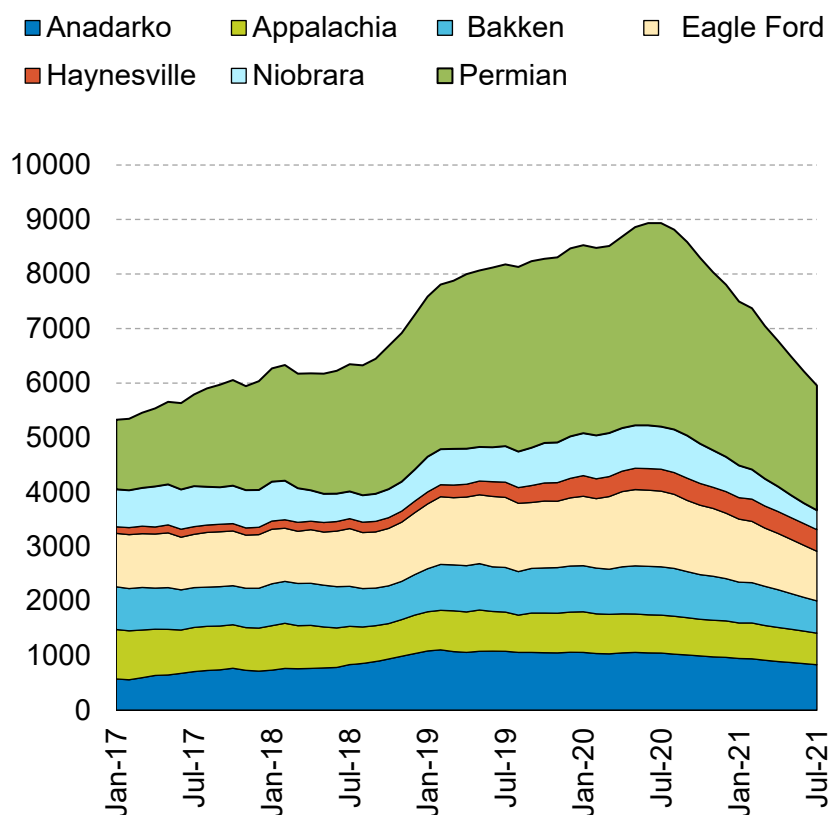
Production Growth by Basin, 2021 vs. 2020 (through August)



Data Source: EIA, Energy Ventures Analysis.

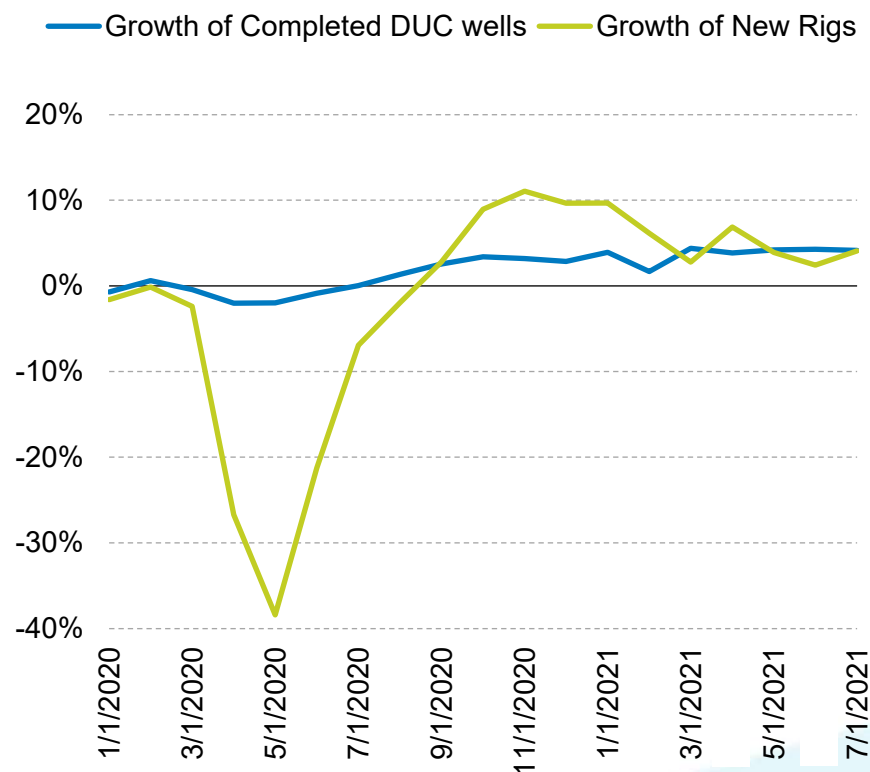
## Efficiencies in Production, Drilling

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



Data Source: EIA

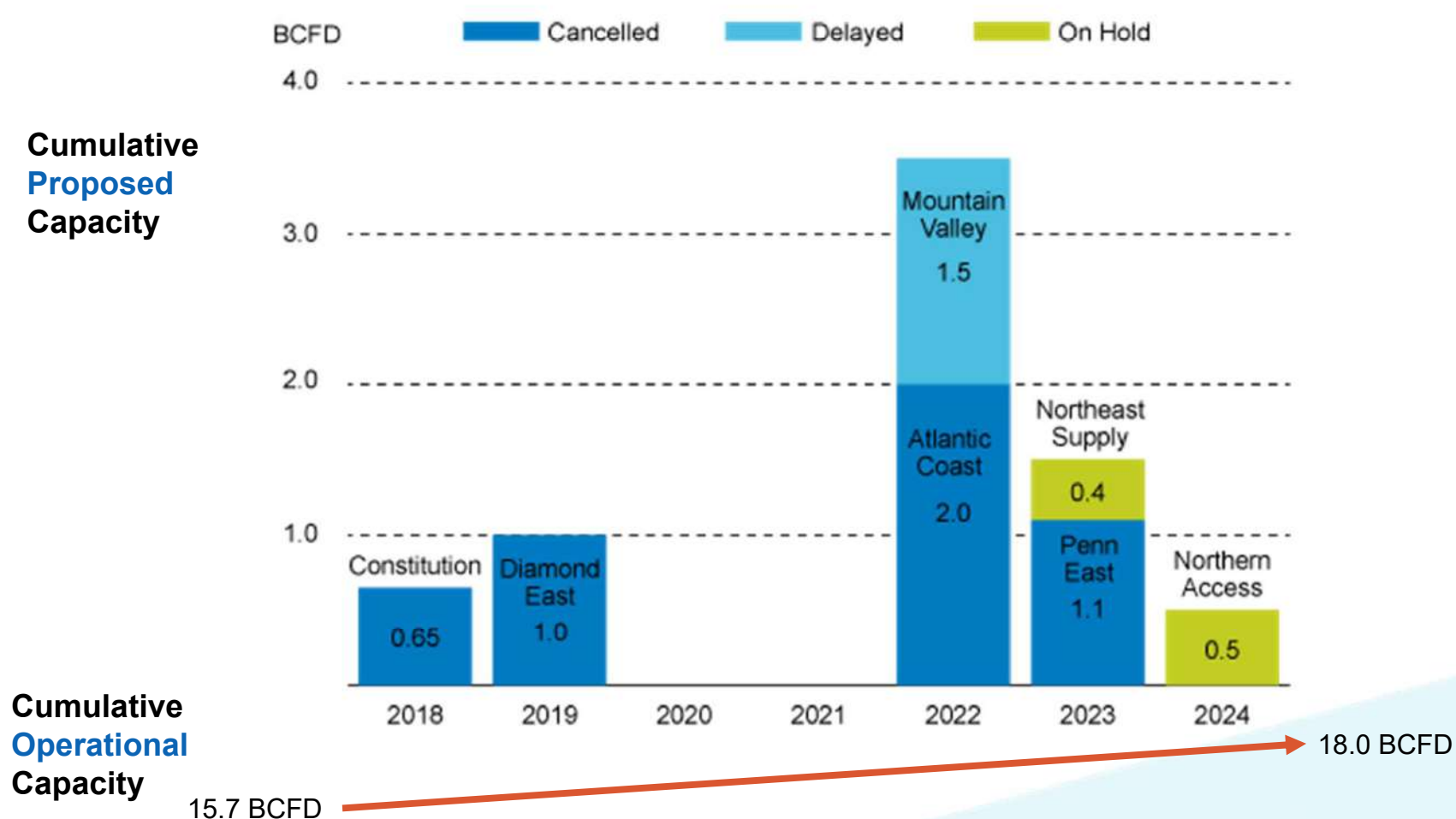
### New Gas Supply Source Growth Indicators: DUC vs Rig



Data Source: EIA; Energy Ventures Analysis

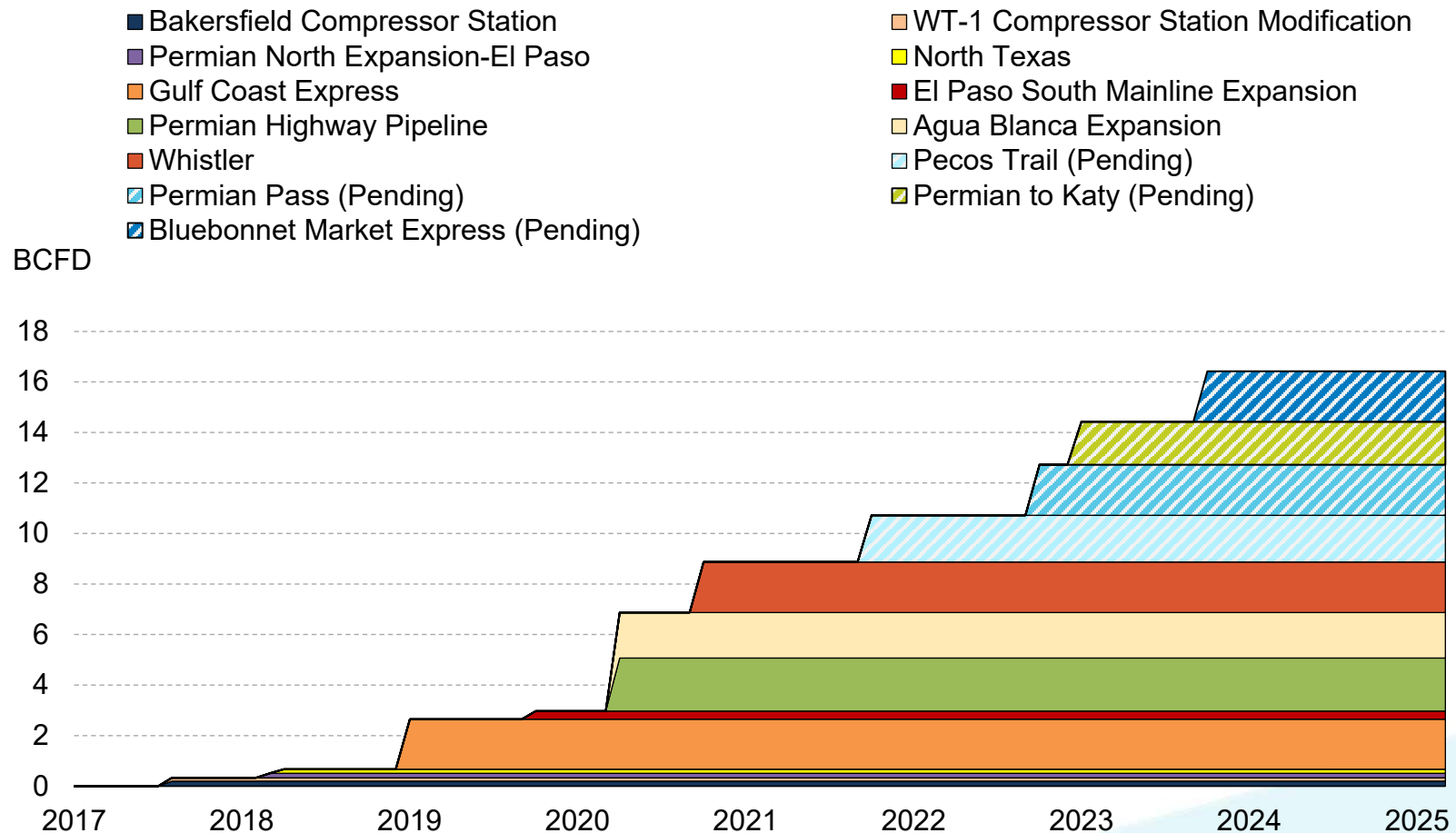
## Cancelled, Delayed Pipelines Continue in Northeast

**TOTAL OF 7.1 BCFD OF PIPELINE CAPACITY CANCELLED OR PUT ON HOLD IN NORTHEAST SINCE 2018 – BUT ONLY 2.3 BCFD ADDED**



## New Pipeline Capacity Bringing Long-Awaited Relief to Permian

### Permian Production Takeaway Capacity



Data Source: OPIS PaintLogic, Energy Ventures Analysis.

## 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

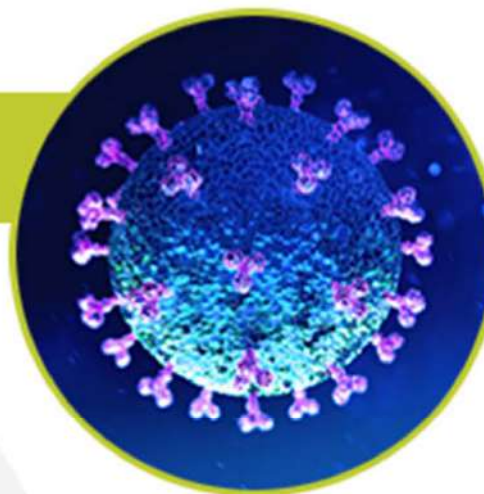
**Winter-to-winter pressure  
on natural gas prices**





## 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 exports increase as production and supply issues trouble Europe and Asia
  - Power burn fueled by structural growth this winter
  - Economic recovery boosts industrial demand to higher utilization rates
- Winter supply a combination of modest growth in production and storage
  - Producers ramping up production cautiously
    - DUCs enabling production to get to market faster
    - Drilling rigs up 30% compared to last winter
    - Non-associated gas growth still outpacing associated gas for now
    - Last winter's experience with COVID, other uncertainties limit exuberance
    - Storage at low end but within 5-year average



## About NGSA

- 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

