EMBARGOED FOR
OCTOBER 5, 2016

NGSA
Natural Gas Supply Association

# 2016-2017 Winter Outlook

## Markets Matter

www.ngsa.org

## About NGSA

- Represents major producers and suppliers of domestic natural gas
  - Integrated and independent companies: 14 members
  - Founded in 1965
- Only DC-based 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

## Understanding the Symbols

Upward market pressure

Flat market pressure

Downward market pressure



## Last Year's Projection: How Did We Score?

| Predicted | Actual | Score |
|---|---|---|
| | | |

**Key Factor:**

**Second Warmest Winter Heating Season on Record**



Data Source: Energy Information Administration

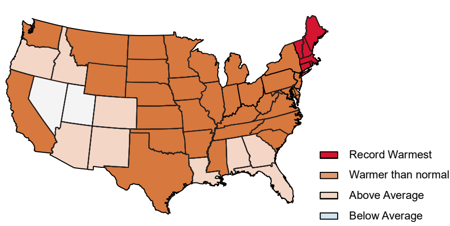
## 2016-2017 Winter Outlook: Outline

- Looking ahead to Winter 2016-2017
  - Market pressure points:
    - Weather
    - Economy
    - Demand
    - Storage
    - Production
  - Wild card factors
  - Winter expectations
- Summary

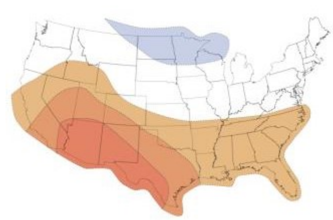


## Demand: Winter Weather

| Last Winter: Nov. – March<br>2015-2016 ACTUAL | This Winter<br>2016-2017 FORECAST |
|---|---|
| Actual season (NOAA):<br>17% warmer than previous winter and<br>13% warmer than 30-year average | Forecast:<br>12% *colder* than last year,<br>3% warmer than 30-year average |




3,042 Heating degree days (NOAA)



3,408 Heating degree days

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



Data Sources: National Oceanic and Atmospheric Administration, Energy Ventures Analysis

## Demand: Economy

| Winter Season<br>Period-to-period change | Last Winter<br>2015-2016<br>ACTUAL | This Winter<br>2016-2017<br>FORECAST |
|---|---|---|
| Economy | Slow | Still sluggish |
| GDP growth | 1.7% | 2.1% |
| Unemployment rate | 5.0% | 4.9% |
| Manufacturing | 0.2% | 0.7% |
| CPI | 0.7% | 2.1% |
| Consumer Sentiment Index | 91.4 | 91.9 |

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



Data Source: IHS Economics

## Demand: Customer Demand

| Winter Season<br>Period-to-period change | Last Winter<br>2015-2016<br>ACTUAL | This Winter<br>2016-2017<br>FORECAST |
|---|---|---|
| **Customer Gas Demand*** | **89.1 Bcf/d** | **92.3 Bcf/d** |
| ▪ Electric | 24.5 Bcf/d | 21.2 Bcf/d |
| ▪ Industrial | 22.2 Bcf/d | 22.9 Bcf/d |
| ▪ Residential/Commercial | 32.2 Bcf/d | 36.2 Bcf/d |
| ▪ Mexican exports | 3.2 Bcf/d | 4.0 Bcf/d |
| ▪ LNG exports | NA | 0.8 Bcf/d |
| Growth sector | Electric | Residential + 12% |

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

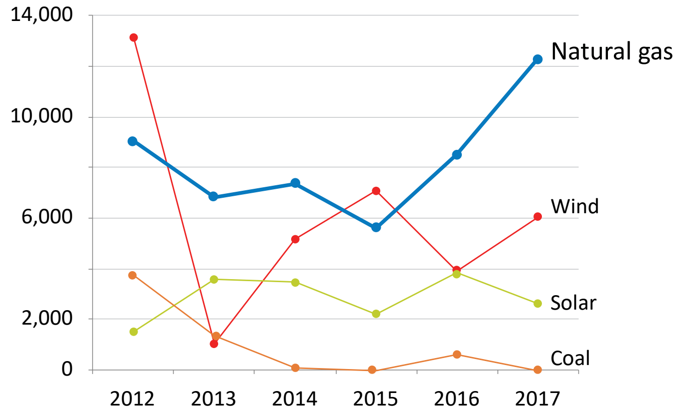
*Includes "Lease, Plant and Pipeline Fuel"



Data Source: Energy Information Administration

## Focus on New Electric Generation Capacity:

**New Electric Generation Mostly Natural Gas; Renewables Also on Rise**

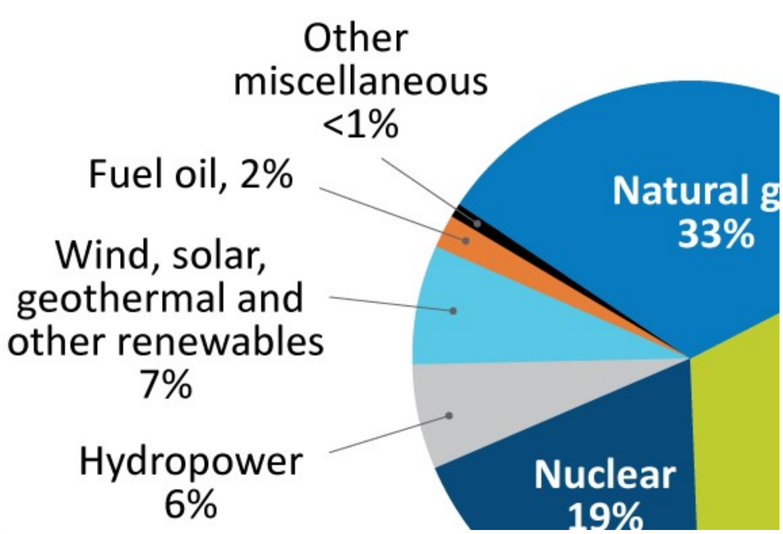



*2016 and 2017 wind figures are conservatively estimated by EVA

2016-2017 WINTER OUTLOOK | 9

Data Source: Energy Ventures Analysis

## 2015 Electricity Fuel Mix




2016-2017 WINTER OUTLOOK | 10

Data Source: Edison Electric Institute, 2016. Industry Data and Analysis, Industry Data “2015 Fuel Mix.”

## Focus On Industrial Demand:

### Natural Gas Spurring 71 Major Industrial Projects 2015–2021


Photo courtesy: Chevron U.S.A. Inc., 2015 (Pascagoula)

Data Source: Energy Ventures Analysis, June 2015

## Supply: Winter Storage

| Winter Season<br>Period-to-period change | Last Winter<br>2015-2016<br>ACTUAL | This Winter<br>2016-2017<br>FORECAST |
|---|---|---|
| Start-of-winter inventory | 3,950 Bcf | 3,995 Bcf |
| Compared to 5-year average<br>(Percent of total storage inventory) | 1% greater | 3% greater |
| New storage capacity | 7 Bcf | Est. 0 Bcf |
| **Winter-to-winter pressure on natural gas prices** | | |

NGSA Natural Gas Supply Association

2016-2017 WINTER OUTLOOK | 12

Data Sources: Energy Information Administration and Energy Ventures Analysis

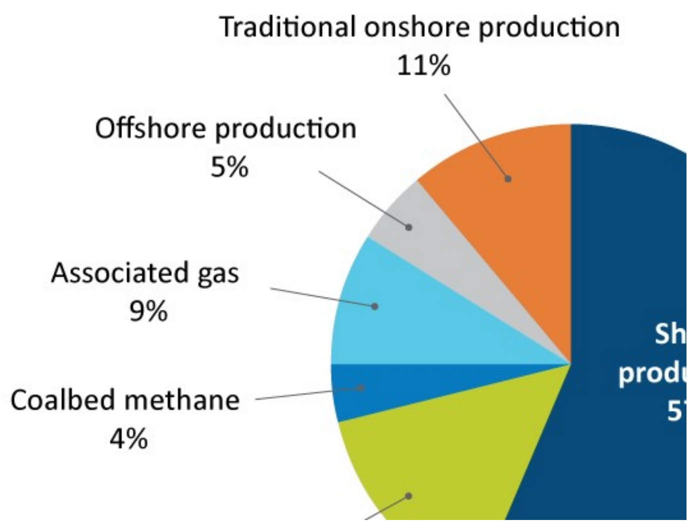
## Supply: Winter Sources

| Winter Season<br>Period-to-period change | Last Winter<br>2015-2016 ACTUAL | This Winter<br>2016-2017<br>FORECAST |
|---|---|---|
| Winter average production<br>(Lower 48) | 73.5 Bcf/d | 73.0 Bcf/d |
| Canadian imports (net) | 5.5 Bcf/d | 5.5 Bcf/d |
| **Winter-to-Winter pressure on natural gas prices** | | |



Data Source: Energy Ventures Analysis

## Focus On Supply Flexibility and Responsiveness:
### Winter Production From Shale and Diverse Sources



## Winter Outlook: Wild Cards




## This Season's Winter Outlook

| Winter Season<br>Period-to-period change | This Winter<br>2016-2017<br>FORECAST |
|---|---|
| Weather | ^ |
| Economy | — |
| Overall demand | ^ |
| Storage | — |
| Winter supply | — |
| **Winter-to-winter pressure on natural gas prices** | ^ |

## Natural Gas Outlook: Responsive, Flexible Gas Market

- Robust winter supply
  - Efficiencies in drilling and production continue to make wells more productive at lower cost
  - Diverse supply sources contribute to greater flexibility
  - Storage inventory forecast to reach record levels provides further flexibility
- Residential/commercial demand increases due to colder weather
- Industrial demand buoyed by new builds in petrochemical, fertilizer sectors

NGSA Natural Gas Supply Association

2016-2017 WINTER OUTLOOK | 17

NGSA
Natural Gas Supply Association

**Contact:**
Daphne Magnuson
dmagnuson@ngsa.org
@natgas_ngsa
www.ngsa.org

EMBARGOED FOR
OCTOBER 5, 2016

# 2016-2017 Winter Outlook

## Markets Matter

www.ngsa.org