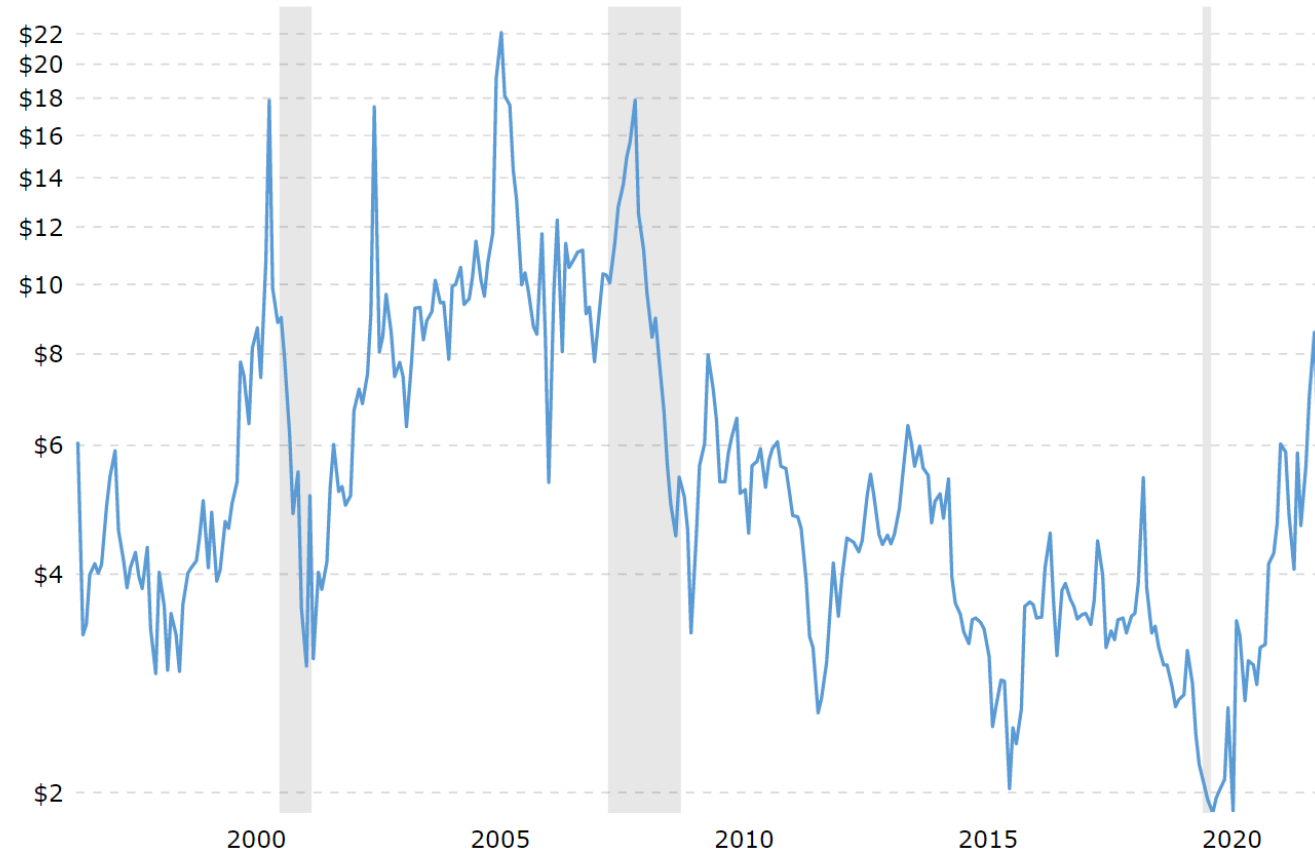




# Natural Gas Markets

Past, Present, and Forward

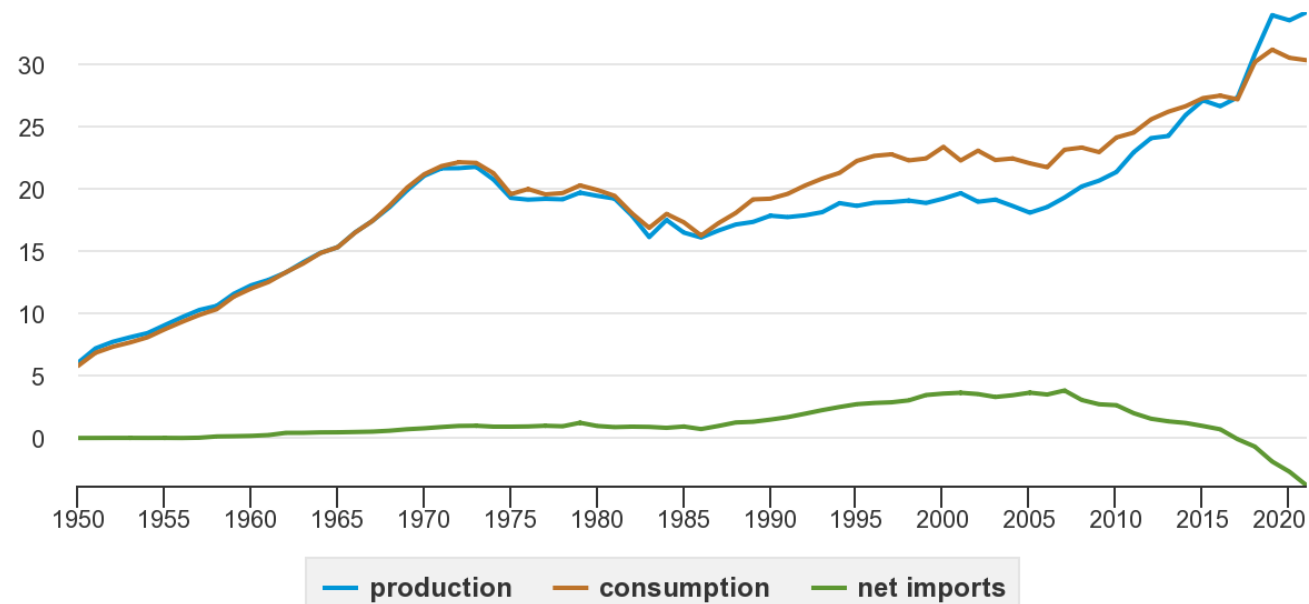
# Historical Chart



# Production History

U.S. natural gas consumption, dry production, and net imports, 1950-2021

trillion cubic feet

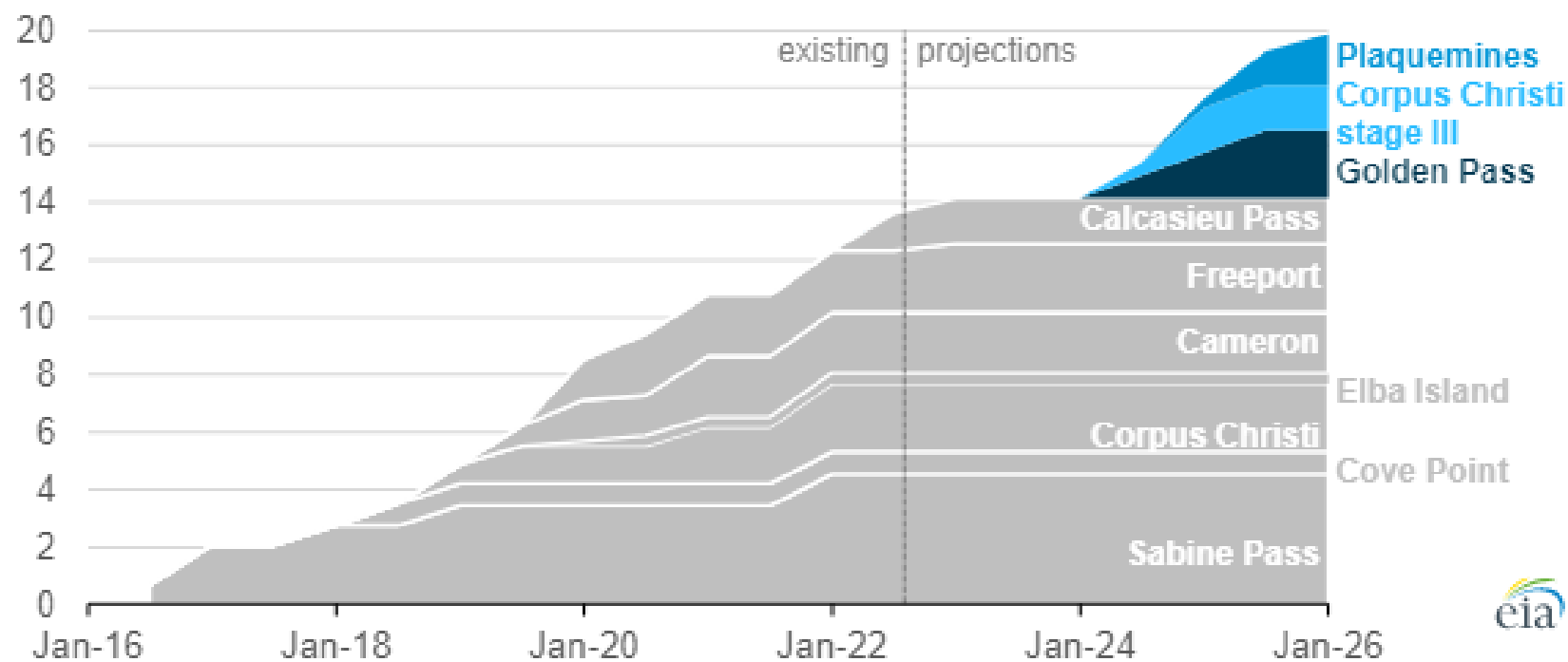


Data source: U.S. Energy Information Administration, *Natural Gas Monthly*, March 2022, preliminary data for 2021

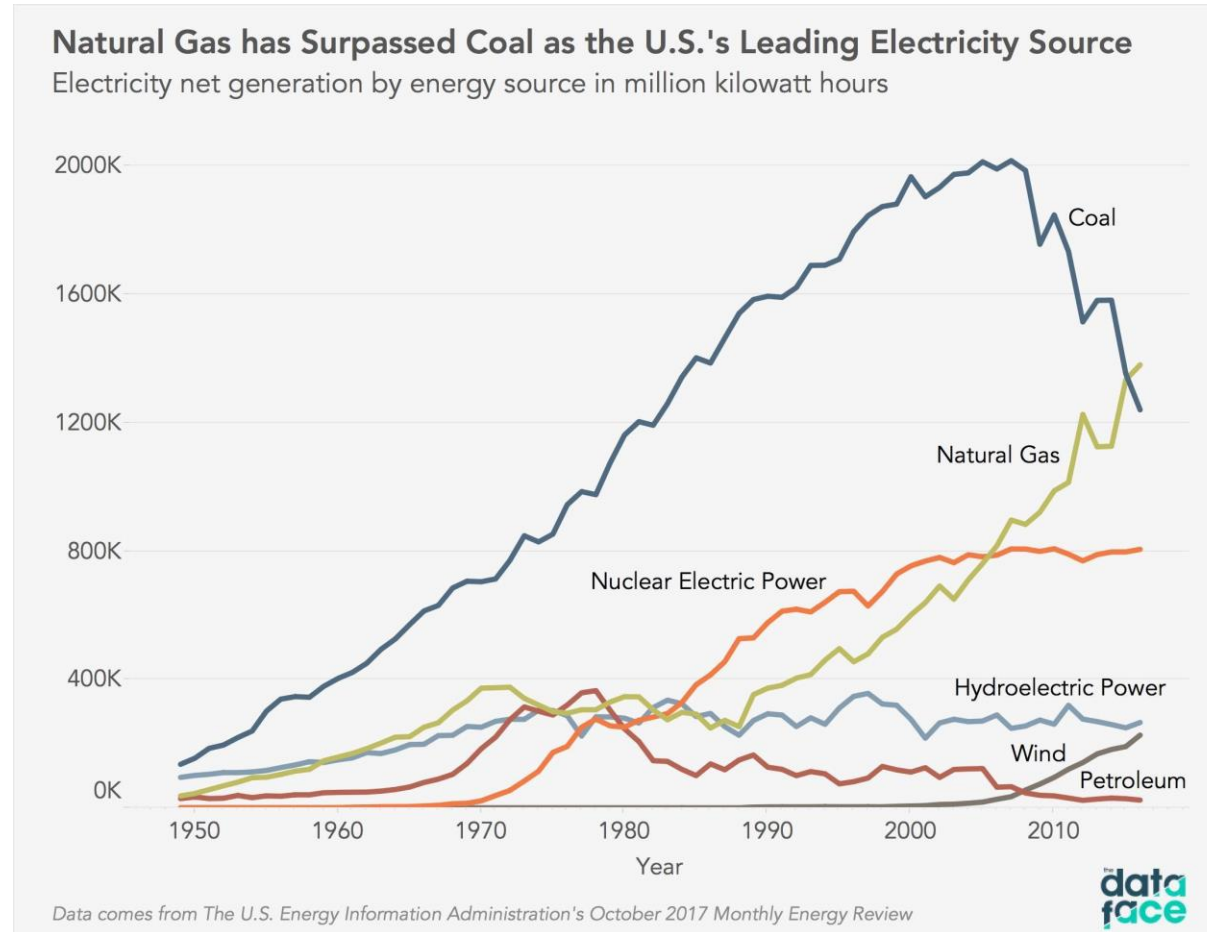
# LNG Export History/Projections

U.S. liquefied natural gas export projects: existing and under construction (2016–2025)

billion cubic feet per day



# Power Generation Trends



# Current Consumption by Class (101 BCFD Gross)

- 95 BCFD Domestic, 6 BCFD Canadian Imports

- 40 BCFD Power Gen
- 22 BCFD Industrial
- 11 BCFD LNG
- 11 BCFD Residential
- 9 BCFD Storage Injection
- 8 BCFD Mexican Exports and Line Loss

# Short Term Price Drivers

- **Bullish**

- Structural Storage Deficits (YOY and v. 5-year avg)
- Power Gen Demand continues to grow rapidly
- Freeport LNG Plant expected back on-line (1.5 to 2 BCFD)

- **Bearish**

- Production increasing (>96 BCFD)
- Recession/Conservation

- **Wild Card Weather**

# Current Daily Price Action

- Henry Hub about \$8 per MMBTU
- Dominion East Ohio about \$7.00 per MMBTU
- Columbia about \$7.20 per MMBTU
- Interstates – vary by Primary “outlet” – generally \$7.00’s per MMBTU



# Producer Deductions

- Midstream
- Dehy
- Compression
- Taxes (Severance, etc.)
- Kitchen Sink (Administrative, Marketing Fees, etc.)

# Forward Ohio Basis

- Dominion East Ohio
  - Nov-March: -\$0.85
  - April- October: -\$1.25
- Columbia Transmission/Pool
  - Nov-March: -\$0.70
  - April-October-\$1.00

# Risk Management Tools

- Henry Hub Contracts Trade in 2500 MMBTU/Month increments
- Opportunities to “Lock In” Values
  - Swaps
  - Puts
  - Collars

# Swaps

- Sell forward Henry Hub Financial Contracts in 2500 MMBTU/Month increments
- Settled each Month at Expiry (3 business days prior to Prompt Month)
- Current Opportunities:
  - Nov-March: \$8.00
  - April-October: \$5.00

# Puts

- Finite Outlay to guaranty a Minimum Price (Floor)
- Ability to participate in “Upside”
  
- Examples:
  - \$6.00 Put Nov-March: Cost \$0.75 per MMBTU
  - If Hub Prices Settle at \$6.00 or less you realize \$5.25 ( $\$6.00 - \$0.75$ )
  - If Hub Prices settle at \$6.75 or more you realize Settle- $\$0.75$

# Collars

- Create a Range of Outcomes with a defined Floor and defined Cap
- Initial Cash Outlay Neutral ( as opposed to Puts)
- Range of Defined Range of Possible Outcomes (limited downside, limited upside)
- Example : Nov-March: \$6/\$11; April-October: \$4/\$6.75

# Market Outlook

- Weather
- Producer Discipline
- LNG and Power Gen Growth
- Recession Fears
  
- Net/Net Positive Environment

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Enerisk Associates, LLC

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Basis

# Current markets

Midstream costs

Last 2 years

# Coming winter

Domestic and international

# Forward markets

Risk management  
opportunities



Hedging Puts collars etc