

December 3, 2020

Natural Gas Supply & Energy Policy Outlook

Presentation to:

NGA Customer Experience Webinar



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NGA'S ANTITRUST COMPLIANCE PROCEDURES

Adopted by the NGA Board of Directors on June 20, 2018

Objective

The Northeast Gas Association (NGA) and its member companies are committed to full compliance with all laws and regulations, and to maintaining the highest ethical standards in the way we conduct our operations and activities. Our commitment includes strict compliance with federal and state antitrust laws, which are designed to protect this country's free competitive economy.

Responsibility for Antitrust Compliance

Compliance with the antitrust laws is a serious business. Antitrust violations may result in heavy fines for corporations, and in fines and even imprisonment for individuals. While NGA's attorneys provide guidance on antitrust matters, you bear the ultimate responsibility for assuring that your actions and the actions of any of those under your direction comply with the antitrust laws.

Antitrust Guidelines

In all NGA operations and activities, you must avoid any discussions or conduct that might violate the antitrust laws or even raise an appearance of impropriety. The following guidelines will help you do that:

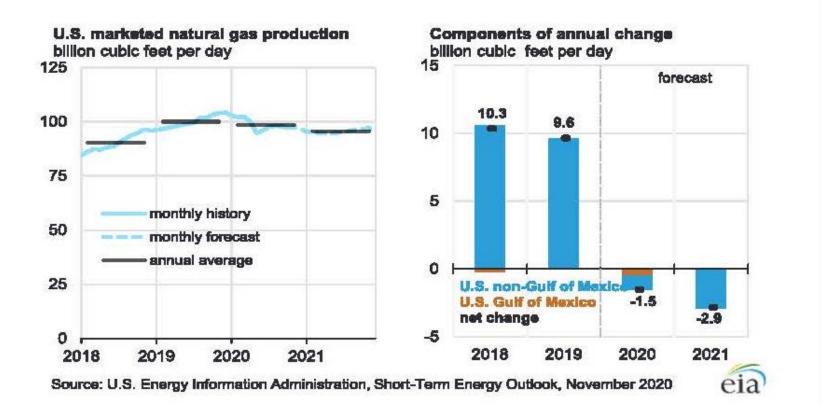
• **Do** consult counsel about any documents that touch on sensitive antitrust subjects such as pricing, market allocations, anti-employee poaching practices, refusals to deal with any company, and the like.



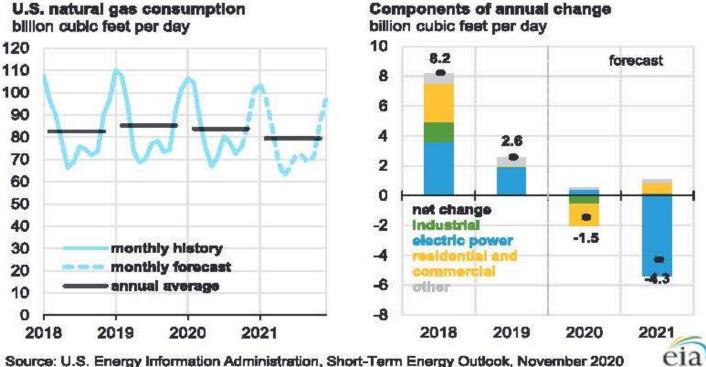
SUPPLY & WINTER OUTLOOK



U.S. Production Set New Record in 2019, But Now COVID



U.S. Consumption Set New Record S Northeast in 2019, But Now COVID

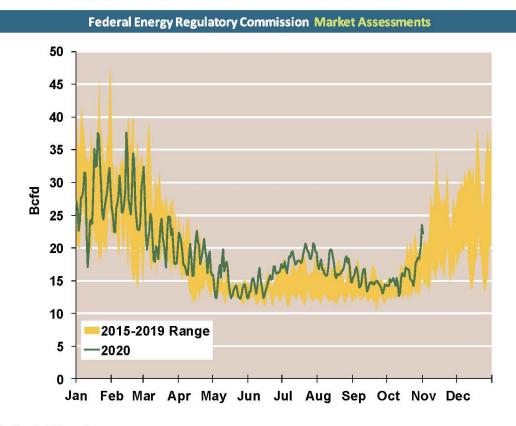


Components of annual change

Demand in 2020 vs. 5-Year Average: Impact of COVID



Northeast Natural Gas Market: Daily Demand Daily Northeast Natural Gas Demand All Sectors



Source: Derived from Bentek Energy data

Updated Nov-2020

Chart: U.S. FERC, Nov. 2020

Residential Customer Growth Has Continued in Region



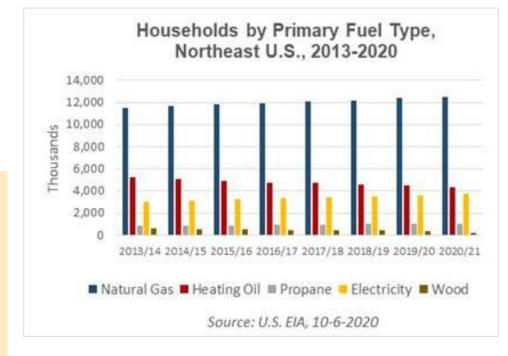


Northeast Homes,	Fuel Type %
Natural Gas:	55%

Natural Oas.	5570
Heating Oil:	20%
Electricity:	16%

New England Homes, Fuel Type %

Natural Gas:	40%
Heating Oil:	34%
Electricity:	15%



Since 2012, natural gas has added over 1 million new household customers in the Northeast states.

Some Key Market Variables

- Storage at high levels 3.94 Tcf as of Nov. 20 – above average
- Potential spot price volatility at constrained points in the region (see chart to right). FERC,10-15-20: ""Electric and natural gas markets are expected to be constrained in the Northeast..."
- EIA, 10-22-20: "The lower average residential price of natural gas reflects generally lower natural gas spot prices in 2020...Despite lower prices, EIA forecasts higher residential natural gas consumption will lead to an increase in household expenditures."

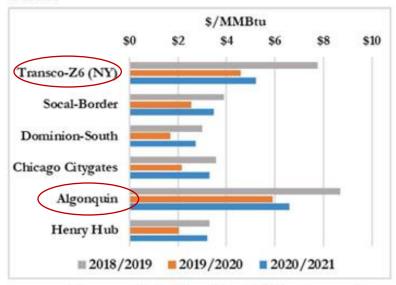
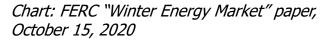


Figure 8 U.S. Natural Gas Winter Futures Prices

Source: InterContinental Exchange Inc.



Weather is always the wild card...

Northeast

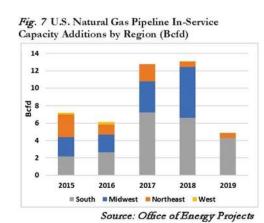
Projects Withdrawn / but also Projects Completed



Paused or Withdrawn

Williams/Cabot: "Constitution"
 [withdrawn, Feb. 2020]

Williams (Transco): "Northeast
 Supply Enhancement" [*paused*,
 May 2020]



Completed in 2020

- Empire: "Empire North Expansion"
- Enbridge: "Atlantic Bridge"
- PNGTS: "Portland XPress" [phase 3]
- ✓ Tennessee Gas: "Station 261"
 [phase 1]

Chart: FERC, March 2020

Northeast region is represented in orange color



NATIONAL, REGIONAL, STATE, MUNICIPAL POLICY TRENDS





National Trends

 New Administration in January – expect rollback of rollback of regulations on auto emissions, methane, etc. Return to Paris Climate Agreement.



- Still likely policy divide in Congress on climate bill, carbon pricing – so a lot of initiatives most likely to be pursued at state and local levels
- Rolling blackouts in California during extreme summer heat waves – multiple factors, but underscores issue of reliability
- The return of **nuclear**?

States in Region are "All In" on Clean Energy Transition



Renewable Investments

e.g., proposed electric lines from Canada to Maine & NY

Offshore Wind Targets:

(as much as 23 GW by 2035)

NY:	9,000 MW
NJ:	7,500 MW
MA:	3,200 MW
CT:	2,000 MW
RI:	1,030 MW



Transforming Electric Grid

RI: 100% "green" by 2030NY: 70% "green" by 2030, 100% "green" by 2040

Northeast states: 80% (or higher) reduction in system-wide GHG emissions by 2050

NJ: concerns from BPU about PJM market design

New England Governors, Oct. 2020, want ISO-NE "modernized"



Future Role of Natural Gas

NYS DPS this month expected to release white paper on revising utility gas supply planning model.

MA EEA releasing "2050 pathway" plan this month.

MA DPU announced, late Oct., that it will conduct investigation of future role of natural gas in the state.



Municipal Trends: "Gas Bans" in MA



Nov. 2019: Brookline, MA town meeting approves by-law to prohibit fossil fuels to heat new commercial or residential buildings, starting in January 2021. Needed approval from Attorney General.

Dec. 2019: Ordinance Committee of Cambridge City Council approves motion to prohibit new natural gas connections in city buildings. City Solicitor observes that such a prohibition might not be legal.

July 2020: MA Attorney General finds that Brookline's proposed ban is not legal – pre-empted by state building code and not permitted by state utility legislation.



Municipal Trends: Narrowing Future Path for Fossil Fuels?



Several other towns in greater Boston have been considering fossil fuel bans in new construction – perhaps through Legislature and building code changes.

In the mix – some recognition that addressing oil & propane homes first is potentially more beneficial pathway for meeting near-term thermal emissions goals. ACEEE comments in recent years that electrifying homes makes economic sense for oil & propane but not for natural gas in northern climes. Recognition that tackling the building sector is a major challenge, perhaps harder than transportation. But...



A Ban on Natural Gas "is a Terrible Idea"!



In the last month, San Francisco, San Jose and Oakland have all adopted bans on natural gas in new construction, with variances.

Ken Costello, formerly of NRRI, wrote an op-ed in the *San Francisco Chronicle* on Nov. 20, 2020 with the headline: "Why California cities' ban on natural gas is a terrible idea."

A quote from that op-ed:

"A ban represents a command-and-control policy at its worst. It is a highly blunt instrument, draconian and highly costly relative to other alternatives to mitigate greenhouse gas emissions. The good that comes to energy consumers and society from natural gas far exceeds the bad. What natural gas has going for it is plenty: (1) abundant domestic availability, (2) low price for the foreseeable future, (3) relative cleanliness when compared with other fossil fuels, (4) promising technological prospects for a more benign environmental footprint in the future, (5) flexibility in electric power production, one use being a backup to renewable energy. It seems absurd to ban or even restrict a product that has done, and is expected in the future to do, so much good for both energy consumers and the economy."



