

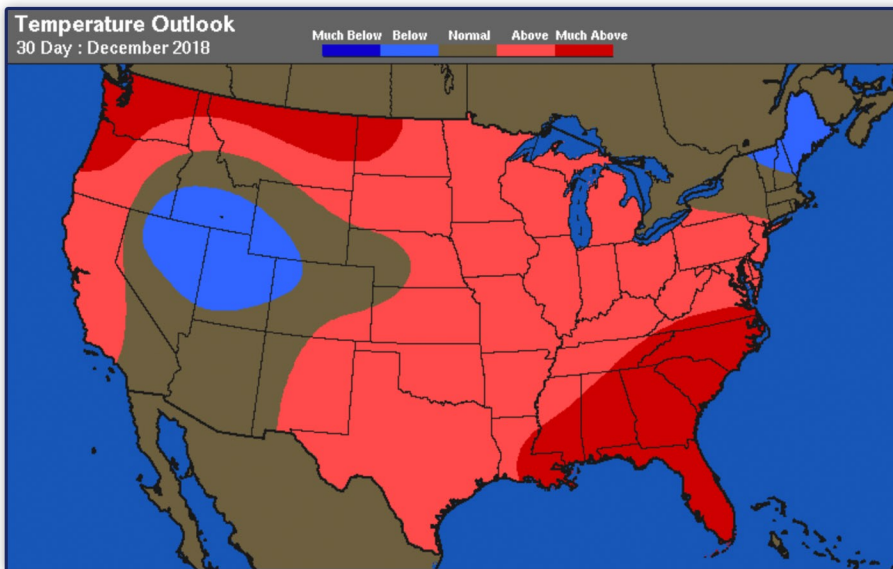
December 2018

Market Update

Market Summary

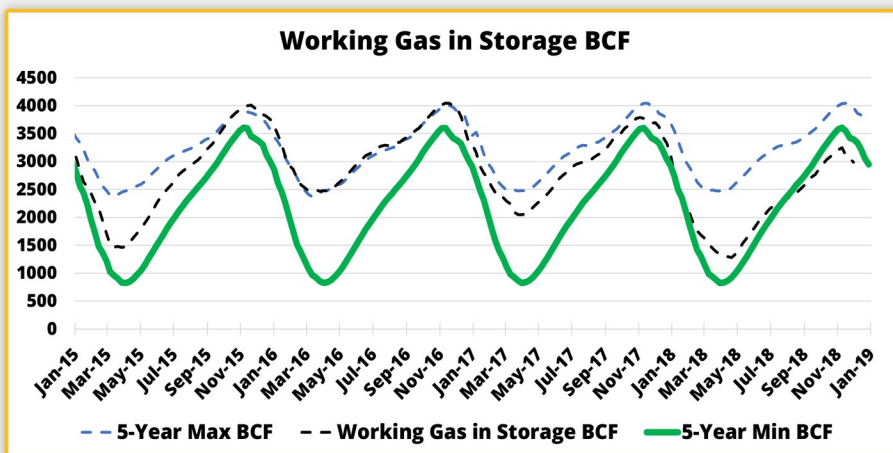
A perfect storm of 15-year low inventories and cold temperatures have created price rallies that hit four-year highs – all while production records continue to be hit.

Weather



- Early November saw prices hit two-year highs as cold weather lingered and boosted demand.
- Mid-November cold weather and low inventories pushed gas prices to four-year highs.

Storage

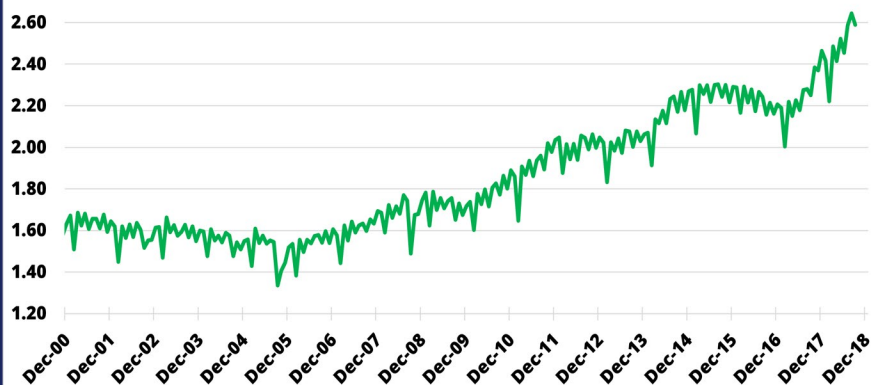


- Early November saw extended cold snaps cause the lowest early season supply in 15 years. Inventories were 16% below the five-year average and the lowest level to start the winter heating season in 15 years – shooting prices to two-year highs.
- Mid-November saw futures prices hit the largest daily percentage gain in 14 years (up 18%). Spikes were due largely to 15-year low storage levels. This was followed the next day by the biggest one-day percent drop in more than 15 years – mitigated by the weekly rise in U.S. supplies of natural gas.

Production



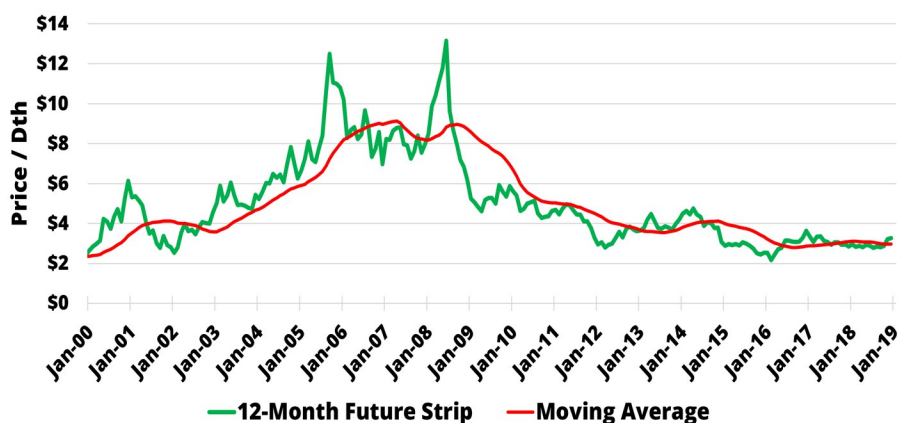
U.S. Dry Natural Gas Production MCF



- September production in North Dakota had three consecutive months of record-breaking oil and gas production.
- U.S. LNG exports in November set a new record with 31 loaded cargoes, exceeding the previous record set in July with 29 exported cargoes.

Pricing

Historical 12-Month Future Strip & Moving Average



Bidweek

Month	12-Month Strip	NYMEX
Jan. '18	\$2.765	\$2.738
Feb. '18	\$2.864	\$3.631
Mar. '18	\$2.870	\$2.639
Apr. '18	\$2.851	\$2.691
May '18	\$2.765	\$2.821
Jun. '18	\$2.885	\$2.875
Jul. '18	\$2.818	\$2.996
Aug. '18	\$2.791	\$2.822
Sep. '18	\$2.722	\$2.900
Oct. '18	\$2.898	\$3.020
Nov. '18	\$2.953	\$3.190
Dec. '18	\$3.240	\$4.714

Wholesale Prices per Mmbtu

Noteworthy

- Poland has signed a 24-year deal to buy LNG from the United States as it aims to lessen its dependence on Russian natural gas.
- China overtakes Japan to become top natural gas importer, expecting to become the world's largest natural gas buyer by 2040.
- Natural gas is set to overtake coal as the world's second largest energy source by 2030 (behind renewables).
- Current "truce deal" with China includes offer to buy more U.S. natural gas along with higher intellectual property protection.
- Qatar is set to withdraw from OPEC in January 2019, focused solely on its gas industry.