



***Surface Transportation Board
Rail Energy Transportation Advisory Committee
Coal Producer Update***

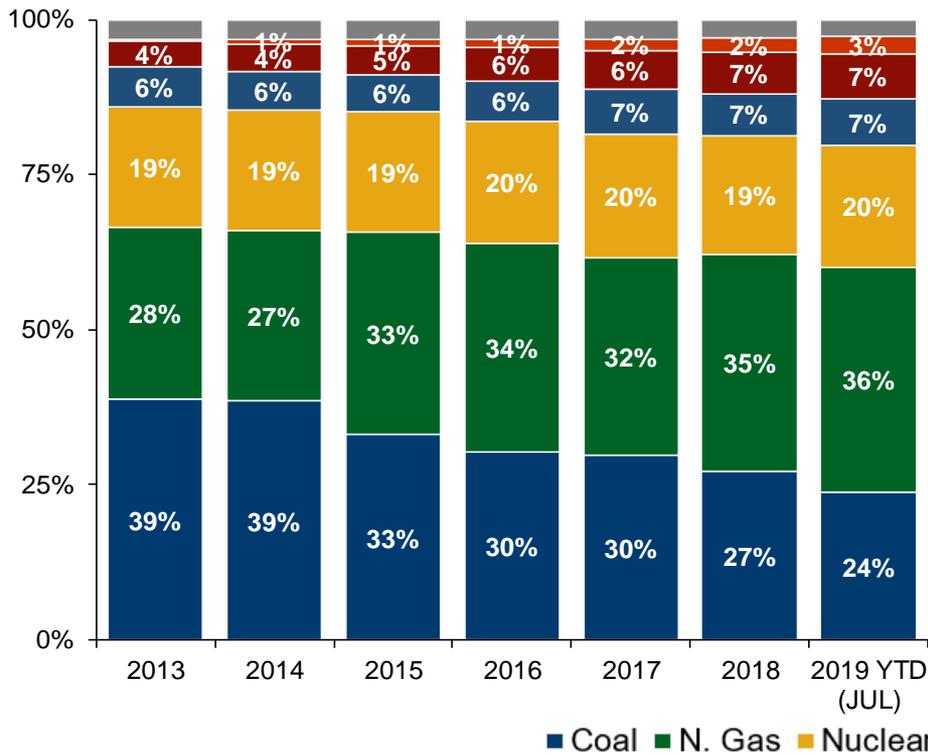
November 14, 2019

***Presented by
J. Scott Yaeger
Peabody Energy***

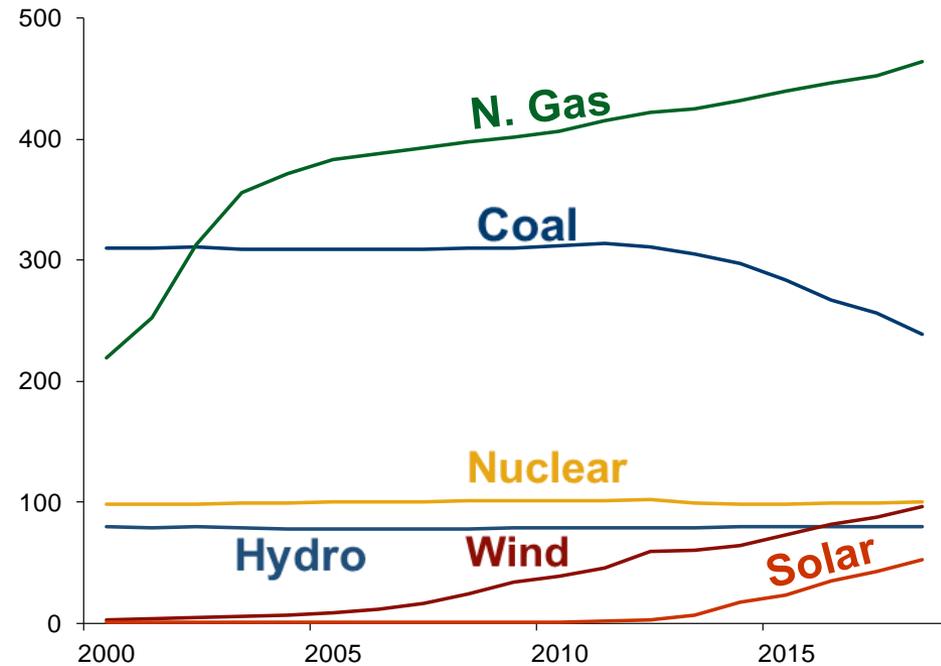
United States Electricity Demand and Coal Generation



U.S. Electric Generation Mix



U.S. Generation Capacity By Fuel Type (GW)



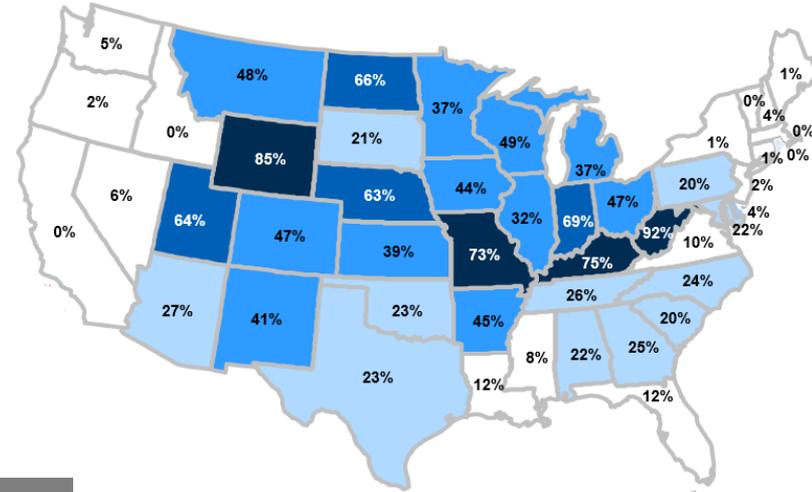
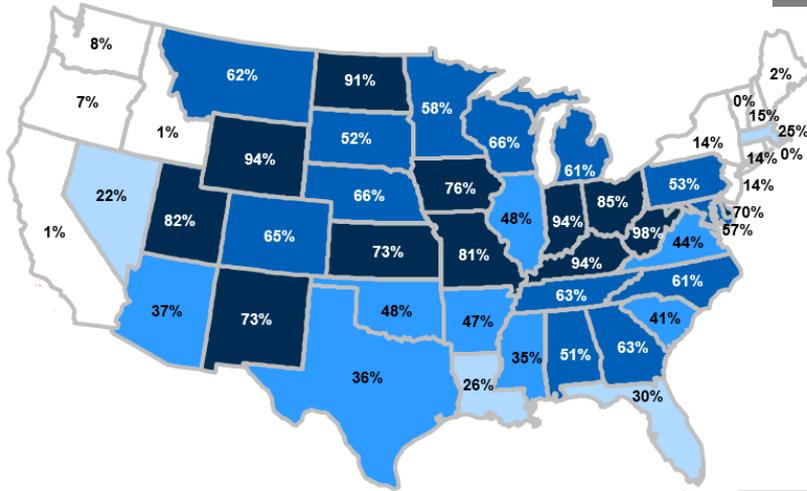
- Coal's share of the U.S. generation mix decline to 27% of total in 2018. Natural gas continues to gain, increasing to a record 35% in 2018.
- Renewables continue to increase largely driven by increased wind generation

U.S. Generation Mix by State Coal and Gas

2008

Coal

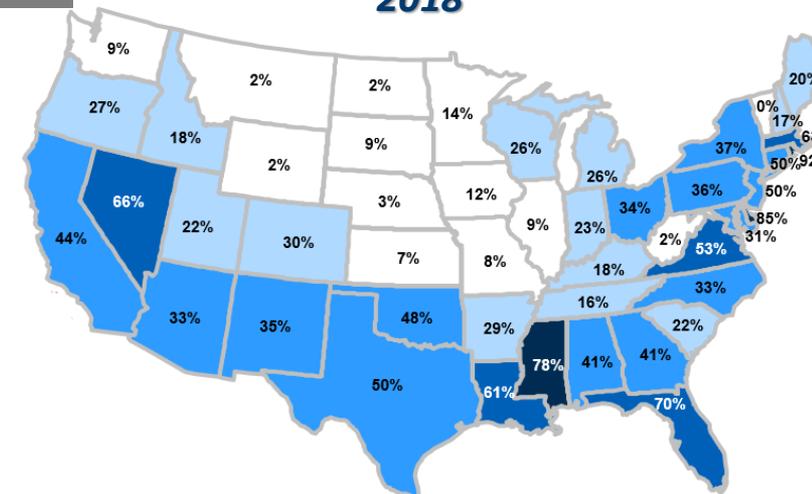
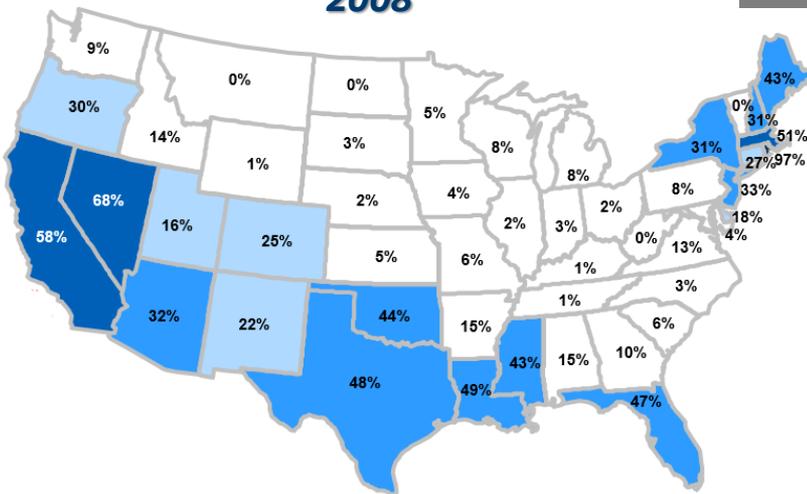
2018



2008

Natural Gas

2018



0-15%

16-30%

31-50%

51-70%

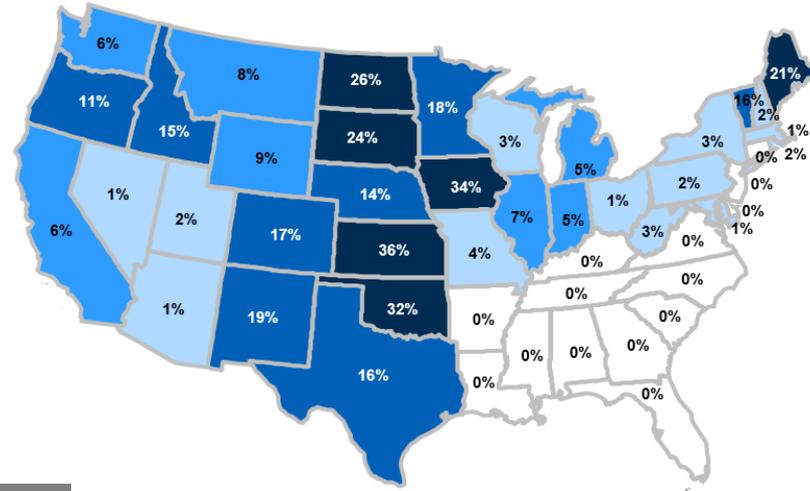
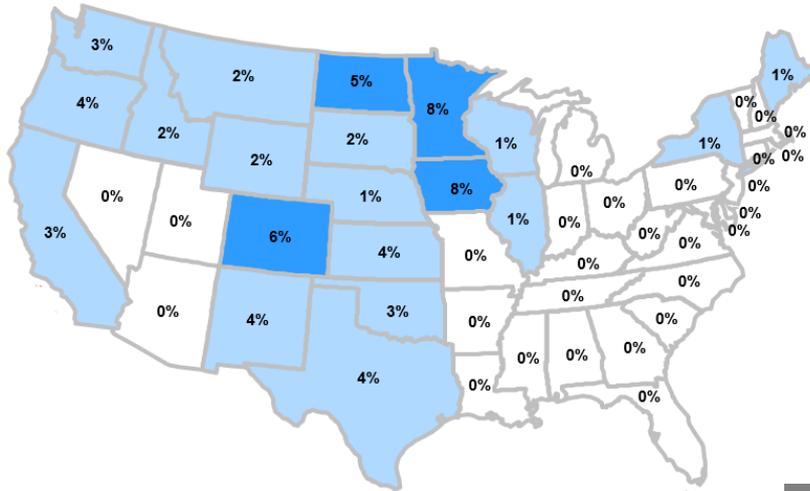
71-100%

U.S. Generation Mix by State Wind and Solar

2008

Wind

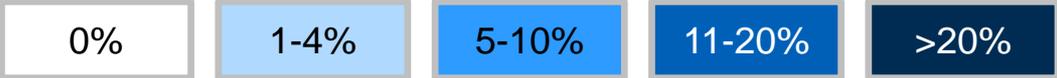
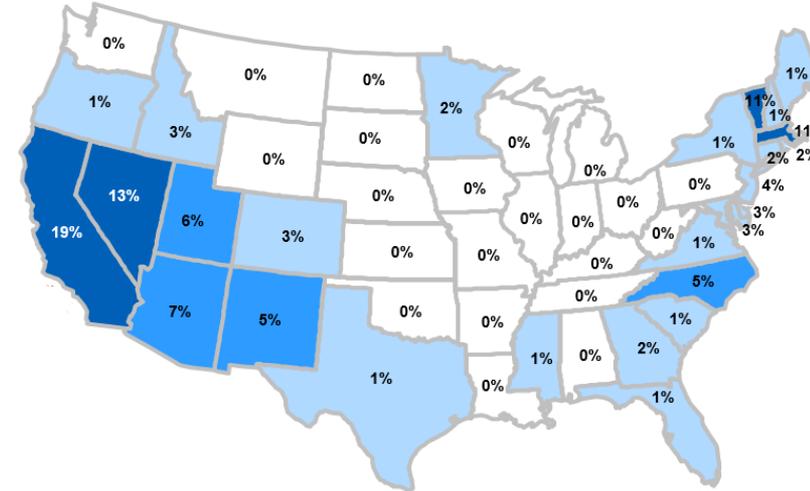
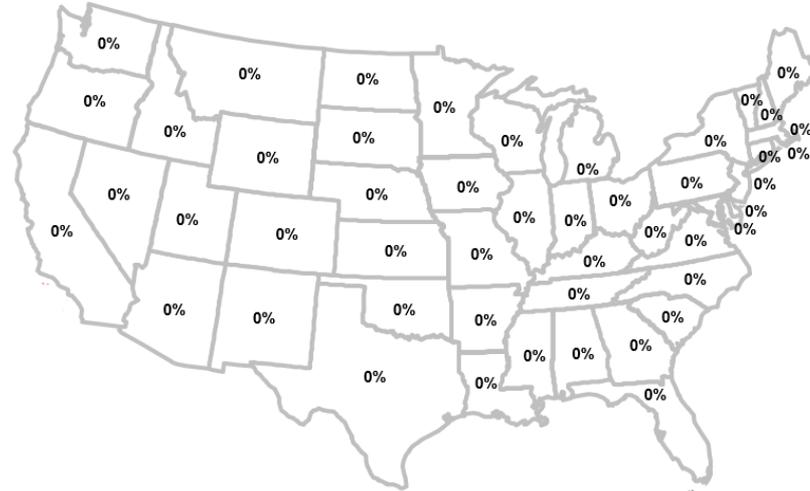
2018



2008

Solar

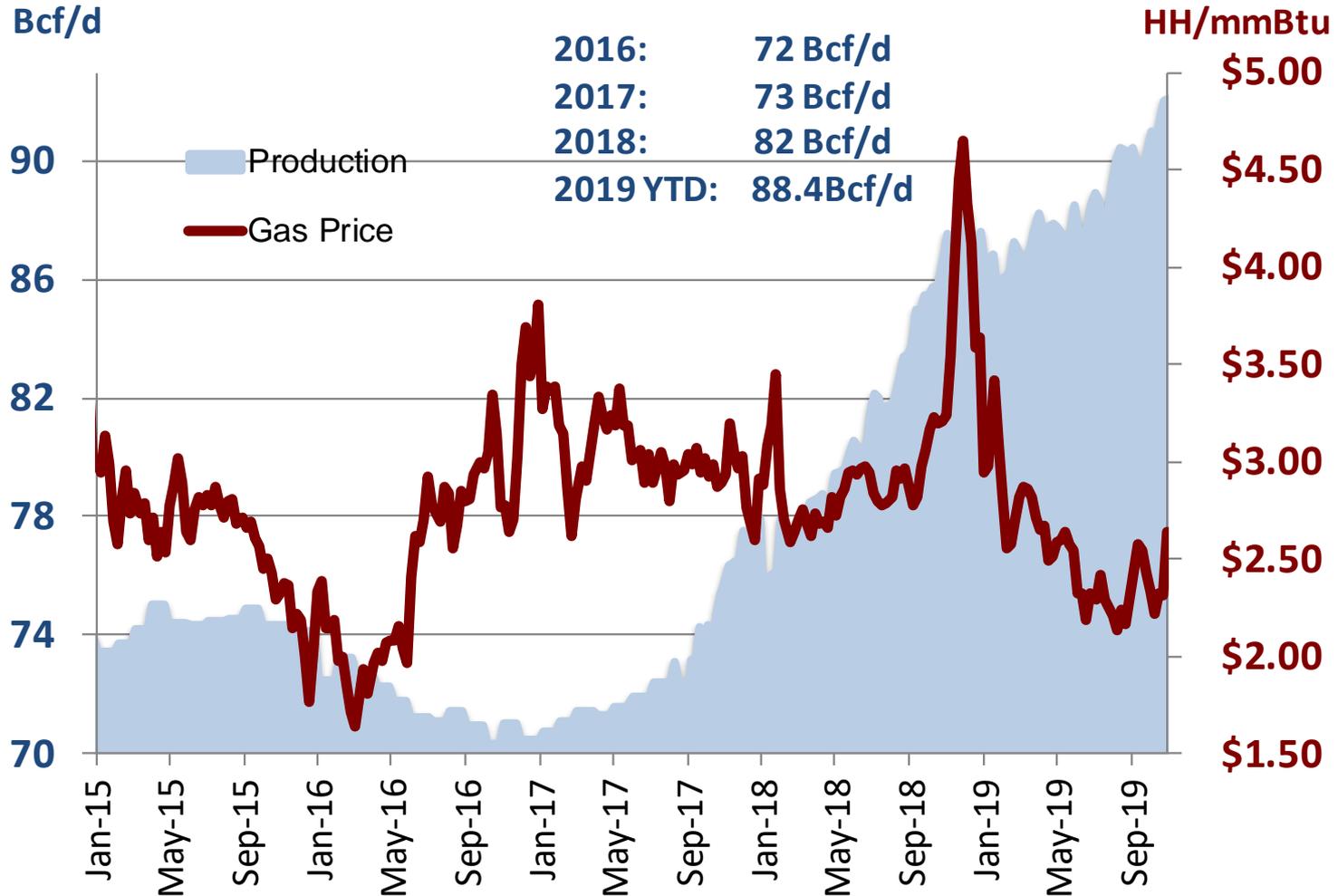
2018



U.S. Natural Gas and Production

Despite Strong Demand Growth, Record Gas Production Keeping Prices Down

Gas Production vs Henry Hub Prices

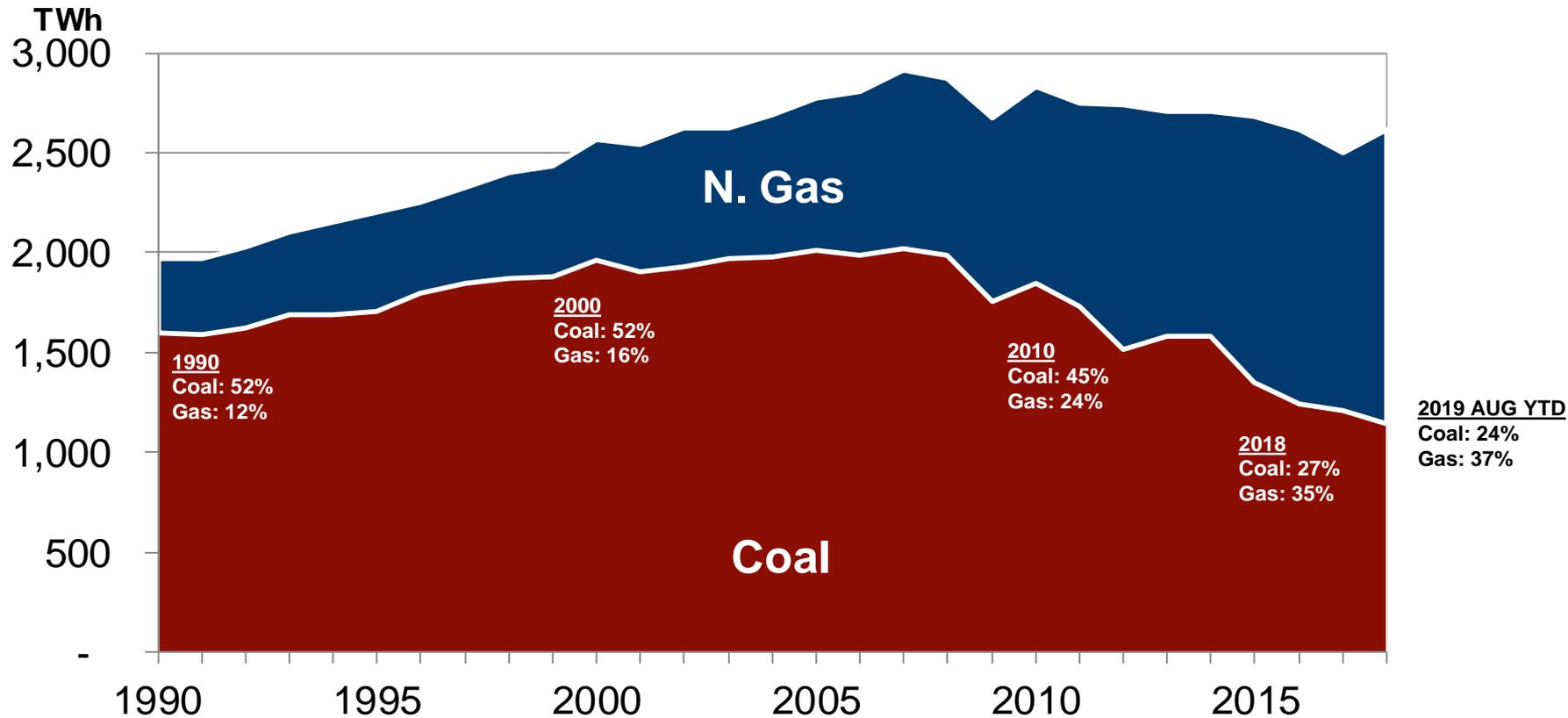


U.S. Generation Coal vs Natural Gas



Limited Load Growth and Increasing Renewables, Intensifies Coal vs. Gas Competition

Electric Generation Gas and Coal

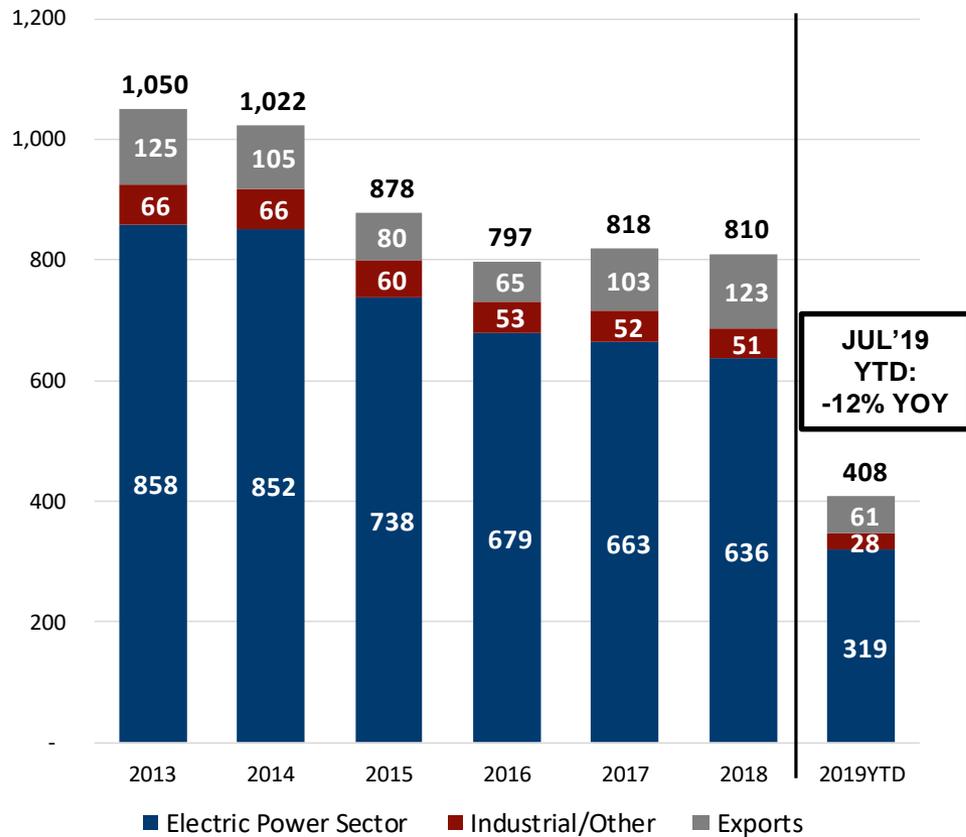


- The gap between gas and coal generation continues to widen, with gas at ~35% of mix and coal at ~27% of mix in 2018, compared to ~33% for both in 2015

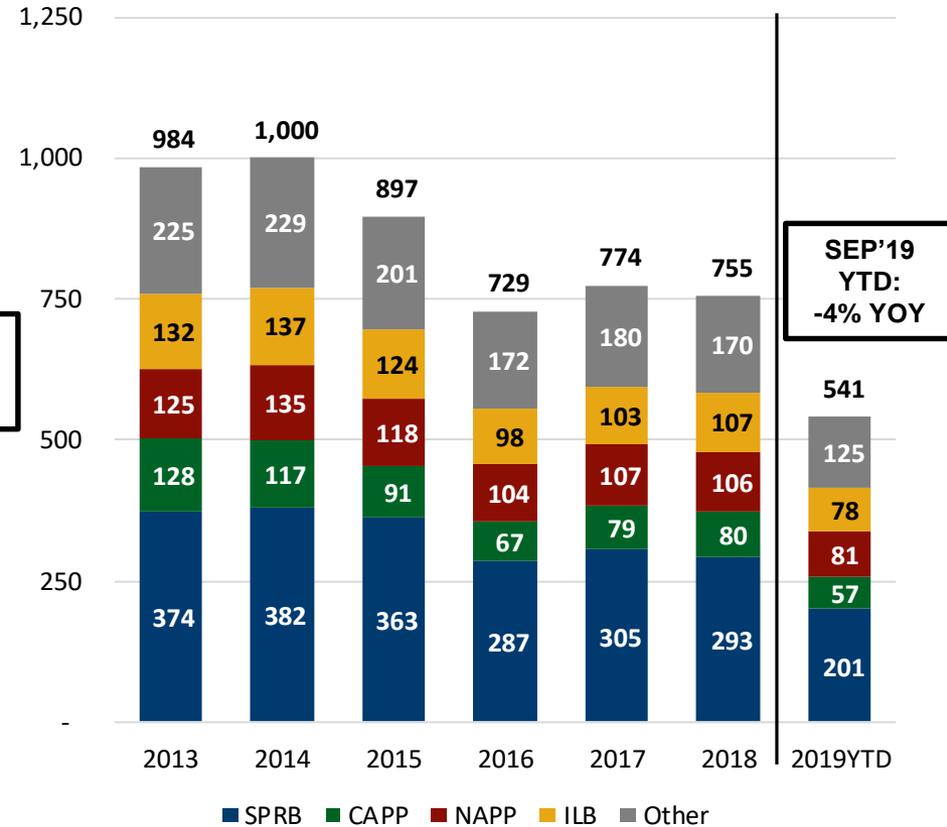
U.S. Coal Demand by Sector



Annual Coal Demand (Mt)

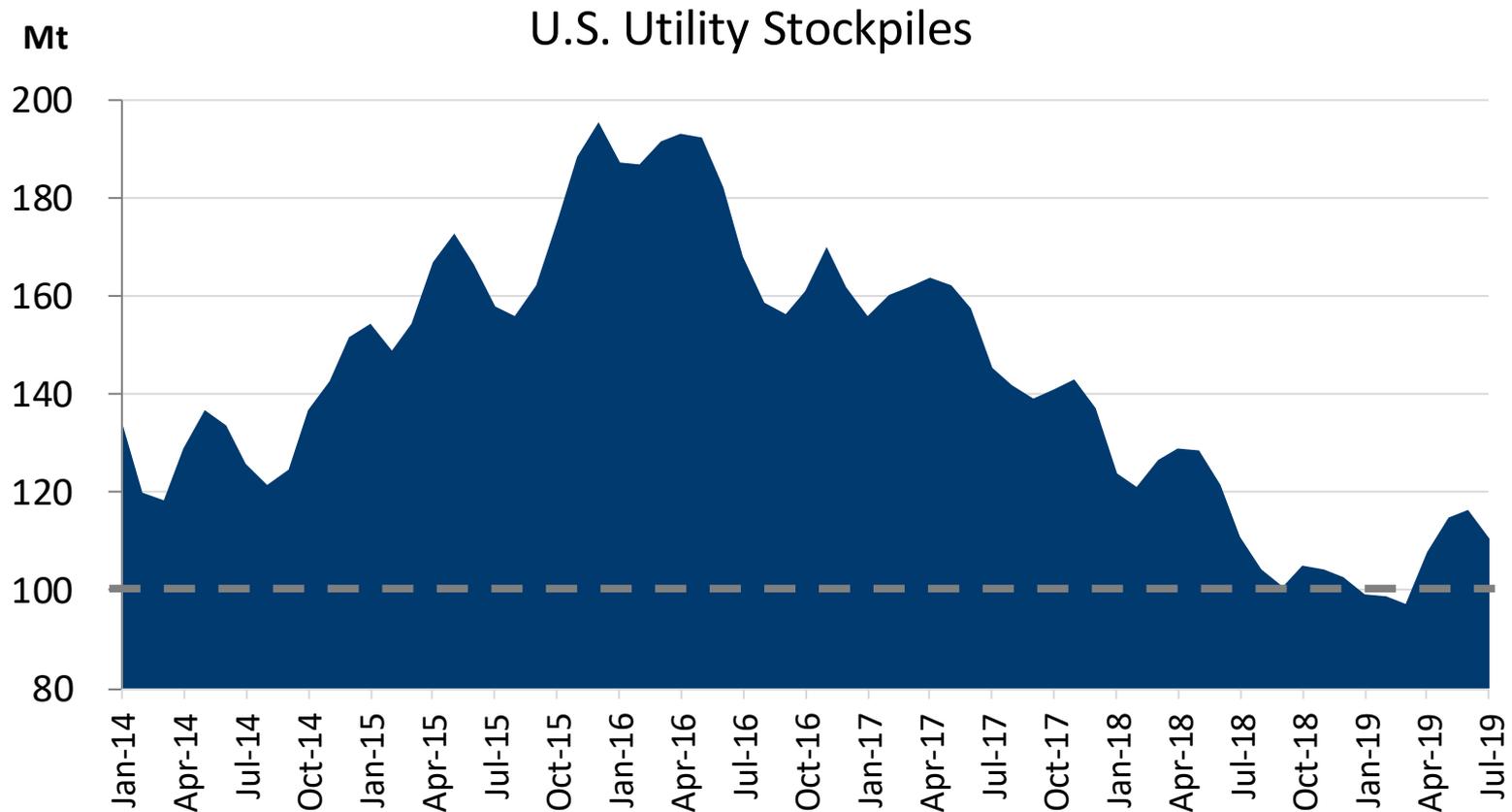


Annual Coal Production (Mt)



U.S. Stockpiles

U.S. Stockpiles Rebounding from Lows Hit in 1Q19



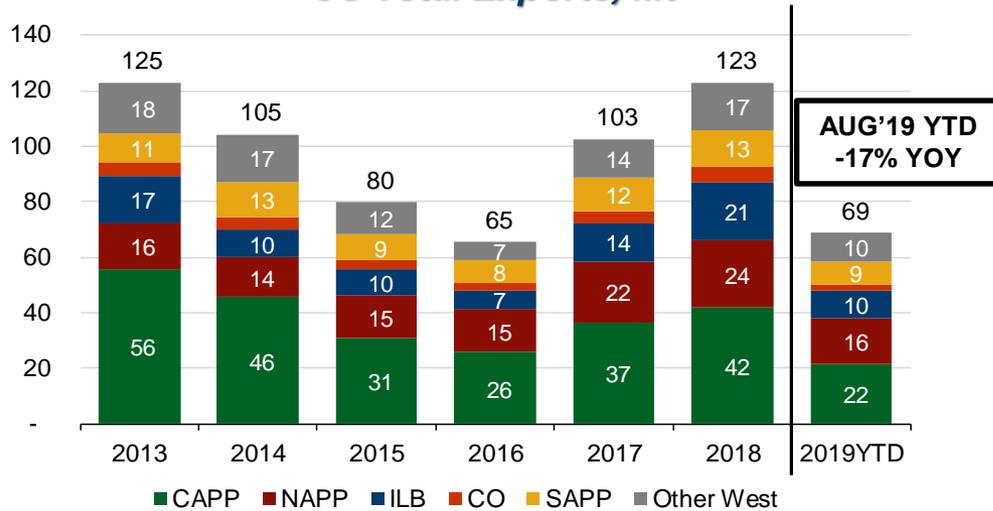
Source: EIA
Monthly stocks data at electric power plants are taken from reported data

U.S. Coal Exports



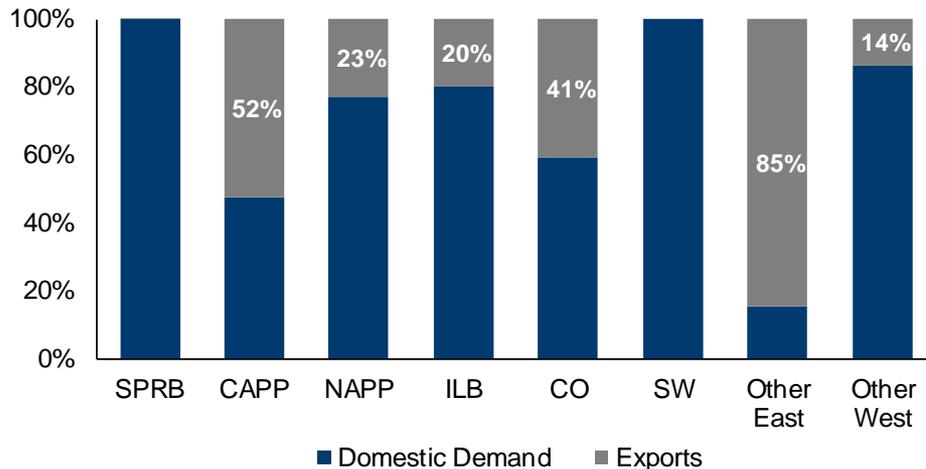
U.S. Seaborne Exports Increased Driven by Global Prices

US Total Exports, Mt

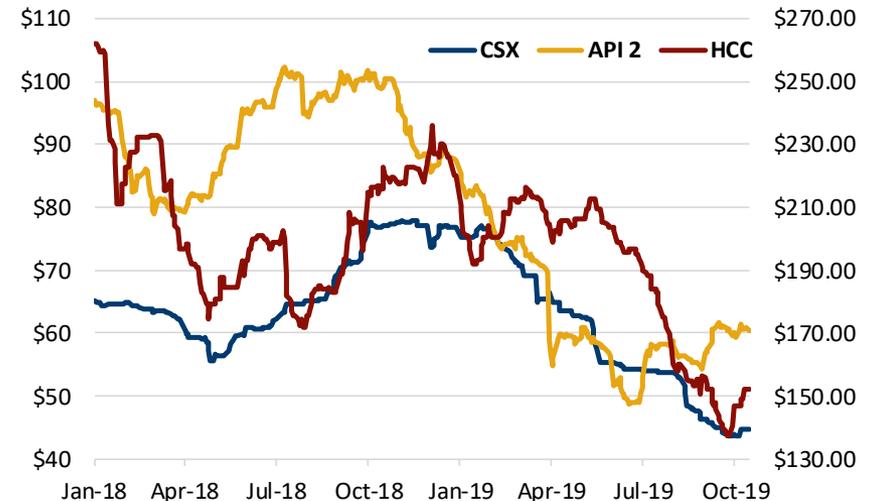


- 2018 exports +20% YOY at 123Mmt; Thermal +23% at ~64Mt and met +16% at ~59Mmt
- Future trajectory of exports is highly dependent on pricing of US coal vs. other origins and demand for seaborne coal

2018 Exports as % of Total Production



Prompt Coal Prices

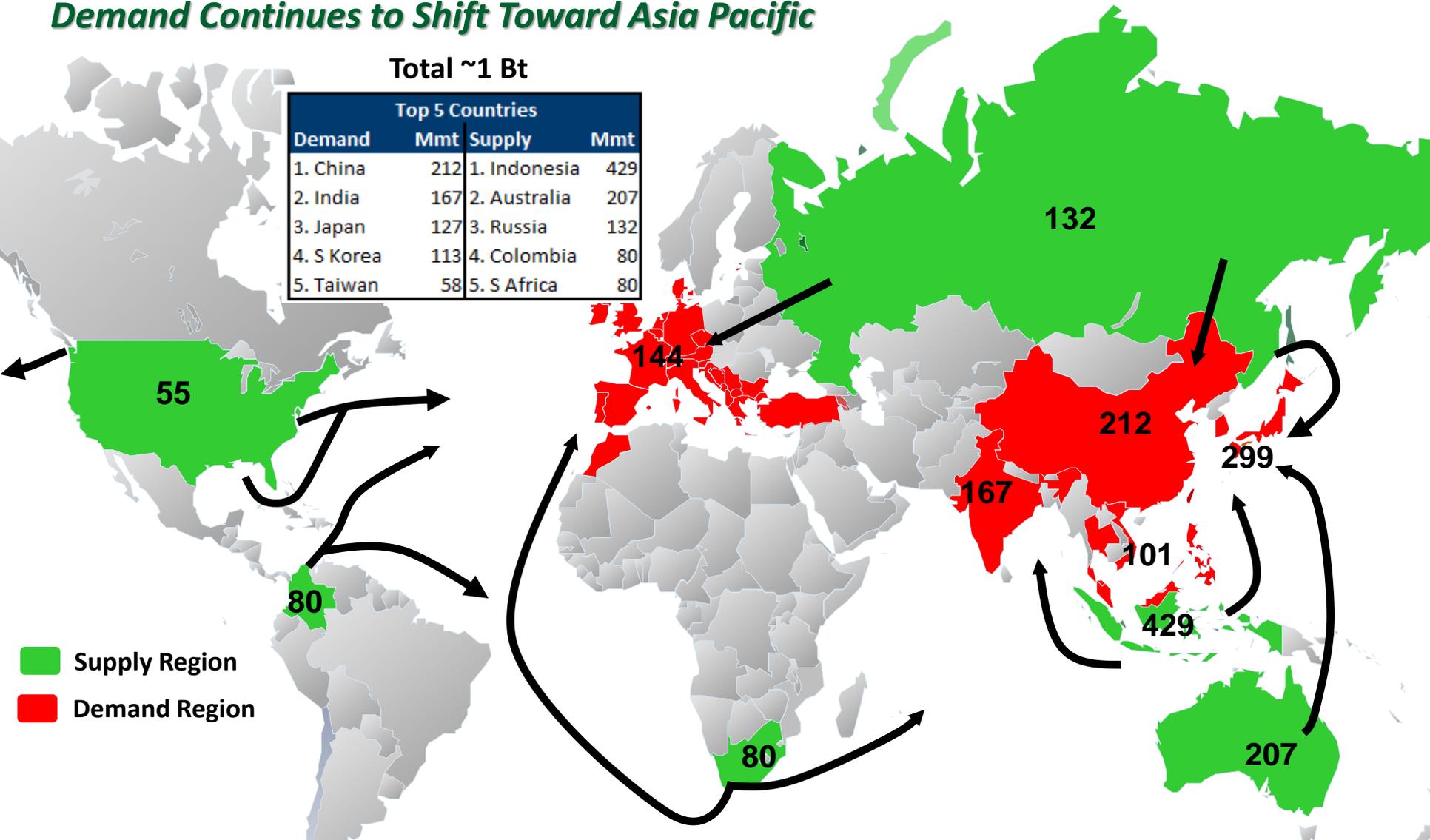


2018 Global Supply and Demand Thermal Seaborne Coal Flows

Demand Continues to Shift Toward Asia Pacific

Total ~1 Bt

Top 5 Countries			
Demand	Mmt	Supply	Mmt
1. China	212	1. Indonesia	429
2. India	167	2. Australia	207
3. Japan	127	3. Russia	132
4. S Korea	113	4. Colombia	80
5. Taiwan	58	5. S Africa	80



Source: Peabody Analytics, Wood Mackenzie, IHS and other sources.
Supply/demand in million tons; arrows indicate primary coal flows