EVA'S SHORT-TERM COAL MARKET OUTLOOK

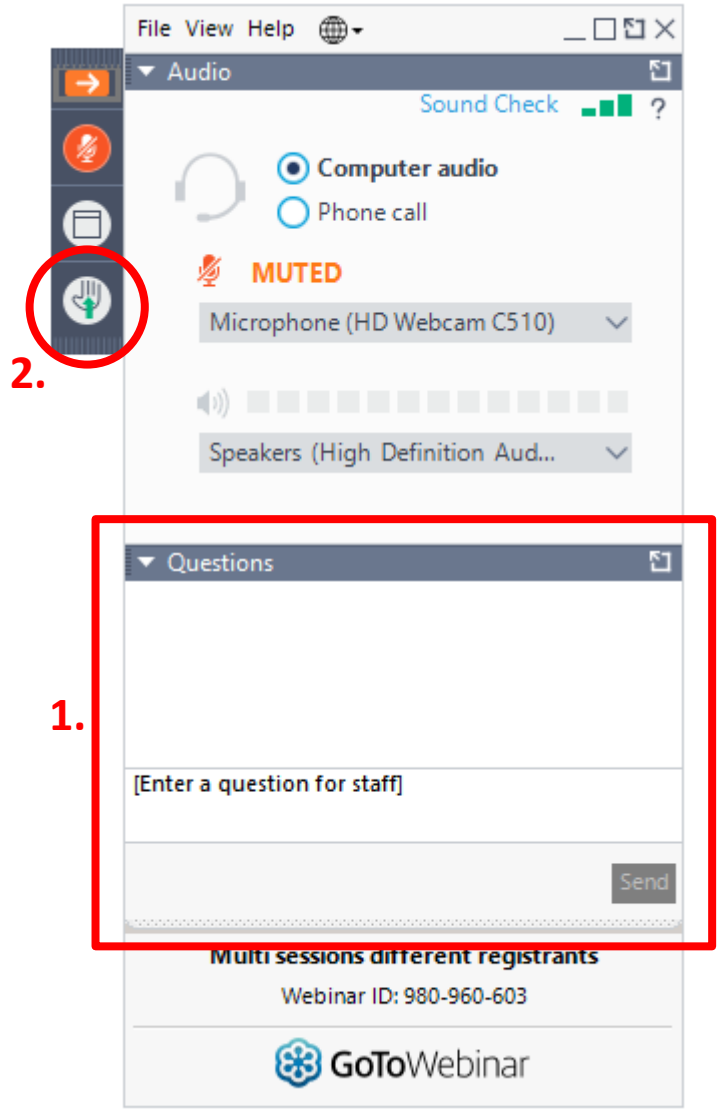
2020 Q2 UPDATE

June 4, 2020

ENERGY VENTURES ANALYSIS
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WEBINAR HOUSEKEEPING ITEMS

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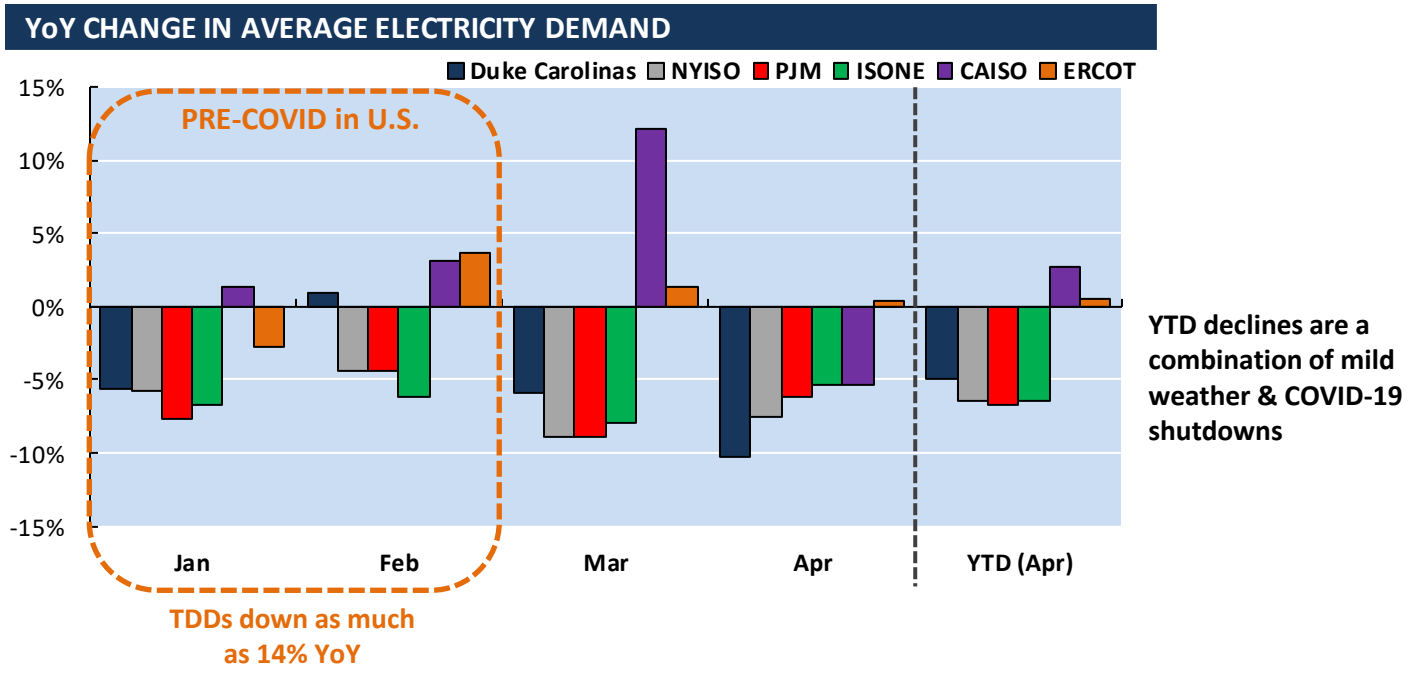
2020 Q2 MAJOR MARKET DEVELOPMENTS

- **The coal market has seen a series of accumulating negative events**
  - World thermal coal prices fell in Q2 2019 on very weak demand in Europe
  - World met coal prices dropped in Q3 2019 on weaker worldwide demand
  - Domestic US thermal coal demand was crushed in Q1 2020 due to the mild winter and excess natural gas supply forced into the power market
- **Then the coronavirus hit the world economy**
  - Steel demand fell as automobile manufacturers idled plants
  - Domestic electricity demand fell on stay-at-home orders
  - World coal markets seized up on country lockdown orders
- **Coal demand and prices are at new low levels due to these factors**
  - Inventory has built up at mines and customers
  - Customers have deferred deliveries under existing contracts and are not making new purchases
  - Producers have idled mines to clear excess inventory
- **This will turn around, but the timing is uncertain and demand will be at a lower level**
  - Supply will be reduced to meet lower demand
  - The US is taking the brunt of the decline in world exports as its currency strengthens
  - Some domestic power plants and blast furnaces will close and not return

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U.S. ELECTRICITY DEMAND WAS DOWN EVEN BEFORE COVID-19

- **Thanks to mild winter weather across much of the U.S., average electricity demand was down more than 5% YoY before the COVID-19 outbreak**
  - Retail sales for Jan and Feb 2020 were down 4.3% and 0.3% YoY, respectively
  - Residential and commercial demand accounted for nearly all of the decline due lower heating demand (TDDs down 14% YoY)



PACE OF ECONOMIC REBOUND WILL BE HIGHLY REGIONAL

- **New York, the epicenter of the COVID-19 outbreak in the U.S., will be the slowest to rebound**
- **ERCOT and the Southwest will likely rebound more quickly**
- **EVA's short-term electricity demand outlook will reflect this regional disparity going forward**

Real GDP Growth

	2020	2021	2022	2023	2024	2025
CAISO	-6.2%	2.1%	7.0%	4.6%	2.3%	1.6%
ERCOT	-6.0%	3.4%	8.0%	5.4%	3.1%	2.5%
FRCC	-6.5%	2.4%	7.6%	5.2%	2.9%	2.2%
ISONE	-5.7%	2.2%	6.7%	4.5%	2.4%	1.8%
MISO-C	-6.1%	2.7%	6.6%	4.1%	2.1%	1.5%
MISO-N	-5.1%	2.5%	6.7%	4.5%	2.4%	1.9%
MISO-S	-5.9%	2.4%	6.1%	4.0%	2.0%	1.3%
NYISO	-7.1%	1.3%	6.7%	4.4%	2.1%	1.3%
PJM	-5.4%	2.1%	6.1%	4.0%	2.0%	1.5%
SERC-E	-5.2%	3.0%	7.0%	4.8%	2.8%	2.2%
SERC-N	-5.6%	2.9%	6.7%	4.3%	2.4%	1.8%
SERC-SE	-5.5%	2.7%	6.8%	4.5%	2.5%	1.9%
SPP	-5.2%	2.6%	6.5%	4.2%	2.3%	1.8%
WECC-NW	-5.9%	3.0%	8.2%	5.5%	3.1%	2.4%
WECC-RMPA	-4.9%	3.0%	7.3%	5.1%	3.0%	2.4%
WECC-SW	-5.3%	3.2%	7.8%	5.5%	3.4%	2.7%

← Fastest rebound

← Slowest rebound

Fastest rebound

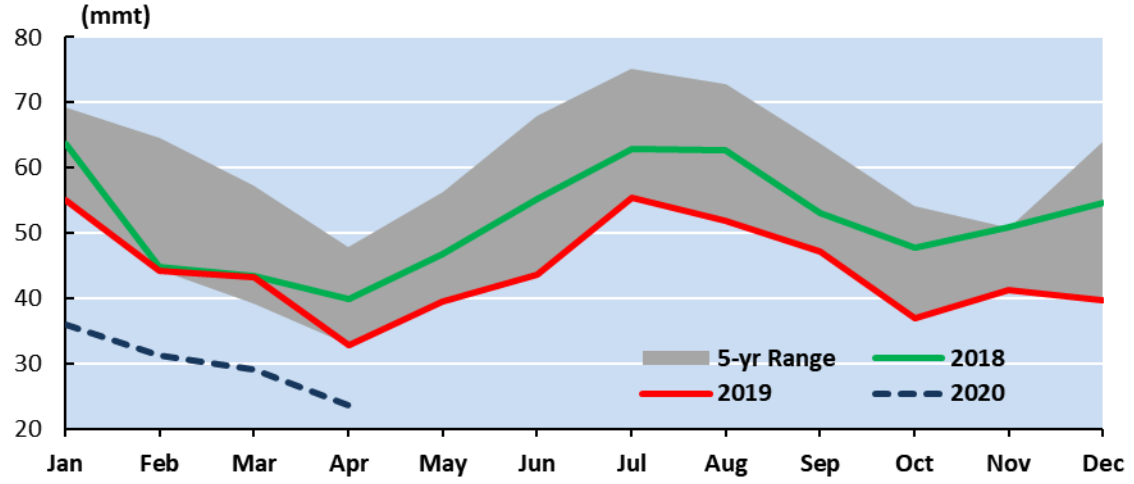
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Domestic Markets

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EXCESS GAS SUPPLY AND LOWER ELECTRICITY DEMAND HAS COAL BURN FALLING

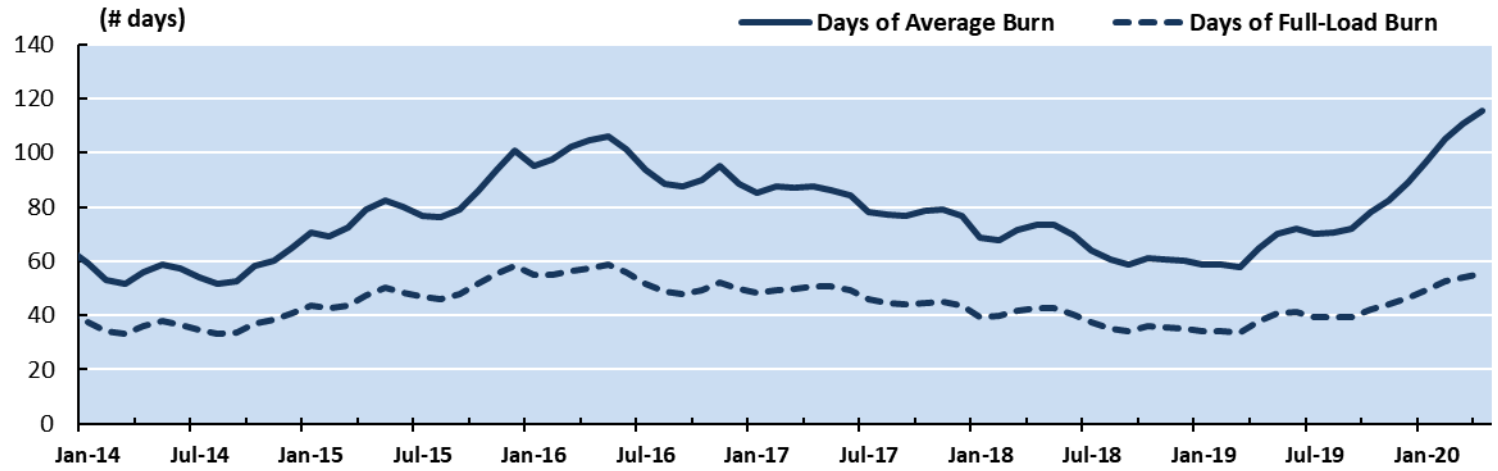
U.S. COAL BURN* - ELECTRIC POWER SECTOR



* Excludes waste coal

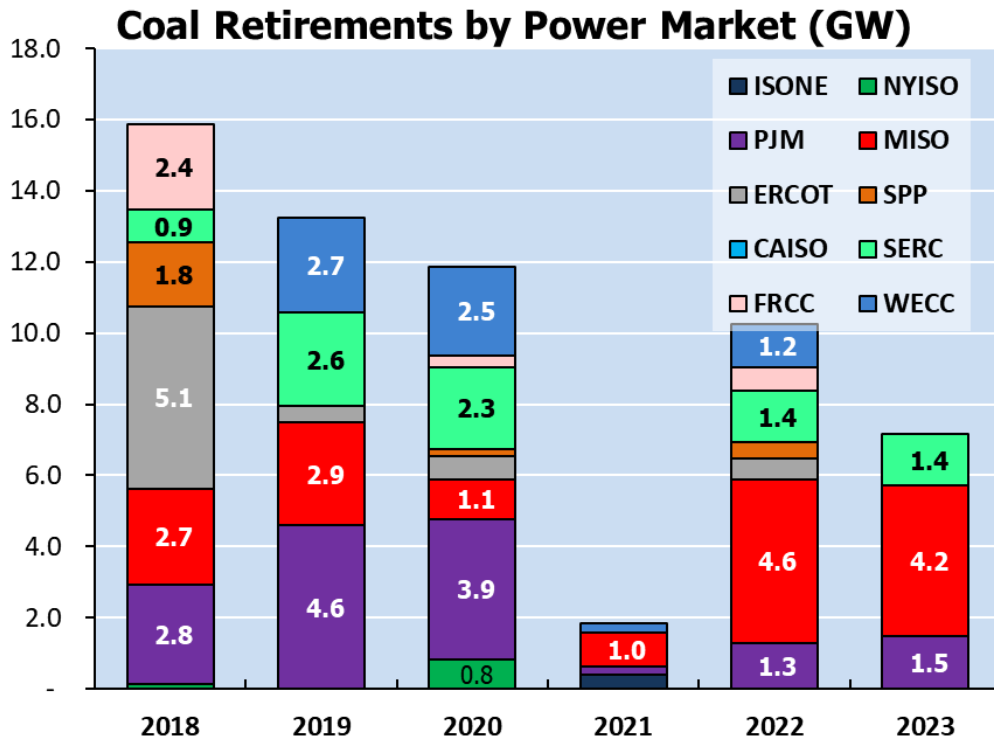
Source: EVA 2020 Q2 Coal Forecast

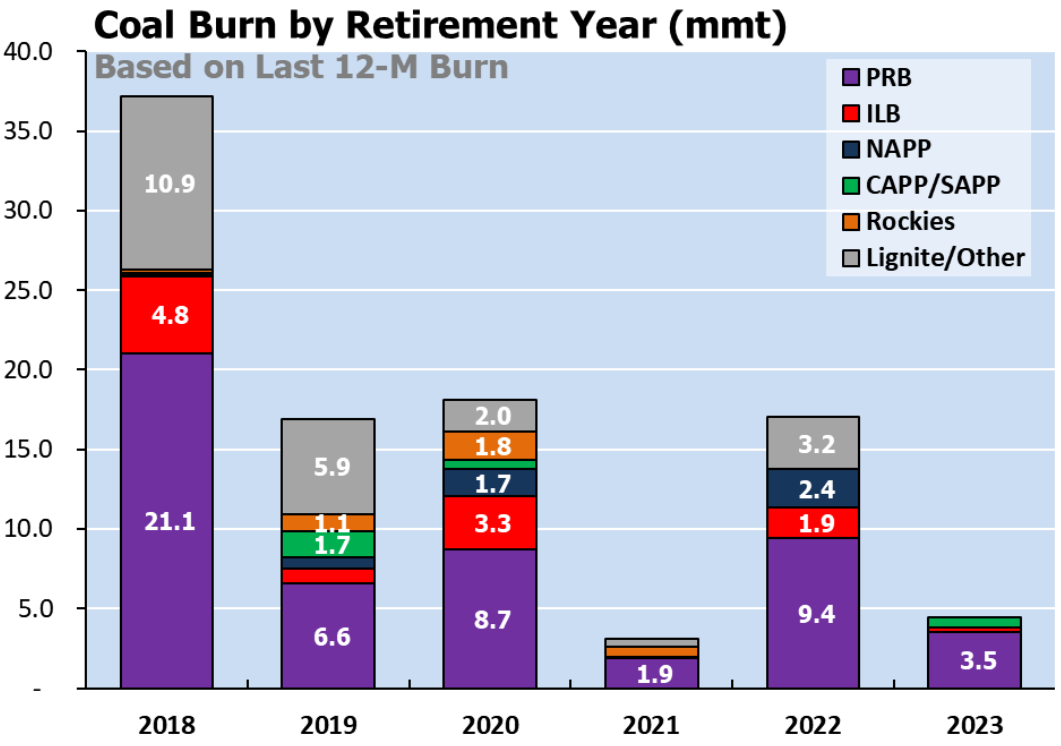
U.S. COAL STOCKPILES - ELECTRIC POWER SECTOR



Source: EVA 2020 Q2 Coal Forecast

ANNOUNCED COAL RETIREMENTS DURING FORECAST PERIOD





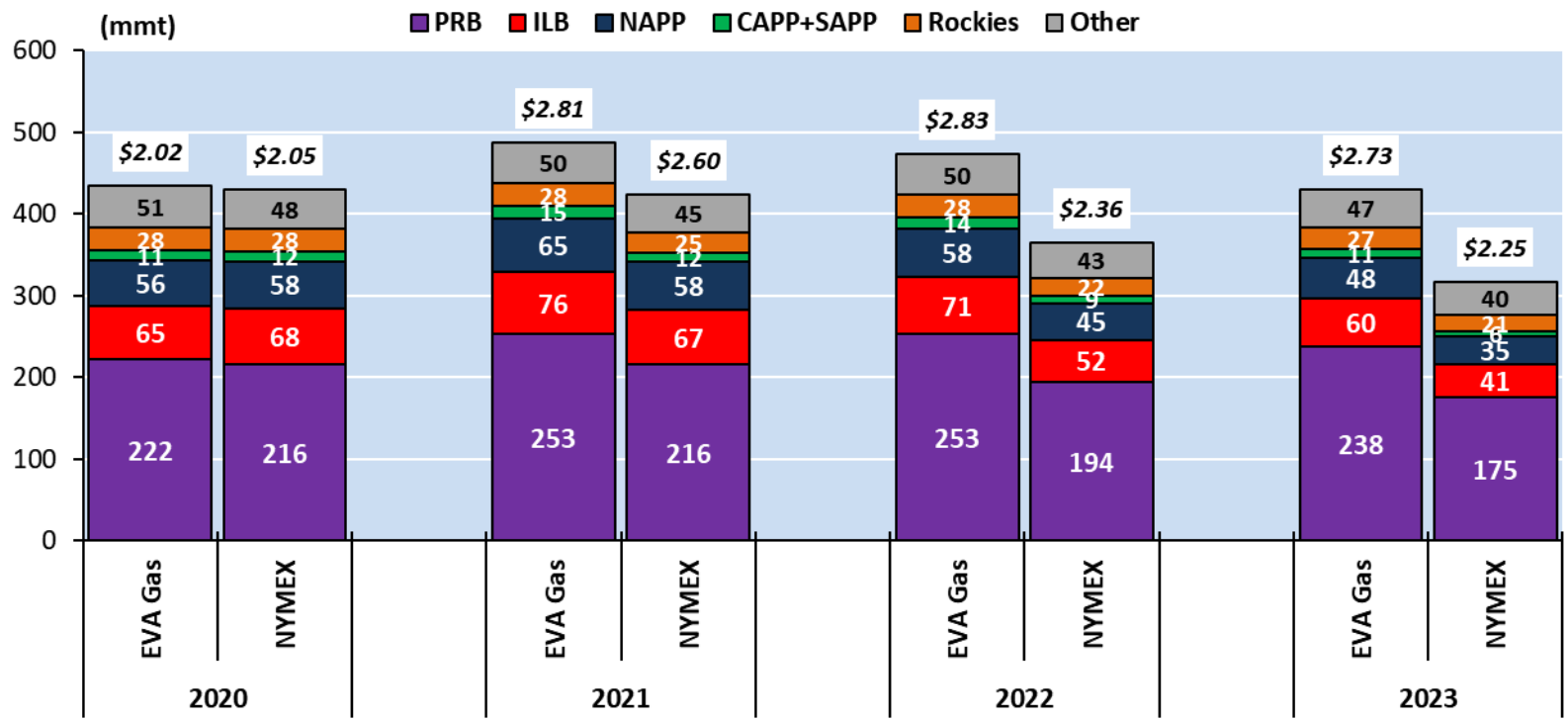
- **Latest coal plant retirement announcements include:**
  - Alliant Energy – Edgewater 5 by 2022 (416 MW; 1.0 Mt - 100% PRB)
  - DTE NSR settlement for River Rouge, Trenton Channel, St. Clair (all 2022) and Belle River (2030) – all PRB (~6.5 Mt in 2019)
  - NRG – Dickerson by Aug 2020 (519 MW; 57k tons NAPP coal in 2019)
  - Great River Energy – Coal Creek by H2 2022 (1,146 MW; 6.5 Mt lignite in 2019)

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POWER - COAL BURN 2020 COLLAPSE WITH POSSIBLE 2021 REBOUND

- **Due to mild winter weather in Q1 and COVID-19 impacts for much of Q2, 2020 power coal burn is projected to be ~430 Mt, a 100 Mt loss YoY**
- **Combination of reduced associated natural gas production, a return to normal winter weather, and an improving economy should bring a recovery of coal burn in 2021, recovering over half of the 2020 loss**

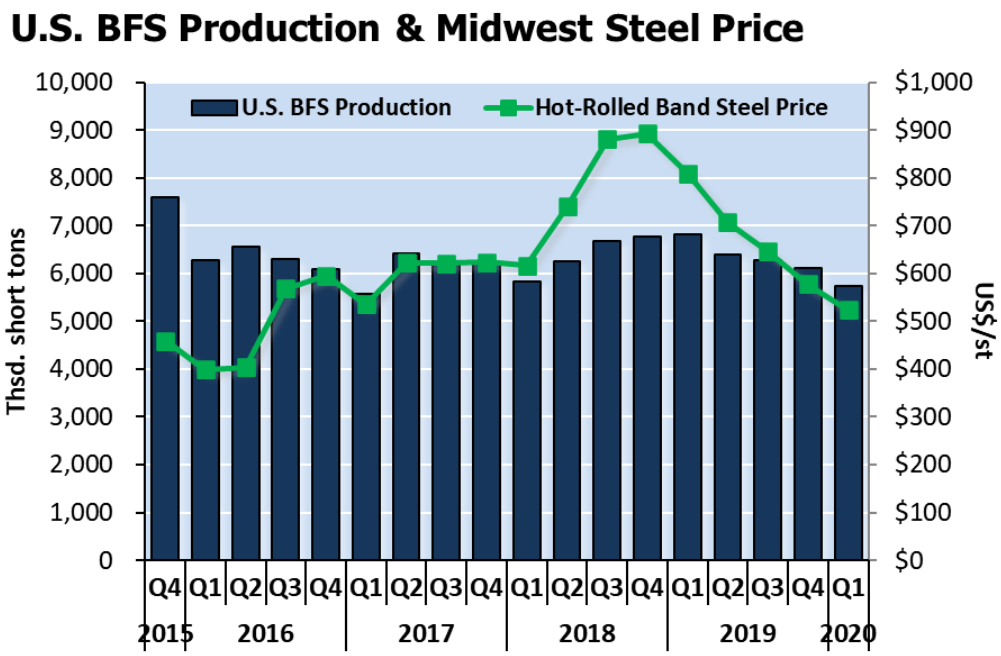
ST COAL BURN FORECAST: EVA GAS VS. NYMEX

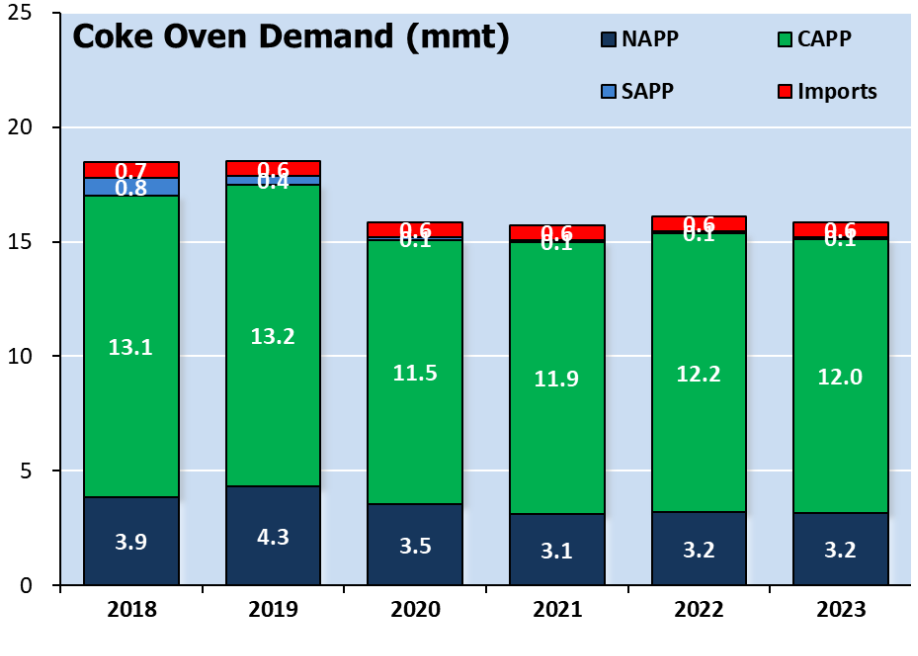


Source: EVA 2020 Q2 Coal Forecast

BLAST FURNACES IDLED DUE TO ECONOMIC SLUMP – SHIFT TO EAF

- **North American steel mills began to idle in late March and blast furnace steel production in April was 30% below the prior year**
- **New electric arc furnaces are under construction over the forecast period, with 8 projects and 10 mm tpy of new capacity**
  - Domestic coking coal demand will fall to ~15 mm tpy post-COVID recovery



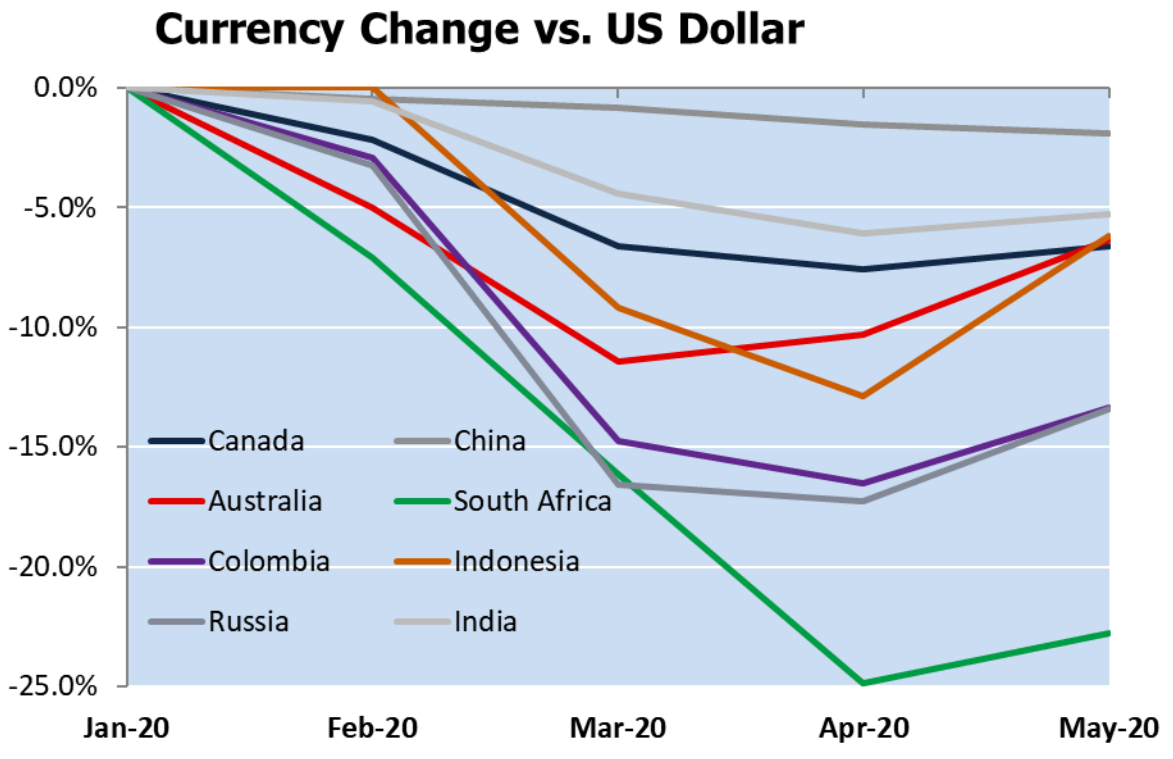


Export Markets

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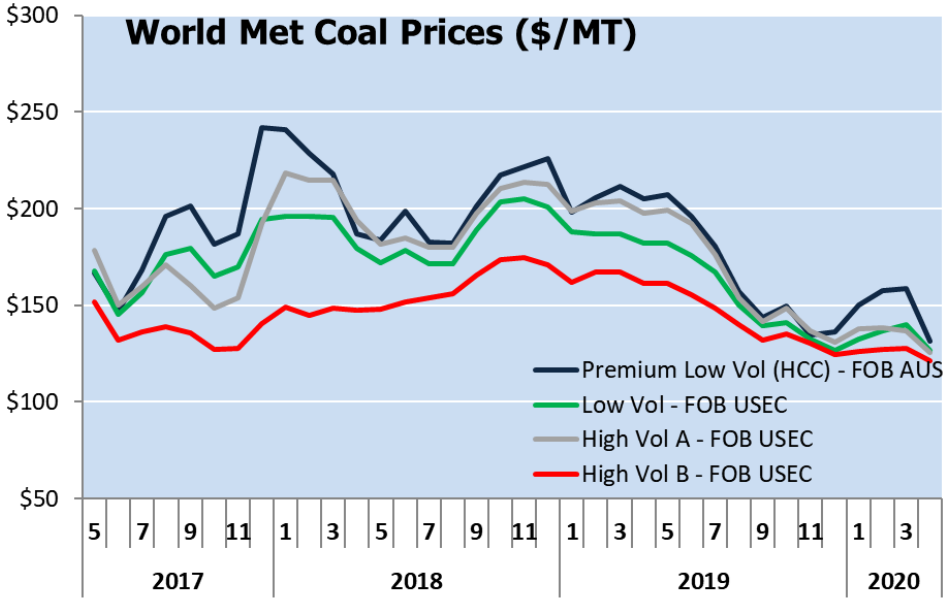
COVID CRISIS BOOSTS US DOLLAR – ANOTHER BLOW TO US COAL EXPORTS

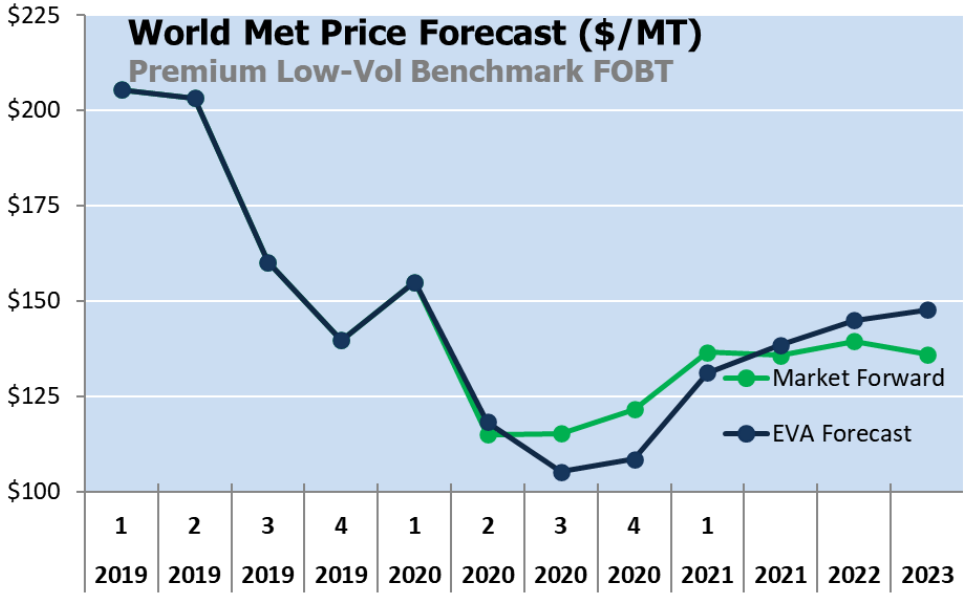
- **The dollar has strengthened against almost all currencies due to the world crisis**
- **The value of the USD is up 7% - 15% against other major coal exporters**
  - Australia, Indonesia and Canada down 5% - 10%
  - Russia and Colombia down about 15%
  - These countries do not see the same decline in their net sales price as the US exporters
- **Coal-producing importers are not as affected – positive for imports to China and India**



WORLD MET COAL DEMAND CRUSHED BY COVID-19 – EXCEPT CHINA

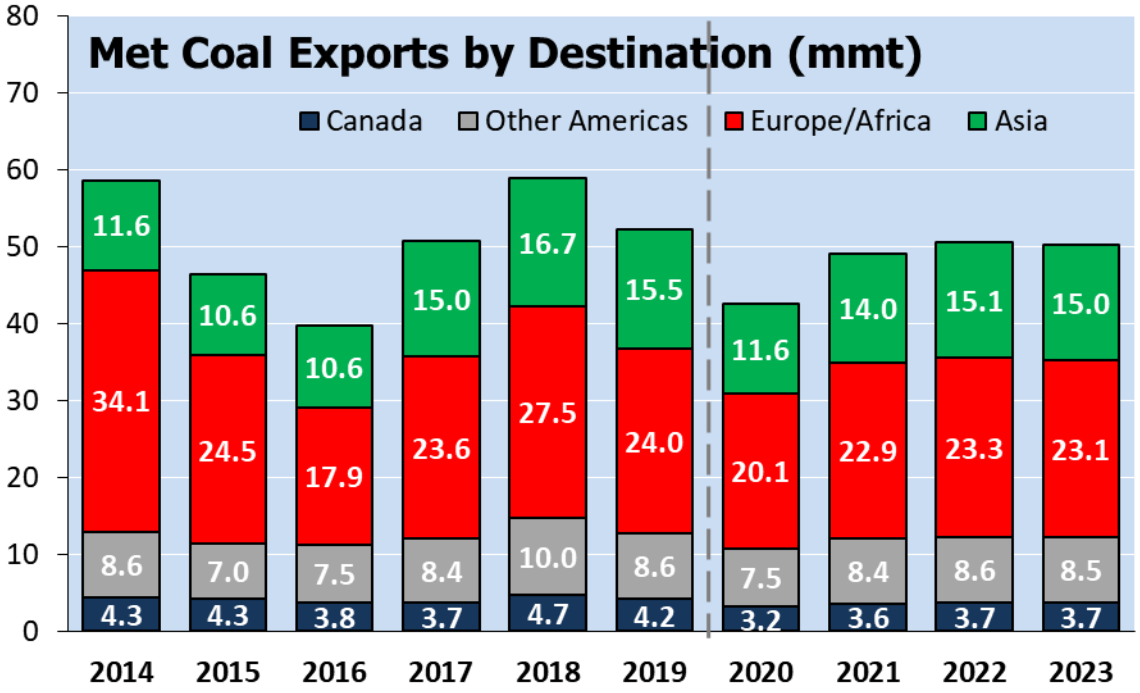
- **Year on year changes in non-China blast furnace production were flat in Jan-Feb, but down 9% in March and 25% in April as steel demand (mainly automotive) came to a screeching halt**
  - China steel production is already at normal levels, while EU and Japan are less likely to recover to pre-virus levels
- **Met coal price recovery likely delayed into 2021, with prices returning to $150 levels by 2022**





MET COAL EXPORTS EXPECTED TO DROP 20% YOY AMID DROP IN STEEL DEMAND

- **US met coal exports were down 11% in Q1 2020 before the impact of the coronavirus slashed world steel production**
  - March U.S. met coal exports were highest since October 2019
- **2020 forecast of 42.5 Mt of met coal exports will be an almost 20% reduction YoY**
- **Recovery to ~50 MT in 2021 and beyond as world demand continues to shift from the Atlantic to the Pacific basin**



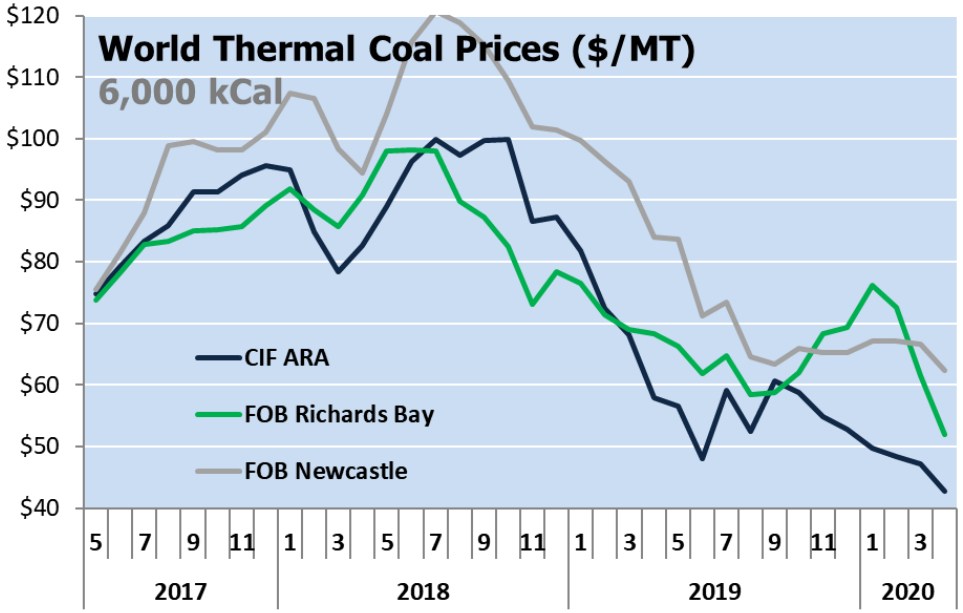
U.S. Total Met Exports

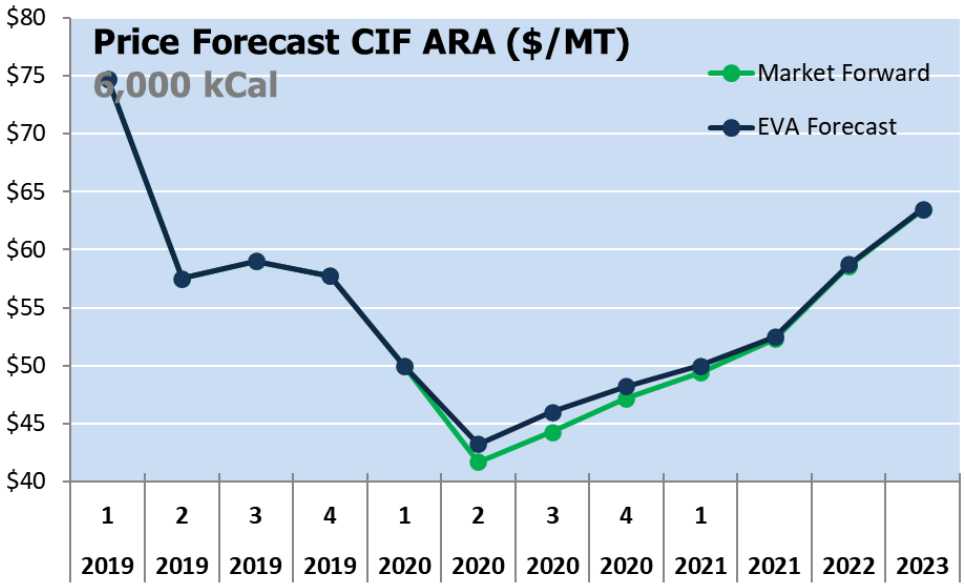
		YTD Ending Mar-20	YTD Ending Mar-19	Prior YTD Delta k Tons	Prior YTD Delta %
	Total U.S.	**11,601**	**13,108**	**(1,507)**	**-11.5%**
1	Brazil	2,082	1,987	95	4.8%
2	India	1,279	1,475	(196)	-13.3%
3	Japan	1,180	1,675	(495)	-29.6%
4	South Korea	1,101	886	215	24.3%
5	Ukraine	1,056	869	187	21.5%

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CIF ARA DROPS TO HISTORIC LOWS AS EU COAL DEMAND "DISAPPEARS"

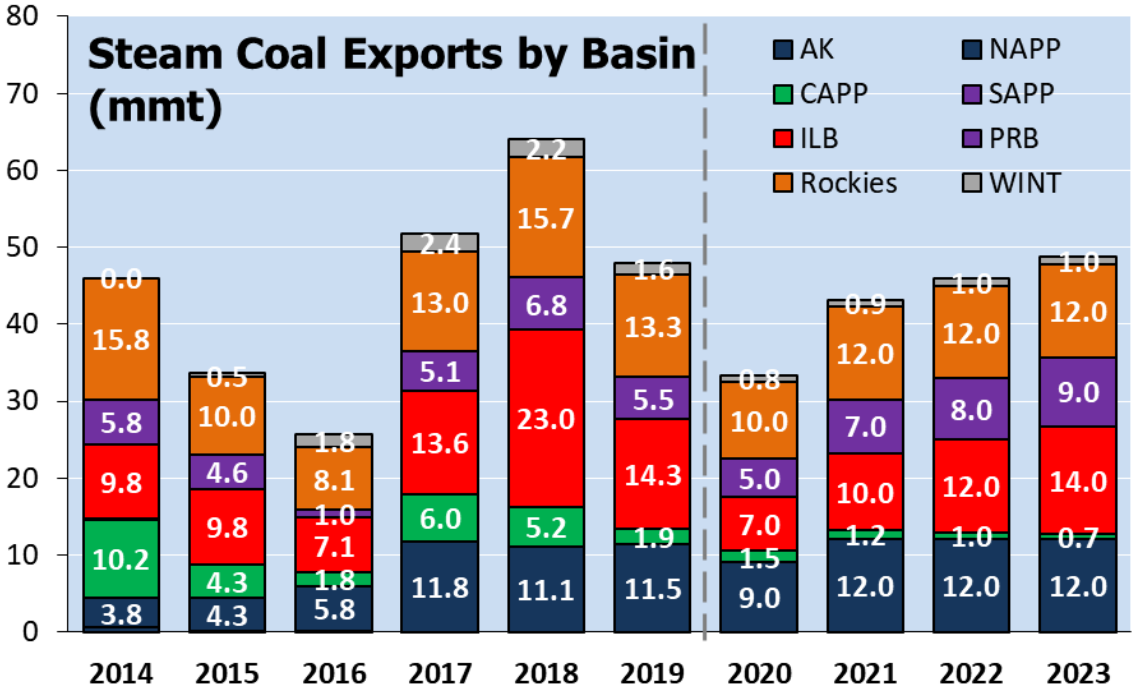
- As CIF ARA spot prices fell below $40/mt, Colombian coal is being forced out of Europe, its primary market, and producers have no choice but to slash production
- Current CIF ARA prices are below the low point of the supply curve of coal exports into ARA as traders re-sell excess coal
- Prices will likely recover into the $50-60/mt range by mid-2021





DROP IN WORLD THERMAL COAL PRICES PUTS MORE PRESSURE ON U.S. EXPORTS

- **2020 U.S. thermal coal exports expected to drop to just 33 Mt with ILB and Rockies the biggest losers compared to 2019**
  - Q1 saw virtually no Rockies exports through CA ports
- **Slow recovery to 2019 levels as world prices and demand recover from the virus-induced economic turndown**



U.S. Total Steam Exports

		YTD Ending Mar-20	YTD Ending Mar-19	Prior YTD Delta k Tons	Prior YTD Delta %
	Total U.S.	**9,606**	**13,577**	**(3,971)**	**-29.2%**
1	India	3,493	2,913	580	19.9%
2	South Korea	1,929	1,419	510	35.9%
3	Japan	1,542	1,643	(101)	-6.2%
4	Dominican R	514	232	283	122.1%
5	Netherlands	480	1,392	(912)	-65.5%

Supply, Demand and Prices

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SUMMARY OF COAL SUPPLY AND DEMAND FORECAST

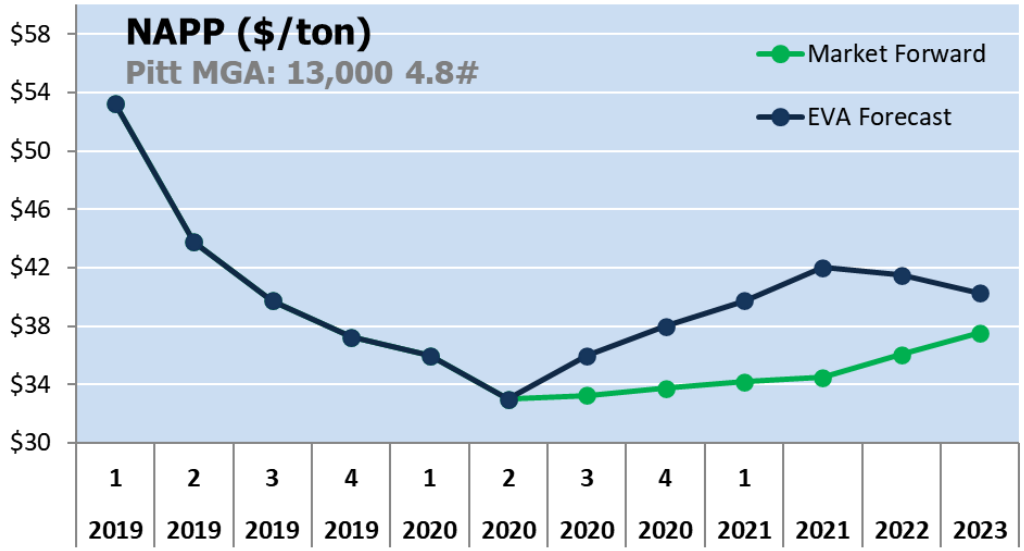
US Coal Supply (mmt)	2019	2020	2021	2022	2023
Northern Appalachia	103.6	81.3	85.4	81.9	76.0
Central & Southern App.	84.5	66.8	69.7	68.2	65.3
Illinois Basin	99.1	80.8	81.9	81.9	76.4
Powder River Basin	294.2	248.0	252.1	256.1	250.3
Rockies	49.2	42.5	42.6	43.1	42.0
Lignite and Other*	71.6	59.9	59.8	60.1	56.3
Imports	4.2	3.1	3.2	2.8	1.5
Total Supply	**706.3**	**582.3**	**594.8**	**594.1**	**567.9**

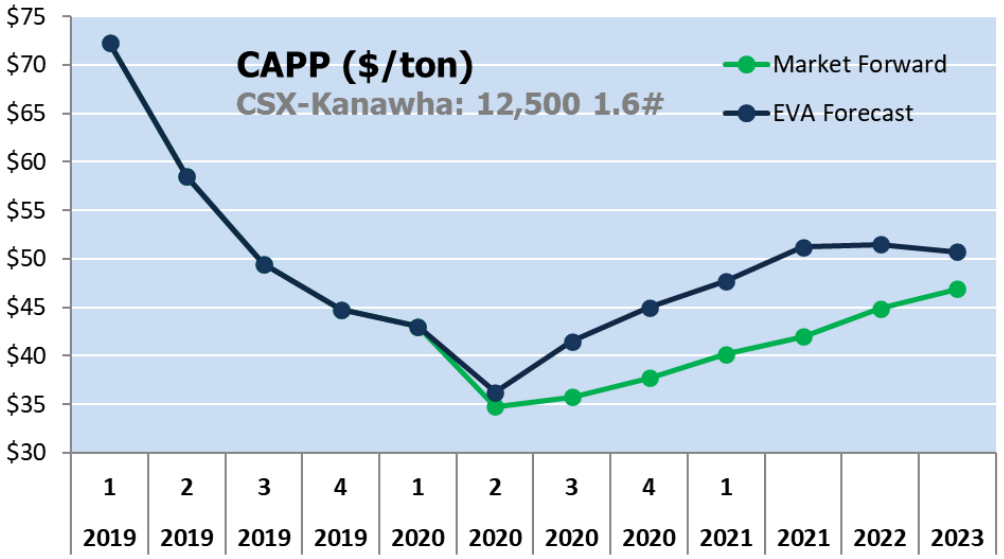
**Includes LIG,WINT,SW,ANT,AK*

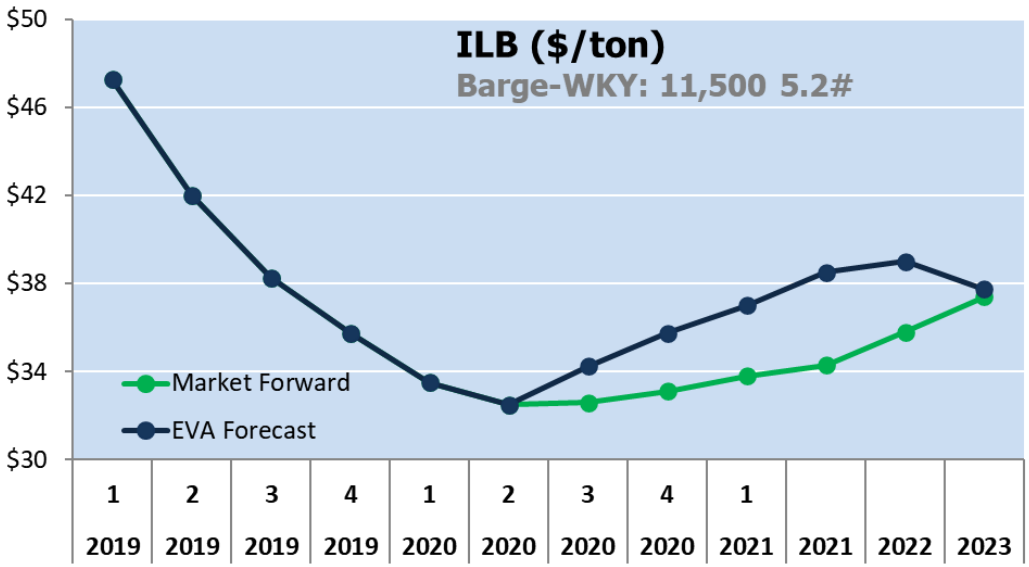
US Coal Demand (mmt)	2019	2020	2021	2022	2023
Electric Burn	530.3	437.0	490.2	475.8	431.4
Electric Receipts	547.3	459.9	457.1	452.3	424.6
Stockpile Change	*26.0*	*22.7*	*(33.1)*	*(23.4)*	*(7.1)*
Coke Ovens	18.5	15.9	15.7	16.1	15.9
Comm./Indust.	30.0	28.4	27.6	26.8	26.1
Domestic Receipts	**595.9**	**504.2**	**500.4**	**495.2**	**466.5**
Export Metallurgical	52.2	42.5	49.0	50.6	50.3
Export Steam	48.0	33.3	43.1	45.9	48.8
Export Other*	0.3	0.3	0.3	0.3	0.3
Total Exports	**100.6**	**76.1**	**92.5**	**96.9**	**99.3**
Total Demand	**696.5**	**580.3**	**592.8**	**592.1**	**565.9**

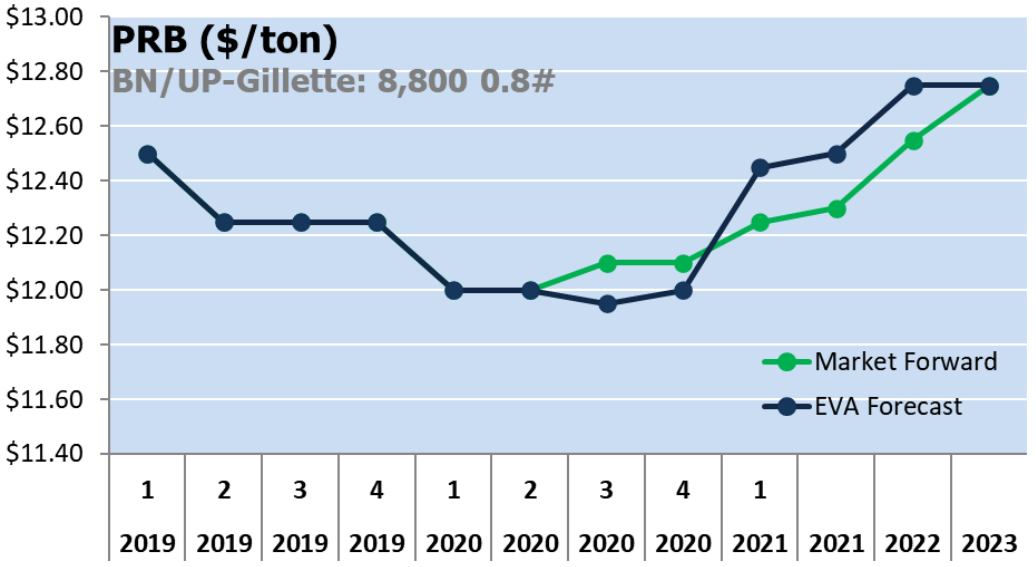
**Includes Lignite & Anthracite*

EVA'S 3-YEAR PRICE FORECAST BY BASIN









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Q&A

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