Fuel Supply Update

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Operating Committee
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Coal

- Supply and Demand
- Transportation
  - Rail Workers Strike Risk Looms
- Regional Pricing

Oil

- Regional Inventory

Natural Gas

- Supply
- Regional Pricing

Coal Focus

Production

- Appalachian coal production rates approximately 2.5% higher YTD compared to last year

Transportation

- Transportation, particularly rail, remains a significant concern for resupply
- Rail workers strike appears to have been averted however final union ratification is still an outstanding risk; Confirmation not likely until November

Prices

- Record high prices continue on increased worldwide demand
- Appalachian prices around $200/ton based on EIA reporting
- Coal price significantly higher than gas currently

PJM Activity

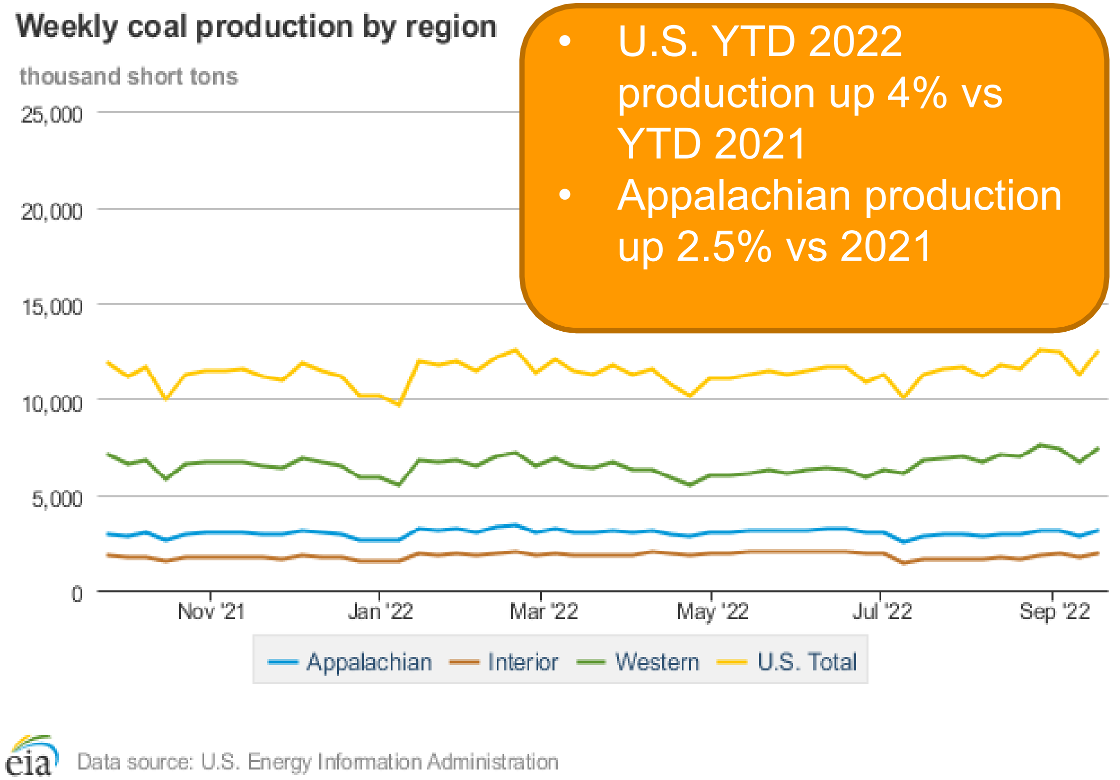
- Weekly data requests to identify and track supply and transportation issues
- Communicating with individual resource owners to address emergent supply concerns

Coal Production and Price

Average weekly coal commodity spot prices

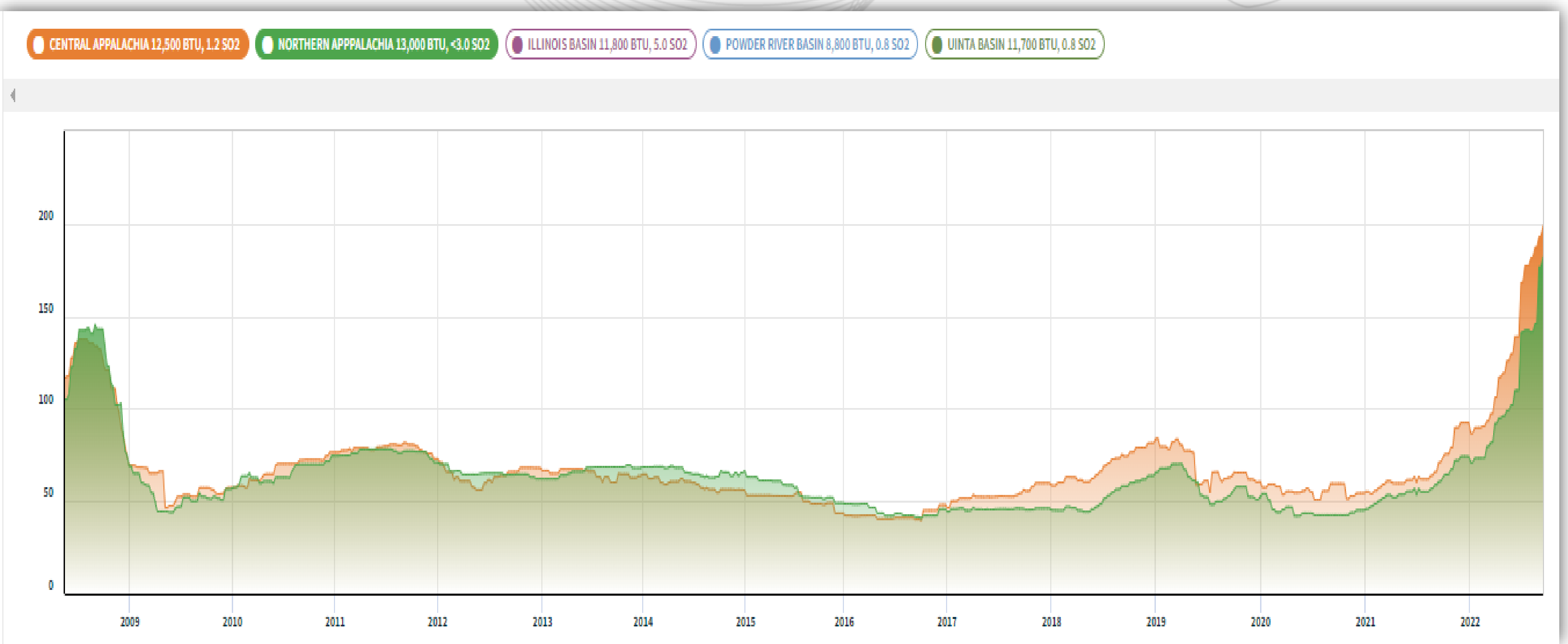
dollars per short ton

	Week ending					Week ago
	08/26/22	09/02/22	09/09/22	09/16/22	09/23/22	change
Central Appalachia *12,500 Btu, 1.2 SO_2*	$187.15	$192.90	$192.90	$198.85	$198.85	$0.00
Northern Appalachia *13,000 Btu, < 3.0 SO_2*	$145.85	$176.50	$176.50	$181.95	$181.95	$0.00
Illinois Basin *11,800 Btu, 5.0 SO_2*	$189.70	$196.65	$196.65	$196.75	$196.75	$0.00
Powder River Basin *8,800 Btu, 0.8 SO_2*	$16.25	$16.20	$16.20	$16.15	$16.15	$0.00
Uinta Basin *11,700 Btu, 0.8 SO_2*	$42.85	$42.70	$42.70	$42.55	$42.55	$0.00

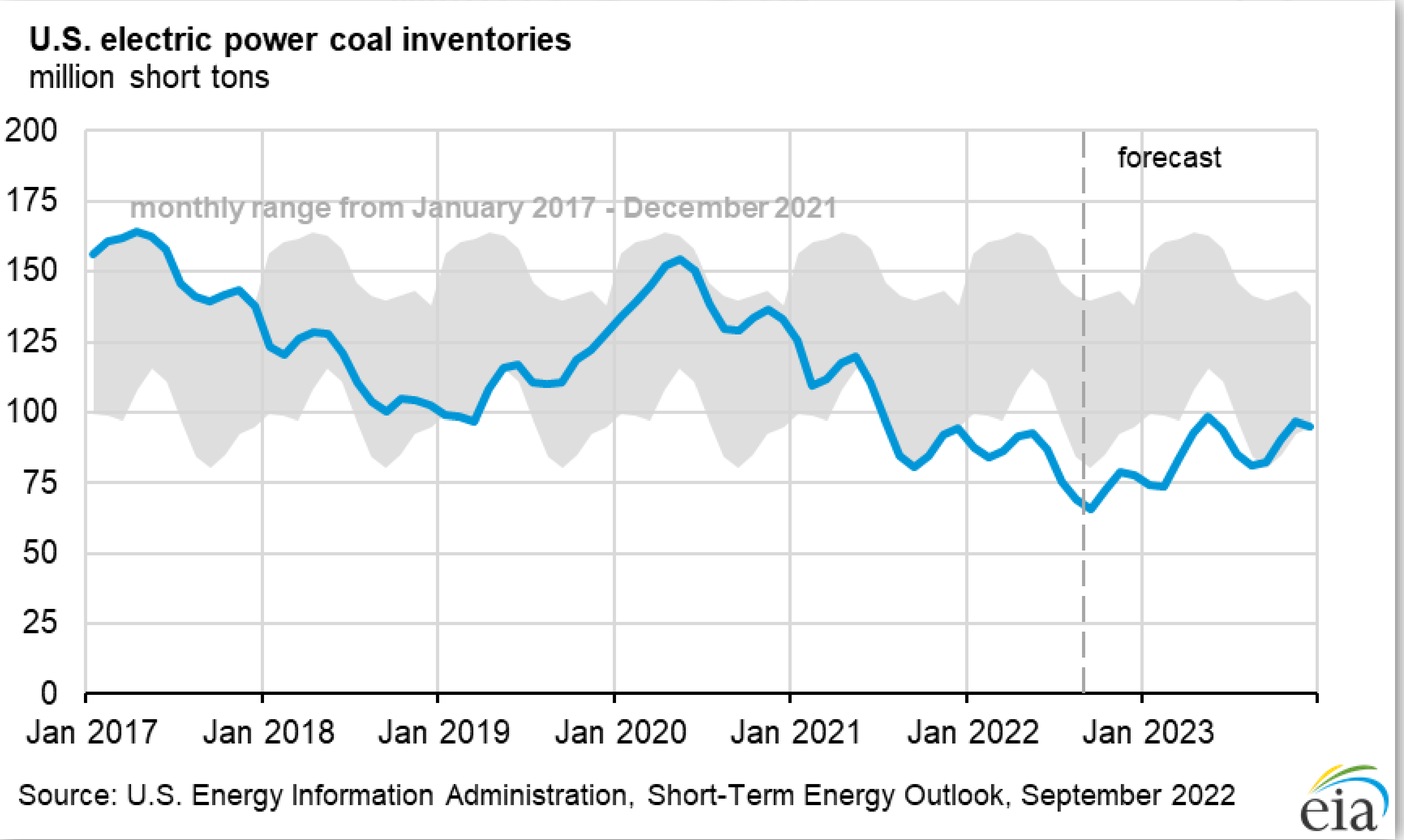


- U.S. YTD 2022 production up 4% vs YTD 2021
- Appalachian production up 2.5% vs 2021

Regional Spot Coal Price History (2008 – Present)



Electric Power Coal Inventories

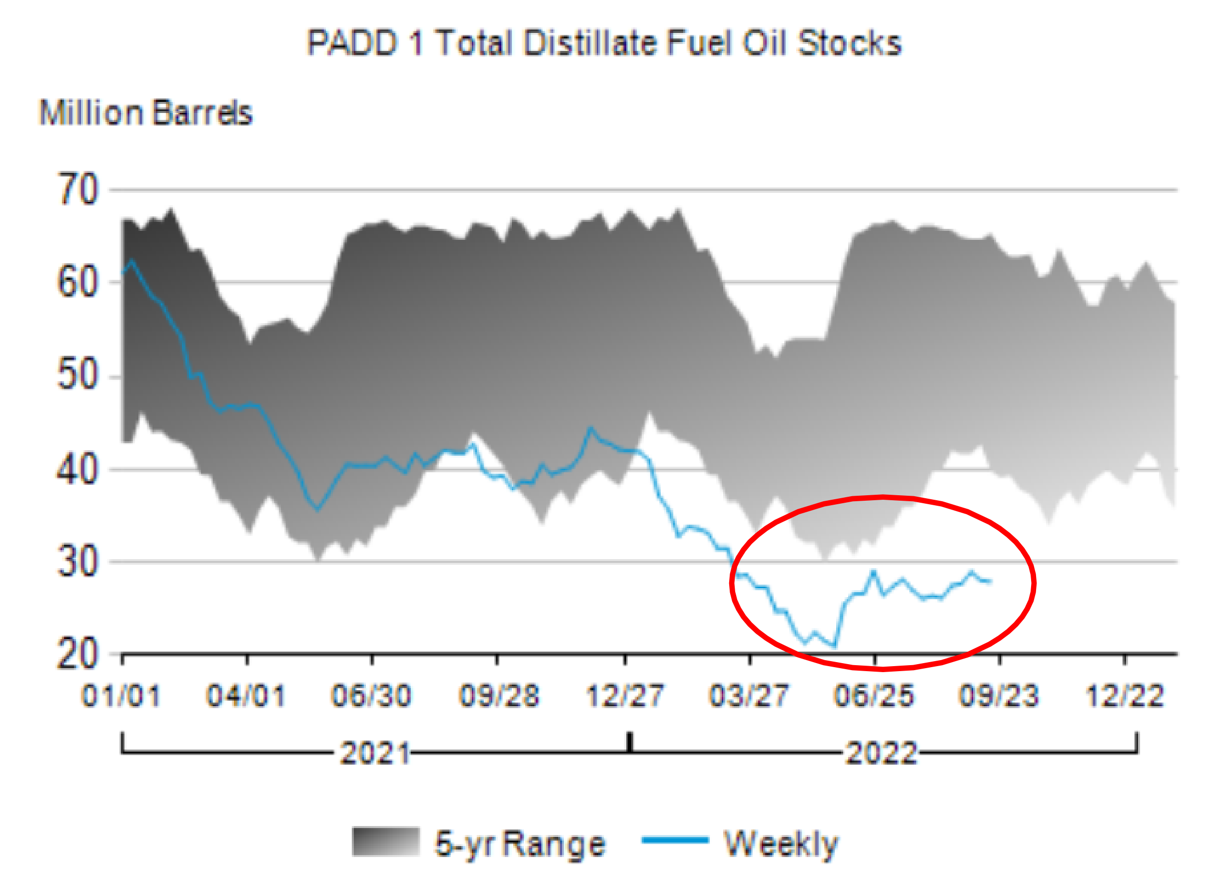


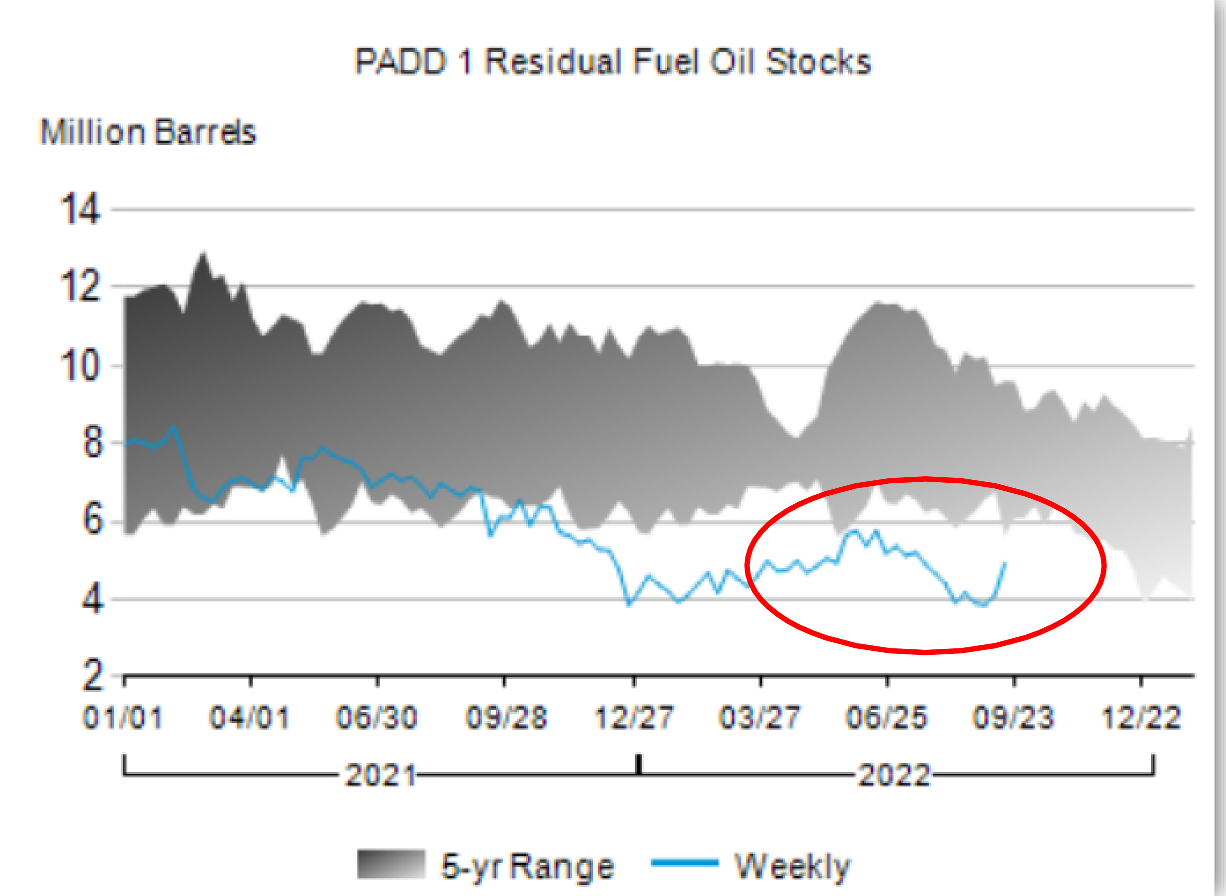
Distillate and Residual Fuel Oil Focus

Regional Inventory	Prices	PJM Activity
• EIA PADD 1 (East Coast) and PADD 2 (Midwest) inventories well below 5 year average	• Volatility continues though currently in downtrend • Recession fears and strong dollar driving oil market	• Weekly data requests to identify and track supply and transportation issues • No significant concerns raised at this point

PADD 1 East Coast Distillate and Residual Fuel Inventory

Inventories remain well below 5 year average





Natural Gas Focus

Production

- Average daily production 5% higher vs 2021 YTD
- Current production rate is 95 – 100 Bcf/day

Storage

- Storage deficit currently 9.3% below 5 year average
- Currently 3 Tcf inventory vs 4 Tcf capacity

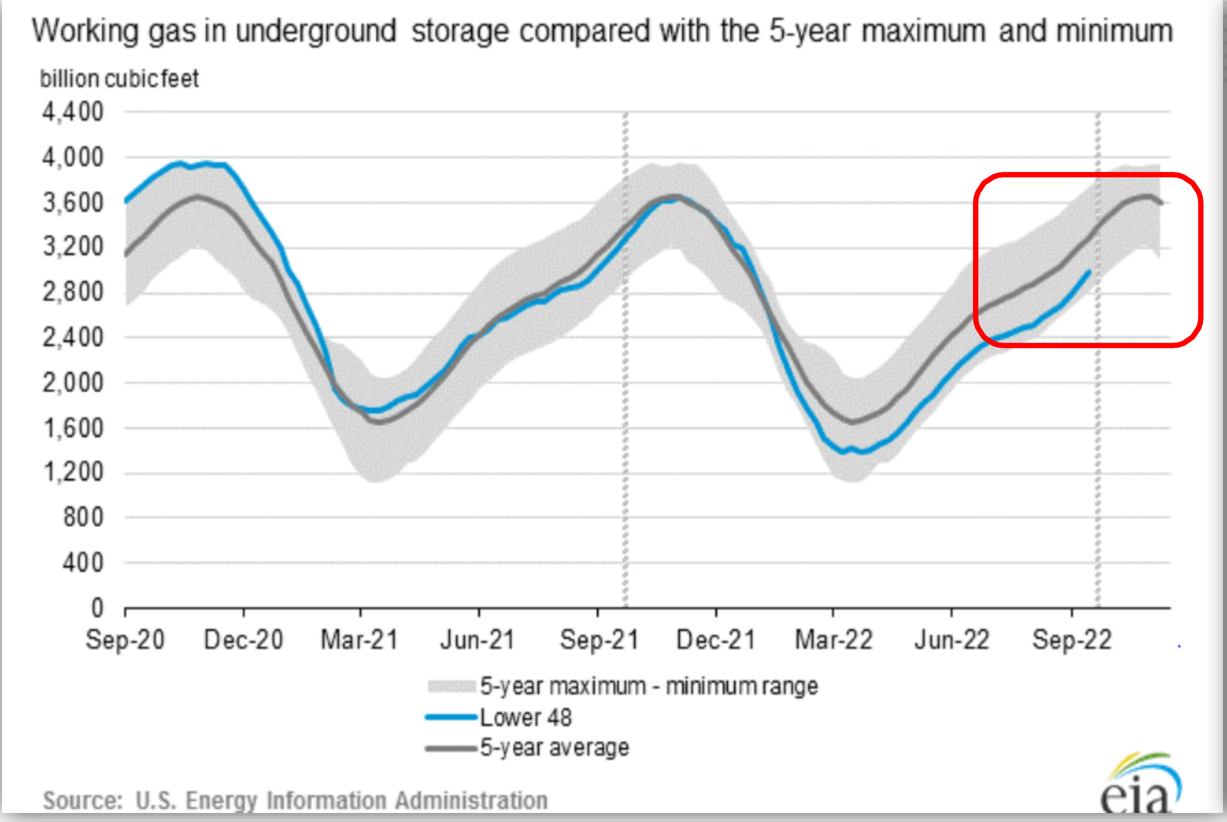
Prices

- Volatility continues though currently in downtrend
- Winter strip price at regional hubs $10-$15/mmbtu
- Henry Hub winter price approx. $7.50/mmbtu
- European and Asian prices approx. $40-$70/mmbtu range

LNG

- Total U.S. export capacity is 14 Bcf/day
- 2 Bcf/day is offline with partial return in November
- Export volumes currently maxed out at 12 Bcf/day

Natural Gas Underground Storage – As Of 9/23/22

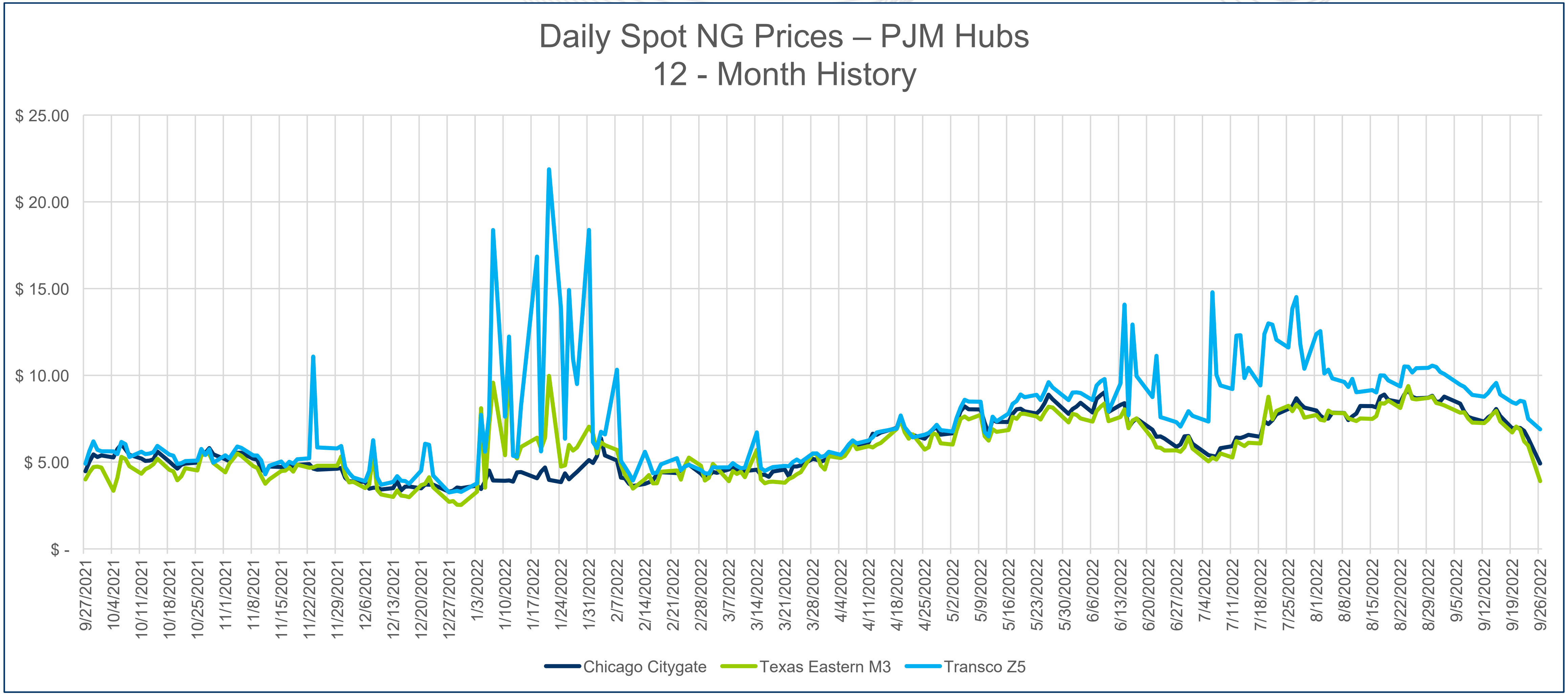


Working gas in underground storage, Lower 48 states

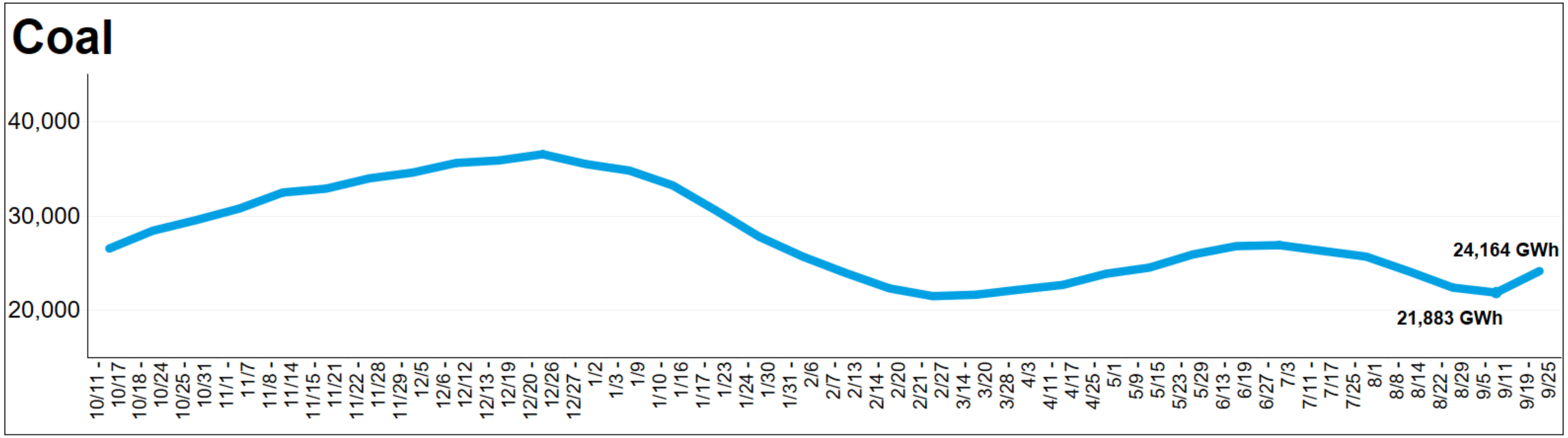
Summary text CSV JSN

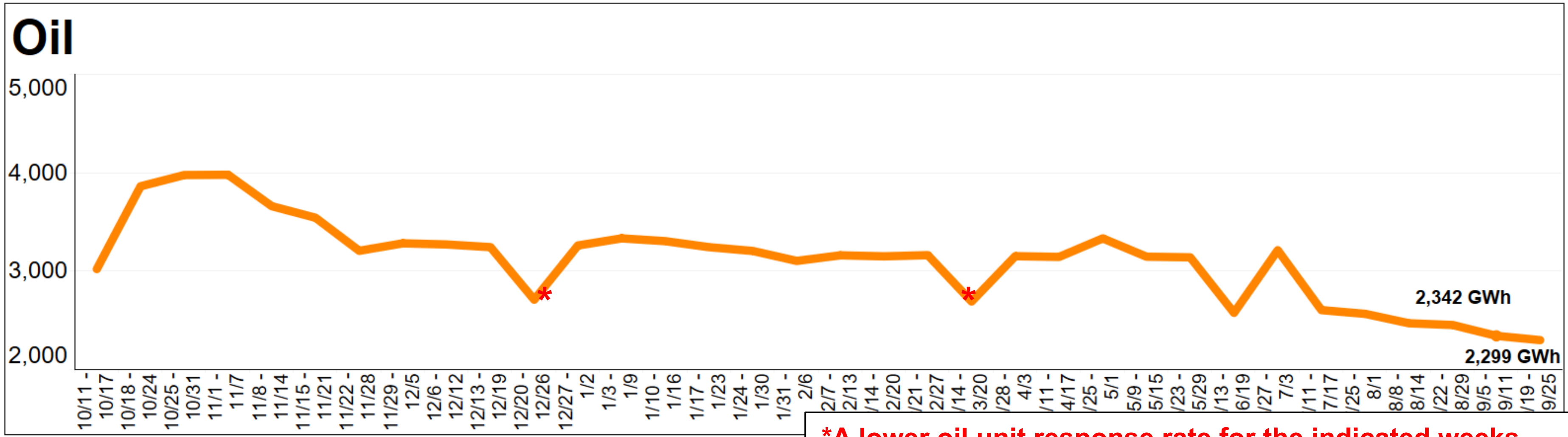
	Stocks billion cubic feet (Bcf)				Historical Comparisons: Year ago (09/23/21)		5-year average (2017-21)	
Region	09/23/22	09/16/22	net change	implied flow	Bcf	% change	Bcf	% change
East	721	690	31	31	775	-7.0	807	-10.7
Midwest	879	844	35	35	930	-5.5	937	-6.2
Mountain	176	168	8	8	200	-12.0	203	-13.3
Pacific	243	237	6	6	243	0.0	283	-14.1
South Central	958	935	23	23	1,010	-5.1	1,052	-8.9
Salt	204	199	5	5	237	-13.9	257	-20.6
Nonsalt	754	736	18	18	772	-2.3	795	-5.2
Total	**2,977**	**2,874**	**103**	**103**	**3,157**	**-5.7**	**3,283**	**-9.3**

Daily Spot NG Prices – PJM Hubs



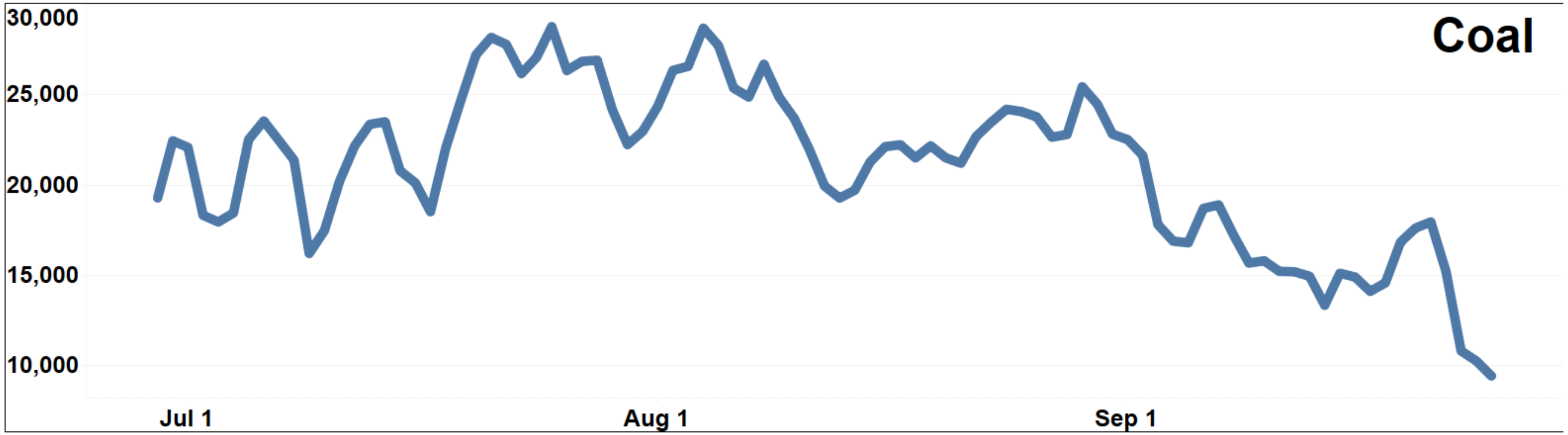
GWh of Fuel Inventory

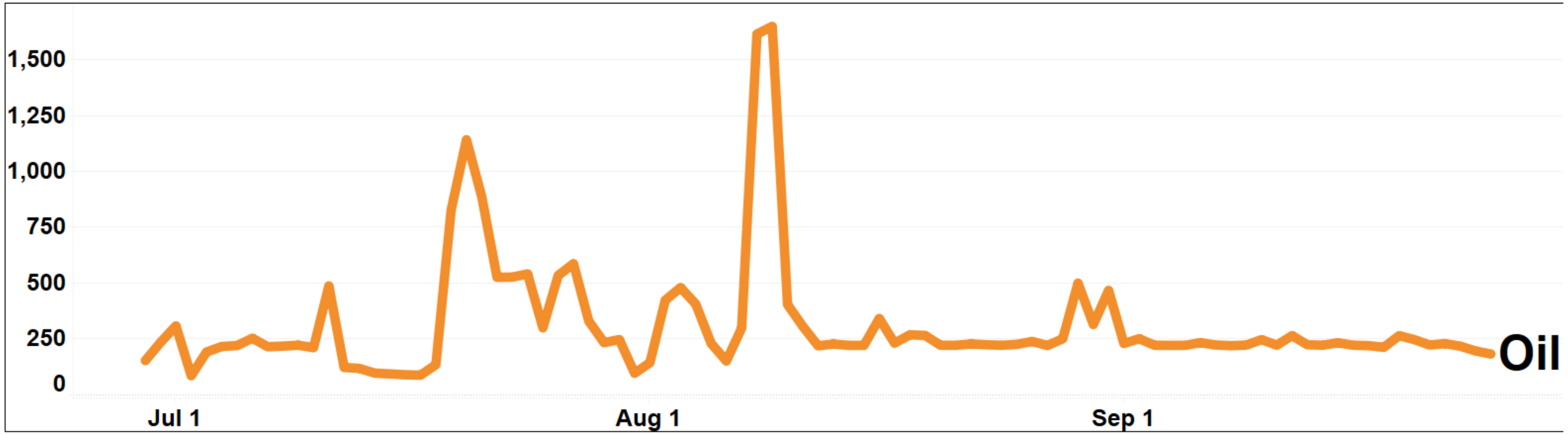




***A lower oil unit response rate for the indicated weeks impacted the inventory levels for those periods. The numbers on the chart only reflect data provided by units that submitted responses to the data request.**

Generation by Fuel





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Fuel Supply Update

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