



# Fuel Supply Update

Brian J Fitzpatrick  
Principal Fuel Supply Strategist  
Operating Committee  
January 12, 2023

## Coal

- Inventory and production down
- EIA reporting price decline in most recent update

## Natural Gas

- Production claws back close to pre cold snap rates
- Spot and futures pricing generally less than \$4/mmbtu

## Oil

- Significant oil burn volumes during Christmas weekend due to gas scarcity
- Large decline in onsite inventory

## Production

- Appalachian coal production rates down almost 30% over last 2 weeks of December; end of year declines not uncommon

## Transportation

- No major issues currently
- Monitoring river lock maintenance projects in Ohio Valley

## Prices

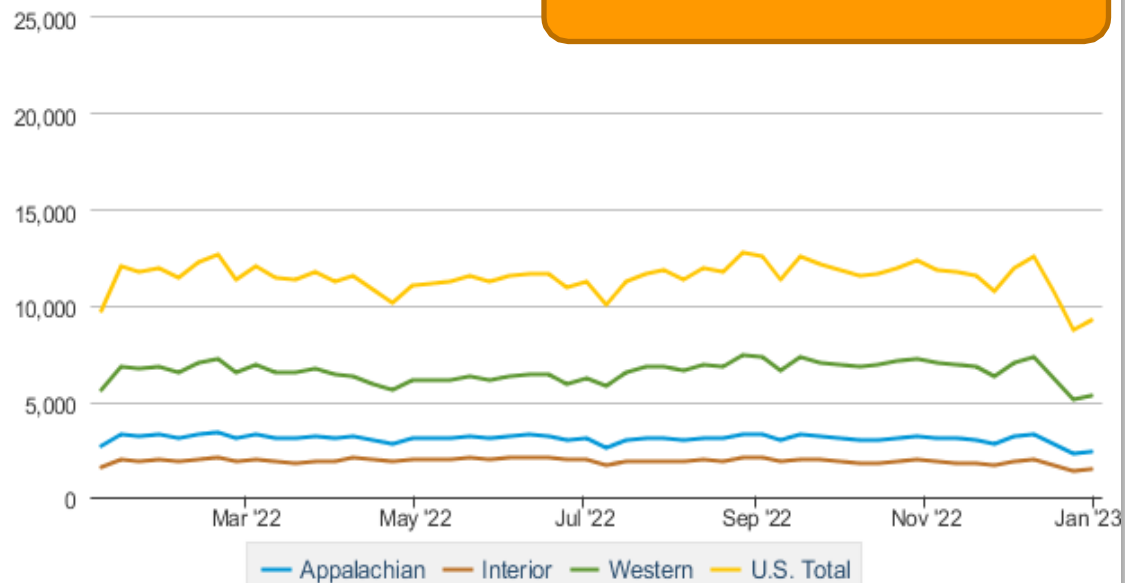
- EIA reporting declining spot prices

## PJM Activity

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

## Weekly coal production by region

thousand short tons



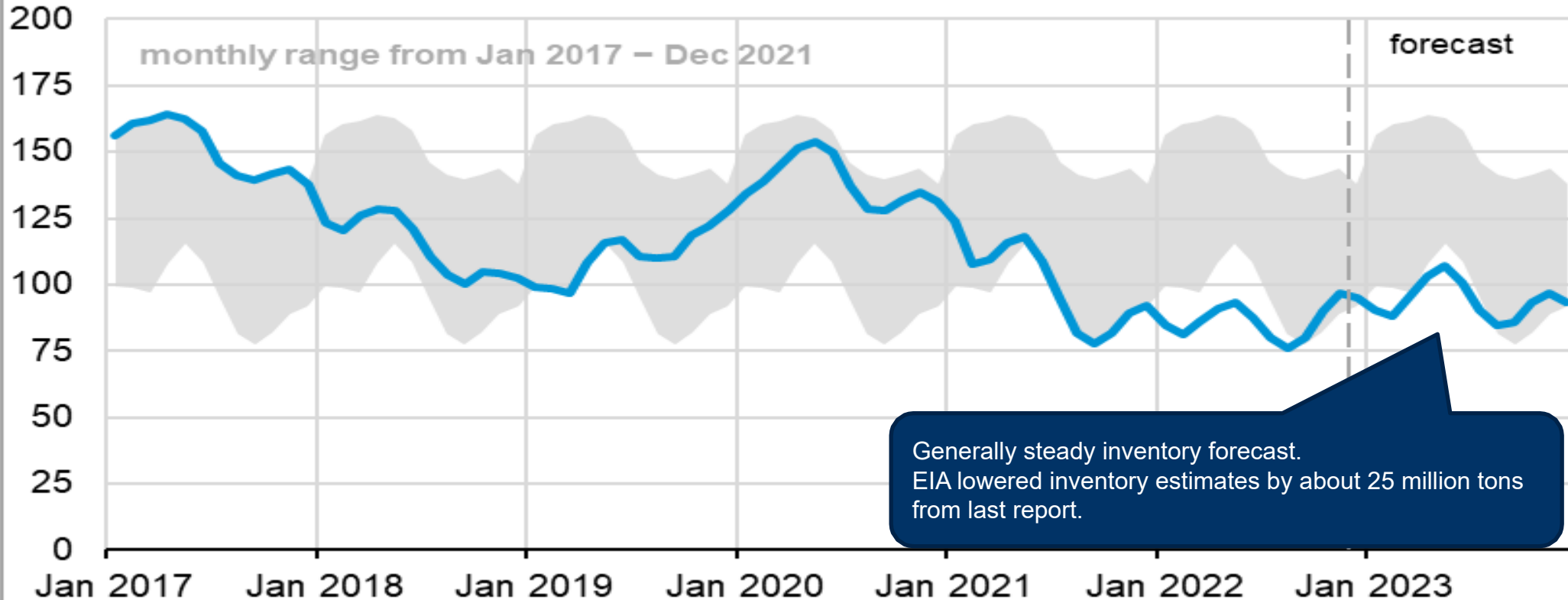
30% drop in production over last two weeks of December

eia Data source: U.S. Energy Information Administration

## Average weekly coal commodity spot prices *dollars per short ton*

	Week ending					Week ago change
	12/09/22	12/16/22	12/23/22	12/30/22	01/06/23	
Central Appalachia <i>12,500 Btu, 1.2 SO<sub>2</sub></i>	\$199.40	\$199.40	\$205.55	\$205.55	\$138.00	\$-67.55
Northern Appalachia <i>13,000 Btu, &lt; 3.0 SO<sub>2</sub></i>	\$203.45	\$203.45	\$209.70	\$209.70	\$115.00	\$-94.70
Illinois Basin <i>11,800 Btu, 5.0 SO<sub>2</sub></i>	\$168.25	\$168.25	\$168.25	\$168.25	\$116.00	\$-52.25
Powder River Basin <i>8,800 Btu, 0.8 SO<sub>2</sub></i>	\$15.60	\$15.60	\$15.55	\$15.55	\$15.50	\$-0.05
Uinta Basin <i>11,700 Btu, 0.8 SO<sub>2</sub></i>	\$41.35	\$41.35	\$41.20	\$41.20	\$37.85	\$-3.35

## U.S. electric power coal inventories million short tons



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2022



## Production

- Daily production returns to pre Christmas levels after very large freeze off driven supply loss

## Storage

- Large withdrawal activity during cold snap but easing since.
- Most recent EIA stats through 12/23/22 show storage inventory 2.7% below the 5 year average
- Next update will show growing deficit

## Prices

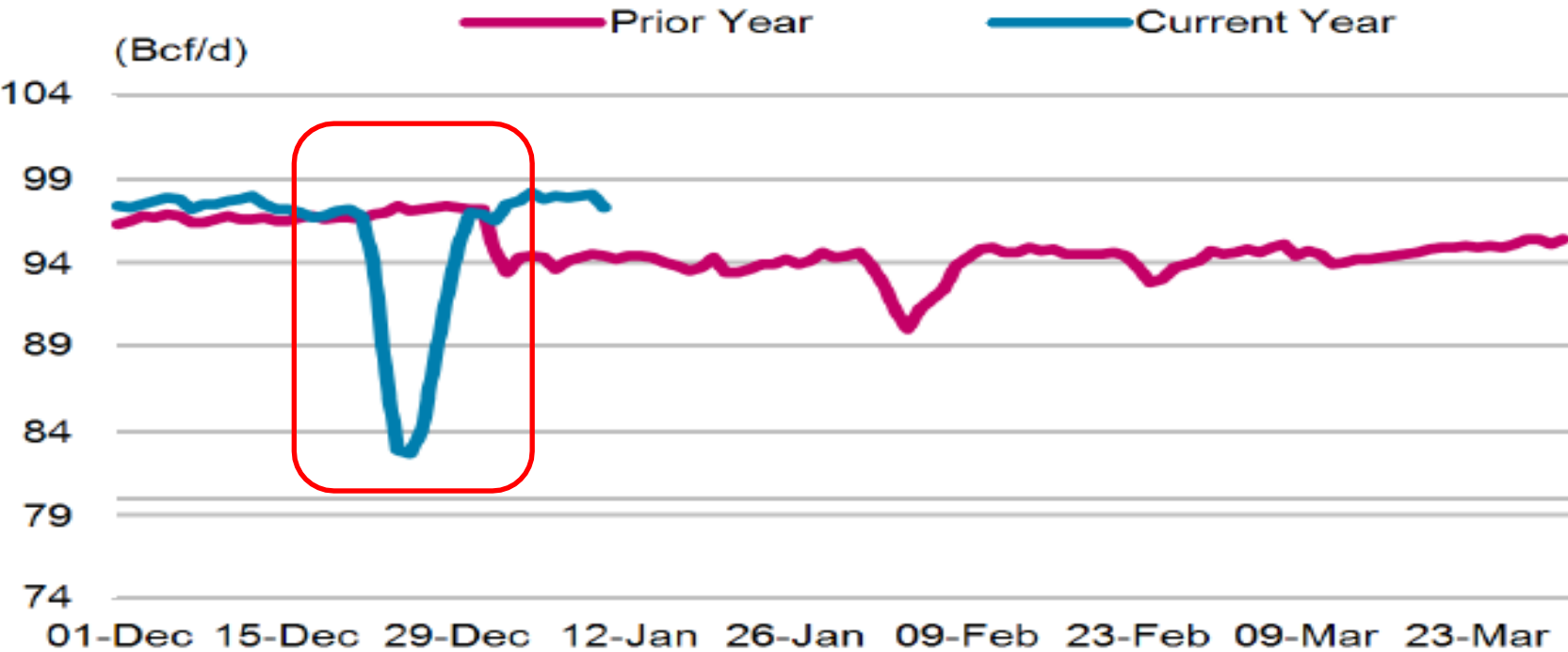
- Spot prices have plummeted since the Christmas weekend cold snap and above average temperature forecasts
- Feb. 2023 futures price now around \$3.99/mmbtu

## LNG

- Total U.S. export capacity is 14 Bcf/day
- 2 Bcf/day remains offline with partial return of Freeport terminal now delayed until mid to late January with full return March 2023
- Export volumes currently between 11 and 12 Bcf/day

Well Freeze Offs – ~20% Production Loss 12/23/22 – 12/26/22

## US DRY GAS PRODUCTION

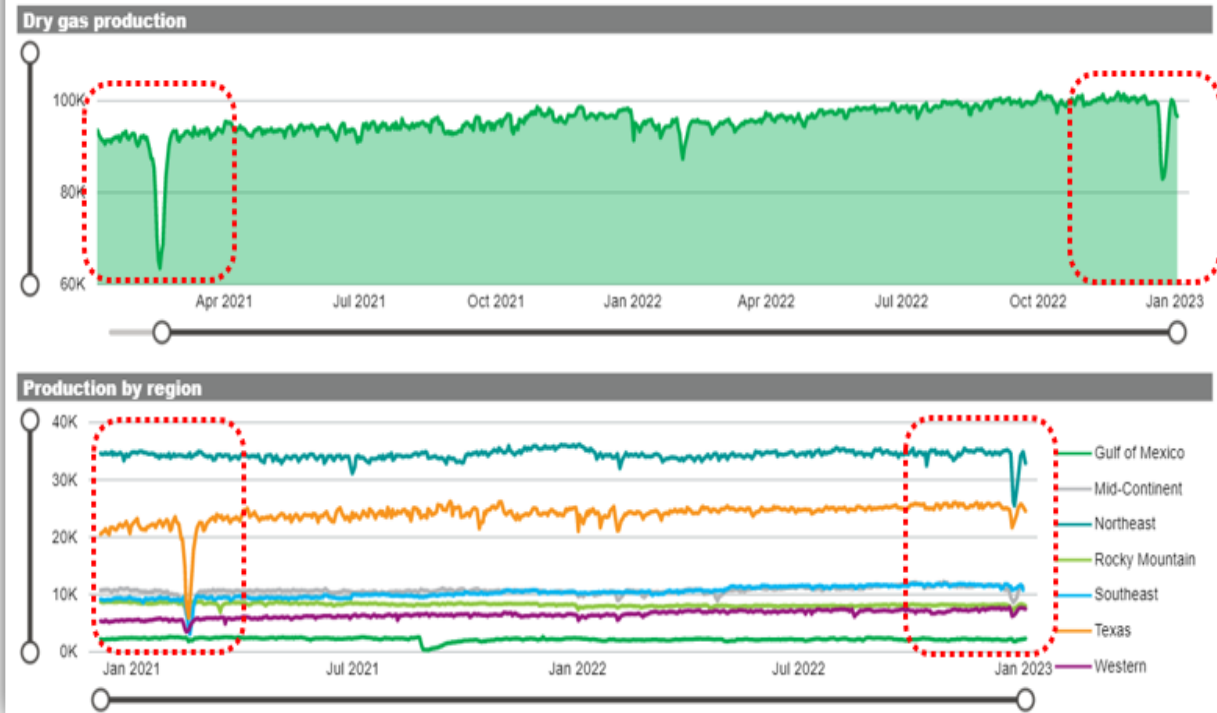




## Comparison of Uri (Feb. 2021) vs Elliott (Dec. 2022)

January 1, 2021 – January 2, 2023

Natural gas market history fundamentals for US Lower-48



Northeast: Marcellus and Utica Shale

Data Source: S&P Global

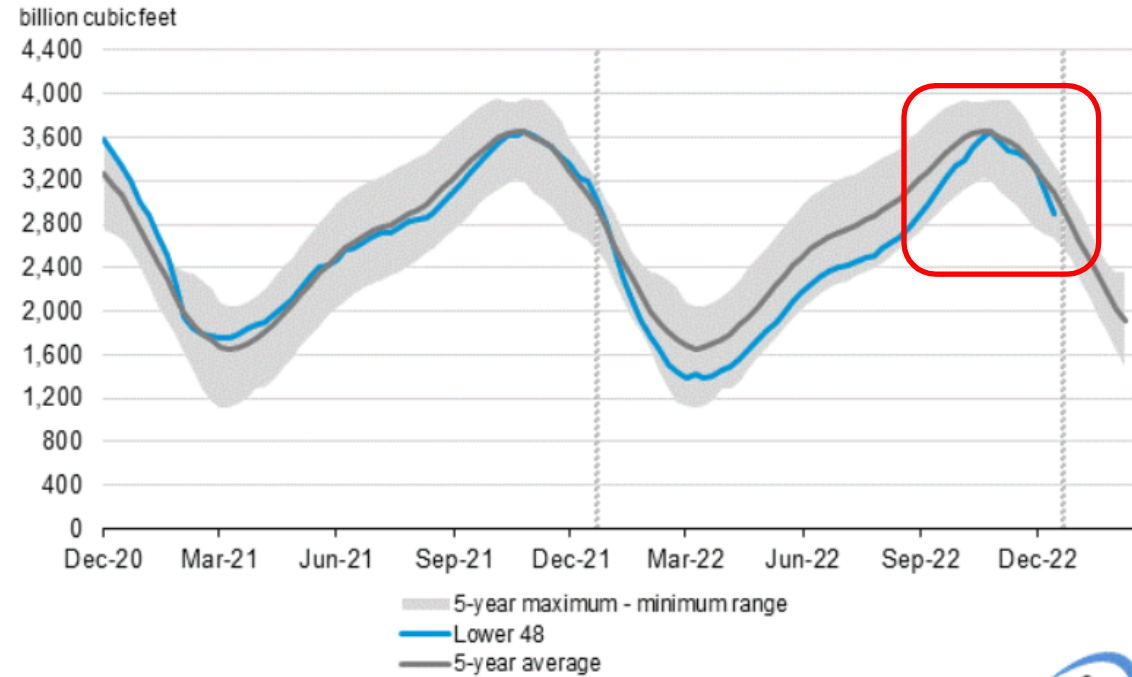
- Uri (Feb. 2021)
  - 30% nationwide production decline
  - All production loss in Texas and Southwest
  - No production loss in Appalachia
- Elliott (Dec. 2022)
  - 20% nationwide production decline
  - Largest percentage of total decline in Appalachia (Marcellus and Utica) which saw a nearly 30% drop in daily production
  - Production has returned to near pre-event levels



# Natural Gas Underground Storage – As Of 12/30/22

Storage withdrawals very strong during Christmas cold snap  
 Deficit to 5 year average widens from 2.7% to 6.7% week over week

Working gas in underground storage compared with the 5-year maximum and minimum



Data source: U.S. Energy Information Administration

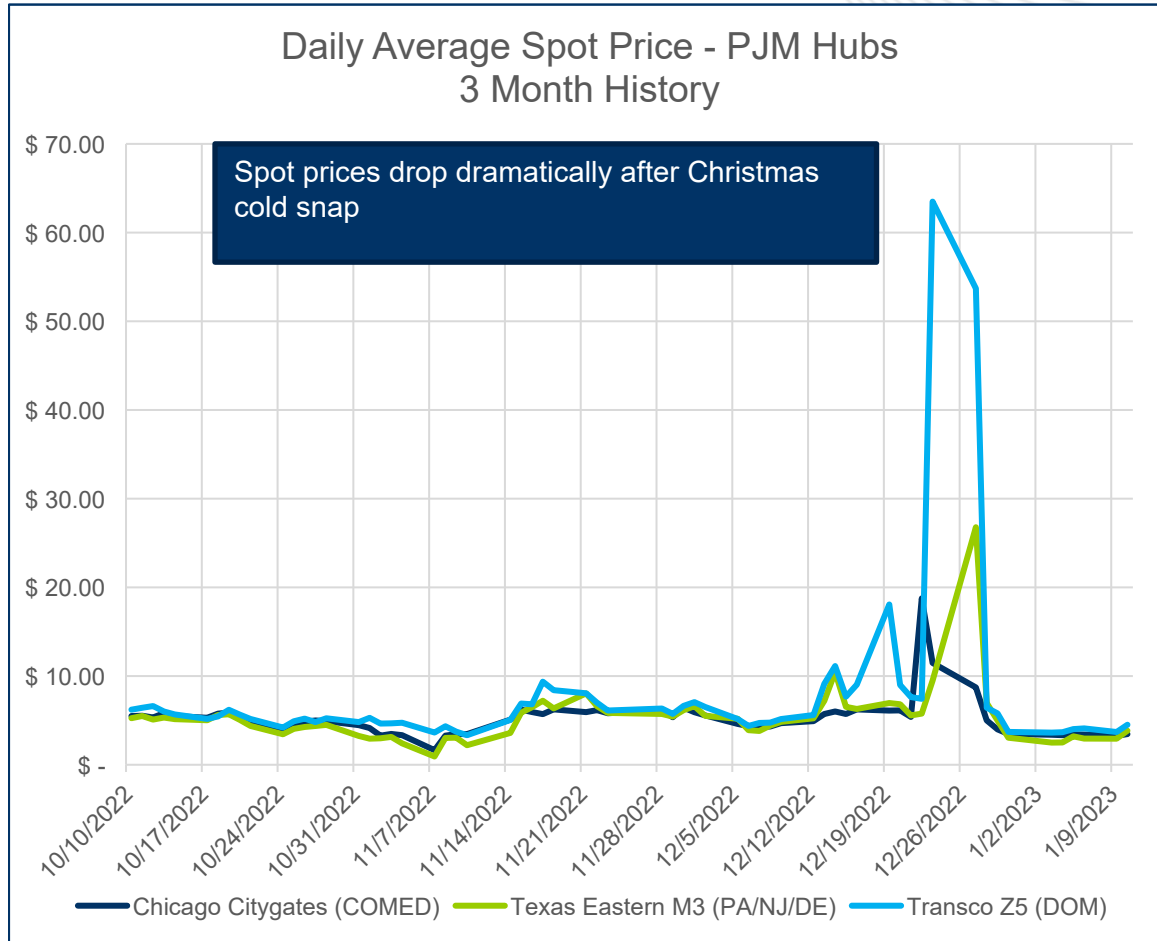


Working gas in underground storage, Lower 48 states

[Summary text](#) [CSV](#) [JSON](#)

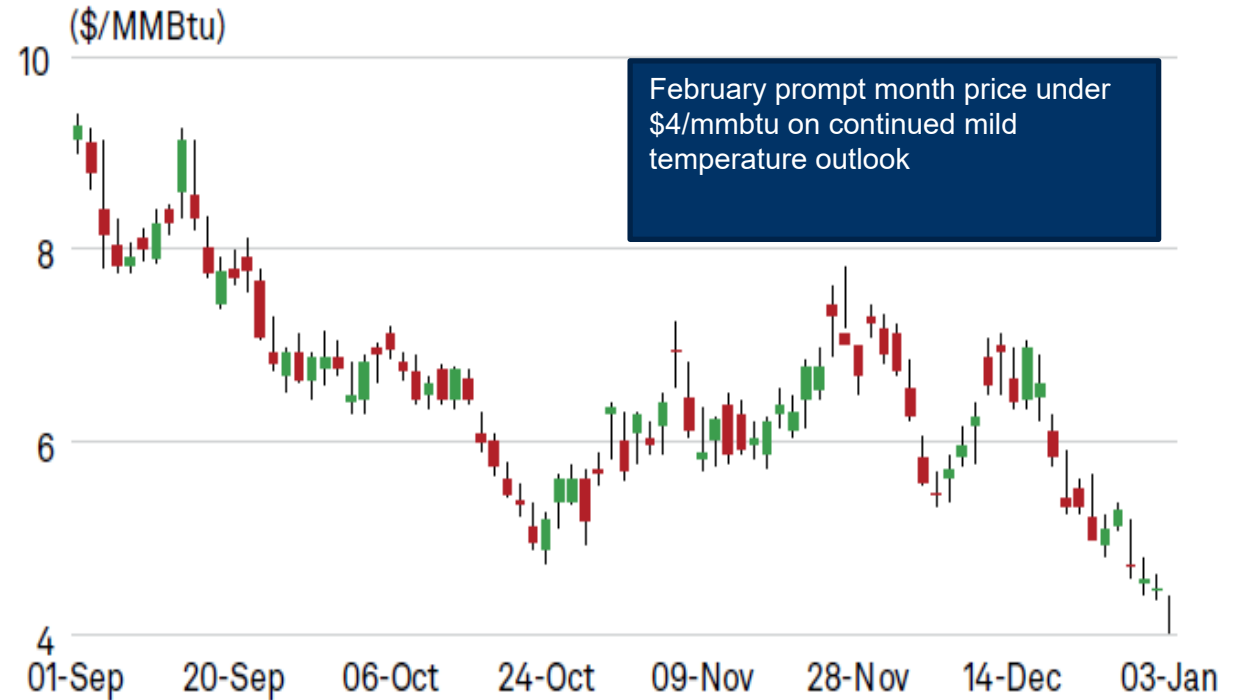
Historical Comparisons

Region	Stocks billion cubic feet (Bcf)				Historical Comparisons			
	12/30/22	12/23/22	net change	implied flow	Year ago (12/30/21)		5-year average (2017-21)	
					Bcf	% change	Bcf	% change
East	691	747	-56	-56	768	-10.0	740	-6.6
Midwest	839	899	-60	-60	897	-6.5	876	-4.2
Mountain	157	166	-9	-9	173	-9.2	173	-9.2
Pacific	165	165	0	0	221	-25.3	247	-33.2
South Central	1,040	1,136	-96	-96	1,139	-8.7	1,063	-2.2
Salt	270	323	-53	-53	344	-21.5	317	-14.8
Nonsalt	770	813	-43	-43	795	-3.1	747	3.1
<b>Total</b>	<b>2,891</b>	<b>3,112</b>	<b>-221</b>	<b>-221</b>	<b>3,199</b>	<b>-9.6</b>	<b>3,099</b>	<b>-6.7</b>

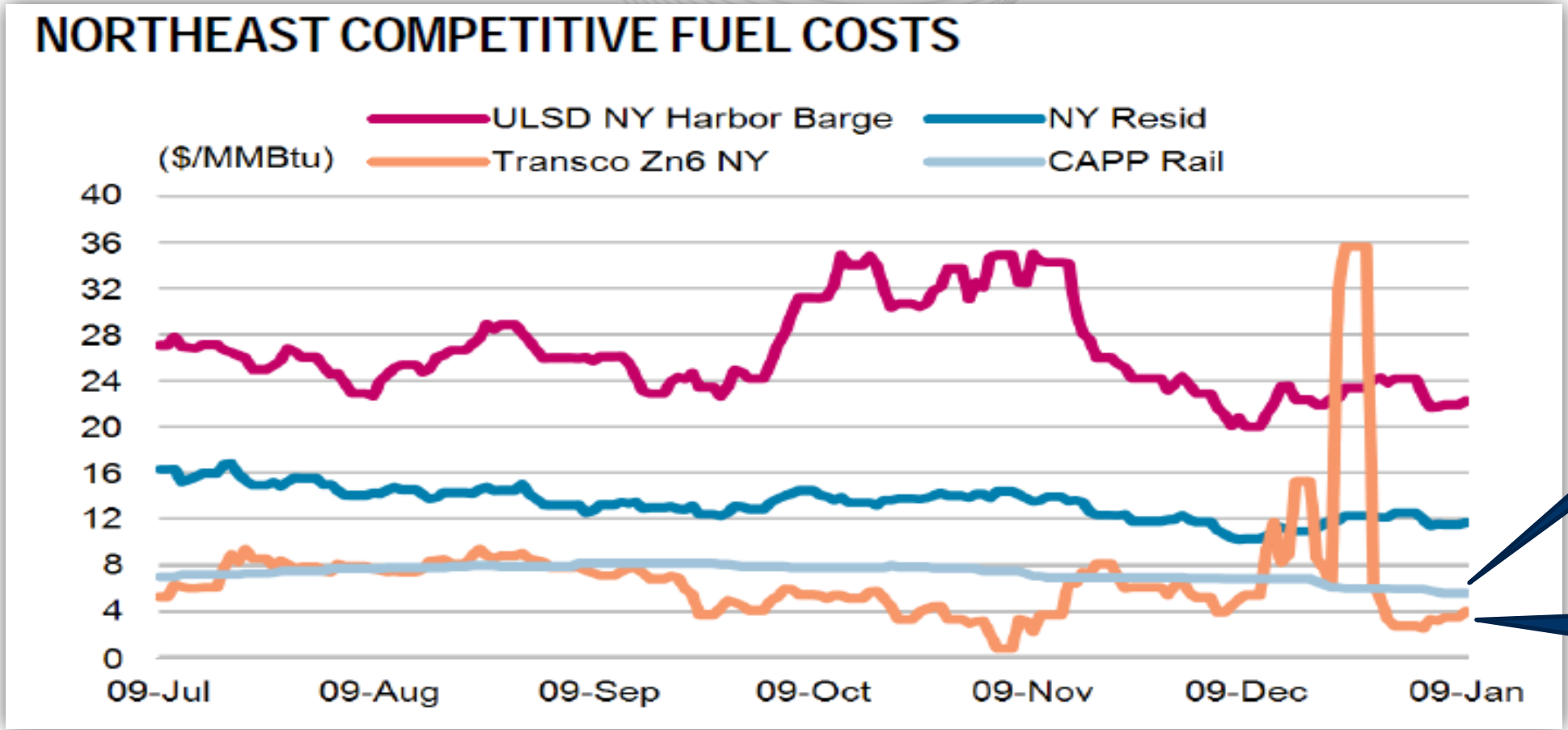


## Natural Gas Futures

### NYMEX prompt month futures continuation



## Gas prices plummet after Christmas cold blast retreats



Central App Coal Price

Spot Transco Z6 Gas Price

## Regional Inventory

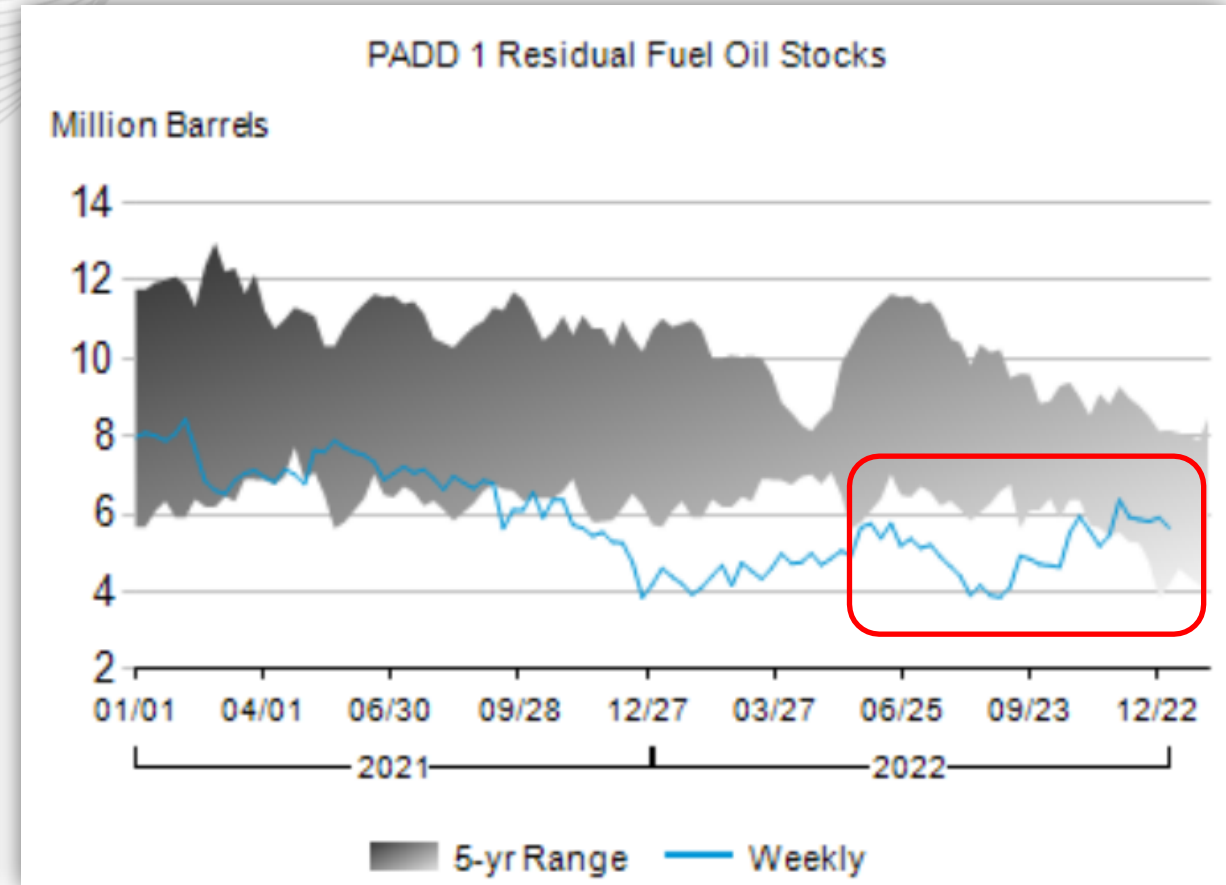
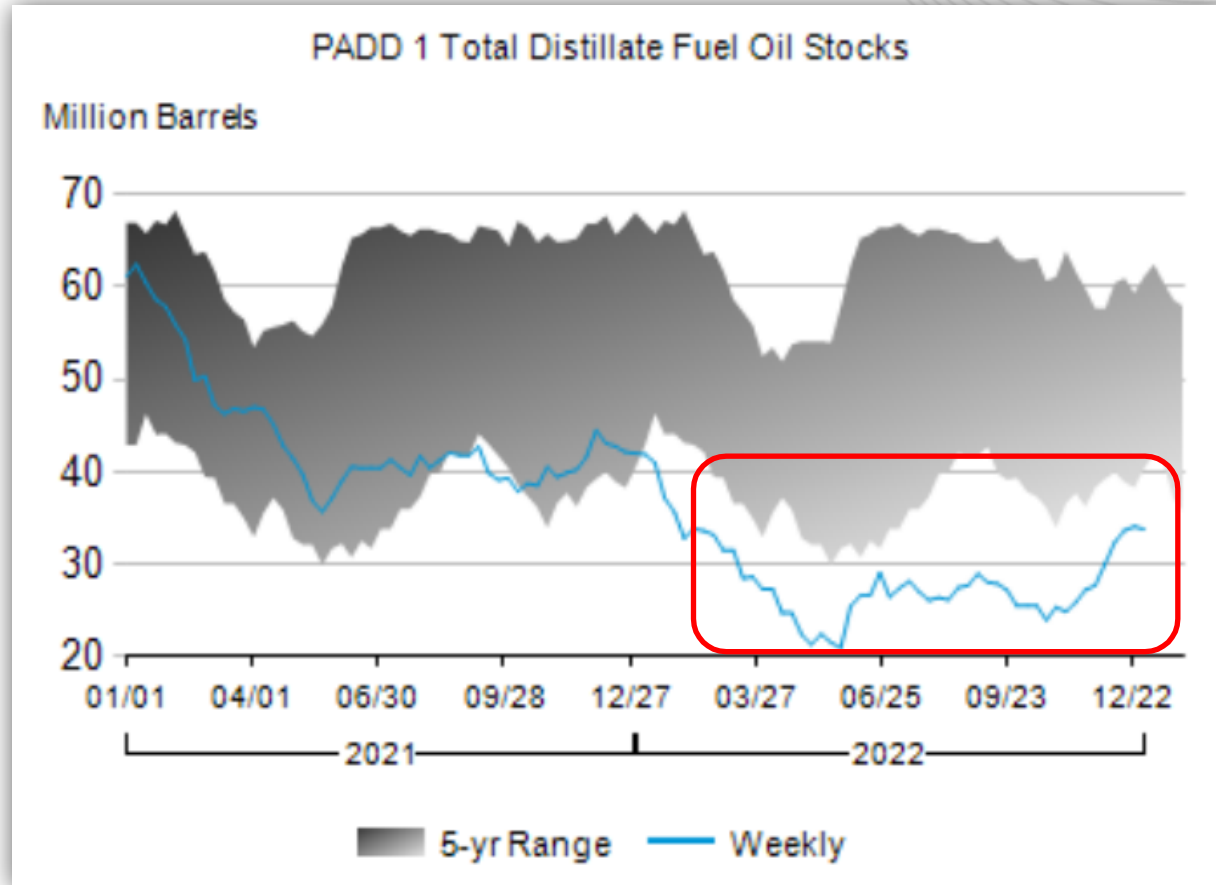
- EIA PADD 1 (East Coast) inventories had been recovering over last few months
- Recovery hit a bump with the large oil burn over Christmas cold snap
- Ongoing milder temperatures should allow for inventory recovery

## Prices

- ULSD bouncing between \$3 and \$3.50/gallon

## PJM Activity

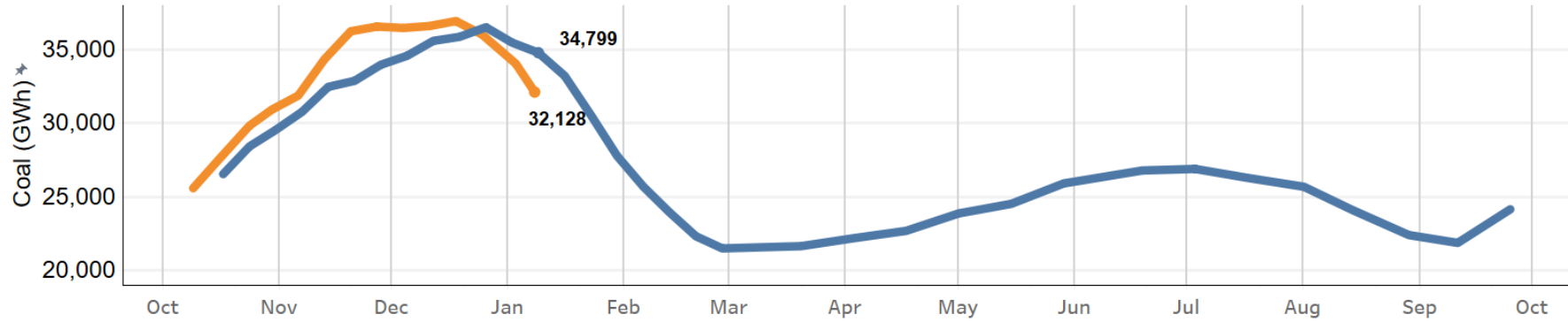
- Weekly data requests to identify and track supply and transportation issues



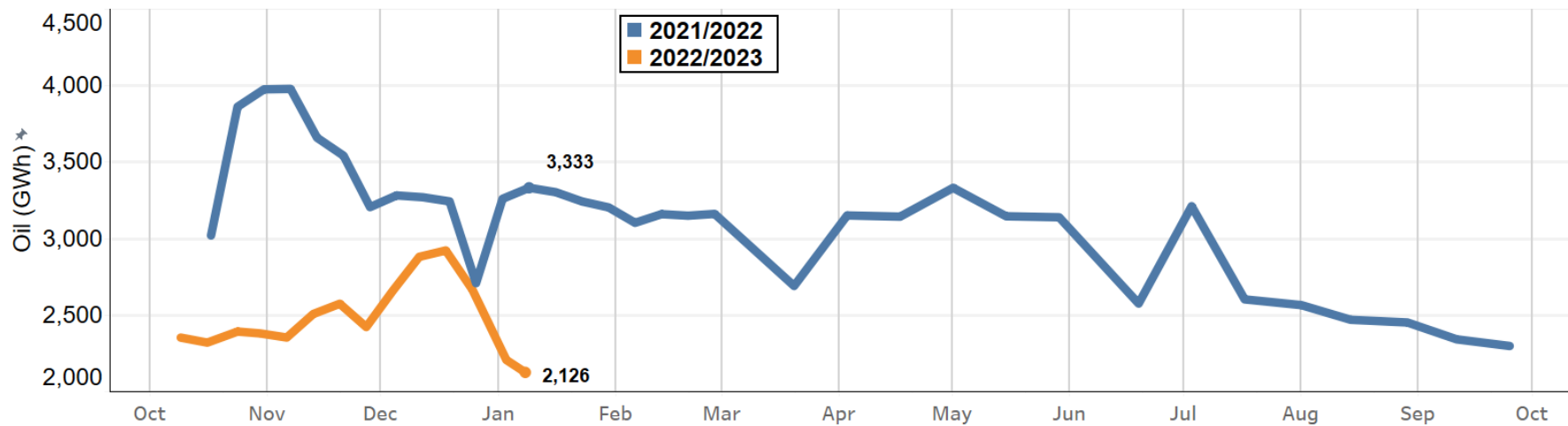




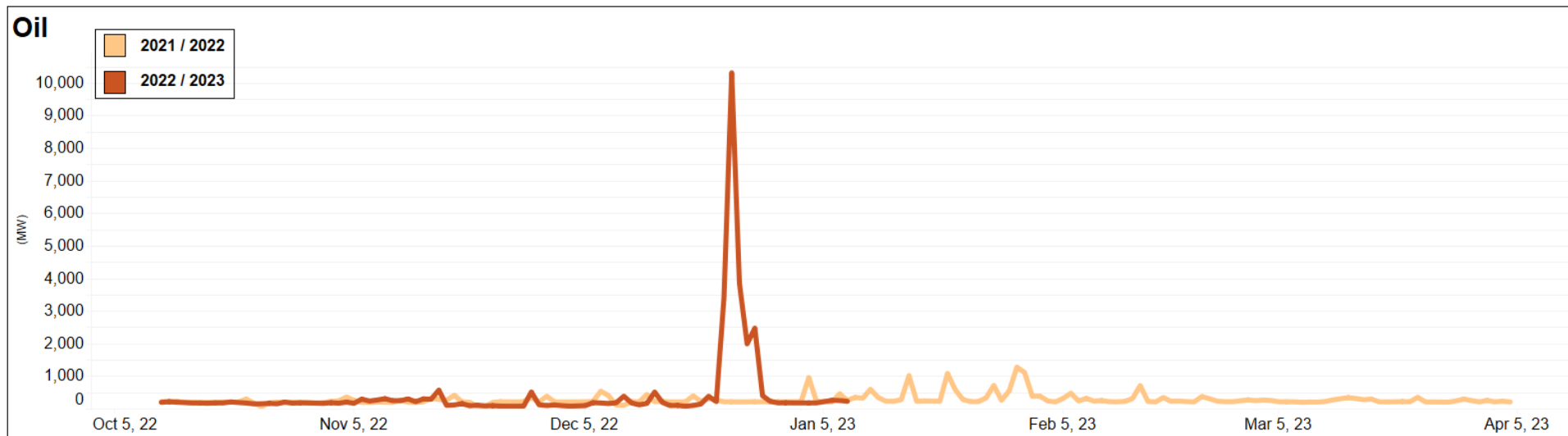
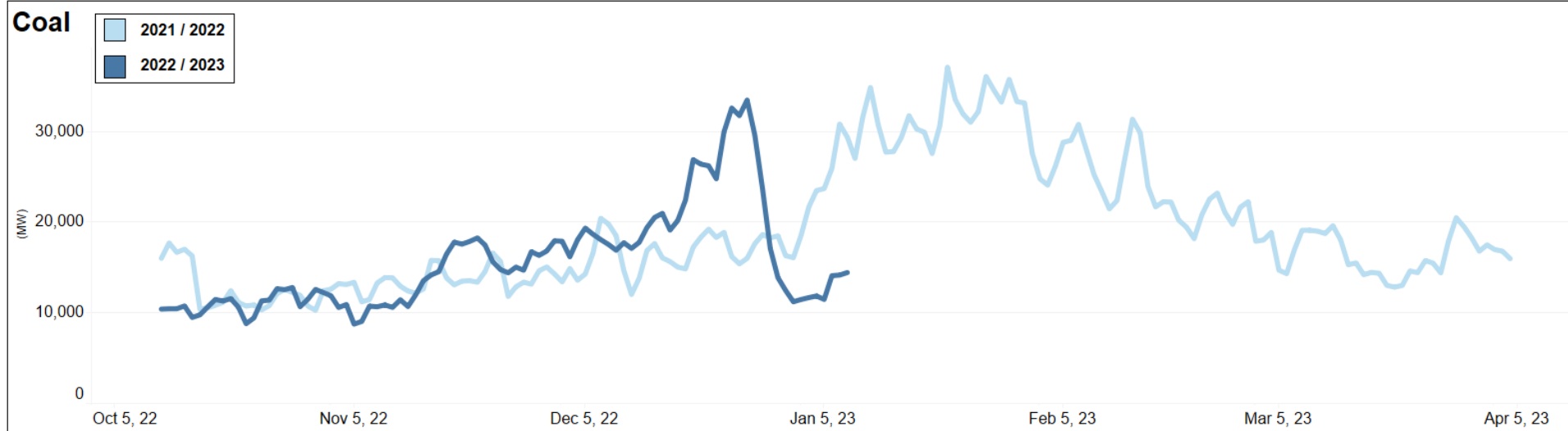
## Coal



## Oil







SME/Presenter:  
Brian J Fitzpatrick,  
[brian.Fitzpatrick@pjm.com](mailto:brian.Fitzpatrick@pjm.com)

## Fuel Supply Update



### Member Hotline

(610) 666 – 8980

(866) 400 – 8980

[custsvc@pjm.com](mailto:custsvc@pjm.com)

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