



# NORTH AMERICAN METALLURGICAL COAL REPORT

Q4 2023

COAL

## Most Domestic 2024 Contracts Settle at Low Point in Export Prices

Cleveland-Cliffs and its SunCoke contract ovens settled 2024 coal contracts early, catching the low point of global pricing. We estimate that Cliffs contracted below \$150/ton for premium coals, while later deals closed at prices +\$5/ton higher.

The future of the Granite City blast furnaces and the Gateway coke oven is in doubt as time is running out for SunCoke to close the proposed deal to preserve the blast furnaces to supply granulated pig iron to the Big River EAF mill. US Steel has now idled the last blast furnace at Granite City and it is unlikely to reopen in 2024 before the announced closing of the steel mill. Without Granite City, domestic demand for coking coal will drop by 1.0 mm tpy unless the excess coke can be exported to overseas markets.

US met coal production dropped in Q3, as many producers reported operating problems at deep mines and delays in development projects. We expect these mines to return to full production and that production will grow strongly in 2024 as large new projects reach full production (Leer South, Longview, Itmann, Berwind) and startup mines overcome delays.

Increased US coal supply has nowhere to go but overseas and export logistics are improving to meet the demand. Consol has debottlenecked its Baltimore Terminal and CSX is reporting improved rail operations and repaired the Curtis Bay terminal. McDuffie Terminal is running better in Mobile but will be challenged with growing production in Alabama. DTA will invest in mechanical repairs to restore lost capacity in Newport News. The weak link recently has been NS rail shipments through Lamberts Point, where vessel delays have grown. We expect NS to add crews and equipment to catch up.

Costs for most US met coal producers have increased over the last 2 years, due to wage and supply chain inflation and lower productivity. Except for the longwalls and some surface mines, most producers have cash costs in the range of \$100 - \$120 per ton.

### Annual Contract Settlement & Export Netback Prices by Delivery Year

| FOB Mine (\$/st)      | History   |           |           | Est. 2023 | Forecast  |           |           |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                       | 2020      | 2021      | 2022      |           | 2024      | 2025      | 2026      |
| Low Vol - Export      | \$ 84.98  | \$ 182.70 | \$ 268.75 | \$ 185.00 | \$ 167.25 | \$ 165.00 | \$ 166.25 |
| Low Vol - Contract    | \$ 105.00 | \$ 88.00  | \$ 200.00 | \$ 196.00 | \$ 155.00 | \$ 165.00 | \$ 165.00 |
| High Vol A - Export   | \$ 85.53  | \$ 174.28 | \$ 273.25 | \$ 187.25 | \$ 173.75 | \$ 165.00 | \$ 166.25 |
| High Vol A - Contract | \$ 105.00 | \$ 90.00  | \$ 195.00 | \$ 192.00 | \$ 150.00 | \$ 171.00 | \$ 165.00 |
| High Vol B - Export   | \$ 76.59  | \$ 144.72 | \$ 256.00 | \$ 168.00 | \$ 152.75 | \$ 147.50 | \$ 148.50 |
| High Vol B - Contract | \$ 92.00  | \$ 78.00  | \$ 150.00 | \$ 178.00 | \$ 135.00 | \$ 152.00 | \$ 147.00 |

### North American Steel Sector - Summary Table (million st)

|                            | History     |             | Forecast    |             |             |             |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                            | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        |
| <b>Steel</b>               |             |             |             |             |             |             |
| Consumption                | 132.8       | 127.1       | 123.1       | 130.6       | 137.8       | 141.5       |
| Net Imports                | 24.0        | 23.8        | 19.6        | 18.8        | 19.8        | 20.4        |
| Production                 | 108.8       | 103.3       | 103.5       | 111.9       | 118.0       | 121.1       |
| BOF                        | 34.6        | 32.6        | 33.0        | 32.0        | 31.9        | 30.5        |
| EAF                        | 74.2        | 70.8        | 70.5        | 79.9        | 86.1        | 90.7        |
| <b>BOF Production</b>      |             |             |             |             |             |             |
| USA                        | 26.1        | 24.7        | 24.9        | 23.8        | 23.7        | 23.7        |
| Canada                     | 8.6         | 7.9         | 8.1         | 8.2         | 8.2         | 6.7         |
| <b>Total</b>               | <b>34.6</b> | <b>32.6</b> | <b>33.0</b> | <b>32.0</b> | <b>31.9</b> | <b>30.5</b> |
| <b>Pig Iron Production</b> |             |             |             |             |             |             |
| USA                        | 24.5        | 23.2        | 23.7        | 22.9        | 22.8        | 22.8        |
| Canada                     | 6.8         | 6.3         | 6.5         | 6.6         | 6.6         | 5.4         |
| <b>Total</b>               | <b>31.4</b> | <b>29.5</b> | <b>30.2</b> | <b>29.5</b> | <b>29.4</b> | <b>28.2</b> |
| <b>Coke</b>                |             |             |             |             |             |             |
| Consumption                | 14.7        | 12.0        | 12.6        | 12.8        | 12.6        | 11.9        |
| Blast Furnaces             | 11.9        | 11.0        | 11.3        | 10.9        | 10.9        | 10.4        |
| USA                        | 9.2         | 8.5         | 8.7         | 8.3         | 8.3         | 8.3         |
| Canada                     | 2.7         | 2.5         | 2.6         | 2.6         | 2.6         | 2.1         |
| Other/Inventory            | 2.8         | 1.0         | 1.3         | 1.9         | 1.7         | 1.5         |
| Overseas Exports           | -           | 1.5         | 0.7         | 0.3         | 0.5         | 0.5         |
| Production                 | 14.7        | 13.5        | 13.3        | 13.1        | 13.1        | 12.4        |
| USA                        | 12.5        | 11.4        | 11.1        | 10.9        | 10.9        | 10.9        |
| Canada                     | 2.1         | 2.1         | 2.2         | 2.2         | 2.2         | 1.5         |
| <b>Coking Coal</b>         |             |             |             |             |             |             |
| NA Consumption             | 20.4        | 18.9        | 18.4        | 18.2        | 18.2        | 17.2        |
| USA                        | 17.5        | 16.0        | 15.5        | 15.2        | 15.2        | 15.2        |
| Canada                     | 2.8         | 2.9         | 2.9         | 3.0         | 3.0         | 2.0         |
| U.S. Net Exports*          | 42.4        | 42.5        | 49.0        | 54.0        | 55.4        | 58.2        |
| <b>U.S. CC Demand</b>      | <b>62.8</b> | <b>61.5</b> | <b>67.4</b> | <b>72.2</b> | <b>73.6</b> | <b>75.4</b> |
| <b>U.S. CC Production</b>  | <b>59.3</b> | <b>63.8</b> | <b>72.8</b> | <b>78.0</b> | <b>79.4</b> | <b>80.4</b> |
| Low-Vol                    | 20.2        | 21.2        | 21.8        | 22.7        | 23.0        | 23.2        |
| Mid-Vol                    | 7.9         | 6.8         | 9.7         | 9.7         | 9.6         | 9.6         |
| High-Vol A                 | 21.3        | 23.7        | 26.7        | 30.8        | 31.7        | 32.8        |
| High-Vol B                 | 8.7         | 10.6        | 13.1        | 13.4        | 13.5        | 13.2        |
| High-Vol C                 | 1.1         | 1.5         | 1.5         | 1.5         | 1.5         | 1.5         |
| <b>PCI Coal</b>            |             |             |             |             |             |             |
| Consumption                | 1.3         | 1.3         | 1.4         | 1.4         | 1.4         | 1.4         |
| Exports/Stock Changes      | 0.2         | 0.3         | 0.0         | (0.0)       | (0.0)       | (0.0)       |
| Production                 | 1.5         | 1.5         | 1.4         | 1.3         | 1.3         | 1.3         |

\* excludes exports to Canada

DOMESTIC MET COAL SETTLEMENTS

**Domestic Contracts for 2024 Settle Down \$25 - \$35 Per Ton**

Most domestic met coal contracts for 2024 have been settled with prices much lower than the 2023 level. Cliffs, SunCoke, and EES Coke settled early and locked in prices at the low point of the market, about \$145 - \$150 per ton for premium coals. Later contracts settled higher as the USEC spot market rallied.

Producers have reported average contract prices for 2024 slightly above these levels. Average prices were boosted by some carryover tonnage from 2023 and sales of specialty coals. However, most producers reported lower volume with lower coke production.

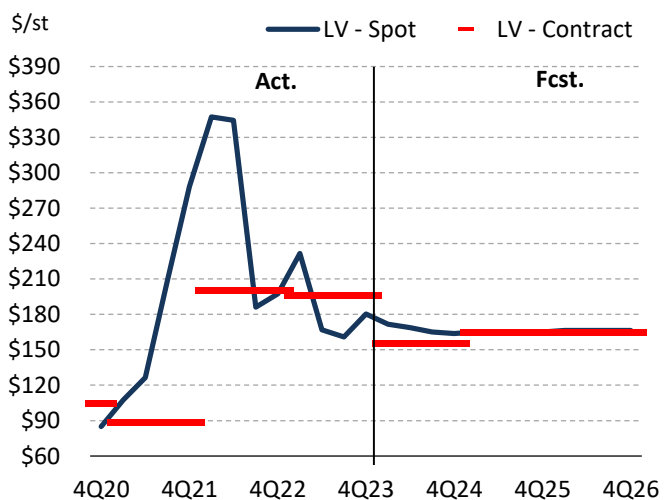
We expect Australian PLV prices to fall entering 2024 as export supply grows. However, the premium for Australian coal over US East Coast prices will narrow from the recent unusual high levels. The spread should return to the ocean freight differential to Asian markets. We forecast long-term PLV prices to be about \$250 per mt, well above the consensus of the analysts, driven by steady demand growth in Southeast Asia and limited supply.

Annual Contract Settlement & Export Netback Prices by Delivery Year

| FOB Mine (\$/st)      | History   |           |           | Est.      | Forecast  |           |           |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Delivery Year         | 2020      | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      |
| Low Vol - Export      | \$ 84.98  | \$ 182.70 | \$ 268.75 | \$ 185.00 | \$ 167.25 | \$ 165.00 | \$ 166.25 |
| Low Vol - Contract    | \$ 105.00 | \$ 88.00  | \$ 200.00 | \$ 196.00 | \$ 155.00 | \$ 165.00 | \$ 165.00 |
| High Vol A - Export   | \$ 85.53  | \$ 174.28 | \$ 273.25 | \$ 187.25 | \$ 173.75 | \$ 165.00 | \$ 166.25 |
| High Vol A - Contract | \$ 105.00 | \$ 90.00  | \$ 195.00 | \$ 192.00 | \$ 150.00 | \$ 171.00 | \$ 165.00 |
| High Vol B - Export   | \$ 76.59  | \$ 144.72 | \$ 256.00 | \$ 168.00 | \$ 152.75 | \$ 147.50 | \$ 148.50 |
| High Vol B - Contract | \$ 92.00  | \$ 78.00  | \$ 150.00 | \$ 178.00 | \$ 135.00 | \$ 152.00 | \$ 147.00 |

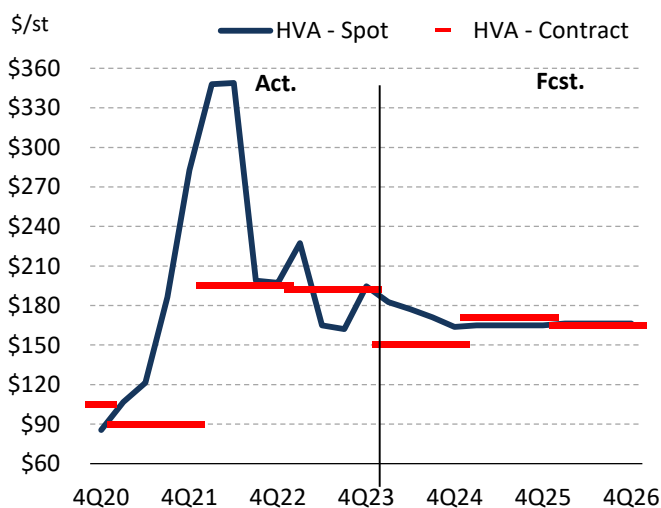
| Company        | 2021 Settlements |          | 2022 Settlements |           | 2023 Settlements |           | 2024 Settlements |           |
|----------------|------------------|----------|------------------|-----------|------------------|-----------|------------------|-----------|
|                | mm tons          | \$/ton   | mm tons          | \$/ton    | mm tons          | \$/ton    | mm tons          | \$/ton    |
| Alpha Met      | 4.3              | \$ 86.41 | 4.0              | \$ 192.29 | 4.9              | \$ 192.92 | 4.0              | \$ 161.91 |
| Arch Resources | 1.7              | \$ 90.07 | 0.4              | \$ 230.00 | 1.7              | \$ 183.57 | 1.5              | \$ 158.00 |
| Coronado       | 2.3              | \$ 79.00 | 2.4              | \$ 169.64 | 2.7              | \$ 182.34 | 2.8              | \$ 146.06 |
| Corsa          |                  |          |                  |           | 0.9              | \$ 179.00 | 0.7              | \$ 145.00 |
| Ramaco         | 1.1              | \$ 84.00 | 1.7              | \$ 196.00 | 1.2              | \$ 188.00 | 1.1              | \$ 169.00 |

**U.S. Low Vol met coal prices - FOB mine**



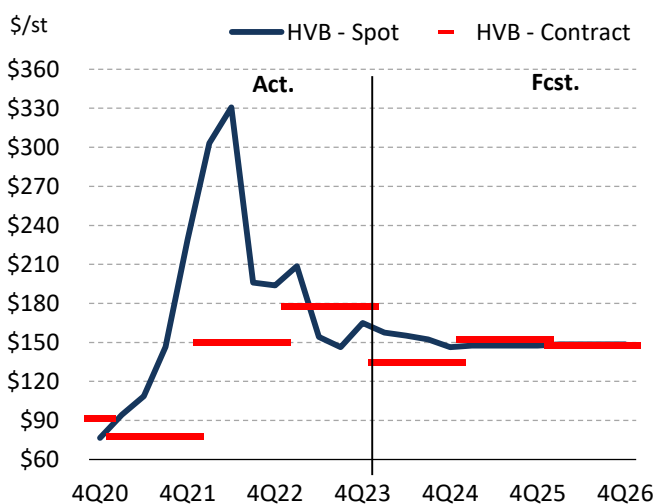
Note: Prices settle in Q3 for delivery the following year

**U.S. High Vol A met coal prices - FOB mine**



Note: Prices settle in Q3 for delivery the following year

**U.S. High Vol B met coal prices - FOB mine**



Note: Prices settle in Q3 for delivery the following year

**NORTH AMERICAN STEEL - OVERVIEW**

**Steel Demand Growth to Recover but EAF Steel is Replacing Blast Furnaces**

Steel prices have been volatile but are recovering with the end of the concern that the now-settled UAW strikes will reduce steel demand. We expect steel demand growth to rebound over the next few years but the increased supply is likely to come from the new Electric Arc Furnaces in the USA and Canada.

The major short-term issue is the fate of the blast furnaces at US Steel's Granite City mill. The "A" blast furnace has been indefinitely idled since 2020 and US Steel has announced it will close the steel mill complex at the end of 2024. The second blast furnace "B" was idled in September due to concern about steel demand.

Now idled, it appears unlikely that USS will reopen blast furnace "B" in 2024, just to close it again at the end of the year. If SunCoke does not close the deal proposed last year to purchase the blast furnaces to produce granulated pig iron to supply the Big River Steel EAF plant in Arkansas. While still being discussed, we no longer include this Granite City GPI project in our forecast.

In Canada, the projects to replace the blast furnaces at Algoma and Dofasco are forging ahead. Algoma expects to have its new EAF operating by the end of 2024 supplemented by reduced blast furnace operation for several years. Dofasco's project will be complete in 2028.

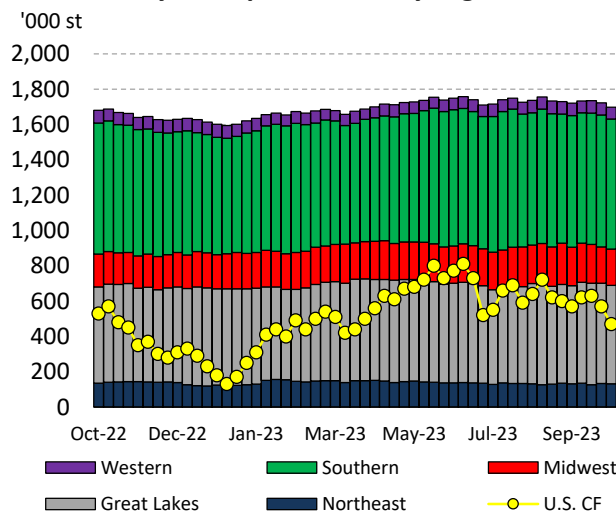
**North American Steel S-D Balance (million st)**

|                            | History     |             | Forecast    |             |             |             |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                            | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        |
| <b>Steel</b>               |             |             |             |             |             |             |
| Consumption                | 132.8       | 127.1       | 123.1       | 130.6       | 137.8       | 141.5       |
| Net Imports                | 24.0        | 23.8        | 19.6        | 18.8        | 19.8        | 20.4        |
| Production                 | 108.8       | 103.3       | 103.5       | 111.9       | 118.0       | 121.1       |
| BOF                        | 34.6        | 32.6        | 33.0        | 32.0        | 31.9        | 30.5        |
| EAF                        | 74.2        | 70.8        | 70.5        | 79.9        | 86.1        | 90.7        |
| <b>BOF Production</b>      |             |             |             |             |             |             |
| USA                        | 26.1        | 24.7        | 24.9        | 23.8        | 23.7        | 23.7        |
| Canada                     | 8.6         | 7.9         | 8.1         | 8.2         | 8.2         | 6.7         |
| <b>Total</b>               | <b>34.6</b> | <b>32.6</b> | <b>33.0</b> | <b>32.0</b> | <b>31.9</b> | <b>30.5</b> |
| <b>Pig Iron Production</b> |             |             |             |             |             |             |
| USA                        | 24.5        | 23.2        | 23.7        | 22.9        | 22.8        | 22.8        |
| Canada                     | 6.8         | 6.3         | 6.5         | 6.6         | 6.6         | 5.4         |
| <b>Total</b>               | <b>31.4</b> | <b>29.5</b> | <b>30.2</b> | <b>29.5</b> | <b>29.4</b> | <b>28.2</b> |

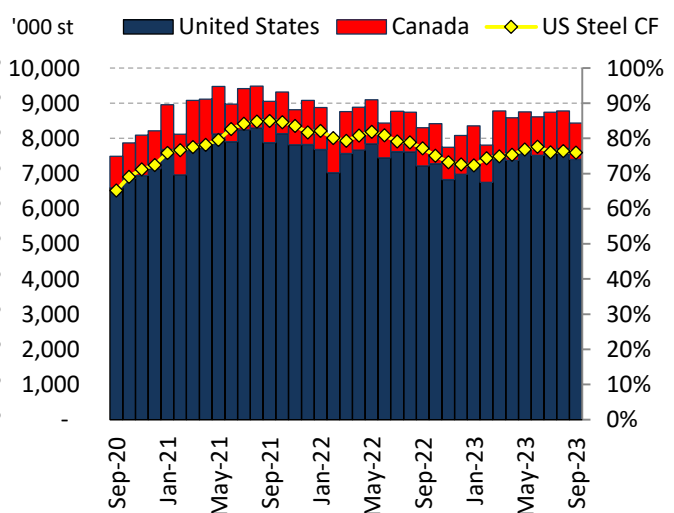
**Steel Imports ('000 st)**

|  | Aug-23       |              | Jul-23       |           | Aug-22     |               | Change from   |        | YTD Ending |  |
|--|--------------|--------------|--------------|-----------|------------|---------------|---------------|--------|------------|--|
|  | Aug-23       | Jul-23       | Aug-22       | Jul-23    | Aug-22     | Jul-23        | Aug-22        | Aug-23 | Aug-22     |  |
| Asia   | 955          | 751          | 869          | 27%       | 10%        | 6,037         | 7,499         |        |            |  |
| Europe/Africa                                  | 651          | 692          | 742          | -6%       | -12%       | 4,103         | 5,573         |        |            |  |
| Other Americas                                 | 607          | 705          | 701          | -14%      | -13%       | 5,602         | 5,704         |        |            |  |
| <b>Total</b>                                   | <b>2,213</b> | <b>2,148</b> | <b>2,311</b> | <b>3%</b> | <b>-4%</b> | <b>15,440</b> | <b>18,409</b> |        |            |  |
| <i>Excludes intra-regional trade</i>           |              |              |              |           |            |               |               |        |            |  |
| <b>Top 5 Countries</b>                         |              |              |              |           |            |               |               |        |            |  |
| Mexico   | 362          | 290          | 488          | 25%       | -26%       | 2,721         | 3,638         |        |            |  |
| Brazil   | 210          | 402          | 176          | -48%      | 19%        | 2,671         | 1,853         |        |            |  |
| South Korea                                    | 307          | 227          | 230          | 36%       | 34%        | 1,788         | 1,988         |        |            |  |
| China  | 148          | 87           | 156          | 71%       | -5%        | 1,034         | 1,024         |        |            |  |
| Germany  | 90           | 105          | 115          | -14%      | -22%       | 718           | 797           |        |            |  |
| <i>Countries ranked by current YTD tonnage</i> |              |              |              |           |            |               |               |        |            |  |
| <b>Intra-Regional Trade</b>                    |              |              |              |           |            |               |               |        |            |  |
| US --> Canada                                  | 534          | 516          | 571          | 3%        | -7%        | 4,505         | 4,561         |        |            |  |
| Canada --> US                                  | 367          | 327          | 300          | 12%       | 22%        | 2,819         | 2,502         |        |            |  |

**U.S. weekly steel production by region**

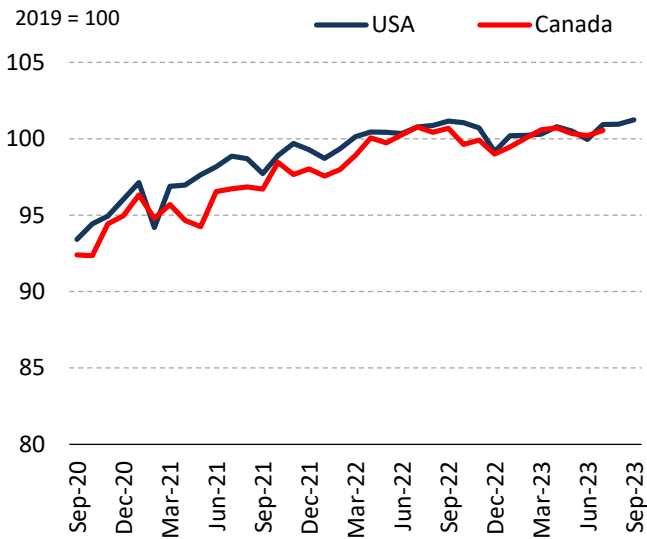


**Monthly raw steel production**

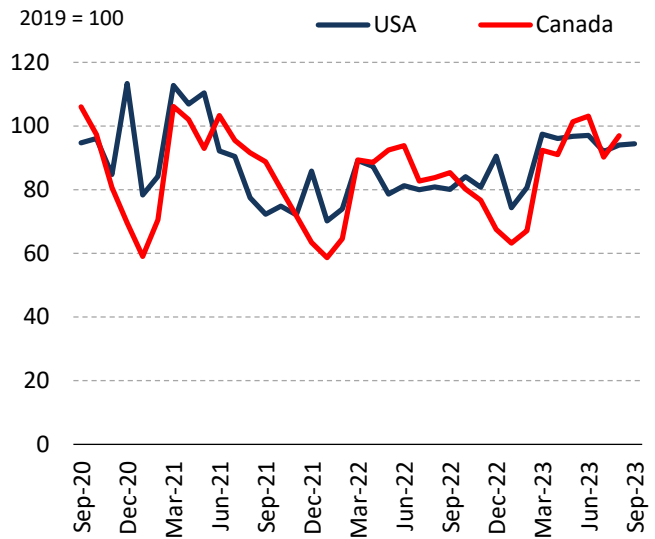


NORTH AMERICAN STEEL - DEMAND INDICES & PRICES

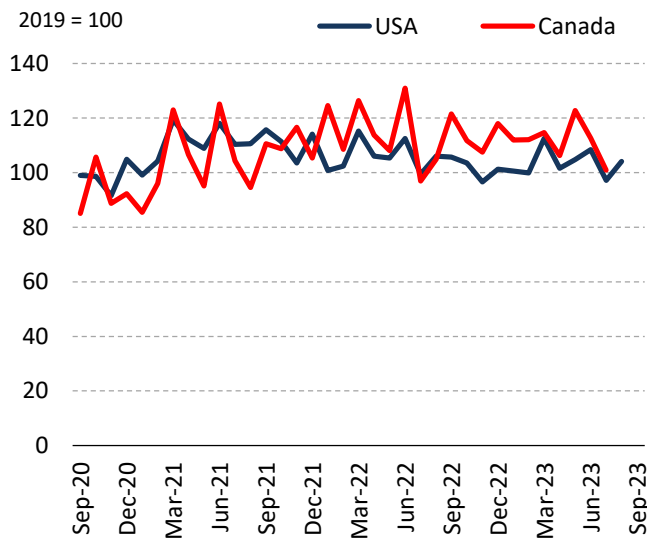
Industrial production index (seas-adj)



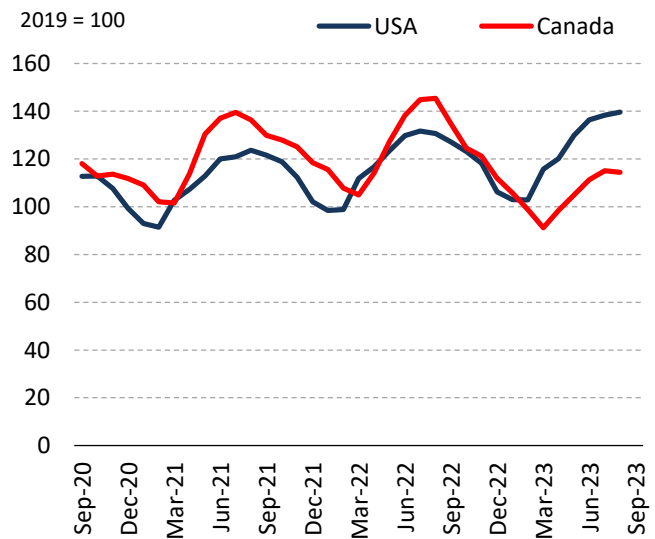
New motor vehicles sales index



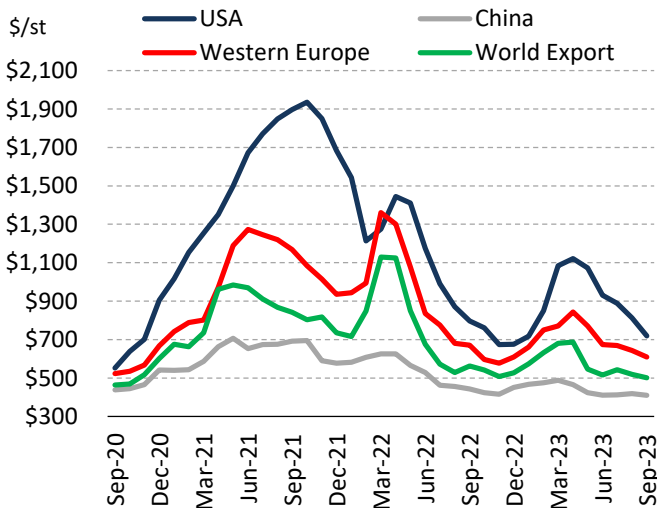
Value of new order - machinery index



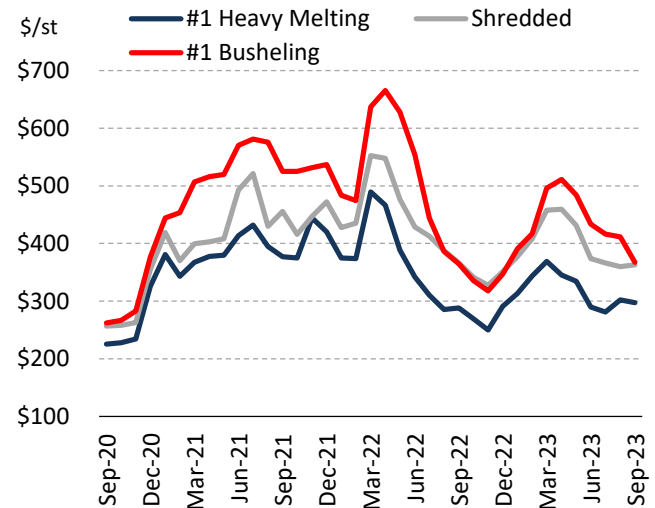
Construction spending index



Hot-rolled band prices



U.S. scrap metal prices



Source: SteelBenchmarker

Source: SteelBenchmarker

**NORTH AMERICAN COKE - OVERVIEW**

**North American Coke Production will Rely on Overseas Exports**

North American furnace coke production will fall in 2023 with the closure of the 3 oldest batteries at Clairton in Q2. The remaining coke ovens are running hard but coke demand is declining with the idling of the Granite City blast furnace and lower coke rates at Cleveland-Cliffs.

The excess coke supply has moved into the overseas export market and the foundry coke market (replacing coke imports). SunCoke is exporting coke from the Haverhill 1 plant and has completed the investment at Jewell Coke to produce 100% foundry coke.

The future of Gateway Coke is uncertain with the idling of the Granite City blast furnace. The all-output contract with US Steel runs through the end of 2024 and will not be renewed. For the time being, Gateway Coke will be shipped to Gary, displacing Clairton coke demand. After 2024, if Granite City is not converted to GPI, Gateway will have to shift to the export market or it will close.

Coke production in Canada is set to fall at Algoma, where the coke ovens have had operating problems and little investment as they are likely to close in 2026. The blast furnace will reduce operations in 2026 as the EAF ramps up and Algoma is likely to switch to purchased coke for the limited demand.

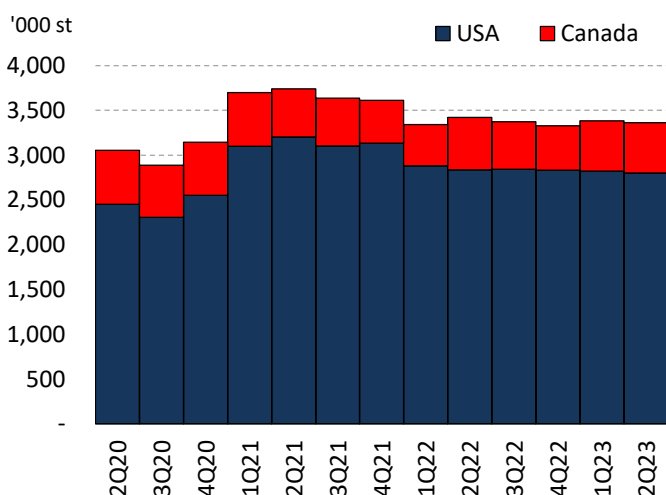
**North American Coke S-D Balance (million st)**

|                         | History     |             | Forecast    |             |             |             |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                         | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        |
| <b>Consumption</b>      | <b>14.7</b> | <b>12.0</b> | <b>12.6</b> | <b>12.8</b> | <b>12.6</b> | <b>11.9</b> |
| Blast Furnaces          | 11.9        | 11.0        | 11.3        | 10.9        | 10.9        | 10.4        |
| USA                     | 9.2         | 8.5         | 8.7         | 8.3         | 8.3         | 8.3         |
| Canada                  | 2.7         | 2.5         | 2.6         | 2.6         | 2.6         | 2.1         |
| Foundry/Other           | 2.8         | 1.0         | 1.3         | 1.9         | 1.7         | 1.5         |
| <b>Overseas Exports</b> | <b>-</b>    | <b>1.5</b>  | <b>0.7</b>  | <b>0.3</b>  | <b>0.5</b>  | <b>0.5</b>  |
| <b>Production</b>       | <b>14.7</b> | <b>13.5</b> | <b>13.3</b> | <b>13.1</b> | <b>13.1</b> | <b>12.4</b> |
| USA                     | 12.5        | 11.4        | 11.1        | 10.9        | 10.9        | 10.9        |
| Canada                  | 2.1         | 2.1         | 2.2         | 2.2         | 2.2         | 1.5         |

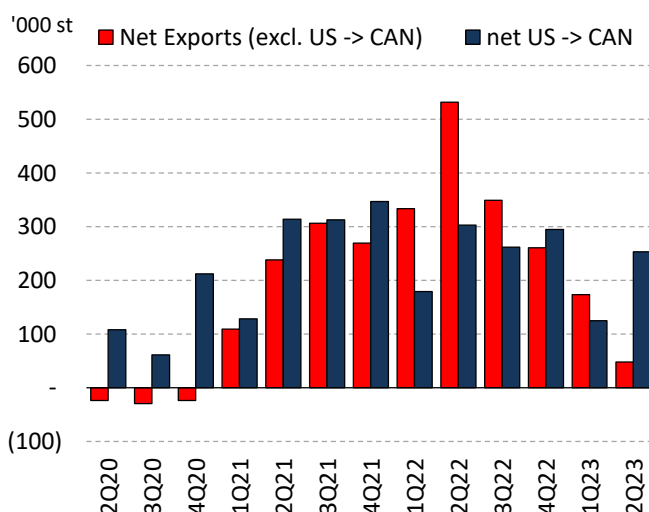
**North American Blast Furnace Coke Consumption ('000 st)**

| Company             | Plant            | ST | 2019          | 2020          | 2021          | 2022          |
|---------------------|------------------|----|---------------|---------------|---------------|---------------|
| Cliffs              | Dearborn         | MI | 706           | 549           | 750           | 668           |
| Cliffs              | Middletown       | OH | 811           | 805           | 730           | 752           |
| Cliffs              | Burns Harbor     | IN | 1,539         | 1,461         | 1,365         | 1,302         |
| Cliffs              | Cleveland        | OH | 1,144         | 609           | 957           | 794           |
| Cliffs              | Indiana Harbor   | IN | 2,038         | 1,655         | 1,660         | 1,395         |
| US Steel            | Gary             | IN | 1,742         | 1,745         | 2,231         | 2,236         |
| US Steel            | Granite City     | IL | 881           | 690           | 593           | 602           |
| US Steel            | Great Lakes      | MI | 671           | 126           | -             | -             |
| US Steel            | Mon Valley       | PA | 850           | 900           | 870           | 779           |
| <b>USA Total</b>    |                  |    | <b>10,383</b> | <b>8,540</b>  | <b>9,155</b>  | <b>8,527</b>  |
| ArcelorMittal       | Dofasco          | ON | 914           | 760           | 715           | 716           |
| Algoma Steel        | Sault Ste. Marie | ON | 947           | 891           | 1,011         | 877           |
| Stelco              | Lake Erie        | ON | 875           | 641           | 978           | 891           |
| <b>Canada Total</b> |                  |    | <b>2,736</b>  | <b>2,291</b>  | <b>2,704</b>  | <b>2,484</b>  |
| <b>Grand Total</b>  |                  |    | <b>13,119</b> | <b>10,832</b> | <b>11,859</b> | <b>11,011</b> |

**Quarterly coke production**

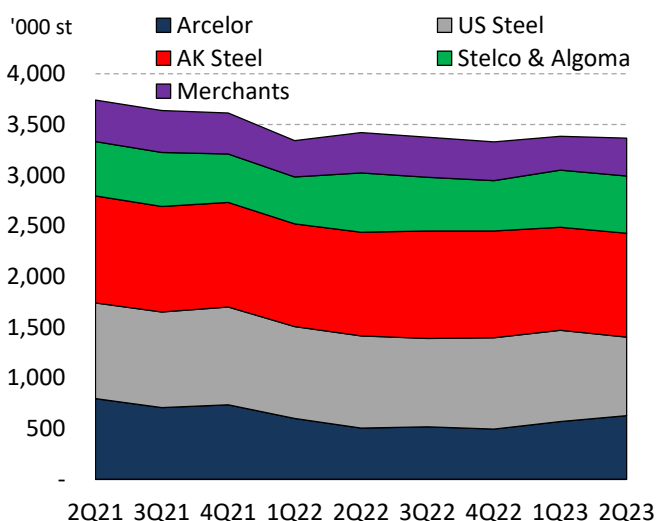


**Quarterly coke trade flows**

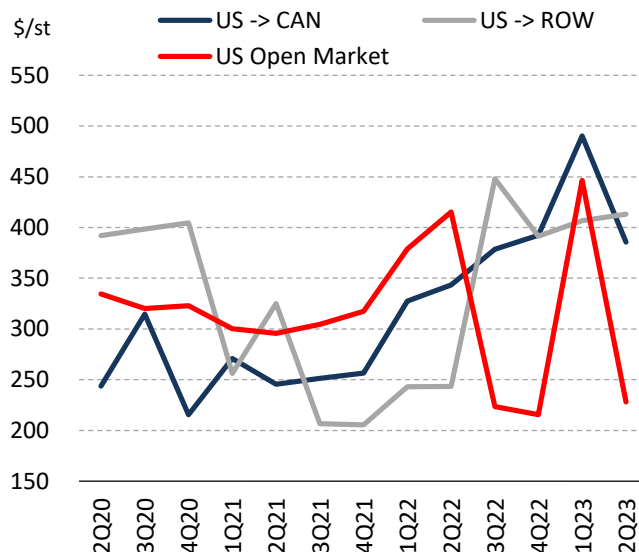


NORTH AMERICAN COKE - OVERVIEW (CONT'D)

Coke production by customer



Coke prices



North American Coke Production ('000 st)

| Company               | Coke Oven        | State | 2020          | 2021          | 2022          | '23 YTD      | 2Q21         | 3Q21         | 4Q21         | 1Q22         | 2Q22         | 3Q22         | 4Q22         | 1Q23         | 2Q23         |
|-----------------------|------------------|-------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Cliffs</b>         |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| Cliffs                | Burns Harbor     | IN    | 1,463         | 1,721         | 1,454         | 808          | 440          | 417          | 426          | 373          | 352          | 371          | 357          | 399          | 409          |
| Cliffs                | Warren           | OH    | 390           | 334           | 377           | 251          | 79           | 74           | 102          | 81           | 99           | 100          | 98           | 106          | 145          |
| Cliffs                | Monessen         | PA    | 45            | 95            | 190           | 143          | -            | 24           | 71           | 46           | 55           | 49           | 41           | 66           | 77           |
| Cliffs                | Middletown       | OH    | 192           | 255           | -             | -            | 112          | 42           | -            | -            | -            | -            | -            | -            | -            |
| Cliffs                | Mountain State   | WV    | 555           | 612           | 100           | -            | 165          | 152          | 139          | 100          | -            | -            | -            | -            | -            |
| <b>Cliffs Total</b>   |                  |       | <b>2,646</b>  | <b>3,016</b>  | <b>2,122</b>  | <b>1,201</b> | <b>796</b>   | <b>709</b>   | <b>737</b>   | <b>600</b>   | <b>506</b>   | <b>520</b>   | <b>496</b>   | <b>571</b>   | <b>630</b>   |
| <b>US Steel</b>       |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| US Steel              | Clairton         | PA    | 2,557         | 3,732         | 3,585         | 1,672        | 945          | 942          | 963          | 906          | 908          | 870          | 901          | 899          | 773          |
| <b>US Steel Total</b> |                  |       | <b>2,557</b>  | <b>3,732</b>  | <b>3,585</b>  | <b>1,672</b> | <b>945</b>   | <b>942</b>   | <b>963</b>   | <b>906</b>   | <b>908</b>   | <b>870</b>   | <b>901</b>   | <b>899</b>   | <b>773</b>   |
| <b>Canada</b>         |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| ArcelorMittal         | Dofasco          | ON    | 944           | 785           | 478           | 281          | 215          | 180          | 122          | 89           | 157          | 112          | 120          | 140          | 141          |
| Algoma                | Sault Ste. Marie | ON    | 488           | 730           | 966           | 360          | 193          | 181          | 207          | 199          | 290          | 240          | 236          | 180          | 180          |
| Stelco                | Hamilton         | ON    | 663           | 452           | 270           | 203          | 113          | 118          | 101          | 87           | 76           | 51           | 56           | 101          | 101          |
| Stelco                | Lake Erie        | ON    | 291           | 178           | 359           | 281          | 15           | 54           | 49           | 87           | 61           | 126          | 85           | 140          | 141          |
| <b>Canada Total</b>   |                  |       | <b>2,386</b>  | <b>2,145</b>  | <b>2,073</b>  | <b>1,125</b> | <b>536</b>   | <b>533</b>   | <b>479</b>   | <b>461</b>   | <b>585</b>   | <b>530</b>   | <b>497</b>   | <b>561</b>   | <b>564</b>   |
| <b>Sun Coke</b>       |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| Sun Coke              | Gateway          | IL    | 618           | 678           | 673           | 332          | 173          | 174          | 169          | 158          | 170          | 172          | 173          | 161          | 171          |
| Sun Coke              | Indiana Harbor   | IN    | 1,171         | 1,216         | 1,208         | 613          | 303          | 298          | 309          | 296          | 295          | 306          | 311          | 309          | 304          |
| Sun Coke              | Middletown Coke  | OH    | 551           | 597           | 590           | 280          | 157          | 142          | 142          | 152          | 131          | 151          | 156          | 147          | 133          |
| Sun Coke              | Haverhill 1      | OH    | 447           | 552           | 536           | 268          | 141          | 140          | 138          | 129          | 135          | 139          | 134          | 132          | 136          |
| Sun Coke              | Haverhill 2      | OH    | 447           | 552           | 536           | 268          | 141          | 140          | 138          | 129          | 135          | 139          | 134          | 132          | 136          |
| Sun Coke              | Jewell           | VA    | 607           | 566           | 607           | 281          | 140          | 147          | 136          | 151          | 156          | 154          | 145          | 136          | 145          |
| <b>Sun Coke Total</b> |                  |       | <b>3,841</b>  | <b>4,161</b>  | <b>4,150</b>  | <b>2,042</b> | <b>1,054</b> | <b>1,041</b> | <b>1,031</b> | <b>1,015</b> | <b>1,022</b> | <b>1,060</b> | <b>1,052</b> | <b>1,017</b> | <b>1,025</b> |
| <b>Merchant</b>       |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| DTE                   | EES Coke         | MI    | 655           | 1,019         | 1,010         | 492          | 258          | 258          | 261          | 220          | 261          | 264          | 265          | 227          | 265          |
| Drummond              | ABC Coke         | AL    | 600           | 550           | 525           | 216          | 138          | 138          | 141          | 140          | 138          | 130          | 118          | 107          | 108          |
| Bluestone Coke        | Sloss            | AL    | 55            | 61            | -             | -            | 14           | 16           | -            | -            | -            | -            | -            | -            | -            |
| Erie Coke             | Erie             | PA    | -             | -             | -             | -            | -            | -            | -            | -            | -            | -            | -            | -            | -            |
| Tonawanda Coke        | Harriet          | NY    | -             | -             | -             | -            | -            | -            | -            | -            | -            | -            | -            | -            | -            |
| <b>Merchant Total</b> |                  |       | <b>1,310</b>  | <b>1,630</b>  | <b>1,535</b>  | <b>707</b>   | <b>410</b>   | <b>412</b>   | <b>402</b>   | <b>360</b>   | <b>400</b>   | <b>393</b>   | <b>383</b>   | <b>334</b>   | <b>373</b>   |
| <b>Grand Total</b>    |                  |       | <b>12,740</b> | <b>14,685</b> | <b>13,465</b> | <b>6,747</b> | <b>3,741</b> | <b>3,637</b> | <b>3,612</b> | <b>3,342</b> | <b>3,421</b> | <b>3,373</b> | <b>3,329</b> | <b>3,383</b> | <b>3,364</b> |

NORTH AMERICAN METALLURGICAL COAL - OVERVIEW

US Met Coal Production Slipped in Q3 but Growth will Continue

The strong production growth in H1 2023 paused in Q3 as most of the major producers reported operating problems and delays. However, we expect supply to recover in Q4 and grow strongly in 2024 as many growth projects come to fruition.

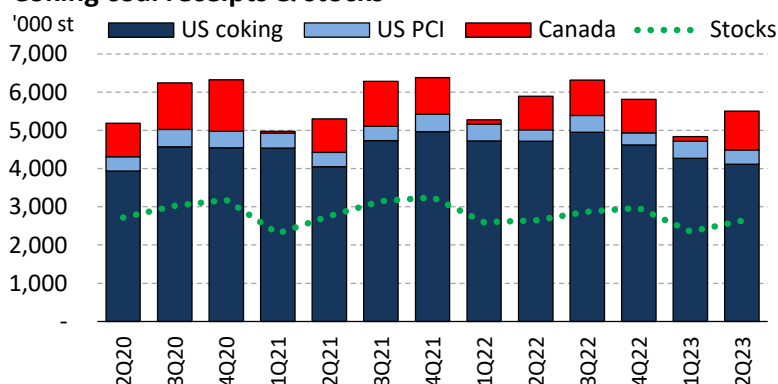
The largest new projects are the longwall mines at Leer South (to ramp up to full output in 2024), Allegheny Met (in CM development with longwall operation in 2024), and Blue Creek (first coal in 2024 and longwall in 2026). Major new CM projects include Consol-Itmann and Ramaco-Berwind, both ramping up to full production in 2024. Alpha is bringing on new high-vol mines at Rolling Thunder and Elk Run, while starting development at the Kingston-Sewell project. Strong growth has come from surface/HWM projects in CAPP, including Reflectance Energy - West Gilbert, Alpha - Republic, and new entrants Bens Creek and ESM - Sundial.

Increased production from surface mines also increases the output of semi-soft and thermal coal from these mines - targeted to the export market.

North American Metallurgical Coal S-D Balance (million st)

|                          | History     |             | Forecast    |             |             |             |
|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                          | 2021        | 2022        | 2023        | 2024        | 2025        | 2026        |
| <b>Coking Coal</b>       | 17.5        | 16.0        | 15.5        | 15.2        | 15.2        | 15.2        |
| <b>Consumption</b>       | <b>20.4</b> | <b>18.9</b> | <b>18.4</b> | <b>18.2</b> | <b>18.2</b> | <b>17.2</b> |
| Cliffs                   | 4.2         | 3.0         | 3.2         | 3.2         | 3.2         | 3.2         |
| US Steel                 | 5.2         | 5.2         | 4.7         | 4.6         | 4.6         | 4.6         |
| Canada                   | 2.8         | 2.9         | 2.9         | 3.0         | 3.0         | 2.0         |
| Sun Coke                 | 6.0         | 5.9         | 5.7         | 5.6         | 5.6         | 5.6         |
| DTE                      | 1.4         | 1.4         | 1.4         | 1.4         | 1.4         | 1.4         |
| ABC Coke                 | 0.7         | 0.6         | 0.5         | 0.5         | 0.5         | 0.5         |
| U.S. Overseas Exports    | 43.1        | 43.2        | 49.6        | 54.6        | 56.0        | 58.8        |
| U.S. Imports             | 0.6         | 0.6         | 0.6         | 0.6         | 0.6         | 0.6         |
| Thermal By-product       | 0.5         | 3.0         | 4.0         | 4.0         | 4.0         | 4.0         |
| Prod. (Shortage)/Surplus | (4.0)       | (0.6)       | 1.5         | 1.9         | 1.8         | 1.0         |
| <b>Production</b>        | <b>59.3</b> | <b>63.8</b> | <b>72.8</b> | <b>78.0</b> | <b>79.4</b> | <b>80.4</b> |
| Low-Vol                  | 20.2        | 21.2        | 21.8        | 22.7        | 23.0        | 23.2        |
| Mid-Vol                  | 7.9         | 6.8         | 9.7         | 9.7         | 9.6         | 9.6         |
| High-Vol A               | 21.3        | 23.7        | 26.7        | 30.8        | 31.7        | 32.8        |
| High-Vol B               | 8.7         | 10.6        | 13.1        | 13.4        | 13.5        | 13.2        |
| High-Vol C               | 1.1         | 1.5         | 1.5         | 1.5         | 1.5         | 1.5         |
| <b>PCI Coal</b>          |             |             |             |             |             |             |
| Consumption              | 1.3         | 1.3         | 1.4         | 1.4         | 1.4         | 1.4         |
| Stock Changes/Other      | 0.2         | 0.3         | 0.0         | (0.0)       | (0.0)       | (0.0)       |
| Production               | 1.5         | 1.5         | 1.4         | 1.3         | 1.3         | 1.3         |

Coking coal receipts & stocks



Coking Coal Consumption ('000 st)

| Company               | Coke Oven        | State | 2020          | 2021          | 2022          | '23 YTD      | 2Q21         | 3Q21         | 4Q21         | 1Q22         | 2Q22         | 3Q22         | 4Q22         | 1Q23         | 2Q23         |
|-----------------------|------------------|-------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Cliffs</b>         |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| Cliffs                | Burns Harbor     | IN    | 2,053         | 2,419         | 2,039         | 1,119        | 611          | 588          | 603          | 544          | 488          | 509          | 499          | 564          | 554          |
| Cliffs                | Warren           | OH    | 555           | 475           | 533           | 350          | 111          | 105          | 145          | 119          | 139          | 139          | 137          | 152          | 198          |
| Cliffs                | Monessen         | PA    | 65            | 129           | 274           | 203          | -            | 34           | 96           | 66           | 79           | 70           | 59           | 95           | 109          |
| Cliffs                | Middletown       | OH    | 273           | 362           | -             | -            | 157          | 59           | -            | -            | -            | -            | -            | -            | -            |
| Cliffs                | Mountain State   | WV    | 639           | 811           | 153           | -            | 220          | 207          | 180          | 153          | -            | -            | -            | -            | -            |
| <b>Cliffs Total</b>   |                  |       | <b>3,584</b>  | <b>4,196</b>  | <b>2,999</b>  | <b>1,672</b> | <b>1,100</b> | <b>993</b>   | <b>1,024</b> | <b>881</b>   | <b>705</b>   | <b>718</b>   | <b>695</b>   | <b>811</b>   | <b>861</b>   |
| <b>US Steel</b>       |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| US Steel              | Clairton         | PA    | 3,602         | 5,163         | 5,153         | 2,387        | 1,324        | 1,312        | 1,304        | 1,300        | 1,305        | 1,246        | 1,301        | 1,295        | 1,092        |
| <b>US Steel Total</b> |                  |       | <b>3,602</b>  | <b>5,163</b>  | <b>5,153</b>  | <b>2,387</b> | <b>1,324</b> | <b>1,312</b> | <b>1,304</b> | <b>1,300</b> | <b>1,305</b> | <b>1,246</b> | <b>1,301</b> | <b>1,295</b> | <b>1,092</b> |
| <b>Canada</b>         |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| ArcelorMittal         | Dofasco          | ON    | 1,273         | 1,035         | 669           | 361          | 284          | 228          | 170          | 120          | 217          | 153          | 179          | 182          | 179          |
| Algoma                | Sault Ste. Marie | ON    | 659           | 969           | 1,350         | 462          | 255          | 229          | 289          | 269          | 400          | 328          | 353          | 233          | 229          |
| Stelco                | Hamilton         | ON    | 896           | 597           | 376           | 260          | 149          | 150          | 142          | 117          | 105          | 69           | 84           | 131          | 129          |
| Stelco                | Lake Erie        | ON    | 394           | 236           | 501           | 361          | 20           | 69           | 69           | 117          | 84           | 172          | 127          | 182          | 179          |
| <b>Canada Total</b>   |                  |       | <b>3,221</b>  | <b>2,837</b>  | <b>2,895</b>  | <b>1,444</b> | <b>708</b>   | <b>675</b>   | <b>670</b>   | <b>623</b>   | <b>806</b>   | <b>723</b>   | <b>743</b>   | <b>728</b>   | <b>716</b>   |
| <b>Sun Coke</b>       |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| Sun Coke              | Gateway          | IL    | 926           | 1,013         | 987           | 484          | 254          | 254          | 248          | 242          | 250          | 247          | 248          | 242          | 242          |
| Sun Coke              | Indiana Harbor   | IN    | 1,645         | 1,710         | 1,694         | 849          | 421          | 420          | 438          | 431          | 408          | 420          | 434          | 437          | 413          |
| Sun Coke              | Middletown Coke  | OH    | 784           | 849           | 835           | 392          | 220          | 201          | 202          | 223          | 184          | 209          | 219          | 210          | 182          |
| Sun Coke              | Haverhill 1      | OH    | 636           | 785           | 758           | 375          | 197          | 199          | 196          | 190          | 189          | 192          | 187          | 189          | 186          |
| Sun Coke              | Haverhill 2      | OH    | 636           | 785           | 758           | 375          | 197          | 199          | 196          | 190          | 189          | 192          | 187          | 189          | 186          |
| Sun Coke              | Jewell           | VA    | 896           | 887           | 830           | 409          | 217          | 229          | 225          | 204          | 215          | 209          | 203          | 200          | 209          |
| <b>Sun Coke Total</b> |                  |       | <b>5,524</b>  | <b>6,028</b>  | <b>5,863</b>  | <b>2,884</b> | <b>1,506</b> | <b>1,502</b> | <b>1,505</b> | <b>1,479</b> | <b>1,435</b> | <b>1,470</b> | <b>1,478</b> | <b>1,465</b> | <b>1,419</b> |
| <b>Merchant</b>       |                  |       |               |               |               |              |              |              |              |              |              |              |              |              |              |
| DTE                   | EES Coke         | MI    | 933           | 1,449         | 1,428         | 687          | 362          | 366          | 372          | 324          | 366          | 366          | 372          | 324          | 362          |
| Drummond              | ABC Coke         | AL    | 705           | 678           | 566           | 248          | 178          | 172          | 167          | 169          | 137          | 132          | 129          | 130          | 118          |
| Bluestone Coke        | Sloss            | AL    | 65            | 75            | -             | -            | 19           | 20           | -            | -            | -            | -            | -            | -            | -            |
| Erie Coke             | Erie             | PA    | -             | -             | -             | -            | -            | -            | -            | -            | -            | -            | -            | -            | -            |
| Tonawanda Coke        | Harriet          | NY    | -             | -             | -             | -            | -            | -            | -            | -            | -            | -            | -            | -            | -            |
| <b>Merchant Total</b> |                  |       | <b>1,703</b>  | <b>2,201</b>  | <b>1,994</b>  | <b>935</b>   | <b>559</b>   | <b>558</b>   | <b>539</b>   | <b>493</b>   | <b>503</b>   | <b>498</b>   | <b>501</b>   | <b>454</b>   | <b>481</b>   |
| <b>Grand Total</b>    |                  |       | <b>17,635</b> | <b>20,426</b> | <b>18,905</b> | <b>9,322</b> | <b>5,197</b> | <b>5,041</b> | <b>5,042</b> | <b>4,776</b> | <b>4,755</b> | <b>4,655</b> | <b>4,719</b> | <b>4,753</b> | <b>4,569</b> |

U.S. METALLURGICAL COAL TRADE - OVERVIEW

Met Coal Export Growth will Test Rail and Port Capacity

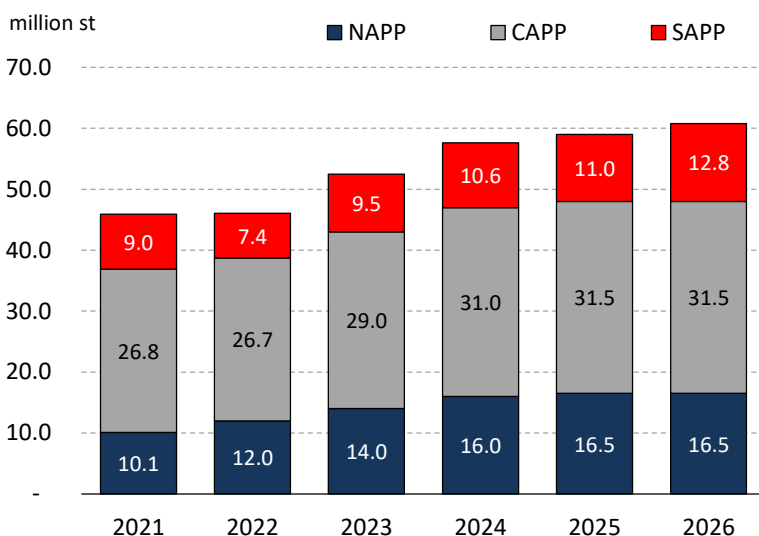
Strong met coal production growth is being pushed into the export market as domestic demand is flat. However, limited port capacity and railroad shipment delays have caused slow vessel loading and large demurrage charges for exports. CSX rail performance improved in Q3, according to shippers, but Norfolk Southern continues to experience significant delays through Lamberts Point.

Baltimore met coal exports will be supported by the debottlenecking of the Consol Marine Terminal to increase capacity from 15 to 20 mm tpy. This expansion, plus 10 mm tpy at Curtis Bay, will accommodate the supply from the 3 longwall mines in Northern WV (10-12 mm tpy) plus 2 mm tpy central PA met coal as well as 18 mm tpy from the Bailey complex (2 mm tpy crossover met) and ACNR Pitt seam thermal coal.

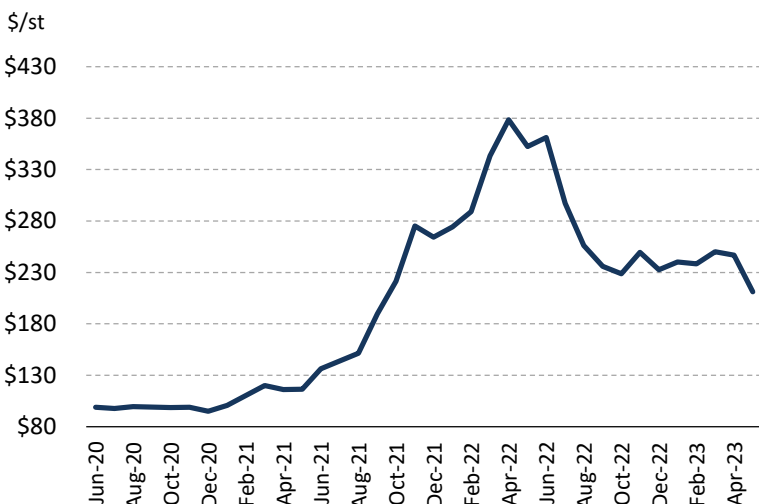
Hampton Roads met exports have been plagued by NS rail service delays and Equipment problems at DTA. While NS exports are up 9% YTD, they are still 27% below the same period in 2018. Alpha will invest in a multi-year program at DTA to restore export capacity to the 16 mm tpy last seen in 2013.

Mobile export problems at McDuffie terminal appear to be solved for now. Exports have surged as Warrior returned to full production at Blue Creek #4 & #7 and strong output at Oak Grove. Export growth will continue as Shoal Creek returns to normal and the new Blue Creek longwall comes into operation.

U.S. coking coal exports (incl. Canada)



U.S. coking coal export prices - FOB Norfolk



Based on U.S. Trade Census data

U.S. Metallurgical Coal Exports: by U.S. Port and Destination ('000 st) - 5 Months 2023 Data

|                          | 2020          | 2021          | 2022          | 2023          | 2Q21          | 3Q21          | 4Q21          | 1Q22          | 2Q22          | 3Q22          | 4Q22          | 1Q23          | 2Q23         |
|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| <b>Baltimore</b>         | <b>6,324</b>  | <b>6,862</b>  | <b>7,789</b>  | <b>4,053</b>  | <b>1,538</b>  | <b>1,810</b>  | <b>1,764</b>  | <b>1,812</b>  | <b>2,404</b>  | <b>1,546</b>  | <b>2,027</b>  | <b>2,643</b>  | <b>1,411</b> |
| Europe/Africa            | 2,125         | 2,098         | 1,875         | 887           | 459           | 502           | 638           | 517           | 580           | 415           | 362           | 467           | 420          |
| Other Americas           | 1,169         | 752           | 1,441         | 559           | 194           | 184           | 152           | 327           | 423           | 335           | 357           | 368           | 191          |
| Asia                     | 3,030         | 4,011         | 4,473         | 2,554         | 884           | 1,124         | 973           | 968           | 1,401         | 795           | 1,308         | 1,808         | 746          |
| <b>Hampton Roads</b>     | <b>23,692</b> | <b>27,199</b> | <b>27,649</b> | <b>12,121</b> | <b>6,919</b>  | <b>6,772</b>  | <b>7,382</b>  | <b>6,926</b>  | <b>7,471</b>  | <b>6,952</b>  | <b>6,300</b>  | <b>6,973</b>  | <b>5,148</b> |
| Europe/Africa            | 12,408        | 11,358        | 13,090        | 5,000         | 3,184         | 2,251         | 2,916         | 3,409         | 3,018         | 3,490         | 3,173         | 2,997         | 2,003        |
| Other Americas           | 4,492         | 4,528         | 3,760         | 2,062         | 1,311         | 1,023         | 946           | 942           | 969           | 1,099         | 750           | 1,145         | 917          |
| Asia                     | 6,792         | 11,312        | 10,799        | 5,059         | 2,423         | 3,498         | 3,519         | 2,575         | 3,484         | 2,363         | 2,377         | 2,832         | 2,227        |
| <b>Mobile</b>            | <b>8,955</b>  | <b>8,007</b>  | <b>7,366</b>  | <b>3,485</b>  | <b>2,218</b>  | <b>1,430</b>  | <b>1,805</b>  | <b>1,484</b>  | <b>1,983</b>  | <b>2,147</b>  | <b>1,753</b>  | <b>2,362</b>  | <b>1,123</b> |
| Europe/Africa            | 4,435         | 3,012         | 4,714         | 1,433         | 686           | 422           | 903           | 1,013         | 1,134         | 1,503         | 1,065         | 1,023         | 410          |
| Other Americas           | 1,971         | 631           | 1,272         | 812           | 157           | 36            | 129           | 147           | 413           | 329           | 384           | 484           | 328          |
| Asia                     | 2,548         | 4,363         | 1,380         | 1,240         | 1,375         | 972           | 773           | 324           | 436           | 316           | 305           | 854           | 385          |
| <b>Great Lakes/Other</b> | <b>3,876</b>  | <b>3,831</b>  | <b>3,276</b>  | <b>1,505</b>  | <b>1,049</b>  | <b>1,385</b>  | <b>1,084</b>  | <b>179</b>    | <b>915</b>    | <b>1,034</b>  | <b>1,147</b>  | <b>662</b>    | <b>843</b>   |
| Canada                   | 3,785         | 3,522         | 2,844         | 889           | 930           | 1,300         | 1,083         | 166           | 833           | 903           | 942           | 277           | 613          |
| Europe/Africa            | 54            | 120           | 187           | 190           | 92            | 13            | -             | 13            | 82            | 73            | 20            | 190           | -            |
| Other Americas           | 37            | 100           | 60            | 54            | 27            | 72            | 0             | 0             | 0             | 59            | 0             | 54            | 0            |
| Asia                     | -             | 90            | 185           | 371           | -             | -             | -             | -             | -             | -             | 185           | 141           | 230          |
| <b>Grand Total</b>       | <b>42,846</b> | <b>45,899</b> | <b>46,080</b> | <b>21,164</b> | <b>11,723</b> | <b>11,397</b> | <b>12,035</b> | <b>10,401</b> | <b>12,772</b> | <b>11,679</b> | <b>11,228</b> | <b>12,639</b> | <b>8,525</b> |



US COKING COAL SUPPLY CURVE

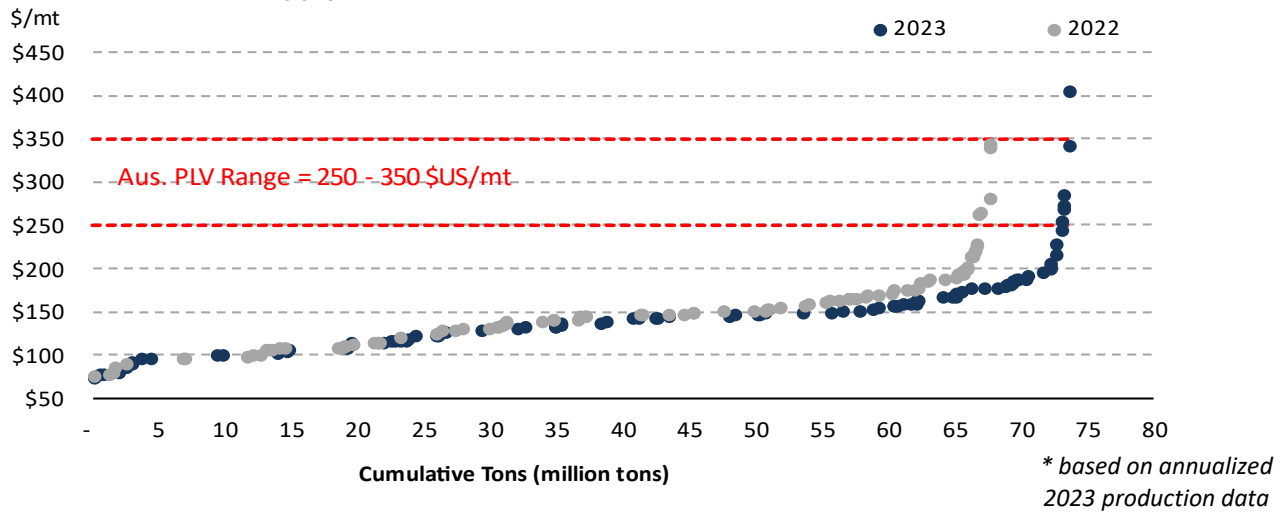
US Coal Supply Costs Continue to Rise on Lower Productivity Even as Cost Inflation Slows

Labor productivity fell sharply in Q3 after strong results in Q2. The problem is partly seasonal (summer vacation schedule) but results were weak at many deep mine operations. Deep mine production fell by 8% from Q2 while hours worked were almost flat. Most of the major companies reported lower production with higher costs, including Alpha, Arch, Coronado, Blackhawk, Rosebud, United, and Ramaco. Of the majors (over 2.5 mm tpy), only Warrior reported (slightly) increased production in Q3 over Q2.

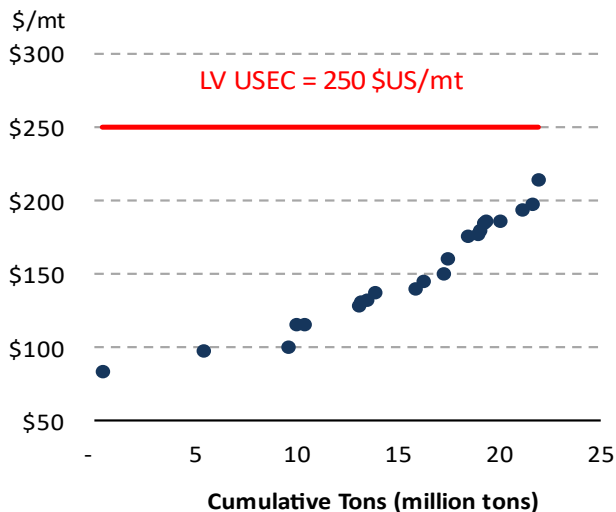
Most met coal producers have reported cash costs in the range of \$100 - \$120 per ton FOB mine. Including a budget for maintenance capital costs of \$10 per ton, plus rail and port charges about \$50 per ton, the breakeven sales price FOB T US East Coast is \$180 - \$200 per metric ton. Because many US coals have a significant quality discount to premium LV and HVA coals, the equivalent market price for premium coals needs to remain over \$200 - \$210 per mt to maintain current US met coal production.

EVA has developed a mine cost curve for US coking coal production adjusting direct mine cash costs to a common basis for export sales FOB T vessel. Estimated mine cash costs are adjusted for the "basis" difference in the sales value, including coal quality and inland transportation costs. This allows for a comparison of the economics of US coal exports at a given world market price - Australian PLV coal FOB T vessel. Costs are also adjusted for the impact of the sales price on taxes, royalties and inland freight rates.

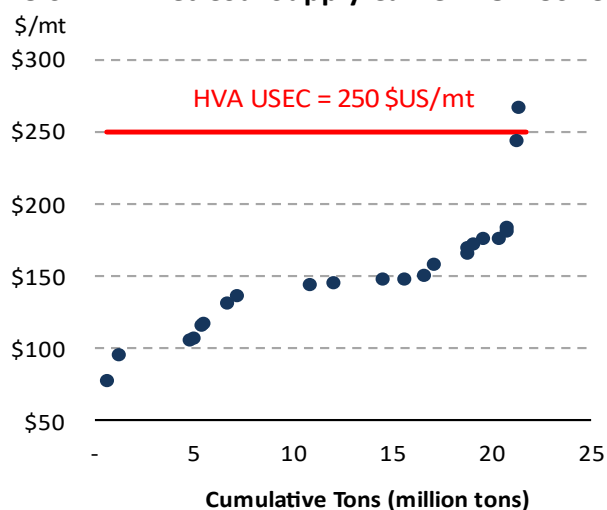
Total U.S. Met Coal Supply Curve- FOB USEC



U.S. LV Met Coal Supply Curve- FOB USEC



U.S. HVA Met Coal Supply Curve- FOB USEC



US MET COAL PRODUCTION BY MINE COMPLEX

US Met Coal Production by Mine Complex ('000 st)

| Basin                  | State | Company              | Mine Complex    | S/U | Quality | Origin | Planned Production |               |               |               |               |               |               |
|------------------------|-------|----------------------|-----------------|-----|---------|--------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                        |       |                      |                 |     |         |        | 2020               | 2021          | 2022          | 2023          | 2024          | 2025          | 2026          |
| <b>Quality Summary</b> |       |                      |                 |     |         |        |                    |               |               |               |               |               |               |
|                        |       |                      |                 |     |         |        | 20,219             | 21,217        | 20,509        | 21,800        | 22,650        | 23,010        | 23,210        |
|                        |       |                      |                 |     |         |        | 7,931              | 6,827         | 7,825         | 9,730         | 9,690         | 9,630         | 9,630         |
|                        |       |                      |                 |     |         |        | 21,312             | 23,699        | 26,088        | 26,740        | 30,790        | 31,690        | 32,790        |
|                        |       |                      |                 |     |         |        | 8,716              | 10,562        | 11,646        | 13,060        | 13,410        | 13,520        | 13,220        |
|                        |       |                      | Consol - Bailey |     |         |        | 1,127              | 1,528         | 1,504         | 1,500         | 1,500         | 1,500         | 1,500         |
|                        |       |                      |                 |     |         |        | 1,467              | 1,542         | 1,323         | 1,360         | 1,340         | 1,340         | 1,340         |
| <b>Grand Total</b>     |       |                      |                 |     |         |        | <b>60,771</b>      | <b>65,374</b> | <b>68,894</b> | <b>74,190</b> | <b>79,380</b> | <b>80,690</b> | <b>81,690</b> |
| <b>Low-Vol</b>         |       |                      |                 |     |         |        |                    |               |               |               |               |               |               |
| SAPP                   | AL    | Warrior Met Coal     | Blue Creek #7   | U   | LV      | CSX    | 5,708              | 4,794         | 4,756         | 5,000         | 5,000         | 5,000         | 5,000         |
| CAPP                   | VA    | Coronado Coal        | Buchanan        | U   | LV      | NS     | 3,766              | 4,852         | 4,309         | 4,000         | 4,500         | 4,600         | 4,700         |
| SAPP                   | AL    | ACNR                 | Oak Grove       | U   | LV      | BHRR   | 1,608              | 2,020         | 1,835         | 2,600         | 2,400         | 2,400         | 2,400         |
| CAPP                   | WV    | Alpha Met Resources  | Kepler          | U   | LV      | NS     | 672                | 1,471         | 1,823         | 1,900         | 1,900         | 1,900         | 1,900         |
| CAPP                   | WV    | Princeton Coal       | Black Wolf      | U   | LV      | NS     | 1,605              | 1,466         | 1,229         | 1,110         | 1,120         | 1,120         | 1,120         |
| NAPP                   | MD    | Corsa Coal           | Shade Creek     | U   | LV      | CSX,NS | 1,214              | 1,049         | 867           | 1,080         | 1,120         | 1,120         | 1,120         |
| CAPP                   | WV    | Arch Resources       | Beckley         | U   | LV      | CSX    | 1,004              | 1,084         | 997           | 1,000         | 1,000         | 1,000         | 1,000         |
| CAPP                   | WV    | United Coal          | Affinity        | U   | LV      | NS,CSX | 770                | 866           | 649           | 680           | 680           | 680           | 680           |
| CAPP                   | WV    | Cornerstone Minerals | Switchback      | S   | LV      | NS     | 810                | 573           | 619           | 590           | 600           | 600           | 600           |
| NAPP                   | PA    | Rosebud Mining       | Madison         | U   | LV      | NS     | 548                | 560           | 482           | 480           | 520           | 520           | 520           |
| CAPP                   | WV    | Ramaco               | Berwind         | P   | LV      | NS     | 147                | 181           | 393           | 580           | 780           | 840           | 940           |
| NAPP                   | PA    | Heritage Coal        | Mast            | A   | LV      | CSX    | 454                | 419           | 658           | 420           | 420           | 420           | 420           |
| NAPP                   | PA    | Rosebud Mining       | Mine 78         | S   | LV      | NS     | 612                | 587           | 479           | 290           | 340           | 340           | 340           |
| CAPP                   | WV    | Justice Coal         | Keystone        | S   | LV      | NS     | 158                | 81            | 273           | 420           | 440           | 440           | 440           |
| CAPP                   | WV    | Consol Energy        | Itmann          | U   | LV      | NS     | 20                 | 101           | 168           | 320           | 600           | 800           | 800           |
| CAPP                   | WV    | United Coal          | East Gulf       | S   | LV      | NS,CSX | 66                 | 141           | 171           | 400           | 400           | 400           | 400           |
| CAPP                   | WV    | WV Properties        | Caretta         | P   | LV      | NS     | 173                | 217           | 191           | 260           | 260           | 260           | 260           |
| CAPP                   | WV    | Classic Coal         | Superior        | P   | LV      | NS     | 163                | 240           | 220           | 200           | 200           | 200           | 200           |
| NAPP                   | PA    | Robindale Energy     | LCT             | U   | LV      | NS     | 87                 | 127           | 166           | 160           | 160           | 160           | 160           |
| CAPP                   | WV    | Classic Coal         | Jacobs Fork     | S   | LV      | NS     | 63                 | 64            | 123           | 110           | 110           | 110           | 110           |
| SAPP                   | AL    | Mission Coal         | Oak Grove       | U   | LV      | BHRR   | -                  | -             | -             | -             | -             | -             | -             |
| CAPP                   | WV    | Justice Coal         | Pinnacle        | P   | LV      | NS     | 491                | 253           | 23            | -             | -             | -             | -             |
| CAPP                   | WV    | Eagle Hawk Carbon    | WY Eagle        | S   | LV      | truck  | -                  | 33            | 73            | 200           | 100           | 100           | 100           |
| NAPP                   | PA    | AK Coal              | North Fork      | U   | LV      | NS     | 68                 | -             | -             | -             | -             | -             | -             |
| NAPP                   | PA    | Heritage Coal        | Craighead       | S   | LV      | CSX    | 2                  | 38            | -             | -             | -             | -             | -             |
| CAPP                   | VA    | Justice Coal         | Bishop          | U   | LV      | NS     | 0                  | -             | 1             | -             | -             | -             | -             |
| NAPP                   | PA    | Heritage Coal        | Svonavec        | S   | LV      | CSX    | 7                  | -             | -             | -             | -             | -             | -             |
| CAPP                   | WV    | Integrity Coal       | Gary            | S   | LV      | NS     | -                  | -             | 3             | -             | -             | -             | -             |
| <b>LV Total</b>        |       |                      |                 |     |         |        | <b>20,219</b>      | <b>21,217</b> | <b>20,509</b> | <b>21,800</b> | <b>22,650</b> | <b>23,010</b> | <b>23,210</b> |
| <b>Mid-Vol</b>         |       |                      |                 |     |         |        |                    |               |               |               |               |               |               |
| CAPP                   | VA    | Alpha Met Resources  | McClure         | U   | MV      | CSX    | 2,105              | 2,300         | 2,202         | 2,400         | 2,400         | 2,400         | 2,400         |
| SAPP                   | AL    | Warrior Met Coal     | Blue Creek #4   | U   | MV      | CSX    | 2,156              | 811           | 1,559         | 2,400         | 2,400         | 2,400         | 2,400         |
| NAPP                   | PA    | Rosebud Mining       | Brush Valley    | U   | MV      | NS     | 573                | 671           | 584           | 680           | 680           | 680           | 680           |
| NAPP                   | PA    | Robindale Energy     | RES             | S   | MV      | NS     | 470                | 569           | 558           | 730           | 760           | 760           | 760           |
| CAPP                   | WV    | Alpha Met Resources  | Kingston        | U   | MV      | CSX    | 422                | 485           | 376           | 480           | 480           | 480           | 480           |
| NAPP                   | PA    | Robindale Energy     | LCT             | S   | MV      | NS     | 363                | 442           | 489           | 480           | 480           | 480           | 480           |
| NAPP                   | PA    | Rosebud Mining       | Barrett Mine    | U   | MV      | NS     | 371                | 395           | 347           | 450           | 450           | 450           | 450           |
| NAPP                   | PA    | Rosebud Mining       | Cresson         | U   | MV      | NS     | 199                | 351           | 519           | 460           | 460           | 460           | 460           |
| CAPP                   | WV    | White Forest         | South Fork      | S   | MV      | CSX    | 265                | 241           | 280           | 300           | 320           | 320           | 320           |
| CAPP                   | VA    | Princeton Coal       | Mid-Vol         | S   | MV      | NS     | 89                 | 76            | 342           | 390           | 360           | 360           | 360           |
| NAPP                   | PA    | Rosebud Mining       | Heilwood        | U   | MV      | NS     | 166                | 172           | 189           | 160           | 160           | 160           | 160           |
| NAPP                   | PA    | Rosebud Mining       | Bigler          | U   | MV      | NS     | 220                | 129           | 150           | 120           | 120           | 120           | 120           |
| NAPP                   | PA    | Rosebud Mining       | Lowry           | U   | MV      | truck  | 73                 | 117           | 141           | 200           | 200           | 200           | 200           |
| CAPP                   | WV    | Coronado Coal        | Greenbrier      | U   | MV      | CSX    | 177                | -             | 46            | 40            | 40            | 40            | 40            |
| CAPP                   | WV    | Ramaco               | Maben           | S   | MV      | NS     | -                  | -             | -             | 180           | 250           | 250           | 250           |
| CAPP                   | WV    | Quinwood Coal        | Green Valley    | S   | MV      | CSX    | 65                 | 57            | 32            | 110           | 70            | 70            | 70            |
| CAPP                   | WV    | Justice Coal         | Red Fox         | S   | MV      | CSX    | 83                 | 11            | 11            | -             | -             | -             | -             |
| CAPP                   | WV    | Ramaco               | Berwind         | S   | MV      | NS     | -                  | -             | -             | 150           | 60            | -             | -             |
| CAPP                   | VA    | Mountaineer Met      | Jewell Valley   | U   | MV      | NS     | 135                | -             | -             | -             | -             | -             | -             |
| CAPP                   | VA    | Blackjewel           | Jewell Valley   | U   | MV      | NS     | -                  | -             | -             | -             | -             | -             | -             |
| <b>MV Total</b>        |       |                      |                 |     |         |        | <b>7,931</b>       | <b>6,827</b>  | <b>7,825</b>  | <b>9,730</b>  | <b>9,690</b>  | <b>9,630</b>  | <b>9,630</b>  |

US MET COAL PRODUCTION BY MINE COMPLEX (CONT'D)

US Met Coal Production by Mine Complex - cont'd ('000 st)

| Basin             | State | Company                   | Mine Complex      | S/U  | Quality | Origin    | Planned Production |               |               |               |               |               |               |
|-------------------|-------|---------------------------|-------------------|------|---------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                   |       |                           |                   |      |         |           | 2020               | 2021          | 2022          | 2023          | 2024          | 2025          | 2026          |
| <b>High-Vol A</b> |       |                           |                   |      |         |           |                    |               |               |               |               |               |               |
| CAPP              | WV    | Alpha Met Resources       | Marfork           | U    | HVA     | CSX       | 3,378              | 4,027         | 4,123         | 4,480         | 4,280         | 4,280         | 4,280         |
| NAPP              | WV    | Arch Resources            | Leer              | P    | HVA     | CSX       | 4,185              | 4,371         | 4,042         | 4,000         | 4,000         | 4,000         | 3,500         |
| NAPP              | WV    | Arch Resources            | Leer South        | U    | HVA     | CSX       | 756                | 905           | 2,264         | 2,800         | 4,000         | 4,000         | 4,000         |
| CAPP              | WV    | Blackhawk Mining          | Rockwell          | S    | HVA     | CSX       | 2,019              | 2,024         | 2,275         | 1,960         | 1,960         | 1,960         | 1,960         |
| CAPP              | KY    | United Coal               | Wellmore          | U    | HVA     | NS        | 1,579              | 1,494         | 1,403         | 1,130         | 850           | 850           | 850           |
| CAPP              | WV    | Coronado Coal             | Logan             | P    | HVA     | CSX       | 1,081              | 1,369         | 1,323         | 1,080         | 1,080         | 1,080         | 1,080         |
| CAPP              | WV    | Ramaco                    | Elk Creek         | P    | HVA     | CSX       | 813                | 1,092         | 995           | 1,160         | 1,540         | 1,540         | 1,540         |
| CAPP              | WV    | Alpha Met Resources       | Republic          | S    | HVA     | barge     | 800                | 894           | 879           | 1,680         | 1,680         | 1,680         | 1,680         |
| CAPP              | WV    | Reflectance Energy        | Coal Mtn          | S    | HVA     | NS        | 385                | 960           | 1,144         | 1,200         | 1,200         | 1,200         | 1,200         |
| SAPP              | AL    | Peabody                   | Shoal Creek       | U    | HVA     | barge     | 715                | 117           | 773           | 600           | 1,600         | 1,600         | 1,600         |
| NAPP              | WV    | AMCI                      | NCR               | U    | HVA     | CSX       | -                  | -             | 139           | 500           | 2,500         | 3,000         | 3,000         |
| CAPP              | KY    | JOD Holdings              | Clintwood Elkhorn | P    | HVA     | NS        | 728                | 937           | 979           | 1,030         | 1,050         | 1,050         | 1,050         |
| CAPP              | VA    | Alpha Met Resources       | Toms Creek        | P    | HVA     | NS        | 939                | 903           | 763           | 700           | 700           | 700           | 500           |
| NAPP              | PA    | Rosebud Mining            | Crooked Creek     | U    | HVA     | NS        | 516                | 716           | 794           | 640           | 640           | 640           | 640           |
| CAPP              | VA    | Alpha Met Resources       | McClure           | U    | HVA     | CSX       | 499                | 585           | 565           | 530           | 530           | 530           | 530           |
| CAPP              | WV    | Reflectance Energy        | West Gilbert      | S    | HVA     | NS        | -                  | 30            | 319           | 810           | 960           | 960           | 960           |
| CAPP              | WV    | Alpha Met Resources       | Pioneer           | S    | HVA     | CSX       | 791                | 873           | 886           | 140           | -             | -             | -             |
| CAPP              | WV    | Blackhawk Mining          | Maple Eagle       | S    | HVA     | NS,barge  | 121                | 537           | 636           | 560           | 520           | 520           | 520           |
| SAPP              | AL    | Warrior Met Coal          | Blue Creek Energy | U    | HVA     | NS        | -                  | -             | -             | -             | 200           | 600           | 2,400         |
| NAPP              | WV    | United Coal               | Carter Roag       | S    | HVA     | CSX       | 662                | 787           | 494           | 280           | -             | -             | -             |
| NAPP              | PA    | Rosebud Mining            | Dutch Run         | U    | HVA     | NS        | 488                | 552           | 233           | 240           | 240           | 240           | 240           |
| NAPP              | PA    | Rosebud Mining            | Parkwood          | U    | HVA     | NS        | 118                | 198           | 295           | 340           | 340           | 340           | 340           |
| CAPP              | WV    | Pocahontas Sales          | Deep Water        | S    | HVA     | NS        | -                  | -             | 220           | 320           | 320           | 320           | 320           |
| NAPP              | PA    | Rosebud Mining            | Knob Creek        | U    | HVA     | NS        | 166                | 135           | 127           | 120           | 120           | 120           | 120           |
| CAPP              | WV    | Eagle Specialty Materials | Sundial           | P    | HVA     | CSX       | -                  | -             | -             | 180           | 240           | 240           | 240           |
| CAPP              | WV    | New Beckley Mining        | Bolt Mtn          | S    | HVA     | truck     | -                  | 56            | 160           | 120           | 120           | 120           | 120           |
| NAPP              | PA    | Rosebud Mining            | Penfield          | U    | HVA     | CSX       | 7                  | 135           | 258           | 60            | -             | -             | -             |
| CAPP              | WV    | Blackhawk Mining          | Hampden           | P    | HVA     | CSX       | -                  | -             | -             | -             | -             | -             | -             |
| CAPP              | WV    | Condor Holdings           | Terry Eagle       | U    | HVA     | NS        | -                  | -             | -             | 80            | 120           | 120           | 120           |
| CAPP              | WV    | Active Resources          | Hampden           | P    | HVA     | NS        | 104                | -             | -             | -             | -             | -             | -             |
| <b>HVA Total</b>  |       |                           |                   |      |         |           | <b>21,245</b>      | <b>23,699</b> | <b>26,088</b> | <b>26,740</b> | <b>30,790</b> | <b>31,690</b> | <b>32,790</b> |
| <b>High-Vol B</b> |       |                           |                   |      |         |           |                    |               |               |               |               |               |               |
| CAPP              | WV    | Alpha Met Resources       | Rum Creek         | T    | HVB     | CSX       | 1,469              | 2,320         | 2,608         | 2,700         | 2,680         | 2,680         | 2,380         |
| CAPP              | WV    | Blackhawk Mining          | Kanawha Eagle     | P    | HVB     | CSX,barge | 1,526              | 1,843         | 1,613         | 1,540         | 1,540         | 1,540         | 1,540         |
| CAPP              | WV    | Arch Resources            | Mtn Laurel        | U    | HVB     | CSX       | 892                | 1,056         | 750           | 1,100         | 1,100         | 1,100         | 1,100         |
| CAPP              | WV    | Ramaco                    | Elk Creek         | U    | HVB     | CSX       | 735                | 889           | 1,035         | 980           | 1,130         | 1,160         | 1,160         |
| CAPP              | WV    | Alpha Met Resources       | Power Mountain    | U    | HVB     | NS        | 827                | 842           | 795           | 900           | 1,000         | 800           | 800           |
| CAPP              | WV    | Coronado Coal             | Logan             | U    | HVB     | CSX       | 540                | 587           | 793           | 1,000         | 1,000         | 1,000         | 1,000         |
| CAPP              | KY    | INMET Mining              | Lynch             | U    | HVB     | CSX       | 97                 | 310           | 682           | 1,080         | 1,080         | 1,080         | 1,080         |
| CAPP              | WV    | Blackhawk Mining          | Panther           | U    | HVB     | barge,CSX | 751                | 759           | 729           | 580           | 400           | 400           | 400           |
| CAPP              | WV    | Appalachian Resources     | Tug River         | S    | HVB     | NS        | 655                | 642           | 531           | 530           | 530           | 530           | 530           |
| CAPP              | VA    | Ramaco                    | Knox Creek        | P    | HVB     | NS        | -                  | 45            | 170           | 360           | 600           | 880           | 880           |
| CAPP              | WV    | Bens Creek Carbon         | Glen Alum         | S    | HVB     | NS        | -                  | 44            | 214           | 460           | 640           | 640           | 640           |
| CAPP              | WV    | Coronado Coal             | Toney Fork        | S    | HVB     | CSX       | 12                 | 125           | 213           | 320           | 320           | 320           | 320           |
| CAPP              | KY    | B&W Resources             | Phelps            | S    | HVB     | NS        | -                  | -             | 131           | 320           | 360           | 360           | 360           |
| NAPP              | PA    | Rosebud Mining            | Kocjancic         | U    | HVB     | B&P       | 154                | 184           | 161           | 160           | 160           | 160           | 160           |
| CAPP              | KY    | Appalachian Resources     | Rob Fork          | U    | HVB     | CSX       | 61                 | 101           | 151           | 150           | 150           | 150           | 150           |
| CAPP              | WV    | Blackhawk Mining          | Winchester        | U    | HVB     | CSX       | 10                 | -             | -             | 140           | 240           | 240           | 240           |
| SAPP              | AL    | Allegiance Coal           | Black Warrior     | S    | HVB     | barge     | 223                | 201           | 226           | 90            | -             | -             | -             |
| CAPP              | KY    | Coking Coal LLC           | Pardee            | U    | HVB     | NS        | -                  | -             | 32            | 200           | 240           | 240           | 240           |
| SAPP              | AL    | Southland Resources       | Searles           | S    | HVB     | barge     | -                  | -             | 41            | 120           | 160           | 160           | 160           |
| CAPP              | VA    | Justice Coal              | Paragon           | S    | HVB     | NS        | 14                 | 123           | 44            | 60            | 40            | 40            | 40            |
| Rockies           | CO    | Allegiance Coal           | New Elk           | P    | HVB     | BN        | -                  | 110           | 230           | 70            | -             | -             | -             |
| SAPP              | AL    | FM Coal                   | Sloan Mountain    | S    | HVB     | barge     | 152                | 170           | 70            | 10            | -             | -             | -             |
| CAPP              | VA    | Next Endeavor             | Craborchard       | S    | HVB     | NS        | 235                | 45            | 16            | 20            | -             | -             | -             |
| CAPP              | VA    | INMET Mining              | Wentz             | P    | HVB     | NS        | 88                 | 21            | 153           | 20            | -             | -             | -             |
| CAPP              | KY    | American Resources        | McCoy Elkhorn     | S    | HVB     | CSX       | -                  | 21            | 108           | 50            | -             | -             | -             |
| <b>HVB Total</b>  |       |                           |                   |      |         |           | <b>8,696</b>       | <b>10,559</b> | <b>11,646</b> | <b>13,050</b> | <b>13,410</b> | <b>13,520</b> | <b>13,220</b> |
| <b>PCI</b>        |       |                           |                   |      |         |           |                    |               |               |               |               |               |               |
| CAPP              | KY    | Blackhawk Mining          | Leatherwood       | U    | PCI     | CSX       | 1,027              | 1,074         | 1,101         | 1,220         | 1,220         | 1,220         | 1,220         |
| CAPP              | KY    | INMET Mining              | Lone Mtn          | U    | PCI     | NS,CSX    | 178                | 393           | 121           | 120           | 120           | 120           | 120           |
| CAPP              | KY    | Blackhawk Mining          | Spurlock          | U    | PCI     | CSX       | 236                | -             | -             | -             | -             | -             | -             |
| CAPP              | KY    | American Resources        | Perry County      | U    | PCI     | CSX       | -                  | 76            | 96            | -             | -             | -             | -             |
| CAPP              | KY    | Cambrian Coal             | Perry County      | U    | PCI     | CSX       | -                  | -             | -             | -             | -             | -             | -             |
| CAPP              | KY    | Pristine Clean Energy     | Premier Elkhorn   | S    | PCI     | CSX       | 26                 | -             | 5             | 20            | -             | -             | -             |
| CAPP              | KY    | Blackjewel                | Lone Mtn          | U    | PCI     | NS,CSX    | -                  | -             | -             | -             | -             | -             | -             |
| CAPP              | KY    | Cambrian Coal             | Premier Elkhorn   | U    | PCI     | CSX       | -                  | -             | -             | -             | -             | -             | -             |
| #N/A              | #N/A  | #N/A                      | #N/A              | #N/A | #N/A    | #N/A      | -                  | -             | -             | -             | -             | -             | -             |
| <b>PCI Total</b>  |       |                           |                   |      |         |           | <b>1,467</b>       | <b>1,542</b>  | <b>1,323</b>  | <b>1,360</b>  | <b>1,340</b>  | <b>1,340</b>  | <b>1,340</b>  |

## CLEVELAND-CLIFFS - COMPANY OVERVIEW

### Cleveland-Cliffs Likely to Run Hard but Seeking Ways to Reduce CO2 Emissions

Cliffs Steel will run all 7 blast furnaces for the foreseeable future, producing 14-15 mm tpy of pig iron, requiring about 5.1 mm tpy of coke. Cliffs is using HBI from the 1.8 mm tpy Toledo plant as iron feed in its blast furnaces to reduce coke rates and emissions. Cliffs is exploring hydrogen injection to replace PCI at Indiana Harbor.

Coke production is 2.3 mm tpy requiring 3.2 mm tpy of coal for the coke ovens at Warren, Monessen and Burns Harbor. Cliffs settled 2024 contracts early at prices of \$140-\$155 for premium coals for itself and SunCoke at Indiana Harbor and Middletown.

## Cliffs - Supply - Demand Balance ('000 st)

|                      | History |        | Forecast |        |        |        |
|----------------------|---------|--------|----------|--------|--------|--------|
|                      | 2021    | 2022   | 2023     | 2024   | 2025   | 2026   |
| Pig Iron Production  | 15,279  | 14,154 | 14,650   | 14,704 | 14,663 | 14,663 |
| Coke Consumption     | 5,461   | 4,910  | 5,090    | 5,100  | 5,100  | 5,100  |
| Coke Production      | 3,016   | 2,122  | 2,300    | 2,300  | 2,300  | 2,300  |
| Coke Purchases       | 2,445   | 2,788  | 3,563    | 3,579  | 3,590  | 3,590  |
| Coal Consumption     | 4,196   | 2,999  | 3,210    | 3,210  | 3,210  | 3,210  |
| Low Vol              | 1,288   | 953    | 860      | 970    | 860    | 970    |
| Mid Vol              | 857     | 600    | 590      | 590    | 590    | 590    |
| High Vol A           | 1,343   | 953    | 1,150    | 1,040  | 1,150  | 1,040  |
| High Vol B           | 708     | 493    | 610      | 610    | 610    | 610    |
| PCI Coal Consumption | 537     | 470    | 500      | 500    | 500    | 500    |

Note: Coal consumption by product does not add up to total due to individual rounding

## Cliffs Coal Demand ('000 st)

| Company                     | Plant          | State | History       |               |               | Forecast      |               |               |               |
|-----------------------------|----------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                             |                |       | 2020          | 2021          | 2022          | 2023          | 2024          | 2025          | 2026          |
| <b>Pig Iron Production</b>  |                |       |               |               |               |               |               |               |               |
| Cliffs                      | Burns Harbor   | IN    | 3,951         | 4,007         | 3,829         | 4,063         | 4,077         | 4,066         | 4,066         |
| Cliffs                      | Indiana Harbor | IN    | 4,722         | 4,763         | 4,293         | 4,186         | 4,201         | 4,190         | 4,190         |
| Cliffs                      | Cleveland      | OH    | 1,595         | 2,437         | 2,088         | 2,216         | 2,224         | 2,218         | 2,218         |
| Cliffs                      | Dearborn       | MI    | 1,383         | 2,032         | 1,856         | 1,970         | 1,977         | 1,972         | 1,972         |
| Cliffs                      | Middletown     | OH    | 2,086         | 2,039         | 2,088         | 2,216         | 2,224         | 2,218         | 2,218         |
| <b>Total</b>                |                |       | <b>13,737</b> | <b>15,279</b> | <b>14,154</b> | <b>14,650</b> | <b>14,704</b> | <b>14,663</b> | <b>14,663</b> |
| <b>Coke Consumption</b>     |                |       |               |               |               |               |               |               |               |
| Cliffs                      | Burns Harbor   | IN    | 1,461         | 1,365         | 1,302         | 1,400         | 1,400         | 1,400         | 1,400         |
| Cliffs                      | Indiana Harbor | IN    | 1,655         | 1,660         | 1,395         | 1,340         | 1,340         | 1,340         | 1,340         |
| Cliffs                      | Cleveland      | OH    | 609           | 957           | 794           | 840           | 840           | 840           | 840           |
| Cliffs                      | Dearborn       | MI    | 549           | 750           | 668           | 710           | 720           | 720           | 720           |
| Cliffs                      | Middletown     | OH    | 805           | 730           | 752           | 800           | 800           | 800           | 800           |
| <b>Total</b>                |                |       | <b>5,079</b>  | <b>5,461</b>  | <b>4,910</b>  | <b>5,090</b>  | <b>5,100</b>  | <b>5,100</b>  | <b>5,100</b>  |
| <b>Coke Production</b>      |                |       |               |               |               |               |               |               |               |
| Cliffs                      | Burns Harbor   | IN    | 1,463         | 1,721         | 1,454         | 1,600         | 1,600         | 1,600         | 1,600         |
| Cliffs                      | Warren         | OH    | 390           | 334           | 377           | 400           | 400           | 400           | 400           |
| Cliffs                      | Monessen       | PA    | 45            | 95            | 190           | 300           | 300           | 300           | 300           |
| Cliffs                      | Middletown     | OH    | 192           | 255           | -             | -             | -             | -             | -             |
| Cliffs                      | Mountain State | WV    | 555           | 612           | 100           | -             | -             | -             | -             |
| <b>Total</b>                |                |       | <b>2,646</b>  | <b>3,016</b>  | <b>2,122</b>  | <b>2,300</b>  | <b>2,300</b>  | <b>2,300</b>  | <b>2,300</b>  |
| <b>Coal Consumption</b>     |                |       |               |               |               |               |               |               |               |
| Cliffs                      | Burns Harbor   | IN    | 2,053         | 2,419         | 2,039         | 2,220         | 2,220         | 2,220         | 2,220         |
| Cliffs                      | Warren         | OH    | 555           | 475           | 533           | 560           | 560           | 560           | 560           |
| Cliffs                      | Monessen       | PA    | 65            | 129           | 274           | 430           | 430           | 430           | 430           |
| Cliffs                      | Middletown     | OH    | 273           | 362           | -             | -             | -             | -             | -             |
| Cliffs                      | Mountain State | WV    | 639           | 811           | 153           | -             | -             | -             | -             |
| <b>Total</b>                |                |       | <b>3,584</b>  | <b>4,196</b>  | <b>2,999</b>  | <b>3,210</b>  | <b>3,210</b>  | <b>3,210</b>  | <b>3,210</b>  |
| <b>PCI Coal Consumption</b> |                |       |               |               |               |               |               |               |               |
| Cliffs                      | Burns Harbor   | IN    | 53            | -             | -             | -             | -             | -             | -             |
| Cliffs                      | Indiana Harbor | IN    | 469           | 380           | 470           | 500           | 500           | 500           | 500           |
| Cliffs                      | Dearborn       | MI    | 83            | 156           | -             | -             | -             | -             | -             |
| <b>Total</b>                |                |       | <b>605</b>    | <b>537</b>    | <b>470</b>    | <b>500</b>    | <b>500</b>    | <b>500</b>    | <b>500</b>    |

## US STEEL - COMPANY OVERVIEW

## US Steel Future Uncertain in Sale Process

US Steel rejected an unsolicited offer from Cliffs and started a strategic review to decide whether and how to sell the company. Buyers want the new Big River EAF "mega-mill", soon to produce 6 mm tpy, including high-valued electrical steel. The outcome could affect the future of the "flat-rolled" mills. The Granite City steel mill is now idled and is unlikely to reopen before the announced closure at the end of 2024. Negotiations with SunCoke to repurpose the blast furnaces to GPI supply for Big River have dragged on for more than one year and we are no longer including this in our forecast.

Gary is now 500 ktpy of granulated pig iron (GPI) to the Big River Steel EAF, providing 50% of the ore-based metallics.

The 3 oldest Clairton coke oven batteries closed in March, reducing coke production capacity from 4.3 to 3.6 mm tpy. In 2024, USS will need to purchase 680 ktons from Gateway Coke and either place the excess coke in export markets or reduce Clairton coke production.

US Steel - Supply - Demand Balance ('000 st)

|                      | History |       |       | Forecast |       |       |
|----------------------|---------|-------|-------|----------|-------|-------|
|                      | 2021    | 2022  | 2023  | 2024     | 2025  | 2026  |
| Pig Iron Production  | 9,243   | 9,049 | 9,031 | 8,155    | 8,133 | 8,133 |
| Coke Consumption     | 3,694   | 3,617 | 3,610 | 3,180    | 3,180 | 3,180 |
| Coke Production      | 3,732   | 3,585 | 3,250 | 3,180    | 3,180 | 3,180 |
| Coke Purchases       | (38)    | 673   | 680   | 680      | -     | -     |
| Coke Exports/Stocks  | -       | 641   | 320   | 680      | -     | -     |
| Coal Consumption     | 5,163   | 5,153 | 4,650 | 4,560    | 4,560 | 4,560 |
| <i>Low Vol</i>       | 1,291   | 1,288 | 1,160 | 1,140    | 1,140 | 1,140 |
| <i>Mid Vol</i>       | 516     | 515   | 470   | 460      | 460   | 460   |
| <i>High Vol A</i>    | 2,065   | 2,061 | 1,860 | 1,820    | 1,820 | 1,820 |
| <i>High Vol B</i>    | 1,291   | 1,288 | 1,160 | 1,140    | 1,140 | 1,140 |
| PCI Coal Consumption | 447     | 520   | 540   | 550      | 550   | 550   |

Note: Coal consumption by product does not add up to total due to individual rounding

## US Steel Coal Demand ('000 st)

| Company                     | Plant        | State | History      |              |              | Forecast     |              |              |              |
|-----------------------------|--------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                             |              |       | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |
| <b>Pig Iron Production</b>  |              |       |              |              |              |              |              |              |              |
| US Steel                    | Gary         | IN    | 4,371        | 5,489        | 5,685        | 5,900        | 6,054        | 6,038        | 6,038        |
| US Steel                    | Granite City | IL    | 1,656        | 1,463        | 1,392        | 1,105        | -            | -            | -            |
| US Steel                    | Great Lakes  | MI    | 363          | -            | -            | -            | -            | -            | -            |
| US Steel                    | Mon Valley   | PA    | 2,277        | 2,291        | 1,972        | 2,026        | 2,101        | 2,095        | 2,095        |
| <b>Total</b>                |              |       | <b>8,667</b> | <b>9,243</b> | <b>9,049</b> | <b>9,031</b> | <b>8,155</b> | <b>8,133</b> | <b>8,133</b> |
| <b>Coke Consumption</b>     |              |       |              |              |              |              |              |              |              |
| US Steel                    | Gary         | IN    | 1,745        | 2,231        | 2,236        | 2,340        | 2,380        | 2,380        | 2,380        |
| US Steel                    | Granite City | IL    | 690          | 593          | 602          | 480          | -            | -            | -            |
| US Steel                    | Great Lakes  | MI    | 126          | -            | -            | -            | -            | -            | -            |
| US Steel                    | Mon Valley   | PA    | 900          | 870          | 779          | 790          | 800          | 800          | 800          |
| <b>Total</b>                |              |       | <b>3,462</b> | <b>3,694</b> | <b>3,617</b> | <b>3,610</b> | <b>3,180</b> | <b>3,180</b> | <b>3,180</b> |
| <b>Coke Production</b>      |              |       |              |              |              |              |              |              |              |
| US Steel                    | Clairton     | PA    | 2,557        | 3,732        | 3,585        | 3,250        | 3,180        | 3,180        | 3,180        |
| <b>Total</b>                |              |       | <b>2,557</b> | <b>3,732</b> | <b>3,585</b> | <b>3,250</b> | <b>3,180</b> | <b>3,180</b> | <b>3,180</b> |
| <b>Coal Consumption</b>     |              |       |              |              |              |              |              |              |              |
| US Steel                    | Clairton     | PA    | 3,602        | 5,163        | 5,153        | 4,650        | 4,560        | 4,560        | 4,560        |
| <b>Total</b>                |              |       | <b>3,602</b> | <b>5,163</b> | <b>5,153</b> | <b>4,650</b> | <b>4,560</b> | <b>4,560</b> | <b>4,560</b> |
| <b>PCI Coal Consumption</b> |              |       |              |              |              |              |              |              |              |
| US Steel                    | Gary         | IN    | 388          | 447          | 520          | 540          | 550          | 550          | 550          |
| US Steel                    | Great Lakes  | MI    | 31           | -            | -            | -            | -            | -            | -            |
| <b>Total</b>                |              |       | <b>419</b>   | <b>447</b>   | <b>520</b>   | <b>540</b>   | <b>550</b>   | <b>550</b>   | <b>550</b>   |

## SUN COKE - COMPANY OVERVIEW

### Future of Gateway Coke is Uncertain as SunCoke Manages Excess Production

SunCoke has excess furnace coke production capacity as domestic demand declines and long-term contracts have been expiring. SunCoke has managed the excess by converting Jewell to foundry coke operations and placing much of the Haverhill 1 output into export markets. The problem will be hard to manage in 2025 if it is unable to complete the Granite City blast furnace acquisition and GPI project. That would leave the output of Gateway Coke uncommitted after 2024, forcing it into the overseas export market.

Sun has long-term cost-plus contracts to supply Cleveland-Cliffs for the full output of the coke ovens at Indiana Harbor (1.2 mm tpy through September 2035) and Middletown (550 ktpy through Dec, 2032). Sun has short-term (expiring by 2026) contracts for Haverhill II to Cliffs (500 ktpy through June 2025), Jewell/Haverhill I to Cliffs (400 ktpy through Dec, 2025). and Algoma Steel (150 ktpy through 2026), and Gateway.

With global coke prices softening, the economics of diverting furnace coke to the overseas export market become challenging. It will be generally more competitive to export met coal to make coke in Asia than export domestic coke to Asia.

#### Sun Coke - Supply - Demand Balance ('000 st)

|                     | History |       | Forecast |       |       |       |
|---------------------|---------|-------|----------|-------|-------|-------|
|                     | 2021    | 2022  | 2023     | 2024  | 2025  | 2026  |
| Pig Iron Production | -       | -     | -        | -     | -     | -     |
| Coke Consumption    | -       | -     | -        | -     | -     | -     |
| Coke Production     | 4,161   | 4,150 | 4,070    | 3,970 | 3,950 | 3,950 |
| Coke Sales          | 4,161   | 4,150 | 4,070    | 3,970 | 3,950 | 3,950 |
| Cliffs              | 3,483   | 3,477 | 2,720    | 2,720 | 2,720 | 2,320 |
| US Steel            | 678     | 673   | 680      | 680   | -     | -     |
| Algoma Steel        | -       | -     | 150      | 150   | 350   | 550   |
| Foundry             | -       | -     | 200      | 300   | 400   | 400   |
| Exports             | -       | -     | 320      | 120   | 480   | 680   |
| Coal Consumption    | 6,028   | 5,863 | 5,740    | 5,570 | 5,550 | 5,550 |
| Low Vol             | 1,724   | 1,928 | 1,560    | 1,520 | 1,520 | 1,530 |
| Mid Vol             | 789     | 1,173 | 470      | 450   | 450   | 470   |
| High Vol A          | 1,889   | 1,928 | 2,050    | 1,950 | 1,940 | 1,980 |
| High Vol B          | 1,627   | 834   | 1,670    | 1,630 | 1,630 | 1,580 |

Note: Coal consumption by product does not add up to total due to individual rounding

#### Sun Coke Coal Demand ('000 st)

| Company                 | Plant           | State | History      |              |              | Forecast     |              |              |              |
|-------------------------|-----------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                         |                 |       | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |
| <b>Coke Production</b>  |                 |       |              |              |              |              |              |              |              |
| Sun Coke                | Gateway         | IL    | 618          | 678          | 673          | 680          | 680          | 680          | 680          |
| Sun Coke                | Indiana Harbor  | IN    | 1,171        | 1,216        | 1,208        | 1,220        | 1,220        | 1,220        | 1,220        |
| Sun Coke                | Middletown Coke | OH    | 551          | 597          | 590          | 550          | 550          | 550          | 550          |
| Sun Coke                | Haverhill 1     | OH    | 447          | 552          | 536          | 550          | 550          | 550          | 550          |
| Sun Coke                | Haverhill 2     | OH    | 447          | 552          | 536          | 550          | 550          | 550          | 550          |
| Sun Coke                | Jewell          | VA    | 607          | 566          | 607          | 520          | 420          | 400          | 400          |
| <b>Total</b>            |                 |       | <b>3,841</b> | <b>4,161</b> | <b>4,150</b> | <b>4,070</b> | <b>3,970</b> | <b>3,950</b> | <b>3,950</b> |
| <b>Coal Consumption</b> |                 |       |              |              |              |              |              |              |              |
| Sun Coke                | Gateway         | IL    | 926          | 1,013        | 987          | 990          | 980          | 980          | 980          |
| Sun Coke                | Indiana Harbor  | IN    | 1,645        | 1,710        | 1,694        | 1,690        | 1,690        | 1,690        | 1,690        |
| Sun Coke                | Middletown Coke | OH    | 784          | 849          | 835          | 770          | 770          | 770          | 770          |
| Sun Coke                | Haverhill 1     | OH    | 636          | 785          | 758          | 770          | 770          | 770          | 770          |
| Sun Coke                | Haverhill 2     | OH    | 636          | 785          | 758          | 770          | 770          | 770          | 770          |
| Sun Coke                | Jewell          | VA    | 896          | 887          | 830          | 750          | 590          | 570          | 570          |
| <b>Total</b>            |                 |       | <b>5,524</b> | <b>6,028</b> | <b>5,863</b> | <b>5,740</b> | <b>5,570</b> | <b>5,550</b> | <b>5,550</b> |

## CANADA STEEL PRODUCERS - OVERVIEW

## EAF Projects at Dofasco and Algoma Will Reduce Coke and Coal Demand in Canada

Algoma is operating blast furnace #7, with 2.8 mm tpy capacity. Algoma is constructing 2 EAFs with annual capacity to produce 3.7 mm tpy, matching the downstream finishing capacity. The new EAFs are scheduled to be complete by the end of 2024 but the power supply is only adequate to support operation of the EAFs in alternating mode until a power line upgrade is completed. Algoma will operate the blast furnace reduced levels through 2026 with an extended iron ore contract from USS and is likely to rely on purchased coke after 2025.

Dofasco's new EAF project is not likely to be complete until after 2026 and we expect continued operation of the coke ovens until then. Dofasco will build a DRI project to supply high-quality iron for the EAF.

Stelco is committed to its blast furnace steel mill for the foreseeable future with recent investment

## Canada - Supply - Demand Balance ('000 st)

|                        | History |       |       | Forecast |       |       |
|------------------------|---------|-------|-------|----------|-------|-------|
|                        | 2021    | 2022  | 2023  | 2024     | 2025  | 2026  |
| Pig Iron Production    | 6,844   | 6,300 | 6,547 | 6,648    | 6,630 | 5,440 |
| Total Coke Consumption | 3,439   | 2,958 | 3,008 | 3,023    | 3,021 | 2,500 |
| Coke Consumption in BF | 2,704   | 2,484 | 2,600 | 2,620    | 2,620 | 2,100 |
| Coke Nut/Breeze        | 735     | 474   | 408   | 403      | 401   | 400   |
| Coke Production        | 2,145   | 2,073 | 2,220 | 2,220    | 2,220 | 1,500 |
| Coke Net Imports       | 1,294   | 884   | 788   | 803      | 801   | 1,000 |
| Coal Consumption       | 2,837   | 2,895 | 2,920 | 2,990    | 2,990 | 2,020 |
| Low Vol                | 761     | 757   | 770   | 790      | 790   | 550   |
| Mid Vol                | 83      | 88    | 120   | 120      | 120   | 120   |
| High Vol A             | 858     | 801   | 860   | 870      | 870   | 680   |
| High Vol B             | 1,135   | 1,250 | 1,180 | 1,200    | 1,200 | 670   |

Note: Coal consumption by product does not add up to total due to individual rounding

## Canada Coal Demand ('000 st)

| Company                     | Plant            | State | History      |              |              | Forecast     |              |              |              |
|-----------------------------|------------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                             |                  |       | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |
| <b>Pig Iron Production</b>  |                  |       |              |              |              |              |              |              |              |
| AM Dofasco                  | Dofasco          | ON    | 2,125        | 2,050        | 2,064        | 2,145        | 2,178        | 2,172        | 2,131        |
| Algoma Steel                | Sault Ste. Marie | ON    | 2,082        | 2,401        | 2,064        | 2,145        | 2,178        | 2,172        | 1,066        |
| Stelco                      | Lake Erie        | ON    | 1,551        | 2,392        | 2,172        | 2,258        | 2,292        | 2,286        | 2,243        |
| <b>Total</b>                |                  |       | <b>5,757</b> | <b>6,844</b> | <b>6,300</b> | <b>6,547</b> | <b>6,648</b> | <b>6,630</b> | <b>5,440</b> |
| <b>Coke Consumption</b>     |                  |       |              |              |              |              |              |              |              |
| AM Dofasco                  | Dofasco          | ON    | 760          | 715          | 716          | 750          | 760          | 760          | 740          |
| Algoma Steel                | Sault Ste. Marie | ON    | 891          | 1,011        | 877          | 920          | 920          | 920          | 440          |
| Stelco                      | Lake Erie        | ON    | 641          | 978          | 891          | 930          | 940          | 940          | 920          |
| <b>Total</b>                |                  |       | <b>2,291</b> | <b>2,704</b> | <b>2,484</b> | <b>2,600</b> | <b>2,620</b> | <b>2,620</b> | <b>2,100</b> |
| <b>Coke Production</b>      |                  |       |              |              |              |              |              |              |              |
| AM Dofasco                  | Dofasco          | ON    | 944          | 785          | 478          | 550          | 550          | 550          | 550          |
| Algoma Steel                | Sault Ste. Marie | ON    | 488          | 730          | 966          | 720          | 720          | 720          | -            |
| Stelco                      | Hamilton         | ON    | 663          | 452          | 270          | 400          | 400          | 400          | 400          |
| Stelco                      | Lake Erie        | ON    | 291          | 178          | 359          | 550          | 550          | 550          | 550          |
| <b>Total</b>                |                  |       | <b>2,386</b> | <b>2,145</b> | <b>2,073</b> | <b>2,220</b> | <b>2,220</b> | <b>2,220</b> | <b>1,500</b> |
| <b>Coal Consumption</b>     |                  |       |              |              |              |              |              |              |              |
| AM Dofasco                  | Dofasco          | ON    | 1,273        | 1,035        | 669          | 720          | 740          | 740          | 740          |
| Algoma Steel                | Sault Ste. Marie | ON    | 659          | 969          | 1,350        | 950          | 970          | 970          | -            |
| Stelco                      | Hamilton         | ON    | 896          | 597          | 376          | 530          | 540          | 540          | 540          |
| Stelco                      | Lake Erie        | ON    | 394          | 236          | 501          | 720          | 740          | 740          | 740          |
| <b>Total</b>                |                  |       | <b>3,221</b> | <b>2,837</b> | <b>2,895</b> | <b>2,920</b> | <b>2,990</b> | <b>2,990</b> | <b>2,020</b> |
| <b>PCI Coal Consumption</b> |                  |       |              |              |              |              |              |              |              |
| AM Dofasco                  | Dofasco          | ON    | 276          | 257          | 290          | 310          | 310          | 310          | 310          |
| <b>Total</b>                |                  |       | <b>276</b>   | <b>257</b>   | <b>290</b>   | <b>310</b>   | <b>310</b>   | <b>310</b>   | <b>310</b>   |

## MERCHANT COKE PRODUCERS - OVERVIEW

### EES Coke Remains at Full Capacity

DTE Energy's EES Coke plant in Zug Island, Michigan is the sole coke supplier to Cliffs' Dearborn blast furnace, which needs about 720,000 tpy of coke to produce 2.0 mm tpy of pig iron. Remaining production is sold on the short-term market, primarily to the Canadian steel mills. Total coke production is about 1.0 mm tpy, consuming 1.4-1.5 mm tpy of coal. EES Coke settled early for its 2024 coal contracts.

#### DTE Coke - Supply - Demand Balance ('000 st)

|                   | History |       | Forecast |       |       |       |
|-------------------|---------|-------|----------|-------|-------|-------|
|                   | 2021    | 2022  | 2023     | 2024  | 2025  | 2026  |
| Coke Production   | 1,019   | 1,010 | 1,000    | 1,000 | 1,000 | 1,000 |
| Coal Consumption  | 1,449   | 1,428 | 1,400    | 1,400 | 1,400 | 1,400 |
| <i>Low Vol</i>    | 435     | 400   | 390      | 390   | 390   | 390   |
| <i>Mid Vol</i>    | 362     | 314   | 310      | 310   | 310   | 310   |
| <i>High Vol A</i> | 362     | 314   | 310      | 310   | 310   | 310   |
| <i>High Vol B</i> | 290     | 400   | 390      | 390   | 390   | 390   |

*Note: Coal consumption by product does not add up to total due to individual rounding*

### Foundry Coke Markets Remain Strong

Drummond's ABC Coke was the largest foundry coke producer in the USA until SunCoke converted the Jewell ovens from furnace coke. ABC supplies most of its needs by NS rail with CAPP low-ash coals. ABC has not yet concluded all of its 2024 coal contract needs.

#### ABC Coke - Supply - Demand Balance ('000 st)

|                   | History |      | Forecast |      |      |      |
|-------------------|---------|------|----------|------|------|------|
|                   | 2021    | 2022 | 2023     | 2024 | 2025 | 2026 |
| Coke Production   | 550     | 525  | 430      | 430  | 430  | 430  |
| Coal Consumption  | 678     | 566  | 480      | 470  | 470  | 470  |
| <i>Low Vol</i>    | 271     | 227  | 190      | 190  | 190  | 190  |
| <i>Mid Vol</i>    | 169     | 142  | 120      | 120  | 120  | 120  |
| <i>High Vol A</i> | 68      | 57   | 50       | 50   | 50   | 50   |
| <i>High Vol B</i> | 169     | 142  | 120      | 120  | 120  | 120  |

*Note: Coal consumption by product does not add up to total due to individual rounding*

### Merchant Coal Demand ('000 st)

| Company                 | Plant    | State | History      |              |              | Forecast     |              |              |              |
|-------------------------|----------|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                         |          |       | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         |
| <b>Coke Production</b>  |          |       |              |              |              |              |              |              |              |
| DTE                     | EES Coke | MI    | 655          | 1,019        | 1,010        | 1,000        | 1,000        | 1,000        | 1,000        |
| Bluestone Coke          | Sloss    | AL    | 55           | 61           | -            | -            | -            | -            | -            |
| Drummond                | ABC Coke | AL    | 600          | 550          | 525          | 430          | 430          | 430          | 430          |
| <b>Total</b>            |          |       | <b>1,310</b> | <b>1,630</b> | <b>1,535</b> | <b>1,430</b> | <b>1,430</b> | <b>1,430</b> | <b>1,430</b> |
| <b>Coal Consumption</b> |          |       |              |              |              |              |              |              |              |
| DTE                     | EES Coke | MI    | 933          | 1,449        | 1,428        | 1,400        | 1,400        | 1,400        | 1,400        |
| Bluestone Coke          | Sloss    | AL    | 65           | 75           | -            | -            | -            | -            | -            |
| Drummond                | ABC Coke | AL    | 705          | 678          | 566          | 480          | 470          | 470          | 470          |
| <b>Total</b>            |          |       | <b>1,703</b> | <b>2,201</b> | <b>1,994</b> | <b>1,880</b> | <b>1,870</b> | <b>1,870</b> | <b>1,870</b> |



WORLD COKING COAL PRICES AND NETBACK PRICES FOR US EXPORTS

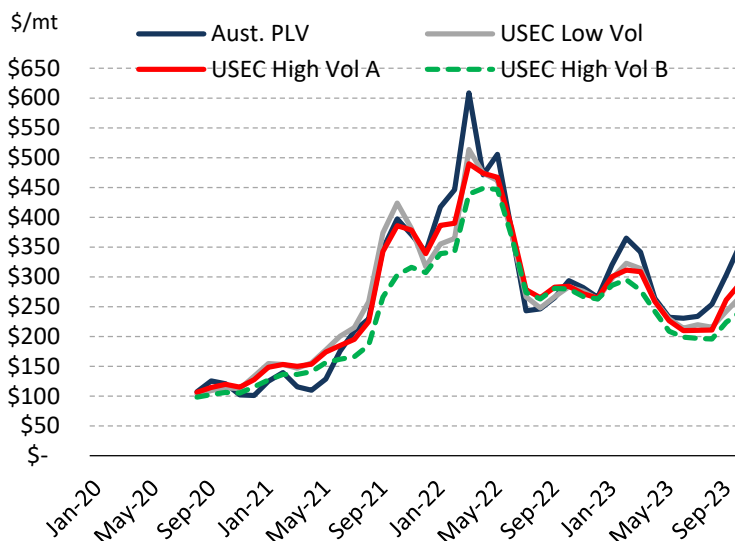
Global Prices Remain High in Asia with Large Spreads to US East Coast

Australian PLV coal prices rebounded in Q3 as many Australian met coal producers reported lower output. The shortage of coal caused FOB prices for PLV coals to jump by 50% over the Q2 lows. While the stronger market has lifted US East Coast prices, the price spreads between PLV and USEC prices have blown out to over \$70/mt, far above the freight differential.

We do not expect the huge price spreads to last. PLV prices are likely to soften rapidly by Q1 2024, as CFR prices to China are below FOB prices. While some of this can be explained by increased supply of coal from Russia and Mongolia, it also reflects the development of new coke ovens in Indonesia using Australian coal and exporting the product to China and SE Asia.

The global steel market continues to shift as the European Union started charging steel producers for carbon dioxide emission allowances. As these charges grow through 2026, the cost of steel production will make it impossible to export steel and steel products. Imports will be limited by the Carbon Border Adjustment Mechanism (CBAM), a tax on imports based on the equivalent emissions of CO2. The net effect on EU industrial activity will be negative and manufacturers are likely to move overseas.

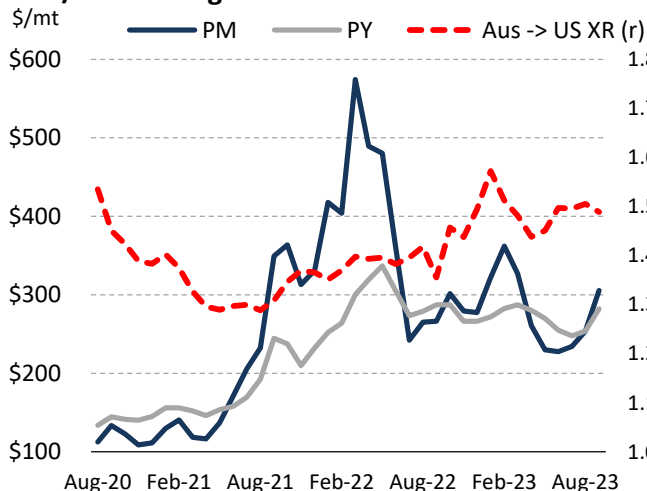
Monthly spot export met coal prices - FOBT



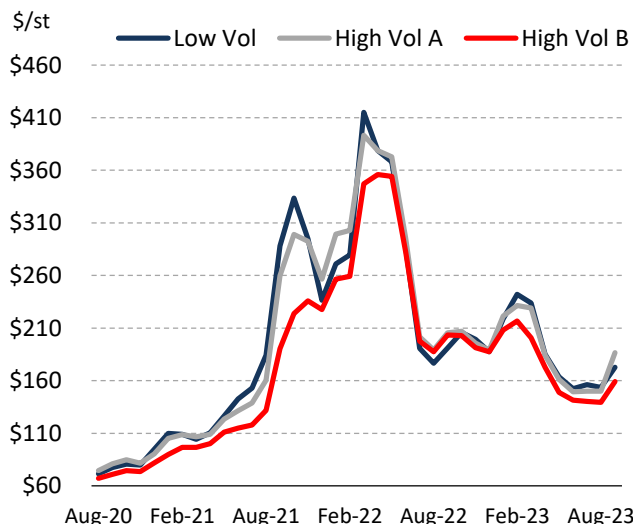
Historical Met Coal Prices

| Product   | FOB  | Oct-23    | Sep-23    | Aug-23    | Oct-22    | Change From |        |
|---|------|-----------|-----------|-----------|-----------|-------------|--------|
|   |      |           |           |           |           | Sep-23      | Oct-22 |
| <b>Spot Met Coal Prices (\$/mt)</b>             |      |           |           |           |           |             |        |
| Aus. Low Vol                                    | Port | \$ 355.92 | \$ 303.10 | \$ 254.31 | \$ 293.81 | 17.4%       | 21.1%  |
| U.S. Low Vol                                    | Port | \$ 267.33 | \$ 242.20 | \$ 215.50 | \$ 283.00 | 10.4%       | -5.5%  |
| U.S. High Vol A                                 | Port | \$ 290.00 | \$ 261.60 | \$ 210.75 | \$ 284.25 | 10.9%       | 2.0%   |
| U.S. High Vol B                                 | Port | \$ 241.67 | \$ 223.60 | \$ 195.75 | \$ 279.75 | 8.1%        | -13.6% |
| <b>U.S. Mine Netback (\$/st)</b>                |      |           |           |           |           |             |        |
| U.S. Low Vol                                    | Mine | \$ 191.52 | \$ 172.58 | \$ 153.44 | \$ 205.73 | 11.0%       | -6.9%  |
| U.S. High Vol A                                 | Mine | \$ 212.08 | \$ 186.48 | \$ 150.04 | \$ 206.87 | 13.7%       | 2.5%   |
| U.S. High Vol B                                 | Mine | \$ 172.20 | \$ 159.25 | \$ 139.29 | \$ 202.79 | 8.1%        | -15.1% |
| <b>Aus. Met Coal Price - Fwd. Curve (\$/mt)</b> |      |           |           |           |           |             |        |
| Aus. Low Vol                                    | PM   | \$ 335.67 | \$ 305.40 | \$ 253.88 | \$ 301.44 | 9.9%        | 11.4%  |
| Aus. Low Vol                                    | PY   | \$ 293.17 | \$ 282.30 | \$ 253.63 | \$ 287.50 | 3.8%        | 2.0%   |

Fwd met coal prices - FOB Australia & AUS/US exchange rate



Spot U.S. met coal prices - FOB mine



## MET COAL DEMAND BY COKE OVEN &amp; COAL PRODUCT ('000 ST)

| Company                            | Plant            | State | Estimated    |              |              |              |               | Forecasted   |              |              |              |               |              |              |              |              |               |
|------------------------------------|------------------|-------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|---------------|
|                                    |                  |       | 2022         |              |              |              |               | 2023         |              |              |              |               | 2024         |              |              |              |               |
|                                    |                  |       | LV           | MV           | HVA          | HVB          | Total         | LV           | MV           | HVA          | HVB          | Total         | LV           | MV           | HVA          | HVB          | Total         |
| Cliffs                             | Burns Harbor     | IN    | 612          | 408          | 612          | 408          | 2,039         | 560          | 440          | 780          | 440          | 2,220         | 670          | 440          | 670          | 440          | 2,220         |
| Cliffs                             | Warren           | OH    | 213          | 107          | 213          | -            | 533           | 170          | 110          | 220          | 60           | 560           | 170          | 110          | 220          | 60           | 560           |
| Cliffs                             | Monessen         | PA    | 82           | 55           | 82           | 55           | 274           | 130          | 40           | 150          | 110          | 430           | 130          | 40           | 150          | 110          | 430           |
| Cliffs                             | Middletown       | OH    | -            | -            | -            | -            | -             | -            | -            | -            | -            | -             | -            | -            | -            | -            | -             |
| Cliffs                             | Mountain State   | WV    | 46           | 31           | 46           | 31           | 153           | -            | -            | -            | -            | -             | -            | -            | -            | -            | -             |
| <b>Cliffs Total</b>                |                  |       | <b>953</b>   | <b>600</b>   | <b>953</b>   | <b>493</b>   | <b>2,999</b>  | <b>860</b>   | <b>590</b>   | <b>1,150</b> | <b>610</b>   | <b>3,210</b>  | <b>970</b>   | <b>590</b>   | <b>1,040</b> | <b>610</b>   | <b>3,210</b>  |
| US Steel                           | Clairton         | PA    | 1,288        | 515          | 2,061        | 1,288        | 5,153         | 1,160        | 470          | 1,860        | 1,160        | 4,650         | 1,140        | 460          | 1,820        | 1,140        | 4,560         |
| <b>US Steel Total</b>              |                  |       | <b>1,288</b> | <b>515</b>   | <b>2,061</b> | <b>1,288</b> | <b>5,153</b>  | <b>1,160</b> | <b>470</b>   | <b>1,860</b> | <b>1,160</b> | <b>4,650</b>  | <b>1,140</b> | <b>460</b>   | <b>1,820</b> | <b>1,140</b> | <b>4,560</b>  |
| AM Dofasco                         | Dofasco          | ON    | 201          | -            | 268          | 201          | 669           | 220          | -            | 290          | 220          | 720           | 220          | -            | 300          | 220          | 740           |
| Algoma Steel                       | Sault Ste. Marie | ON    | 337          | -            | 270          | 742          | 1,350         | 240          | -            | 190          | 520          | 950           | 240          | -            | 190          | 530          | 970           |
| Stelco                             | Hamilton         | ON    | 94           | 38           | 113          | 132          | 376           | 130          | 50           | 160          | 190          | 530           | 140          | 50           | 160          | 190          | 540           |
| Stelco                             | Lake Erie        | ON    | 125          | 50           | 150          | 175          | 501           | 180          | 70           | 220          | 250          | 720           | 190          | 70           | 220          | 260          | 740           |
| <b>Canada Total</b>                |                  |       | <b>757</b>   | <b>88</b>    | <b>801</b>   | <b>1,250</b> | <b>2,895</b>  | <b>770</b>   | <b>120</b>   | <b>860</b>   | <b>1,180</b> | <b>2,920</b>  | <b>790</b>   | <b>120</b>   | <b>870</b>   | <b>1,200</b> | <b>2,990</b>  |
| Sun Coke                           | Gateway          | IL    | 296          | 197          | 296          | 197          | 987           | 250          | 100          | 300          | 350          | 990           | 250          | 100          | 290          | 340          | 980           |
| Sun Coke                           | Indiana Harbor   | IN    | 677          | 339          | 677          | -            | 1,694         | 420          | 170          | 510          | 590          | 1,690         | 420          | 170          | 510          | 590          | 1,690         |
| Sun Coke                           | Middletown Coke  | OH    | 251          | 167          | 251          | 167          | 835           | 200          | 30           | 230          | 310          | 770           | 200          | 30           | 220          | 310          | 770           |
| Sun Coke                           | Haverhill 1      | OH    | 227          | 152          | 227          | 152          | 758           | 230          | 80           | 270          | 190          | 770           | 230          | 80           | 270          | 190          | 770           |
| Sun Coke                           | Haverhill 2      | OH    | 227          | 152          | 227          | 152          | 758           | 280          | -            | 360          | 120          | 770           | 280          | -            | 360          | 120          | 770           |
| Sun Coke                           | Jewell           | VA    | 249          | 166          | 249          | 166          | 830           | 180          | 90           | 380          | 110          | 750           | 140          | 70           | 300          | 80           | 590           |
| <b>Sun Coke Total</b>              |                  |       | <b>1,928</b> | <b>1,173</b> | <b>1,928</b> | <b>834</b>   | <b>5,863</b>  | <b>1,560</b> | <b>470</b>   | <b>2,050</b> | <b>1,670</b> | <b>5,740</b>  | <b>1,520</b> | <b>450</b>   | <b>1,950</b> | <b>1,630</b> | <b>5,570</b>  |
| DTE                                | EES Coke         | MI    | 400          | 314          | 314          | 400          | 1,428         | 390          | 310          | 310          | 390          | 1,400         | 390          | 310          | 310          | 390          | 1,400         |
| Bluestone Coke                     | Sloss            | AL    | -            | -            | -            | -            | -             | -            | -            | -            | -            | -             | -            | -            | -            | -            | -             |
| Drummond                           | ABC Coke         | AL    | 227          | 142          | 57           | 142          | 566           | 190          | 120          | 50           | 120          | 480           | 190          | 120          | 50           | 120          | 470           |
| <b>Merchant Total</b>              |                  |       | <b>626</b>   | <b>456</b>   | <b>371</b>   | <b>541</b>   | <b>1,994</b>  | <b>580</b>   | <b>430</b>   | <b>360</b>   | <b>510</b>   | <b>1,880</b>  | <b>580</b>   | <b>430</b>   | <b>360</b>   | <b>510</b>   | <b>1,870</b>  |
| <b>Grand Total</b>                 |                  |       | <b>5,553</b> | <b>2,831</b> | <b>6,114</b> | <b>4,407</b> | <b>18,905</b> | <b>4,930</b> | <b>2,080</b> | <b>6,280</b> | <b>5,130</b> | <b>18,400</b> | <b>5,000</b> | <b>2,050</b> | <b>6,040</b> | <b>5,090</b> | <b>18,200</b> |
| <b>PCI Demand by Blast Furnace</b> |                  |       |              |              |              |              |               |              |              |              |              |               |              |              |              |              |               |
| Cliffs                             | Burns Harbor     | IN    |              |              |              |              | -             |              |              |              |              | -             |              |              |              |              | -             |
| Cliffs                             | Indiana Harbor   | IN    |              |              |              |              | 470           |              |              |              |              | 500           |              |              |              |              | 500           |
| Cliffs                             | Dearborn         | MI    |              |              |              |              | -             |              |              |              |              | -             |              |              |              |              | -             |
| AM Dofasco                         | Dofasco          | ON    |              |              |              |              | 290           |              |              |              |              | 310           |              |              |              |              | 310           |
| US Steel                           | Gary             | IN    |              |              |              |              | 520           |              |              |              |              | 540           |              |              |              |              | 550           |
| US Steel                           | Great Lakes      | MI    |              |              |              |              | -             |              |              |              |              | -             |              |              |              |              | -             |
| <b>PCI Total</b>                   |                  |       |              |              |              |              | <b>1,280</b>  |              |              |              |              | <b>1,350</b>  |              |              |              |              | <b>1,360</b>  |