



# METALLURGICAL COAL'S CONTINUING VITAL ROLE





#### METALLURGICAL COAL PRODUCERS ASSOCIATION

Formerly the Virginia Coal and Energy Alliance is a non-profit organization of metallurgical coal producers and those who support our producing members' operations



#### EMPHASIS ON METALLURGICAL COAL

The issues related to it and the opportunities Metallurgical coal brings to our region and beyond



#### ADVOCATES FOR COAL

The MCPA actively advocates and promotes the Metallurgical coal industry in the eastern United States, specifically, in the Central Appalachian region



#### Our Members









#### MCPA FOUNDING MEMBERS

Alpha Metallurgical Resources (formerly Contura Energy, Inc.), Coronado Coal LLC, United Coal Company (a subsidiary of Metinvest Group), & RAMACO Resoures, Inc.

Workforce:

**35**Coal Mines

5,300+

Employees

\$86,335

Average Salary





22.7 MILLION TONS

22.7 million tons of metallurgical coal produced by MCPA members in 2020



**40 PERCENT** 

Represents 40 percent of total U.S. metallurgical coal production



13.1 MILLION TONS

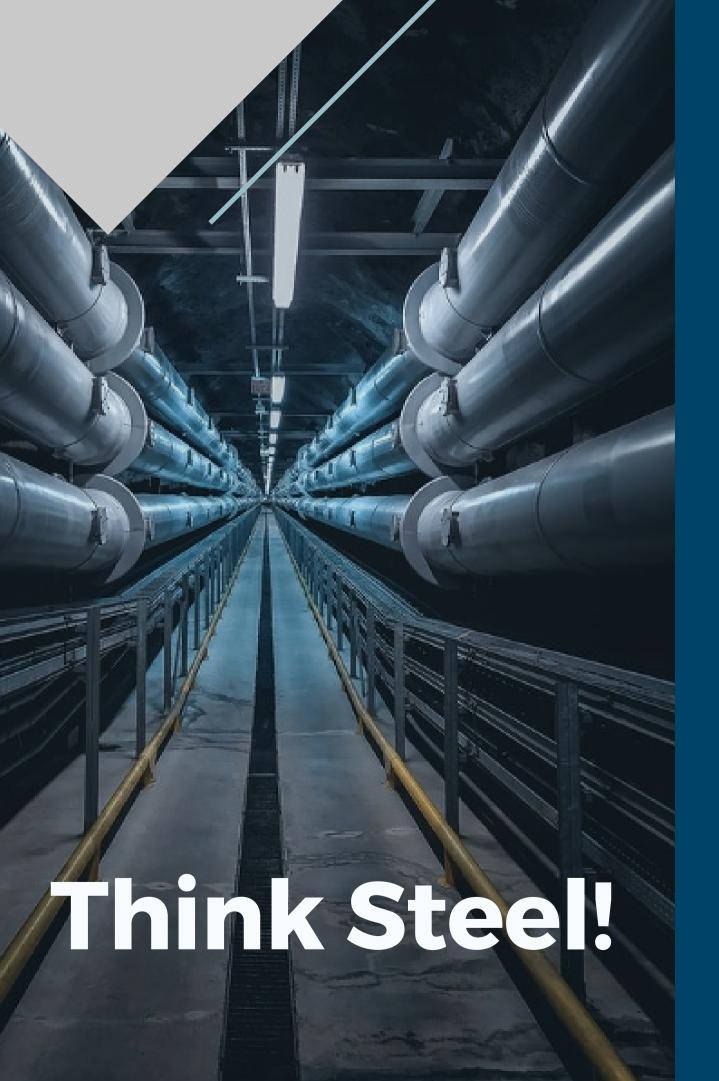
13.1 million tons of metallurgical coal are produced in West Virginia



8.6 MILLION TONS

8.6 million tons of metallurgical coal are produced in Virginia





# WHEN YOU THINK OF METALLURGICAL COAL, THINK STEEL!



Metallurgical coal, also known as coking coal, is used to make steel - a primary component in the process of making steel.



Varying qualities of Metallurgical coal

- Volatile percentage from high vol to low vol
- Expansion and chemistry characteristics



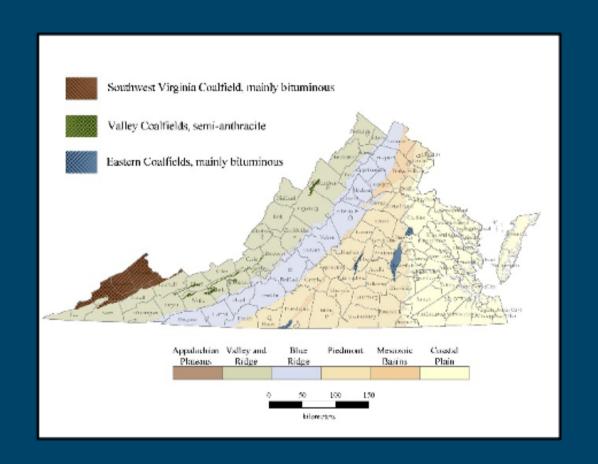
Steel is a universal building material due to its strength, durability, versatility and affordability

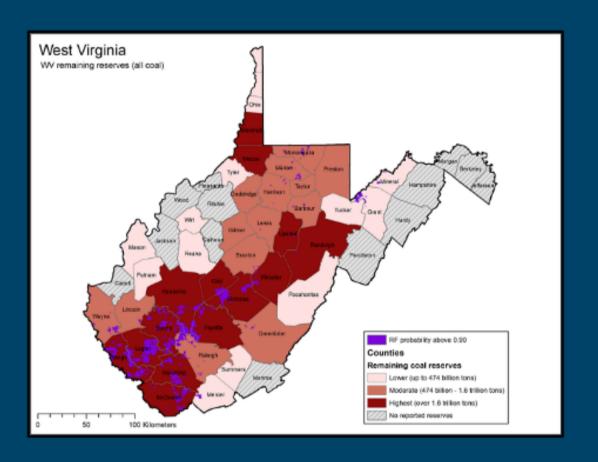






# Where are Coal Deposits in VA & WV?





#### APPALACHIAN BASIN

Most Metallurgical coal produced in the U.S. is found in the Appalachian Basin

#### VIRGINIA

Metallurgical coal is found primarily in the Southwestern part of Virginia, which is where all current coal mining is ongoing and has remaining abundant resources

#### WEST VIRGINIA

Metallurgical coal is found primarily in the south extending north to the central portion of the state. West Virginia also holds rich metallurgical coal reserves.

# Food Supply



In addition to the farmer, thank a coal miner



The machines and equipment to grow, preserve, store and prepare food are made with steel



From agricultural machinery to refrigerators, knives to delivery trucks -- each step of food growth and preparation requires steel



Steel cans have enabled preservative-free, long-term storage of food



Around 200 billion steel cans for food are produced each year -- many from recycled steel



## Infrastructure



Metallurgical coal makes the modern standard of living possible.



Buildings used for manufacturing or centers of commerce are made with steel.



Bridges and Roads are not possible without steel.



Metallurgical coal will play a major role as our nation and the world focuses on critical upgrades to our infrastructure.



# Transportation



Steel is a vital material for transport systems – cars, trains, and ships all utilize steel — and consequently Met coal — in their fabrication



The safety of modern cars is provided by an internal 'cage' from steel



The automobile industry helps to push innovation in the steel industry with demand for emissions reductions, stringent safety standards, and affordability



Ships are mainly constructed from hot rolled steel plates which are then cut to size for particular parts of the ship such as the hull, the internal framing of holds and rooms, decks, chimneys, and superstructure

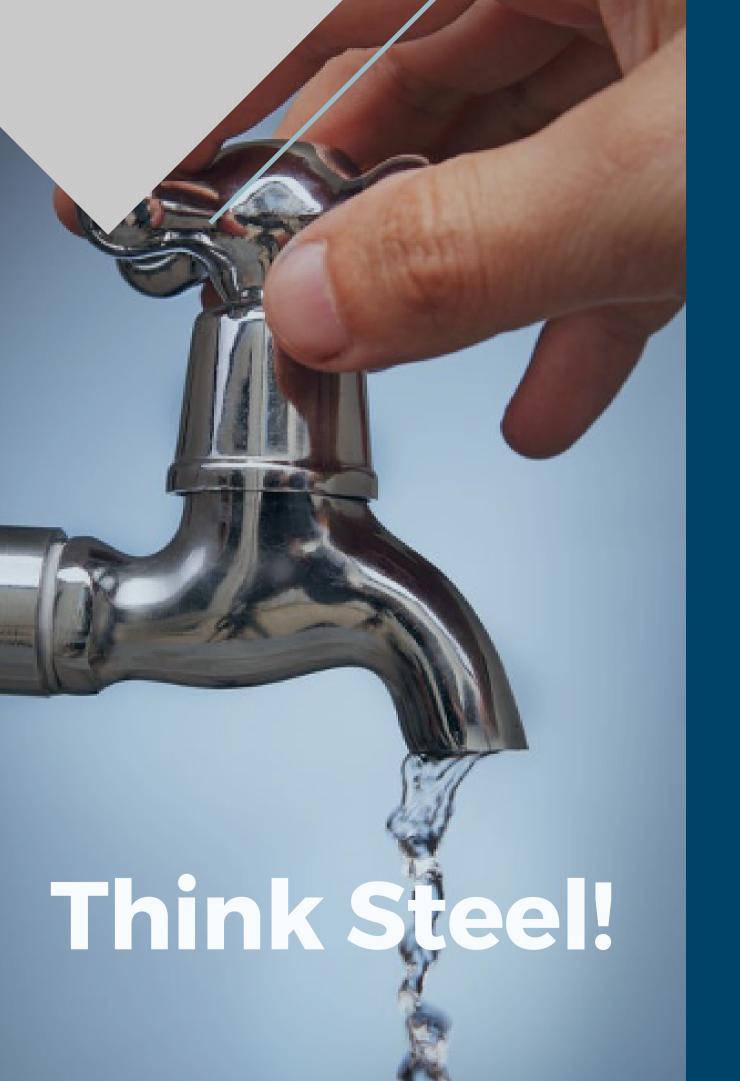


# Communication



Steel towers and masts provide hubs for mobile communications and broadcasting antenna and are among the tallest man-made structures

Metallurgical Coal made it possible to make the steel used to build these towers



### Water Processes



Steel – and consequently coal -- is involved in the entire process of water collection, purification, and delivery



From large infrastructure projects, such as dams, to smaller water tank reservoirs, from pipelines to pumps to stainless steel taps, steel is the fundamental construction material for both potable water and sanitation – providing essential health benefits



In addition to making the steel for these projects, coal also provides an assist in a variety of purification processes

# Other Uses of Coal



Thousands of different products have coal or coal by-products as components: soap, aspirins, solvents, dyes, plastics, and fibers, such as rayon and nylon



Coal is also an essential ingredient in the production of specialty products like activated carbon - used in filters for water and air purification and in kidney dialysis machines; Carbon fiber - an extremely strong, but light-weight reinforcement material used in construction, mountain bikes and tennis rackets; and silicon metal - used to produce silicones - which are in turn used to make lubricants, water repellents, resins, cosmetics, hair shampoos and toothpastes

# Economic Impact



One coal job creates six other related industry jobs



Additional employment is found in other support sectors



In Virginia and in West Virginia, coal makes significant, ongoing contributions to the improvement of roads, water and sewer systems through the severance taxes industry pay



Taxes paid by the coal industry significantly support local schools.

# Economic Impact



Production in Virginia was at 12.03 million tons, 6.7 million tons of which were produced in Buchanan County, the largest coal-producing county in Virginia

In West Virginia, 14,444 miners were employed in 2019, working in 135 mines

**Production Wages:** 

**VA** \$166.33 million

**WV** \$1.28 billion



Coal provides employment for 53,583 miners nationally

Coal provides America's railroads with more traffic and revenue than any other commodity

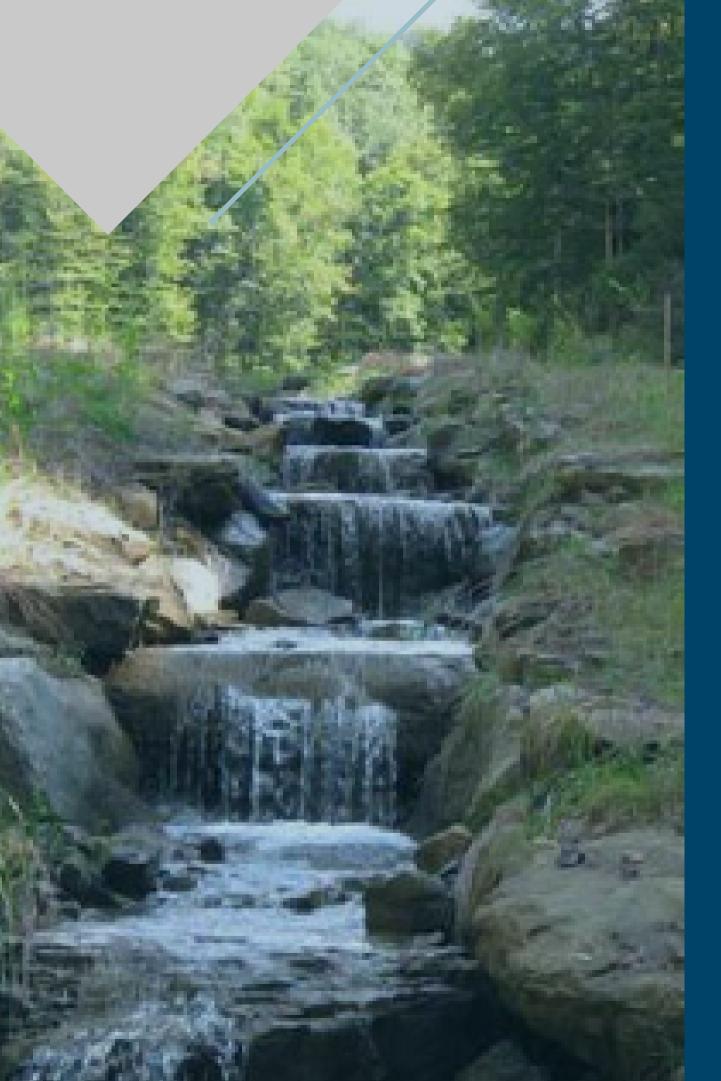
Coal impacts the shipping business in Virginia -- the port of Hampton Roads serves as an important export facility for coal to overseas ports from Virginia and is the biggest coal exporter in the nation

West Virginia utilizes both barge and rail transport system to get coal to markets

# Top Export Locations for Metallurgical Coal 2019

- 1. Brazil
- 2. Japan
- 3. Europe
- 4. India
- 5. China

Metallurgical coal from Central Appalachia is exported to steel companies around the world.



# Environmental Sustainability



Reclamation is important to our producers who develop and implement detailed reclamation plans



Land has been restored to its original use, or through planting of special seed mixes, has been turned into habitat areas for wildlife



Acknowledgement that water is a valuable resource in which our members carefully manage quality, availability, and sustainability



Post-mine land use has transformed former coal mines into other uses, such as roads, schools, airports, and other community facilities.





Wind turbines are predominantly made of steel according to the National Renewable Energy Laboratory



The construction of a 60-meter wind turbine requires about 100 tons of steel to make, according to the World Coal Institute



Steel is critical in the energy sector – it is used for fuel exploration, production, electricity generation, and in-supply infrastructure, including transmission and distribution. Mines offshore platforms, thermal and nuclear power plants, hydroelectric dams and power plants and renewable energy systems are all dependent on steel

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