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JOURNAL OF MINES, METALS & FUELS www.jmmf.info

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**DISCUSSION-OPINION-EDITORIAL** 

## Why is the US again reconsidering coal?

Classical reasons. In matters of energy, a nation prefers to keep her resources close to the chest. It does not want to let go this security only just because the other choices are beautiful - what will happen when one will pull the plug? A question that continues to bother. It is only natural that manpower and the support services related to the industry develops over decades. Coal based energy engineering has been firmed up for some centuries with supply chain stabilized with time; it is difficult to move over to another energy option easily. Sunk costs are another reason: the people are invested to the industry; they cannot switch so easily. Another socially related point: new technologies are adding more number of poor and lower-middle class people at the bottom. Coal is still the energy of choice for the poor, particularly the rural poor. How one can untangle so many issues to move to a cleaner energy choice. Even today, actually, the clean energy options cannot pay all their bills, they keep looking at the state for rebate, subsidies, low taxes with only one song that they are clean. In any country, the poor still needs the tax money that is kept waived for the cleaner energy industry. This reality of the clean energy industry has just started to dawn. It will be an interesting contest to see how renewable power stacks up with clean coal in the near future.

The recent IEA report puts a US coal production forecast of 607 million short tonnes (MMst) in 2021, an increase of 13% over 2020. Generally, total consumption of coal is to be 33 MMst greater than primary coal supply in 2021. In 2022, IEA predicts coal production to decline by 7 MMst (1%); but the floods and forest fires can change all the estimates.

US coal consumption for electricity generation may grow by 75 MMst (17%) in 2021 as a result of relatively high natural gas prices that make coal more competitive for dispatch in the electric power sector. Forecast electric power sector demand for coal then falls by 47 MMst (9%) in 2022. Demand for coal for other uses to rise by 5 MMst (13%) in 2021 and by 3 MMst (7%) in 2022. This increase is mostly for coking coal, which is used in steelmaking. US coal exports may total 90 MMst in 2021, a 21 MMst (30%) increase from 2020. In 2022, forecast coal exports rise an additional 16 MMst to 106 MMst. High global steel prices are driving these increases in coal exports, and trade tensions between China and Australia continue to support U.S. thermal coal exports.

The world still needs coal - not only is coal the affordable choice for energy in many parts of the world, but it remains the only viable choice for critical industries. Coal even plays a significant role in the construction of renewable energy infrastructure and supporting these fuels on the grid. It is crucial to the societal development of hundreds of millions of people, particularly in emerging economies. Coal is critical to our world, through its use in providing much-needed affordable electricity and also in building our societies through its use in steel and cement. Still today, 37% of the world's electricity and over 70% of the world's steel is produced using coal. All fuels and technologies, including "Clean Coal", are playing their part in the transition to clean energy. World Coal Association says coal is the world's largest single source of electricity and will still contribute 22% in 2040, remaining the biggest contributor.

The biggest producer and consumer of coal is still China. Other big producers include: United States, India, Australia, Indonesia, Russia, South Africa, Germany and Poland. The biggest exporters of coal are: Indonesia, Australia, Russia, United States, Colombia, South Africa and Kazakhstan. Coal prices displayed in Trading Economics are based on overthe-counter (OTC) and contract for difference (CFD) financial instruments.

A diverse energy mix is important to meet different needs – some are best suited to baseload generation, others to peak load, and others to meeting environmental considerations. Having a diverse mix also provides security to an energy system by allowing flexibility in meeting each country's needs.

By choosing coal, countries are not turning their backs on clean energy solutions as the coal industry is in the process of radical transformation through the availability and deployment of a raft of clean coal technologies. Clean coal technologies can reduce global emissions by 2 Gigatonnes – the equivalent of eliminating the ASEAN region's 2018 carbon emissions from all fossil fuels. Hydrogen from coal with CCS is proven and operating at a commercial scale now. The hydrogen energy supply chain (HESC) Pilot Project is producing 225,000 tonnes of clean hydrogen annually, whilst reducing 1.8 million tonnes of  $CO_2$  emissions per year, equivalent to the emissions of some 350,000 petrol cars.

Local changes are also bringing back the focus. In China, coal futures traded around \$177 per metric tonne, the highest on record, amid soaring electricity demand, infrastructure woes and a surge in global gas prices. A heat wave in Zhejiang, Jiangsu and Guangdong, China's biggest industrial provinces and a rebound in industrial output pushed demand higher despite government's pledge to cut carbon emissions. In the meantime, China authorized the restart of production for a year at 15 coal mines across northern provinces such as Shanxi and Xinjiang region as inventories declined to near historic lows since August due to peak summer electricity demand and transportation bottlenecks exacerbated by last month's severe floods and typhoon. Elsewhere, a trade spat with Australia has crimped

U.S. COAL SUMMARY				
	2019	2020	2021	2022
Prices	(dollars per million Btu)			
Electric power sector	2.02	1.92	1.89	1.86
Supply	(million short tons)			
U.S. coal production	706.3	535.3	607.4	600.6
Imports	6.7	5.1	5.2	4.1
Exports	93.8	69.1	89.7	105.6
Consumption	(million short tons)			
Electric power sector	538.6	436.5	511.7	464.5
Other sectors	47.9	40.8	46.3	49.4
Total consumption	586.5	477.3	558.0	513.9
End of period inventories	(million short tons)			
Electric power sector	128.2	132.7	98.3	81.4
Total inventories	165.3	166.0	129.9	122.5

Courtesy: IEA

imports while supplies remain limited by a closed mine in Colombia, flooding in Indonesia and Australia.

