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Coal in the Global Energy Landscape

Nicolas D. Loris

An abundant, affordable energy resource, coal provides 30 percent of the world's energy, 41 percent of the world's electricity generation and factors into 70 percent of the world's steel production.¹ While coal is by no means the only source of energy developed across the globe, it is a critical resource to driving economic growth all over the world and will continue to be so well into the future.

As the U.S. federal government is promulgating and applying regulations to significantly reduce the use of coal, the rest of the world's use could propel coal to the planet's number one energy source by 2017, surpassing oil.² The purpose of this paper is not to promote one source of energy over another—markets should drive energy production and consumption. Instead, this paper reviews coal use in other parts of the world to highlight how vital it is to current and future economic growth and improved standards of living.

China and India. Both coal production and coal use are occurring at rapid rates in two of the world's largest and fastest growing economies. China has gone from producing 13.6 percent of the world's coal in 1973 to 45.3 percent in 2012.³ India is now the world's third-largest producer of coal and is project-

ed to surpass the United States to become the second-largest in the next five years.

China and India are first and third, respectively, in terms of top coal importing countries as well, with Japan at number two.⁴ And there are no plans to curtail the use of coal in China or India: Of the 1,200 proposals for coal-fired power plants worldwide, China and India account for 818 of them.

Southeast Asia, South Asia, and East Asia. Although India and China account for much of Asia's current and future coal use, other regions of Asia use large amounts of coal and have plans to use more in the future. There are plans to build 95 more plants, with most of them being built in Vietnam, Indonesia, and the Philippines.

Vietnam is cutting back on exports to meet its own domestic energy needs and has plans to increase coal-fired generation fivefold by 2020.⁵ Although coal use has declined in recent years in Indonesia (providing 22 percent of total energy consumption), coal production more than quadrupled from 2001 to 2011.⁶ Indonesia reformed its laws to increase transparency and encourage more foreign investment, and the country is now the world's fourth-largest coal producer and the top exporter.⁷

Europe. Europe's push to transition to renewable energy sources has been very public, but its reliance on coal receives less attention. There are plans to build 69 coal-fired power plants in Europe as well as another 47 in Turkey and 48 in Russia.⁸

As a result of the current and upcoming regulations impacting the coal industry and abundantly cheap natural gas, the U.S. is shipping more of its coal to Europe. The decommissioning of nuclear plants in Germany, Europe's lag behind the U.S. in

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The Heritage Foundation
214 Massachusetts Avenue, NE
Washington, DC 20002
(202) 546-4400 | heritage.org

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exploiting its shale plays, and the scaling back of renewable energy subsidies are all playing a part in Europe's increased coal use.⁹ European coal mining is also increasing because of burgeoning Asian markets.

Africa. Coal production and consumption on the African continent are both driven primarily by South Africa's use. South Africa derives 94 percent of its electricity from coal and is planning to build eight more plants, and the country is among the top 10 coal producers in the world.¹⁰

Affordable, reliable energy is one of many important tools that will be critical to increased economic growth in Africa, and plans exist to build 26 new coal-fired plants across the continent.

Australia. Coal is an important part of the Australian economy in terms of both production and end use. Australia continues to be one of the world's top producers of coal, ranking fifth, and is the second-largest exporter of coal, which provides Australia with its second-largest source of export income.¹¹

Coal is also a crucial domestic source of energy for Australia. The combined generation from higher-quality bituminous coal and lower-quality lignite coal provides more than 75 percent of the country's electricity.¹² Abundant, low-cost coal is a critical

input for Australia's manufacturing and industrial base and thus an important driver of the nation's economy.

Central and South America. Although Brazil is by far the largest coal consumer in the region, mostly due to its larger population, coal generates only 4 percent of the nation's electricity.¹³ Chile is the continent's other big user, receiving approximately 20 percent of its electricity from coal.

Colombia, while not a large coal consumer, is the world's 10th-largest producer and is an important trading partner with the United States. Of the small amount of coal the U.S. does import, 75 percent of it comes from Colombia.¹⁴

U.S. Moving in the Wrong Direction. Although coal-fired power plants generate over 40 percent of America's electricity, the coal industry—and therefore American energy consumers—is increasingly under attack from both proposed and implemented federal regulations on new power plants, existing power plants, and mining operations.¹⁵

When coal's decline is driven by market forces, such as from the extraction and supply of cheap natural gas from shale formations, consumers and the economy at large are made better off. But when politicians unnecessarily choke coal supplies through

1. World Coal Association, "Coal Statistics," <http://www.worldcoal.org/resources/coal-statistics/> (accessed December 3, 2013).
2. Bill Chappell, "Coal May Pass Oil as World's No. 1 Energy Source by 2017, Study Says," National Public Radio, December 18, 2012, <http://www.npr.org/blogs/thetwo-way/2012/12/18/167546881/coal-may-pass-oil-as-worlds-no-1-energy-source-by-2017-study-says> (accessed December 3, 2013).
3. International Energy Agency, "2013 Key World Energy Statistics," 2013, http://www.iea.org/publications/freepublications/publication/KeyWorld2013_FINAL_WEB.pdf (accessed December 7, 2013).
4. Ibid.
5. Vu Trong Khanh, "Vietnam Clamping Down on Coal Exports as Domestic Energy Needs Rise," *The Wall Street Journal*, July 10, 2013, <http://online.wsj.com/article/SB10001424127887324879504578596901530238408.html> (accessed December 3, 2013).
6. U.S. Energy Information Administration, "Indonesia," January 9, 2013, <http://www.eia.gov/countries/analysisbriefs/Indonesia/indonesia.pdf> (accessed December 7, 2013).
7. Ailun Yang and Yiyun Cui, "Global Coal Risk Assessment: Data Analysis and Market Research," World Resources Institute, November 2012, <http://www.wri.org/publication/global-coal-risk-assessment> (accessed December 3, 2013).
8. Ibid.
9. U.S. Energy Information Administration, "Multiple Factors Push Western Europe to Use Less Natural Gas and More Coal," September 27, 2013, <http://www.eia.gov/todayinenergy/detail.cfm?id=13151&src=email> (accessed December 3, 2013).
10. World Coal Association, "Coal Statistics."
11. International Energy Agency, "2013 Key World Energy Statistics."
12. Australian Coal Association, "Energy," <http://www.australiancoal.com.au/energy.html> (accessed December 3, 2013).
13. U.S. Energy Information Administration, "Brazil," <http://www.eia.gov/countries/cab.cfm?fips=BR> (accessed December 3, 2013).
14. U.S. Energy Information Administration, "Colombia," <http://www.eia.gov/countries/cab.cfm?fips=CO> (accessed December 3, 2013).
15. See Nicolas D. Loris, "The Assault on Coal and the American Consumer," Heritage Foundation *Background* No. 2709, July 23, 2012, <http://www.heritage.org/research/reports/2012/07/the-assault-on-coal-and-american-consumers>.

excessive regulations devoid of environmental benefit, the result is less competition, higher prices, and job destruction.

The rest of the world seems to understand how a dependable, affordable energy source such as coal can improve personal welfare and serve as a critical input for economic prosperity. Congress should reverse the course of this Administration's path to drive out coal and allow the market to determine America's energy mix.

—*Nicolas D. Loris is Herbert and Joyce Morgan Fellow in the Thomas A. Roe Institute for Economic Policy Studies at The Heritage Foundation.*