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FIVE MYTHS

Coal

By Michael E. Webber

Coal is having a rough year. Between President Obama's new Clean Power Plan, the pope's moral pronouncements on climate change and the abundance of cheap natural gas, there's not a lot of love for the combustible black rock that still provides 29 percent of the world's energy. If coal were a movie hero, it would be Rocky: a tough, American, working-class underdog who peaked decades ago and is ready to put up a fight. ¶ Coal's supporters tout the original fossil fuel as the underpinning of modern society and the great enabler of our economic prosperity. Detractors say coal is the greatest risk to our environment and civil order that we have ever seen. If the worst-case scenarios for climate change come to fruition, they say, we'll see flooded cities, violence and hundreds of millions of displaced refugees. As Americans ponder coal's fate, let's debunk some myths about this multifaceted hydrocarbon.

1

Coal is dirty.

Popular depictions of coal focus on its polluting qualities: blighted landscapes, black lungs and smokestacks belching out toxic clouds that cause acid rain. News coverage of the industry typically spotlights its contributions to climate change. Films depict miners coated in black dust or trapped deep underground.

There's truth to these images, but they don't tell coal's whole story.

Starting about 150 years ago, coal performed a very important environmental service. Forests in the upper Midwest and the Northeast were being cut down rapidly as demand for firewood to heat homes and fuel factories outstripped the rate at which the trees grew back.

Coal mines brought that rampant deforestation to a halt. The black rock was cheaper, hotter and more plentiful. It was also cleaner: Burning coal produces less carbon dioxide than burning wood, per kilowatt-hour of electricity generated.

Today, biomass is promoted as an eco-friendly, renewable energy source, but it's the old fossil fuel that emits fewer greenhouse gases when burned. And used the right way — with scrubbers and other environmental controls, along with technology that captures carbon emissions and sequesters them underground — coal can be combusted in a very clean way. "Clean coal" isn't an oxymoron. It can be implemented with technically viable (though expensive) solutions.

2 Obama's "war on coal" is killing the mining industry.

The domestic coal-mining industry is suffering: The number of mine workers dropped by more than 10 percent in 2013, and the combined market capitalization of the four largest coal extraction companies has collapsed to \$1 billion, down from \$22 billion just five years ago. Moods are dour, and a typical refrain in coal country is that the demise of its fortunes is the result of Obama's policies.

While the Environmental Protection Agency's smokestack emissions standards certainly aren't helpful for coal, the rules have been around in some form for decades, and the first federal regulation to permanently cap and reduce coal plants' mercury emissions was issued in 2005, during the George W. Bush administration.

Cheap natural gas has been much more damaging for coal's market share than environmental rules. The shale revolution has unleashed a huge supply of gas that competes with coal on price and ease of use, so utilities are switching to natural gas at a much greater rate than was anticipated just a few years ago.

In addition, U.S. coal miners are competing against cheap Australian coal, which is closer to Asia-Pacific customers. Any way you slice it, domestic coal producers have a tough road ahead, whether Obama is president or not.

3 Appalachia depends on coal, and coal depends on Appalachia.

Appalachia was the historic heart of coal production and has been the iconic setting for Hollywood's coal movies. During the 1930s, the industry employed as much as 75 percent of the male workforce in some Appalachian counties. Fifty years ago, 95 percent of America's coal was produced east of the Mississippi River.

But as environmental regulations tightened, cleaner coal out west (it contains less sulfur, which forms sulfur dioxide, one of the precursors to acid rain) became more popular. Today, just 1 percent of jobs in Appalachia are related to mining. Wyoming is by far the nation's leading coal producer.

Coal mining is not particularly lucrative for Appalachia. While mine owners are often very rich, and the cheap electricity coal produces is a great economic enabler nationwide, Appalachia's mining towns have been among the poorest in the nation. They have suffered from a lack of economic diversity, making them susceptible to coal's boom-and-bust cycles.

In response, communities throughout the Appalachian states have begun to make changes. Economic development programs are trying to help the region identify new sectors, including natural gas and technology, that aren't subject to the whims of coal markets. And the largest portion of Appalachia's workers — 14.5 percent — labor not in mining, but in the food, lodging and entertainment industries, according to a 2010 report by the Appalachian Regional Commission.

Coal doesn't have the same economic hold on the Appalachian states that it used to, and Appalachia doesn't have the same hold on coal.

4

Coal is unsubsidized.

In town hall meetings and public policy debates, fossil fuel defenders complain about the subsidies allocated to renewable energy. They rail against using federal funds to “pick winners and losers” in the energy marketplace. Often forgotten in that debate is the fact that coal receives about \$1 billion in subsidies and largesse from the federal government each year.

Certainly, that’s less than the \$6 billion the government allots for the wind production tax credit. But while renewable-energy tax credits are direct subsidies, and therefore easy targets, the subsidies for coal are less obvious. They pay to support research and development and to lower tax liabilities for coal companies. Plus, the decade-long prohibition on new natural-gas power plants beginning in 1978 effectively subsidized the construction of coal plants by removing natural gas as a competitor.

Environmentalists also like to point out that allowing coal-burners to pollute without paying a tax on carbon is a hidden subsidy worth tens of billions of dollars, as the health-care costs and ecosystem damage are borne by individuals, insurance companies and others.

Globally, coal gets more subsidies than any other form of energy, when the environmental costs are included, according to the International Monetary Fund. If governments removed the subsidies and put a price on pollution, the cost of coal-generated energy would be much higher than what consumers pay today.

5

China is addicted to coal.

China's demand for electricity has been booming this century. To keep up, the country has been building out its electrical grid at a furious pace. And since coal is an abundant natural resource in China, it has been a preferred fuel. For several years, China was constructing the equivalent of a small to mid-size coal-fired power plant every week to 10 days.

But more recently, the situation on the ground has changed rapidly. Beijing is shutting down all of its major coal-fired power plants, and nearly 2,000 small coal mines are slated to be closed nationwide by the end of this year. In an ironic twist, Chinese coal has even lowered the price of wind turbines and solar panels, which are produced in factories powered by cheap, coal-fired electricity.

Crippling air pollution kills at least 1 million people in China prematurely each year, a dire situation that required action from government officials. Consequently, solar and wind farms have been built at a staggering rate to combat pollution, cutting into the market share for coal and leading to declining coal consumption over the past year.

While China and coal seem to go hand in hand, it looks like the country has turned a corner.

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