Statement of

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Oversight Hearing on Mining in America

Natural Resources Committee
Subcommittee on Energy and Mineral Resources
United States House of Representatives

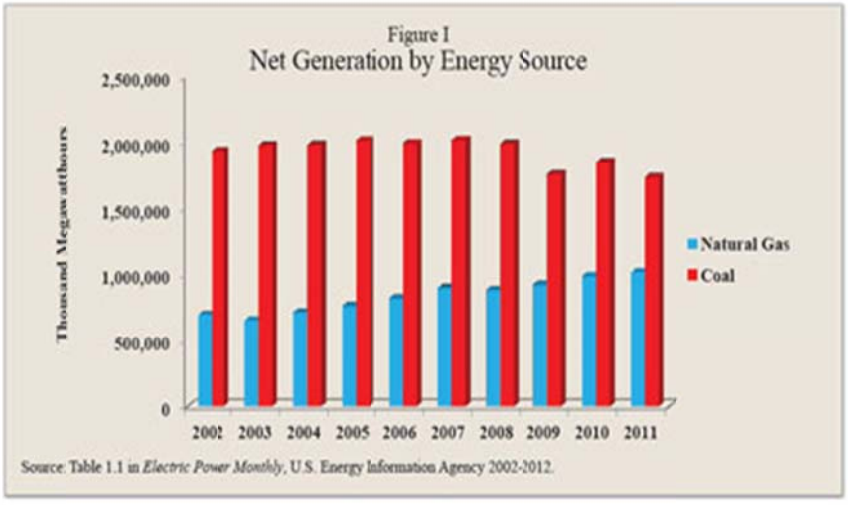
JULY 9, 2013

Chairman Brady and members of the Subcommittee, I am Sterling Burnett, a senior fellow at the National Center for Policy Analysis (NCPA). We are a nonprofit, nonpartisan public policy research organization dedicated to developing and promoting private alternatives to government regulation and control, solving problems by relying on the strength of the competitive, entrepreneurial private sector. I welcome the opportunity to share our views about mining in America.

Due to a boom in production and low prices, natural gas now equals coal as the cost-effective fuel of choice for electricity generation. Also contributing to coal's decline is the increased efficiency of new combined-cycle natural gas power plants, where hot exhaust from gas turbines powers conventional steam engines.

Over the past 10 years, hydraulic fracturing (or fracking) has significantly changed fossil fuel markets in the United States. The EIA reports that natural gas trapped in shale formations and other previously inaccessible gas is now available for extraction. Proven U.S. natural gas reserves have increased almost 80 percent since 1990, from 177 trillion cubic feet (TCF) to 317 TCF. New technology has increased oil and gas extraction employment 27.5 percent since 2008, whereas total nonfarm employment is down 3.4 percent. The fracking revolution in North Dakota, Texas, Pennsylvania, Oklahoma and Ohio benefits the U.S. economy, and consumers pay less for electricity and natural gas than they would otherwise.

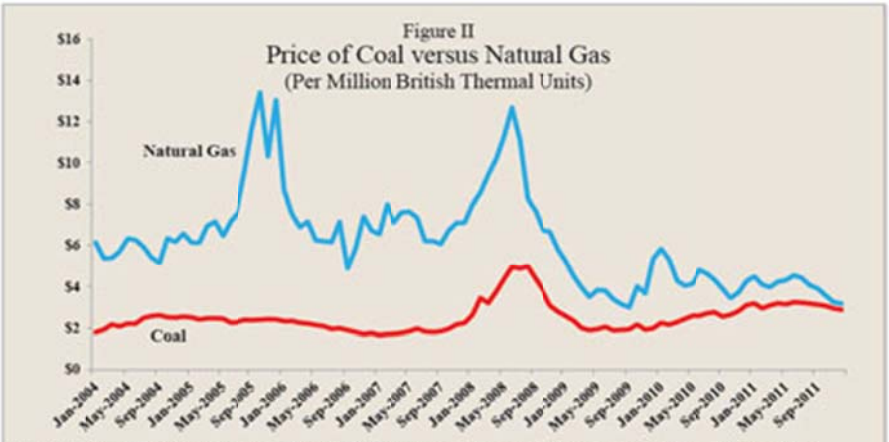
- Over the last decade, net coal-fired electricity generation decreased 10 percent.
- Natural gas-fired generation increased 50 percent.



Does this mean that coal has a bleak future? Not quite. Despite the changing fossil fuel market, coal still dominates electric power production. The EIA notes that coal accounted for 42 percent of U.S. electricity generation in 2011. Coal will be an abundant resource for many years. The United States has 256 billion short tons of coal that are economically recoverable with current technology. According to EIA estimates, there could be up to 4 trillion short tons of coal in the

United States, much of which will become recoverable as new techniques are discovered. By comparison, about a billion short tons of coal were consumed in 2011. In fact, the United States is a net exporter of coal, sending mostly metallurgical (or coking) coal used in steel production to Europe and Asia.

Natural gas has a much higher volatility in price than coal does. Though natural gas is cheap now, analysts say that prices will eventually rise to $4 to $5 per million British Thermal Units (a measure of the heat energy content of fossil fuels). Figure II shows how volatile natural gas prices are compared to coal.



Source: The New York Mercantile Exchange (NYMEX), "NYMEX Central Appalachian Coal Futures Near-Month Contract Final Settlement Price History," December 2012. Available at http://www.eia.gov/coal/nymex/html/nymex_historical.html. And U.S. Energy Information Agency, "Henry Hub Gulf Coast Natural Gas Spot Price (Dollars/Mil. BTUs)," January 2013. Available at http://www.eia.gov/dnav/ng/hist/rngwhhdM.htm.

Coal's relatively stable price compared to natural gas may soon tip the balance back toward increased coal use for electricity production. As natural gas prices increasingly affect electric power prices, volatility in the gas market means that coal use will continue. When the natural gas glut abates, some natural gas plants will shut down and others will pass the increase in fuel costs to consumers. A more nimble coal industry could increase production and moderate prices and price swings. However, due to the decline in coal-fired generating capacity and regulatory delay of new projects, the coal industry is slow to respond to prices. Instead, consumers will pay more for electricity.

Coal provides more potential benefits than simply cheap and stable energy prices. It can also be converted into liquid fuel.

First developed by Germany during World War II, the Fischer-Tropsch (FT) process offers America a chance to utilize its vast domestic coal supply, increase refining capacity, and produce a cost-efficient and clean fuel. The coal-to-liquids (CTLs) process changes coal into a synthetic gas which is then converted into combustible liquid fuels. Diesel and kerosene (jet fuel) are the final products. Increased production of CTLs in the United States would provide a number of benefits. CTLs are less polluting than traditional fossil fuels. A University of Kentucky study shows that liquefied coal emits 60 percent less hydrocarbons, 10 percent less nitrous

oxides and 55 percent less particulate matter than traditional ultra-low sulfur diesel as a transportation fuel.

Liquefied coal has financial benefits as well. If every gallon of diesel consumed today were coal-derived, at the current price of $1.24/ Gal for CTL, Americans would save $30 million daily. This is a per-capita savings of $1,082 annually. The United States has more coal than any other nation, with currently estimated reserves of 270 billion tons. By refining coal into usable fuel, America will be less vulnerable to supply and price shocks in the global market for fuel. CTL production utilizing coal would increase the nation's energy security.

Liquefied coal provides the benefit of clean electric power. CTL production discharges excess steam that can be used to produce electricity. Electricity produced as a by-product of CTLs is incredibly clean. Such power generators emit 41 percent to 78 percent less regulated pollutants than similar-size traditional fossil fuel-fired electric plants.

CTL fuel is both cleaner and, at current prices, less expensive to produce than either ultra-low sulfur diesel or biodiesel. Unlike ethanol, it needs no special infrastructure for transportation and delivery. Unfortunately, the U. S. Department of Energy does not recognize CTLs as alternative fuels — meaning producers don't get the same tax breaks as officially designated alternative fuels. A neutral government policy would allow CTLs to compete on an even playing field. The Energy Department should recognize CTL as an alternative energy source. Coal-to-liquids will not move America completely away from fossil fuels, but it offers greater energy security now while nonfossil-based transportation fuels and technologies are developed for the future.

The revolution in shale gas is undoubtedly a good development. Over the long term, natural gas's multiple uses should result in both increased demand and higher prices. With existing coal reserves and technology, this growth would not necessarily result in higher overall energy prices. However, absent a change in the direction of public policy, the increasingly burdensome regulation of coal will rob consumers of the full benefits of relatively inexpensive and abundant natural gas and coal reserves.

I appreciate the opportunity to submit my views on this important question offer any assistance we might give to help solve this significant public policy problem.