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Energy Subsidies and the Future of Power

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The modern political climate has grown rife with talk concerning the use of fossil fuels as an energy source and how this may impact our planet for generations to come. The Left and the Right seem to be at odds over whether or not climate change is actually occurring, or who is causing it. Additionally, the energy industry likes to tout their "low-cost" energy sources as a boon to the global economy as well as a benefit to the consumer at large. However, are coal, oil, and natural gas truly the "cheapest" sources of energy?

Whether or not one believes the scientists warning of climate change and its effects, all consumers are drawn toward the cheapest option for their energy supply. For 2015, the International Energy Agency determined that the median unadjusted cost of fossil fuels was 100 dollars per megawatt hour (MWh), compared to 200 $/MWh for solar, although solar has fallen from 500 $/MWh in just 5 years. As such, fossil fuel spokespeople have always claimed that renewable energy can only be as cheap as coal, oil, and gas when it is subsidized. However, data available on the U.S. Energy Information Administration (EIA) website tells a different tale. This data provides the estimated cost of each energy source in the next five years. Conventional coal costs, when adjusting for total lifetime cost of installation and maintenance, 95.1 dollars per MWh. In contrast, geothermal, wind, and hydroelectric power sources cost 47.8, 73.6, and 83.5 $/MWh respectively. These are the costs before any subsidies provided by the government. Nuclear power will cost 95.2 $/MWh, which is only marginally more expensive than coal. Based on this data, even before subsidies, coal will not be as cheap as numerous other clean energy sources.

However, these statistics don't tell the whole tale. In fact, it has been estimated that the United States government spent $18.5 billion in 2013 through indirect subsidies to fossil fuels that are not accounted for in the EIA data. These subsidies included tax breaks, incentives to increase production using federal land, and tax deductions for cleanup costs. When state subsidies for fossil fuel production are taken into account, this total rises to $21.6 billion in 2013. Additionally, the global subsidies for fossil fuels cost $5 trillion each year while causing untold increases in global pollution. In contrast, EIA data shows that each year the renewable industry as a whole only receives $15 billion in federal tax money. These subsidies also benefit energy sources that don't emit toxic chemicals and gasses into the air.

The only fossil fuel energy source shown in the EIA data that was expected to be cheaper than the renewable sources in the next five years was natural gas. However, natural gas was only cheaper when it wasn't using a carbon capturing system. Although natural gas has been praised as the "transitional fuel" to bridge the gap between dirty coal and the renewable energies of the

future, it doesn't come without drawbacks according to the National Resource Defense Council. Accessing the natural gas trapped in subsurface wells requires the use of high pressure hydraulic fracturing fluids that permeate the well and break apart the subterranean rock, releasing the trapped gas. However, this fracturing fluid has been the source of much controversy in recent years. During the most recent Bush presidency, Vice President Dick Cheney, a former CEO of gas company Halliburton, ensured that hydraulic fracturing would remain exempt from the Safe Drinking Water Act (SDWA). Due to this exemption, at least four states in 2014 had confirmed that they had water pollution due directly to hydraulic fracturing. While fracking has contaminated water wells in the past, very little has been done to remedy the problems since the natural gas industry was exempt from the SDWA. Recently, President Obama has issued new rules regarding fracking on federal lands. These measures are intended to make fracking companies publish which chemicals are used in their fracking fluids and reinforce boreholes to limit groundwater leakage. The Independent Petroleum Association of America has already filed a lawsuit against these regulations. Their resistance to these simple measures makes one question why the natural gas industry has such an aversion to releasing which chemicals they are using in their processes.

While natural gas may offer a financially feasible alternative to coal for energy production, the risks may not justify the rewards. With the poisoning of groundwater supplies that may be impossible to remediate, it would make more sense to implement more environmentally friendly sources of energy that pose no risk of groundwater, surface water, or atmospheric contamination. If we switched the current $18.5 billion in subsidies from the fossil fuel industry to the renewable energy, they'd have a combined $33.5 billion in subsidies. This would make the renewable energies unimaginably cheap, paving the way for the energy infrastructure of the future. This infrastructure would emit little to no toxic chemicals, and provide energy to all without the negative effects commonly associated with fossil fuels.

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