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Editorial

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What Does Cheap Oil Mean for Climate Change?

If you had a job where you experienced a 5% salary cut every few months, how long would it take you to look for a job elsewhere? Most people would find a new job as soon as they could. But what if your expertise was so specialized that you really could not do anything else? That is the scenario I think of when I ponder the situation with the cost of a barrel of oil. In 2008, oil first started selling for $100 a barrel, and companies (and countries) solely focused on oil were making record profits. But what do those companies do when oil drops below $35 a barrel? How about if, as many experts predict, it goes to $20 a barrel or less? You would imagine companies would cut their production and put their efforts into other products. The problem is that many of these companies do not have a sufficiently diverse business portfolio, so they cannot sell anything else. For some countries, there is essentially no revenue if there is no oil sold. Thus, oil continues to flood the market at unbelievably low prices.

There is little hope to reduce CO_2 emissions if the cost of a barrel of oil, coal, or other fossil fuels stays so inexpensive. The only way to change this situation is with a substantial carbon tax directly on the source. If the economy could sustain $100 for a barrel of oil, why not put a $50 tax on a barrel of oil today? That would guarantee that the price never dropped below a reasonable level, and it would generate taxes that could provide continuous support for carbon-neutral energy production. A large tax on a barrel of oil would also make it impossible for the cost to drop below a set minimum, which is important for stimulating investments in alternative fuel and energy production. One of the greatest impediments to the development of alternative energy production is a large decrease in the cost of oil and gas. Investors in an alternative energy company must be guaranteed that the price of a barrel of oil or a kilowatt hour of energy using fossil fuels will never go below a certain level, so that they can ensure they make a profit on their investment. A substantial tax on oil is therefore needed to drive carbon-neutral energy technologies forward in terms of both providing additional funds for carbon-neutral energy technology development and ensuring a stable minimum price for fossil fuels compared to renewable energy products for business investment in carbon-neutral technologies.

Cheap oil is having other impacts that are adversely impacting communities and businesses. Recycling programs, particularly those recycling plastic, are hard hit by the decline in revenue from selling recycled materials. Automobile manufacturers are questioning the wisdom of CAFE standards that call for improved gas mileage, noting that sales of fuel efficient cars are declining due to low gas prices for consumers. Efforts to reduce home and business energy consumption are being crippled by economic analyses that show that capital improvements to save energy could be more expensive and less risky to home owners and consumers than continued higher energy use.

Energy and environment are inexorably intertwined. The late Nobel laureate Richard Smalley said that energy was the greatest challenge facing humanity, but for environmental scientists and engineers, we must recognize that how we produce energy is one of the greatest environmental challenges for our planet due to the impact of energy production on our environment. The current situation that shows that oil companies will continue to produce oil at high rates despite low oil prices, rather than choosing to cut back production (which if they all did might even drive up the price), signals to me that there is little hope for curtailing oil and gas production in the coming decades. This inability to change patterns in oil production suggests that world fossil fuel consumption will continue largely unabated due to low costs, and therefore, there is little hope that we can curtail carbon dioxide and greenhouse gas production despite an international desire (and agreements) to do so.

Companies exist to extract and sell fossil fuels, and as long as they can make a profit even at such low prices, they will continue to do just that. However, if fossil fuels are heavily taxed, and their use dwindles, then these energy businesses will eventually diversify into other markets and products because it makes good business sense. Less oil production and use makes great sense for the environment, and they are important steps for reducing global CO_2 emissions that drive climate change. Now is the time to heavily tax all carbon-based fuels, to allow profitable business plans to create a path toward carbon-neutral energy production on a global scale.

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Notes

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