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Keeping Perspective in the Clean Energy and Climate Race

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The Starting Line

Every year, the Energy Information Administration (EIA) releases its *Annual Energy Outlook* (AEO). This is a highly regarded document that predicts energy production, consumption, and cost in the U.S. over the next several decades. The complete AEO for 2012 will be published later this spring, but EIA recently released a “sneak peek” of its full report.¹ # Without context, the AEO may lead many to believe that the fight to promote clean energy and stop climate change has been lost. For example, Robert Samuelson wrote in a January 26 piece that the AEO shows us that America’s carbon emissions will be higher in 2035 than they are now, and that our goal of stopping climate change may well be “unreachable.”

But when put into proper perspective, the AEO actually highlights just how many tools we have at our disposal to accomplish our goals, even in the most challenging areas of the country like the Midwest and South.

The AEO, while well-researched and respected, is designed to provide a very cautious look at the future production, consumption, and price of energy in the U.S. It does not include any possible policy changes or technology improvements that could result in greater use of clean energy technologies and lowered greenhouse gas (GHG) emissions. The AEO only shows us what will happen if we take our hands completely off the wheel and our feet off the pedals when it comes to energy policy.

Course Corrections

The odds of America taking this type of laissez faire approach to energy policy for the next 20+ years are incredibly slim. To illustrate this point, let’s take a look at a few policies and events that could—or already are—affecting America’s energy future, but are not considered in the AEO:

Vehicle Efficiency Requirements Are in the Works

The AEO does not factor-in regulations that are in the process of implementation, such as CAFE standards that will make light-duty vehicles 80% more efficient than they are today.² These new standards will result in a major reduction in emissions, and they could catalyze additional technology enhancements that will allow for even further gains in efficiency. According to a study by McKinsey, this and other improvements in transportation would provide twice the emissions reductions in the South as they will in the Northeast.³ #

Environmental Regulations Will Encourage Clean Energy and Lower Emissions

The AEO does not include the upcoming EPA boiler, mercury, or greenhouse gas rules. These regulations will force coal-fired electricity generators to either reduce pollution at their facilities or switch to cleaner forms of energy. This will ultimately make clean energy more competitive and lower greenhouse gas emissions, especially in coal-dominated regions like the Midwest and South.

Tax Policies are Still in Play

The AEO assumes that tax credits for renewables will expire as scheduled and will *never* again be reinstated or replaced with similar subsidies. Since the billions in subsidies given to oil and gas each year are permanent in the tax code, it assumes that they are never removed. Both of these outcomes are questionable, and each would have a major impact on the makeup of our energy portfolio and corresponding GHG emissions. As evidenced by a recent letter from two Republican Midwestern governors advocating for an extension of the production tax credit for wind, subsidies for renewables are worth crossing party lines for in the Heartland. ⁴ #

Technology Breakthroughs Will Continue to Assist

The AEO does not include future benefits from groundbreaking improvements in clean energy technologies, nor can it. There's no way to predict such things—but they happen all the time. Innovations in solar technology, coupled with economies of scale and international competition, caused the price of solar cells to plummet by 40% in 2011 alone. ⁵ As a result, solar power is increasing penetration in the United States and around the world far more rapidly than experts, even optimists, could have predicted five years ago. ⁶ And with global investment in renewables at a record high of \$260 billion—led by the United States with \$56 billion ⁷—it's wise to expect further breakthroughs in an industry garnering so much attention from public and private investors.

Price Volatility Will Make Oil Less Appealing

The AEO acknowledges that there is a great degree of uncertainty surrounding their projection of oil prices. It predicts that oil will rise from today's price of \$99 per barrel to \$120/barrel in 2035 (in 2010 dollars). But it admits that, under another likely scenario, oil could cost as much as \$200/barrel—twice what it costs today! The uncertainty in the AEO is based on an inability to predict production levels from OPEC nations and access to oil from non-OPEC nations. But even its highest estimate doesn't account for the very real possibility of conflicts that could send crude prices soaring, such as an uprising in an Arab state, ⁸ or a series of pipeline bombings in Central Africa, ⁹ or threats to blockade a vital oil shipping route, ¹⁰ or...you get the picture. Such events and their effects on energy costs are

impossible to predict, so they shouldn't be included in an estimate like the AEO. But that doesn't make them any less likely to happen.

Such volatility could induce consumer behaviors and government policies that further reduce our oil consumption through efficiency or greater use of electric vehicles. This could prove especially motivating for consumers in the South and Midwest, who are responsible for 42% and 22% of the total miles driven in the U.S. each year, respectively.¹¹ And as suggested by a Deloitte study released late last year, nationwide automobile consumer purchasing habits could swing wildly toward efficiency, with 59% of younger consumers preferring a hybrid or electric vehicle over a conventional gas-powered vehicle.¹²

The Home Stretch

We know that transitioning America's economy to run on clean energy will be a major challenge, especially in certain regions of the country with fewer renewable energy resources. But the AEO should not be taken as a reason to forfeit. It is designed merely to show us where we'll end up if we let go of the steering wheel and take our foot off the accelerator.

But every policy we enact to modernize American energy, reduce its impact on the environment, and maximize its benefits to the U.S. economy will serve to correct our course and make sure we're on the road to a more successful future. We've already picked up speed thanks to administrative actions, state-level policies, and advancements in clean energy technology. And between now and 2035, it's fair to assume that Congress will be able to contribute some horsepower to these efforts.

The AEO isn't a reason to give up on the clean energy race. If anything, it's an inspiration to hit the accelerator.

ENDNOTES



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