

One of these is not like the other.

The D.C. Circuit issued an opinion last Friday in *American Petroleum Institute v. EPA*, concerning EPA’s biofuels mandate. (N.Y. Times; slip opinion). The part of the mandate at issue required refiners to incorporate higher levels of cellulosic fuel into transportation fuel. Cellulosic biofuel is in the class of “advanced biofuels” that could actually offset greenhouse gas emissions, as contrasted with corn-based ethanol, which generates approximately the same level of emissions as the fossil fuels it was meant to replace.

In 2007, Congress updated the renewable fuel standard program, which requires EPA to increase the percentage of renewable fuel in the nation’s transportation fuel mix. Congress mandated that an increasing level of cellulosic biofuel be sold each year:

- 2010: 100 million gallons
- 2011: 250 million gallons
- 2012: 500 million gallons

EPA is allowed, however, to reduce the annual mandated volume each year. By November 30th of the prior year, EPA can reduce the mandated volume to a projected volume “based on” an estimate by the Energy Information Administration (EIA).

The issues in this case are nicely summarized by the table in the opinion describing the estimates of biofuels production. Because tables are almost as boring as legal opinions, I present that information here as a bar chart instead. It shows, for years 2010 through 2012, the Energy Information Administration’s and EPA’s predictions for cellulosic biofuel production. Notice first that EPA’s prediction was much higher than EIA’s prediction in 2011 and 2012. And second, notice that the *actual* production of cellulosic biofuel in 2010 and 2011 was zero. (Production levels for 2012 were not available in the opinion.)

Industry refiners, to whom the mandate applies, then have two issues with EPA’s projected production mandate. First, with an actual production level of zero in 2010 and 2011, this whole prediction exercise appears flawed. Second, if EPA was supposed to base their prediction on EIA’s prediction, then why does EPA’s prediction diverge to the upside in 2011 and 2012?

Before getting to the merits, the court made an interesting holding about the timeliness of the Petroleum Institute’s petition. The biofuel industry, intervening on behalf of EPA, argued that the challenge to EPA’s 2012 prediction methodology had to happen within 60 days of EPA’s 2011 prediction, because the 2012 prediction is just a continuation of the 2011 methodology. The court rejects this argument, observing that

> The reasonableness of adopting a predictive methodology is not the same as the reasonableness of maintaining one in the face of experience; considering whether to maintain a methodology necessarily invites reflection on the success of earlier applications.

In other words, prediction methodologies can be challenged years later, so long as the challenger can make a credible claim that evaluation of the prediction over time provides evidence that continuing with the prediction methodology would be irrational. This expands the universe of rules that could be challenged, but only if those rules are predictive in nature.

On the merits, the D.C. Circuit rejected the idea that EPA must “slavishly adhere[]” to the EIA estimate. Congress must have meant for EPA to have some input; otherwise it could have just used the EIA prediction in the first place. Nor was the methodology flawed for relying on statements from cellulosic biofuel facility owners (who have every incentive to overstate their production capability). Reading between the lines, the problem here is more with the entire regulatory scheme as envisioned by Congress—forcing refiner sales based on estimates from the biofuel producers—than with EPA’s methodology.

The D.C. Circuit did, however, agree with the petitioner that EPA could not bias its estimate upwards in order to “promote growth” in the cellulosic biofuel industry. The idea behind the yearly mandate is that if refiners are forced to purchase cellulosic biofuel (or pay fines), then they will in effect subsidize the growth of this nascent technology. Market demand at (almost) any price. So a higher mandate should provide larger incentive to potential investors in cellulosic biofuel technologies, by promising a larger market for those biofuels.

EPA’s 2012 prediction, like most such prediction, is actually a range of potential production volumes. EPA admitted that if it set the 2012 mandate at the low end of

that range, it “could potentially result in a depressed market for cellulosic biofuel.” So instead, EPA chose (apparently) the high end of the range, to “provide the appropriate economic conditions for the cellulosic biofuel industry to grow.”

Therein lies the problem, according to the court. The statute, and the ordinary meaning of the term “projected,” requires EPA to predict what will “actually” happen. Or, in terms only a statistician could love:

> [A] methodology that plans for the expected value of upside errors (the summation of each upside deviation, weighted by its likelihood) to exceed the expected value of downside errors.

Thus, EPA’s mandate must be based on the “most likely” production estimate for 2012. So while the D.C. Circuit did in fact strike the 2012 mandate, the fix for 2013 and beyond is fairly straightforward. EPA need only delete its language about “appropriate economic conditions” and instead describe why the prediction it chose is “most likely” according to its expert opinion. I do not see this opinion as a major setback for the cellulosic biofuel mandate.