

The Daily Dish California Zero

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Eakinomics: California Zero

California Zero is not a knock-off of Coke Zero. It's simultaneously the intent of California's landmark climate law, requiring that 100 percent of the state's electricity come from carbon-free sources by 2045, and the law's public policy grade. What's wrong with trying to emit less carbon? Nothing. But how you pursue that goal matters.

As AAF's Philip Rossetti lays out, the newly passed California law sets two targets for reducing emissions: an interim target of 60 percent of electricity from renewable sources by 2030, and 100 percent from carbon-free sources by 2045. This type of mandate for electricity generation is known as a renewable portfolio standard (RPS) and is not uncommon among the states. California's new law stands out only in its aggressive targets — it currently has just 29 percent of its electricity from renewables.

The main problem is that an RPS is a regulatory straightjacket on inputs as opposed to a policy that directly targets pollution — in this case greenhouse gases (GHGs) such as carbon. This regulatory approach is very costly because it does not harness firms' capacity to find innovative ways of abating GHG pollution. Instead, firms simply comply with the mandate. As Rossetti notes, "Past AAF research compared two paths for pursuing the Intergovernmental Panel on Climate Change's recommended carbon emission target: direct regulation and a carbon tax (which is a market-based mechanism). This research found that the carbon tax would both be more effective than regulations at reducing emissions and cost half as much per ton of greenhouse gas emission abated."

Not surprisingly, it turns out that an RPS is very expensive. Rossetti notes that Germany implemented a similar RPS in 2000 (and like California also swore off nuclear generation). Result? Electricity prices in Germany are more than double the U.S. average (roughly \$0.34 per kilowatt hour, compared to a U.S. residential average of \$0.13). This increase will be painful for Californians that already have among the highest residential electricity prices in the contiguous United States (\$0.20 per kilowatt hour).

Moreover, California often seems to forget that it is not the whole world and as a result produces public policies that are seemingly designed to make its neighboring states more attractive. In this case, restricting emissions of GHGs will have essentially no impact on the accumulation of GHGs in the atmosphere and no impact on the future of the global climate. Impacting those things would require an international policy, or at least a comprehensive U.S. policy. The California RPS is an expensive way to accomplish nothing. And California does not exist in a vacuum. As the price of electricity rises in California, the incentives for production in the state fall and big energy consumers will have incentives to relocate to other states, offsetting the reduced pollution in California by increased pollution elsewhere (a concept known as carbon leakage).

The California RPS is a great example of how well-intended goals go awry by using the wrong policy approach and implementing it at the wrong level of government.